

**AN EXPLORATION INTO THE INFLUENCE
OF DIGITAL COMMUNICATION
TECHNOLOGIES ON SELF AND IDENTITY
THROUGH THE CASE OF ACADEMICS**

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Keywords

Digital communication technologies, self and identity, academics, digital humanities, critical digital humanities, mixed methods, and information studies.

Abstract

This research project explores whether and how digital communication technologies influence the way academics experience, express, and articulate their sense of self and identity. It engages with an academic cohort with awareness of these technologies, also examining how changes in academics' subjective experience through digital platforms extend to how they relate to each other and the social world. In contrast with similar studies, which often use critical methods alone, this research follows principles of grounded theory and is empirically based. It gathers evidence by conducting qualitative and quantitative studies in a mixed-methods design, analysing, and interpreting the data to gather insights. While the qualitative element examines academics' individual experiences, the quantitative scrutinises how their online identity is created, presented, and manifested in the digital medium. The mixed methods approach allows this research to compare and contrast the studies' datasets and findings and broadly examine some of the social and cross-cultural implications. The research project also confronts the rapid advancements of a digital society and several challenges it poses to academics after COVID-19. The analysis and interpretation of the studies are distilled through the conceptual framework of experience, expression and relationship, and an interpretation of critical digital humanities that emphasises a human-centred and critical thinking approach. Tapping into academics' relationship with digital communication technologies can help to understand the possible influence that these technologies have on the nature of who we are and, thus, how we see, understand, and conceive ourselves and the world.

Impact Statement

The research employs several direct and indirect methods and methodological approaches to gauge academics' experience of digital communication technologies, which include data science techniques to determine how they express and present their self and identity online. The relevant literature is used first as a springboard to lay the foundations, second to question and critique the findings, and third then to extend them. As a result, this research makes several contributions to the research area and methods. These can be positively put to effective use within and outside academia.

Within academia, this research has a potential impact on the following themes:

- Academics' experience of digital communication technologies - Through the voices of the academics interviewed, it shed light on how their academic and personal lives are shaped and manifested through the digital medium
- Academics' presentation of online identity - Quantitatively exploring how academics engage with these technologies, such as by looking at what they express on Twitter, reveals strategies academics use to present their online persona and shed light on the operations of social media platforms.
- Self, identity, and the digital - Enquiring how digital communication platforms extend and limit academic practices, their private sphere, and their self and identity, this research contributes to the literature's subjective experience of self and identity. Furthermore, it empirically addressed whether and how digital communication technologies affect academics' subjectivity.
- Critical digital humanities - Engaging with the digital humanities literature, it contributes to the debate over the critical digital humanities as a critique of the digital, thus of digital technologies and digitalisation. It also argues for the digital humanities to monitor and keep these technologies in check.
- Conceptual framework - Developing and employing the conceptual framework of expression, experience, and relationship, it proposes a novel way to explore and bring together different dimensions of the phenomenon.

- Mixed methods - Accommodates several interpretations of the research design, it engages directly with both the cohort of academics and the digital medium, enriching the research effort.

Outside academia, this research potential can inform public policy design, public discourse, and culture over the following:

- Social and personal influence of digital communication technologies – By shedding a reflexive light on how digital communication technologies influence the everyday experience of academics in the years leading to the COVID-19 world, it reveals what it means for all of us and the challenges that digitalisation increasingly poses to academics and all of us. It shows the extent to which the influence over subjectivity is enacted via the artefacts’ mediations, the rules they enforce, digital community boundaries, and an underlying ideology of technology.
- Importance of critical thinking – Taking a cautious and vigilant attitude towards digital communication technologies, in contrast with studies that only emphasise benefits, it warrants concerns about the ‘excesses’ of technology. A critical perspective is used to emphasise the importance of the individual and subjective experience, the challenges that digitalisation and quantification of our experience, and the consequent mechanisation and standardisation of thought pose to subjectivity.
- Digitalisation and human rights - It upholds that digital communication technology’s role in a society structured as a form of technocracy, particularly after COVID-19, poses possible alarming implications for preserving individual rights, and this requires vigilance.

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List of Abbreviations

AI	artificial intelligence
API	application programming interface
BBC	British Broadcasting Corporation
BC	before Christ
CCTV	closed-circuit television
CBDC	central banking digital currencies
CDH	Critical digital Humanities
CDI	categorical-dynamic index
CHRGJ	Center for Human Rights and Global Justice
CSV	comma-separated values
DH	digital humanities
HCI	human computer interface
ICT	information and communication technologies
ID	identification
ID4D	Identification for Development initiative
IoB	Internet of Bodies
IoT	Internet of Things
IQR	interquartile range
IRC	Internet Relay Chat
JSON	JavaScript Object Notation
KTDI	Known Traveller Digital Identity
LDA	latent Dirichlet allocation
LIWC	Linguistic Inquiry and Word Count
LSE	London School of Economics
ML	machine learning
MUD	multi-user domains
NAIST	Nara Institute of Science and Technology
NLP	natural language processing
NTU	Nanyang Technology University
NUS	National University of Singapore
NYU	New York University
OS	operating system
PIM	personal information manager
QUAL	qualitative
QUANT	quantitative
SDG	sustainable development goals
SG	Singapore
SNS	social networking sites
SPSS	Statistical Package for the Social Sciences
STS	science and technology studies
T&C	terms and conditions
UCL	University College London
UK	United Kingdom

UN	United Nations
UNICC	United Nations International Computing Centre
URL	uniform resource locator
USA	United States of America
WEF	World Economic Forum

Statement of Original Authorship

I, Paolo Casani, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been stated in the thesis.

Signature: _____

Date: _____

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The thesis dedication is in the below story.

I bumped into Peter again in the lobby of a shabby hotel in Shymkent, Kazakhstan. It was the summer of 2012.

A few days earlier, we had briefly met at a Couch Surfing event in a park next to the wooden Ascension Cathedral in Almaty. There was a mixed bunch of people at the event: local Kazakhs, Chinese, Americans, and a few Europeans. I was suspicious of Peter at first. He told us that he was a researcher in quantum computing. But you don't normally meet that kind of person at a Couch Surfing event.

In Shymkent, we had a chance to talk and visit the city, and we immediately bonded. We shared a deep love for travel, adventure, and culture. Peter was an extremely well-read individual, full of interesting ideas. But what was more striking was his humanity and humility. We talked about science, history, politics,

philosophy, travel, women, and our common love for Singapore while exploring Shymkent and eating at local diners.

It was then that I told Peter that, for a long time, I had wanted to do a PhD but had put it off. I explained that it would take too long, be too much effort, and be too expensive. Peter immediately objected to all my points. He said it was a great enterprise, a challenge, and I should follow my dreams. He recounted his experience: he had finished his PhD only three years before at the National University of Singapore.

After that time, we stayed in touch. I would email Peter regularly, telling him about my application for a PhD in Singapore, how I got an offer but turned it down because it was very expensive, and then that I applied to universities in London. We began a long correspondence in which Peter gave me advice about my Ph.D. We met a bunch of times when I visited Singapore and when he came to the UK in 2017 for a conference on quantum computing. Every time we met, I really enjoyed spending time with him. I considered Peter a friend but, at the same time, strangely, a mentor, although I was quite a few years older than him. It was a type of friendship that did not need time to mature, where you don't even need to meet that much to remain good friends.

During those years, Peter was living the life of an academic nomad. Because he could not secure a full-time position, he worked remotely for a university in Sweden. Peter was such a prolific writer that he was responsible for most of the publications of that department. He moved from place to place every few weeks to over one hundred countries, always producing outstanding academic work.

I lost touch with Peter for two to three years. I knew that, at last, he had made it into academia proper with a permanent position at the University of Toronto. I was very happy for him. In the meantime, the progress of my part-time Ph.D. was very slow. I was a bit embarrassed to write to him about it.

It was not until early 2020 that I decided to write to Peter again. Before doing that, I Googled his name to check if he was still in Canada. It was at that point I found out that Peter had passed. There were several news stories about this outstanding young academic of thirty-five, Doctor Peter Witted, who in November 2019 had climbed one of India's highest peaks but went missing in high mountains

during an avalanche. How the family, the university and his friends had put together money for an Indian rescue team to search for him, and how he was never found.

I want to dedicate my thesis to my friend Peter, an outstanding person who touched my life and, I later found out, many other people with his kindness and whose life was cut short by unpredictable events.

I made it, Peter: finally, I got my Ph.D. Thank you forever for your help and friendship.

Chapter 1: Introduction

This chapter situates our relationship with digital communication technologies as the *research issue*,¹ explains why it is important to investigate it, and outlines how this project will address it by focusing on academics as a study group. Its contents are summarised in Figure 1.

Section 1.1 sets the stage by illustrating debates on the increased use of digital communication technologies in our society, the perspective upheld in this research, the influence it might have on subjectivity and the personal experience of people, and then sketches out the main motives that have driven the researcher² to carry out this project. Section 1.2 delves into the research foci, such as the cohort studied. The purposes, aim, objectives, research case,³ and initial questions are defined in Section 1.3. Section 1.4 argues for the importance of this research, traces its scope, and provides a brief but required definition of the key terms used. Finally, Section 1.5.2 outlines the remaining chapters.

1.1 DIGITAL TECHNOLOGY IN THE EVERYDAY

The advances brought about by digital communication technologies are having a profound effect on the fabric of society.⁴ One angle of interpretation for these phenomena is how technologies have changed and altered how we live our lives.

¹ This is normally defined as *research problem*, especially in the context of quantitative research. However, as the methodological approach of this project is mixed methods, and with a focus on the qualitative, the more generic term *issue* is preferred. Qualitative research, in fact, tries to examine or explore a phenomenon to make it clearer or easier to understand, or to propose an alternative angle of interpretation. In this sense, it needs not starting from a research problem, as it is the case for quantitative studies (Bryman, 2016, pp. 35–36).

² The author of this thesis, Paolo Casani.

³ The term *case* has been preferred to *case study* because the latter often describes the exploration of a ‘bounded system’ (Bloor & Wood, 2020, pp. 28-30). *Case* is used to refer to the subject of research.

⁴ This research project examines specifically developed countries (that is industrialised nations with an advanced technological infrastructure) and so-called networked societies. Because of its focus on the personal human experience, it only marginally engages in political or economic critiques of digital technology in developing or agrarian societies. It assumes that such considerations belong to a different level of analysis.

The last decade alone (2010-20) has witnessed the emergence of disruptive new digital platforms that have transformed how we use transportation (Uber),⁵ how we listen to music (Spotify),⁶ how young teenagers interact (Snapchat),⁷ how we share

⁵ Set up in 2011, Uber facilitates peer-to-peer ridesharing and food delivery.

⁶ Set up in 2011, Spotify is a music streaming service. Eriksson, M., Fleischer, R., Johansson, A., Snickars, P., & Vonderau, P. (2019). *Spotify teardown: Inside the black box of streaming music*. Mit Press. Swanson, K. (2013). A Case Study on Spotify: Exploring Perceptions of the Music Streaming Service. *MEIEA Journal*, 13(1). Fleischer, R. (2021). Universal Spotification? The shifting meanings of “Spotify” as a model for the media industries. *Popular Communication*, 19(1), 14-25. Anderson, L., Gil, S., Gibson, C., Wolf, S., Shapiro, W., Semerci, O., & Greenberg, D. M. (2021). “Just the way you are”: Linking music listening on Spotify and personality. *Social Psychological and Personality Science*, 12(4), 561-572.

⁷ Set up in 2011, Snapchat is a messaging app for sharing pictures and messages. Berndtsson, K. H. & Odenbring, Y. (2020) ‘They don’t even think about what the girl might think about it’: students’ views on sexting, gender inequalities and power relations in school, *Journal of Gender Studies*; Burkett, M. (2015). Sex(t) Talk: A Qualitative Analysis of Young Adults’ Negotiations of the Pleasures and Perils of Sexting. *Sexuality & Culture*, 19(4), 835–863. Dobson, A. S., and Ringrose, J. (2016) “Sext Education: Pedagogies of Sex, Gender and Shame in the Schoolyards of Tagged and Exposed.” *Sex Education* 16(1): 8–21. Döring, N. (2014). Consensual sexting among adolescents: Risk prevention through abstinence education or safer sexting?. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 8(1), Article 9; Drouin, M., & Tobin, E. (2014). Unwanted but Consensual Sexting Among Young Adults: Relations with Attachment and Sexual Motivations. *Comput. Hum. Behav.*, 31, 412–418; McGovern, A., T. Crofts, M. Lee, and S. Milivojevic. (2016) “Media, Legal and Young People’s Discourses around Sexting.” *Global Studies of Childhood* 6 (4): 428–441.; Ricciardelli, R. & Adorjan, M. (2019) ‘If a girl’s photo gets sent around, that’s a way bigger deal than if a guy’s photo gets sent around’: gender, sexting, and the teenage years, *Journal of Gender Studies*, 28:5, 563-577; Rübner Jørgensen, C., Weckesser, A., Turner, J. & Wade, A. (2019) Young people’s views on sexting education and support needs: findings and recommendations from a UK-based study, *Sex Education*, 19(1) pp.25-403.

⁷ Set up in 2017, TikTok is a video-sharing networking service. Herrman, J. (2019). How TikTok is rewriting the world. *The New York Times*, 10, 412586765-1586369711. Medina Serrano, J. C., Papakyriakopoulos, O., & Hegelich, S. (2020, July). Dancing to the partisan beat: A first analysis of political communication on TikTok. In 12th ACM conference on web science (pp. 257-266). Omar, B., & Dequan, W. (2020). Watch, share or create: The influence of personality traits and user motivation on TikTok mobile video usage. Montag, C., Yang, H., & Elhai, J. D. (2021). On the psychology of TikTok use: A first glimpse from empirical findings. *Frontiers in public health*, 9, 641673. Meng, K. S., & Leung, L. (2021). Factors influencing TikTok engagement behaviors in China: An examination of gratifications sought, narcissism, and the Big Five personality traits. *Telecommunications Policy*, 45(7), 102172. De Leyn, T., De Wolf, R., Vanden Abeele, M., & De Marez, L. (2022). In-between child’s play and teenage pop culture: Tweens, TikTok & privacy. *Journal of Youth Studies*, 25(8), 1108-1125.

images and chronicle our lives online (TikTok, Instagram),^{8,9} digital witnessing with the narrowing of visual distances (commercial camera drone technology),¹⁰ an explosion of interactive gaming on a global scale (Pokemon Go)¹¹, and the commercialisation of virtual reality gadgets (VR headsets).¹² In parallel, there has been a consolidation in using existing digital communication platforms. For example, at least in the Western world, WhatsApp¹³ has become essential to everyday

⁸ Set up in 2017, TikTok is a video-sharing networking service. Herrman, J. (2019). How TikTok is rewriting the world. *The New York Times*, 10, 412586765-1586369711. Medina Serrano, J. C., Papakyriakopoulos, O., & Hegelich, S. (2020, July). Dancing to the partisan beat: A first analysis of political communication on TikTok. In 12th ACM conference on web science (pp. 257-266). Omar, B., & Dequan, W. (2020). Watch, share or create: The influence of personality traits and user motivation on TikTok mobile video usage. Montag, C., Yang, H., & Elhai, J. D. (2021). On the psychology of TikTok use: A first glimpse from empirical findings. *Frontiers in public health*, 9, 641673. Meng, K. S., & Leung, L. (2021). Factors influencing TikTok engagement behaviors in China: An examination of gratifications sought, narcissism, and the Big Five personality traits. *Telecommunications Policy*, 45(7), 102172. De Leyn, T., De Wolf, R., Vanden Abeele, M., & De Marez, L. (2022). In-between child's play and teenage pop culture: Tweens, TikTok & privacy. *Journal of Youth Studies*, 25(8), 1108-1125.

⁹ Set up in 2011, Instagram is a video-sharing social network. Hu, Y., Manikonda, L., & Kambhampati, S. (2014, May). What we instagram: A first analysis of instagram photo content and user types. In *Proceedings of the international AAAI conference on web and social media* (Vol. 8, No. 1, pp. 595-598). Handayani, F. (2015). Instagram as a teaching tool? Really?. *Proceedings of ISELT FBS Universitas Negeri Padang*, 4(1), 320-327. Kamel Boulos, M. N., Giustini, D. M., & Wheeler, S. (2016). Instagram and WhatsApp in health and healthcare: An overview. *Future internet*, 8(3), 37. Putri, E. (2022). An impact of the use Instagram application towards students vocabulary. *Pustakailmu. id*, 2(2), 1-10. Lee, E., Lee, J. A., Moon, J. H., & Sung, Y. (2015). Pictures speak louder than words: Motivations for using Instagram. *Cyberpsychology, behavior, and social networking*, 18(9), 552-556. Ting, H., Ming, W. W. P., de Run, E. C., & Choo, S. L. Y. (2015). Beliefs about the use of Instagram: An exploratory study. *International Journal of business and innovation*, 2(2), 15-31.

¹⁰ One of the first drones for commercial use was developed in 2014 (Issacharoff & Pildes, 2014).

¹¹ Popularised in 2016, Pokémon Go is an augmented reality mobile game. Althoff, T., White, R. W., & Horvitz, E. (2016). Influence of Pokémon Go on physical activity: study and implications. *Journal of medical Internet research*, 18(12), e315. Colley, A., Thebault-Spieker, J., Lin, A. Y., Degraen, D., Fischman, B., Häkkinen, J., ... & Schöning, J. (2017, May). The geography of Pokémon GO: beneficial and problematic effects on places and movement. In *Proceedings of the 2017 CHI conference on human factors in computing systems* (pp. 1179-1192). Rauschnabel, P. A., Rossmann, A., & tom Dieck, M. C. (2017). An adoption framework for mobile augmented reality games: The case of Pokémon Go. *Computers in Human Behavior*, 76, 276-286. Zsila, Á., Orosz, G., Bóthe, B., Tóth-Király, I., Király, O., Griffiths, M., & Demetrovics, Z. (2018). An empirical study on the motivations underlying augmented reality games: The case of Pokémon Go during and after Pokémon fever. *Personality and individual differences*, 133, 56-66.

¹² 2014 saw widespread commercialisation of these devices to be used with smart phones.

¹³ Cetinkaya, L. (2017). The impact of WhatsApp use on success in education process. *International Review of Research in Open and Distributed Learning*, 18(7). Montag, C., Błaszkiwicz, K., Sariyska, R., Lachmann, B., Andone, I., Trendafilov, B., ... & Markowetz, A. (2015). Smartphone usage in the 21st century: who is active on WhatsApp?. *BMC research notes*, 8(1), 1-6. O'Hara, K. P., Massimi, M., Harper, R., Rubens, S., & Morris, J. (2014, February). Everyday dwelling with WhatsApp. In *Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing* (pp. 1131-1143). Pang, N., & Woo, Y. T. (2020). What about WhatsApp? A systematic review of WhatsApp and its role in civic and political engagement. *First Monday*. Susilawati, S., &

communication. In addition, the increasing use of Airbnb¹⁴ has indirectly altered the functioning of cities that are popular tourist destinations.

These innovations in communication technologies have also impinged upon the democratic makeup and political processes of entire nations globally. For example, research in artificial intelligence (AI), with the merging of complex computing algorithms and statistical techniques applied to social media (big) data, has proven that it is possible to determine and predict the psychological makeup of people. For example, the scandal of the unqualified use of Facebook users' data by Cambridge Analytica in 2018 has shown this to be a very controversial field of research (Schneble *et al.*, 2018). Ethical debates have echoed the headlines about how such techniques were used to influence social media users as voters and alter the democratic process of the United States election (Cadwalladr & Graham-Harrison, 2018). Still, this only represents one instance when such media manipulation emerged in the public eye.

Proponents of the free sharing of data have argued that the benefits outweigh privacy concerns since the computation of people's digital imprints benefits society by allowing, for example, the detection and management of the spreading of diseases (Walport & Brest, 2011). However, widespread concerns exist about how social media platforms can manipulate users' perceptions and responses to events (Mullaney, 2021).

The above considerations point to digital communication technologies' large-scale social, collective, and distant influences on peoples' lives and how they can covertly affect society. The analysis of these phenomena is directed at both the social world and the use and adoption of digital communication technology tools and applications. It engages with the intrapersonal and social dimensions.

Supriyatno, T. (2020). Online learning through WhatsApp group in improving learning motivation in the era and post pandemic COVID-19. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, 5(6), 852-859. Sari, F. M., & Putri, S. N. (2019). Academic Whatsapp group: Exploring students' experiences in writing class. *Teknosastik*, 17(2), 56-65.

¹⁴ Airbnb is a platform for arranging or offering primarily homestay accommodation. Guttentag, D. (2019). Progress on Airbnb: a literature review. *Journal of Hospitality and Tourism Technology*, 10(4), 814-844. Sans, A. A., & Quagliari, A. (2016). Unravelling airbnb: Urban perspectives from Barcelona. *Reinventing the local in tourism: Producing, consuming and negotiating place*, 73, 209. Oskam, J., & Boswijk, A. (2016). Airbnb: the future of networked hospitality businesses. *Journal of tourism futures*, 2(1), 22-42.

Digital media technologies and subjectivity

Another angle of interpretation, however, is about how new communication technologies, in the first instance, social media, may touch upon the inner understanding of how we position ourselves in the world.¹⁵ Such a personal sphere relates to our inner world of experience and meaning, prioritising the examination of personal rather than interpersonal considerations about the social world. By embracing this perspective, this research project looks at whether and how digital communication technologies influence the area of *subjectivity*,¹⁶ particularly our sense of self and the presentation of our identity.

For example, through social media platforms, we can create and project alternative versions of our identity and engage in multiple social interchanges in the digital space. Engagement and interaction with these technologies allow not only for novel possibilities of performance but can indirectly alter how we conceptualise, experience, and think about ourselves and, thus, our sense of self. The sense of self broadly determines the internal mental representation that we have of ourselves. A working definition of self is given at the end of this chapter, and a fuller explanation is in the Literature Review chapter.

Affordances, experience, and conceptualisation

The novel technological affordances¹⁷ they provide and how we experience and conceptualise them are at play in our relationship with these technologies: first, about what the new technology allows (affords) us to do, such as by facilitating interaction with one another; second, how we individually experience these technological changes; third, how collectively, in our culture or discourse, we come to understand and make sense of them.

¹⁵ This angle of analysis is akin to that of phenomenology or existential enquiry. But the approach taken is purposely detached from these models that are deemed too constrictive.

¹⁶ The notion of subjectivity and how it is used in this research is explained in Section 2.2.1.

¹⁷ Technological affordances frame what is possible to do with a technology. It can be posited that while fostering communication, they also limit the type and quality of the interaction between humans and technology. This is widely debated in social psychology, for instance by Stommel & Molder (2015). The notion of affordance is discussed in relation to its origin in psychology from the work of Gibson (1977; 2014) in Section 2.2.2.

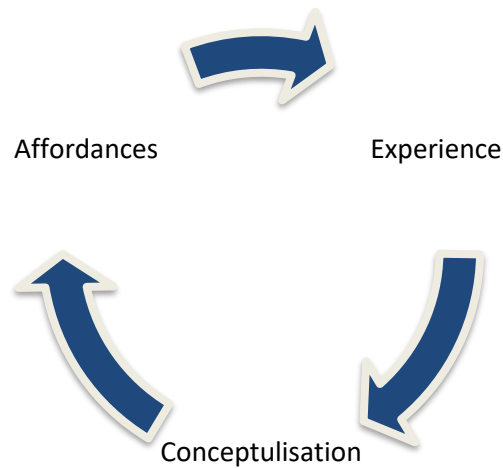


Figure 1: Interpretation of personal digital artefact

This tripartite affiliation of affordances, experience, and conceptualisation, described in Figure 1, can be illustrated by the development of our rapport with digital spaces.¹⁸ The following briefly chronicles this from the dawn of the World Wide Web in 1989.¹⁹

Since its inception, the exponential growth of the World Wide Web has opened access to new parallel digital spaces. The notion of *cyberspace*, for instance, has been widely used in the critical discourse of the 90s to refer to a space populated by online communities, such as chat rooms and virtual worlds. It conceptualised the web as a separate space of existence from the everyday physical world (Cohen, 2007). At the onset of the noughts, the subsequent evolution of the web into Web 2.0, or web-as-a-platform (Allan & Brown, 2010), introduced novel spaces for communication exchange. On these platforms, users were not only mere recipients of information but content creators.

The popularisation and adoption of innovative mobile technologies from the mid-2000s brought about a merging of the digital with the physical space. As a result,

¹⁸ In the generic sense of the world that we experience, that being in the physical world or digitally construed.

¹⁹ This is when Tim Berners-Lee published an original proposal for a “World Wide Web” (Berners-Lee, 1998).

the separation between the online and offline experiences weakened. The advent of social media platforms in 2003 (Boyd & Ellison, 2007) facilitated social exchanges and interaction by providing a variety of such digital spaces. In our everyday lives, rather than connecting to the Internet in our living rooms or an Internet cafe, familiar since the middle of the 90s,²⁰ we have become ubiquitously connected by carrying smart digital devices. That led to a merging, both in the collective and personal experience, of digital and physical spaces (Jones, 2013).²¹

Looking ahead, new technological innovations will push for a further increase of the digital as a living space. The future radical evolution of the physical network infrastructure with fifth-generation (5G) wireless networks, for example, will amplify the immediacy and potency of digital spaces (ITU-R, 2015). Furthermore, AI, 5G networks, and the Internet of Things (Li *et al.*, 2018) will enact an *Infosphere* (Floridi, 2014), an additional space increasingly populated by human and artificial entities.

The narrative of our changing relationship with digital spaces can be interpreted as born out of an intermingling of affordances, experience and conceptualisations. Thus, it seems likely that with every new advancement in technology and what it allows us to do, there is a corresponding cultural construction and an altered individual mode of experience, all of which play a role in our relationship with these technologies.²² The digital humanities, where this research project is situated, is best suited to investigate these interdependent levels of analysis.²³

²⁰ This is also the direct experience of the author.

²¹ The argument by Jones is discussed in Section 2.3.4.

²² Admittedly, such observations about interiority, identification of patterns in the population, and stable narratives about technology warrant further research.

²³ The Digital Humanities are introduced in Section 2.3 of the Literature Review chapter.

Experience, expression, and relationship

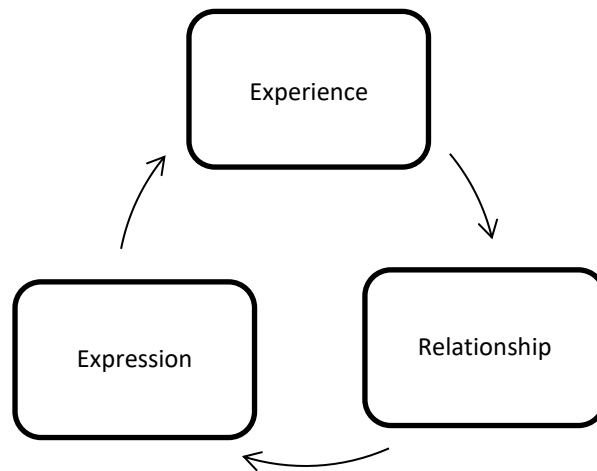


Figure 2: Association between interpretative concepts

The critical examination of the subjective experience of these technologies is interpreted by the association of the notions of *experience*, *expression*, and *relationship*, as shown in Figure 2.²⁴ *Experience* is the personal and direct experience of the group being examined, the cohort of academics, and, by extension, all of us; *expression* is how they use these tools to communicate with others; *relationship* shapes how we relate to others. These notions form part of this research's conceptual framework, which is examined at some length in Section 3.4 of the Theoretical Framing chapter.

Motivation for this research

This research project originates from the author's interest in the increasing role of digital communication technologies in how we live and make sense of our lives. At a distance of several years, it follows from the author's earlier master's degree dissertation exploring cyberspace's bodily dimensions (Casani, 2001). Over time, this interest was kept alive by readings on technology and philosophy, informal discussions, and participation in many social events on related topics.

²⁴ Experience, expression and relationship are further discussed in the Theoretical Background chapter.

Such interest in communication technologies, however, comes with a healthy scepticism and a critical attitude, given, on the one hand, the awareness of the rapid pace of innovation of these technologies and, on the other, the realisation of the relatively feeble monitoring and social scrutiny about their impact on individuals and society.²⁵

The author subscribes to the view that we live in a pro-technology society that frowns upon critiques of technology. Instead, it promotes technical innovation as a significant driver not only for the economy but, at a more abstract level, for advancing humankind. In this respect, the author sees himself as part of a growing number of people who believe it is crucial to keep technological innovation and the commercial forces behind it, specifically in digital communications, in check. This tendency was briefly manifested recently with the so-called *tech backlash* provoked by the overtly unethical behaviour of big tech companies (Sacacas, 2018; Rushkoff, 2019).

An important consideration about the contemporary world is that once technology establishes itself, it quickly becomes part of the accepted way we make sense of and live our lives. As a result, it becomes difficult, at a later time, to roll it back should it prove non-beneficial to the individual or society.

On a more positive note, the cautious scepticism that permeates this research is mixed with the author's keen enthusiasm for advancements in digital technologies, which often provide solutions to social problems. It extends, for instance, to the application of data science techniques to the analysis and prediction of social phenomena where there are implicit risks to privacy and liberty, but at the same time, opportunities to, for instance, help combat diseases such as the flu (Aramaki *et al.*, 2011).

On top of that, a background in software engineering enables the author to grasp what goes on beneath the interface of digital platforms and to understand the technology behind them, for instance, how they are put together as artefacts. A software engineer mindset, in this respect, gives an inner awareness of the materiality

²⁵ With regards to the latter, this has come into public view with revelations about mass surveillance systems, such as the National Security Agency (NSA) in the USA, exposed by Edward Snowden in 2013.

of the digital in its constituent parts, which ranges from the functioning of networks to an understanding of the implementation of software and hardware applications.²⁶ It reflects, furthermore, the placement of this research in the area of digital humanities, where its practitioners, digital humanists, can both “hack and yack”,²⁷ thus, both do technology and theorise about it.

Ultimately, the underlying motivation for this research is the author’s moral concern for the large-scale implications and challenges that digital communication technologies pose over such values as humanity, personal freedom and democracy.

1.2 CONTEXT

Foci of research

The foci of this research study are investigating academics’ practices, experiences, thoughts, and impressions about their use of digital communication technologies and social media platforms. These are interpreted particularly about their self and identity and what they mean for their experience, expression, and relationship, briefly explored above and expanded in Chapter 3, representing the conceptual framework for this research.

Statement of the general problem situation

As a working hypothesis, the initial general problem situation is summarised in Figure 3. Starting from basic assumptions about the influence of new digital communication technologies on people’s lives and the social world, it tentatively raises hypotheses about their mark on the inner sphere of experience and, thus, our sense of self and presentation of identity. These hypotheses are further developed, crystallised, and then explored in the rest of this research project, specifically by narrowing a case, examining academics, and building a research design.

²⁶ This perspective, which is also advocated by digital humanists as practitioners of digital humanities, can be seen as a remedy to some far-fetched intellectual speculations in the areas of media studies and philosophy which often approach technology as a black box.

²⁷ The phrase originates from the early debates in the digital humanities, where their proponents discussed the importance of practical knowledge of its practitioners in the hack vs yak debate (Nowviskie, 2014).

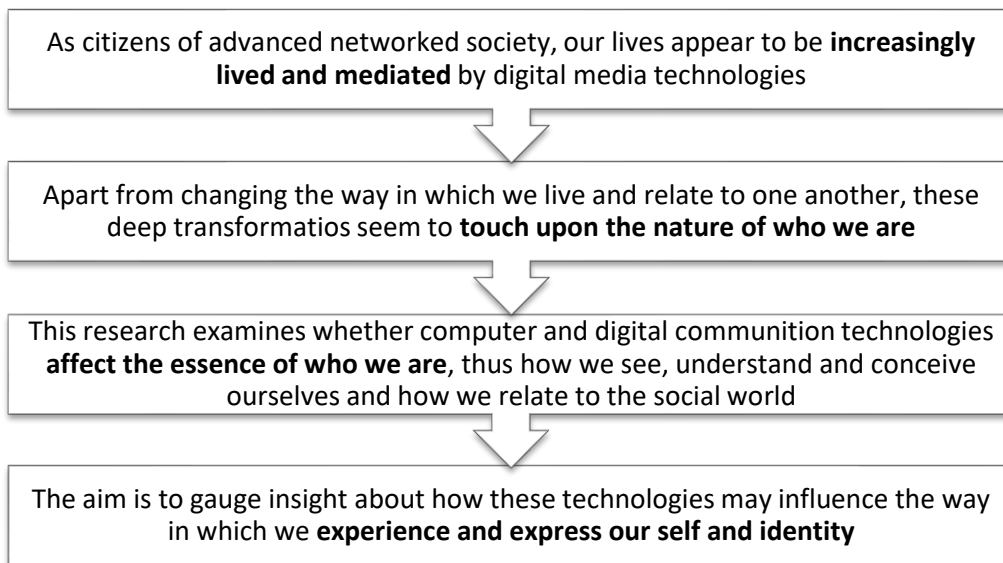


Figure 3: Statement for the general working hypothesis

The case of academics

In order to understand the phenomenon, this research investigates the cohort of academics. An academic is usually defined as a member of a university or college who teaches or does research.²⁸ To work in higher education, an academic must go through a long educational trajectory that mostly involves gaining a doctoral degree (PhD).

This research looks at academics' practices, experiences, thoughts, and impressions about their use of digital communication technologies and social media platforms. As a group of respondents, academics allow us to investigate the subjective experience with media technologies at multiple levels of engagement and variations between their private and public lives. Their stance toward these technologies is examined from several angles and through their roles as educators, key informants, experts, and institutional representatives.

Overall, academics as a study group have been chosen because they present an information-rich case to explore the initial working hypothesis. They were chosen because they provide a rich case, given their multiple social roles as educators, experts, public figures, and institutional representatives. The Literature Review chapter

²⁸ This is the definition given by many dictionaries including Merriam-Webster ("Academic." *Merriam-Webster.com Dictionary*, Merriam-Webster, <https://www.merriam-webster.com/dictionary/academic> Accessed 10 Oct. 2021).

discusses several themes that have emerged in the literature review concerning academics and digital media technologies.

This research project uses a *mixed-methods* research design, emphasising qualitative interpretation. The research design comprises two central studies, one qualitative and the other quantitative: in the first study, academics are interviewed about their experience with digital communication technologies; in the second, data is collected and analysed from social media platforms about what they say and express on media platforms. Chapter 4 details the methodology, methods, and rationale for this research.

1.3 PURPOSE

Initial lines of enquiry

The initial research centred on examining the following broad research questions:

- Are digital and information technologies touching upon the intimate experience of who we are, our self, and our identity?
- Are they altering how we perform, manifest, and express our self and our identity?
- Does this affect how we understand one another and our place in the world?



Figure 4: Intertwining of the initial research statements

These research questions, represented as interwoven statements in Figure 5, have been further developed in the light of literature and research design in the next chapter and formalised in the Theoretical Background chapter.

Aim and objectives

This research project aims to assess and critically interrogate whether and how new internet, information, and communication technologies influence the nature of who we are, our self, and our identity by examining the grouping of academics.

In order to achieve this aim, this research project implements the following objectives:

1. Search and review the literature on self and identity concerning digital communication technologies and academics
2. Create and implement a research design that examines the research topic both qualitatively and quantitatively
3. Carry out a pilot to the interview study to assess methods and better understand the cohort
4. Conduct semi-structured interviews with academics
5. Carry out a social media study to gauge what the cohort says and expresses about self and identity on digital media platforms

6. Implement a cross-cultural study as part of the interviews about geographical-specific correlations
7. Compare and cross-examine the results from the primary studies (objectives 4 and 5)
8. Critically examine and assess whether and how digital media technologies shape the relationship with others and society

1.4 SIGNIFICANCE, SCOPE, AND LIMITATIONS

Significance

This research is deemed significant because of the approach it takes on the topic by (a) focusing on subjectivity, (b) assuming a critical stance, (c) emphasising qualitative methods, and (d) taking a human-centred perspective.

- (a) Digital communication technologies' increasing mediation on our experience of the world seems to affect how we make sense of it and how we perceive and think of ourselves, thus our subjectivity.

Advances in computing technologies, such as the prominence of AI mentioned in the preceding section (Kurzweil, 2006), are making digital devices increasingly part of our daily lives. Besides extending our minds (McLuhan, 2003), such as by using a mobile phone as a memory extension tool (Clarke, 2004), digital communication devices appear to redefine our understanding and the inner experience of who we are,²⁹ that is, who we are as individuals, our self, and how we identify and present ourselves to others, our identities. Furthermore, they seem to be able to affect our ability for introspection, which is the foundation of our sense of self.

- (b) There appears to be insufficient screening and concern about the individual and societal implications of new digital technologies. An argument can be made

²⁹ Chapter 7 discusses some of the general implications of the findings of the research project.

(developed in Chapter 7) that we are permeated by an *ideology of technology*³⁰ that views technological progress as unstoppable, unavoidable, and benevolent (Morozov, 2013). One remedy is more scrutiny and research in order to keep those technological changes under check. This research project adheres to a welcoming but cautious attitude towards the current fast-paced advancements of digital technologies and the digitalisation of everyday life. Furthermore, this research places itself within the sub-area of the critical digital humanities (D. Berry, 2019), discussed in Section 2.3 of the Literature Review chapter.

- (c) The advent of digitalisation and social media in the last twenty-five or so years has made available a tremendous amount of data that can be used to study people's daily habits, preferences, psychological makeup and even predict their future decisions. However, the first-person subjective study of how these technologies affect us is often neglected, favouring (distant)³¹ quantitative approaches. Furthermore, it goes hand in hand with the supposed diminished importance given to research on the subjective dimension, i.e. the experience that each of us has of these technologies. Granting the significance of research based on big data,³² it is limited in the understanding it can gauge of the individual experience. Conversely, qualitative research that focuses on subjectivity can reveal aspects of the human dimension, such as our complex relationship with communication technologies in the context of this research project and the case of academics.
- (d) In contrast to research in other branches of the social sciences, such as economics or political science, this study takes a humanist perspective by prioritising the lived experience, in this sense escaping a pure mechanistic interpretation of what it is to be human.³³ In so doing, it runs counter to the

³⁰ An ideology is formed when processes become “*idealized, universalized, and detached* expressions of actual social relations” (Martin, 2014, pp.17-18). Thus, the idealization and universalization of the technical solutions result in a detachment from the (social) problems they may have aimed to ameliorate.

³¹ This is a technique of analysis in the digital humanities which is referenced in the Literature Review chapter.

³² Big data is the data that results from the digitalisation of our society, and specifically that collected by social media platforms.

³³ Section 2.3.2 of the Literature Review describes how this research upholds a humanistic perspective on the digital humanities.

current trend of conceptualising human beings simply as sophisticated machines that can be replicated and surpassed by artificial intelligence, that is to be found, for instance, in transhumanism thinking.³⁴ Furthermore, concerning the digital humanities, it fosters a humanities-centred approach, thus from the humanities to the digital rather than vice versa.³⁵

Furthermore, this research's findings will provide empirical evidence for the influence of digital communication technologies on the lives of the group of academics studied. Specifically, it is uncovering whether and how these technologies touch upon profound psychological constructs such as self and identity.

Scope and limitations

The limitations to this research mainly stem from the fact that it is a one-person project, which intends primarily to fulfil the requirements of a PhD programme.³⁶ As a result, rather than attempting to conduct an exhaustive investigation, the project's scope was pragmatically circumscribed to the resources available³⁷ and manageable by one person's effort.

The Interview Study, for instance, engaged with a circumscribed (and, to this effect, limited) number of respondents; as a result, a limited dataset was analysed. However, such limitations did not affect the quality and validity of the research project and its findings, as explained in Section 4.4.5 of the Theoretical Background chapter.³⁸

Other limitations have to do with the complexity of the investigated phenomena, particularly that of the self. Such an issue also manifested itself in the reluctance of some of the respondents of the Interview Study to talk about personal experiences, feelings, and impressions concerning the phenomenon of self.

³⁴ While earlier softer versions of transhumanism have proposed improvements in the human condition through the application of available technologies (such as with ageing and intellectual capabilities) (Bostrom, 2003), harder versions have advanced ideas of a radical rethink of what is to be human (Harari, 2016).

³⁵ Traditionally, digital humanities have looked at how the digital, as a theoretical underpinning, or digitalisation, as practice, is changing the traditional humanities subjects. These notions are further tackled and clarified in the Theoretical Framing chapter.

³⁶ Specifically, the requirements of University College London.

³⁷ Mostly, the main researcher and PhD student, and his supervisors.

³⁸ In fact, on a positive note, the fact that this research is part of a PhD degree has meant that the research has been carried out over a prolonged period which has given the main researcher the ability to experiment with different ways of approaching the data and interpreting it.

1.5 DEFINITION OF KEY TERMS

The definition of critical terms below gives the reader reference points for engaging with ideas presented, examined, and developed in this thesis.^{39,40} This section also sketches how and why each definition is used.

1.5.1 ICT, digital communication technologies and social media

These terms map a subset of one another and can be better understood as emphasising, in turn, information and communication, digital technologies, and socialisation.

Information and communication technologies (ICT) is an umbrella term for any form of media used to communicate information in a particular context (Chandler & Munday, 2011). In this general sense, ICT refers to digital technologies and all other communication technologies, including analogue forms (Lister *et al.*, 2008). However, the most common use of ICT is to discuss newer information and communication technologies, such as smartphones, email, social media, and the World Wide Web. ICT is often discussed regarding these technologies' business, economic and societal impact.⁴¹

This research introduces ICT in reference to the literature, where it is used to denote information technologies' wider reach to society.

Digital communication technologies are a subcategory of ICT and denote the digital technologies that enable users to connect, interact and organise with others through electronic tools, systems, devices, and other resources that generate, store or process data. Digital communication technologies include social media networks (e.g., Facebook and LinkedIn), video streaming (e.g., YouTube or Twitch), collaboration platforms (e.g., Slack or MS Teams), messaging applications (WhatsApp), document

³⁹ This section defines the key terms that are used throughout the research project. It covers on the one hand terms that frame the personal dimension (subjectivity, self, and identity), and, on the other, those that relate to digital communication technologies (ICT and social media).

⁴⁰ Broader accounts, particularly of the central notions of self and identity, in their broader context, origins, and uses, are given in the chapters Literature Review and Theoretical Context.

⁴¹ ICT is used by international organization such as OECD and FAO to evaluate and promote innovation and investment in information technologies. <https://aims.fao.org/information-and-communication-technologies-ict> <https://www.oecd.org/els/health-systems/informationandcommunicationtechnologiesictsinhealthsystems-casestudies.htm>

sharing (e.g., Google Docs), micro-blogging (e.g., Twitter), and other hybrid or specialised websites (Academia.edu).

This thesis uses the term to refer to the broad family of digital technologies and platforms that allow users to connect and interact with others.

Social media are broadly defined as applications that enable users to create and share content and participate in social networking.⁴² More specifically, they have been described as Internet-based applications that (a) are constructed on the ideological and technological foundations of Web 2.0⁴³ and (b) allow for the creation and exchange of user-generated content (Kaplan & Haenlein, 2010, p. 61). Furthermore, since increasingly digital communication occurs over telephone networks, social media have come to include all the networked information services that support social interaction, collaboration, and community formation (Hunsinger & Senft, 2013).



Figure 5: Representation of the social media ecosystem⁴⁴

⁴² Social Media, The Oxford Dictionary, 2010.

⁴³ Web 2.0 has been defined as the new participatory architecture of the World Wide Web that sustains user sharing services through a rich user experience (O'Reilly, 2005).

⁴⁴ From FredCavazzo.net, 2018.

Social media are the technology and social phenomenon under scrutiny because they characterise the space where people come together to share and exchange information, experiences, and knowledge and where such encounters, rather than physical and material, are virtual and digital.

1.5.2 Self and identity

The self – The complexity of the notion of self is unravelled in the Literature Review chapter. As depicted in Figure 6, it encompasses several psychological constructs. Psychology is where most of the research on the self has been carried out. One of the foremost scholars, Baumeister, describes the self as a subject’s “individual beliefs about himself or herself, including the person’s attributes and who and what the self is” (1999, pp. 1–20). In these terms, the self can be defined as a psychological mechanism or system of processes that allows humans to think about themselves consciously and in the first person. It is this self-reflexive aspect that is central to this research project.

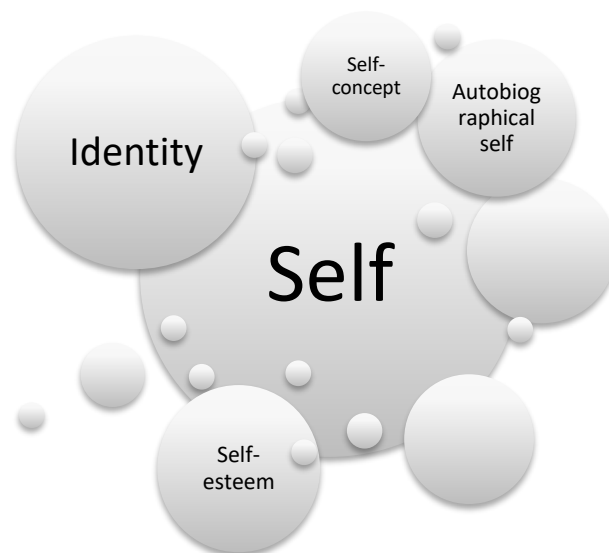


Figure 6: Representation of some of the components of self⁴⁵

⁴⁵ This image emphasizes how the Self oversees and is construed from several psychological components. Section 2.2 of the Literature Review chapter outlines these concepts, which are borrowed from social psychology.

This research project engages with the phenomena of self because it allows us to capture the experience of the increased influence and widespread use of digital communication technologies.

Identity is a series of features or characters that people use to specify who they are and locate themselves in relation to others (Owens, 2002, pp. 205–232). Two aspects are often ascribed to identity: personal and social (Fearon, 1999). This duality makes identity relational because it can imply distinctness or sameness (Olson, 2003). In the former sense, identity distinguishes our uniqueness as a person; in the latter sense, identity is the connection we can have with a group or groups.

The notion of identity is pivotal to this research because digital communication technologies are redefining how identities are created and presented through the digital medium.

1.5.3 Evolving definitions of social media

There is little agreement about what social media exactly is, resulting from a conflation of types, hosting platforms, and forms of activities performed (Treem *et al.*, 2016). First used in the early 1990s, at the dawn of the World Wide Web, it is disputed when it was coined. Its first documented use was in 1994 to refer to the Matisse Online Media Environment Event in Tokyo (Bercovici, 2010). What complicates this picture further is that the research community's use of the term social media has continuously changed (Treem *et al.*, 2016). Ellison and boyd pointed out in 2013 the difficulty in defining social media given that it is an evolving phenomenon (2013).

A Dictionary of Social Media lists several entries connected to social media: social media platforms, with an emphasis on the systems used; social media networking, emphasising the networking aspect; social networking sites, focusing on the site and network aspect; and social networks, as a web of relations between people (Chandler, D., & Munday, 2016). Since the social media ecosystem is so broad (see Figure 5), the use of any of these definitions could be justified to map a particular type or use of technology.

The in-depth literature analysis of Aichner *et al.* (2021) showed that the phenomenon described as social media has, from its inception, been broadly referred to and can be classified by three categories of terms: virtual communities, social

networks⁴⁶ and social media. They argued that these family of terms, although co-existing, were dominant in a definite period (1997-2002, 2005-2009 and after 2010), emphasising a specific aspect of the technologies used. Aichner *et al.* maintained that the major shift was from highlighting people's interaction in the early definitions to users generating and sharing content, after 2010. The linking-people aspect also subsided, possibly because social media increasingly become a tool for big players⁴⁷ to reach the masses (Aichner *et al.*, 2021).

This research project, throughout its development, has engaged with three of these terms:

- a) online social networks
- b) social networking sites
- c) social media

The first, a), emerged early in examining the literature, such as in the paper by Arnaboldi *et al.* (2015). However, with its emphasis on the online (versus the offline), it appeared to fit best the pre-mobile computing era, which later saw a fading of that distinction. The second b) is the term used by two of the key papers discussed in the literature review by Zhao and Livingstone, both from 2008. Following Treem *et al.*, b) can be taken to emphasise the connection-for-communication aspect (e.g., Twitter), in contrast with the term social media c) that stresses instead connection-for-presentation (e.g., Facebook or LinkedIn). As with a), b) appears to have signalled a particular period in the evolution of the technology and understanding of the social media phenomena.

Because the term a) online social networks has largely fallen out of use when completing this thesis,⁴⁸ it is omitted. Instead, the term c) social media is used in its

⁴⁶ The terms social networks include the variations "social networking services," "online social network," "social networking sites," and "social network sites".

⁴⁷ Such as companies, celebrities, and influencers.

⁴⁸ At the end of 2023.

place. Although the term *social networking sites* is still, to some extent, used,⁴⁹ c) is preferred and employed and used instead of it.

1.6 THESIS OUTLINE

Chapter 2, Literature Review, first singles out topics about the influence of digital communication technologies on subjectivity; second, it sheds light on the notions of self and identity; third, it embeds this project with the area of critical digital humanities; third, it looks at recent literature about academics and ICT.

Chapter 3, Theoretical Background, lays out the conceptual and theoretical frameworks that shape this research project. First, it situates the perspective taken by this research on critical digital humanities; second, it cements the interpretation of self and identity upheld in this research; third, it explores the concepts part of the conceptual framework; fourth, it expands the research questions.

Chapter 4, Research Strategy, describes the research principles, methodology, and methods used. It explains the choice of a mixed-methods study, outlines the methods used in each study, and sketches the ethical considerations.

Chapter 5, Interview Study, presents the testimonies of academics about how they engage with and relate to digital communication technologies. First, it describes significant passages from the interview data; second, it elaborates on three themes that have emerged from the data coding exercise.

Chapter 6, Social Media Study, tests hypotheses about how academics present their identity on digital platforms, specifically Twitter. First, it gives a background of social media studies using computational techniques; second, it presents the study's results and reflects on the findings.

Chapter 7, Consolidation of Findings, first describes the findings from the embedded cross-cultural study; second, it compares the qualitative and quantitative data sets; third, it explores significant social implications of this research looking at advancing digital societies through three challenges to academics.

⁴⁹ And the paper by Rains & Brunner (2014) in Section 2.2.2, and Jordan (2019) in Section 2.4.

Chapter 8, Conclusions, reinstates the results of this research project by summarising the chapter's conclusions and how the research questions have been addressed. It then details limitations and how its findings can be extended.

Chapter 2: Literature Review

This chapter addresses some of the objectives in the Introduction chapter by identifying the scholarship. The critical approach elaborates on synthesising and integrating the reviewed topics. Finally, the key authors and works from the literature analysis are identified and discussed.

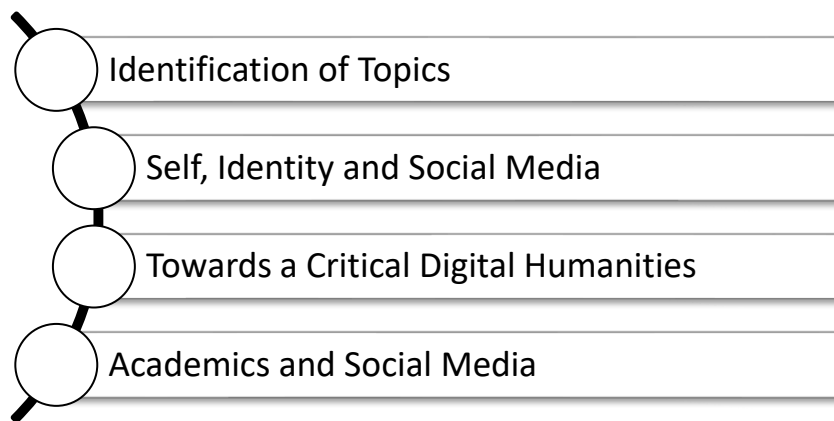


Figure 7: Outline of the Literature Review chapter

The literature review purports to help the reader gauge what research has been done on this topic and by whom. First, it attempts to identify gaps in knowledge. These are addressed by raising further and more detailed research questions, outlined at the end of the Theoretical Background chapter (Chapter 3). Second, it singles out the principal research methodologies most used and supports the research design choice, which is discussed in the Research Strategy chapter (Chapter 4). Third, it lays the foundation for analysing and interpreting the results of the two primary research studies, the Interview Study (Chapter 5) and the Social Media Study (Chapter 6).

The chapter begins by explaining the rationale and methods used in the literature search and describing the emerging themes (Section 2.1). Next, section 2.2 discusses the relevant and significant literature on self and identity and the two major themes that have emerged from the literature search. Next, section 2.3 examines the relevant literature about the digital humanities, which is the research area that provides

theoretical and practical tools to engage with digital communication technologies and our relationship with them.⁵⁰ Finally, section 2.4 examines the literature on academics and internet and communication technologies.

2.1 IDENTIFICATION OF TOPICS

The approach to the literature was threefold. It involved a) a systematic search of online databases,⁵¹ b) a narrative review of the sources identified, and c) the analysis of key texts to determine what has been written in specific research areas. Results from the literature search were filtered for relevance, short-listing several in-depth-analysis publications.⁵² Additional analyses were performed on important texts discussed or mentioned in the short-listed publications.⁵³ The selection of academics as the cohort for this research project (which was identified sometime after this research had begun) led to a careful examination of what has been written about academics and digital communication technologies.

The initial literature search, first carried out in March 2015, examined the existing literature to identify the core topics and set the research project in motion.⁵⁴ The narrative review and analysis of crucial text, including the literature section on academics, were carried out in 2016 and revisited several times in later years.

This is a summary of the steps that were followed:

- a) Literature search
 - Systematic search – Accurate search of significant databases using search terms taken from the research questions

⁵⁰ Through the lens of the cohort of academics studied.

⁵¹ Further detailed in the following section.

⁵² For instance, Livingstone's highly cited paper about teenagers' use of social networking sites (2008).

⁵³ The importance of the work of Goffman (1959) on self-presentation for the discourse about social media was flagged as an important work in this area, as discussed by Livingstone's and other selected papers.

⁵⁴ Since the purpose of the systematic search was to set a point in time over the relevant literature, and function as a starting point for this research project, it was not extended at a later date to include other research.

- Narrative exploration – Identification of critical works about the core topics: self, identity, digital humanities, and academics’ use of digital communication technologies
- b) In-depth analysis of publications
 - Core texts – Analysis and critique of key papers and books about the major themes in the literature that were identified in the systematic search
- c) Targeted literature review
 - On key concepts – Self and identity to interpret the relationship we and the cohort have with communication technologies
 - In the research area – Digital humanities is the field of research where this research is situated
 - On the cohort – Academics and digital communication technologies

2.1.1 Systematic search

The *systematic literature search*⁵⁵ was based on the research questions. It mainly investigated what the literature says about the influence of digital communication technologies on subjectivity and in relation to self and identity.

This study used the principles set out in the EPPI-Centre⁵⁶ pamphlet (EPPI-Centre [EPPI], 2007).⁵⁷ In addition, it precisely followed the *stages in the systematic search* principles of EPPI. These state that well-defined research should engage with and question the research area to identify key terms, databases, and relevant resources.

The systematic search method was preferred because it allows a comprehensive view of the research area. In addition, this permits assessing the material in several

⁵⁵ The original literature search was carried out at the beginning of the PhD project at the end of 2015. This allowed the identification of themes and problems which have informed the choice and design of the research studies. The literature was revisited in 2019 to discern new relevant publications.

⁵⁶ The EPPI-Centre is an established centre for the development of systematic reviews and research. It promotes methods and best practices via its website (<http://eppi.ioe.ac.uk>), publications and dedicated software. It is part of the Social Science Research Unit at the Department of Social Science, UCL Institute of Education.

⁵⁷ Created by the UCL Institute of Education.

research areas and identifying the topics that are important and most critiqued (EPPI, 2007).

Preparatory phase

Creating a good search query was challenging. Typically, this process involves extracting keywords from the research question and combining them with a boolean operator (such as the ‘AND’ operator). Initially, the search was run combining different filter elements, such as operators (primarily ‘AND’ and ‘OR’) and parentheses (e.g., round brackets, ‘(’, so to single out elements), and trying to use several terms (e.g., individual identity, social networking sites, new media), to limit the number of results to a significant and coherent dataset. However, the results were unsatisfactory. Finally, it became clear that the problem was finding appropriate and effective individual keywords.

Searches with the keyword ‘self’ were particularly problematic. They failed to produce relevant results, thus with ‘self’ referring to a psychological or social construct. The difficulty arose from the fact that Self is primarily used in ordinary language as a reflexive clause in compound names,⁵⁸ and the search results reflected that. As a result, the term self as a search keyword was abandoned.

Identity, the other core psychological construct examined in this research, did not present problems. The literature search for this entry concerning digital communication technologies produced many results.

Since the terms self and identity are frequently used interchangeably in many publications in the social sciences (particularly in communication and media studies), the keyword ‘identity’ alone was deemed sufficient. The rationale was that a literature search using the keyword ‘identity’ would recover publications associated with self.⁵⁹

The other significant difficulty was restricting, filtering, and fine-tuning the literature search in the second part of the search query, thus on communication and media technologies. Various terms and phrases were used, such as ‘ICT’, ‘digital communication technologies’, ‘new media technologies’, or ‘communication and new

⁵⁸ Some examples of this are the words self-actualisation, self-belief, self-conscious, and self-harm.

⁵⁹ This even though the two notions are dealt with in the research as interrelated but different aspects of subjectivity.

media’. The initial approach was to use a general keyword that could embrace most of these technologies. However, none of these terms brought accurate and relevant results connected to subjectivity, self, and identity. Ultimately, this approach was abandoned in favour of the narrower term ‘social media’, which seemed to capture and bring together a consistent set of published work.

In this preparatory phase of the literature review, the literature search was carried out on several databases, including Jstor,⁶⁰ Scopus,⁶¹ and Web of Science.⁶² However, Jstor appeared to provide a more pertinent and broad spectrum of results. It was also selected because it is one of the most extensive humanities and social sciences databases.

Initial literature search

The Jstor database was searched using the string:

- ‘social media’ AND ‘identity’

Table 1: Number of results of the search on Jstore by year

Year	# of hits
2008	17
2009	42
2010	92
2011	254
2012	320
2013	270
2014	156
2015	45 (*)

(*) Up-to March 2015, when the systematic search was carried out.

⁶⁰ <https://www.jstor.org>

⁶¹ <https://www.scopus.com/home.uri>

⁶² <https://clarivate.com/webofsciencegroup/solutions/web-of-science/>

As shown in Table 1, the search yielded 1196 results, limited to the period from 2001 to 2015.⁶³ Most of the articles retrieved by Jstor were published in the previous five years (2011 to 2015 inclusive), showing researchers' increased interest in social media and identity issues. However, 2011 signals a marked increase in the output of papers, with the publication numbers growing from 92 to 254. It equates to a further expansion in the popularity of social media (SNS) and a possible increasing interest of researchers in this phenomenon.

Interestingly, out of the 1196 search results, 502 discussed Facebook primarily. Such an outcome is consistent with the findings by Rains and Brunner (2014), who reported that, between 1997 and 2013, about 80% of the research on social media by the six most highly regarded interdisciplinary research journals was limited to Facebook. So Facebook, as the largest social media platform, was also the one with the most studies related to identity in the period examined by this literature search.

Key topics identified

The key themes identified from the literature search were:

- Presentation of self or identity (or self-presentation)
- (Online) identity development/formation/construction (in young adults)
- Construction of social identity
- Self-disclosure
- Online communication
- The need to belong
- Self-esteem

Further analysis of the above key themes resulted in the extraction of two main themes:

- Construction of identity
- Presentation of self and identity

These themes are explored through what have been identified as seminal papers. Such papers were selected based on the frequency of the citations and the prominence given to both the articles and their authors. Furthermore, on the ground that they represented, in the literature search, entry points onto key topics. Sections 2.2.2 and 2.2.3 engage with the themes and detail the arguments in the seminal papers identified.

2.1.2 Narrative exploration

The narrative exploration delved into the themes of self and identity, digital humanities, and academics' use and experience of digital communication technologies. This section summarises the approach taken to identify sources.

Literature on self and identity

The literature review on self and identity aimed to clarify their meanings and use. It covered several disciplines, including developmental and social psychology, philosophy, sociology, and media studies. The review also reveals diverse and, at times, conflicting accounts of self and identity among these disciplines.⁶⁴ Different interpretations of these as psychological, social, and metaphysical phenomena are at its root. Other areas of research that discuss self and identity, though examined, were not included in this literature review because they were not strictly pertinent to the core topic⁶⁵ of this research project and its concerns. One example is the debates about identity in anthropology⁶⁶ or political science.⁶⁷

Given that the principal angle of interpretation of self and identity concerning digital communication technologies is to view them as *personal phenomena*, the literature review examined works that promote this understanding. Consequently, the material that makes up the literature review favours recent and largely empirical

⁶⁴ This is the case, for instance, with the different meaning that is ascribed to 'personal identity' in philosophy and social psychology (see Section 3.2).

⁶⁵ One example of this is the argument by Metzinger (2009) that there is no such thing as the self because it is solely a representational (subjective) phenomenon.

⁶⁶ Anthropology's approach to identity is in relation to the formation of social groups and culture, and has been mostly associated with ethnic identity, thus centring on sharing some characteristic or trait (language, culture, religion) within a social group.

⁶⁷ The discourse in political science, in particular with the rise of identity politics in the 60s, has linked identity with the development of self-consciousness of subordinate groups (e.g. religious minorities, lesbians and gays, and their involvement in political action (Outhwaite, 2008, p. 281).

research in social psychology (justified in Section 3.2 of the Theoretical Background chapter) over the theoretical and more abstract discourse on such areas as the philosophy of mind. Nevertheless, it includes a discussion of particular philosophical issues relating to the self, as these are pertinent and useful for a critical analysis of the research problem.

The main problem in interpreting the literature sources was that, at least within the humanities, the terms self and identity (or personal identity) are often used interchangeably as if they are synonymous words.⁶⁸ Thus, some papers may set out to discuss an aspect of identity and then use the term self to clarify the point, e.g., to explain the makeup of our essence or nature as human beings. At the same time, others may embark on the discussion of self but then suddenly switch to identity, e.g., personal identity, to argue about existence over time.⁶⁹ As a result, the approach to identifying the most relevant literature was to examine self and identity separately, even where their meaning converged.

Review of the digital humanities

The review of the literature on digital humanities (DH) was carried out later. The primary motivation was to situate this research project within this field. It was driven by the following questions: how can the DH help critique the influence of emerging digital technology on subjectivity?

It involved grasping a good understanding of the evolution of the DH as an area and practice of research that has reinterpreted the humanities in light of the emergence of computer technologies.⁷⁰ While the DH has advocated the application of numerical methods and the combination of the disciplines of computer science with the human sciences, its practitioners have, in most recent years, turned their gaze to the social and

⁶⁸ Notably by Goffman (1959) and (Livingstone, 2008).

⁶⁹ Holt's 2014 review piece (Veletsianos, 2013b) exemplified the approach to self and identity of many social scientists. In his 'Prospect Magazine' review on two new books on self, he moved with much ease between one notion and the other term. Thus, he firstly set out to discuss what the self is and whether there is such thing as the self; secondly, he moved on to clarify the notion of the Cartesian ego; and thirdly, and at mid-point in the article, he turned his enquiry to the philosophical dealings of personal identity.

⁷⁰ An important point of reference has been the two-volume collection of essays and publications, *Debates in the Digital Humanities* by Gold (2012) and Gold & Klein (2016).

cultural issues that arise from the use of such technologies (Gold, 2012, Part III, pp. 75–246). That is where this research project resides.

Review of academics and digital technologies

The choice of academics as the study group came out of the review and reflection on the literature. Successively, Lupton’s paper (2014), discussed in Section 2.4, was pivotal in identifying sources about academics and digital communication technologies. However, most of the connected literature focused on academics’ adoption of new communication technologies, such as in the extensive work by Veletsianos (2013; 2016; 2019), rather than on their experience.

2.2 SELF, IDENTITY, AND SOCIAL MEDIA

This section firstly outlines and discusses the literature on self and identity as expressions of subjectivity (which is also contextualised) and agency, thus laying the foundations for an understanding of the research problem; secondly, it reviews critical publications on the main themes of construction and presentation of self and identity on digital media platforms that have been identified from the literature search; finally, with a review of the research on true self on the Net, it expands the analysis across the topics of interest that have emerged while compiling the central literature review.

2.2.1 Subjectivity, self, and identity



Figure 8: *Sacred Journey* by Michael Reeder⁷¹

Subjectivity

Like the term self, subjectivity is a contested term used in different settings with markedly different meanings.⁷² Two common uses are briefly discussed by looking at a) ordinary language and b) the social sciences.

In ordinary language, *subjectivity* derives from the word *subject* and is tied up with the adjective *subjective*. The dictionary definition of subjective refers to someone's feelings about something in contrast to facts about the world (Stevenson, 2010b). In this sense, and relating to subjectivity, subjective can have a negative character because it functions as the negation of something factual and, therefore, evidently (by evidence) true. Therefore, a subjective statement could be interpreted as one based on personal (and thus subjective) opinion in opposition to (objective) evidence. As a result, the term subjectivity has long been vilified because it has been

⁷¹ Copyright Michael Reeder. Artist's Estate.

⁷² The painting in Figure 8 exemplifies the introspective elements and complexity inscribed in the notions of subjectivity, self, and identity.

contrasted with objectivity and factuality about truth statements (Gallagher, 2011, pp. 1–28; Daston & Galison, 1992).

In the social sciences, subjectivity is associated with yet another meaning: being a subject in society. In this other sense, it has been used to complement and contrast the term self. In the former case, media studies research has used subjectivity to analyse the ideas of selfhood and identity construction, such as power and form⁷³ (Corner, 2013, p. 2). In the latter case, cultural studies⁷⁴ have emphasised the cultural production that comes into play in becoming a subject. This stance makes subjectivity, or personhood, inseparable from social obligation and kinship relations (Baker, 2003, p. 165). In its aims to capture the social and cultural entanglement in which we are caught up, cultural studies have focused their analysis on the subject and this sense of subjectivity, as opposed to self (Mansfield, 2000, p. 3).⁷⁵

In this thesis, the meaning of subjectivity is detached from the above uses. For one thing, it does not use subjectivity in its ordinary language meaning. Therefore, the term subjectivity is disconnected from its adjectival form about matters of fact. For another, in contrast to the use in social sciences, it embraces self and identity as central keys to analysis. Social and cultural aspects are not deemed less critical. Instead, they are set aside because subjectivity is emphasised as an embracing psychological construct. Furthermore, the starting point of enquiry is the personal experience,⁷⁶ precisely the experience of digital media technologies of the grouping of academics studied. This way, external factors are critiqued as an extension of the first-person experience.

Subjectivity is used in this research to encompass the psychological and experiential processes that constitute a person as an individual. It is taken to be the inner experiences that constitute self and identity and is extended to the influence that the external and objective world has over it.

⁷³ In the above-mentioned study of Baker, power and relation are studies in respect of social media.

⁷⁴ This reference here is to British cultural studies, which differs from other schools of cultural studies.

⁷⁵ And subjectivity in contrast to selfhood (the state of being a self).

⁷⁶ In the specific sense of personal experience used in this research and explained in Chapter 4.

Self

The self has been a pivotal and much-debated topic of interest in many disciplines within the humanities and the social⁷⁷ and hard sciences. These include philosophy, psychology, sociology, theology, anthropology, and neuroscience (Gallagher, 2011). However, while considerable research on the self has moved towards an interdisciplinary approach, some have remained constrained within their research fields. The former is the case, for instance, in the intersecting between psychology and neuroscience research to account for the location of self-processes in the brain (Northoff *et al.*, 2006); the latter for the speculative discourse of some strands of analytic philosophy, where Eric Olson proposed to abandon the notion of self altogether (1998).

Because research on the self is so rich, diverse, and multifaceted, it is not easy to borrow or concoct a working definition that is up to date with the current research and simultaneously condenses its several meanings. Conversely, a case could be made for the need for many interpretations about what self is, each fuelling the debate in a specific area of research. After all, the self is a complex concept that can be analysed from many angles. Moreover, every form of analysis has a different focus, such as social construction, the psychological continuity of the self, or bodily manifestations (Gallagher, 2011).

This section reviews some relevant conceptualisations of the self in the social sciences, specifically psychology and philosophy. The latter is the locus where the discussion about the self, at least in the West, has risen; the former is where most empirical research is nowadays carried out. Findings from these areas are upheld as they inform the sphere of personal experience, thus with respect to the possible influence of new digital communication technologies.

Uses of the term self

In their 2004 editorial in the *Journal of Self and Identity*, Mark R. Leary and June Price Tangney attempted to clarify the meaning of self by proposing a normative usage. Despite the enormous interest and critical output around the notion of self

⁷⁷ A general distinction between the humanities and social sciences is that while the former is (mostly) interested in the unique (e.g. the individual), the latter are mostly interested in the general (e.g. society) (Fullwood *et al.*, 2018).

concerning psychological, interpersonal, and cultural phenomena, Leary and Tangney lamented a lack of transparency about what we mean by self (2004). Given the multiple connotations of self, some researchers, such as Katzko (2003), have questioned the necessity of adhering to any usage: why not substitute self with whatever other points the writer tries to make? Leary and Tangney pointed out another complication in selecting a definition of self: when prefixed to other words with a hyphen (self-), it denotes a reflexive meaning of that word. Examples of this are the compounds of self-esteem, self-consciousness, and self-regulation.

Summarising the existing research on the self within the behavioural and social sciences, Leary and Tangney identified five main uses of the term self:⁷⁸

1. *Synonymous with person* – the grammatical use of the reflexive pronoun self-, as in self-mutilation, and not psychological processes.
2. *Synonymous with personality* – an individual's distinct abilities, temperament, objectives, and values.
3. *As subject* – the psychological processes of reflexive cognition that underlie awareness and thoughts about us.
4. *As object* – the content of people's thoughts, perceptions, beliefs, evaluations, and feelings about themselves.
5. *As decision-maker* – the ghost in the machines that regulate people's behaviour.

Regarding the scientific literature, Leary and Tangney argued that the basic agreement is that the self is 'a set of systems that allow human beings to reflect on (think about) themselves and to respond to this cognitively, emotionally, and behaviourally' (2004, p. 27). That definition combines the uses in points 3, 4, and 5. Leary and Tangney dismissed the other uses: the ones in points 1 and 2 because they are inconsequential and thus should be avoided in the scientific literature; in points 4 and 5 because other terms are better suited to depict intrinsic conceptualisations about

⁷⁸ The list is adapted from Leary and Tangney's textbook (2004).

ourselves or our capacity for agency, such as self-concept, self-image, and self-schema (2004).

According to Leary and Tangney, the only legitimate use of self (as a subject) should refer to the cognitive mechanism by which thinking about oneself occurs (2004), in point 3.

Self as I and me

Principles of Psychology by William James (1890/1989) is considered a seminal work on the self.⁷⁹ In this work, James presented a central distinction between two key aspects of the self:

- *As a subject, 'I'*
- *As an object, 'me'*

As 'I', the self is a psychological process characterised by self-awareness and self-knowledge (James, 1890/1989, pp. 291–400; Leary & Tangney, 2011: p. 5). The *self as a knower* relates to the experience we have of ourselves. It includes all the conceptualisations and beliefs that can be ascribed to self as 'I', starting from our capacity to see ourselves at the centre of our consciousness and projected onto the world. At the foundation of our consciousness, there is our experience of self.

As an object, or 'me', the self is the sum of all the perceptions, thoughts, and feelings about oneself (James, 1989, pp. 291–400; Leary & Tangney, 2011: p. 5). It represents the *self-as-known* (Leary & Tangney, 2011). Facets of the self as 'me' have been described in the literature on social psychology with the notions of self-concept, self-image, self-schema, and self-belief (Leary & Tangney, 2011).

It can be argued that these arise from the self as 'I' in the first instance.

Personality and social aspects

Broadly, in psychology, there are two principal and concurrent views about the nature of the self: one in personality studies⁸⁰ and the other in social psychology.

⁷⁹ James' ideas about the self were later extended by the philosopher George Herbert Mead (1934), which is discussed in Chapter 5.

⁸⁰ Personality psychology is a branch of psychology that posits and studies stable tendencies within individuals that can explain their behaviour, which is their personalities (Larsen & Buss, 2009).

Crocker (2012) argued that these views determine how the self is studied and understood.⁸¹

Research on personality psychology views the self as a stable feature of the human mind (Crocker & Brummelman, 2018). It considers the self an independent variable, an input that shapes experience. Social psychology, on the other hand, focuses on situational and, thus, external influences, where the self is shaped by immediate circumstances and concepts (Crocker & Brummelman, 2018). In this way, the self is conceptualised as a predominantly dependent variable.⁸²

Though helpful in mapping the research areas, this characterisation is also an oversimplification (Crocker & Brummellian, 2018). If, on the one hand, personality psychology allows for the influence of external factors in youth in the development phase of personality, social psychology, on the other, grants for individual differences about the influence of external factors.

Self as a social phenomenon

To what extent is the self a social phenomenon? Social scientists and philosophers have long argued that the self and society are twinborn (Cooley, 1902/1983, pp. 3–34; Mead & Schubert, 1934, pp. 200–209). According to this view, the self is a psychological phenomenon that is, to a substantial extent, socially constructed.

It can be argued that society influences the self through some of its constitutive elements. For example, the very ideas we hold about ourselves, which are part of self-concept, one of the constructs of self, are socially and culturally acquired.

The constructivist interpretation maintains that we are not born with an immutable self but develop it through interaction with others and the social world (Mead & Schubert, 1934, pp. 222–225).⁸³ Nevertheless, according to this view, we are not merely passive recipients of the impressions of external facts. While the self is a social product, it also functions as a social force (Owens, 2002, p. 209).

⁸¹ The context in Crocker's assertion is the psychological sciences, but it can be extended to other applications of the notion of self, such as this research.

⁸² In contrast to an independent variable, a dependent variable is causally influenced by another variable (Bryman, 2016).

⁸³ This is the foundation of the sociological theory of symbolic interactionism (Scott, 2015).

Experiencing and remembering self

In *Thinking Fast and Thinking Slow*, Daniel Kahneman argued that we possess two types of self: a *remembering self* that decides and an *experiencing self* that makes the living (Kahneman & Egan, 2011). This distinction is important to researchers in the political sciences who try to assess people's satisfaction levels. For example, in a lecture on happiness measurement at the London School of Economics (LSE), Paul Dolan, a professor of behavioural sciences, recounted the story of a friend who illustrated Kahneman's theory.⁸⁴ His friend complains about the stress of her job at the BBC at every one of their meetings. Still, when asked to assess her satisfaction with her work (e.g., do you like working at the BBC?), she instead says that she loves working there. In the latter statement, she creates a narrative: she has always wanted to work there; despite everything else, that is her dream job.

Therefore, the differences in reporting an experience can be explained via the framework provided by Kahneman of two separate selves (Kahneman & Egan, 2011). While the experiencing self may be negative on a particular day and correspond to low satisfaction levels, the remembering self, looking back at it, may interpret it as a narrative to be pleasurable.

Philosophical self

Interestingly, the 2nd edition of *The Cambridge Dictionary of Philosophy* does not include or discuss the term self per se (Blackburn, 2008a). Instead, it is discussed in the entry 'The Bundle Theory of Self'⁸⁵ and its reflexive use, including aspects of self as self-consciousness and self-determination. One could infer from such omission that this dictionary reflects its philosophical orientation, mainly addressing the so-called analytic philosophical tradition, or that research on the self in philosophy is presently out of fashion.⁸⁶

⁸⁴ The talk, titled Happiness by Design, as held on the 22 of October 2014 as was part of the LSE Public Lectures and Events.

⁸⁵ A view about the ontology of objects that posits that they consist of properties where there is no need of substrata to account for their diversity (Blackburn, 2008a).

⁸⁶ An indication of this is that the term self is not included in analytic dictionaries of philosophy such as in *A Dictionary of Philosophy* by Leary (1986).

Conversely, the notion of self seems to have featured more prominently in the writings of philosophers that fall under the umbrella of continental philosophy.⁸⁷ One example of this is Robert Solomon,⁸⁸ who, in his volume on the history of continental philosophy, characterised continental philosophy, at least since 1750, by how it has dealt with the notion of self in its rise and fall (Solomon, 1988).

In their prologues on Western theories of the self, Barresi and Martin (2011) posited that throughout the history of philosophy, the terms self and person have been used interchangeably, often to express the same idea. By equating the notion of self to that of person, philosophy extends its analysis to related questions about personal identity (or self-identity) and, thus, what persists in us as persons over time.

Central to the contemporary discourse on the self is Galen Strawson's two fundamental questions that help define it (1997):

- What am I?
- Who am I?

The first question is about *the nature of* the self, so what kind of entity is the self, in general terms? The second question deals with *uniqueness*; therefore, what is it that, among all beings, makes one person have a unique self (Strawson, 1997)? The latter is the question that, in philosophical discourse, defines personal identity (Hanna, 2011, p. 121).⁸⁹

Illusion of self

A recent noteworthy proposition in philosophy about the self was put forward by Thomas Metzinger, arguing that *the self is an illusion* (Metzinger, 2009). By making this bold claim, Metzinger did not imply that there is no self; instead, it is an illusion because it is not real.⁹⁰ However, the latter claim is made problematic by posing the question: who has this illusion? (Metzinger, 2009, pp. 1–2).

⁸⁷ This is a tradition in contemporary philosophy, especially around major thinkers in German and French philosophy of the 20th century, which prioritises systems of thought over logical analysis.

⁸⁸ Solomon was one of the most influential proponents of this school of philosophy in the English-speaking world.

⁸⁹ This notion is discussed in the section on identity.

⁹⁰ Or tangible.

According to Metzinger, it is pretty apparent that there is no such thing as the self. Although philosophers disagree about what the self is, they agree that the self is not a substance per se:⁹¹ it is neither a thing in the brain nor a thing in the outside world. According to Metzingers, what is real is the phenomenal experience of the self, where the Self is not a thing but a *process* (2009, pp 25–65).⁹²

Metzinger further argued that the self (or a self) is a *representational process*. It is thus an ongoing process in which the brain makes an image of one's self, body, emotional states, memory, plans, and social relations (Metzinger, 2009, pp. 75–114). It follows that, according to Metzinger, the self should be studied as a representational process.

Identity

This section outlines a selection of the literature on identity. It clarifies some of its uses and meanings and how it pertains to the concept of self. With regard to the topics identified in the literature search (Section 2.1.1), identity is examined in relation to how it is realised, created, and maintained on digital media platforms.

⁹¹ In philosophy, in fact, a substance is something that can hold itself into existence, and is, in philosophical jargon, ontologically self-subsistent. It follows from this that for the self to be a substance, it should maintain its state, its existence, even in the absence of a brain. But that is not the case.

⁹² Metzinger noted that the process of self is quite different during dream-state. In dreamless sleep, in fact, there is not phenomenal self (Metzinger, 2009), thus self-awareness.



Figure 9: *Eve 3.6*, by Jabbar Muhammad

Uses of the term identity

The *Oxford Dictionary of Media and Communication* gives eight different definitions of identity (Chandler & Munday, 2011), exemplifying the diversity of uses of the term. According to this dictionary, the term identity is used to denote:

- i) Sameness of the person over time
- ii) Sense of oneself as an individual⁹³
- iii) Notion of the true self
- iv) Process of child formation and differentiation from one's parents
- v) Socially and culturally constructed sense of personal identity
- vi) Relation to one's social role
- vii) Constructions of the self
- viii) Discursive performances of individuals. What makes them unique in a cultural context

⁹³ This aspect is expressed in the painting in Figure 9, which explores the idea of identity.

The above illustrates the multiplicity of uses of the term identity in interdisciplinary research fields such as media and communication studies.⁹⁴ These meanings are derived or borrowed from several disciplines, including (i) philosophy, (ii) political theory, (iii) (iv) (vii) developmental psychology, and (vi, viii) sociology and anthropology.

In an interdisciplinary field such as media and communication studies, the term identity is loosely used to refer to a range of, sometimes overlapping, notions. Table 2 distils the eight definitions from the *Oxford Dictionary of Communication* down to specific notions. It shows how identity is taken to include self (which, as it has been argued, subsumes identity), social identity (linked to the social world), and personal identity (in its philosophical meaning).

Table 2: Specific uses of the term identity

#	Definition	Specific notion
I.	Sameness of the person over time	Personal identity (philosophy)
II.	Sense of oneself as an individual	Self and identity
III.	Notion of the true self	Self
IV.	Process of child formation and differentiation from his parents	Identity (development psychology)
V.	Socially and culturally constructed sense of personal identity	Identity
VI.	Relation to one's social role	Social identity
VII.	Constructions of the self	Self
VIII.	The sameness of the person over time	Personal identity (philosophy)

⁹⁴ This dictionary draws key terms from a variety of disciplines, including sociology, psychology, linguistics, literary theory, cultural studies, philosophy, history, art, and political theory, and paradigms within media and communication, the social sciences and humanities (Chandler & Munday, 2011, p. vii).

Personal and social identity

Identity is also an important notion in political theory. Writing in 1983, the political theorist Gleason maintained that identity has so many meanings that it has ceased to operate as a verbal sign. From this arose the necessity to analyse the meanings and uses of the term identity. Tracing the steps of Gleason, Fearon argued that the standard definition of identity is a recent construct that has emerged from the scholarship in the social sciences; thus, it has to be distanced from older definitions (Fearon, 1999). What motivates the search for an accurate meaning, Fearon pointed out, is the fact that the term identity has strong roots in everyday speech and that different definitions seem to point to an underlying concept.

The everyday use of identity encompasses two distinct yet intertwined meanings: personal and social (Fearon, 1999, p. 8). In the personal domain,⁹⁵ on the one hand, identity is what makes a person a unique individual, different from anyone else; in the social domain, on the other, identity is what makes a person belong to a social group; thus, like people are part of a group. Therefore, it is possible to distinguish between *personal identity* and *social identity*, as they are linked, respectively, to individual or group characteristics.

Social psychology emphasises that the terms *social identity* and *personal identity* are relational. For example, in 'I possess my uniqueness', distinctness from anyone else is implied; in 'I identify myself with a group', sameness with others and distinction from any other group is implied (Olson, 2003, p. 352).

Thus, although these two aspects of identity, social and personal, can be addressed and studied separately, they nonetheless depend on each other. It can be argued that social identity, being part of a social group, bears an influence on the creation and beholding of personal identity, which makes one unique, and the same is true the other way around.

Social aspects of identity

Social identity extends to the (personal) knowledge of belonging to a specific group. This knowledge carries emotional and value significance towards the group's

⁹⁵ This sense of personal identity, as what makes you unique, differs from the meaning in philosophy, which deals with more abstract concerns such as what makes you the same person over time.

membership, such as one's status (Lemert, 2015; Tajfel, 1974, p. 72). Psychology emphasises how social identity relates to the formation of self-concept⁹⁶ since our ideas about who we are partially derived from the knowledge of being part of a social group (1974).

In this sense, social identity is the social category where one places oneself and how one interprets the rules of membership (Fearon, 1999, p. 14). It follows that, as a category, social identity is socially constructed. Nevertheless, this constructivist approach often implies naturalising facts about the world. Therefore, social categories can be based and normalised around human nature apart from social conventions.

Adherents to constructivism have attempted to destabilise (what were considered) fixed social identity categories such as gender, man/woman, sexuality, and heterosexual/homosexual (Fearon, 1999). Since the late 1980s and 1990s, many social scientists have been trying to use identity to explore the politics of social categories of, for instance, race, class, ethnicity, and gender (Fearon, 1999, p. 36).

Identity crisis

The general definition of identity has been influenced by the development of the notion of *personal identity* in social psychology (Lemert, 2015), which implies that identity is essentially a psychodynamic concept. Its development stems from the debates around the construction of identity, which took place in the 1950s when psychology was calling into question the unity of the subject (Gleason, 1983).

In the 1960s, the developmental psychologist Erik Erikson concentrated much of his research on the issue of identity and identity formation (Erikson, 1968). In his research, Erikson used identity as synonymous with what others have named self-concept. However, some argued that it included making sense of some aspects of self-concept (Leary & Tanner, 2012, p. 769).

Erikson suggested that identity formation is a dynamic process of self-discovery that leads to an identity crisis in teenagers. Psychobiological factors, which are part of the developmental process in teenagers, form the basis for the solution to such identity crises, which leads to a coherent sense of dynamic selfhood (Erikson, 1968). However,

⁹⁶ As mentioned in the discussion over self, social psychology describes self-concept as the ideas that we hold about who we are.

according to Erikson, psychosocial factors can prolong the identity crisis into adulthood, where a person may keep looking for an ideological and occupational setting and, as a result, postpone adult commitment.

The hypothesis of an identity crisis as a stage in identity development has been very influential, particularly in describing individuals' difficulties fitting into society. Furthermore, it suggests that social and external factors influence the shaping of identity and the resolution of the identity crisis.

Personal identity in philosophy

In philosophy, identity is concerned with the permanence of what we are over time, labelled as the *problem of personal identity* (Blackburn, 2008b). In this sense, identity comprises the properties or qualities in virtue of which one person (or a thing) is that person (or a thing) alone. It is often discussed in relation to time; thus, what identifies one person over time?

John Locke first raised the problem of personal identity in the 17th century, suggesting that the unity of consciousness and the memory of past actions is the glue of identity over time (Locke, 1847). Locke's argument was very influential but also vehemently criticised by his contemporaries for leading to circularity. The idea that memory presupposes identity is inconsistent with everyday practices since people forget many things they do (Butler, 1736, Appendix 1; Reid, 1785/1969, pp. 248–249).

The contemporary debate about personal identity in philosophy stems from the problems raised by Locke and his contemporaries (Blackburn, 2008b).

2.2.2 Online identities construction

The mediation of communication technologies in our lives has allowed the construction of online or digital identities. Specifically, the advent of social media has facilitated such a phenomenon since identity construction is a process that involves social acceptance. The alternative non-physical modes of engagement of social media have become part of the overall process of identity formation, particularly for new generations of teenagers.

Social media (social media is used in place of social networking sites to discuss the following papers)⁹⁷ allows the expression of many personal and group behaviours and activities. Such expression is multifaceted and only limited by the medium's affordances (Gibson, 1977; 2014). Activities include creating a profile, uploading photos and 'selfies', creating an online social network, posting stories as profile updates, creating and responding to posts, and commenting on news events, all contributing to creating and performing online identities. While every user of social media will create an online identity (e.g., such as in their profile) that encapsulates some traits of their offline personality, for some groups of people, and teenagers in particular, the interaction and use of social media will forge and impact the construction of their offline identity (Livingstone, 2008).

In the public sphere, identity construction can be viewed as a process involving two stages: an *identity announcement* and an *identity placement* (Zhao *et al.*, 2008; Stone, 1981). It may apply to someone's universal identity traits, such as age, religion, or community membership (Stone, 1981, p. 143). With the announcement, the individual makes the identity claim, presenting the chosen identity characteristics in the social setting. It involves interpersonal identification with one another (Stone, 1981, p. 143). With the placement, others respond and endorse identity placement. According to this position, (public) identity is established when there is a coincidence of placement and announcement (Stone, 1981, p. 188).

The Internet has altered the conditions of such identity production (Zhao *et al.*, 2008, p. 1817). In the first instance, it has removed some constraints on *physical presence* and *face-to-face interaction*. Zhao argued that the embodied nature of interaction prevented people from claiming identities inconsistent with their visible parts; identity construction involved the manipulation of the environment or physical appearance to give off a particular impression.⁹⁸ The disembodied mode of engagement and degrees of anonymity of the Internet and digital platforms, allow for

⁹⁷ Section 1.5.3 explains the use and difference between the terms social media and social networking sites. In brief, social networking sites was a term mainly used at the time when these papers were published to emphasize the networking aspect of these applications, but which has been later substituted by the term social media. In this section, the term social media is used instead of social networking sites (SNS), which is used in the papers discussed.

⁹⁸ This related to Goffman's work on identity which is discussed in Section 2.2.3.

creating new identities (Zhao, 2008). It intersects personal disclosure, degrees of online anonymity, and political interests inscribed in social networks, which are briefly explored in this literature review.

Livingstone made no distinction between digital or online identity as distinct from offline identity (2008, p. 304). She argued that creating and networking online content is becoming necessary to manage one's identity, lifestyle, and social relations (2008, p. 304). Similarly, psychological studies of personality, such as that by Ortigosa *et al.* (2014), have assumed that an online user's presence and the analysis of users' behaviour are good indicators of their personality and happiness in the real world. It follows from this that the analysis of social media users' data can reveal facts and truths about the entirety of their lives.

The digital traces that users leave online, such as on Facebook, represent a map of their behaviour (S. A. Rains & Brunner, 2014) and can provide an interesting source of their measurable behaviour (Wilson *et al.*, 2012). This factor has made it a research focus as a phenomenon and an ideal platform to study people. As a result, most initial research on identity construction in the digital age has been carried out on social media, specifically Facebook (S. A. Rains & Brunner, 2014).⁹⁹

Personal disclosure and nonymity

Identity construction has been associated with the degree of anonymity granted to social media users (Zhao *et al.*, 2008). The paper by Zhao *et al.* (2008) on this topic has been identified in the Literature Review as one of the seminal papers.

The study by Zhao *et al.* (2008) on identity presentation in social media examined how identity is constructed in Facebook as a semi-anonymous environment. Specifically, the study investigated the impact of settings on online self-presentation, thus on the impact of the underlying technology affordances. The authors drew several more comprehensive conclusions about identity construction in society from the study,

⁹⁹ Facebook has been the focus of research for two principal reasons: its popularity, which allows us to reach and study large samples of users, and its interactivity, which allows for the implicit mapping of users' behaviour. Facebook reached such an online ubiquity of use that it has often been equated with a social media platform (Wilson *et al.*, 2013). In recent years, it has merged this positioning as the only or the main social media platform.

with the general claim being that such digital settings result in variations of self-presentation and identity construction (Zhao *et al.*, 2008).

What distinguishes the research by Zhao *et al.* is the emphasis on *limited levels* of personal disclosure. Identity construction is not simply a representation of the true self (who I really am) or the projection of an idealised image that one wants to offer of oneself (what I want others to think of me) (Zhao *et al.*, 2008). Instead, according to the authors, it is determined by how much freedom and anonymity the digital environment gives for role-playing.

Most earlier studies on identity formation on the Internet have focused on phenomena such as MUDs (multi-user domains),¹⁰⁰ chat rooms, and bulletin boards, which were popular in the 90s. For example, in 1995,¹⁰¹ Sheryl Turkle investigated the experience of college students enacting distinct characteristics on MUDs and IRCs (Internet Relay Chats).¹⁰² The fundamental characteristic of these early computer-mediation platforms was that they were anonymous. MUDs and IRCs thus allowed for the expression of multiple and extreme identities (van Dijck, 2013; Turkle, 1995).

However, this is rarely the case with contemporary social media. For example, users of Facebook, by being linked in a network where they communicate with their family, friends, neighbours, and colleagues, are in an ‘anchored relationship’ (Zhao, 2006; Zhao *et al.*, 2008, p. 1818). Rather than being anonymous, their relationships with social media are *nonymous*: links to email accounts and network providers hold them responsible for their actions.

In contrast with anonymity, the term *nonymity* indicates a relationship anchored to the offline (Zhao *et al.*, 2008). Such anchoring can be a connection to the institution where the users of the platform study (in the case of the early Facebook),¹⁰³ their residence, or mutual friends, and the identifying information can be one’s legal name or the location where they live. When an online environment can verify and access that

¹⁰⁰ MUDs were text-based, real-time virtual worlds.

¹⁰¹ In her book *Life on the Screen*.

¹⁰² Internet relay chats was used to denote multiple the early software application that allowed for textual communication as a chat.

¹⁰³ Facebook grew as a social network of university campus students.

information, the interpersonal relation is anchored to that environment. As a result, individuals can ultimately be held responsible for their actions.

While individuals may feel free to be whatever they want in an anonymous setting, in the nonymous environment, they have constraints on their freedom of identity claims. Facebook is a nonymous environment because the user's offline identity can be traced, and the user can be held accountable for what they do (Zhao et al., 2008). The (then) emerging social networking site Facebook was chosen as a case for *nonymity*. In nonymous social media, people do not create extravagant new identities but present identities according to normative expectations (Zhao et al., 2008).

The notion of a nonymous environment bridges the technological affordances of the media platforms, which are constantly changing, with identity construction. The interplay between users and online platforms has changed and is constantly changing.

The case of Facebook as a nonymous environment must be contextualised. Although Facebook was nonymous at the beginning, their policy on users has changed. The questionnaire in their study was conducted in the United States at the beginning of 2007 with a sample of 83 university students. At that time, Facebook was only starting to emerge as a commercial social network accessible to anyone. From its creation at the Harvard University campus in 2004 until well into 2006, it was almost exclusively used by people affiliated with a university. In order to register and be part of Facebook, students only had to reveal their university credentials. However, although beginning as a nonymous environment, Facebook has pushed to narrow the space for anonymity because of political and commercial interests.

In the years following Zhao et al.'s paper, the debate between anonymous or nonymous (or semi-anonymous) environments versus the "real-name" movement heated up. On the one hand, Facebook further promoted a unique real identity for all its users. Such prerogatives were reinforced by other portals, such as the online version of the Huffington Post, requiring users to register through Facebook (with this,

revealing their identity) to be able to add comments on its new stories.¹⁰⁴ On the other, academic scholars, such as dana Boyd (2011) and Bergie Hogan (2013), together with activists, contended that anonymity or semi-autonomous presence is essential for online identity construction, arguing that there are “costs” associated with the “real-name” Internet. Likewise, Jaidka *et al.* argued that there is little support for the intuitive idea that personal anonymity is linked to incivility or lower discussion quality (2022). Anonymity is not a binary but involves complex practices of identity formation. Precisely, pairing personal anonymity with social identifiability, such as belonging to a political group, increases users' need to be more consistent in what they say, making them behave more rationally (Jaidka *et al.*, 2022).

Although the debate about levels of disclosure and online identity creation moved on together with the affordances of digital platforms, Zhao *et al.*'s initial insight remains key to understanding how users interact, create, and express their online identity.

Political interests

Multiple political interests come into play in the construction of identity on social media (van Dijck, 2013). Therefore, social media are not neutral platforms for identity construction.

The medium's affordances, which the media owners control, favour the expression of one aspect over another, with the users trying to emphasise some of those affordances. In this way, the interface can be the battleground for struggles among users, employers, and platform owners to control *online identities* (van Dijck, 2013, p. 200).

van Dijck argued that the traditional view of social media as a space for self-expression, typically ascribed to Facebook, needs to be contrasted with the demands of self-promotion on a professional social network such as LinkedIn (2013, pp. 207–213). What emerges from van Dijck's research are the less apparent but critical interests of, for instance, the platform owners and the business stakeholders. Therefore,

¹⁰⁴ <https://www.poynter.org/reporting-editing/2014/huffpost-policy-banishes-trolls-and-drives-away-some-frequent-commenters/> Accessed on 8 November 2022.

identity creation online is not neutral but the result of an interplay of various forces on the *interface* (van Dijck, 2013, p. 200). These forces include commercial and political interests, pushing for a uniform and *transparent* online identity that is more profitable to monetise with advertisers who need true data (van Dijck, 2013).

van Dijck argued that while the owner's interest is to push for *one identity*, users will still want to differentiate between their various personas since self-presentation is a form of *performance* (van Dijck, 2013, p. 200). She clarified this point by referencing the work of the sociologist Erving Goffman on human behaviour in social interaction in his *Presentation of the Self in Everyday Life* (1959).¹⁰⁵ Using Goffman's theories about peoples' interaction, van Dick maintained that in our digital world, where so much communication takes place online, 'there is a need for a multiple, composite self'.

2.2.3 Presentation of identity

The presentation of identity can be defined as the projection of all those personal traits that actualise one's identity. It involves the selective display of identity characteristics, thus identifying a person as a unique individual or what they associate with a social group. It can be interpreted as a strategy in so far as it is premeditated; this is because it involves the selection of particular traits that may be displayed (Leary, 1995). As noted in the preceding section, the mediation element of digital media platforms adds further layers to the presentation of identities, such as by variety in the types of medium, the lack of physical interaction, and the magnification of verbal communication in the exchange.

The literature conflates the phases of the *presentation of identity* and the *presentation of self*. In most cases, this is because, as noted in Section 2.1.1, the terms self and identity are often used interchangeably. However, it can be argued that the term presentation does not correctly apply to self because the latter phrase entails an element of expression, and thus of not being premeditated. As a result, the former phrase is preferred.

¹⁰⁵ This is discussed in the next section.

Some of the recurring themes in the literature are the seminal analysis of the presentation of identity by Goffman (or self-presentation), its importance for teenagers, and how it presents a duality of opportunities and risks.

Impression as a sign activity

Goffman, writing in the 1950s, provided a very influential analysis of self-presentation, which Livingstone (2008) and van Dijck (2013) amply discussed in their papers. He examined what occurs between individuals when they come into contact; thus, what they try to assume about each other and the subtle communication between them.

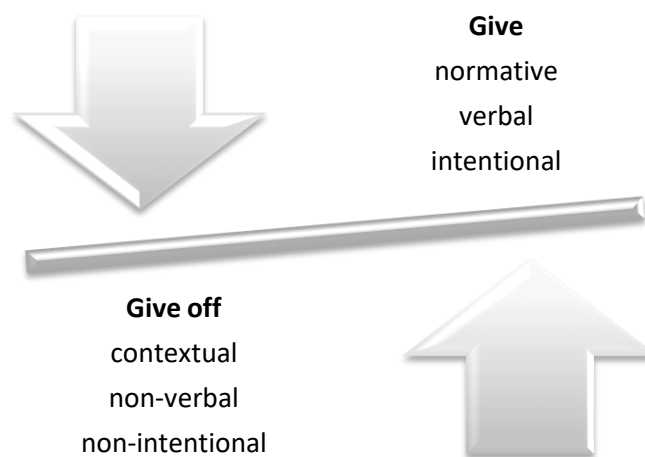


Figure 10: Representation of Goffman's theory of self-presentation

According to Goffman, depicted in Figure 10, there are two kinds of sign activities in a communication exchange: the impression one *gives of* oneself to the other person and the impression that one *gives off* (Goffman, 1959). While the first involves verbal activity and normative symbols, thus conveying the information known to each by these symbols, the second is contextual, non-verbal, and possibly non-intentional. The latter involves a multifaceted interaction with a wide range of actions that others can treat as symptomatic of the actor, the expectation being that the action was performed for reasons other than the information conveyed in this way (Goffman, 1959).

Several media theorists have used insights about self-presentation to analyse new digital communication technologies. However, if Goffman's postulation captures what occurs in a direct communication exchange, the new type of communication of digital communication technologies implies altering self-presentation practices. Thus, what must be reconsidered is the place of non-physical exchanges, atemporality, and true identity, only to mention a few possible themes. Such theoretical underpinning of Goffman's work makes it insightful for analysing digital communication technologies.

In relation to framing the concepts of self and identity in this research project, Goffman's work does not seem to spell out a marked distinction between the two (1959). Such attitude extends to the literature on media studies and sociology, including the one that discusses Goffman, where the self and identity are often used interchangeably. However, in this research project, self-presentation in the digital space is explicitly discussed in reference to the presentation of identity. Conversely, the notion of self is attuned to the research on self-actualisation and expression discussed in the next section.

Narcissism

Many studies about the presentation of self and identity have focused on the expression of teenagers' psychological tendencies. As young adults, teenagers are most susceptible to changes in their behaviour and personality. One of the personality traits affected by the exposure and technological affordances of social media is *narcissism*.¹⁰⁶ These studies, such as Ong *et al.* (2011), have argued that narcissism is one of the characteristics mainly manifested in social media.

Social media allows for expressing exhibitionism and attention-seeking behaviour (Ong *et al.*, 2011). Most Facebook users, for instance, scrupulously select photos for their profile so as to emphasise good physical traits. Nevertheless, this can be only partially attributed to self-presentation on digital platforms. At least in the United States, narcissism has risen significantly since the 1990s, before the advent of social media (Twenge *et al.*, 2008; Ong *et al.*, 2010). Moreover, the increase in

¹⁰⁶ Narcissism is commonly defined as the fascination with oneself, which may include excessive self-love and vanity.

narcissism in society has been associated with an overall increase in individualism (Twenge *et al.*, 2008).

Although there may not be a direct causal relation between social media use and narcissistic tendencies in teenagers, the former undoubtedly provides the medium where the tendency of narcissistic people to be complacent about themselves can be expressed.

Opportunities and risks

The literature search has singled out ‘Taking risky opportunities in youthful content creation: teenagers’ use of social networking sites for intimacy’ by sociologist Sonia Livingstone (2008) as a key seminal paper on identity presentation.

Livingstone’s paper examined identity in teenagers’ practices enacted on social networking sites (2008).¹⁰⁷ The paper is based on a qualitative study carried out in 2007, where a sample of young adults (or older teenagers) between the ages of 13 and 16 was interviewed.¹⁰⁸ The study showed that they manifest novel and multifaceted practices on social media sites in order to form a more stable identity (Livingstone, 2008).¹⁰⁹

Although often dismissed by adults as lacking a sense of privacy or being narcissistic, these practices expressed alternative ways in which teenagers experiment with and construct their identities (Livingstone, 2008). Taking up the analysis of late modernity by Giddens (1991), Livingstone upheld that the *self-actualisation* of teenagers is a balance that rests on a negotiation between opportunities and risks because it is essentially a social process. The opportunities are for expressing their identity¹¹⁰ and furthering their capacity for intimacy and sociability. The risks concern privacy, the possibility of being misunderstood, and abuse.

The study showed that teenagers develop online identities through separate phases centred on *display* and *connection* (Livingstone, 2008). Younger teenagers delight in the opportunity of playing and displaying, resulting in decorative and

¹⁰⁷ Although the subject matter of the paper is identity per se (as display), Livingstone equated identity presentation with presentation of self (Livingstone, 2008, p. 406).

¹⁰⁸ The sample comprised of 16 teenagers.

¹⁰⁹ In the paper, Livingstone uses the terms ‘self’ and identity interchangeably.

¹¹⁰ Or multiple identities.

stylistically rich online identities. On the other hand, older teenagers display more plain representations instead, focusing on the authenticity of their relationships with others. For younger teenagers, online identity involves an element of experimentation with different personality aspects. Specific risks arise depending on whether identity is expressed as display or connection, such as disclosing too much personal information or giving too much trust in people. The affordances of the platforms also determine the balance of risks and opportunities. The study crucially found that teenagers have a very graded conception of ‘friend’ in terms of intimacy that clashed with the binary classification between public and private determined by platforms (Livingstone, 2008).

In the years’ following Livingstone’s paper, several other studies added insights into what teenagers experience and present online and their challenges when using social media platforms. It was shown how internet literacy is a critical factor in making teenagers better benefit from online opportunities and in mitigating risks (Livingstone and Harper, 2010),¹¹¹ the overall addictive qualities of social networks (Kuss & Griffiths, 2011), how platforms’ affordances determine whether risks are perceived as harmful (Staksrud, Ólafsson, & Livingstone, 2013),¹¹² the importance of differentiating between risk as a possibility and harm as a subjective and objective outcome (Livingstone, 2013),¹¹³ the factors that indicate the likelihood of internet addiction and consequent risks (Leung, 2014),¹¹⁴ the crucial role of parents in imparting digital skill (Livingstone *et al.*, 2017), and the indirect association between

¹¹¹ The study aimed at informing policy by showing the impact of internet literacy in making teenagers better benefit from online opportunities and mitigate risks It stressed the complexity of young adults’ online identity presentation and that it arises from multiple factors.

¹¹² The study examined how determinant the affordances of social media are in the risks and opportunities faced by teenagers online, showing that risks are perceived as harmful depending on the relations between risks and platforms.

¹¹³ Livingstone clarified the substantial difference between risks (as the calculation of the likelihood of harm) and harm (as the objective and subjective outcome), underlining that the relationship between the two is often unclear and must be rethought since the harm is not “online” but suffered in the real world.

¹¹⁴ This extensive study involved a cohort of 417 teenagers examined at two separate points, one year apart, of Hong Kong’s teenagers, determining some factors indicating the likelihood of internet addiction and resulting risks. The risks include gratification behaviour, addiction symptoms, and other deleterious social media habits. They also include teenagers being exposed to pornography or violent images.

those skills and negative outcomes of internet use to young people's lives (Livingstone, Mascheroni & Stoilova, 2023).

Although Livingstone's original 2008 study engaged exclusively with a cohort of teenagers, it also disclosed how the construction and performance of online identity are very elaborate and multifaceted phenomena that require users to balance the possible risks that using the platforms presents with the opportunities given, that for the grouping of academics chiefly includes increased connection with others and identity promotion.

2.2.4 Expression of true self

The analysis of the literature on media, self, and identity has brought to light the use of the notion of *true self* from the humanist psychology of Carl Rogers (1951/1987). This notion was originally used by Bargh *et al.* (2002) in their seminal paper on true self on the Net.

In 'Can you see the real me? Activation and expression of the "true self" on the Internet' (2002), Bargh *et al.* argued that people who can better express their true self on the Internet are more likely to form close relationships with other people they meet online. This finding is attributed to a related critical study and literature review by Bargh and McKenna (2000). Its foundation also borrows from the study by Sherry Turkle on identity in the Internet age (1995).

Bargh *et al.* interpreted Turkle as describing the Internet as a virtual laboratory for exploring and experimenting with different aspects of the self (2002). Since the Internet makes up a unique opportunity for self-expression, they argue that it is also the space where people would be expected to express those aspects of the self that they have the strongest needs to express, thus their true self.

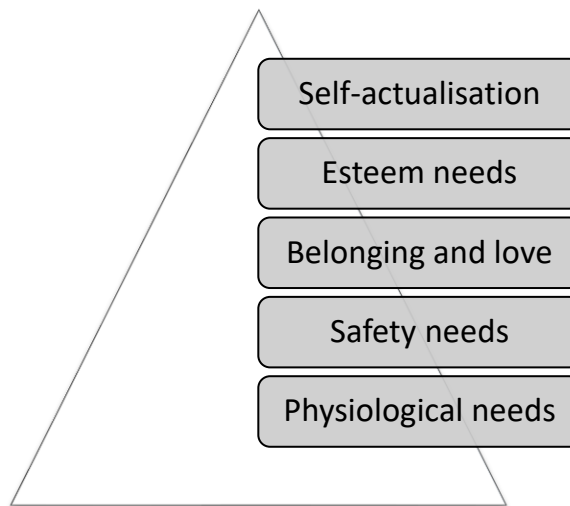


Figure 11: Representation of Maslow's hierarchy of needs

The humanistic perspective on personality emphasises the self as a process of *self-actualisation*. Maslow's *hierarchy of needs* (Maslow, 1943, 1954/1987) in Figure 11 above famously exemplifies this. Maslow saw human motivation as a progression through a hierarchy of needs: physiological, safety, love, and esteem. Once all other basic needs are fulfilled, self-actualisation, the highest need, is a desire for self-fulfilment, thus actualising one's potentiality (Maslow, 1943). In the humanistic psychology picture, expressing the true self is a person's step toward becoming a fully functioning individual (C. R. Rogers, 1961).

Carl Rogers initially formulated the concept of the true self in the 1950s to describe the expression of the essential aspects of the self instead of what is generally favoured by social norms and expectations (C. R. Rogers, 1961). At the heart of Rogers' true self is the incapacity, or impossibility, because of pressure from social norms to fully express some parts of who we really are, our true self (C. R. Rogers, 1951; Tosun, 2012). Therefore, it is assumed that the adjective *true* means true-to-ourselves and is in contrast to non-true self, typically expressed in social life.

Proponents of the true-self-on-the-Net argument have posited that while social norms and expectations limit expression in everyday social exchanges, the Internet allows them to bypass these norms and reveal, thus, their true self.

In *Motives for Facebook use and expressing 'true self' on the Internet*, Tosun (2012)¹¹⁵ expanded Bargh *et al.*'s notion of *true self on the Net* (2002) by analysing the expression of true self on social media platforms. Tosun empirically tried to establish whether users' motives for using Facebook expressed their true self. He devised a novel Facebook motivations scale as an instrument to measure users' motivation in using Facebook's features¹¹⁶ (Tosun, 2012). He maintained that although designed in the first place to help people have an online presence and be part of a social network, Facebook features allow for the gratification of users' personal and social needs.

Tosun's paper concluded that some people favour anonymity and lack bodily exchange on the Internet, while others favour face-to-face interaction. The former group uses the Net's freedom to relax social norms and its lack of physical presence to express true self.

2.3 TOWARDS A CRITICAL DIGITAL HUMANITIES

This section gives an overview of the literature on the digital humanities (DH)¹¹⁷ that helps address this research project's research questions and aims. First, it introduces the area and scope of DH by briefly outlining its foundations in the humanities computing, what it came to encompass and its community. Second, it outlines the subsequent calls by its practitioners for a *critical turn* and a Critical Digital Humanities, pointing out how critique is intrinsic in the practice of distant reading,¹¹⁸ and how the DH can address matters of concern in culture, thus promoting popular forms of knowledge. Third, it delves into the analysis of the digital in DH in its materiality, how the digital can be brought into visibility and understood by looking at fallacies in our thinking, and how materiality is inscribed in performance and can be detected in cultural shifts.

¹¹⁵ It has been cited 337 times according to Google Scholar as of 23 February 2020.

¹¹⁶ Among the features offered by Facebook the most popular are News Feeds, Friends, Wall, Timeline, Likes and Reactions (Facebook.com).

¹¹⁷ To avoid unnecessary repetition, the term digital humanities from this point until the end this section is shortened as DH or the DH.

¹¹⁸ An approach to the study of text (and literature) that emphasises analysing copious amounts of data instead of analysing individual texts.

2.3.1 The development of the digital humanities

In recent years, the DH has witnessed a significant expansion within academia (Nyhan & Flinn, 2016). It is an area of research in rapid evolution because it significantly keeps pace with innovations in digital technology and the corresponding impact on culture and society (Jones, 2013). Moreover, by embracing alternative methods and practices, such as the visual rendering of large datasets and other techniques from data science, it has gone beyond its traditional focus on digital archives. In the past, the DH has been characterised as a field of research (Gold & Klein, 2016). Although defined by many of its practitioners using the metaphor of a *big tent*, thus emphasising its shifting but all-inclusive boundaries (Svensson, 2011; Terras, 2011; Gold & Klein, 2016), the DH has more recently been theorised as an expanded field that engages in reciprocity with other areas of research.

Although the DH have a tightly knit research community (Grandjean, 2016; Gao et al., 2018) and many DH associations, it is questionable whether DH can be defined as a distinctive discipline. Svensson argued that it could be viewed as a tent that unites together, thus a trading zone (2011). In tracing the journey from humanities computing to DH, McCartney suggested that the DH should be interpreted as *an inter-discipline* (McCarty, 2005), a discipline that brings together and bridges other disciplines. At a pragmatic level of analysis, however, it can be said that the DH is a discipline because it functions as one (Nyhan & Flinn, 2016).

Even though there has been little agreement among its scholars about what the DH exactly is and uncertainty about its future direction, the DH has ultimately brought the humanities and the sciences (or at least computer science) closer (Nyhan et al., 2013; Kirschenbaum, 2016).

However, DH's relationship between its digital and the humanities parts has drastically shifted since it started as a practice. Historians of the DH identify the turning point as around 2006, at a time when the DH was redefined, changing its name from *humanities computing* to *digital humanities* (Nyhan & Flinn, 2016). Since its inception as the digitalisation of humanities in the pioneering work of father Roberto Busa in 1949, humanities computing was mainly concerned with applying digital techniques to the study of text (Nyhan & Flinn, 2016). Although many of its practitioners possessed training in classics, humanities computing focused on applying

the newly developed digital techniques to what can broadly be included within the cultural heritage. From 2006 onwards, under its new name, digital humanities reflected the broadening in the applications of the digital and the fact that digital technologies had become all-encompassing to society.

2.3.2 The critical turn

The DH has been praised for developing a community that values openness, experimentation and collaboration (Spiro, 2012).¹¹⁹ However, there has also been growing inner criticism from its practitioners who have questioned the candid fashion in which the DH has tackled political and social issues. Part IV of the 2016 edition of the *Debates on Digital Humanities* (Gold & Klein), which is devoted to its critics, covers topics ranging from the DH's utopian ambitions (Greenspan et al., 2016) to the neoliberal positioning it has taken within academia (Chun et al., 2016), and its presumed high-brow Anglo-American monocultural stance (Fiormonte, 2016). However, rather than adopting a defensive position, the DH have embraced alternative possibilities for a more activist role in what some practitioners have defined as a *critical turn* (D. M. Berry, 2013; D. M. Berry & Fagerjord, 2017). Overall, these critics seemed to agree on the need for a cultural critique within the DH, taking up, for instance, some themes familiar to cultural studies, such as gender, race, ideology, and politics.

Many commentators (Lauren & Gold, 2016; Berry, 2017) have attributed Alan Liu to initiating the debate about cultural criticism within the DH. In his paper 'Where is cultural criticism in the digital humanities?' (Liu, 2012), Liu pointed out that the DH has rarely extended its critical reach to tackle social issues such as economics, politics, or culture. This timid stance set it apart from other humanities fields, such as new media studies, that confront social issues head-on (Liu, 2012). To belong to the traditional humanities, Liu maintained, as a provocation, the DH should have at once embraced culture. In this way, the DH could help rethink its instrumentality by critically engaging with digital technologies, thus considering the forces behind power, finance, and government (Liu, 2012). Liu made two key recommendations in this

¹¹⁹ Nyhan & Duke-Williams (2014) have shown that although collaboration is fostered, a few DH practitioners account for most of the collaboration while there is a long take of single authors.

paper: the first was for the DH to come into full dialogue with new media studies and media archaeology, where issues close to DH could be given cultural meaning; the second was for DH to enter an exchange with science and technology studies (STS) and absorb such ideas as objectivity and actor-network-theory (2012).

In the same paper, Liu also argued that another mission for the humanities, at least since the cultural upheaval of 1968, is to communicate and advocate their vision of humanity and critical values, ultimately for the betterment of society (2012).

Why should the DH be concerned with social critique? It can be argued with Liu that critique is intrinsic to the DH because of its capacity to unmask latent social and cultural (and economic) forces by applying distant reading. Distant reading gives the DH what Liu calls a ‘special potential’ (2012), which it only needs to unleash and fully realise.

In *Graphs, Maps, and Trees*, Moretti described distant reading, in the study’s context of literature, as a specific form of knowledge that, by using alternative representations to text such as graphs and maps, gives an immediate and comprehensive sense of the interconnections between its parts (Moretti, 2005/2007). Moreover, these representations not only reveal what remains unread and thus unheard of (given that only a limited amount of texts is studied and analysed by critics), but they can reveal the forces that come into play in shaping the forms of these cultural objects (Moretti, 2005/2007).

The fact that its neighbouring research areas do critique is not a good enough reason in itself. Although Liu’s principal argument was that the DH should do so to be recognised as a full partner with the humanities, his outline of a historical, cultural, and methodological contextual entitlement to critique is more pressing. Liu stated that the DH must engage in criticism because of its proximity to the debate between *close* and *distant* reading in literary studies (2012). Using representational digital methods, the DH implements the practice of distant reading.

Latour’s much-cited paper ‘Why has critique run out of steam?’ (2004) can be used to address this question. Observing that the Internet has favoured an overindulgence of critique in such aberrations as conspiracy theories or instant revisionism, Latour revisited the foundations of the same critique of scientific

knowledge that he had helped to create and promote (2004).¹²⁰ Rather than misusing the relativist approach to knowledge by unsophisticated minds, for Latour, the abuse of critique is evidence of a flaw inherent to the foundation of the critical spirit. Thus, he called for a renewal of the critical mind, where the role of critique is not merely to subtract from empirical facts by dissecting their underpinning social construction. Instead, he argued for a new critique that, getting closer to facts, allows for generating new ideas, helping to cultivate *stubborn realism* (Latour, 2004). Therefore, the philosophical route that Latour sketched out is for critique to return to what he named as *matters of concern* via the understanding that the very subject matter of enquiry, the *thing*, is both instantiated and negotiated (2004).

Although there are valuable lessons to be drawn from Latour's theoretical re-evaluation of critique (2004), it does not seem to address the pragmatic problem from which he started: the gap between, on one side, the knowledge of experts and, on the other, more popular (as raising from the bottom up) forms of knowledge. The advent of Web 2.0 open platforms at the beginning of the second decade of the millennium has undoubtedly fueled the latter. However, it is wrong to assume that popular forms of knowledge, such as those produced from digital platforms, result in conclusions that are farther away from fact and that they should be the focus of criticism. There are also fallacies inherent in the type of knowledge produced by academic experts, particularly regarding the domain of human experience, which can result, for instance, from their highly institutionalised roles or the abstract and long-term perspective they take on events.

In contrast to Latour, Liu acknowledged the breakdown of the humanities in their role in communicating to the public. Nevertheless, Liu framed it within a change in knowledge dynamics resulting from novel forms of networked knowledge practices (2012). In this picture, with its instrumental approach and use of new technologies, the DH is ideally placed to help bridge the gap between expert and popular knowledge.

¹²⁰ In works such as the *Laboratory Life: The Construction of Scientific Facts* (1979).

2.3.3 The materiality of the digital

In general, the digital need not be defined because it is all around us in our contemporary networked societies.¹²¹ We inhabit the digital age, live in digital societies, and communicate via digital networks. Its presence permeates how we relate to ourselves and our relationship with others. Besides delineating the new computational areas of humanities research, the digital in DH encompasses all digital media technologies. This raises the question: how can the DH approach the digital?

Berry and Fagerjord maintained that the key challenge in dealing with the digital is to bring it back into visibility (2017). Because we predominantly engage with digital technologies with our minds, they appear to us as intangible and immaterial. Making the digital visible enables us to engage with it critically. In this way, the materiality of the digital can be affirmed as an engagement with physical artefacts (such as computer components) inscribed in the technology and common everyday practices. A critical approach to the digital entails revealing the materiality of its essence as software and computation (Berry and Fagerjord, 2017). As a result, the critique can encompass it as both material and ideology.

In like manner, Bruno Latour emphasised the material aspect of the digital. In a very insightful keynote speech at the Digital Humanities Conference of 2014, Latour spelt out what the digital is by defining, in the first instance, what it is not (Latour, 2014).

Latour highlighted some fallacies we hold when thinking about digital technologies, in so far as thinking about the digital envisages it as immaterial. With the *cognitive fallacy*, for instance, Latour argued that the more people talk about cognition, the more they describe a socio-technical environment. With the *digital/analogue fallacy*, to take another example, he asserted that although people think of the digital as a native function, it results from redundancy in the computer institution (Latour, 2014). By highlighting these equivocations, Latour tried to redirect

¹²¹ In the developed and developing world. This research, as outlined in the introduction, examines technologically advanced societies, excluding in this way regions that for their geographical positioning, or economic organisations, have only been marginally touched, if at all, by digital information technologies of communication.

the discourse toward the computer as a machine made out of computation parts and artefacts, hence the materiality at the essence of what the digital is.

An engagement with the materiality of computer parts is also essential for investigating electronic text and works within new media. In contrast with textual code analysis, Kirschenbaum, in his 'Mechanisms: New Media and the Forensic Imagination', proposed the application of computer forensics, which is the reconstruction and preservation of digital evidence, to electronic textuality (2008). Digital text, according to Kirschenbaum, is not immaterial but locatable in the physical world within storage mechanisms that form part of its digital essence. The materiality of electronic texts can be understood by combining forensic and formal materiality (Kirschenbaum, 2008).

With *forensic materiality*, which rests upon the principle of individualisation, two things cannot be alike as the location of their digital trace can ultimately be discerned by scientific instruments; with *formal materiality*, based on the combination of the multiple relational states on digital objects, the immaterial behaviour of computing environments can be captured (Kirschenbaum, 2008). According to Kirschenbaum, these two notions come together as the storage mechanism is both a product and a process that can explain the materiality of digital text (2008). This approach places the social component at the root of digital writing as performed by technical communicators.

The emphasis on the materiality of the digital also reflects recent changes in the make-up of digital and communication technology and the resulting interpretations in both popular cultural and critical discourse.

According to Steven E. Jones (2013), the onset of the 'new' digital humanities around 2006, after its prolonged incubation as humanities computing (outlined above), resulted from an *eversion* taking place in society. Explicitly borrowed from the fictional narrative of William Gibson (2007), the term *eversion* signals a shift in the collective understanding of the *network* (Jones, 2013). With the *eversion*, paraphrasing the text from Gibson's *Spook Country* (2007), cyberspace has turned inside out and colonised the everyday. Jones argued that the DH work that took place with the *eversion* of the network had as its target what he calls the ideology of cyberspace against disembodiment (2013). In this light, the shift in DH is to be interpreted as a

shift in culture ‘toward a more worldly, layered, hybrid experience of digital data and digital media brought into direct contact with physical objects, in physical space...’ (Jones, 2013, p. 32).

The shift in the digital’s understanding of its materiality, with the eversion and the resulting move from virtuality to mixed reality (Hayles, 2010, as cited in Jones, 2010), not only reflects changes in technology, society, and culture; our personal and collective experience of digital technologies is at the core of it.

2.4 ACADEMICS AND SOCIAL MEDIA

Since Lupton’s seminal paper ‘Feeling better connected: academics’ use of social media’ (2014), there has been an increased interest in studying academics’ use of social media platforms. Most of the research has centred on the adoption and use of new technologies to gauge whether and how they have created novel patterns of academic practices and scholarship (McPherson *et al.*, 2015; Jordan & Weller, 2018) and networking (Donelan, 2016). To a lesser extent, it has included contributions about academics’ personal experience of these technologies. Most notably, these have looked at disjoined identities (Costa, 2015), academic influence on Twitter (B. E. Stewart, 2015), and professional versus personal selves (Jordan, 2019). Lupton’s study notably extended the ethnographic work on academics by Veletsianos (2013).

This section examines five key papers representing significant themes this scholarship has put forward: *engaging*, *presenting*, *sharing*, *influencing*, and *connecting* (Figure 12). It examines in some depth Lupton’s 2014 paper and others that touch on the topic of identity (and self),¹²² thus engaging with the cohort of academics’ personal experience.

¹²² The literature does not make a clear distinction between the two terms, but most of the discussion is around identity.

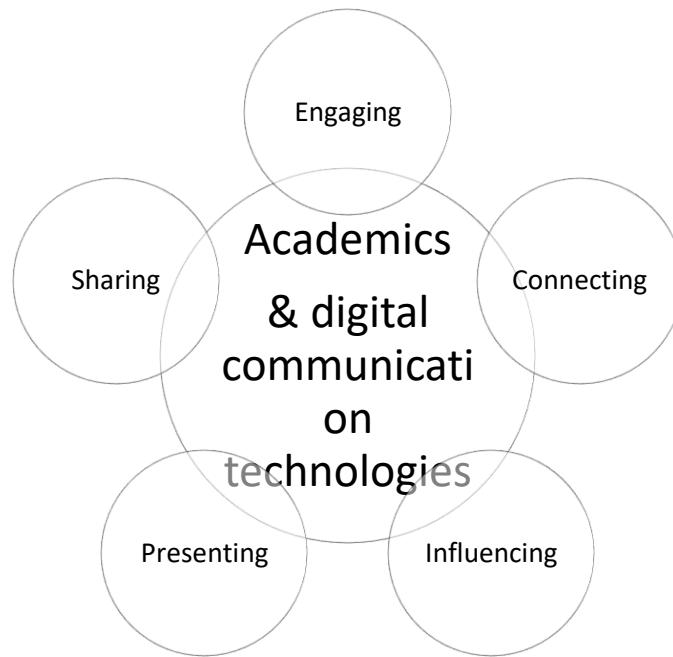


Figure 12: Themes of recent scholarship¹²³ on academics and digital communication technologies

Engaging

Lupton’s study centred on academics’ use of social media, gauging what tools they use and their benefits and drawbacks. Although comprising an extensive online survey, attracting over seven hundred respondents, the study mainly represented female academics in the early stages of their careers, from the social sciences, and living in English-speaking Western countries (Lupton, 2014, p. 7).

The survey showed that academics use sophisticated ways of engaging with social media. These include, for instance, creating social media ‘ecosystems’ for their work and establishing horizontal and global social networks. The former engages with other academics at various levels of seniority; the latter links with people outside academia, thus promoting a diversity of connections (Lupton, 2014, p. 30). A highly discussed topic in the survey data was blogging. Interestingly, blogging was considered part of a *gift economy*, so the free sharing of advice and production of materials within the general ethos of participatory democracy.

¹²³ Over the last decade, since Veletsianos’ (2013) and Lupton’s (2014) seminal work, there has been an increased interest in this topic.

While the respondents in Lupton's study confirmed their confidence in the enormous potential of social media for sharing and disseminating academic scholarship, they also expressed several concerns. They stated the need to maintain a critical stance regarding the implications, potential dangers, and risks of social media use (Lupton, 2014, pp. 30–31).

Lupton's study showed how openness and opportunity come paired with challenges. In this respect, academics voiced the need to maintain boundaries between their professional and personal persona. Furthermore, they expressed the need to calibrate what to say and express in relation to tools, situations, and copyright issues (Lupton, 2014, p. 31). Finally, Lupton pointed out that, as a result, academics who use social media need to weigh up, fine-tune, and balance competing desires, objectives, and demands.

The study also showed that digital platforms presented further demands. For example, the respondents to Lupton's study shared their feeling of being under more time pressure in their work: in the first place, because digital platforms in higher education emphasise the application of qualitative and quantitative measures to appraise academics' research output; second, because of the requirements to enhance social media presence to strive for impact for their work and to promote the institution to which they belong.

At the end of her report, Lupton called for future studies that, going beyond surveys, can use qualitative research to produce thick descriptions of the use of information and communication technologies by academics. This research follows up on the precepts of Lupton's original recommendation.

Presenting

Barbour and Marshall (2012) looked at how universities as institutions promote a *prestige economy*, where academics' creation of online identity is an essential activity. Rather than using direct empirical data, their study was based on a generic and general (not explicitly described) observation of the online presence of academics, mainly within the area of humanities (Barbour & Marshall, 2012, pp. 5–6). From this, they categorised styles of presentation, which they named *academic personas*, into four types: networked self, comprehensive self, teaching self, and uncontained self

(Barbour & Marshall, 2012, p. 6). These types of personas were then critiqued by looking at the literature.

In their conclusion, Barbour and Marshall argued that academics' new modes of conduct result from an *invasion from below*, primarily in how students structure their studies via digital media platforms. To negotiate and navigate these spaces, academics and institutions create an online self, consistent with their professional and academic work (Barbour & Marshall, 2012, pp. 9–10).¹²⁴

Sharing

Veletsianos (2013) examined academics' online practices when using social media for academic purposes. The study gathered ethnographic data, where the principal researcher kept a journal with notes of his interactions with other academics. It showed that social media is a locus where academics and researchers can congregate to share their work, ideas, and experiences.

The study found that a persistent concept that emerged in online and open spaces is that of *sharing*. Sharing appears as a core value in scholarly and educational practices (Veletsianos, 2013, p. 648). Moreover, the sharing of values, such as openness, contributed to creating bonds of solidarity.

Another finding from the study was that social media's social and playful nature (as participatory technologies) favoured sharing private aspects of their lives. In this respect, Veletsianos argued that in wanting to express their 'true selves', academics conform to what is perceived as socially acceptable (Veletsianos, 2013).

He concluded his paper by stating that many of these practices, rather than being novel, are enacted in different spaces and under different constraints.

Influencing

Stewart (2015) studied Twitter to gauge how academics gain influence in open networks. He used ethnographic methods such as participatory observation and semi-structured interviews to observe how participants interact with each other and manage self-presentation on Twitter.

¹²⁴ My wording.

The paper contrasted academic influence with networked influence and, thus, identity production. The former mainly centred on peer-reviewed publications and other measures such as the prestige of schools, supervisors, or collaborators. The latter involved the construction, performance, and curation of public participatory identities via profiles, blogs, and other personal Web spaces (Stewart, 2015, p. 289)

While institutional academics' influence is codified in such indices as the h-index, it is created more subtly in open networks. The latter case involves the *logic of influence* that includes recognisability and commonality and is based on the capacity for meaningful contributions (Stewart, 2015, p. 297). Academic identity is produced by constructing, performing, and curating an intelligible, public, and participatory presence (Stewart, 2015, pp. 298–299). Such academic identity production occurs primarily via profiles, blogs, and other Web spaces, where credentials are provided by recognisability and commonality rather than role (Stewart, 2015).

Connecting

Jordan's 2019 study used social network analysis to explore the types of networks formed in academia and the implications of the networks' structures. The study used a mixed methods design where data pertaining to the cohort of academics was collected and analysed from interviews and social media. Jordan interviewed nine academics; for the latter part, data were collected from Academia.edu, ResearchGate, and Twitter, the three most well-known academic platforms (Jordan, 2019, p. 9). Academic social media platforms were further divided into two categories: those developed primarily as social media and those whose primary purpose is sharing and posting academic material (Jordan, 2019, p. 3). Jordan placed Academia.edu and Twitter in the former and ResearchGate in the latter.

The study's most interesting contribution was on the relationships within a user's social media, thus on *ego networks*, using mixed methods. An ego network is an individual's personal social network (or personal connections). The analysis centred on the *ego*,¹²⁵ a specific node in the network, and its relation to other actors with whom it has a tie (thus a link) (Perry *et al.*, 2018). The study of ego networks, as is the case

¹²⁵ The meaning of ego in this context (network analysis) is unrelated to the ordinary use in psychology or psychoanalysis, where it is conceptualised as the part of the self (psychological apparatus) that mediates between the instinctual drives and the demands of the social world.

in Jordan's study (2019), can shed light on the capacity of humans to socialise over social media (Arnaboldi *et al.*, 2015).¹²⁶

The study purported to show that several factors influence academics' choice of social networks: first, regarding how academics have conceptualised the different sites; second, with respect to what type of networks the social media foster; third, regarding how different social media represent their personal and professional identities (Jordan, 2019).

The analysis of academics' ego networks,¹²⁷ for how informative, seemed to confirm most findings around social media. It revealed, for instance, a fat tail, with most academics having very few connections and, in turn, few academics with the most connections (Jordan, 2019, pp. 18–23). Such a trend is characteristic of other generic social media (not academic), such as Twitter. Additionally, it confirmed that differences in network size and reciprocity of the network are based on the job position, thus on the academic's role and the user's reputation.

Jordan's examination of the contrast between personal and professional identities is most relevant to this research. She pointed out that her findings show that an essential characteristic of expressing professional identity on social media is its tie to an authentic name (Jordan, 2019, p. 28). Such a stance contrasts with earlier studies, such as Turkle's (1996), which have instead emphasised online identity construction and anonymity as the principal characters' online presence.

2.5 SUMMARY AND IMPLICATIONS

With the initial systematic search, this literature review has identified the key topics discussed in the literature. It has thus brought together publications from fields as varied as media and communication studies, sociology of technology, philosophy, social psychology, and anthropology. The analysis of the topics has extracted two significant themes: the construction of identities and the presentation of self and identity.

¹²⁶ Arnaboldi *et al.* (2015) used the term online social networks.

¹²⁷ An ego network is a network made of connecting nodes from an ego.

As a prelude to the analysis of the themes, an extension to the literature review has settled the definition and then summarised relevant research on subjectivity, self, and identity. Next, the self has been discussed in its philosophical use, particularly in the illusion argument that posits it as a process. It has then looked at the self as a psychological phenomenon, particularly the critical distinction between subject, as 'I', and object, as 'me'; the remembering self and self as a social construct. Finally, it has shown that identity is both a social and a personal manifestation and that the current notion bridges ideas about identity construction and identity crisis.

This chapter has examined identity as an announcement and the online construction of identity in teenagers. It has shed light on the fact that identity is constructed offline and online. It then examined personal disclosure, touching on the notion of nonymity (partial anonymity) and how identity construction can be interpreted as a locus where different interests compete. Moreover, it has been revealed that presentation often involves a compromise between opportunities and risks and fosters psychological drives such as narcissism. Goffman's theory of self-presentation has been briefly examined as pointing toward the limitations of online self-presentation. Finally, the theory of true self in humanistic psychology shows that the Web can be interpreted positively as a means to express those private and intimate aspects of true self that are usually self-censored.

The literature on the digital humanities has been reviewed because it represents the research area of this project. Its recent history has been briefly presented to uncover what it is nowadays. Moreover, the review has looked at the critical turn within the DH, with what has been defined as a critical digital humanities movement, and how it has conceptualized the digital (as a conceptual and physical entity) in its materiality.

Finally, the section on the cohort, the grouping of academics, has briefly touched upon five recent publications and related themes. It has shown how other studies have examined how academics use and present themselves online, the importance of professional presentation, and sharing as a core value. It has also revealed an uneasiness that academics witness in finding a balance between private and public personas.

Overall, the examination of the literature points to the need for contributions that further examine, with more in-depth or thick descriptions, whether digital technologies

influence our inner dimension of self and identity. Although many studies have examined academics' relationship with these technologies, these often focus mainly on use¹²⁸ rather than experience. As a result, many aspects of their varied social roles and personas are still unexplored.

Further implications, in the form of the theoretical and conceptual frameworks used in this research, are established in the next chapter.

¹²⁸ Of technical tools such as social media.

Chapter 3: Theoretical Framing

Complementing the Literature Review, this chapter aims to introduce the frameworks used, characterize the interpretation of critical digital humanities advanced by this research, crystallise the notions of self and identity, define the conceptual notions of experience, expression and relationship, and precisely state the research questions. The structure of the chapter is shown in Figure 13.

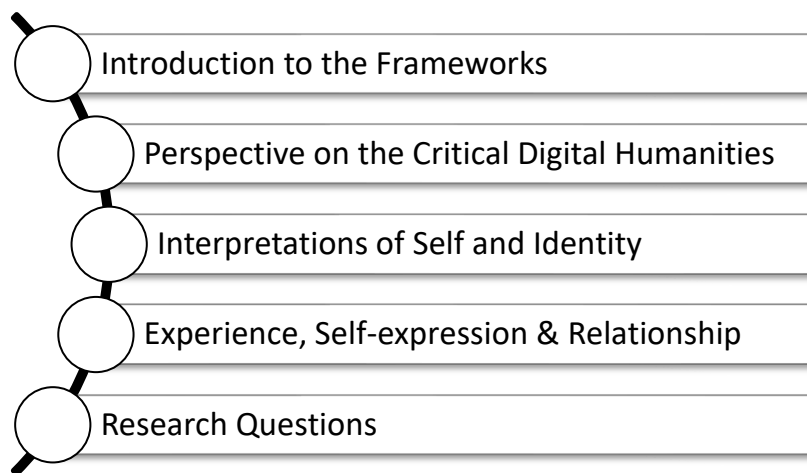


Figure 13: Overview of the Theoretical Framing chapter

First, Section 3.1 introduces the uses and rationale of research frameworks and their application to this project. Section 3.2 characterizes the interpretation of critical digital humanities advanced by this research project centring on a human-centred approach using critical thinking and how it supports this research project. Section 3.3, following up on the broader literature review of the preceding chapter, delves into the chosen framing of the notion of self and identity, part of the theoretical framework. Then, Section 3.4 outlines the three concepts that form part of the conceptual framework, explaining how they come together and their purpose. Finally, Section 3.5

revisits the research questions and explains how they support and extend the operational frameworks.¹²⁹

3.1 INTRODUCTION TO THE FRAMEWORKS

The theoretical foundations of this research project consist of *conceptual* and *theoretical frameworks*. These are high-level *operational frameworks* that advance methods and ideas throughout the project.

3.1.1 Research frameworks

A research framework is a structure (or model) that aims to help design a research study, provide a context for the outcome, and support data collection and analysis (Mills *et al.*, 2010). Once data is collected and analysed, the framework can be used as a mirror to check whether the findings agree with it or if further questions need to be raised. Furthermore, to make such findings generalisable and meaningful (Polit & Beck, 2004). There are two distinct types of research frameworks: *theoretical* and *conceptual*.

A theoretical framework refers to an already established theory or set of theories. It guides a research project and sheds light on the findings (Lederman & Lederman, 2015). It serves as a structure that underlines reflection and explanations of the explored research phenomena. What underlines this research project and functions as its theoretical framework are the interpretations of the notions of self and identity and its theoretical grounding in sociology and philosophy of technology and the digital humanities. These represent already established theories used to support and guide this research project.

Conversely, a conceptual framework is a model construed by synthesising or putting together views or concepts. Essentially, it represents an integral way to examine the research phenomena (Liehr & Smith, 1999). Its purpose is to clarify concepts further, explore their relationships, and provide a context to interpret the findings (Imenda, 2014). *Experience, expression, and relationship* and their

¹²⁹ The further implications of the working framework regarding the data results are discussed and analysed in Chapter 5 and Chapter 6.

associations represent the concepts of the conceptual framework used in this research project.

Together, theoretical and conceptual frameworks represent a significant and comprehensive approach that allows researchers to frame and reflect upon a phenomenon, such as, in this research, the influence of digital communication technologies on self and identity. Figure 14 below describes their foundations (with respect to theory and concepts) and relationship.

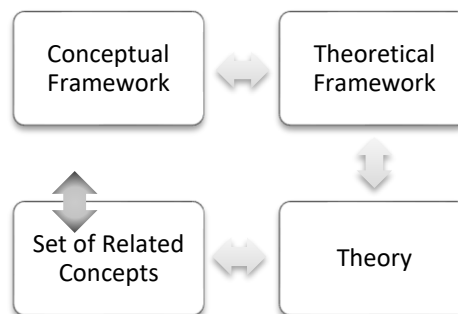


Figure 14: Relationship between conceptual and theoretical frameworks¹³⁰

The concurrent use of both a conceptual and a theoretical framework in this research project raises the question of how they relate since they are mainly associated with different research approaches: a theoretical framework with a deductive approach and quantitative paradigm, a conceptual framework with a qualitative approach and an inductive or deductive paradigm (Imenda, 201). However, it can be argued that such distinction primarily applies to research with a straightforward or clear-cut design, which easily falls into one of the two camps. Moreover, it does not consider the mixed methods paradigm comprising multiple viewpoints and perspectives.¹³¹

¹³⁰ Adapted from Imenda (2014).

¹³¹ This research project uses these frameworks complementarily because they fulfil different aspects of the research aims. On the one hand, the selected theoretical framework is used to support the theoretical grounding of the phenomena study, such as the upheld interpretation of self and identity. Furthermore, it frames the response to the research questions and shapes the research area. On the other hand, the conceptual framework frames the perspective under which the phenomena are studied and the data analysis through the different elements of the mixed methods design.

Frameworks applied to this research

Both theoretical and conceptual frameworks result from the analysis of the literature and the reflection on a suitable design for this research project.

As shown in Figure 15, the conceptual framework is grounded in the relationships linking the three concepts.¹³² A fuller description has *experience* standing for personal experience, *expression* for self-expression, and *relationship* for relationship with the social world.¹³³ Each provides a different analytical perspective on the influence of digital communication technologies on people's lives, which is used to approach the study and the cohort.

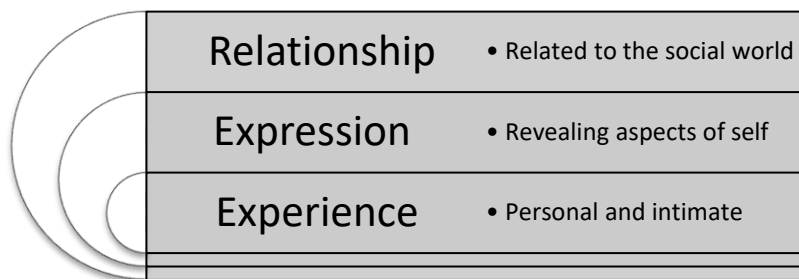


Figure 15: Description of concepts of the conceptual framework

Although these concepts emerged at the beginning of the research, they kept reappearing in the reflection on the literature and the implementation of the studies throughout the research project.

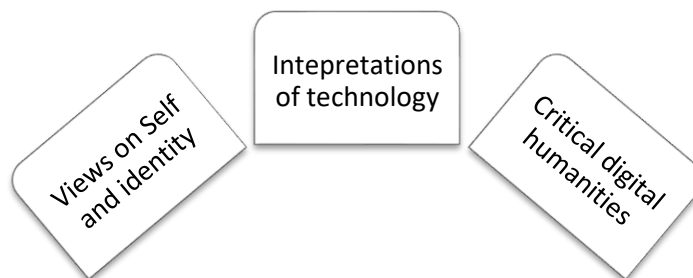


Figure 16: Elements that are part of the theoretical framework

¹³² The term *concept* is preferred to *variable* because, unlike in the theoretical framework, in the conceptual framework there are no measurements for change (variation) in the properties or values.

¹³³ The first two variables are specified as personal experience and self-expression.

Conversely, the theoretical framework, shown in Figure 16, consists of the chosen interpretation of the phenomena investigated (thus self and identity) and the philosophical underpinnings of the nature of technology.

3.2 PERSPECTIVE ON THE CRITICAL DIGITAL HUMANITIES

This research adopts a particular perspective on the DH, specifically on the critical digital humanities (CDH),¹³⁴ first sketched out in Casani (2018). It emphasises the need for a critique of “the digital” and thus of the influence of digital technologies by using the humanities’ traditional critical tools, putting subjectivity - thus the human experience and humanities’ concerns - at the centre of analysis.

Adopting this approach, it addresses questions about how these technologies impact on us, as individuals, and through us on society. The literature review set the contextual background of the DH, emphasising the move towards cultural critique in the CDH and the identification of the digital around us in its materiality. This project contributes to that pursuit by looking at the impact of digital media on the subjectivity of academics. This section further clarifies the interpretation of CDH proposed by this research, differing with the current critical movement and the arguments more recently formalised by Dobson (2019),¹³⁵ Berry (2022),¹³⁶ and Viola (2023).¹³⁷

¹³⁴ As for the DH, the term critical digital humanities are shortened to CDH in this section to avoid repetition.

¹³⁵ Focusing primarily on the use of DH in the analysis of literary text, in *Critical Digital Humanities: The Search For A Methodology* Dobson argues that critical digital humanities should remain suspicious of the assumed objectivity of computational tools (such as in topic modelling, which uses statistical models for discovering topics occurring in an assembly of documents.) when applied to the analysis of humanities areas, and instead question the cultural and historical assumption implicit in those technical tools.

¹³⁶ Berry’s 2022 paper, *Critical digital humanities*, is discussed in Section 3.2.2

¹³⁷ In *The Humanities in the Digital: Beyond Critical Digital Humanities*, Viola’s primary concern is models of knowledge and cultural production, which she claims are outdated (belonging to the 20th century) and unfit to account for the changes brought about by the digitalization of society, particularly after the COVID-19 period. Critiquing binary and compartmentalized forms of thinking about the digital, she proposes a “post-authentic” framework for the DH that, borrowing notions from biology and mathematics (symbiosis and mutualism), can account for the fluidity of knowledge and problematize digital objects and knowledge production as living entities.

It first reiterates the importance of a human-centred¹³⁸ stance in a CDH. Then, it proposes critical thinking, rather than critical theory (under the guise of cultural critique), as the tool of enquiry and analysis of the digital.

3.2.1 Human-centred and humanities stance

The vision of CDH advocated in this research¹³⁹ is of a *humanities* and *human-centred* enterprise that questions and challenges the influence the digital has on us and, through us, on the digital transformation taking place in society. As Section 1.1 of the introductory chapter explained¹⁴⁰, such a stance derives from the author's reflections and experiences while working directly with digital technologies in the IT industry. Nevertheless, the approach advocated here also aligns with some of the arguments raised during the intense inner critique of the DH,¹⁴¹ particularly by Drucker (2012) and Warwick (2013), which are now briefly discussed.

Drucker has argued that the need for a human-centred approach to the DH allows us to unravel the theoretical foundation of digital technology design (2012). She observed that the essence of computational environments, including encoded protocols (of operating systems), machine languages, and compilers, are fundamentally resistant to qualitative, thus human-centred, approaches. Since the nature of these environments excludes a halfway compromise, the humanities should assert their cultural authority over the digital by demonstrating that 'the theory and methods of the humanities have a critical purchase on the design of platforms that embody human-centred values' (Drucker, 2012, p. 86). Such a role for the humanities needs not to be limited to that of a spectator or critic of the contemporary pervasive digitalisation or the effects of technology. Instead, Drucker proposed DH as a 'humanistic informed theory of the

¹³⁸ The term *human-centred* is here preferred to *humanistic*, which is closely associated with *humanism*. Although, humanism can be defined as a school of thought that emphasize the importance of the human realm and originally (with *humanitas*) the full extent of development of human virtual (Grudin, 2023), in the 20th century, it has become identified with a strong non-deistic, atheistic philosophy and sweeping views of what human progress should entail, e.g. associated with the evolutionary biologist Richard Dawkins (2006, 2016) and the philosopher A.C Grayling (2013, 2015). As a result, the term humanist, in its association with humanism, may be interpreted to incorporate views which are beyond the scope of this research project.

¹³⁹ And by Casani (2018).

¹⁴⁰ Section 1.1, and subsection Motivation for this research

¹⁴¹ Discussed in Section 2.1.2 of the Literature Review chapter.

making of technology’ which can be implemented at the level of design, modelling or information architecture, interface, and protocols (2012, p. 87).

Along similar lines, in a talk at Yale University,¹⁴² Claire Warwick (2013) proposed what the DH should be. She argued that the DH should take on board the fundamental questions that humanists have been asking forever: How do we express ourselves and our identity? What is it like to be human? (2013). Warwick posited that questions about human nature are just as relevant as the other areas of concern in the DH. Warwick’s proposal is aligned with the approach adopted by humanities disciplines, which derives from an appreciation of human values and the capacity of our “human spirit” to express itself.

To counterbalance the predominance of the digital and digital modes of thinking, the DH should emphasise the understanding of how individuals and society experience technologies.

3.2.2 Critique as critical thinking

The literature review has outlined the DH’s trajectory towards cultural critique, set in motion by some of its practitioners (such as Liu, 2012), how critique is inherent in its methods, particularly allowing distant reading (e.g., Moretti, 2005/2007), and how it can reveal digital technology in its materiality (Jones, 2013, and Latour, 2014). This tides the understanding of digital technology to a precise socio-cultural and human context.

In recent years,¹⁴³ we have witnessed a boom in publications on cultural critique by digital humanists. The 2019 *Debates in the Digital Humanities* encompassed abundant argument-led critical contributions on topics about society and culture. In the preface to the volume, the editors explicitly stated that for the DH to matter, they must take a political stance about current (political) events, in this way uniting researchers at the intersection between technology and social justice (Gold & Klein, 2019). Solid foundations, they remarked, were laid out within the DH discourse on such topics as intrinsic racism in Google algorithms (Noble, 2018), gender discrimination in

¹⁴² The talk was to commemorate the three years from the birth of the Centre for Digital Humanities at University College London that Warwick helped to establish.

¹⁴³ Since Casani (2018) and the development of this PhD research project.

technology fields (Hicks, 2017), and corporate interests behind research platforms (Fitzpatrick, 2019).

Furthermore, Berry has recently reinstated his vision for a CDH, clarifying the background from which it arose (2022). The lack of radicalism and the “conservatism” in the DH, according to Berry, resulted from their function and self-identification as a *service discipline*, where funding for the DH was attached to the digital transformation of the “old” humanities and social science disciplines (2022). Finding their independence and identity, the DH could instead focus criticism on computation, digital transformation, and digital capitalism (Berry, 2022). Berry suggested that, in order to return to radical cultural critique, critical theory¹⁴⁴ needs to be incorporated into the CDH (2022). Such an approach calls for a critique of the social order so that its unmasking can reveal and challenge power structures to liberate people from all forms of oppression. In this way, it clearly asserts a strong political and activist stance. Berry’s argument appears to agree with much of what was proposed by the editors in the 2019 *Debates on Digital Humanities* volume, where cultural critique is, overtly or covertly, equated with the precepts of critical theory.

Upholding critical theory within the CDH demands subscribing to complex and elaborate theoretical constructs. It can also entail incorporating radical, somehow ideological, activist, and revolutionary politics. In this way, the CDH aims to uphold a political stance reflecting other humanities disciplines, such as cultural studies. Its proponents argue that when an intellectual discipline matures, as is the case with the DH, it must concern itself with social (cultural) critique (Gold & Klein, 2019).

However, a critical attitude or stance within the CDH does not necessarily require the adoption of critical theory as the method of analysis of society. In the first place, a distinction should be made between critique as a *political perspective* and as

¹⁴⁴ Critical theory is generally defined as an approach to humanities that, focusing on society and culture, attempts to reveal, critique and challenge power structures implicit in society (Britannica, 2023). Developed by such figures as Max Horkheimer, Theodor Adorno, and Herbert Marcuse at the Frankfurt School in the late 1930s and 1940s, at its roots, critical theory represents a reinterpretation of Marxism, aiming to liberate people from oppression and, in this way, creating a more just world. Horkheimer maintained that critical theory should act as a liberating influence and help forge a world that can satisfy human beings’ needs and power (Horkheimer, 1992). Its more recent instantiations have been the “social justice” approaches of feminism, critical race theory, post-structuralism, queer theory and postcolonialism.

a set of *tools and dispositions*. As a perspective, critique imbues a particular theoretical, political, and philosophical stance, such as a neo-Marxian critique of the power structures of society. As a set of tools and dispositions, critique can involve solely the application of critical, reflective, and analytic principles and approaches, including intellectual honesty, concerning knowledge, information, and society.

In this research project, a critique of the digital, its impact on the social world, and the experience we have of it is implemented using *critical thinking*¹⁴⁵ and philosophical thought¹⁴⁶ alone. The essence of critical thinking can be defined as precise and careful thinking. More extensively, it involves thorough questioning, by analysis and evaluation, the information gathered and using it as a guide to belief and action.¹⁴⁷ It entails an element of reflexivity in thought, or reflective thinking, in examining one's learning trajectory and experiences of past beliefs or motives (Dewey, 1933; Bell et al., 2011). John Dewey defined reflexive thought as "active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends" (1910, p. 6; 1933, p. 9). Apart from component skills, critical thinking comprises dispositions, such as open-mindedness, the propensity to seek reason, the desire to be well-informed and flexibility in thinking (Facione, 1990). This amounts to good thinking. However, it must be void of moral beliefs. Critical thinking should cover how we think rather than what we think (Mulnix, 2012). Therefore, it should not be directed to moral ends such

¹⁴⁵ A recent critical thinking movement emerged in the USA in the 1980s. Some of its proponents maintained that critical thinking entailed a set of distinctive intellectual skills (Ennis, 1992; Facione, 1990), while others that instead it varied from one discipline to another (McPeck, 1981). The notion of critical thinking has been studied and debated in the knowledge areas of philosophy, psychology, and education. While the first has focused on what is an ideal thinker, the second on the particular skill set that encompasses critical thinking, and the third on how it can be taught and transmitted (Lai, 2011).

¹⁴⁶ Critical thinking was already present in ancient Greece and persuasive in the writings of Plato and Aristotle in the conviction that we ought to be rational (Ritole, 2021). In the writings of Plato (for instance, in *The Gorgias* or *The Apology of Socrates*), critical thinking manifested as self-reflection in thinking, such as in Socrates' dialogues. An example of this is Socratic Questioning, which is the reflection on common beliefs to try to distinguish those that are logical and reasonable from those that are based on ignorance or egocentrism. Thus, the ancient Greek philosophers emphasised that things are very different from how they appear. Nevertheless, no philosopher in the classical world theorised it as separate from other forms of thinking (Coney, 2015). Critical thinking permeates throughout the history of philosophy but was only formalised in the European Enlightenment by such figures as Diderot and Rousseau.

¹⁴⁷ A survey of critical thinking among academics in history, philosophy and cultural history identified the components of critical thinking as judgement, rationality, scepticism, originality, sensitive reading, self-reflexivity and activist engagement with knowledge (Moore, 2013, p. 506).

as “being empathetic” or “committed to a sense of justice” so two people engaging in critical thinking can arrive at different conclusions. Cultural critique or critical theory, on the other hand, implies the adherence to a specific knowledge base and a set of moral values.

The type of reflexive critique in critical thinking applied to this research project is most in tune with what was proposed by McPeck as a “propensity and skill to engage in an activity with reflective skepticism” (1985. p. 8). It is a propensity because it involves an attitude and frame of mind more than a commitment to particular ideas; it is reflexive and akin to scepticism because it involves questioning what is in front of our eyes. The latter point is particularly crucial to analyse, understand, and critique digital communication technologies, given their persuasiveness and, as argued in this research, their closeness to our subjectivity in how we perceive the world and understand ourselves.

3.2.3 Critical digital humanities in this project

Upholding this interpretation of CDH and working within this area, this research project examines the subjective experience of a group of academics using digital communication technology. Its methods include digital technology, humanities’ concern for the human sphere, and the centrality of subjectivity. It falls within the DH first because it involves both theorising and doing, where the researcher, as a digital humanist, works directly with digital technologies and reflects on their human impact. Second, it belongs to the DH because it was developed in an academic department devoted to the DH.¹⁴⁸ Third, it belongs to the DH because, embracing the theoretical background, it aims to contribute to the debate within the DH. Furthermore, it also belongs to the CDH in that critique, and specifically, critique of the digital is the central concern.

The specific theoretical framework of CDH outlined above is supplemented by other interventions in order to embrace the potential influence of digital communication technologies on the self and identity of the group of academics studied. The additional interventions are the use of a conceptual framework (outlined in Section

¹⁴⁸ The UCL Centre for Digital Humanities. <https://www.ucl.ac.uk/digital-humanities/ucl-centre-digital-humanities>

4.3.1 of Chapter 4), mixed methods (Section 4.3.1 of Chapter 4), and computational studies of social media (Sections 4.7 of Chapter 4 and Chapter 6).

3.3 INTERPRETATION OF SELF AND IDENTITY

Section 2.2 of The Literature Review chapter has outlined several relevant interpretations of the notions of self and identity and showcased the various meanings with which they are invested. This section firstly justifies the use of theory from social psychology, secondly clarifies the use of the term subjectivity, thirdly distinguishes self from identity, and finally highlights selected interpretations of self and identity that are the focus of this research.

3.3.1 Social psychology as a point of reference

This research incorporates several elements from social psychology, specifically in the interpretations of self and identity. It was used as a point of reference for (a) the importance it gives to the social world, (b) social interpretation of self and identity, its (c) methods, and (d) emphasis on communication.

- (a) Social psychology is the application of psychology to social phenomena. As such, it belongs to the sciences of society, such as sociology, but primarily concerns itself with the behaviour of the individual (rather than groups) in society (Krech & Crutchfield, 1948). Furthermore, it targets the phenomena of cognition, emotions, and behaviours in the context of the social world.
- (b) As a subset of psychology, social psychology studies the human mind and behaviour, striving to understand how the human mind functions. Nevertheless, furthermore, it interprets the self as related and constructed out of the social world (Leary & Tangney, 2011). Thus, it interprets self and identity not as isolated and head-bound phenomena, such as in cognitive science, but as psycho-social constructs.
- (c) Notwithstanding the wide range of narrative and critical interpretations of self and identity detailed in the literature chapter, some of which have been outlined in the literature, social psychology, as a subset of psychology, uses the scientific method and empirical tools to study the mind.

(d) Social psychology is particularly suited for studying subjectivity and digital communication technologies because it focuses on communication by examining text (Wright & Macleod, 2022). In addition, the technological systems examined, such as social media platforms, become mediators of communication, and social psychology has been used, often interdisciplinary, to study these phenomena.

3.3.2 Subjectivity

Within this research project, *subjectivity* as a general term refers to the overall experience of being a unique person with one's own mental and physical states, a subject to oneself and others. It also serves as an umbrella term to bring together and address the more specific notions of self and identity. Figure 17 below exemplifies the relationship among these notions. Social psychology conceptualises identity as a mental construct that is part of (and thus in the image included within) the self.

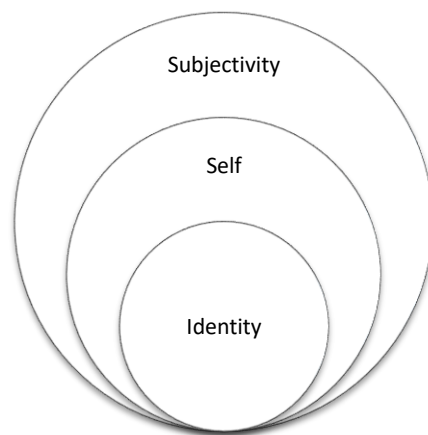


Figure 17: Relationship among the notions of subjectivity, self, and identity

The social implications of subjectivity are considered separately as an extension; they are discussed in the two primary studies in Chapters 5 and 6 and the Consolidation chapter with the interpretation of the empirical findings.

3.3.3 Relationship between self and identity

Because self and identity are complementary terms with much in common, they are often misused, especially regarding what makes them similar yet distinct. As

discussed in the Literature Review chapter,¹⁴⁹ this is especially the case in some research areas, such as media studies writing, where the terms are often used interchangeably. The primary confusion stems from ordering: while the self subsumes identity, the latter is part of the self (Owen, 2006, p. 28). Figure 18 below summarises three main conceptual differences.

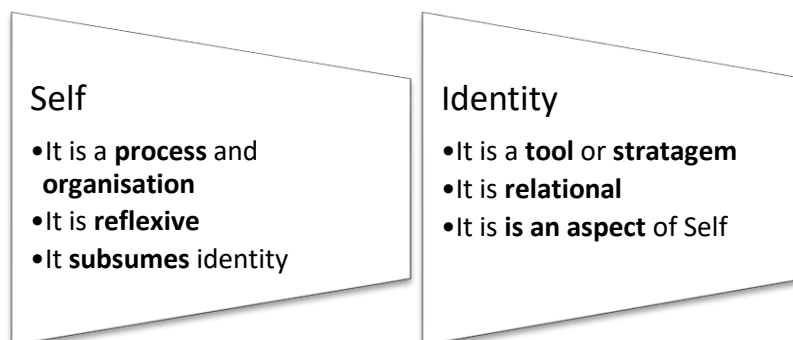


Figure 18: Conceptual distinctions between self and identity

Social psychology looks at self and identity as both mental and social phenomena distinguishing their boundaries (Owens *et al.*, 2010). While the self is seen as a process and an organisation born out of self-reflexivity, identity is a tool, or stratagem individuals and groups use to place themselves inside a category (Owen, 2006, p. 28). Therefore, while the self is a *process*, part of our inner experience, identity is a *set of characteristics* that define us.

3.3.4 Self and sense of self

This research upholds a multifaceted concept of self (discussed in Section 2.2.1 of the Literature Review chapter). It engages with the self as both a personal and a cultural phenomenon, allowing to explore whether and how it is affected by the increased digitalisation of our experiences through the study of the cohort.

These features of self are considered in this research:

¹⁴⁹ In Section 2.1.2 in the Literature Review chapter.

- Inner reflexivity we use to make sense of who we are and how we situate ourselves in the world
- Influenced by other inner psychological constructs, such as identity, self-thought, and the narrative-self¹⁵⁰
- Co-constituted by culture¹⁵¹
- With true self, an expression of our authentic values

As a subjective experiential process, the self, rather than a tangible entity located in the brain or the mind, can be considered part of the *phenomenology of selfhood* (Leary & Tingley, 2011). As a phenomenology, thus, an interpretation of the direct experience with the world around us,¹⁵² the experience of selfhood can be understood by introspection, thus by imagining and reflecting upon what it means to each of us.

Moreover, this well depicts the emphasis on self-reflection. In fact, the core idea of the self as a process is of a continuous reflection, thus, of the self as a mirror over our agency. James' I-me division of the self captures this idea (James, 1890/1989; Leary & Tangney, 2011), which is examined in Section 2.2.

It extends to consider a *sense of self*, thus, as an immediate realisation of who we are. The phrase *sense of self* encapsulates how the self is part of how we, by inescapable reflection, construct our inner world and engage with experience. However, the idea of a sense of self appears fractured as further layers of mediation, impression, and meaning are added to our experience through digital communication technologies.

The notion of self held in this research project, furthermore, considers how the many aspects of our inner experience of the self are shaped by culture. It upholds a social constructionist perspective (Mead & Schubert, 1934; Cooley, 1902/1983), where digitalisation and social media use are further layers of influence and construction.

¹⁵⁰ Simply put, the narrative self is the stories we tell ourselves about who we are and the world in which we live.

¹⁵¹ Such the particular historical epoch in which we live.

¹⁵² The phenomenological approach stresses the importance of people's direct experience of social reality and the bracketing out of current understandings and preconceptions (Gray, 2013, p. 21).

3.3.5 Identity mediation

This research engages with identity primarily through its mediation by digital communication technologies, thus how the latter mediates our expression and presentation of identity.

Identity has been singled out as a series of features or characteristics we use to uniquely identify ourselves and others (Michener & DeLamater, 1999). It comprises the following elements:

- Possesses both a personal and a social dimension
- Relates to self-concept
- It is created and presented
- Determines how we relate to others

Apart from defining particular bodily characteristics (e.g., sex or ethnical identity), it can also comprise those thoughts and beliefs that make one unique (Stevenson, 2010), part of what psychology defines as self-concept (Owen & Samblanet, 2013).¹⁵³ While someone's circumstances largely determine the former, the latter, including political beliefs or inclinations, results from personal choices and social influences.

An essential aspect of identity in its mediation, outlined in Sections 2.2.2 and 2.2.3, is its construction (creation) and presentation through digital platforms. Identity construction,¹⁵⁴ involving the creation of a 'core' identity, represents an intimate and private process ultimately involving a public display.¹⁵⁵ It represents an intimate process that involves the identification of those characteristics that make an individual feel grounded and unique, often consistent with one's sense of self.

3.4 EXPERIENCE, SELF-EXPRESSION, AND RELATIONSHIP

The conceptual framework has emerged from reflecting on the initial research questions, the methods to investigate them, and the design of the studies. While planning and carrying out the research project, it became evident that the rapport that

¹⁵³ Simply put, self-concept refers to the ideas we hold about who we are.

¹⁵⁴ Also referred to as identity production.

¹⁵⁵ This theme is further developed in Section 5.3.2 of the Interview Study chapter.

we have with digital technologies involves these three aspects: *experience*, in the direct experience we have of digital communication technologies; *expression*, in how they enable and facilitate the expression of our self and identity; and *relationship*, in the connections that we forge with the social world through them.

Digital communication technologies also define conceptual spaces: with experience, the direct individual reach; with self-expression, the space formed around the relationship between the individual and the technical artefact; with relationship, how the latter extends to others and the social world. This is exemplified in Figure 19 below.

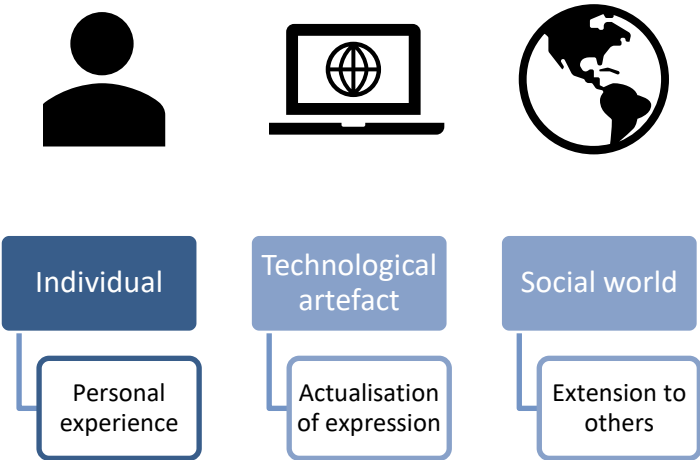


Figure 19: Spaces of the conceptual framework

This research project ventures, in part recursively, through these interconnected conceptual spheres. First, starting from the personal experience of these technologies (in the Interview Study), it moves to how they mediate and allow for self-expression in the digital space (in the Social Media Study). Finally, it looks at how they shape the relationship with others (in the embedded cultural implications and reflection on the digital society of the Consolidation chapter).

3.4.1.1 Personal experience

Through the narrative given by the academic group of respondents in the Interview Study and its analysis, this research project explores personal experience with digital communication technologies. Such experience counts as personal as it is lived and conceptualised by the individual, notwithstanding the myriad of external

influences that help make sense of it (Punch & Oancea, 2014). In this way, this research puts the individual at the centre of analysis as an independent entity whose narrative and voice should be heard and taken at face value.

The point of view of personal experience is valuable for three reasons: (a) it focuses on the first-person perspective, (b) we can relate to it, and (c) its analysis allows the untangling of the external influences that come into play.

- (a) The first-person perspective helps us gauge the person's subjective, lived experience. It unravels an individual's unique perspective; thus, it is independent of generalisations and explanations that can be constructed around the motives for thought and actions.
- (b) Personal experience is valuable as far as we can relate to it, as the experience is linked to the written trace of another actual person. Engaging with written testimony, elements of personal experience can be borrowed and shared. In this way, the written trace becomes a line and a medium to know what it is like to be in that person's shoes and connect with them at a human level.
- (c) Furthermore, considering the lived personal experience, we can also gauge how the person is engulfed in a myriad of relations with other people and the social world. In this sense, personal experience does not count solely as a self-contained description. Instead, because the person is the centre of focus, we can take their testimony as concrete and situated in a social context.

3.4.2 Self-expression

Self-expression is the expression of thoughts, preferences, and feelings (Green, 2007). It can be contrasted with other collective constructs, such as group expression or family expression. In contrast with these constructs, self-expression is a means to express selfhood, thus the characteristics that make up our individuality (Kim & Sherman, 2007).

To a large extent, self-expression reflects an inner desire to express some facts about ourselves. These facts can ultimately help us situate ourselves in the social world or forge a more profound connection (Green, 2007). On these lines, it can be speculated that self-expression is a basic human need, along with the need for movement and companionship. Yet, given that self-expression has character and cultural

determinants, this is a matter of degree. Thus, the value of self-expression is determined by its role and function in society, precluding the naturalistic aspects (Kim & Chu, 2011).

In this research project, self-expression conveys the expression of self and identity,¹⁵⁶ such as the capacity for reflexivity in our thinking, the thoughts we hold about ourselves, how we construct and manifest our identity, and the fine-tuning of emotions in the narrative that we construct about our lives (Bernstein & Elizabeth, 2018).

With respect to identity, self-expression includes self-presentation. Self-presentation is driven by and incorporates a set of strategies that people use, particularly when talking about sensitive topics. From the recipient's point of view, self-presentation is how the communication message is perceived (Chen & Marcus, 2012). Much debated in the media and communication literature (Birnbaum, 2013; Chua & Chang, 2016), self-presentation can be described as impression management (Leary, 1995). In this sense, it is the activity of managing information about oneself to control the impression formed in the respondent.

3.4.3 Relationship

The concept of relationship extends the analysis area to consider the social context, thus examining to which degree and how digital communication technologies enable us to communicate and connect with others.

The *Oxford Dictionary* gives two definitions of relationship: (a) regarding connection and (b) regarding interpersonal relationships. Relationship as a connection is 'how two or more people or things are connected or the state of being connected'. In an interpersonal relationship, the relationship is 'how two or more people or groups regard and behave towards each other' (Stevenson, 2010a). The latter definition (b) implies that relationship entails a mutual exchange between two or more parties.

Digital communication technologies mediate communication between two or more people. They serve as a facilitator and intermediary. Nevertheless, while mediating our experiences, they also enable new and diverse ways to communicate

¹⁵⁶ Social psychology sees identity as a component or a subset of what is self.

with others. This involves novel modes of expressing aspects of our identity, influencing and extending our relationship with others and the social fabric.

Two aspects of this relationship are examined regarding the cohort of academics: first, the *cross-cultural context* in which the interviews are carried out; second, how the relationship that academics have with digital technologies extends to the university institution and their social roles as institutional representatives, educators, and experts.¹⁵⁷

Relationship formation is one of the primary forged practices on social networking sites. In addition, it can lead to the formation of social groups on social networking sites. Facebook, for instance, has coined a novel use of relationships in *relationship statuses*. These are public labels that a Facebook user may choose to set and display in his profile to indicate his personal and intimate circumstances, such as being single, in a relationship, or married (Chandler & Munday, 2016).

The relationship aspect of the conceptual framework intends to shed light on how the influence of digital communication technologies on the subjective spheres of self and identity also affects how we relate to others, taking up the case of academics.

3.4 RESEARCH QUESTIONS

The initial research questions that set this project in motion, detailed in Section 1.3 of the Introduction Chapter, were revised to consider findings from the literature review, reflections on the research frameworks, and the selection of academics as the group being investigated.

The outcome was (A1) a central all-embracing research question that enquires about the influence of digital communication technologies on the subjectivity¹⁵⁸ of academics, and (B1-3) three subquestions that extend the investigation following the designated conceptual framework of experience, expression and relationship. A supplementary mixed-method research question was introduced by reflection on the research design chosen (C1).

¹⁵⁷ This is related to the social standing that is invested.

¹⁵⁸ With the specific meaning assigned to subjectivity, see Section of the Literature Review chapter

These research questions are first presented below and then succinctly contextualised and justified in the follow-up sections:

- (A1) Do digital communication technologies influence the subjectivity of academics, and how?
- (B1) What influence do they exert on academics' experience of self?
- (B2) How do they affect academics' expression of identity?
- (B3) In what ways do they change academics' relationship with the social world?
- (C1) What further insights on these topics can be gained by studying academic posts on social media?

A1 Academics, digital communication technologies and subjectivity

The format of the research question is left open¹⁵⁹ because the grounded theory approach used looks for answers directly from the data. Is there such an influence? Most likely there is, but it is left to the data, thus to the voices of academics in the Interview Study, to determine this in the first place. Once this is established, care is taken to listen to how it may affect the group of academics selected.

B1 Experience of self

This research question contains a self-reflective aspect. It investigates the notion of self as a key to interpreting the phenomenon of digital communication technologies. The examination of self includes what constitutes academics' sense of self, the construction of their identities, and self-thought, thus, what they think about themselves. Furthermore, their experience of self also investigates them as individuals with their specific inclinations, thoughts, beliefs, likes and dislikes.

¹⁵⁹ Thus, not taking for granted that digital and communication technologies have an influence on academics.

B2 Expression of identity

Digital communication technologies, at least since the advent of Web 2.0,¹⁶⁰ represent a tool and medium of expression and communication. In using these online platforms, expression includes the presentation of an online identity. For the grouping of academics, the literature has emphasised the challenge of separating their private and public persona, representing a key to interpretation. These aspects are investigated.

B3 Relationship with the social world

This research question extends to the various social roles that academics embody in society as educators, key informants, institutional representatives, and experts. In the first instance, it is gauged how digital communication technologies have influenced their experience as teachers and educators. As key informants, academics can reveal the impact of these technologies on their peer group, the university environment, and society. In their roles as institutional representatives, it considers how the advancement and sophistication of digital communication technologies foster academics' position as knowledge providers in a society increasingly organised around technological systems. As media and communication techniques experts, the specific cohort of academics studied should be well-positioned to gauge how these technologies affect our subjective experience.

C1 Insights from social media

Although the focus of this research project is to explore the individual experience, it also aims to gain a broader perspective and a better understanding of academics as a group. With this research question, their relationship with digital communication technologies is approached by what a group of academics say and express on social media through their posts. While question B1), addressed in the Interview Study, takes the direct testimonies of academics at face value, this research question, tacked in the Social Media study, looks at general group characteristics in the language that academics use on social media and, thus, at their psychology.

¹⁶⁰ The notion of Web 2.0 was introduced in the Introduction chapter.

Chapter 4: Research Strategy

4.1 INTRODUCTION

This chapter describes the research design, methodology, and methods that are used in this project. Figure 20 shows the structure of this chapter.

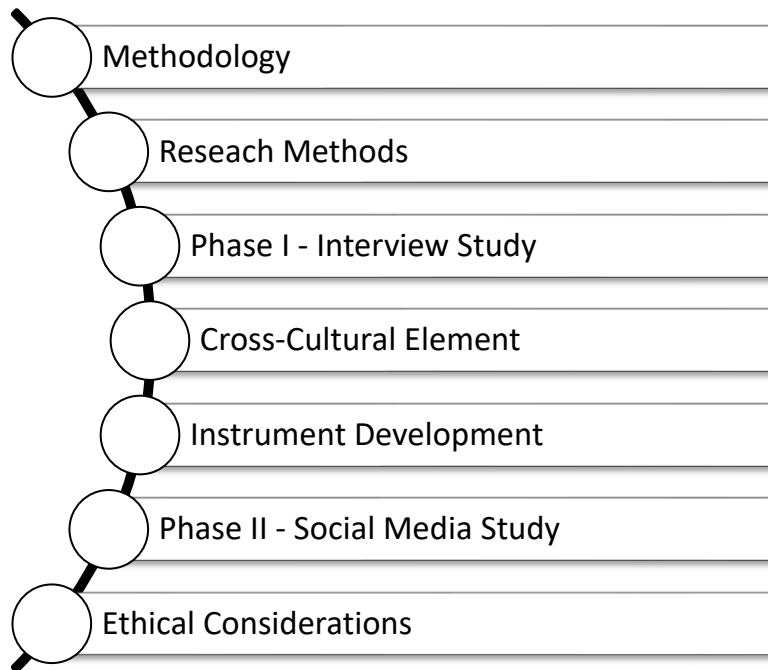


Figure 20: Overview of the Research Strategy chapter

Section 4.2 briefly outlines and justifies the theoretical perspective of the methodology and mixed methods as the research strategy. Then, each mixed method phase is dealt with separately (Sections 4.4-4.6). This model of exposition for mixed methods research is adopted from Creswell (2013, pp. 217–219).¹⁶¹ Finally, Section 4.7 briefly traces the ethical principles that have been applied to this research project.

¹⁶¹ Creswell suggested discussing each of the phases separately, as well as details of the data collection methods, data analysis techniques, and sampling, and the validation principles that are applied (2013, pp. 217–219).

Research design

As exemplified in Figure 21 below, the research project design comprises the following phases:

- Phase I – Interview Study (Qualitative)
- Phase II – Social Media Study (Quantitative)
- Phase III – Consolidation

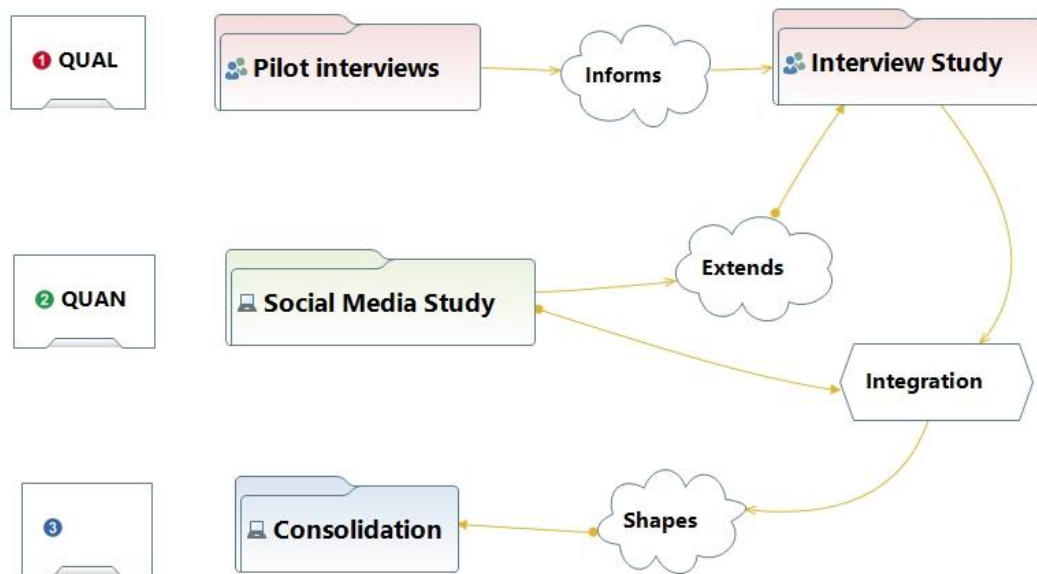


Figure 21: Stages of the mixed methods design

The initial qualitative phase (Phase I: QUAL) includes a Pilot Study to explore the cohort and the main Interview Study to gather testimonies and raise theory. The quantitative follow-up phase (Phase II: QUANT) comprises a Social Media Study to examine how a larger sample of the cohort of academics manifests and expresses traits of self and identity via digital communication technologies. The final phase (Phase III) brings together and critiques the findings and expands on some implications.

4.2 METHODOLOGY

This section examines the research project's methodological positioning, relating it to the mixed methods research approach. It does so by discussing scientific

research, the importance of theory, the influence of worldviews, and the stances taken by this research project.

Scientific approach

Dewey (1933) spelt out two foundational paradigms of the scientific approach to research: *deduction* and *induction*. These express two opposite processes and directions in scientific discovery. Because of their complexity, modern research studies can combine and accommodate together inductive and deductive processes at different segments of inquiry (Gray, 2013, p. 18).

While induction starts from details and moves to a connected view of a phenomenon, deduction sets out from the general picture and then works backwards to understand its particulars.

Research studies are usually defined by their initial stance concerning theory. The critical difference between the two approaches is that deduction starts from a well-defined theory. A hypothesis is created and made measurable or testable and then corroborated or falsified. On the other hand, in induction, the theory arises as a result of the empirical study itself. This contrast between the deductive and inductive approaches helps define the relationship between theory and research. Hence, on the one hand, theory-driven research, and on the other, theory as the outcome of the research process (Bryman, 2016, p. 6).

Granted that no research process is at first theory-free, this project exacts an inductive approach that generates theory. Thus, although theory is introduced and assessed¹⁶² at different points in the study, this research attempts to generate new interpretations rather than evaluate already set propositions, specifically with regard to the social influence of digital communication technologies. One of this study's goals is to explore novel understandings or alternative interpretations of the phenomena under scrutiny. Accordingly, the main research question (A1)¹⁶³ takes a neutral position regarding whether or not there are such changes in so far as the research is taken to be a discovery process.

¹⁶² And temporarily bracketed out in the grounded theory study.

¹⁶³ See section 3.4 of the Theoretical Framing chapter

Theory and worldview

Several meanings can be ascribed to the word *theory*. First, in the context of social research, it can be taken to mean a set of concepts that present a systematic view of a phenomenon that it can explain and, in principle, predict (Kerlinger & Lee, 2000).

The choice of the approach taken influences the role that theory plays in the research process, whether this is inductive or deductive, as discussed above. However, there are other ways in which it can be incorporated into a methodology: concerning philosophical consideration about how knowledge is gained, its epistemology, and the nature of what there is, thus, its ontology.

Crotty (1998) maintained that a foundational relationship could be traced from the epistemological positions taken to the research's theoretical stance, methodology, and methods.

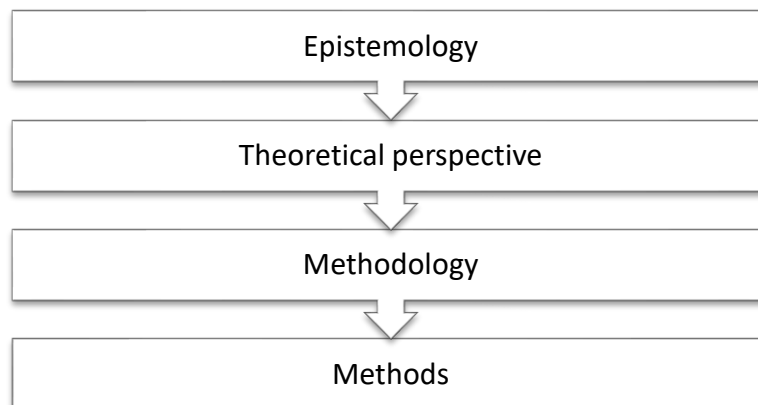


Figure 22: Representation of Crotty's relationships of a research design¹⁶⁴

According to Crotty (1998), the choice of research methods needs to be justified by other elements of the research. Methods are supported by a methodology, a theoretical perspective, and an epistemology that informs them. Accordingly, Crotty argued that the researcher should strive to establish a link between epistemology, theoretical perspective, methodology, and methods (1998), as depicted in Figure 22.

¹⁶⁴ Taken from Crotty (1998).

The outcome of this interconnected cycle in research should be to convince the audience of the soundness of the process that has been followed.

Guba used the term *worldview* to refer to the beliefs and values that inform how the researcher undertakes a study (1990, as cited in Creswell, 2013, p. 16). In contrast to theory, which specifies a position over a topic, the term worldview implies combining several ideas and conceptions that are joined to give an inclusive stance regarding the research goals. Creswell pointed out that other authors have used alternative ways to describe the same intellectual stance by using terms such as paradigms (Lincoln *et al.*, 2011; Mertens, 2010), epistemologies and ontologies (Crotty, 1998), or research methodologies (Neuman & Robson, 2014). Furthermore, such beliefs are formed during education and the exchange with other researchers in what Kuhn famously defined as paradigms (Kuhn, 2012). Though the categorisation varies, typically, such worldviews fall within the grouping of post-positivism, constructivism, transformativism, and pragmatism (Creswell, 2013, pp. 6–10).

Mixed methods

Creswell argued that researchers rarely explicate their philosophy in mixed methods designs, at least in social and behavioural sciences, where they are most often applied (2015, p. 17). Instead, they explicate their philosophical assumptions by how they apply mixed methods. Consequently, Creswell argued that researchers, rather than describing to which worldview their works belong, must define such worldview in the theories incorporated into the research design.

Other authors, such as Denscombe, have acknowledged the inconsistencies of the mixed methods approach while stressing that such a third research paradigm (apart from the qualitative and quantitative) requires a theoretical and philosophical framework that fits its own fragmented and inconsistent methodological choices (2008). Denscombe proposed a *community of practice approach* where such idiosyncrasies, rather than alien to the paradigm, are part of it. Such shifting of focus from the metaphysical level to the level of practice¹⁶⁵ is also congruent with Kuhn's

¹⁶⁵ Such as funding, training, personal skills, and career.

thinking (1962) about the research processes which shape paradigm shifts (2011, pp. 278–280).

This research project upholds the peculiarity of the mixed methods approach to research that need not fall within the categories usually ascribed to qualitative or quantitative research. For instance, regarding epistemology, the tenet is that while quantitative research emanates from a reality that exists independently from the researcher, qualitative research sees truth and meaning constructed and interpreted by the individual (Gray, 2013, p. 20).

This research combines elements of both constructivism and pragmatism. The overall approach to the methodology explores the pragmatic employment of multiple paradigms (Creswell & Clark, 2007). This concerns using paradigms to signal methodological stances and linking paradigms to methods (Creswell, 2009, p. 102). Rather than being solely constructed and defined from the literature review and upon reflection on the research aims and objectives, the methodology adapts to the requirements and findings for the distinct elements of the mixed methods research design. Figure 23 describes the stance of this research concerning Crotty's diagram.

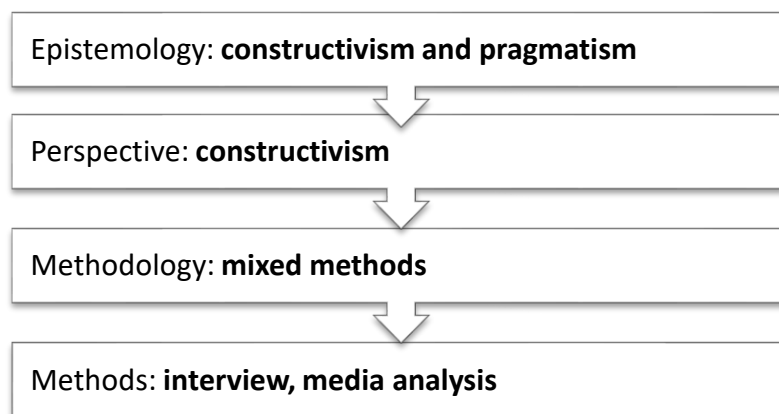


Figure 23: Research theoretical stances in relation to Crotty's¹⁶⁶

¹⁶⁶ In Figure 23.

At the level of epistemology, this research upholds the assumptions about constructivism as knowledge creation; thus, qualitative research distinctly emphasises how we interpret the social world (Bryman, 2016, p. 36).

The positioning of the ontology of this project sees a social reality that is permanently created. Accordingly, this research explores how the pervasiveness and influence of the Internet and digital communication technologies influence people's lived experiences and their construction of meaning. Since it aims to give a rich subjective account of academics' engagement with digital technologies, what this means to each of them and how it affects their personal dimension, this research upholds at the onset as ontology a social constructivist viewpoint. Constructivism implies that social phenomena are produced through social interactions, thus, in a constant state of revision (Bryman, 2016, p. 29), and are not viewed as independent from the social world.

4.3 RESEARCH METHODS

The research strategy of this research project involved making decisions about plans and procedures, from broad theoretical assumptions to details about the methods for data collection, analysis, and interpretation. This section describes the application of mixed methods, the focus on a qualitative approach, the sampling choices, and the organisation of the research project into several phases.

4.3.1 Mixed methods design

In essence, mixed methods research combines qualitative and quantitative methods and strategies within a single project. Therefore, as shown in Figure 24, it involves the integration of two original research approaches, each with a distinct research process, theoretical orientation, and outcome. Rather than simply gathering qualitative and quantitative data, mixed methods research involves the ensemble, combination, or comparison of the results of each study (Creswell, 2013, p. 2). One advantage is that combining the two major methods can give a better and more valid explanation of the investigated phenomena (Creswell, 2013, pp. 3–5).

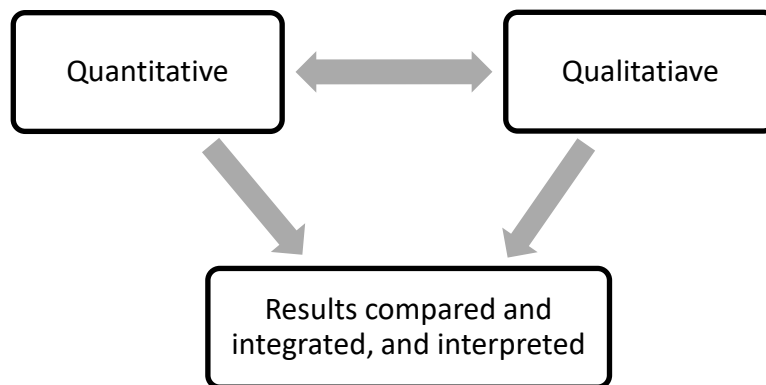


Figure 24: Elements in mixed methods

Although formally conceptualised and defined much later, mixed methods research was first used in cultural anthropology and sociology fieldwork in the 1950s (Gray, 2013, p. 195). The period up to the middle 1980s was formative: researchers laid the foundation for mixed methods research (Bryman, 2016, p. 635). A paradigm debate followed, specifically about the problems of combining the qualitative and quantitative paradigms. A study on the evaluation of mixed methods research conducted in 1989 by Greene *et al.* (1989) identified five significant functions of combining methods: triangulation, complementarity, development, initiation, and expansion. More recent mixed methods research attempted to perfect methods and practices (Bryman, 2016, p. 635).

Mixed methods are congenial to digital humanities projects, which seek an interdisciplinary approach and can waive different voices together and cross knowledge boundaries.¹⁶⁷ They well describe the dialectic around the history of digital humanities in the boundaries between computational and manual forms of analysis (Prescott, 2023). The digital humanities borrow from the humanities the realisation that cultural data is constructed and must be analysed through multiple contextual

¹⁶⁷ Sharlene Hesse-Biber, “Transcript of Key Note Address on Mixed Methods and Transformative Approaches to Social and Environmental Justice” in: Janet McIntyre-Mills and Norma R. A. Romm (eds.): *Mixed Methods and Cross Disciplinary Research: Towards Cultivating Eco-Systemic Living* (Cham: Springer, 2019), ix

layers. Mixed methods can accomplish this fittingly by combining the qualitative and quantitative paradigms.

In this research project, the mixing of methods takes place at two points: first, between Phases I and II, where the creation of a theoretical model from the qualitative phase is translated into a set of instruments and variables used in the follow-up quantitative study; second, between Phases II and III, with the comparison and integration of the datasets, and the in-depth analysis of some themes and conceptions that emerge.

This research uses a *multiphase* mixed method design where multiple qualitative and quantitative projects are built on each other to address a common program objective (Creswell, 2013, p. 228). Within its design, there are elements of *exploratory*, *explanatory*, and *embedded* mixed methods design (Bryman, 2016, pp. 638–640).¹⁶⁸ *Exploratory*,¹⁶⁹ because part of the initial qualitative phase acts as a preparation for the quantitative phase; *explanatory*, because the quantitative phase adds on and elaborates on some aspects of the impact of digital communication technologies on the cohort’s experience of self and identity; *embedded* in that the findings from the first qualitative phase and the second quantitative phase are compared, integrated and further analysed in the Consolidation chapter.

Further characteristics of the research design are that it is sequential (Bryman, 2016, pp. 638–640) and what could be described as emergent. It is sequential because one study follows the other, and thus, they are carried out in sequence; it is emergent because they leave the details of implementing the methods in the second and third phases open so they can ‘emerge’ because of the findings of the first phase.

Prominence of qualitative

The mixed methods design constructed for this research project emphasises the qualitative elements of data collection and analysis. The research project, in fact, sets off and ends with qualitative research methods. It is defined as *qualitative dominant*

¹⁶⁸ These terms have a specific meaning in mixed methods research that differs from their meaning in particular research, e.g., qualitative.

¹⁶⁹ The meaning of exploratory here is specifically that ascribed to it by mixed methods studies. In this type of sequential designs (explanatory and exploratory), the interpretation follows the series of data collections and analyses (Creswell and Plano Clark, 2011).

because it includes quantitative data and approaches to an otherwise qualitative design (Johnson *et al.*, 2007). In the conventional mixed methods design notation (Morse, 1991, p. 121; Creswell, 2009, p. 209), this relation is represented as follows:

QUAL quant

This research project is *qualitative dominant* in that it aims to explore people's experiences. Addressing the cohort of academics, it examines their experience with digital communication technologies using primarily qualitative methods. Furthermore, the take on the social world is interpreted from the individual's point of view by gauging the understanding that they give to behaviour, objects, and events (Hennink *et al.*, 2010, p. 9).

Advantages and limitations of mixed methods design

The reasons for employing mixed methods are both general, intrinsic to this approach, and specific regarding the research requirements and the nature of the case.

The first general reason to use a mixed method is that this approach, using qualitative and quantitative data collection, allows¹⁷⁰ a complete understanding of the research problems at hand (Creswell, 2013, p. 4). In this way, it also promises to minimise the limitations of the unique use of qualitative and quantitative methods (Creswell, 2013, pp. 14–15). The latter point is very appropriate to this research, considering the multifaceted construct of the case. Furthermore, because mixed methods allow for the combination or triangulation of datasets, findings from the different studies can be cross-checked and used to get further insights into the observed reality (Bryman, 2016, p. 697).

Another reason to use mixed methods was to examine qualitative findings in a different and larger context. While, on the one hand, mixed methods aimed to engage directly with the cohort of academics through the interviews, on the other, the

¹⁷⁰ At least in principle.

collection and analysis of data from social media allowed taking a fresh perspective on the phenomena and generalising some of the findings.

Mixed methods have also been favoured because they can accommodate and separate various interpretations of the social world and engage firsthand with the communication technology infrastructure.

The limitations of mixed methods research are possible issues in the design arising from its complexity, difficulty in drawing inferences between qualitative and quantitative methods, and maintaining a congruent paradigmatic foundation (Tashakkori & Teddlie, 2003). Moreover, it has been problematic to combine the different scales in the findings between, on the one hand, the concise sample of the qualitative interview data and, on the other, the extensive data harvesting from social media.

4.3.2 Sampling blueprint

Sampling refers to the selection methods for the scale, sample, or subset of a population being studied. Overall, such selection involves either *probability sampling*, where each population unit has an equal probability of being selected, or purpose sampling (non-probability), where some units are more likely to be selected (Bryman, 2016, pp. 187–189). Sampling is an essential element of research, particularly in qualitative research, where the sampling is non-probability and must fit with the research questions (Bryman, 2016, p. 408).

This research project employed several different sampling techniques, with the overall strategy linked to the requirements of the mixed methods design. It combines qualitative *purposive* and quantitative *probability* techniques applied to fit each of the studies and sequentially concerning the investigation that has preceded it.

Phase I sampling

The preliminary Pilot comprised interviews with three UCL academics and primarily employed *convenience sampling*. Convenience sampling involves reaching the most easily accessible subjects, where priority is given to the researcher's convenience regarding time, effort, and cost (Gray, 2014, pp. 224–225). This strategy suited the Pilot because there was a need for quick and easy access to the sample.

Furthermore, it was primarily aimed at testing interview techniques and gaining an initial cohort overview.

The main Interview Study, which applies principles, used *purposive sampling*. Therefore, the search for participants targeted a specific sample of the academic population in reference to the research questions. In purposive sampling, the research questions provide guidelines about what category of people should be investigated and sampled (Bryman, 2016, p. 416). The guiding principles in the selection were to select academics with knowledge of information and communication technologies who resided in three specific locations. It included convenience sampling, for instance, in the sample size, given that this research is part of a PhD and a one-person effort.

Phase II sampling

The sampling for the Social Media Study was probabilistic, thus aiming to generalise the findings. It sought representativeness of the specific population of academics, targeting a group of Twitter users who are academics and have expertise in information, media, and communication technologies. The sample size was set to be sufficient for the study to yield valid and significant results. The comparison sample sought a comparable number of random tweets.

The selection of locations was used to compare differences in how technology permeates and is perceived in societies of the developed world. It aimed to contrast highly technological societies with differences in the acceptance and attitude towards technology. Section 4.5.1, Geographical locations, explains the main criteria for shortlisting the three locations.

Section 1.2 of the Introduction chapter introduces the overall cohort through their association and social roles. Such characterization was used to explore the literature about academics and social media in Section 2.4 of the Literature Review chapter. However, the selection of the participants for the study engaged a subgroup of academics with expertise and understanding of social media and digital technologies. It was assumed that such academics would be better able to express a critical and reflexive attitude about the impact of these technologies in their personal and professional lives. Furthermore, this categorization encompassed academics working in the area of digital humanities, the central research area. Although the participants were not explicitly chosen from the digital humanities, the outcome of the

research could reveal the possible role of academics working in the DH as critics of some of the excesses of digital communication technologies.

Mixing methods sampling

The very nature of mixed methods research, combined with qualitative and quantitative methods and data, implies an intrinsic difficulty in integrating and aligning sampling strategies. In this research project, this difficulty was related, in the first instance, to bridging the findings from the small sample of respondents to the Interview Study with the more extensive Social Media Study.

The overall sampling strategy was to treat each of the two major studies as separate units, addressing their specific research question(s) requirements. By being formulated as mixed methods, the research questions themselves required independent purpose qualitative, probabilistic quantitative, and a multilevel sampling design where a research question involved comparing two study groups (Onwuegbuzie & Leech, 2006).

4.4 PHASE I – INTERVIEW STUDY

The following sections describe the methods used in the individual study elements within the three stages of mixed method design. It explains how they relate to one another, how they contribute to addressing the research questions, and the criteria used to seek validation and credibility of the results.

4.4.1 Participants

While the Pilot engaged with academics in the author's department at University College London, the main Interview Study involved interviewing eight academics in several locations. This was to embed a cross-cultural comparison of the datasets regarding possible location-specific worldviews and institutional and social roles. In addition, all the interviewees belonged to a subgroup that researched or had knowledge of the implications of communication and social media technologies.

Tables 3 and 4 below show the typology of the participants who took part in the Pilot and the major Interview Study. They describe each participant's academic

seniority, sex, and workplace location.¹⁷¹ The first two characteristics were used in the sampling to seek representativeness; the latter relates to the social context, also used in the cross-cultural mini-study.¹⁷²

Table 3: Representation of participants in the Pilot Study

Participant's ID	Seniority	Sex	Location
P1	Associate professor	M	United Kingdom
P2	Professor	F	United Kingdom
P3	Teaching fellow	M	United Kingdom

Table 4: Representation of participants in the main Interview Study

Participant's ID	Seniority	Sex	Location
A1	Associate Professor	M	United Kingdom
A2	Assistant Professor	M	United Kingdom
A3	Professor	F	United Kingdom
A4	Professor	M	Singapore
A5	Associate Professor	M	Singapore
A6	Associate Professor	F	Singapore
A7	Postdoctoral researcher	F	Japan
A8	Postdoctoral researcher	M	Japan

¹⁷¹ Participant's ID is used in place of their name to preserve confidentiality.

¹⁷² This is dealt with separately in the Consolidation chapter.

All the participants agreed to participate in this research study by signing an informed consent form, which is discussed in the Research Methods chapter and attached in Appendix B.

One of the main ethical issues was to preserve anonymity. For this reason, personal details, which can reveal the respondent's identity, have been removed. IDs and pseudonyms are used instead.

4.4.2 Data collection and processing

After examining appropriate methods and methodological frameworks, it was decided to conduct an initial Pilot.

The Pilot served several purposes:

1. It allowed the author to familiarise himself with the interview method. As a PhD student, he had no previous experience in conducting interviews. Since this fact was made clear to the participants of the Pilot, they were accommodating and accepting of errors in setting up the recording equipment and delivery of the questions.
2. It was used to test interview techniques. As detailed in Section 4.4.3, there are several ways to conduct interviews, each yielding different data types. The responses to the essential questions of the Pilot were regarded to determine the most suitable interview style for this project, which was eventually deemed to be semi-structured interviews.
3. Most importantly, the Pilot served to gain insights into the cohort of academics, thus, their experience, use, beliefs, and concerns about digital communication technologies. These initial findings were used to shape the follow-up study. Interestingly, the data from the Pilot was surprisingly insightful, as seen in Section 5.2.1 of the Interview Study chapter.

Three candidates within the Department of Information Studies at UCL, where the author was based, agreed to contribute to this project. After internal ethics approval¹⁷³ was granted, the interviews took place between October and November

¹⁷³ Within the Department of Information Studies at UCL.

2016. An initial version of the interview questionnaire had already been devised at this stage in the research process. However, the question of self was not entirely shaped. The Pilot Study thus also helped to test and refine the interview questions, particularly about how to approach the notion of self.

Given the small sample size, the data collected in the Pilot Study was coded manually, thus without the aid of a software application (as was the case for the main Interview Study). Findings from the Pilot Study were presented at a department staff and research students' meeting session and raised in the researcher's mini-Viva.¹⁷⁴

The main Interview Study interviews were conducted in the United Kingdom, Singapore, and Japan. As explained in the Introduction and Research Strategy chapters, they were carried out in different geographical locations to capture elements of the cultural and social backgrounds of the respondents. These interviews took place between May 2017 and February 2018.

The most challenging part of the main Interview Study was recruiting participants. In the absence of better options,¹⁷⁵ 'cold' emails were sent to potential candidates in several universities. The emails outlined the study and asked about their willingness to participate. Unfortunately, this process was quite time-consuming, as many academics were unavailable or did not respond.

The interview format used in the Interview Study was the same that was tried and perfected in the Pilot Study. The pre-interview phase consisted of sending the respondents an information sheet with an overview of the study's aims and an agreement form to be reviewed and signed right before the interview. In addition, the Interview Study used improved versions of the interview questionnaire from the Pilot Study.

4.4.3 Focused interview method

Data was gathered using the *interview method*. In essence, an interview can be described as a verbal exchange between two people where the interviewer tries to gain

¹⁷⁴ The mini-Viva, or Upgrade, is an intermediary stage of the PhD degree programme at UCL.

¹⁷⁵ An alternative option to reach potential respondents could have been direct referrals or a pitch at a conference. At the beginning of this study, no such direct recruitment methods were considered or available.

both information about a topic and an understanding of the interviewee (Gray, 2014, p. 382). Although there are examples of narrative interviews going back at least to Plato's dialogues,¹⁷⁶ the term interview has been used only relatively recently since the 17th century (Kvale, 2007, p. 5). Nevertheless, as a research method, interviews are a powerful way to gain rich data about respondents, including their behaviour (and of their group), attitudes, belief norms, and values (Bryman, 2016, p. 209). Interviews are the most used method of data collection in qualitative research (King & Horrocks, 2010, p. 1).

The interview method can be divided into the central categories of *structured*, *unstructured*, and *semi-structured* (Bryman, 2016, p. 466). Structured interviews are used to collect data for quantitative analysis and consist of pre-prepared and standardised questions where the interaction is kept at a minimum to avoid influencing the response (Gray, 2013, p.2015). Conversely, on the other hand of the spectrum, unstructured interviews are loosely formatted and need not follow any structure. Thus, a questionnaire is not prepared before the interview so that unstructured interviews can mimic everyday conversation (Roulston & Choi, 2018). Semi-structured interviews can be described as open-ended. Although questions are prepared beforehand, the interviewer does not need to cover them all or in a precise order. They can be described as the exchange when two parties in the conversation (the interviewer and interviewee) come to 'play at the same tune' within the constraints of an agreed time slot (Bryman, 2016, p. 468).

Semi-structured interviews were deemed to be the most suitable technique in this study for several reasons:

1. Flexibility. This study used a semi-structured style to emphasise flexibility in form and sequence. Flexibility was required to explore the broad range of aspects of the phenomenon because it would allow novel elements to emerge from the interview exchange.
2. Exchange. Semi-structured interviews were also used to enhance the exchange aspect. It furthermore introduced another aspect of the exchange between the

¹⁷⁶ In many of Plato's dialogues, such as the *Apology* (Plato, 399 BC/1999) or the (Plato, 375 BC/1966), Socrates is portrayed questioning Athenians about their assumptions over moral issues.

author, a PhD student and thus a novel academic and established academics. Not having adapted to academic practices, a PhD student could turn a more critical eye to the academic world.

3. Revisions to the questionnaire. The above two reasons allowed the questionnaire's content to be changed and adapted. This research project deals with very complex notions such as self and identity and the personal relationship of academics with technology. As a result, it was clear from the start that the questionnaire would have to reflect and adapt to the responses from the academics interviewed.

After the interviews were carried out and recorded, they were transcribed. Transcription represents an essential stage of the interview method. It can be defined, in simple words, as a transformation from an oral to a written form (Kvale, 2008, p. 96) involving an interpretative process (p. 205). When the interviewer also conducts the transcription, as was the case in this research, the interviewer can reflect on what has been said and heard by repeatedly revisiting the recording and the resulting transcripts. This way, transcription facilitates interpreting what was said during the interviews (Brinkmann & Kvale, 2015, p. 218).

Indeed, in this study, the transcription of the interviews involved a constant interpretation and reflection on the data. The transcription process was facilitated by using NVivo software.¹⁷⁷ Once the interview transcript was entered in NVivo, it could also be analysed and interpreted. A hierarchical structure of codes¹⁷⁸ from the coding process was created and amended several times due to extended analysis and reflections.

4.4.4 Data analysis

Both the Pilot Study and the main Interview Study followed the principles of *grounded theory*. Grounded theory is a pragmatic research method that guides data collection and defines procedures for data analysis (Glaser & Strauss, 1967/2009). The theory is derived from systematic data collection and analysis (Bryman, 2016, p. 381).

¹⁷⁷ <https://lumivero.com/products/nvivo>

¹⁷⁸ It is described in Section 5.2.

It is 'grounded' because the theory produced is closely connected to the data (Strauss & Corbin, 1998, p. 12, as quoted in Bryman, 2016, p. 381).

The principles of grounded theory were employed in this research as a strategy to raise theory about academics' experience with digital communication technologies. It was applied to examining connections between categories and concepts inscribed or emerging from the data (Gray, 2014, p. 604). The data examined included observations from notes and a research diary, apart from the transcripts. Grounded theory principles were therefore used to attempt to formulate novel explanations. Notably, the studies have adhered to the precinct of grounded theory in having theory firmly grounded in the data.

A different approach was used to analyse the data of the Pilot Study and the main Interview Study.

Given its narrow scope and limited sample size, the Pilot Study focused on flexibility in data analysis, thus using what Kvale defined as *bricolage* (Kvale, 2008, p. 115). In a bricolage, the construct, often an artwork, is created from diverse materials. Similarly, the data was analysed using fundamental *thematic analysis* and the methods suggested by Kvale (2008). In addition, it involved reflecting on the interview transcripts, which were printed, marked with coloured pencils, and annotated.

Conversely, the main Interview Study's data analysis was more comprehensive and structured. The thematic analysis followed the procedure described by King and Horrocks (2010, pp. 149–158). Borrowing from Braun and Clarke (2006), King and Horrocks defined a theme as a recurring and distinctive feature of the participant's accounts characterised by perceptions and experiences. It emphasises attention to familiar elements, thus repeating the issues throughout two or more interviews rather than one individual instance. Though constrained by the narrow sample of respondents, this research has combined compelling findings where they resonated in over one place among the questions asked and the respondents. In this way, it emphasises the qualitative experiential aspect of the theme (within the case) rather than solely its role as a variable (among cases) (King & Horrocks, 2010, p. 150).

The thematic analysis followed the procedures described by King and Horrocks (2010, pp. 149–158) based on a three-step approach to identify the following elements: 1) *descriptive codes*, 2) *interpretative codes*, and 3) *overarching themes*.

In Step 1, the parts of the transcripts that helped to address the research questions were singled out. Sentences that appeared to be significant were highlighted and attached with descriptive codes. In Step 2, the descriptive codes that shared common meaning and defined interpretative codes were grouped without trying to impose any interpretation on the data at that stage. Finally, Step 3 involved attempts to develop temporary themes that characterised key concepts, ideas, and preoccupation in the interview responses. These temporary themes were further analysed and reworked to ensure that they fully captured meanings in the narrative given by the interviewees.

In inductive research, coding is considered an essential data analysis operation (Bryman, 2016, p. 565). In essence, coding is ordering data elements into groups called codes. It involves identifying manifest and relevant codes and arranging them together in an iterative process. A code encapsulates a common characteristic or a significant meaning in the data. Codes are organised into hierarchies that can reveal meaningful relationships in the data. These relationships can be further analysed and interpreted.

The data coding was carried out in three separate periods: the first was between April and May 2018, the second was in April 2019, and the third, with a refinement of the codes, was between July and August 2019. The coding was completed sometime after the interviews (May to September 2017).

The first part of the data analysis highlighted two overarching themes: academics' relationship to time, and the contrast between their professional, political, and personal identities. The second part of the analysis examined the unfolding motives around private and personal boundaries, academics as individuals, and difficulties in posing questions about self and identity. Three main themes were derived from the coding of the data.

4.4.5 Establishing credibility

Qualitative research focuses on achieving credibility and trustworthiness; thus, it does not claim to produce absolute truths (Hammersley, 1995). Rather than aspiring

to generalise the findings, qualitative research results are identified by their contents and what the cohort says (Schofield, 1993).

There are two main criteria to establish credibility in a qualitative study: (a) clarity of the methods used and (b) believability of the findings (Brinkman & Kvale, 2015, p. 312).

- (a) Clarity in the methodical procedures demonstrates the trustworthiness of the results. As the readers fully understand the methods used, they will establish that a solid procedure has been followed and applied to arrive at the results. Conversely, a lack of clarity could signify poor methodology and hinder a fuller understanding of the principles followed.

This research study gives a comprehensive account of the procedures and methods used. In addition, it includes full references to its proponents and explains the methods used.

- (b) The believability of the findings is a criterion for their quality because it accurately depicts reality. It follows that the believability of the findings is related to the overall research project. Thus, the findings will be believable as they connect the initial research questions, the review of the literature, and the methods used to collect, analyse, and interpret the data. Qualitative research, therefore, focuses on *validation* rather than validity. Rather than establishing a sense of reality, it involves an exchange between the researcher and a subjective understanding of the result from the latter (Angen, 2000).

This research study strives to be believable by offering a complete account of its background and initial research questions (Introduction chapter), a supporting review of the literature (Literature Review chapter), and the methodology and methods used (Sections 4.2-4.4).

4.5 CROSS-CULTURAL ELEMENT

The Interviews Study was designed to consider some social and cultural factors that shape academics' relationship with digital media technologies. Thus, the interview data were analysed to gather location and culture-specific worldviews and institutional and social roles.

Bryman succinctly defined *cross-cultural research* as examining data from multiple nations (2016). It attempts to compare the use of practices in one culture with similar practices in another. Hantrais (1995) specified that such practices, or manifestations, may include institutions, traditions, customs, lifestyles, values systems, thought patterns, and language. Furthermore, it suggests that for the purpose of comparison, the analysis must be carried out using the same instrument.

The cross-cultural element has used cross-cultural interviews as the comparative instrument and has tackled academics' thoughts and attitudes regarding their institutional context, value system, customs, and attitudes to technology.

It has been inscribed in the Interview Study at two levels:

- Within the sampling, since academics were interviewed in three different geographical locations (and separate countries)
- With a direct cross-cultural question and probes, part of the interview questionnaire

4.5.1 Geographical locations

As shown in Figure 25 below, the interviews were conducted in the UK, Singapore, and Japan.¹⁷⁹ It is argued that these locations represent different ways technology permeates society; the interviews scrutinise how academics partake in it.

¹⁷⁹ The selected universities in Singapore (SG) and London (UK) have corresponding Departments of Communication and Media Studies. This is the case for the Communication and Media departments of the National University of Singapore (NUS) or the Nanyang Technology University (NTU) in Singapore, and the department of media studies at the LSE, in the UK. While NUS and NTU are the major universities in SG and have established Departments of Communication and New Media, the LSE has a very dynamic and critical research output regarding innovations in social media. Although there isn't a directly related department at the Nara Institute of Science and Technology (NAIST), it hosts one of the few departments in the country that works in the area known as social computing.



Figure 25: Locations of the cross-cultural element¹⁸⁰

Accordingly, the cross-cultural element targets three academic groups that reside:

- (1) In a highly technological society that bases its policies on technological principles and is governed by the importance of technical experts
- (2) In a fragmented society where there is a more critical relationship between experts to technological innovation and advancement
- (3) Where the demarcation between points (2) and (3) above is not very clear.

Singapore is taken to represent case (1), the UK case (2), and Japan case (3).

¹⁸⁰ Although the Pilot was not part of the cross-cultural design, it still contains some interesting elements.

4.5.2 Topical interview question

The cross-cultural element has addressed the broad research question about how digital communication technology changes academic relations with the social world (B3),¹⁸¹ looking at the cultural and social context. It has scrutinised two aspects of how academics use digital communication technologies: in the first instance, their academic institutional role within the university system; in the second, their place in knowledge production and dissemination structures.

The cross-cultural element was embedded within the questionnaire used in the Interview Study with a question (question 7) and probes that directly engaged the respondent with the cross-cultural sub-study.¹⁸² The results of the data analysis of the cross-cultural element are examined in Section 7.2 of the Consolidation chapter.

4.6 INSTRUMENT DEVELOPMENT

One way the mixed methods design was applied was by extending findings from the Interview Study into the Social Media Study. The linking involved the creation of an instrument to allow for a quantitative examination of a qualitative finding (Figure 26 below).

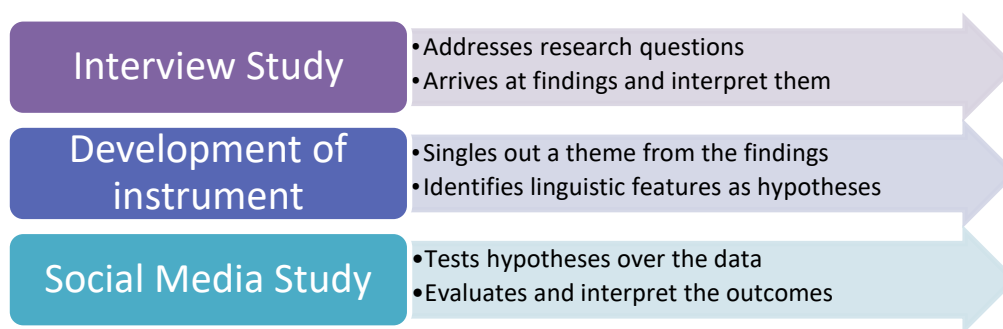


Figure 26: Development of the instrument and how it relates to the methods.

The initial requirement for developing the instrument was to identify an important and appropriate theme that could be further examined computationally over

¹⁸¹ In section 3.4 of the Theoretical Framework.

¹⁸² See Questionnaire in Appendix B

social media platform data. In the first place, it involved expanding one of the findings meaningfully; in the second, assessing its suitability to be translatable into testable language features. The outcome of the instrument development has been creating a set of testable hypotheses.

4.6.1 Creation of the hypotheses

The following steps describe how the hypotheses were derived:

- A. Selection of a critical finding from the thematic analysis of the interview data
- B. Identification of the essential qualitative characteristics that define the findings
- C. Translation of those characteristics into measurable language features

A. Among the three key qualitative findings, the *presentation of professional identity* (Theme II in Section 5.1.1) was the most suited and was, therefore, selected. First, it directly addressed one of the initial findings about online identity presentation; second, it looked at how its description was suited to be transposed into a computational analysis study over social media data.

B. The theme selected embedded several *psychological markers* that could be extracted. These markers were derived by further inspecting the data and its analysis and interpretation. Their identification was also helped by the discussions between the researcher¹⁸³ and his PhD supervisors since they are part of the cohort investigated.

C. Language features suitable for language analysis were cross-checked over existing literature studies using similar computational research methods. Such linguistic features describe the psychological elements in step B. The studies by Pennebaker *et al.* (2003; 2007; 2017) and Torregrosa *et al.* (2020) were particularly insightful.

¹⁸³ The writer of this PhD thesis, Paolo Casani.

4.7 PHASE II – SOCIAL MEDIA STUDY

4.7.1 Preamble

Initially,¹⁸⁴ a preliminary investigation was conducted on the relevant literature to identify the research methods most used in social media studies. As a result, two were shortlisted:

- a) Creation of a Facebook application¹⁸⁵
- b) Collection and analysis of Twitter data

Option a) proved problematic: in the first place, because of the restrictions Facebook imposes on its data;¹⁸⁶ second, because of the difficulty in identifying Facebook users who are academics; third, because of other foreseeable difficulties in promoting such apps among academic users. In contrast to Facebook, Twitter had a more open approach to its data when the study was carried out and has been used to carry out numerous social media studies.¹⁸⁷ Consequently, option b) was chosen. However, it posed some challenges, such as identifying the cohort and conducting complex data analysis using machine learning techniques.¹⁸⁸

The Social Media Study began at the end of 2017, during which time the author spent a prolonged period as an exchange research student at the Nara Institute of Science and Technology (NAIST)¹⁸⁹ in Japan. At the onset, given the expertise in computational techniques at NAIST, several approaches and data analysis techniques

¹⁸⁴ The preliminary investigation was carried out between March and May 2016.

¹⁸⁵ More precisely, a Facebook plug-in.

¹⁸⁶ This regards the access to user data for study and research purposes. Facebook's policy has changed several times but has become very restrictive at the time of this study.

¹⁸⁷ As of 2023, when this thesis was completed, Twitter charges for the use of its API.

¹⁸⁸ Machine learning (ML) is a discipline that uses and develops algorithms to make predictions on and learn from the properties of data (Cady, 2017). In very simple terms, in machine learning the machine (the computer) learns (is trained to) a particular pattern in the data (training data) and is then able to apply that acquired knowledge (patterns) to detect those patterns in another dataset.

¹⁸⁹ <http://www.naist.jp/en/>

were tried, including Rhetorical Structure Theory,¹⁹⁰ latent Dirichlet allocation,¹⁹¹ Word2Vec,¹⁹² and the one selected, LIWC.¹⁹³

At the beginning of 2018, this research project was put on hold to prioritise a similar research project that used Twitter to examine the notion of wisdom in a situation of adversity.¹⁹⁴ It was resumed at the end of 2020 and finalised in 2022.

4.7.2 Data collection

The data pertains to tweets written by academics and a comparable dataset from random Twitter users. The latter dataset was compared to the former.

Tweets from academics

The data was collected from the Twitter application programming interface (API).^{195,196,197} Just like for the sampling of the Interview Study, the sampling of Twitter users has shortlisted academics who work in the social sciences and have expertise in the application of computing technologies. The tweets were downloaded from the users' Twitter timelines. Users without public access to their data and with a lesser number of tweets, and their tweets, were discarded.¹⁹⁸

The data was collected from the Twitter API in March 2018. The original dataset of academic Twitter users consisted of approximately 1.6 million tweets. Such a group was identified as Twitter users who are *followers* of specific academic

¹⁹⁰ Rhetorical Structure Theory is used to study text as hierarchically organized groups of clauses that stand in various relationships to one another.

¹⁹¹ LDA is a topic model that generates topics based on word frequency from a set of documents, and spits out words with certain probabilities (Blei *et al.*, 2003).

¹⁹² Word2Vec is a natural language processing (NLP) technique that creates Word Embeddings (vector representations of words in numeric form) to represent all words in a large dataset. This allows capturing the semantics of the words, their syntactical similarities, and their relation to other words (Mikolov *et al.*, 2013).

¹⁹³ LIWC is discussed at some length in Chapter 6, Section 6.2.

¹⁹⁴ The outcome of that research was published as P. Casani, H. Iso, S. Wakamiya and E. Aramaki, 'Wisdom in Adversity: A Twitter Study of the Japanese Tsunami'.

¹⁹⁵ The Python client that was used is Tweepy. <https://www.tweepy.org/>

¹⁹⁶ The first part of the interaction with the Twitter API involved setting up the authentication for the transaction between the Python client on the local computer and the remote Twitter API.

¹⁹⁷ Python scripts were used to make intermittent data requests from Twitter API so to bypass the restrictions in data access. They retrieved the last 300 tweets from the timeline of the pool of about 1500 users who were identified as academics.

¹⁹⁸ As already noted, unlike social media such as Facebook, Twitter promotes a transparent platform with an open social network. Because Twitter users want to be known who other users are, to what they debate they contribute, and what is their network, they have by default a public profile.

conferences and Twitter groups.¹⁹⁹

Identification of academic Twitter users

Identifying Twitter users who are academics was problematic for several reasons. In the first instance, academics on Twitter do not always self-identify, such as by adding their affiliations and professions to their profile. In the second instance, when this is the case, the information they include is often scattered or inconsistent. Third, the Twitter API does not provide direct access to the user's profile data variables.²⁰⁰

Several strategies were considered to overcome these problems. The first approach was to collect names of academics from publicly available databases and then try to match their records to Twitter users. However, this was not possible because databases of academics can only provide fragmented or inconsistent data.

The approach that was adopted relied in large part on network analysis. It involved first singling out academic networks and identifying their members and secondly collecting the tweets from this dataset. Figure 27 details the steps in data collection. Three major academic conferences were shortlisted, specifically those grouping together academics working in the areas of digital technology or communication and new media.²⁰¹

The study implemented the following approach:

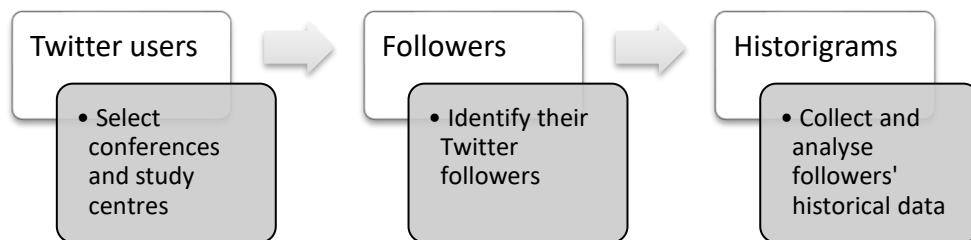


Figure 27: Approach to data collection from Twitter

¹⁹⁹ A Twitter user need not be a person. It can also be an entity such as an organisation or a company, and in this study, it has also taken to represent an academic conference. For the latter case, the people who maintain the conference account manage it and respond to tweets.

²⁰⁰ This means that they cannot be easily extracted from the data.

²⁰¹ As a second criteria for the cohort.

It was assumed that most followers of the selected academic conferences on Twitter would be academics, with only a tiny minority being non-academics. The latter group consists of students and other professionals interested in the topics covered by the conferences. Although an external validation of the data was considered,²⁰² it was established that it would not significantly improve the accuracy of the data. This strategy was therefore deemed adequate to identify selected academics on Twitter.

The following assumptions were made about the Twitter cohort:

- Have an active Twitter account
- Have a minimum of 300 tweets in their recent history
- May or may not declare their status (as an academic)
- Are followers of the selected groups (thus the conferences)

The following Twitter groups were selected:

- The Web Conference²⁰³ – 2018@TheWebConf
Following 152, Followers 763, Likes 185
- DH Now (Digital Humanities Now)²⁰⁴ – @dhnnow
Following 3,211, Followers 26.8K, Likes 32

Random sample

An initial sample of random tweets was taken from the Twitter stream around the same time. Unfortunately, much of the data became corrupted.²⁰⁵ Therefore, the Internet Archive²⁰⁶ was later used to collect a historical sample of data for the same period,²⁰⁷ thus March 2018. The random sample comprised approximately 1.2 million

²⁰² Validation of the data (of Twitter followers who are academics) was investigated against several databases such as Mendeley, Academia, and Google Scholar.

²⁰³ <https://twitter.com/TheWebConf>

²⁰⁴ <https://twitter.com/dhnnow>

²⁰⁵ This was as a result of an erroneous pre-processing of the data to remove unwanted elements.

²⁰⁶ <https://archive.org/details/twitterstream>

²⁰⁷ <https://archive.org/details/archiveteam-twitter-stream-2020-10>

tweets.

4.7.3 Data analysis

The data analysis aimed to determine the manifestation of professional identity in the presentation of academic identity on a social media platform such as Twitter. It consisted²⁰⁸ of several stages of analysis, which can be boiled down to 1) pre-processing and 2) data analysis proper. In the pre-processing phase, the data is cleaned and prepared for analysis. In the analysis phase, algorithms are applied to the data to extract meaningful information.

Pre-processing

The raw data retrieved from the Twitter API included metadata such as information about the user, the time and location of the message, and contextual relationships with other messages. Additionally, the textual messages included spurious elements such as special characters, hyperlinks, and attachments. Such data was pre-processed to cleanse it and remove elements not containing valuable or relevant information, in this way facilitating operations on data analysis, data processing, and application of algorithms.

Data pre-processing was carried out programmatically,²⁰⁹ mainly using Python and Pandas²¹⁰, and included the following operations:

- Selection of required attribute (text of the tweet)
- Removal of empty tweets
- Removal of retweets
- Conversion to UTF8 format
- Conversion of the data files to the CSV format²¹¹

²⁰⁸ This sequence is typical in data science studies, and specifically in NLP (Natural Language Processing).

²⁰⁹ Several scripts were written in Python and run over the data.

²¹⁰ Pandas is a Python library that facilitates data manipulate and analysis. <https://pandas.pydata.org/>

²¹¹ Comma-Separated Values, or CSV, is a family of common file formats used for data transfer.

The original dataset of academic users collected in 2018 presented a further challenge. While the original raw JSON²¹² dataset had been lost, the remaining dataset did not contain the language attribute. As a result, there was difficulty in identifying and removing non-English tweets. Several algorithms/classifiers were tried, but all were either not efficient enough²¹³ or too slow in processing. Eventually, the ‘*fasttext*’ library proved to be the most effective.²¹⁴

LIWC2015

Linguistic Inquiry and Word Count (LIWC) is a text analysis program that analyses textual data and extracts the percentage of text belonging to linguistic, psychological, and topical categories.²¹⁵ The program’s core is a dictionary containing words that belong to these categories. Section 6.2 of the Social Media Study discusses LIWC within the development of language computational studies. The version used in this research project, LIWC2015, includes a dictionary with several psychological categories. It was used in this study to determine the significance of the difference in selected language traits from the LIWC2015 dictionary between the academics and random user datasets.

One determinant for the accuracy of LIWC2015 is the quality of the data samples. The LIWC2015 manual explains that the LIWC application can handle many occurring problems and that having full data accuracy coverage is unnecessary. For instance, a small percentage of misspellings²¹⁶ will not impair the analysis results; LIWC2015 captures most netspeak elements, such as ‘lol’ or ‘4ever’.²¹⁷ However, several operations were conducted on the data to secure the best possible accuracy. Fundamental were the LIWC2015 operator’s manual instructions (Pennebaker *et al.*, 2015). The following most significant operations were applied:

- Replacement of Internet notations

²¹² JavaScript Object Notation, or JSON, is an open data-exchange format particularly used for electronic data exchange. <https://www.json.org/json-en.html>

²¹³ They would take innumerable hours to run.

²¹⁴ <https://fasttext.cc/>

²¹⁵ <https://www.liwc.app/>

²¹⁶ The manual mentions something in the region of 1%.

²¹⁷ These examples are taken from the manual. It can be assumed that the netspeak included in the dictionary is what was prevalent up to 2015 and therefore does not include the more recent neologisms.

Such notations include email addresses, hashtags, and Web URLs. As suggested by the manual, these were replaced wherever possible (see Table 5).

Table 5: Replacement of Internet notations from data

Type	Example	Replacement
E-mail address	your.name@example.com	subEmailAddress
URL address	http://www.LIWC.net	subURLaddress
Hashtag	#LIWCisawesome	subHashtag
Twitter handle	@jwpennebaker	subTwittername

After all the operations on the raw data were carried out, the resulting dataset consisted of approximately 15,000 tweets for both academic and random samples.

Analysis

The linguistic features from the LIWC dictionary represented the *dependent variables*, while the tweets datasets represented the *independent samples*. Several statistical analysis methods were used to reduce²¹⁸ and evaluate the data and draw conclusions about the variables employed.

The data analysis consisted of the following assessments:

- Frequency analysis
- Normality analysis
- Nonparametric analysis
- Size of differences

Frequency analysis

Frequency analysis assesses the frequency of language elements in the sample. It targeted the most frequently used words and hashtags in the academic sample. The

²¹⁸ Reduction in the amount of data allows the researcher to make sense of the data in quantitative research (Bryman, 2016, p. 409).

twenty most used words were selected and ordered, and the twenty most frequently used hashtags were shortlisted. Irrelevant or non-significant words were removed during the pre-processing stage.

Normality

The normality test establishes the variable's statistical distribution to determine how the data should be further analysed.²¹⁹ It was carried out on all the dependent variables and both datasets. The test was done manually and then with the SPSS application²²⁰ to obtain fuller results.

Nonparametric measures

Because the variables were not normally distributed, nonparametric measures were used.^{221, 222} Therefore, to further evaluate the data, the following assessment and measures were applied:

- Mann–Whitney U test
- Stricter figures as median and IQR

The Mann–Whitney U test determined if differences existed between the samples for the linguistic markers by comparing ranks. The combination of the two datasets defines the overall ranks. By using ranks, the Mann-Whitney U test was used to establish statistical significance between the two datasets since the data was not normally distributed. The output was a P value. The first strict figure used, the median, represents the middle value of a dataset. It was calculated using the median formula,²²³

²¹⁹ Checking normality (n.d.). Retrieved August 8, 2022, from

<https://www.statstutor.ac.uk/topics/normality/checking-normality/>

²²⁰ A statistical analysis software very popular in academic research. <https://www.ibm.com/uk-en/products/spss-statistics>

²²¹ Parametric tests are those that make assumptions about the distribution of the parameters in the data, to the effect that they are normally distributed. Conversely, non-parametric tests can be used for non-normal variables and, therefore, when the distribution of the data does not meet the required assumptions, such as, in this case, by not being normally distributed. Samuel, P. (n.d.). Retrieved on August 9, 2022, from <https://www.statstutor.ac.uk/resources/uploaded/9nonparametrictesting3.zip>

²²² Non-parametric tests could also be applied because in the results of the normality tests the distribution of the variables in the two independent groups (academic and random tweets) was similar, or with a similar shape.

²²³ The formula used is $\{(n + 1) \div 2\}$ th, where 'n' is the number of items in the set and 'th' just means the (n)th number.

which tells where the middle point of the dataset is.²²⁴ The second strict figure used, the IQR, stands for interquartile range. It was used to find outliers, thus data pointers that stood out significantly from the overall patterns of values. In an IQR, the data is split into four equal segments.²²⁵ The distance between these segments was used to calculate the value of IQR.²²⁶

Size of differences

*Effect size*²²⁷ was the measure applied to calculate the size of the differences between the linguistic markers in the two datasets. It determines the difference, and thus the statistical relevance, of the value of the selected linguistic features between the two datasets. The Cohen classification was used to interpret the effect size, where sizes of 0.1 represent a small effect, 0.3 a moderate effect, and 0.5 and above a large effect (Cohen, 1992).²²⁸

LIWC dictionary

In order to assess the language features present in the sample data, this study used the LIWC2015 dictionary. LIWC2015 is an update and expansion of the standard LIWC dictionary, first developed by James Pennebaker and his colleagues around 1999 (Pennebaker & King, 1999; Pennebaker *et al.*, 2001). The dictionary's major updates have been LIWC2007 and LIWC2015 (Pennebaker *et al.*, 2007; Pennebaker *et al.*, 2015). In addition, an updated version, LIWC22, has recently been released.²²⁹

LIWC2015 can generate ninety variables for every analysed text file. However, the objective of this study was to analyse a narrow subset of language dimensions. To this effect, LIWC15 was customised to capture the required variables.

The dimensions selected from the LIWC2015 dictionary were the following:

- Function words → pronouns → *I, you*
- Drives → risk

²²⁴ Samuel, P. (n.d.). Retrieved on August 9, 2022, from <https://www.statstutor.ac.uk/resources/uploaded/3descriptive-statisticspdf.zip>

²²⁵ This measures the spread of the middle 50% of a dataset.

²²⁶ Identifying Outliers: IQR Method (n.d.). Retrieved August 8, 2022, from <https://online.stat.psu.edu/stat200/lesson/3/3.2>

²²⁷ See Appendix C for details of the formula used.

²²⁸ See Appendix C for the full classification parameters that have been used.

²²⁹ <https://www.liwc.app/>

- Affect → positive emotion / negative emotion → *anx, anger, sad*
- Cognitive processes → *certainty*
- Summary dimensions → *total word count, analytic, tone, words per sentence, authentic, words longer than six letters, dictionary word count*

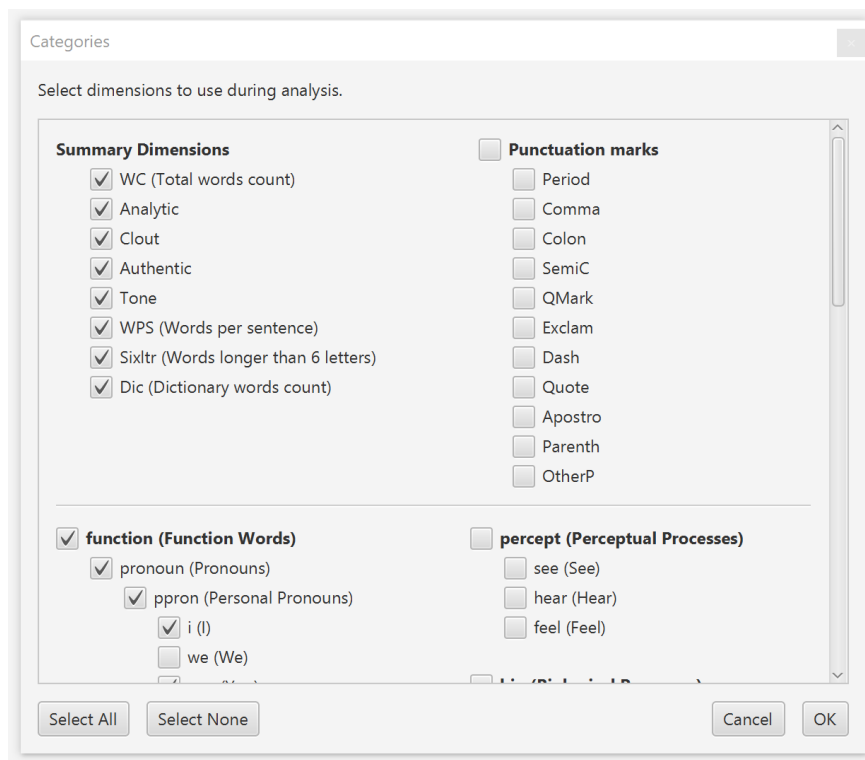


Figure 28: Categories selector of LIWC2015

The output of LIWC is a series of variables representing the percentage of total words, as shown in Figure 28 above.

4.7.4 Reliability and validity

Quantitative research evaluation concerns the reliability and validity of the data and the study results; while reliability denotes consistency, validity indicates truthfulness (Altheide & Johnson, 1994, as cited in Whittemore *et al.*, 2001). In quantitative research evaluation, the preliminary results are summarised and compared with the initial research questions to determine how the study's questions or

hypotheses were addressed. Furthermore, the results of prior predictions are compared with past research studies or theories. Unlike the evaluation of qualitative studies, the researcher's personal experience and views are not considered.

The validity of the Social Media Study was established by the procedures used to interpret the results. First, the outcomes were contrasted with the primary research questions to determine whether the latter were fully answered. Second, the data findings were adequately addressed and contrasted with the original hypotheses. Third, other relevant studies were considered to interpret the findings accurately.

4.8 ETHICAL CONSIDERATIONS

4.8.1 Introduction

In real-world (social) research, ethical considerations derive from its dealing with people. It mainly concerns how people may be affected. As a result, in conducting social research, careful consideration should be given to the ethical issues over the reporting, planning and implementation of a research project (Gray, 2015). Professional bodies have spelt out the ethical issues that can arise and how they can be mitigated through guidelines.²³⁰

In this research project, the primary ethical considerations regarded the investigation participants. Ethical principles were therefore applied to them in covering concerns of harm, lack of informed consent, invasion of privacy, and deception (Diener & Crandall, 1978; Bryman, 2016, p. 125). It complied with ethical guidelines and adhered to data protection legislation. The principles that cover these concerns were assessed in each research project phase. In the ensuing years since the studies were first conducted in 2018, however, the debates and understanding of the ethics of social media data have changed, and this is acknowledged.

4.8.2 Data protection

Data protection is the process of safeguarding data from corruption, compromise, and loss. It is a critical aspect of a social science research project (Bryman, 2016, p. 128). In order to guarantee data protection, this research project

²³⁰ Some of the most prominent associations in the UK are the British Sociological Association (BSA) and the Social Research Association (SRA), and The Economic and Social Research Council (ESRC).

adhered to the UK Data Protection legislation and complied with the UK Data Protection Act 1998.²³¹ Furthermore, it was registered for Data Protection with UCL.

4.8.3 Ethical approval

Before embarking on the actual research, ethical approval was sought and obtained from the departmental ethical committee at UCL.²³² It covered both the research carried out in the UK and abroad since the author was going to spend a period of time in Asia and conduct interviews in Singapore and Japan.

4.8.4 Ethics of Interview Study

The crucial ethical issue for the Interview Study was to preserve the confidentiality of the respondents and, therefore, to ensure that there could not be any possible harm to their public standing or career. In order to achieve this, the interview data was anonymised to hide the interviewees' identities. Personal names were substituted with pseudonyms, and all other identifying information was removed.

An information sheet and an informed consent form were created for the interviews and emailed to the participants prior to the interview (see Appendix B). The information sheet explained the research's nature and aim, stating the questions and clarifying some of the notions used. The informed consent form stated the participants' rights and what they agreed to and acknowledged that these rights and their data would be protected. They were asked if they agreed with it or wanted to have it adjusted. Finally, paper copies of the information sheet and informed consent form were handed to the participants during the interview, and they were asked to sign them.²³³

4.8.5 Ethics of Social Media Study

When the data was harvested in 2018, no specific ethical measures were introduced for the Social Media Study. It was assumed that ethical consideration did not apply since the data belonged to the public domain, and Twitter was the platform holding them. The data consisted of the tweets of academic users taken from their public tweet history. Therefore, it was anticipated that it contained no information that

²³¹ <https://www.legislation.gov.uk/ukpga/1998/29/contents>

²³² It has followed the guidelines to apply and obtain ethics approval detailed in the UCL portal: <https://www.ucl.ac.uk/research-ethics/do-i-need-ethical-approval#How%20do%20I%20apply%20for%20UCL%20ethical%20approval?>

²³³ Except in one instance where the interview was done virtually over video call.

needed to be kept private and did not require anonymisation or direct consent from users. Furthermore, the Social Media Study would generalise the data findings to determine the characteristics of the group of academics investigated rather than individuals. Thus, because it solely aggregated statistical data, it would not identify individuals. As a result, ethical approval was not sought.

4.8.6 Current developments

Since this research project was initially carried out in 2018, the scope and perspective of ethical considerations on online research have changed to include all human-generated data, particularly from social media. It has resulted from new insights about social media users, innovations in technology and research methods, and academic debates. Such developments have raised new challenges.

Researchers have been able to better understand social media users. Williams *et al.* (2017), for instance, demonstrated that, when directly asked (and it is assumed that often they are not), users are indeed concerned about how their social media data is used.²³⁴ Although most researchers rely on the social media platform's T&C as indicators of users' consent, users are not fully aware of how their personal data from social media may be used (Williams *et al.*, 2017). Ravn *et al.* (2020) showed that social media users have diverse and contradictory understandings of the notion of public, so that "publicly available" data (what they put out on social media) may not entail "available for academic scrutiny".

Social media research methods have been transformed by automation and analytical processes. As a result, ethical debates have moved to enquire about such topics as Big Data surveillance,²³⁵ artificial intelligence-driven data mining,²³⁶ and data modelling methods,²³⁷ linking users' identities among different platforms and devices (Samuel & Buchanan, 2020). Like other knowledge areas, such fast-paced

²³⁴ Using quantitative and qualitative measures, Williams *et al.* (2017) study showed that over four in five users expected to be asked for their consent for the use of their social media data, and 9 in 10 expect

anonymity ahead of publication of their Twitter posts.

²³⁵ Big Data surveillance involves the collection of multiple users' data points so to form a composite picture of either users or groups for monitoring purposes (Ferguson, 2017).

²³⁶ AI-driven data mining uses algorithms and techniques to handle large data sets and extract valuable patterns of information from the data with little human intervention.

²³⁷ Such models introduce new ways to identify dependencies in data.

technological transformations have made interpreting ethical principles difficult. Although fundamental principles, such as informed consent, remain adequate and have not changed, their application in light of these transformations is problematic (Williams *et al.*, 2017). In this respect, the Association of Internet Researchers (AoIR)²³⁸ has updated its ethical guidelines to better consider these developments, emphasising, in the 2019 IRE 3.0, issues of informed consent within Big Data research approaches.

Assuredly, the research community has become more sensitive to the implications of large-scale data harvested from social media, particularly in light of ethics scandals (Samuel & Buchanan, 2020).²³⁹ Even where social media data is aggregated, and there are no direct concerns for individuals' privacy, as is the case for this research project, ethical questions may arise about the political and social implications of its collection and use. Accordingly, ethical debates about the uses of social media data have come to include politics, power, social justice, and cultural pluralism (Samuel & Buchanan, 2020). Nevertheless, seeking ethical approval in research involving Big Data remains, at best, challenging and, at worst, impossible to achieve. Some have suggested that since applying ethical principles to research that uses online data is very complex, researchers should be governed by their own ethical practices (Samuel *et al.*, 2019). Other issues that have arisen are the increasing control of the research space by researchers linked to industry, the difficulty of researchers in accessing social media data,²⁴⁰ and their unawareness of ethical guidelines such as those by AoIR (Samuel & Buchanan, 2020).

As previously stated, the Social Media Study part of this research project did not directly infringe on people's privacy because it solely aggregated their Twitter data. Furthermore, it adhered to the ethical guidelines of the host institution, UCL, at the

²³⁸ AoIR has, since 2002 (IRE 1.0), produced a set of ethical guidelines for conducting research on social media. These have resulted from prolonged bottom-up cross-disciplinary collaboration between researchers, philosophers, and other association members. The AoIR guidelines were updated in 2012 (IRE 2.0) and again in 2019 (IRE 3.0). <https://aoir.org/reports/ethics3.pdf>

²³⁹ Such as Cambridge Analytica, OK Cupid, and Facebook Emotional Contagion (Samuel & Buchanan, 2020).

²⁴⁰ Twitter's (now, at least temporarily rebranded as X, <https://about.twitter.com/en>) regulations about access to its API have changed since this research project was carried out, making it more problematic to carry out research using Twitter data. <https://developer.twitter.com/en/use-cases/do-research/academic-research>

time when the data was collected. However, the take of this research project is that researchers should strive to acknowledge how such principles have been assessed and approached in their research projects and demonstrate an awareness of the current challenges in applying ethical guideline principles.

Chapter 5: Interview Study

This chapter develops the *personal experience* motif of the conceptual framework. It does so by presenting and discussing the results from the Interview Study, where academics reveal their experiences, thoughts, and impressions about the role digital communication technologies increasingly play in their professional and private lives.

The interview data about what academics say is presented through a) significant passages from the transcripts and b) the outcome of coding and data analysis. The latter is examined in relation to the literature review in the Literature Review chapter and extended to investigate the themes. The structure of this chapter is outlined in Figure 29.

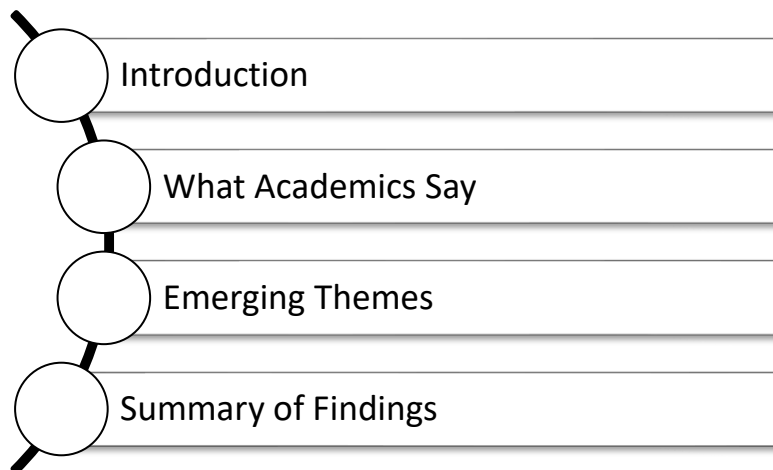


Figure 29: Overview of the Interview Study chapter

The chapter is organised as follows: the introduction (Section 5.1) outlines the research questions addressed. The data which academics report on the interviews (Section 5.2) are presented under several annotations. It includes, at the onset, what has emerged from the exploratory Pilot Study. Section 5.3 offers significant codes that have emerged from the data coding process, and Section 5.4 provides general visual

representations of the data. The themes that have been identified in the analysis of the data are presented in Section 5.5. Finally, the conclusion (Section 5.6) summarises what has emerged from the study and bridges this chapter with the one that follows.

5.1 INTRODUCTION

Research questions addressed

The Interview Study has engaged with several research questions, particularly in data collection. Primarily, it tackled the research questions about whether digital communication technologies influence the subjectivity of academics and how (A1) and their experience of self (B1). Secondly, through the responses to the questionnaire's specific questions, the Interview Study examined the research question about how academics express and present their self online (B2) and the social context (B3).²⁴¹ The in-depth analysis and interpretations of the latter are carried out in Chapters 6 and 7.

With research question (A1), it aimed to establish, in the first instance, whether the data was proving such an influence.²⁴² As part of the research question (B1), the Interview Study also probed how digital communication technologies affect the relationship between public and private since these increasingly mediate the experience we have with others, engaging academics in their multiple social roles.²⁴³ Although the latter was probed in a question of the interview questionnaire posed directly to each interviewee,²⁴⁴ it also emerged independently²⁴⁵ as a preoccupation in various interview exchanges.

The data analysis has provided several responses to these research questions, summarised here.

The answer to the first research question (A1) is positive: yes, the evidence from the responses of the academics interviewed shows that there is an influence on subjectivity. The particulars (thus, the "how" element) and research question (B1) unravel through personal stories, analysis of and reflection upon the data, and

²⁴¹ The research questions of this research project are outlined in full in Section 3.4.

²⁴² Section 3.4 of the Theoretical Framework Chapter and Section 4.3.2 of the Research Strategy Chapter have justified this approach.

²⁴³ Theme introduced in Section 1.3 of the Introduction Chapter.

²⁴⁴ Question 3 of the Questionnaire in Appendix B.

²⁴⁵ Thus, it was voiced also when not directly asked.

emerging themes. The findings from the enquiry about academics' private and public fields of experience are multifaceted. They are laid out in the first two themes in Section 5.3 over the dimension of private and public spaces of expression and individual and professional presentation of identity.

Interview questionnaire

The Interview Study's questionnaire (shown in Appendix B) contained two groups of research questions: the first was about academics' *personal experience* of digital media;²⁴⁶ the second was related to their various *social roles*.

The interview questions first addressed them as individuals, thus asking about their educational and career trajectories. Then, it quizzed them about their use of digital communication technologies, the separation between their personal and public life online, and cautiously²⁴⁷ about whether and how digital platforms mould their sense of self and identity.

The interview questionnaire also contained two questions that probed the cross-cultural and geographical location and the institutional (academic) context. As such, the questions fall outside the principal theme of the Interview Study,²⁴⁸ as the cross-cultural element amounts to a small study within a more extensive examination. The results of the cross-cultural component are discussed in the Consolidation chapter, which looks more broadly at the social context within the conceptual theme of *relationship*.

5.2 WHAT ACADEMICS SAY

This section presents the data by singling out crucial passages from the interviews with an added commentary. However, the exposition of data from the preliminary Pilot Study and the main Interview Study differs.

The Pilot Study is organised around the interview questions grouped around a topic. For each question, it showcases the crucial extracts from the interviews. It reflects the purpose of the Pilot Study, which was to give an overall sense of the group

²⁴⁶ This is derived from the conceptual framework in the Theoretical Framing chapter.

²⁴⁷ It has been more difficult than expected to pose personal questions about the experience of digital communication technologies and self. This is further discussed in Section 1.5.

²⁴⁸ And this chapter, which focuses on personal experience alone.

of respondents²⁴⁹ and initial insight into what they think and experience concerning digital communication technologies. Much of the data has, however, been very insightful.

The data from the main Interview Study is presented by looking at each interviewee. This way, it focuses on the individual dimension and academics as people. First, it sheds light on their background, uses of technology, and details of where the interview took place; then, it delves into their testimonies. The focus of the presentation of the data is on their responses to the questions about self and identity; key topics are highlighted.

5.2.1 Pilot study

Academic background

Q: What brought you into a career in academia and your current role?

None of the interviewees' academic careers stretched directly from their educational backgrounds. Conversely, they entered academia after periods spent in other lines of work. They worked in jobs as varied as graphic designers, software engineers, and librarians. Most of the reasons for this career zigzag were practical everyday matters, such as the need to earn a salary.

I suppose as a student I would have liked to have an academic career, but I decided for personal reasons, I was getting married, it wasn't an option opened to me when I graduated because it would have cost me money to do a PhD, so I went into library work instead. [P2]²⁵⁰

The option to enter academia seemed very much to do with a rising and fortunate opportunity to return to their studies or pursue research.

I was very lucky to receive a fellowship, so I did not need to pay anything for my studies, and I got it funded, and I got a bursary to keep me going for living expenses. [P3]

²⁴⁹ As for the main Interview Study, the sampling targeted academics who work and do research in the humanities and social sciences.

²⁵⁰ In brackets is the ID of the participant from Table 3 in Section 4.4.1.

I don't think that it's always possible to find out what your career will be. And yes, you may have an idea or a sort of desire to pursue one particular direction of your career or not. [P1]

Other elements that led them to consider or reconsider an academic career were a deep sense of enjoyment and interest in the research part of their job. With it comes the prospective freedom academia offers to pursue research interests. Furthermore, they longed to go back to a freer lifestyle.²⁵¹

And I started working with educational technology, and as I started working with it, I think I found it quite enjoyable, and I loved being at university, to be honest. If I had a chance, I would go back to being a student again. [P3]

Links with the peer group in academia or former teachers, have often opened opportunities, even many years later.

The person who had thought of me as a student in my research area was retiring, so a post was available to look at that area. [P1]

Information technology use

Q: How do we use technology and the Web in our everyday life?

Since the respondents predominantly do research in the humanities area, they were expected to possess a limited number of digital hardware devices (such as computers and tablets) and use a limited number of software applications. However, the opposite was the case for two of the respondents.

I personally own three computers; two laptops, one a very powerful workstation; two smartphones; two tablets, one professional, one private. [P1]

Conversely, one respondent reported mainly using USB sticks between sparse devices at work and home.

²⁵¹ Which they reported enjoying when they were students.

I only need a stick... Practically my whole life is on a stick, which goes from one machine to another. [P2]

Apart from giving one more freedom, the reasons for this were not trivial, but one had to face a practical problem with a solution that did not demand immersing oneself further into technology.

It's also a question of version control, which can be problematic, particularly if you work in an area where you are constantly updating things you do for teaching. You don't want to have too many versions of things stuck on an individual machine, so I tend to use an external medium like this, and I swap it over. [P2]

One probe for this question was to inquire directly about smartphones. Because of their portability and the fact that they are always connected to a network, smartphones allow access to information on the go. The academics interviewed seemed to use them as information devices more than communication tools. For example, one respondent used his smartphone to organise all information.

I also use it as a kind of PIM, a personal information manager. So, I frequently or very often read my emails on the smartphone. I do not write many emails from my smartphone but prefer larger screens and especially larger keyboards. Also, I do a little bit of Web browsing, information processing, and paper reading. [P1]

Interestingly, the responses show that Internet applications, because nowadays they are such a big part of our lives, can also be used to *help navigate the narrative of one's life and keep track of past things*. For example, photo albums (now digital) are often used to make a retrospective trip into memory lane.

I have made sure that all my searches, and I'm using primarily Google, all my history is actually kept, and once in a while I go back to the history of my searches. And I want to do it because I want to see what I was searching for at a particular time. So, when I notice what I had kept, and it's usually colour

coded, it's like red, green ... and then when you notice that you hadn't been using the Web for two days, you say, what happened? [P3]

Social media use

Q: Are you active on social networking sites (social media) such as Facebook, Instagram, or Twitter?

One respondent made a very cogent question about what is included in the grouping of social media platforms:

One thing that I didn't see included formally in our interview was: would you also estimate Learning Management Systems as social media platforms? [P1]

This question was surprising because, usually, such applications are not considered social media platforms. However, it may be that they should count as one since academics are increasingly spending a sizeable chunk of their time, and thus their online lives, on learning management platforms.²⁵²

Professional use of social media

Overall, the respondents stressed the professional use of social media platforms:

I mostly use social media tools in a professional setting. [P1]

They claimed to use social media to keep up with the field of research and network with other academics. Twitter is the leading platform used to gather information about the latest research in their field.

Twitter was very much of a professional nature, so I would basically follow the people in the field of my research, but at the same time, I realise that I have not been posting much. If I need some information, I usually go back and google to check it, check in the tweet what is going on, maybe recent papers on the subject, or maybe conferences that are taking place. Especially the conferences. When I am at conferences, I usually always check Twitter and

²⁵² An example of widely used tools, also mentioned by the respondents, is Moodle.

try to post to make sure that there are opportunities to connect with people.
So, at conferences, these are very helpful. [P1]

Other professional platforms used included Research Gate²⁵³ and Academia²⁵⁴ as professional presentation platforms, Google++²⁵⁵ for follow-up of interesting subjects, LinkedIn²⁵⁶ to stay connected with peer groups, and Facebook because university departments keep many Facebook pages.

Another respondent claimed that given the time in which we live, he would rather maintain a personal blog than a social media platform, as it is a better way to divulge one's thoughts and writings.

I felt, had I had more time, I would like very much to have a blog, and I know that that is not the same thing, but I think that blogs are respectable. Yes. I feel that that is a more substantial way of getting information out. [P2]

Another way social media applications keep the user connected is through constant alerts. The alerts can be emails or instant pop-ups on the mobile phone or computer screen, sometimes accompanied by sound.

I use Facebook just because the notifications are there; I would maybe go back once a day because of the notifications. [P3]

Private vs personal sphere

Q: In what ways do you use social media platforms for your personal and professional work?

The prompts asked further about the separation between professional and private spheres and the location where the respondents had access to social media platforms.

²⁵³ <https://www.researchgate.net/>

²⁵⁴ <https://www.academia.edu/>

²⁵⁵ <https://plus.google.com/>

²⁵⁶ <https://www.linkedin.com/>

Connections before entering academia

Facebook is a social network that emphasises sharing one's personal life and staying connected with friends, many of whom are old acquaintances. For academics, it includes people who pre-date their academic careers and now may not share the same interests, such as in the same area of research.

... there are a large number of people on Facebook who are my classmates, who are, sort of, acquaintances from wherever, they can be drinking buddies or whatever, so just friends, who may not be interested in things that I post, so I don't use it for work or for, I don't know, academic visibility or whatever it is that involves disseminating things that I'm writing in my professional life. I don't. [P3]

I don't use different devices to access. However, I use different social networks for different purposes. So, when it comes to Facebook, I don't use it for professional reasons. [P3]

Specialised academic social networking sites, such as Academia or Research Gate, are used to promote one's professional profile, research area, and academic network within the academic community.

Comparing oneself with other academics

In this, academics seem to promote an academic identity as engaged in research and part of this social community. Interestingly, the academics interviewed admitted checking up and comparing themselves with other people's academic or publication profiles.

When it comes to, let's say, when it comes to Academia.edu, I think it's interesting to see what others do... so I use it to make sure that I'm kind of connected to the people who are interesting, research-wise. So, when they will post something, it will beep, and I receive a notification, and I will go and make sure and check that it's something that is of interest, so x-y-z published the paper, and I'll go back. [P1]

I understand that it's also important to keep a profile in terms of your visibility because, yeah, people will be looking for your papers, they would like to know

what you have published, that my Google Scholar is usually updated, and that Academia and Research Gate are updated... it usually kind of is. [P1]

Unlike Facebook, which demands the creation of one true identity,²⁵⁷ Twitter allows users to create multiple profiles.²⁵⁸ Some private Twitter profiles can also be personal, and somewhat intimate, journals. The interviewee added an anecdote of his indirectly shared experience in this exchange.

I have two Twitter accounts: one is professional, the other one is for writing down anonymously stuff that I kind of feel like ... [P3]

It's not with some special friends. It's only for myself. I'm not seeking any connections, and I think I just post stuff just because I thought about something which is not a professional essay. I just dump it down. Whether it's related to the food that I eat or it's related to plants that I have. It's just, whatever comes to my mind, whatever I notice, sort of, a nice picture outside.... [P2]

Self

Q: How do you think using the Internet and communication technologies is affecting your sense of self?

The responses to the questions on self and identity overlapped. First, people have different interpretations of what these notions mean. Despite an attempt to elucidate the difference in meanings between the interview and the research project, some respondents used them interchangeably. Second, since they are interrelated notions, it is not easy to trace where the talk of one begins and the other ends.

Expression of self on the Web

There are different interpretations of what we present or express in the Web

²⁵⁷ Facebook Help Centre (n.d.). Retrieved 15 January 2017, from

https://www.facebook.com/help/112146705538576?helpref=faq_content

²⁵⁸ Twitter Terms of Service (n.d.). Retrieved 15 January 2017, from <https://twitter.com/tos>

space. One respondent remarked that ‘obviously’ the representation of self online is only partial. Another is that the realms of real and digital are somehow merging.

So, you look at it, and you say, I kind of know this person through this profile that he’s actually putting out there, and at the same time, I understand that they may be the true reflection or the complete reflection of the self that their person truly represents. Some of the things may be missing, some of the things may be, I don’t know, the things that the person would like to put out there, things that he would aspire to be himself or herself. [P2]

In the past, when we thought that people lived in cyberspace and had a particular identity and then people lived in the reality, and they have got a different identity, I think that this distinction is sort of merging into one. So, I think that the difference is blurring... so kind of are people who are in this physical world separating... I don’t want to say that it’s merged, that there is definitely the overlap that is kind of growing and growing, in my view. Maybe I’m wrong, but that is the perception that I have that we do have this big overlap. [P3]

A significant point was about what is the glue for forming an online identity. The respondent contended that it is not only the lived experience and exchange typified by social media but also that we keep *breathing information in*.

But at the same time that social media platform, not just posting or putting things out, it’s not the only thing that makes my identity, but also breathing and accessing the information on these platforms is forming my identity. Identity is not just about putting things out there, but it is accessing the information on these platforms. [P3]

The feeling of being part of a community

Apart from those created on social media, other online academic communities exist. These communities may have started as offline, physical, and real-world gatherings in the pre-digital era and then moved online at a later date. However, the feeling of belonging seems to be stronger during these meetings in the real world. For many years, shared purpose, correlated research, or shared publishing effort has kept

people together in these academic communities.

Yes, I think so. It's quite interesting really because the area in which I work used to be, the UK, used to be a leader in this area 40 or 50 years ago, and not so much the case now. So, the community, my research community is international, and communication technology is a way of keeping in touch with those people, but those relationships seem, although they are professional, they seem very friendly, it's like I'm chatting with people I really know because I meet them face to face from time to time, but I have a good sense of inclusion in that international community. [P2]

For the so-called digital immigrants,²⁵⁹ becoming part of the global Internet village and a 'global citizen' is not enough to create the desire to share one's life online.

Yes, you do have the feeling that you become a global citizen, a feeling about it. But on a personal level, I have no great desire to share my personal... I mean, my personal thoughts about work and the importance of my work... to put it too strongly, but I can't imagine that I would want to tell other people my private feeling about things. That may just be my ageing background. *(Laughs)* [P2]

The prompts (to the leading question about the self) gave examples of experiences of self to elucidate its meaning. One such prompt, for instance, asked whether the experience of the Internet and communication technologies alters how one experiences good and bad things in their lives and their perception of it.

Online self as an extension of our minds

One respondent seemed to refuse this angle of interpretation, reinstating that, for him, digital communication technologies are tools that can be used to extend one's

²⁵⁹ According to Prensky (2001) digital immigrants (vs digital natives) are people who have learned digital technologies later in life. Just like with people who have learned of a new language in their adulthood, they always retain, to some degree, their accent, thus, their foothold in the past. 'Accents' are the diverse ways in which digital immigrants handle and do things with new digital technologies (Prensky, 2001, pp. 2-3). Although intriguing, these notions have been heavily criticized for creating an age-based dichotomy when many other factors are at play regarding digital fluency (Bayne & Ross, 2011).

mind.

... for me personally, it could not affect so much how I would be impressed about good and bad things, about my daily life, real life. But it would affect my daily life at that point that I'm really often taking my smartphone, really often work aside, in my daily doings, and something like this. And especially for information and knowledge problems, as I told you, to have Wikipedia, and having a small talk with some guys and not saying oh probably it was 10 meters high or 100 meters high, but look it up on Wikipedia, and other information sources accepted. And, also, it makes me much more critical about information, to news for example and something like. [P1]

The ability to breathe and access this information and thus extend one's knowledge is part of an online self (identity).

But at the same time that social media platform, not just posting or putting things out, it's not the only thing that makes my identity, but also breathing in and accessing the information on these platforms is forming my identity. [P3]

Identity

Q: Do you believe that the Web and media technologies induce further dimensions to your identity?

The response below appears very honest and intimate: it is the type of response that the questions on self and identity posed in this study tried to capture. Thus, it captured the personal experience by discussing what it is *like* to be an academic and to interact with digital technologies.

Information as a means to better oneself

For this respondent, the value of the Internet is the availability of information that one can use to better oneself.

So, because I'm not happy with myself, I don't know about others, but I'm not happy with myself, I do like to grow in different ways, and change in different ways. I want to become a better, more loving, I don't know, more productive (person), and I think that social media in this way helps me find

information which is relevant and I can relate to and make use of it if I could.
[P3]

The example is about seeking knowledge and answers from the Internet.

So, for example, if I am interested in a particular subject, let's say, philosophy, and it could be something related to ethics, let's say, morality, or maybe something professional... in a way I could, I could get hold of that information on social media platforms and believe... I'm not saying I would use it to become better, but believe that I'm kind of learning more. So, it's not just that I'm putting myself out but I'm also (picking things?) out there and I'm trying to make use of what can be part of identity... or what we chose it [to be]. [P3]

Trapped in a knowledge bubble

While we can create and have multiple online identities, algorithms arrange, order, and narrow down the information we access. It is well known that the most common algorithms, probably designed to please advertisers, offer suggestions for content in line with the preferences one has already expressed. Because in searching the Web, we already have something in mind that we want to find, we find ourselves trapped in a knowledge bubble that, by giving up content in line with what we already consume, reinforces our belief without confronting another way of thinking.

In this passage, the respondent described this knowledge bubble using Twitter.

But you know this phenomenon of the bubble of... which is formed by social media? I think that it is a very good point. It's a very interesting point. So, basically, we get on Twitter, and we start interacting with people, and in theory, we think that we can interact with anyone we want to, but in reality, we create this bubble to relate to people ... we are already similar to. [P3]

The consequences of the knowledge bubble may extend to the ideas we form about the world and political action.

So, and this provides consequences. This leads to specific consequences. For example, oh I'm going to start political activism about this important thing that I really care about, that I share this thing, and I think that the world out

there is listening; in reality, you are talking to the people who already are thinking the same thing. So, whatever you do, it doesn't really make a difference because you are already in this bubble, that you have already built.

[P3]

One-dimensional identity

Following this line of argument, it can be posited that we increasingly create a one-dimensional identity on the Internet. The respondent argued that finding a way out of this knowledge bubble is difficult.

If we talk about building a social identity from the media and getting it with useful information, basically, getting this information from the bubble that we have... and I think that one of the most interesting problems, I would like to... the students, with most students that I teach too, it's actually how you would break this bubble because it's not easy. That's because they say that if you like this, you also like this and this. And if you go on Twitter, if you follow this person, you would probably also like to follow this and that person. What I'm trying to say is that in the real world when I know you, it's very easy for me to get access to your friends because we have a meeting together, we will go out together, or we will do some research together, and it's [like] we already get to know the people that are similar to us or sharing the context with us. On the Web, we think that we can actually access anything that we want to whether the person is here, or in America, or wherever it is, but it is still quite a constraint to whom we are talking to. [P3]

There is fierce competition among academics, perhaps more than in most other professions. For this respondent, this element is manifest on the Web.

Maybe that one I have just figured out, I'm still figuring out these things... that I'm in comparison with others or competition with other researchers, other nations, having maybe similar research interests, and something like this. [P1]

Original ideas have emerged about what an online identity consists of. One respondent asserted that we could create a fuller version of ourselves on the Internet, free from imperfections and fallibility. He believes that all these possibilities for identity creation

and expression can help forge a richer experience of ourselves.

Maybe a little bit, yes. In that case, certainly, it is, I would say, most streamlined in case of maybe being less controversial, and something like this. The online identity also may be trying to build a more homogeneous feel, a more holistic feel about the image of myself. Instead of these maybe gaps... I just and whatever I would have as an individual, of course. [P1]

Holistic. It means that all things are fitting together, and there are not too many breaks and cracks in that (*laughs*)... individual. [P1]

But I think that the idea that, I'm aware that it happens, but I would not subscribe to it, that you can have multiple personalities, you can have an avatar, say, and you are a completely different person. And maybe that is to do with your disposition. I may not be very imaginative, say that. But that's also acting out another life or finding enjoyment in doing, I wouldn't particularly. I would find that particularly hard to do. [P1]

Another respondent posited that the online dimension does not convey some aspects of our identity.

I think that your online identity is obviously going to miss some aspects of your personality, because I quite like, as you know, I quite like face-to-face stuff, I enjoy that, and obviously, that is missing from it. And I think it's a more formal personality online. But not necessarily an unfriendly one. [P2]

Role as experts

Q: How do you see social media technology further affecting the practices of academics and other people?

There is a mixed bag of positions and responses about what advancements digital technologies will bring to the future of academia. Even when describing the positives, most of the respondents were, at best, cautious and, at worst, had several concerns.

Because the leading researcher²⁶⁰ also has concerns, it is difficult to discern how much the questions have influenced the answers. However, taken individually and within the context of this Pilot Study, the ideas expressed are nevertheless valuable.

Increase in visibility

Starting with a positive, a respondent argued that having an online presence is essential in the first place because it increases the visibility of the researcher and their work. This is very much the case, for instance, with Google Scholar's academic profiles.

I think that when it comes to research and when it comes to putting your research out there, it's very important because it increases your visibility. From a career perspective, I'm taking a very pragmatic view here. So, it's very important for you to make sure that your research is available for other people to read. So, you put your papers out when it's possible when there can be open answers... And I think the more people do it, the higher impact in terms of people knowing about the work that you have been doing is important. [P2]

Dangers in sharing personal data

Some dangers of expressing an online identity and shared thoughts and experiences have to do with the ultimate use of personal data. One respondent stressed that the danger stems from the fact that all data is linked.

But I do think that you must be exceptionally careful about what you put out there. I think that that is the real danger. I mean, you know, don't fall into that trap of being careless about what you say. But particularly if you engage with various topics, particularly with things that are contentions, there is a real danger that.... [P2]

This point is also poignantly expressed in this exchange.

Interviewer: Is that because everything is linked, and what you say may go beyond what you mean? There is also this danger that the data may not be

²⁶⁰ The point of view of the author of this research as distinct from the views of his PhD supervisors.

handled properly.

Interviewee: Yes. It's kind of like this Six Degrees of Separation thing,²⁶¹ is it that you may not be very far away from something that is actually very unpleasant or dangerous. So, in a way, that encourages you to be more trivial in what you do. [P2]

Another respondent expressed the same point.

I don't think that it's only a problem with the data being wrongly handled, but that there would be wrong conclusions taken about the data.

One interviewee pointed out that people are beginning to be aware of the dangers of sharing personal data, but still, they may not be very well informed. There is also not much clarity about who owns that data.

It's very interesting too who owns this data, that is a very peculiar thing. I think that it is Facebook that if you die, Facebook actually owns that data, and it can't be inherited or used... by your heirs, by your family, and that is a very peculiar situation. So, there is very deep stuff there about the nature of the data which is worrying. Also, we all know about the silliness of what people do. [P2]

Personal data becoming publicly available

Another consequence of sharing private material is that such material may become publicly available online. For instance, the press has many stories about so-called *revenge porn*, when someone shares intimate and sexual images or videos of their ex-partner to hurt that person online.

There was a thing this morning in the paper about revenge porn again. You think, yes, it's absolutely horrible, but you need to be awfully careful. [P2]

²⁶¹ This refers to Stanley's 'small worlds study' (1967), also known as six degrees of separation, that tried to explain the functioning of relationships in social networks.

And, in another passage another passage:

It's very undermining of personal and social relationships generally because the other side of the coin is that people can become nervous about that kind of thing because those horrible things have happened, you are very distrustful of anybody and that's a very bad consequence, I think. It's very hard I think to have a really private life now, and it's good in a way that people shouldn't need to be secretive about things and people should be more open. But you need to be able to put limits. And that is what is most difficult to do now. [P2]

Novel academic practices

Novel technologies are emerging at all times and altering academic practices. However, looking back at the recent Internet history, one respondent argued that there is no way to predict the future, just that things will not stay the same.

I could not really estimate the role of social media in the future. Why not? Because there are some trends. In my field of work there are novel technologies and Facebook, Twitter, and all these things, maybe not now, but that five years ago, had been these novel technologies; they are fast and quickly adopted into academic projects. There have been some hypes, for example, Second Life²⁶² at the end of the 2000s, and these highs would not have affected academia as it would have been expected. Currently, Facebook and [Mook], maybe as another large social media trend, or something like this, it's hard to see, to forecast how they would evolve, how we would deal with these things after the hype is over. [P1]

5.2.2 Main interview study

This section outlines the interview data of the main Interview Study. Unlike the Pilot Study data, it introduces each of the interviewees, summarises their use of IT and social media, and then details the responses to the questions of self and identity. Rather than being identified by numbers to hide their identity, pseudonyms are used to identify

²⁶² Second Life is an Internet virtual world where people can direct a digital representation of themselves via an avatar and conduct a second life. <http://secondlife.com/>

the participants in the study.²⁶³ Other personal details are generalised to preserve anonymity.

Interview with Adam (A1), London, UK

Adam is an assistant professor who grew up in the margins of London. His academic background is in history, politics, and new media, and he held his academic position for several years. The core of his research is about media and politics.

The interview was carried out on 10 May 2017. It was meant to take place in Adam's office, but it was a warm, sunny day, so it was rearranged at an open-air cafe in a nearby park. Although a charming space, the cafe was bustling at that time of the day and, unfortunately, quite noisy, making the interview more complicated. The interview lasted about 30 minutes, which was cut short by Adam, who had to attend another meeting.

Information technology use: Because Adam believes that there should be no divide between academics' private and public lives, he uses the same computer devices, which he also owns, both at work and at home. He keeps his email accounts and access to his mobile apps (applications) separate.

Social media use: Adam has a few thousand followers on Twitter. Most of these are journalists, academics, or 'followers' interested in his research. Because his research focuses on social media, he also uses his personal Twitter account as a data source to conduct social research studies.

Although Adam has a Facebook profile, he hardly uses it as he does not find it especially useful for his work. Instead, Twitter is the platform that he uses the most. This is because Adam sees it placed outside mainstream social media tools (such as Facebook or LinkedIn). He also uses Twitter because he considers it an *intra-elite tool of communication*²⁶⁴ where journalists and politicians can talk to each other and set up

²⁶³ These pseudonyms preserve some of the representativeness with regards to sex, national origin, and age group. This has been worked out looking at these two references: <https://www.academic-consulting.co.nz/blog/using-pseudonyms-whats-in-a-name.php> and <https://blog.mozilla.org/ux/2012/05/picking-pseudonyms-for-your-research-participants/>

²⁶⁴ From what was said in the follow-up discussion, I assume that for *intra-elite communication* Adam means communication between the intellectual class which is made up of academics, journalists, and politicians.

agendas and policies. This line of argument says that the communication between the two can lead to an *elite effect*.²⁶⁵

Self

I explain that I am still working through the questions about self and identity as I am unsure of the best way to approach and present them. This initial explanation allows me to readjust my approach to the respondent and fine-tune it to the responses. I also want to keep the conversation exchange free.

The Pilot Study has shown that starting the interview with complex or personal questions, such as those about self and identity, can lead to uneasiness in the respondent. Although I briefly explained before the interview that the core element of my research is the notions of self and identity, the direct questions about these topics are unexpected. It appears that several respondents believed that the question about self would be abstract rather than specific, generic rather than personal.

I say that I want to inquire about the ‘experience’ that he has with the digital communication technologies. Experience is an angle of analysis related to how digital communication technologies touch one’s personal life.

I proceed to read out the questions from my interview questionnaire. The question of self is composite, made up of three parts. Each part focuses on the idea of change: whether and how digital communication technologies change the nature²⁶⁶ of who we are. The text from the transcript below shows the casual, semi-structured approach to the interview questions.

I wanted to try to find out about... whether you believe that the experience or influence of computing or information technology is changing the nature of how you are. It is like... kind of having an impact on the perception that you have of things, of what is happening in your life. And whether they have an impact on how you see yourself as a unique individual. I have listened to several questions to give you a lot of space to. [A1]

²⁶⁵ I assume that Adam means that in this context ideas are exchanged and developed.

²⁶⁶ Here nature is introduced as a generic term to refer to what we take ourselves to be; it does not imply any philosophical consideration about whether there are such things as a permanent state, thus a nature, to who we are.

Critique of the question of self

Adam cuts me off before I complete my point. He says he is unsure whether he understands the question but qualifies his remark by emphasising that this does not mean he thinks it is inappropriate. As he sees it, the problem is that they are extremely broad questions. Adam suggests a better approach would be to ask him what he thinks about such a question rather than asking him to produce an answer. He adds that he is not the person best placed to answer what he calls *meta-questions*.²⁶⁷ He suggests that what I should do instead is to look for sensitive research that addresses those questions. He adds that:

When you ask someone something that is theoretically complex, it's quite hard for them to unpack it as an individual... other than saying that it does ... But ask me to elaborate on that, and it becomes quite tricky. [A1]

The need for elements of comparison

Adam says he is just old enough that Facebook was not around during his time at university. He first became aware of Facebook in his last year of university, around 2004, just before completing his studies. With this, he implies that Facebook has been with him for a very long time, in fact, most of his adult life.

Adam points out that another problematic issue with my question is that it requires a point of reference, thus something that we use to compare the experience we have of digital communication technologies. A means of comparison would be the experience of being without them, thus, having lived a consistent part of one's life in a pre-digital communication technology world.

So, the question is, what am I comparing it with? Because to get a sense about how it's changed me, which is a vague question because how aware are we of how we are changing, anyway? Yeah, my beard is a bit grey, but that's it that I'm aware of. [A1]

²⁶⁷ In psychology, meta-questions are questions that try to reveal somebody's experience and see what is going on behind the scenes.

The further point that Adam makes is about the *awareness of change*. Some changes to our persona are so subtle and slow-going that they are outside the realm of our awareness. For example, he talks about his beard going grey: the change is so subtle that it is difficult to measure.

He points out that if the same question were directed to an older academic, by asking, for example, what it was like 30 years ago, that academic would answer by saying that sure, it was different. However, this does not apply to him since he entered academia at a time when these technologies were already starting to emerge.

Despite this, Adam remarks that he was a significantly early adopter of Twitter, which he started using during his PhD studies. He says he was very enthusiastic about Twitter when it first emerged, adding that Twitter and digital technologies represented novel ways to communicate, reach out to other researchers, and publicise one's work.

Our experiences condition what we think

Adam points out that older academics may be less enthusiastic about these technologies when asked the same question. They may see them as just an extension of their work, perhaps not even that useful, but just taking up more time. Their experiences condition how they see things and what they believe.

We all are very conditioned by our own experiences; I think it's what I'm trying to say in a much-unsophisticated way. [A1]

Adam says there is no way to generalise because everybody will experience events uniquely. However, the primary purpose of the interviews is not to find commonalities but to uncover individual personal narrations that may unravel novel keys of interpretation.

Identity

The prompts linked to the core question about identity raise contraposition between, on the one hand, the identity presented and performed on social media and, on the other, the identity that one has in personal and social life. Therefore, the question is phrased in the following manner:

Do you believe that the Web and mobile technologies introduce further dimensions to your identity? ... [Thus] whether you project a different identity, obviously on social media, other than the identity that you have in your social life. [A1]

As an extension of the personal and private

Adam remarks that he does not see the presentation of the two, that is, public and private identity, as contradictory.

It's not as if I have one identity in one space and another identity in another space, no more than any other set of spaces. I guess that they are a logical extension. [A1]

To exemplify this point, Adam takes the case of what is posted on Twitter. Most content on Twitter, he argues, is, to a considerable extent, professionally focused or at least on the edge of politics. Nevertheless, the content may be more personal, such as sharing things one finds amusing.

But that does count as a different version of me. [A1]

Adam seems to challenge the presupposition, implicit in the question, that one can present multiple identities, different versions of who they are, in the digital space.

He points out that he does not question the method that I use. On the contrary, he acknowledges that the personal and private identity question leads to an interesting *methodological challenge*. Posing this question is an excellent way to arrive at it because academics are undoubtedly aware of these contradictions.

Although psychology is not his field of research, Adam admits that it is plausible to think people construct identities (or an extension of their identity) in different spaces. Yet he argues that this may not mean very much.

But to offer [claim] that they are sensitive to themselves... I guess it's a difficult question. [A1]

I try to point out that I did not intend to impose a framework of interpretation about identity. The people I interview will usually start telling me a story, I explain, and I will go wherever that leads to.

Blurring between personal and professional identity

Adam proposes a second challenge to what the question of identity implies. While acknowledging that my interviews with academics may reveal a blurred line between their personal and professional identity, this does not apply to himself.

I suppose that I'm in a happy position where my interest, [which is] politics, it's also my profession. [A1]

Adam argues that he does not see his Twitter account as a professional tool. Even though it is a professional thing, he presents himself professionally on it in the sense that it looks professional. The picture on his Twitter profile portrays him presenting at a conference. Indeed, he recognised that the latter image is what I am trying to capture in my interviews.

You are getting Adam assistant professor at [university name], but it also isn't in the sense of... I don't just like shut down my Twitter account at five o'clock on a Friday, and I don't think about that until Monday morning. [A1]

I contend that some academics I interviewed in the Pilot Study and the ones I talked to seem to think otherwise. However, this is undoubtedly not the case for Adam.

I offer several other prompts to my question about identity, which sprang out of the Pilot Study. First, I ask him whether, while projecting his professional persona online, he feels obliged to comply with social norms from the peer group of academics, for example, by not being too critical. Second, I ask him whether he believes his online and offline identities differ, such as when he is on Twitter or meets someone in person.

Media-mediated identities

Adam reiterates that he does not see the online and offline as creating multiple identities but instead as the extension of one identity. Nevertheless, he argues that there are indeed mediated versions.

Again, I think that there are clearly versions, media-mediated versions. [A1]

For example, Adam says it is much easier to be funny on Twitter than in real life, such as when talking to someone, because, on Twitter, you are allowed to prepare and amend your tweet before it goes out. So, in this sense, on Twitter, one *presents him or herself in a managed way*.

Adam adds that for an academic, Twitter functions as a window onto the world, as far as one will put out a biography and materials and keep it updated. However, he reinstates that he sees it as an extension of identity rather than an altogether different thing.

At this point, the conversation seems to have defaulted to an interrogation about what Adam thinks about digital communication technologies and social media rather than, as it was intended, questioning his experience of it. While in the first part of the exchange, about self and identity, Adam narrated personal anecdotes, he now moves to a more generic theoretical discussion.

Tweets as a creative constraint

I contend that the presence on Twitter can be seen as an extension rather than a separate identity, perhaps because Twitter is limited to short messages, unlike other social media platforms where the expression of oneself is more multifaceted.²⁶⁸

Adam says that he believes that every social environment is mediated. He questions my assumption by pointing out that what makes Twitter fascinating is that you can get a sense of someone through brief messages. In this sense, Adam continues, that is *a creative constraint*, but if the rules are different (using communication tools), you get a different thing.

Does a more limited spectrum of communication make the presentation of identity less real? Adam raises this point because I have a background in philosophy.

²⁶⁸ Thus, with a fuller profile description, an album of photos, videos, likes and dislikes, etc.

You are a philosopher, right?²⁶⁹ What is the real person in this, or does it equally have a claim to be real, just because it's mediated? Is Facebook more real than Twitter is real? I don't know. [A1]

I did not use the term real in my question. The point I was trying to make, as a prompt for further discussion, was that the presentation of identity is fuller and rounder on other social media platforms such as Facebook, where someone can create a fuller, more round profile.

Social media limiting identity

Adam says he takes my point about how the communication rules condition the medium. The fact that tweets are short, and that Twitter is an open platform is what makes Twitter interesting. He points out that, conversely, Facebook's closed network also makes people feel more secure. He adds that while on Facebook, this would mean that, for example, people can be ruder about their employer, but it does not follow on Twitter; they are instead 'lovely'.

I remark that a Facebook user can, in principle, create a separate identity. However, Adam points out that one must use their actual name and that a Twitter account is not linked to a personal name.

Adam says the narrowing of identity on Twitter results in more hate speech because it is easier to be anonymous. However, the opposite is not true for Facebook:

... the profiles presented on Facebook are more multifaceted. In that kind of marketing way because you have more data going... Whether that equates to being more honest, more representative, that's a different question. I don't know. [A1]

In his reply, Adam did not consider the idea of identity as a presentation. It can be postulated that there are some immutable characteristics to one's current identity: you are who you are with your physical body; you are that person who was born on such-and-such a date in such-and-such a location; you belong to a so-and-so ethnic or

²⁶⁹ With this, he means that I have a background in philosophy.

cultural background; you have a particular career and job. Yet, someone may choose to *present* distinct aspects of their character, beliefs, and inclinations to others.

Interview with Thomas (A2), London, UK

Thomas is an assistant professor in media and communication. In the past, he researched cartography, the study of maps or map-making. Several maps hung on the wall near the desk in his office. One map is striking: it portrays an early version of the Internet as a geographical map with continents, islands, and seas, big and small. In the map, which must date back to the mid-noughties, Facebook is still a tiny peninsula in the growing social media territory. Thomas grew up and did most of his graduate studies in Continental Europe.

The interview took place in his office on 21 June 2017 and lasted about 35 minutes. It was a sunny and hot day. Thomas's office is on the fifth floor of the university's academic building.

Background: Thomas has an extensive educational background within the social sciences that meets theory with practice. He describes it as being very idiosyncratic. After studying for a bachelor's degree in sociology and a master's degree in philosophy, Thomas continued his educational trajectory with a more practice-based master's degree and then a PhD in information and communication science. He says he enjoys the possibility of moving between media-mediated theory and, for instance, the knowledge of how a database works. For this reason, his postdoctoral research work was conducted both in a school of information science, which is more practical and in a school of communication studies, which is more theoretical.

Information technologies use: Thomas says he is a late adopter of mobile technology and has owned only two smartphones overall. More than for a noble cause, such as concerns about privacy or the environment, this has to do with a pragmatic approach to technology. Before moving to the UK, Thomas lived in a small town where he spent most of his time in front of a desktop computer. As a result, Thomas did not need to consult a mobile app such as Google Maps to find his way around that setting. He says that what changed for him by coming to work at a London university was the mobility aspect, such as the need always to have a map with him to find his way around and, therefore, possess a good smartphone.

Thomas owns an ancient Mac laptop which is over six years old. He uses it to carry out most of his research work. Funnily, he remarks that the laptop is so old it is difficult to install new applications.²⁷⁰ However, he sticks to it, partly because he has, with time, become attached to it and partly because the desktops offered by the university run on Windows, a different operating system.

As far as software applications go, Thomas uses a typical suite with word processing. However, he increasingly uses the Google Docs suite²⁷¹ because it facilitates collaboration. He also uses popular academic applications such as Zotero,²⁷² Evernote,²⁷³ and NVivo. Moreover, of course, Thomas uses a Web browser.²⁷⁴

Social media use

The social media platforms that Thomas uses the most are Facebook and Twitter.

Self

As I did with the previous interviewee, I introduce the question on self and identity by saying they are more personal questions than the previous ones. The question about self that I put forward reads:

Do you believe that the experience, influence, and use of computer and information technologies are changing somehow the nature of who you are? And also, do they change how you perceive the good and bad things? Are they altering how you experience your place in the world and the meaning of your existence? [A2]

The idea behind grouping together three questions is to give the interviewees the space to respond in a way they find more appropriate. Rather than narrowing down the response to a single interpretation channel, it invites the interviewees to choose what they see as the best fit to address first. Moreover, it introduces the self as a multi-layered phenomenon.

²⁷⁰ Because the operating system installed on his Apple Mac laptop, Mac OS, is very old.

²⁷¹ <https://www.google.co.uk/docs/about/>

²⁷² Zotero is a software application used for reference management: <https://www.zotero.org/>

²⁷³ Evernote is a mobile and desktop application for note taking: <https://evernote.com/>

²⁷⁴ In the interview he seems to emphasise that the use of a browser is taken for granted by many researchers, while it is an essential tool in itself.

This formulation of the questions about the self touches upon the notion of change: change to our nature, change to the perception of good and evil, change in the sense of our place in the world, and change in the meaning of one's existence. The latter part adds an existential dimension to the experience of self. Again, these elements are introduced as a plausible suggestion to the topic of self that is admittedly difficult to pin down.

Thomas turns down the invitation to talk about self from a purely personal and existential angle, at least in these terms.

I'm not sure if they are changing my nature, but they are changing my work.

[A2]

Yet he acknowledges the element of change by stating that even if it is disputable whether they change one's nature, they surely change his work as an academic. Thomas offers to expand on this point.

Academic professional self

In the interview's context, Thomas makes a correct move. After all, I am interviewing him as an academic. The essence, or an essential element, of who academics are is their work in academia. Academics express who they are via their work, thus their *professional academic self*.

As a junior researcher, Thomas concedes that he has no direct way to measure such change. Moreover, he started his career when computers were already widespread, so he does not have direct experience of what it was like before and how such a change in academic work occurred.

Of course, well, I started my career... there was already widespread use of computers, so I can't see how it was before. [A2]

However, he points out that his research in the history of knowledge allows him to imagine and infer what academic work was like before the digital communication technology era. He makes some very insightful remarks about how the widespread use of computers has affected the nature of speed, space, and collaboration in academic work. He also relates it to how they affect his work.

Speed and spaces of knowledge

Thomas says he can only imagine how slow it was to build scholarships in the pre-digital era. For instance, you would have to wait for the quarterly journal to arrive once a semester, then read it and engage with it.

Now the speed of knowledge, the speed of access to knowledge, and creation of knowledge are much faster. [A2]

Later in the interview, Thomas returns to the notion of time, arguing that a ubiquitous connection to social media compromises slow time.

Writing and reading, which is the type of scholarship that I do... it requires a slow pace and just [to] be able to concentrate on the one thing for a couple of hours. [A2]

Thomas also remarks that a literature review nowadays is much faster and easier when all the resources are available online.

Digital communication technologies have also changed the spaces devoted to academic work. Thomas mentions he used to go to the library much more often as a young student than he does now when he can find and buy the books he needs online. Nowadays, he hardly uses the university library. Thomas only visits it when he needs books that he cannot buy online since he prefers to own a copy of the books in print.

Another change has to do with collaboration, Thomas remarks. Digital communication technologies have made collaborations so much easier that it seems impossible to conceive a world in academia without them. For example, a tool such as Skype allows us to communicate with other researchers, share a document, or work together on authoring a paper, which are crucial elements of collaborative academic work.

Getting away from social media

At this point, I introduce one of the follow-up questions from my questionnaire, a reflection about the engagement with digital communication technologies being too much.

Do you feel the need sometimes to get away from all the social media and maybe to focus on meeting someone in person? Do you feel that sometimes it's too much? [A2]

Thomas replied that he often feels the need to break from social media. He started following social media only as a teenager because, at that time, Facebook had arrived.

He points out that in his capacity as an academic, given that we live in an era of social media, his *concentration has become spotty*.²⁷⁵ However, he admits that he does not know its exact cause and whether it relates to digital communication technologies. It can indeed be due to other factors: as an academic, he has more responsibilities, more work to do, and is getting older, he adds. Nevertheless, he does not rule out that there may be a connection with technology use.

Thomas says that sometimes he should step away from social media and do something else, such as work on writing a book. He stresses that he is saying this at a non-professional level. Yet, when he has a free evening, there are several things that he would like to do, such as reading the novel he has started. However, that is not what he ends up doing:

Then, of course, I take my phone because it's so much faster, it's direct access, direct reward, oh a lot of information, and then things moving on the screen.
[A2]

He ends up checking his feed on Twitter or sending messages to friends and colleagues. Such a strategy feels more manageable because you can grab your phone, and he says the entire world is within reach.

Combating the intrusion of the digital

Despite this, Thomas has devised strategies to *combat digital intrusion in his personal sphere*. In the last couple of years, he had decided not to read emails in the early morning. Maybe because he is still in his early career as an academic, Thomas

²⁷⁵ My wording.

does not have the type of commitment that would require him to reply immediately to emails.

This strategy of “no email” in the morning has been very productive. Thomas says he has completed much more writing by focusing on one thing at a time. But, conversely, as soon as he opens an email, he is submerged by a strain of responsibilities:

It's that now as soon as I open my email, there is a oneness to all the constraints and responsibilities that I have, and stuff that I need to do for other people, like answering their message, or doing stuff for them basically, that can also be for me somehow. [A2]

Thomas says he hopes he will not need to change this habit. He argues that social media opens as a space where there is a bombardment of stimuli, such as news stories and friends wanting to contact him. I point out that, in some way, he is trying to control social media rather than letting social media control him.

There are some advantages to using social media. Thomas says he detests making phone calls; he gets anxious when using the phone. Applications such as WhatsApp, Facebook Messenger, or Skype create a further communication layer. Although they can also be used for making voice calls, they facilitate sending short textual messages, thus introducing chatting and texting as an alternative to making a call and using one's voice.

Asked if he would rather meet people in person, Thomas replies that just writing to them would be good enough.

Identity

Moving on to the question of identity, in the first place, I ask him a direct and brief question:

Do you believe that the use of media and mobile technologies introduces new dimensions to your identity? Do you project online, for example, a different identity than you do in real life? [A2]

This reference to identity is left purposely ambiguous. As is the case for the question about self, it is left to the respondent to pick out the interpretation they think best fits. Identity usually refers to uniqueness and belonging; thus, one is a unique individual and has a sense of belonging to a group of people. From this perspective, social media are the type of digital communication technologies that better render the idea of identity.

Professional identity taking over

Thomas agrees with the proposition. He admits that it is the professional self taking over.

... though the professional self, that is taking over, because I have a very professional-oriented, a job-oriented, use of these social media. [A2]

It is not only that the technology imposes constraints on the individual but also on the purposes and uses that one makes of it. Perhaps Thomas answers the question of identity by speaking about the self. Yet, this is okay because they are interconnected notions. One's identity can define part of self and, thus, part of the essence of who one is.

Implicit to this extract from the interview is the introduction of the professional aspect. Inevitably, academics have a professional persona that embodies a certain (professional) conduct and adherence to certain ethical principles.

Embellished self-portrayals

Although Thomas states that most of his use of social media is professional, he concedes that this is not the case for Facebook. Instead, his personal life is on Facebook but with an embellished portrayal of who he is.

Of course, I curate the picture to say, oh all this is like, a picture showing me in an interesting exotic area and the original thing that I'm doing. [A2]

With a touch of irony, Thomas admits that he carefully selects and curates the pictures he posts on Facebook, one that shows him, for example, in an exotic place so that people will think he has an exciting life. However, he then states that he does not

excessively embellish the presentation of self on Facebook because he does not like it when others do it.

Thomas further comments that this hedonistic behaviour is magnified by Instagram, adding that he does not have an Instagram account.

I'm just afraid that going to Instagram would really be playing on this instinct that we all have in knowing, oh what are they doing right now and peeking through the door. I'm sure there is more into that. [A2]

Thomas's comment captures a central aspect of social media platforms' appeal to people: the relentless need to know what others are doing. Thomas humorously sums up his stance by saying that he curates his identity by presenting the most glorious parts of himself.

Interview with Sophie (A3), London, UK

Sophie is a professor at a department of media and communication. She is the director of studies of a student program and is responsible for the methodology training.

The interview took place on 26 June 2017. In the email correspondence preceding the interview, Sophie said she was keen to participate in the study. Still, given that the summer term was approaching, it was difficult for her to arrange a face-to-face meeting in London. As a result, the interview was finally carried out on Skype. The video call lasted for about 35 minutes.

Background: Sophie has a varied background and has come into academia after working in advertisement and journalism. She grew up in a country in Continental Europe but lived in several other countries.²⁷⁶ Sophie did her undergraduate studies at a leading European university²⁷⁷ and graduate studies in media and psychology in the United States. She has worked in industry, marketing, and production while maintaining ties with the university environment. After some time, she found the

²⁷⁶ Specific country names have been removed to preserve anonymity.

²⁷⁷ Again, specific details have been removed.

industry quite limiting because she could not do the type of research and thinking that she wanted to do. So, she decided to do a Ph.D.

Information technology use: Sophie owns an iPad that she purchased through the university, a personal iPhone, a desktop that sits in her office, and a laptop that she uses a lot when she travels for international projects.

Social media use: She thinks the division between personal and professional is a good idea for almost every aspect of her life. She uses Facebook only for personal use; thus, she has no Facebook friends who are also her colleagues or students. She uses LinkedIn to maintain her professional profile and rarely uses Twitter. Skype is a platform she uses for both personal and professional use. She uses Amazon and eBay for her shopping and virtual environments (VR) for some of her research work.

Self

As I did for the initial interviews, I introduce the question about self by humbly admitting that it is not easy to phrase out and that I have tried to express it in several ways. In this way, I pre-empt a possible negative reaction to the question; this is also because the overall interview itself is pretty loaded.

Do you believe that the experience, influence, and use of ICTs and social media is somehow changing the nature of who you are? For example, is that changing the perception that you have of good and bad things happening in your life, the experience you have as a unique individual? Is it also altering what you think is your place in the world? [A3]

I point out that this can be distilled into whether the continued use of social media and ICT (digital communication technologies) impacts who you think you are. I refer to the self as the thinking thing in a Cartesian manner.

Sophie remarks that she thinks *the question is perhaps too crammed*: ‘It is an entire field [of research]’, she says. Then, with a tint of humour, she adds that she is the wrong person to ask such questions because that is just the subject that Sophie teaches; she cannot help but give a very convoluted answer.

Self as an organic process

Sophie says that, on an academic level, the question of self is hard to tackle because it is difficult to separate all those elements. She presents many objections and issues to the idea that online media experience affects the experience of self.

[It is not the case that] my online self is not very different from my other self. You go through periods when it's not either-or. It's hard to say how one impacts the other... Then, how I interact with social media and the kind of features of the program obviously shapes, to a certain extent, how I do things, who I am. [A3]

Sophie points out that the word 'impact' is too strong, as it creates a rapture while she interprets the *self as a more organic process*:

I would find it very hard to talk about impact because [the self] is a more organic process. [A3]

Sophie also rejects the idea that online and offline are separate.

I don't have a life online that I don't have offline. Obviously, I present nicer things about myself online. I don't go and tell everybody when I'm depressed because that's, for me, maybe more personal. [A3]

Sophie points out that *social media functions as a public space*. There are personal situations that demand privacy. Going through tough times in life is one. In such a situation, Sophie says she will talk to close friends but will not reveal it on Facebook or LinkedIn. It is not very dissimilar to standing in the middle of a public square and telling everybody that one is depressed. Admittedly, Sophie points out that separating these elements of the self is difficult.

Managed presentation of self

Sophie reiterates that she may be the wrong person to be interviewed about the relationship with digital communication technologies, as she is more aware of these matters than most people. For her, the presentation of self online is a conscious choice.

I manage these relationships online in a way so that I don't have to feel that I'm like being somebody else when I'm on LinkedIn versus when I'm on WhatsApp versus when I'm on Facebook versus when I'm on Twitter. [A3]

Sophie admits that technology plays a part in it, but it is only minor. She says that she has only chosen to have a different profile on each of these platforms in the same way she would not say in a classroom what she says in a pub or the other way around.

And there is this separation of these spheres that reflects the kind of separation that I would also have in my offline life when I'm around different people. [A3]

Online self as a way of life

Sophie stresses that she finds the word 'impact', as in the impact of ICT on self,²⁷⁸ problematic in this case, as she sees it as a more organic process, as she has explained. It is not so much that digital communication technologies influence the self: what you are online has now become a way of being.

As an academic, Sophie says that she knows most people in her network are also offline, so she could not be a different person in that space because everybody would know that it is not who she really is.

And for a friend who really matters, for whom it really matters that they know there is something else going on, they will know because they will be told; they don't have to be told through Facebook. [A3]

Identity

For the interview with Sophie, I also packed together several related questions for the topic of identity. Identity is introduced in relation to its online presentation, its multiplicity, the difference between online and offline, and related to professional identity.

²⁷⁸ This is the initial phrasing of the research topic that is being investigated.

How do you present yourself? Do you believe that the Web and mobile technologies produce further dimensions to your identity, and how do they affect your personal and social identity? And do you have an online identity that you express only on social media and how do the online and offline identities differ? And do you have a professional identity that you project obviously only in your academic work? [A3]

Sophie seems to accept the openness of the question that I pose and that it can link to all those aspects. She states that there are all kinds of platforms where she has a personal website; other websites are kept up to date through the university.

Many streams of professional identity

Sophie challenges the idea that there is such a thing as a core professional identity.

Professional identity has many streams; there is not only one aspect. [A3]

First, she points out that identity presentation relates to the type of medium used. Hence, there are blogs that she keeps for the university where she works, blogs for the BBC, videos, and appearances on television. Her background in media production and that she has worked as a journalist means that she is conscious, Sophie says, that she needs to think about how this kind of public appearance will be used.

So, in that sense, the professional aspect is kind of managed in a way. [A3]

Social media connecting to your past

Sophie compares social media platforms with email, when email was the only or the primary communication tool, as a pastime when she was studying abroad. In contrast to email, what social media allows her to do now is to maintain particular identities lost in time and *maintain the relationships on which these identities were built*. It allows for maintaining a bridge to the past that connects people and places. The same goes for people who live far away from here.

I feel that those relationships are part of my identity, right?!

When she interacts over social media with the people who used to be her flatmates in South America by seeing what they are doing when they get in touch, she says that she can reconnect to parts of her past identity. Social media allows her to stay connected with important past relationships and aspects of her identity.

I now can hold on to that aspect of myself a bit more. [A3]

For instance, Sophie's experiences living in South America are more fragmented than most people's: she moved around a lot when she was much younger, and her parents and her family do not live in those places anymore. So, she implies that it may also have more value for her because there was no social media around when she grew up.

The possibility to reconnect with others... allows me to... maintain a bit more, to use the psychological speech, of a continuous, consistent sense of identity.
[A3]

She acknowledges that looking back at the past may not be positive for everybody. She has come across many people who have serious problems with this because it reminds them of things and people who are no longer there. Alternatively, it may not be positive for other people whose past was an obstacle in their lives and who do not want to be confronted with those memories again.

Interview with Bill (A4), Singapore

Bill is a professor of media technology.

The interview took place on Wednesday, the 27 September 2017, in Bill's office. It lasted for about 35 minutes.

Background: Bill says that he had a tortured process of entering academia. A native of the US, he studied at a major university²⁷⁹ for his undergraduate and graduate degrees. However, because, at the time, he had a girlfriend from Europe, Bill moved over there with her. He lived in Europe for over two decades. After teaching at

²⁷⁹ Details are not provided to maintain anonymity.

universities in the United States and Europe, he researched the private sector and decided to return to academia in the last few years.

Information technology use: Because Bill researches the social consequences of mobile telephony, he owns several mobile phones, a laptop computer, and a tablet. An insight into his typical day indicates his approach to digital communication technologies: in the mornings, Bill uses his smartphone and tablet to read the news when he has breakfast; he uses a small laptop for his teaching in class; his laptop is also where he streams movies in the evening. There is no separation in the use of these devices: it is all mashed between his private and public spheres.

Social media use: Bill uses email almost entirely professionally as his main work communication instrument. However, he has a personal profile on Facebook where sometimes he ‘boasts about’, as he says, a paper that he has just published.

Self

I have changed the angle on the question about self for my interview with Bill. However, because it is a question that is so difficult to articulate, and I have not managed to concoct a satisfying formula so far, I assume that it is worth my while to try something different.

Taking a break from technology

I take up the suggestion of another interviewee who told me to investigate the relationship that academics, and possibly people in general, have with technology by asking what it would be like to take a break from it. Thus, as the self in relation to a perceived rupture with technology.

When (and if these technologies) ... break down and you stop using them, does it make you think about how they affect your persona? ... [Such as] the perception you have of good and bad things happening in your life? [A4]

I offer an example of such a situation as going on holiday where there is a disruption in the connection to the Internet and telephony network or the unavailability of devices because of the remote location or the circumstances.

Bill takes my suggestion on board by telling me an anecdote. He recounts that his family has a cabin up in the mountains in Northern Europe with limited access to the Internet.

I will have a low maintenance level of my professional life there.

Bill explains that because he is the editor of a major journal with about four hundred manuscripts around computing and communication, he always needs to take care of some work. Nevertheless, mostly, this is a limited activity that often only requires a yes or no decision. Even in the cabin, up there in the mountains, there is thus always an ‘ambient level of interaction’, as he describes it.

However, Bill reveals that it is mostly on weekends when he tries to ‘get away from the screens’ that he enjoys not having to deal with digital platforms. He admits that social media plays a big part in his personal and affective life. If, on the one hand, limited Internet access frees him up from the demands of work, on the other, it restricts access to the people he most cares about.

Since my family is spread, I have one daughter in [Scotland] and one in [England], and my wife is in [a country in Northern Europe]; that's how we stay in touch. [A4]

A lost repertoire of diverse ways to do things

On the same theme about disruption in access to the Internet, and in connection with the fact that Bill is a senior academic, I ask about his experience with digital communication technologies from the point of view of a *digital immigrant*, that is, someone who did not grow up in the digital age world. Finally, I ask him how he has experienced change.

Bill says that this is no big deal anymore. He points out that ten years ago, people who were, so-to-say, immigrants who grew up without mobile communications or digital interactions *had a repertoire of other ways* to get in touch and communicate with one another. However, he points out that these ways have been slowly taken down.

He makes an example of the telephone booth, an artefact that some people ‘grew up with’, which has become increasingly difficult to locate over time. Bill says that in the past, when his mobile phone was dead (because he had run out of battery), he would have been struck with the thought of finding and making a call from a telephone booth. He maintains that there is a kind of resilience about the phone booth not being there anymore. Nowadays, if his phone battery is dead, he would immediately try instead to use email or Skype as an alternative way to communicate with people.

Ten or fifteen years ago we'd had sort of... I would have literally known that there is a phone booth here and here and here, or I would have known that a typical place where a phone booth is there. In other words, I would have been able to search out. [A4]

This change also involves other ways of thinking about a problem and new points of reference.

Bill narrates another anecdote about how people find creative ways of doing things.

Resilient web of connections

The last time he travelled to the United Kingdom, Bill realised he did not have the keys to his London apartment with him; he had given them to someone else. When he arrived at Heathrow Airport in London, he used free Wi-Fi to message and ask for help from two people on location. One was a house cleaner at the London apartment, but she was away in the Philippines at the time. However, that house cleaner had the number of one of her colleagues who was in London and could get hold of the apartment keys. He points out that this amounted to an ‘interesting web of connections’. When his taxi rolled up by his apartment, a person was there waiting for him with the keys.

So, there is a resilience and I think that for people who have grown up with it, there may have been another one or two creative ways of dealing with it. But I don't really know what those would be. There may have been, maybe using WhatsApp or WeChat or something else. But basically, if you are quick enough on your feet... [A4]

Bill points out that there exists an older generation who has retired with the coming of the digital age and smartphone use. These are the people who are ‘squeezed out’ the most from access to these novel, technological ways of doing things.

I have been around long enough that I have had the opportunity in my work to develop digital skills and metaphors in thinking about different ways to do that. But there is possibly [an older] generation that doesn't have those skills.
[A4]

I ask Bill about his relationship with email in connection with now-established technologies and the theme of the breakdown (as in taking a break) from the digital. First, I mention that other academics had told me that they only check their email correspondence once or twice a day during busy periods. The reason is that there are too many new emails every day, and, in this way, the academics prevent emails from taking control of their time.

Bill says he uses the opposite approach: he goes through all his emails (answering them, taking care of things) first thing in the morning. He also checks them throughout the day. Bill says he receives between thirty and forty emails on average daily. Since many are spam mail, he manages to deal with his correspondence without this becoming a menace.

Since Bill had explained that writing is a significant part of his work, I ask him what strategy he uses in dealing with emails during periods of writing.

No, then it's not there (email). It's not part of my life. I'm working right now on a paper. I think I just get into the flow of writing and that's fine. [A4]

Identity

I ask Bill if he believes Web and mobile technologies introduce further dimensions to his academic and personal identity.

Life experiences determine digital relations

Bill proposes a different interpretation.

I don't know if they introduce some, ...but maybe they [social media] conflate them. [A4]

He points out that his life experiences determine his social media relations. First, he talked about his background of growing up in the countryside in the United States and the ranch skills he gained there. Then, the private part of his life was when he lived in Northern Europe. Then, there is the place where he lives now, Singapore. Each sphere and group of connections determines how he posts messages on social media platforms.

Bill says that if he posts something about Northern Europe, the group of people related to it will understand it, but not another group. The same goes for a post about something rural on the West Coast of the United States. When he posts something academic, a group of connections will understand it while another will not. When he posts something political, only some groups will understand the nuances.

I don't think that I have changed my identity, but I think that the different spheres have become more transparent. [A4]

I ask whether he feels the need to project a unique identity on each platform because the audience is different, particularly regarding a political point.

Ability to engage with different people differently

Bill says that he would instead target a small group of people. If he is the research project manager, he would rather email each person in the small group. However, Bill points out that he would consider moderating what he says on social media platforms such as Facebook.

I won't send the most radical kind of things, just because I want to maintain friendships with the broader group. [A4]

Bill points out that social media platforms are where an academic can 'show off' by publicising that they got some of their work published, obtained an award, or had a recent paper accepted. He says that it serves as a friendly way to stay connected with

people. But conversely, publishing something controversial in one's academic profile may be a burning issue.

Bill maintains that social media allows us to engage in different ways with different people. For example, if you go out for a nice dinner, you will post some photos of it; if something funny happens, you will take a photo.

[I]n a sense, it gives you the chance to engage with different people... and engage with different audiences. [A4]

I inquire whether that also goes with maintaining a relationship on social media with his students or if he tries, instead, as I assume, to keep some distance from them.

Bill says that he does not have many students on Facebook who are his Facebook friends, apart from the occasional former students. None of his current students, students whom he is teaching in the current semester, are his Facebook friends.

Keeping away from the information stream

Since Bill has mentioned that academics use Facebook to promote their work, I ask him what other platform he uses and if he uses Twitter. He replies that he uses Facebook. However, although he admits to having a Twitter account, he does not use it much; he is not very active on this platform. I ask Bill why since, from the past interviews and the literature review, Twitter is the digital platform most used by academics.

Bill's response links very well with what he told me about his work practices, such as wanting to focus on a particular task at a time or his habit of keeping a single word processing window open on his office desktop machine.

It's just because it's too chaotic. There is just a huge flow of stuff going on there. Every two seconds there are twenty more tweets, so it's just... it's just too much. [A4]

I ask if he does not feel pressured, and I imply this 'pressure' as an academic to engage in the global discussion on Twitter.

Bill remarks that it does not bother him too much. He is okay with the fact that it goes on that there is the streaming of stories and debates on Twitter, but he does not feel obliged to follow it or contribute to it.

If something important comes up, I will become aware of it somehow. [A4]

Interview with Antonio (A5), Singapore

Antonio is an assistant professor in a department of communication and new media.

The interview took place on 27 September 2017 in Antonio's office and lasted about 35 minutes. Before his current role, Antonio worked in journalism.

Background: Originally from Southeast Asia,²⁸⁰ Antonio studied journalism at the undergraduate and graduate levels before moving to the United States to do a PhD in journalism. Before pursuing his research degree, he worked as a journalist for several years. Then, realising that he was particularly good at writing, Antonio chose writing as his career. Although, at the beginning of his PhD, he tried to shift his interests to politics of communication, what he really cared about, also in his research work, was journalism.

Information technology use: Antonio always has his mobile phone with him because it gives him a sense of security. When he needs to make a call or reply to an email, he can do it via his mobile from wherever he is. Antonio also uses his mobile to access Facebook and message his friends, for example, to arrange a meeting. He owns an iPad he uses almost exclusively for entertainment, such as watching videos, TV programmes, or playing music. Usually, Antonio keeps his laptop in his office, so *he does not bring work to his home.*

Social media use: Antonio uses Facebook a lot, especially for someone who already does research on social media. He also uses WhatsApp, Singapore's most popular instant messaging app (mobile software). Antonio started using it because his friends did. Although Antonio has a Twitter account, he seldom uses it for professional tasks, such as sharing his research findings or some of his new publications. Antonio

²⁸⁰ The details are generalised to preserve anonymity.

also has an account on Instagram that he uses for his research alone, such as to analyse photos.

*Self and identity*²⁸¹

I pierce together the two self questions about change and disruption I used in the Interview Study. I ask Antonio whether digital communication technologies are changing something about his nature and whether the experience of disruption to such technologies can give him insights about himself.

Since we are in Singapore, which I know pretty well because I have lived and worked in the city-state in the past, I make up an example by suggesting a trip to nearby Borneo in East Malaysia, where I know the connection to the Internet can be patchy. I ask Antonio if losing a constant connection to the Internet could make him realise something about himself that he did not know before in this imaginary or similar situation.

Needs for online sharing

Antonio is not sure what I am precisely getting at. To clarify my point, he tells me of a friend, ‘the nicest guy’, who used to post everything he was doing on Facebook while studying for a Ph.D. That amounted to oversharing, Antonio remarks. However, after that friend finished his PhD and got a job, he stopped posting altogether. At that point, Antonio realised that his friend had a purpose: he was oversharing to create a good image of himself and attract potential employers.

Antonio seems to imply that there was no malicious intent. After all, his friend was the nicest guy you can find: his best friend was just projecting his best self online for a specific reason. Antonio points out that there might be reasons and needs for sharing one's life online. However, such motives had never applied to Antonio: he enjoys sharing.

Actually, I have never done that. I'm not friends with my [university] chair or my (research) team (on Facebook). I like to share. And when people say that

²⁸¹ In this description of the interview with Antonio, I merge the responses about self and identity because there was a lot of going back and forth between the two.

they want to copy (the material that I put online such as journal papers), it also helps me to reach more people. [A5]

Antonio makes a more subtle point: It is difficult to discern if digital technologies are changing us because each one is different. The online persona is not always a reflection of who we are.

Connection to fill the boredom

We return to the example of a disconnect from digital communication technologies.

Antonio takes as an example his latest trip to the USA to visit his uncle. Because Antonio had assumed that he could freely use a Wi-Fi connection wherever he was during his trip, he had not arranged for an extra data roaming package to use while abroad. On his first night in the USA, however, the Wi-Fi at his uncle's home was not working, his data roaming from Singapore was costly, and he found himself very bored at his uncle's house.

Because of jet leg, I could not do anything. I could not sleep... I had to be connected. Now that you ask me what I felt like... There is a Facebook intensity scale, right? So, my Facebook intensity scale was high. [A5]

I follow the thread of emotional response to social media to ask Antonio whether the cutting off from the Internet can also cause anxiety, such as because one cannot keep up with research or the latest news events.

Professional self and anxiety / Academic life is always connected

Antonio replies by saying that with regard to taking a break from work, there is a difference between his past life as a journalist and his present life as an academic.

When he was a journalist in his home country, Antonio explains, he cherished the time he had to visit his hometown. While staying in his parents' house and working on a news story, the editor of the newspaper where he worked would ring him up to give him instructions. The abysmal phone reception in the house was almost a blessing, an excuse for not having to take those calls, for not being bothered by anything. He said visiting his hometown was like a detox from his work as a journalist.

All this changed with his present career as an academic and researcher at NTU in Singapore.

You can't really say, 'No, I'm not doing research at this moment.' For me research work is constant. You may disconnect, but you are thinking of ideas... [O]ne week off from work... but at the back of your mind there are still things to be thought about... I feel a bit anxious about being disconnected. [A5]

I ask Antonio if, sometimes in his academic career, things can get overwhelming, such as when he has too many emails to go through. Antonio confirms that that is the case every day. Checking emails is a kind of urge.

That is every day. I observe with myself that I have this urge to... like if I wake up in the middle of the night, I need to go to the bathroom... I will find myself (in the middle of the night) checking my email. I'm not going to respond, but I need to see what is happening. But I think that this is very unhealthy. [A5]

I point out that some academics consciously limit the power email has over them. Some decide to check their email only every two or three days when they have a writing task for their research, and I ask if this is the case for him.

Need-to-know latest events

Antonio says that checking email has become an obsession for him. He uses his mobile phone when he is away from his desk. However, although Antonio continuously needs to check his email or refresh his email inbox to see if there are new messages, he does not always feel the need to respond.

I ask him if this is because he needs to keep up with his research. Antonio says that it is something more general that he cannot put his finger on.

[T]here is something that I need to know. I don't know why. Now that you have asked, I feel more conscious about it. What if there is some good news, or something urgent? ... I feel that I need to know. [A5]

Despite this need to check his email constantly, Antonio says he will only reply when he is back at his office at the university campus and can use his laptop.

I ask Antonio if there is a similar urge to be up to date with messages on Facebook. Antonio says that he also needs to check for updates and notifications on Facebook.

I point out that I hear his Facebook notification beep during the interview. So, there is a reason for setting up the alerts on Facebook Messenger, Antonio says.

Usually, I don't activate the sound. But today I was waiting for a message, so I activated it. [A5]

Antonio points out that he sometimes puts his phone on silent, and there will be missed calls or missed deliveries for something he bought online. Yet, when he needs to get them, he sets up alerts or turns his phone on (my wording).

Interview with Emily (A6), Singapore

Emily is an assistant professor at a department of communication and new media.

The interview took place on the main campus, in a quiet restaurant near the main library. Emily preferred this location to her office because it was more casual and easy-going. That facilitated the interview that went on for almost an hour, well over the scheduled 35 minutes.

Background: Emily has been working at her university for a brief period. Before that, she worked at universities in Europe and Australia. Her background outside academia is in the arts. She has had a career as a performative artist using technologies for her artwork. Curiously, the technology aspect of her work led Emily to study media design and approach her present career in academia.

Information technology use: Emily's use of technology relates to her specific field of research work. In previous years, she has been experimenting with virtual reality (VR) and contemporary art and how much that can put into question notions around information storage. In this way, Emily has used the network as a performative tool, playing with the idea of *uninformed consent strategies* in wireless networks. She

has also used Twitter with her projects on performative tools and an Android device for an artwork piece.

In her personal life, Emily uses several computers. However, she keeps most of the apps popular in Singapore on her mobile phone, such as WhatsApp and Telegram.

Self

Up to this point, the interview with Emily has gone by with much ease. She has been very cooperative by sharing individual experiences and thoughts. The question about the self follows smoothly. Nevertheless, I still introduce it by saying I am now moving on to a more personal area. As for the preceding interview with Antonio, the points of reference that I use are about change and disruption.

[Do] you believe that the experience of all these technologies is somehow changing the nature of who you are? And [would] a disruption... [to your ability to connect to these technologies] make you rethink about their power over you? [A6]

Emily immediately remarks that yes to the second question, but that was a decade ago. This, I assume, is about her research work.

I complete my question by mentioning that an example of such disruption may be how she perceives good and bad things in her life.

Humorously, Emily recounts how she will, on rare occasions, ‘have a rant’, a private rant, on Facebook. For example, she says that the occasion may be about her six-year-old child going to a party that is a ‘makeover’,²⁸² she would be very annoyed about it, and she has a rant on Facebook about it, therefore revealing her allegiances and bad temper, and lack of tolerance.²⁸³

And then I may get up and delete [the Facebook message] ... [A]t four o'clock in the morning, I will delete (*laughing*) [it]. Because really people like ranting about... [A6]

²⁸² I assume that Emily here means a fancy-dress party.

²⁸³ Again, this was said in a light and humorous manner.

Switching on and off from social media

I ask Emily if a disruption of these technologies would also affect her work as a university teacher and researcher, such as by being away in a place where Internet connection or availability is restricted for some unknown reason.

When I'm doing deep writing I deactivate Facebook; I completely deactivate it. [A6]

When I ask about Twitter, Emily says that she does not deactivate it, as she does for Facebook, because, at present, she does not use Twitter as much as she used to. With Facebook, instead, there is also an attachment to her family: her mum sometimes needs to talk to her, and she is only familiar with using Facebook Messenger. So, for how tricky it is,²⁸⁴ Emily deactivates Facebook when she needs to do some serious writing and then reactivates it when she needs to talk to her mum.

I ask Emily if she could afford to switch off from Twitter, given that she may still need to keep in touch with other academics, such as while working on a collaborative research project.

I believe that I can [switch off from social media] because it's always going to be there. You can just look at their feeds, and I think that sometimes you get caught up in these. Everything is opening out; it's the same old things that people are talking about. [A6]

I follow up on this question by asking Emily if she is not worried about missing a discussion topic or a call for a paper. She says that this is not one of her concerns. She says she used to be so overwhelmed by calls for papers that she preferred not to know about them. In any case, her university lets her know about any crucial commitments or requirements.

I further ask if she thinks that is also the experience, as far as she knows, of her colleagues in academia. She replies by saying she knows of a friend who has deactivated her Facebook but is still reachable by email.

²⁸⁴ My wording.

Cutting off ties with other academics

Emily recounts a situation where she had to cut off a personal tie on social media with another academic bothering her too much about a conference he had organised.

I didn't really like being friends with him on Facebook, so I blocked him. And then also caused trauma. But that's what I do. I don't like him reading my things because I don't trust him in whatever way. Not for any particular, solid concrete reason. [A6]

When confronted with a similar question about online privacy, the other respondents only mentioned potential issues with students and the resulting need to separate their professional self from their private persona. As a result, several academics interviewed prefer not to have their former students on their Facebook network. This was perhaps also because there was an invitation, in one prompt to the principal question, to specifically talk about their relationship with students on social media platforms.

However, what Emily says introduces another level of analysis: an academic wanting to keep away from another academic, a colleague, or an online acquaintance. So, the separation between the professional and private self relates to academics as educators and people. Intuitively, this should be the case, as it is with other professions, where one may not wish to extend the relationship with work colleagues to their private, away-from-the-office lives. But, given that most respondents report that academic work extends to the rest of their lives, it may be a more demanding thing to do.

Identity

The interplay of multiple identities

I try to formulate the question about identity differently than in the initial interviews. Here I focus on the experience and interplay of multiple identities in the social media space.

And do you believe that social media also introduces new dimensions to your experience? You will have an identity that you perform with your peers, your

family, one that you have to project with your students in academia. How do these identities interplay together? [A6]

Emily rephrases the question:

If you are allowed to play [here Emily means to play with different identities], will people around you understand that you have more selves than the ones represented by these new technologies? [A6]

Emily relates the presentation of identities on media platforms with what people can gather about who you are, yourself, and distinct aspects of yourself (she uses the plural selves). Emily states that the interplaying of identities has always been the case and is not new to her because she has been working in the performing arts.

Nevertheless, she remarks that social media makes this more complicated. Emily says that sometimes, she would like a private online space *that meets her private needs*.²⁸⁵ She says that if she had to join Instagram, she could get away from all the people stalking her on Facebook by making friends with her friends. Perhaps Instagram could be the private platform where Emily shares private pictures with very close friends and family (my wording).

But for any other social media platform, that would quickly result in a loss of this intimate space.

And then they start... they pop up again. I mean, these are friends, but they are not really good friends. They will come to your wedding, but they will not bother to buy you a present. So, the friends you don't really want to have... But we have to invite them because, otherwise, they will complain because we live in a small place, or something like that. I mean that kind of thing. [A6]

Leave people guessing

The *performance of identity* has not only changed regarding the pre-digital communication technology era, but it is evolving with new technological advances.

²⁸⁵ My wording.

Before ubiquitous connections to the Internet were the norm, Emily maintains, it was still possible to play with multiple and different identities.

In the past you could really, when technology wasn't so ubiquitous, on all the platforms you could play more because people would not work out if you are not friends with... you could leave people guessing, whereas now it's just harder unless you completely don't have any linkages. [A6]

I still challenge Emily by asking whether she thinks her offline identity differs from the one she projects in the digital space. While acknowledging that such distinction has been vanishing, I ask if the persona she creates on Twitter or Facebook differs from who she is in her every day, face-to-face interactions.

But to have a different persona online, you also need to have a *different audience*, and Emily remarks that this is not the case for her.

It's hard because all the people that I'm friends with online I know in real life. And I guess I'd get to know other people more, so I will have more conversations than I'm happy to have with them in real life because of the distance. [A6]

Interview with Fang (A7), Nara Prefecture, Japan

Fang is a postdoctoral researcher and works in an artificial intelligence laboratory.

The interview took place at a university campus on 27 October 2017 and lasted about 35 minutes.

Background: Fang is a young academic who enjoys talking about her personal life. She studied for her doctoral degree in China and afterwards came to Japan to do postdoctoral research. Fang has recently completed her PhD and now works as a researcher. Though she has studied for a bachelor's in computer science, she is not interested in computing alone. However, Fang received a studentship from a prestigious university in the USA to do a master's degree there. Furthermore, because she did not wish to pursue a career in the software engineering industry, she continued her undergraduate studies by doing a PhD in Japan.

Information technology use: Fang has two computers, one for work and one for entertainment. She owns a Kindle²⁸⁶ for reading and uses her smartphone to access social networking sites.

Social media use: Fang uses social media almost daily to keep in touch with her friends abroad. She uses Instagram to upload photos and Line²⁸⁷ to keep in touch with friends in Japan. She has a profile on Weibo,²⁸⁸ the Chinese counterpart of Facebook, and uses WeChat²⁸⁹ to converse with her friends and family in China.

Self

Memories of negative emotions

In this interview, I attempt to approach the question of self from the angle of personal experience, of a particular memory that can function as a trigger for self-reflection. This is another posturing from which I try to enquire about the self.

Can I ask you what the last thing that you did online is? And do you remember something specific, a situation that really frustrated or made you angry? [A7]

The rationale behind the formulation of this question is that a unique situation has triggered powerful emotions. It centres on frustration and anger because these negative emotions are often imprinted in memory, which can stir an exciting discussion.

At first, Fang is baffled by the word ‘angry’ but then replies that online advertisements make her angry.²⁹⁰ So, I use a further prompt to clarify my point: I ask her to think of a situation, as a user of digital communication technologies, when she thought something was wrong.

What bothers Fang the most on social media is being approached by strangers.

²⁸⁶ Kindle is an e-reader produced by Amazon.

²⁸⁷ Line is social networking mobile app extremely popular in Japan.

²⁸⁸ Weibo is a micro-blogging app service mostly used in China or by Chinese speakers. Its functionality is remarkably similar to that of Twitter.

²⁸⁹ WeChat is a social media and messaging platform, which includes many more services; it is China based and immensely popular among Chinese speakers. Its usage can be compared to that of its American counterpart WhatsApp.

²⁹⁰ My wording.

Sometimes I feel like I have somebody at me without my permission. Then I block such connection... Anybody can find you by your Line, like by [Line ID], or the person who has your mobile number can find your ID. So, I [turn all social networks] to private mode. [A7]

Fang remarks that such a cold approach by a stranger could be dangerous.

I reinstate my argument's main contention and inquire whether such a situation made her think something about herself and the use of such technologies.

Did that make you think something about yourself that you didn't know? Was there a disruption in your use of social media? Did it make you think something different about how you use it? [A7]

Following up on that, I ask if the situation of being contacted by someone she does not know makes her reflect on the use of digital communication technologies. Then, she asks what I mean by whether she had stopped using such technology.

The delivery of this question is more complicated than I had expected, but I am not prepared to give up on it. Part of the reason may also be that although Fang's English is relatively good, she may still not fully understand what I am saying.

Getting people's attention

Fang recounts how gaining people's attention on social media is difficult and frustrating.

Sometimes, I feel very tired of social networks. For example, I upload one picture because I want to get more people's attention... on WeChat or Instagram... But I find that not so many people click like [on the picture]. So, I think, is it... because I upload too often so people get tired of it? [A7]

She says that because such a situation can frustrate her, she will uninstall the app from her phone for one or two days, getting away from social networks. However, later she comes back to it. Humorously, Fang says that she often changes her mind about things because of her star sign Gemini.

I ask her if that kind of situation makes her think differently about technology.

Yes, sometimes, I think. In such cases, I will keep away from social networks for a few days and talk to my real friends and old friends. [A7]

I ask Fang if she feels social networks had let her down in such a situation.

Acknowledging that one may have different friends on social networks than one has in social life, she says she has experienced it as a let-down of her close friends rather than the social network.

Sometimes, it's not a problem of the social network but of the friends who are on the social network [site] because some friends are very far away from me, but I want to get attention from them, but they don't react. So sometimes I'm a little bit... I get angry with these friends on social networks, not with the application itself. I don't know. [A7]

Fang explains that it may not be a problem with the technology itself but rather with the types of relationships that one can have online. It can be challenging to maintain a distant relationship despite how much social media may close physical distance. Here, Fang describes her personal experience as a Chinese expatriate living in Japan in general terms rather than regarding her academic roles.

Strategies for being liked

I ask if the difficulty of capturing the attention of friends on social media makes her want to present herself in different ways or if it changes something about how she puts herself across on social media.

Fang acknowledges that that may be the case. However, she explains that she has realised that one must post something strong on social media to capture people's attention.

That might have happened. Yes, something I upload, something interesting or shocking. Because if you upload very normal things, it's not interesting. [A7]

She explains that she uses this strategy to get attention from friends who live far from her and life in China. Fang says that selfie photos, or photos of unique dishes from a restaurant, will be more popular than scenery photos. She implies that the latter

is what she likes to post the most. Her online friends will also display more interest in photos of a conference she has attended and perhaps congratulate her on it.

But, for example, if you just upload something about such kind of scenery, maybe there will be no likes at all. It's like... people are more interested in surprising things. [A7]

I ask Fang if that is also the case with people in her area, such as work colleagues and other academics.

Fang moves the topic to communication rather than presentation (of self). Perhaps she did not understand that I was trying to press on with the latter. She says that the response varies between senior and young academics; academics are in positions more senior than hers, and others like her are young academics.

Sometimes... I think [that] sometimes if I feel like... an old boss, professors... I think [that] sometimes they give feedback more quickly than a small [junior] boss, [a] young professors. I don't know why. Maybe it's because I'm friends with young professionals, and it's easier [to communicate with them] ... they are less busy, I don't know. But [however] I feel like sometimes I get instant feedback from the professors. [A7]

Identity

When it touched on online presentation, the question of self overlapped with the question of identity.²⁹¹

Presentation of self on different platforms

Regarding presentation and picking up from what was previously said, I ask Fang if there are some strategies that she uses to promote her academic work. Then, I ask her how these differ from promoting her personal, 'normal' life and group it with

²⁹¹ Again, the distinction I made in my research is about expression of who one is, one's nature, feeling, thought, values, in contrast with identity, which is those more social aspects that distinguish oneself from other people.

a prompt about the difference between the presentation (I use the word projection) of offline and online identities.

Fang says that presentation for her varies depending on the platform she uses. For example, Facebook is where she keeps her formal academic contacts and where she thus projects her professional self as a young academic.

On Facebook, I'm more professional. Because many... I think that even the colleague in the US, my previous colleagues, and former professors, and also currently the professors in [a major university in Japan] since I finished my PhD in [this major] university [are on Facebook] ... [A7]

The professional presentation is also linked to how Fang sees her place within the academic hierarchy. Dealing with a senior academic, such as a professor, commands more proper behaviour. So, while it may be essential to present a professional persona online with colleagues, it is even more so with more senior staff members. Although the cultural element is examined in the Consolidation chapter, this passage reflects the respectful place that a professor, referred to as *sensei*,²⁹² has in Japanese society.

While Fang projects a public persona on Facebook, she uses other platforms such as WeChat and Instagram for her personal private life. WeChat is where Fang maintains her connections with her family, friends, and colleagues in China.

On WeChat, it's me... more private things... sometimes very happy or unhappy, a different aspect of me. And on Instagram more, how do you say, narcissistic [things] because I post my selfie photos. I think the selfie photos I only post on Instagram, not even WeChat. [A7]

²⁹² Though the word *sensei* is often translated as teacher, it is used in Japan to refer to a respected person of authority, which includes a senior academic (Canestrari, Alan S. 'Understanding Japan's Sensei.' *The Wiley International Handbook of Educational Foundations*. Hoboken, NJ, USA: John Wiley & Sons, 2018. 189–204. Web.)

I reinstate the identity question but relate it to our discussion. I ask whether, after posting something personal online, on second thoughts, she deletes it, realising that it may be too embarrassing or personal to be shared with other people.

Fang says that she deletes some of her posts, especially when they turn out to be too negative.

Sometimes. Sometimes. Especially when I feel angry, unhappy, and negative about things. Because, if it's happy things then it's fine. Sometimes your negative mood will influence somebody else. So, [I do] sometimes. Because, in social networks, you have a chance to delete it. [A7]

And yet, she knows that people may have already noticed and read the message by the time she deletes it.

Interview with Mauricio (A8), Nara Prefecture, Japan

Mauricio is an assistant professor at a university in Japan.

The interview took place at a university campus. Mauricio came to the university to give a talk and agreed to sit down for this interview following the talk; the interview lasted for about 35 minutes.

Background: Mauricio says that he got into academia almost by chance. After studying for a bachelor's in computing science, he found out about a research scholarship at a UK university researching computing and the elderly. Mauricio managed to get on board this project on human computing interaction (HCI) because he liked it so much that he got, as he says, 'stuck in academia'.

Information technology use: Mauricio's first interest in computers was through playing games. In the early days, he used to play with Intel 36. Nowadays, the Internet is not only an instrument for entertainment and a source of information, but it is the only way to connect to his family in Southeast Asia.

Mauricio says that he started using smartphones only three years before the interview. What attracted him was the *utilitarian factor*, thus the mobile as an aid to finding his way around.

Social media use: He uses Skype to call his family and Facebook to liaise with his friends because it is the primary platform, like in other parts of the world. His prior research was about virtual environments using 3D animation software. In his current research, he uses and builds dedicated applications using the Python programming language.

Self

For this interview, I try yet another approach to the question of self, which has emerged from the analysis of the transcripts of the other interviews. In this, I try to gauge the experience of self by asking about the last time the interviewee used a digital communication platform. For example, Mauricio said he used Twitter to stay connected with people in the first part of the interview.

Can you go back to the last thing you posted on Twitter and tell me what it was about? [A8]

Mauricio says it was when he congratulated a friend who had just taken her PhD defence. He added that Twitter is the only way that he can stay in touch with her and the only channel to keep connections alive.²⁹³ In this interaction on Twitter, Mauricio says that it resulted in projecting a mundane extension of the personality. So, it did not involve elaborate filtering.

I ask Mauricio if social media is also a strategy he uses to project a different persona. Then, as a hint, I ask him whether he uses it to project a more professional image of himself and his professional self.

Imposing an automatic filtering / Sharing of positive stories

Mauricio says that communication over social media involves *automatic filtering* by default.²⁹⁴

²⁹³ My wording.

²⁹⁴ My wording.

Sometimes, no matter how you do it, it's always a kind of automatic filtering. It's always rare that you post negative things. So, in a way it is a filter on your actions. [A8]

He maintains that he rarely posts negative things because they trigger a negative response in his friends. 'They will hate you,' he says sarcastically. Mauricio argues that being positive is what one generally does without overthinking it.²⁹⁵ Thus, what he likes to do on social media is share positive news with his friends.

Most of the stuff Mauricio posts is about the news he finds interesting. It does not influence how he thinks about the real world out there, he says, but it is just a way to *receive feedback* from people.

In a way, they [digital communication technologies] make you aware of your friends' reaction, so it's automatic feedback. [A8]

Mauricio speaks in the third person, so I now press him to talk about his experience.

You don't post personal stories as well? [A8]

Receiving feedback from people

He says that most of the stuff he pastes into his messages is general information, for example, about other people's research, but nothing personal.²⁹⁶ For Mauricio using digital media, communication does not involve sharing one's life online but only what one likes, dislikes, and prefers.

I ask him if he presents himself differently depending on the reactions he gets from people.

Yes, in a certain way. That happens. Sometimes you post some news, and you don't expect a lot and actually... [you do]. [A8]

²⁹⁵ My wording.

²⁹⁶ My wording.

However, he contends that it is hard to say whether it changes how he conducts himself online.

Identity

I use the same introductory question about identity I have used in other interviews, thus whether digital communication technologies introduce further dimensions to his identity, such as the contraposition between a personal and social identity.

The elderly in virtual worlds

Mauricio says he sees many examples of this in his research work.

I work with the elderly and virtual worlds, and my first task was actually to find all [elderly] people that are users [of] virtual worlds... I thought that it would be impossible, but surprisingly I found twenty people to carry out a two-hour interview each. [A8]

Mauricio reports that the older adults he recruited for his study were surprisingly enthusiastic about the interviews and were glad to tell him stories about their identities in those virtual worlds. He adds that some interviews were carried out in those virtual worlds.

Virtual worlds are, for the elderly, a way to transcend the limitations that the physical world imposes on them because of their age, Mauricio says.

Sometimes they tried to use these to compensate for some of the physical inabilities, sometimes they are limited in the real world... in their mobility ... they can't move... [so] they go in these virtual words to do all sort of daunting activities. Sometimes they use these as a way to project their knowledge. [A8]

He reports the case of a retired nurse and a retired dog trainer who used Second Life,²⁹⁷ teaching classes about childbirth and how to raise a dog, respectively. Mauricio emphasises that they did not need to change their identities and kept their real identities in the virtual environment.

²⁹⁷ Second Life is an online virtual reality world: www.secondlife.com

It was interesting because they go into these virtual worlds and they keep their identities but without the limitations, and they get a real sense of achievement in that. They are able to do something despite their age. [A8]

Mauricio points out that older adults enter these virtual environments because they are not perceived as old. They find it easier to forge social interactions by talking to younger people without being discriminated against.

Although I find these remarks quite fascinating, I try to turn the conversation to Mauricio's experience one more time. After all, my research focuses on academics, so I am interested in learning more about him.

Is that true for you as well in how you use [virtual worlds]? [A8]

Mauricio says that he has used virtual worlds only for his research. First, he enters a virtual world, and when he does, he interviews people there through an avatar.

So, the anonymity allows you to interview them better but there are no long-term changes for me, I think. [A8]

Mauricio says that, in his interviews, being anonymous and online helped people open up.

I return to the point that Mauricio has raised about the feedback he gets from his friends about what he posts on digital platforms. I ask him whether their response reveals something different about who they are, something he had not thought about before, or something he did not know about.

Mauricio says that this is frequently the case. But rather than talking about this experience, he discusses these two types of friends he has: those who post stories about feeling down and others who post about information and knowledge.

I have friends who were depressed and used [social media] to reach out to others. And they post really sad stories all the time, so it seems that they can find encouragement from friends. In a way, it helps them to deal with their sadness and loneliness. [A8]

Then Mauricio says other friends post about what he defines as ‘low-level stuff’: news and knowledge. It can also include personal but mostly factual stories, such as getting a new job, completing their PhD, or publishing.

I guess in that case they act differently from their real self and see [social media] as the platform that allows them to think of what they are saying and compose a sentence and then [evaluate] the online reaction. [A8]

Limited expression and culture of saving face

Readdressing this perspective, I ask Mauricio if he sometimes also posts personal stories and feels the need to reach out to people, perhaps because he is going through a rough patch with work.

Mauricio remarks that how one presents oneself on social media depends on personal preferences. As for himself, Mauricio states that he does not go public with personal issues.

I think it’s also the culture, where you don’t put it [out]. I think it’s about ‘saving face’ culture in Asia. You would not put out that stuff that embarrasses yourself ... that five years later people can say ... this guy was at a lower point [in his life] five years ago. [A8]

Mauricio reinstates the online presentation as a personal preference. Some people prefer to share a personal plight over the phone with a close friend rather than put it out publicly on social media.

5.3 EMERGING THEMES

Intro

The first part of Section 5.3 introduces the identified themes and draws some interpretation lines. It does this by revisiting the research questions tackled in this study, introducing the themes through a brief integrated description, and proposing several shared interpretative narratives. The second part examines the emerging themes individually, introduced in Figure 30. Significant interview passages that sustain each theme are highlighted, then interpreted and critiqued in relation to the relevant literature.

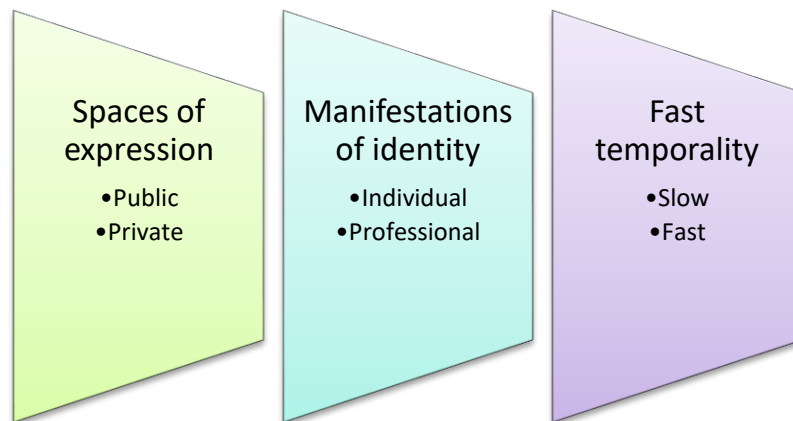


Figure 30: Themes identified in the Interview Study data

Overview of these three themes

Below is a condensed narrative about academics’ relationship with technology that synthesises and merges the three themes.

Digital communication technologies promote a challenging and ambivalent relationship regarding digital *spaces of expression* (Theme I). Increased online spaces of public display result in shrinking spaces for privacy, where academics have to manage their *manifestations of identity* (Theme II) through the presentation of an individual and professional persona. Furthermore, these digital technologies force upon them a *fast-temporality* (Theme III) loaded with uninterrupted demands and expectations on their time, making them long for a slower pace that could allow for contemplation and reflection over digital technologies themselves.²⁹⁸

While Theme III was explicitly stated by those interviewed, the other two (Themes I and II) emerged from the data analysis. Moreover, the three themes are interrelated as they paint a picture of how academics find elaborate ways to navigate the virtual space and manage to shift digital practices.

²⁹⁸ The arguments presented in this storyline are fully explored and defended in the follow-up sections.

5.3.1 Theme I: spaces of expression

Description

At various points in the interviews, the respondents acknowledged that the *widening of public* (digital) *spaces* had increased possibilities, such as connecting and reaching out to a larger audience and promoting one's research. At the same time, in other passages, they pointed out a concurrent concern about narrowing *private* (digital) *spaces*, hence spaces where they can manifest or express themselves free from risks²⁹⁹ or conflict. The latter has often been conveyed in the negative, thus as drawbacks that result from the open nature of digital communication platforms and the widening of public spaces. It portrays the protection of private spaces as a tentative, desired state of affairs. The responses in the interviews manifest, at times, a sense of frustration about the erosion of private spaces and, at other times, concerns about the possible negative consequences of what one puts out in digital spaces.

Illustration from data extracts

Public digital spaces

Undoubtedly, the widening of public digital spaces fosters academic collaboration and facilitates connecting with others. Increased possibilities of cooperation, an essential element of academic work, are among the significant opportunities that have emerged from expanding public digital spaces.

In the passage below, Antonio describes how digital platforms have allowed him to create groups and communities and reach out to people beyond academia. Creating online groups allows him to promote his research outside his professional network and connect to others, such as journalists, who are interested in his work.

There are non-academics who are very interested in the work I do, for example, on fake news, which is a big issue and a problem in [a country in East Asia]. Also, I have a lot of journalist friends who are very interested in the research that I do. So, they are non-academics, but I feel that by sharing

²⁹⁹ Among the risks mentioned in the interviews are wrong association and wrong interpretation of what they say.

my work both on Facebook and Twitter, I'm reaching these other people outside academia. [A5]

Along similar lines, in his interview, Thomas emphasises how digital communication tools have now become an essential part of academic collaborative work practices to the extent that it is difficult to imagine maintaining international collaboration without them.

Collaboration has also really been made easier. It would be really hard for me to maintain the international collaboration that I have if I didn't have something as common now as Skype [where] I can share a document and I can write [a paper] together [with others]. [A2]

As the two examples above show, digital public spaces in academia appear to promote the vision of the digital as an open field of opportunities, which can only be improved by being more public, honest, and connected.

Private digital spaces

However, that optimistic vision clashes with the troubled personal experience some have of it. The subtheme *feeling overwhelmed by technology* from the data coding very well captures this sentiment. In the interviews, this relates specifically to the effect digital communication technologies have on the private aspects of the respondents' lives. The interview with Emily exemplifies this. In the passage below, she recounts the imposition email correspondence enforces on her personal life, becoming an obstacle to her everyday living and peace of mind. Emily relates an episode from her family life: even though the school³⁰⁰ for her child is only three stops away from where she lives and works, which is the university campus, she finds herself entrapped into having to keep up with a constant barrage of emails from the schoolteacher, other parents, and special email groups in the school.

My child goes to school three stops away, and we get emails from the class teacher once a week about what is going on. But that seems not to be enough for all mothers. They also need to talk about everything five thousand times.

³⁰⁰ This is a primary school, dealing with children starting from age five or six.

I'm not the lead parent: my husband is the lead parent. So, and still, I'm expected to, oh, be on this mothers' list even though I'm not... Now and again, I will pick up my phone ... and I see, just like sixteen messages or something like that. And maybe I look at it, and there's nothing useful there. And then it's some kind of weird [email] groups that they get formed, so in science, it's a spelling group... it's beyond me. [A6]

Emily experiences this as an intrusion of digital practices into her private life, hence her private space. It counts as one of many examples of how digital communication technologies can, at the same time, improve our lives while bringing about new challenges.

Undoubtedly, email is a technology that has drastically increased the possibilities for communication: in this case, by giving Emily too much information about what is going on with her child in school. However, it can also introduce novel communication practices³⁰¹ which may be experienced as invasive or overwhelming, such as forcing Emily to keep up with extensive email correspondence from the school.

Emily's case also typifies how digital technologies may reinforce gender stereotypes. Although the registered lead parent with the school is her husband,³⁰² the email system defaults to her as the recipient of emails. It can be assumed (though this has not been investigated) that this is how the school's computer system has been built, thus with the word *mother* 'hardcoded' as the lead parent. The design of the computer system generalises from the fact that it is primarily mothers who take care of all matters concerning small children of that age.

Sharing as a risk is another subtheme highlighting the troubled personal experience resulting from the opening of digital spaces. The risks in question allow intimate and contentious aspects of one's life to slip through to the public arena, where they could be misunderstood or misused. These risks can be mitigated but require constant monitoring of what one says. One strategy to seal off the private is to divert part of one's communication towards platforms that offer a more protected space or

³⁰¹ That would include keeping up with the email correspondence to make sure she is knowledgeable about what is going on with her child and the school.

³⁰² Emily revealed to the interviewer prior to the recorded interview that her husband at the time was a stay-at-home dad.

are separate and not linked to more public or mainstream platforms.³⁰³ In the extract below, Sophie explains how she makes sure to channel personal matters to social media that implement some degree of privacy and separation.

But, like when I'm going through tough times, I will [only] tell my close friends and I will use other social media, but not maybe Facebook, and definitely not LinkedIn... On the other hand, that's no different for me, like I wouldn't go and stand in the middle of a public square and say, 'Hi everybody, I'm depressed.' But I would go to a beach and have fun and hang out where people can observe that. [A3]

Sophie points out that this is not unlike real life. Yet, as platforms become more interconnected, there are increasing risks for private and sensitive communication unwillingly becoming public knowledge. Using Sophie's image of hanging out at a beach, digital spaces are morphing in such a way as to make isolated beaches extremely difficult to reach so that all that is left is public squares.

Meaning and significance

Reviewing the relevant literature, this section engages critically with Theme I, thus about the assumed significance of private digital spaces for academics. It first defines the generic use of public and private, what they mean with respect to the grouping of academics, and as applied to digital communication technologies; second, it contemplates the importance of private spaces specifically for humanities academics; finally, it scrutinises and challenges the paradigm of sharing, and the notion of anonymity as an enabler for the expression of true self.

The boundary between public and private

Generally, the meaning of public and private depends on the context in which they are used. Yet, these are not value-neutral notions. On the contrary, they are loaded with theoretical baggage; furthermore, their use imposes specific logical constraints.

Public and private notions belong to the political sphere to a considerable extent. As individuals, we are always out and about in the communal public domain,

³⁰³ It may be the case that the university promotes their courses on Facebook, in this way making Facebook into a public space.

interacting with others. In the classical interpretation from Aristotle, this intrinsic social nature of man makes us political animals (ca. 350/2006). In political theory, public and private have also been employed to trace political action and activity boundaries, traditionally between the left and the right of the political spectrum or the state and the market.

This political aspect undoubtedly carries over to digital spaces, considering, for instance, the fierce political debates on Twitter. Furthermore, social theory also stipulates that private and public marks the relationship between individuals and society. The latter is vibrant and healthy when open to strangers (thus, the public), and people do not fear socialising, disclosing, and risk-taking (Sennett, 1987).

These examples indicate that private and public are neutral notions which can acquire value and meaning from the context in which they are used. Nevertheless, the very use of public and private has been put into question by feminist writers. They have argued that such a division is biased because it embeds the structural subordination of women in society for whom private life has been relegated to the domestic, thus private, sphere of the family (Pateman, 1989; Landes, 1998, 2003).³⁰⁴ Furthermore, applying such a dichotomy imposes a particular theoretical framework of a contrast between two, not multiple, entities, which may not necessarily reflect the nature of the scrutinised phenomenon. Overall, this indicates that the terms public and private need to be treated with extreme caution.

In this research project, the territory under scrutiny is digital spaces, bridged to the personal experience they circumscribe. As discussed in Section 2.3.4, the digital, although intangible, should not be considered immaterial because it encompasses the materiality of objects and socio-technical practices (Latour, 2014). Therefore, private and public are used to map the personal experience of the morphing of physical and digital spaces, encompassing platforms people use for entertainment and information gathering to communicate, interact, and socialise with others.

The contention in this theme is that the boundary between private and public digital spaces for the grouping of academics has shifted and is shifting. A boundary is what divides a physical or abstract terrain. In this sense, it has served as one of the

³⁰⁴ Admittedly, feminist scholars are just one of the scholarly communities to problematise this term.

powerful toolkits of social scientists (Lamont & Molnár, 2002, pp. 167-168), going back to Durkheim's division between sacred and profane (1665/2008, as cited in Lamont & Molnár, 2002, p. 167).

Nevertheless, the definition of boundary also includes what it limits. The boundary between public and private digital spaces centres on how it limits or promotes expression, which extends to giving or taking away resources and opportunities. One contention is that although the widening of digital spaces favours communication, it may limit certain types of expression that rely on retaining some privacy.

Interpretation of spaces of experience

The following questions help address this puzzle: how can private and public be characterised regarding personal experience and expression in digital spaces? What characterisation best applies to the cohort of academics?

A fitting interpretation is that given by Pitkin (1981). Borrowing from spatial metaphors used in geography, he described private and public as the experience of an *in here* and an *in there* (Pitkin, 1981, p. 328, as cited in West *et al.*, 2009, p. 616). The *in here* is 'personal, intimate, closest to the self, secluded from unwanted others, where we have 'privacy' and are free to be ourselves'. By contrast, the *in there* is 'impersonal, distant, formal; whatever goes 'out in public', and with its 'private parts' properly clothed' (1981, p. 328).

Pitkin's description successfully captures how the experience of private and public spaces is conceptualised in this research. For one thing, the *in here* entails having one's position (one's space) under control and out of reach of other people, such as those who do not belong. For another, it emphasises subjectivity, thus the personal, and so, to a certain extent, an intimate experience, which is the basis for the capacity for the expression of self. Finally, the *in there*, for Pitkin, requires the adherence to social rules (clothes) and manners of behaviour (1981).

For the group of academics interviewed, considering this analysis, private can be interpreted as what pertains to their ability to be integral individuals and express as academics traits of personality and character, perhaps sheltered from the demands of academia: paraphrasing Pitkin, the 'unwanted other'. In contraposition, the public is

where academics are ‘properly clothed’, opting to be more composed and ‘distant’ from their students and audiences and using these clothes to face others.

A further angle of interpretation centres on how the narrowing of the experience of private digital spaces can be linked to the particular ‘type’ of academics examined in the Interview Study: those who work in the humanities. The contention is that this group of academics has a distinct relationship with private spaces, extending from the physical world to the digital. Furthermore, this can explain why the data shows that private digital spaces are crucial for humanities academics.

Humanities academics

In *The Value of the Humanities*, Small described the humanities as the study of past and present meaning-making practice of human culture’ with a focus on ‘interpretation and critical evaluation’ and with ‘an ineliminable element of subjectivity’, which is a recurring leitmotif (2013, p. 23). While other disciplines make truth claims on positive appeals to evidence, in most humanities, uncovering truth entails judgment and critical scrutiny (Small, 2013, pp. 23–25).³⁰⁵ In this respect, it can be argued that humanities academics need to have not only an analytical research approach but also one that is self-critical because it engages with the interpretation of human beings and culture, which involves, in turn, a degree of self-reflection about what it means to them and in their experience.

It can be assumed that this also applies to the subcategory of digital humanities practitioners or digital humanists. Although their work may involve computational analysis and a more significant element of collaborative work than in the traditional humanities (Gao et al., 2023), it still revolves around subjectivity and self-reflection (Rockwell & Sinclair, 2016).³⁰⁶

³⁰⁵ Admittedly, some disciplines in the humanities such as philology or history have a strong empiricist tradition (e.g., Raphael, 2013).

³⁰⁶ Rockwell & Sinclair argument about digital humanists is discussed in the next section.

The specific practices regarding spaces of humanities academics are used as an interpretation tool to shed light on the interview data regarding the contraposition between digital private and public spaces.³⁰⁷

This analysis extends to the value of sharing and the possibility of expressing aspects of *true self*.

Academic, physical spaces

Generally, less collaborative work is done in the humanities than in the sciences³⁰⁸ (Larivière *et al.*, 2006). Typically, academics in the latter group spend most of their time working with others, either as a team or in a group, and in specific collaborative environments such as laboratories.³⁰⁹ One reason for this is that research in sciences includes experiments. Conversely, academics in the former group tend to spend more time working independently (Rosenberg, 1965; Kagan, 2009, p. 222;³¹⁰ Lewis *et al.*, 2012, pp. 701–704).³¹¹ Therefore, it can be assumed that they often work in the physical space of their office or the library. The argument that humanities academics work more independently is also supported by the fact that they tend to publish more single-author papers (Faber, 2004).

For this group of academics, and compared with those working in the sciences, collaboration with other colleagues may not be an integral part of their work (Kagan, 2009). Instead, much of their research may involve a solitary effort, such as shaping ideas into a piece of writing. In such cases, collaboration with other academics may come into play at a later stage, such as when they have already developed their initial thoughts or before they present them at conferences.

In *Hermeneutica*, a seminal work in the digital humanities, Rockwell and Sinclair discuss the importance of solitary reflection of humanities academics in

³⁰⁷ The metaphor of space in relation to the experience of digital technologies was also used in the Introduction chapter to describe the changes in the perception of the digital. Hereby it is used to delineate the experience of private and public.

³⁰⁸ This distinction is more often made between the natural sciences and social sciences on one side and humanities on the other. However, the cohort of interviewees belongs to the humanities.

³⁰⁹ The extent and nature of such collaborative work has been notably described by Bruno Latour and Steve Woolgar in their *Laboratory Life: The Construction of Scientific Facts* (1977).

³¹⁰ With reference to academics in traditional humanities subjects, Kagan includes as examples philosophers, scholars of literature, and historians.

³¹¹ Admittedly, collaboration may come in other forms such as interacting with the librarian.

relation to new digital methods (2016).³¹² They maintain that such solitary practices in the humanities can be traced to the philosophical tradition of Descartes in his *Discourse on the Methods* (1637). With solitary reflection, they argue, humanities academics can develop and critique ideas by engaging in solitary work and reflection. These considerations suggest that private space, which is conducive to solitary work, has a significant role in humanities academics.

Given that private spaces are one of their modes of operation and that they are at the essence of critical reflection, it may be argued that humanities academics are particularly concerned about the narrowing of such spaces in the digital realm and, by extension, to the overall experience that they have of it. Because of the nature of their practices, which demand solitude, and the nature of their more individualised self, they can be even more discerning about the erosion of these private digital spaces. Perhaps they are also more inclined to resent the erosion of their private spaces in the digital realm.

Opening of public spaces

At the other end of the spectrum, opening digital spaces favours collaboration and sharing. The opening of public spaces seems to go hand in hand with the widening of open communication channels with sharing resources, connections, and knowledge. In academia, this has undeniably led to the magnification³¹³ of a culture of sharing (Veletsianos, 2012). Still, such a vision did not consider the creation of barriers and the limitations of what is shared. It is also unclear whether collaboration requires abandoning the possibility of populating private digital spaces.

The culture of sharing challenged

The literature on academics and communication technologies that have been examined has shown how the Internet has fostered and promoted a culture of sharing, specifically the advent of social media platforms. In this arena, academics come together to discuss and share their research work, promoting ideas and experiences (Veletsianos, 2012). Sharing emerges as a core value in scholarly and educational

³¹² In the first part of *Hermeneutica* by Rockwell and Sinclair (2016) in reference to changes introduced by new digital methods.

³¹³ This term is the author's and not Veletsianos'.

practices. In turn, this entails sharing common values, such as openness, which creates ‘bonds of solidarity’ among academics (Veletsianos, 2012).

This element of sharing is also broadly expressed in the interview data, particularly with the widespread uptake and use of various social media platforms that promote sharing through connection. However, the nature of the interviews and the emphasis on subjective experience have revealed a more nuanced relationship with online sharing, notwithstanding the truthfulness of Veletsianos’ broad characterisation of academics online as engaging in creating bonds of solidarity.

There are, however, limitations to the idea of these bonds of solidarity. One participant in the Pilot Study emphasised how social media creates opinion bubbles where people only interact with others who share the same ideas. Although he sees the Internet as a tool for personal and social growth, he reported being aware that the identity and ideas he wants to promote may not reach beyond the bubble of connections shaped by the nature of these communication platforms.

So, basically, we get on Twitter, and we start interacting with people, and in theory, we think that we can interact with anyone who wants to, but in reality, we create this bubble to relate to people... we are already similar to. [P3]

While the Internet provides access to an incredible variety of opinions and ideas, social media often presents or suggests content consistent with what one already believes to be true in the *echo chamber effect*³¹⁴ phenomenon. It has been widely postured that some social media platforms work like an echo chamber, reaffirming political convictions (Sunstein, 2001) and polarising people’s opinions (Adamic & Glance, 2005). What is at play are algorithms embedded in media platforms that suggest and provide content, like what was previously accessed by the user; the effect it has is to reinforce long-held opinions and beliefs and, in this way, discourage the confrontation with alternative ideas. Most research on the echo chamber effect has focused on Twitter (Parmelee, 2014; Colleoni *et al.*, 2014; Venkata Rama *et al.*, 2017). For instance, Twitter automatically reinforces the echo chamber by suggesting, connecting to, or presenting content by users with similar opinions. While some

³¹⁴ Of course, much of the content that is also driven by advertisement and other commercial purposes.

empirical studies have confirmed that the echo chamber effect leads to the polarisation of communities (Du & Gregory, 2016), others have argued that the extent to which it creates division is overstated since other studies have not considered that users may still have access to diverse opinion across digital environments other than the one that has been examined (Dubois, 2018).

Nevertheless, as was pointed out by the participant in the Pilot Study, there are clear limitations to the idea of an open culture of sharing by academics. As the primary platform on which academics engage in public debate, Twitter undoubtedly fosters the echo chamber effect.

The same respondent in the Pilot Study remarked that the compartmentalisation of opinion has consequences. He specified that sharing (and with it the culture of sharing) might not extend beyond one's political affiliations and beliefs:

[As an example, for Twitter, if] I'm going to start political activism about this important thing that I really care about, that I share this thing, and I think that the world out there is listening; in reality, you are talking to the people who already are thinking the same thing. So, whatever you do, it doesn't really make a difference because you are already in this bubble... [P3]

Although academics, such as the respondent in the Pilot Study, may be more aware of the mechanisms at play in digital communication platforms, it does not mean that they are less influenced or can escape them. Instead, given this awareness, they may still choose to voice opinions within their echo chambers, which may correspond to specific political camps. This phenomenon, and the fragmentation of opinion in the media space, was probably still unclear when Veletsianos conducted his study before publishing his 2012 paper. Thus, his study captured a more positive but idealistic image of what occurs on the Internet (2012). Conversely, the bonds of solidarity that he described may often be delimited along political or ideological lines or affiliations.

The above shows one of the limits of the culture of sharing, which also applies to the group of academics. The Internet is not a plain field. Within it, there are intrinsic divisions that can be shaped by technology over political lines but can extend to religious belief or group belonging. The culture of sharing is not a unifier of different factions of thought and belief.

Spaces for the expression of true self

This thesis argues that for the group of academics as people, there is the need to express fuller aspects of their self in the digital realm, thus aspects of one's persona that go beyond mere presentation. Therefore, they would yearn for a digital space that allows them to express their true self more freely.

The literature on true self on the Net³¹⁵ that has been reviewed has emphasised the potential for the Internet to allow for the expression of those aspects of self that cannot be easily expressed in social life, thus the true self. That debate, however, must be contextualised given the advancements in digital communication technologies and changes in the use of communication spaces since the 2000s.

Two essential characteristics for the expression of true self on the Net are examined and related to the case of academics: *anonymity* and *authenticity*.

Anonymity

Anonymity is the condition of not being named or recognised.³¹⁶ This concept is related to privacy, which is the state of being alone. Anonymity requires a degree of privacy: in order not to be recognised, one must be alone or possess a degree of privacy. It can be linked to residing in private digital spaces in the digital arena.

The proponents of the self on the Net argued that anonymity is one mode of communication that favours and can free up true self-expression.³¹⁷ They claimed that the Net allows the ridding of some conversational and bodily constraints to let people be something other than their usual selves and thus express other aspects of who they are.

Therefore, anonymity in the digital arena appears as a critical component in expressing the true self because it allows disclosing parts of the self that would usually be kept private. This may include expressing identities (or aspects of self) that are usually marginalised (McKenna & Bargh, 1998).

³¹⁵ Like the Web, the Net is another term used to refer to the Web Wide Web.

³¹⁶ Adapted from the online Cambridge Dictionary (accessed on 14/02/2021): <https://dictionary.cambridge.org/dictionary/english/anonymity>

³¹⁷ Such as in the original proposition by Bargh *et al.* (2002) and its reinterpretation by Tosun (2012).

Although the notion of anonymity has not been addressed directly in the Interview Study, there have been some references. For example, Mauricio, while opting not to share his own experience in the interview, described the importance of anonymity in one of his research studies:

I have only used virtual worlds for research. So, most of the time I go there to interview people. So, you interview them through an avatar. So, the anonymity allows you to interview them better but there are no long-term changes for me, I think. I did not use them that long. I used them as part of my study to collect information. Of course, being anonymous, being online really helped people to open up. So, in terms of the implementation, that helped, but long term, I would not know if you were using it for that long... [A8]

Although this extract from the interview does not describe the direct experience of academics, Mauricio's quote shows awareness of its importance.

As public figures, academics would have complete anonymity only when they abandon their online academic identity. However, this has also been made more difficult in the digital space. Social media platforms have increasingly pushed their user to present and disclose their real identities, thus encouraging non-anonymity. In addition, creating online profiles with personal information has made anonymity less prevalent (Boyd, 2014).³¹⁸ It contrasts with the World Wide Web description defined by early critics, notably by Turkle (1995).

Nevertheless, total anonymity may not be necessary to free up true self-expression on the Net. For the grouping of academics, a certain degree of *nonymity* may open channels to free up expression with some of their audience.

Authenticity

The main contention by the proponents of the idea of true self on the Net is that by removing social and physical constraints, the Web allows the expression of true aspects of our personality (Bargh *et al.*, 2002). Therefore, it can be said that it allows us to be more authentic.

³¹⁸ This seminal paper by boyd focused on teenagers before the advent of mobile apps, but trend has been prevalent in at least the last five years.

In contrast with self-presentation, which will be discussed in the next section and involves premeditated performance targeting an audience, self-expression is direct and entails truthful expression.

Of course, it may not be positive when what is expressed are firmly held feelings or beliefs. Humanistic psychology supports the idea that, deep down, everybody is a good person, and that true self represents that positive and morally good aspect of each of us (Rogers, 1961). The problem remains that good (as in good values) is a relative term that depends on the beliefs that one holds. Those core aspects of the self can cause conflict with people with different beliefs, as may be the case with a different religion.

However, the expression of true self is not only a personal exercise. It extends to the quality of the relationship and the type of engagement that can be built with others, which encompasses the people we meet. What makes the engagement stronger is a sense of trust that arises from the projected authenticity of someone expressing (aspects of) their true self. A sense of authenticity can be crucial for academics to build a stronger connection with some of their audience, in the first place, their students.

For academics, expressing their true self may also involve being more *speculative*, allowing for a degree of uncertainty and openness in what they say. It could be assumed that academics typically would not discuss a topic unless they had thoroughly researched it first. As a result, they would only make statements on a narrow range of subjects, possibly within their area of expertise, or narrowly what has been prepared for a speech. This outcome is consistent with their role as experts in a particular field of research. In this manner, they would strictly express their detached professional self.

Expressing true self can involve projecting a more round and fuller persona, such as (tactfully) expressing a particular opinion based on personal experience or moral convictions. In such a situation, engaging with the audience can entail reaching out to them as people.

There are possible positive aspects to this. By being more speculative, academics would dare explore open terrains that could stimulate dialogue and creative thinking. Furthermore, it may favour a more direct and personal connection. The latter can lead to a stronger constructive bond with their audience and a more creative dialogue. Such

a stance is particularly relevant because digital communication, even with the aid of visual devices, is two-dimensional and lacks the fuller engagement of physical encounters.

5.3.2 Theme II: manifestations of identity

Description

While Theme I reveals concerns about the shifting public and private spaces of *expression*, the interview data points to a further boundary that extends to academics' *self-presentation*. It regards the separation between the respondents' online presentation of an *individual identity*³¹⁹ and a *professional identity*.

While academics as individuals each have their unique personality and character, they appear to put forward a uniform professional persona on digital platforms. The latter conforms to expected codes of conduct concerning their peer group, institution, and society.

The presentation of their *professional identity* is distinct from their *individual identity*, thus from how they conduct their personal affairs. As they navigate and leave traces on digital spaces, academics need to balance individual and professional identities; these shape what they express and do. Accordingly, in such open platforms as social media, what they put out is, for the most part, calibrated, measured, and thought through.

This situation grants opportunities but imposes limitations. Undoubtedly, presenting an online professional identity helps academics promote their research work, appeal to large audiences, and establish social status, among other things.

However, as a necessary condition for their online presence, it limits the manifestation and assertion of their individual and other identities. This outcome is manifest in the interviews. For Sophie, for instance, the professional persona 'takes over and swallows all other identities', while for Emily, it is 'eating out' every other identity.

³¹⁹ The term *individual*, in the compound 'individual identity', is hereby preferred to *personal* because 'personal identity' invokes several notions in philosophy and social psychology, and political science. For instance, it would imply a distinction between 'personal identity' and 'social identity', which is not what is discussed in this section.

It can also lead to a feeling of alienation from other parts of identity and self. For Thomas, it results in the compartmentalisation of different spheres of experience. As the dominant identity, Thomas reported that his professional identity is perceived as ‘quite separate from me... very much separated’.³²⁰

Illustration from data extracts

The extracts from the Interview Study show different facets of the demarcation between academics' individual and professional identities and how these are asserted, promoted, and reclaimed.

Professional identity

The type of digital platform used determines the type of audience one addresses. Speaking about his role as an academic, Bill said that he moderates his professional persona on Facebook so as not to put a combatant image forward.

... at the level of Facebook, I may be moderate. I won't send the most radical kind of things just because I want to maintain friendships with the broader group, so I maybe think about that a bit. [A4]

For John, presenting a professional identity in this environment involves putting together an agreeable personal image and taming or avoiding expressing strong opinions.

Other factors may determine how an academic professional identity is presented in the digital space. Sophie explains how the knowledge and experience she gained in media allow her to better manage the professional aspect of her online identity. That experience helped her be aware of and reflect on her public appearances on the Internet, especially concerning other uses that can be made of them.

I have also studied journalism... I have worked in media production, and so I'm conscious of when I have this kind of most public appearances ... that [as

³²⁰ There appears to be an individual element at play in the extent to which an academic relates to their professional identity.

a result] I need to think about how that will be used. So, in that sense, the professional aspect is kind of managed in a way. [A3]

Sophie implied that although academics may be careful in presenting a professional persona online, they may not be aware of the full consequences of what is put out, unlike people who exclusively work in the media industry. It also introduces the notion of professional identity management, where self-presentation is a planned, prepared, and fully thought-out activity.

Forging a solid academic professional identity may help the academic connect to other professions, such as by creating online groups. Mauricio described this:

So, I use that [facility that the internet offers] for [building] communities. So, I have two Filipino friends ... we have a chat group as well. I used that for my classes, so when I used to supervise the campus newspaper, it would create a group of editors and reporters, and that's how we coordinate the day-to-day operations of the newspaper. [A8]

Individual identity

Access to public digital platforms has brought about many benefits for academics, as shown by the interview extracts, including the possibility of connecting easily to other researchers and exchanging ideas. However, this comes with the burden of constantly moderating and calibrating one's online presence. In these cases, individual identity manifests itself as discontent about the constraints of academic professional identity. This phrase sums it up: 'I'm more than my professional identity'.³²¹

Thomas voiced an example of such discontent:

The way I feel is that... [my time is] used most of the time just to do PR³²²... I feel that there could be a more interesting investment in using that [such as] part of the knowledge production and knowledge dissemination society. [A2]

³²¹ This is the sentiment prevalent in many of the interviews.

³²² Public relations.

Public relations involve shaping ideas and communicating messages in line with a professional identity. In the passage above, Thomas wants to reclaim the time he can devote to his individual identity, which, as an academic, has at its core creating and promoting knowledge.

Managing the display of an online identity can also become problematic when the boundary between identities is under threat. Academics report using strategies to preserve this boundary. Some respondents to the interview report having deleted or stopped using some of their social media accounts. In general, the Interview Study data suggest that academics opt for social media platforms that best suit their work practices. As a result, they maintain a presence only on required or most useful platforms; thus, they can adequately promote their research work and professional identity.

Emily narrated an episode when her identity and privacy were attacked in what was taken to be a professional (social media) setting.

I know that one of my colleagues; I feel like I was being, for no particular reason... what's the word, not quite [stalked], but I didn't really like being friends with him on Facebook, so I blocked him. And that also caused trauma. But that's what I do. I don't like him reading my things because I don't trust him in whatever way. Not for any particular, solid concrete reason. [A6]

Sophie had legitimate reasons to block her colleague,³²³ who was nosy and intrusive, from Facebook. However, this resulted in that person's discontent (which she describes as trauma). Possibly, the latter had assumed that the professional bond had to be kept even though he had stepped outside it.

Meaning and significance

This section defines professional identity and, by examining relevant areas of the literature, the challenges that academics face to present and manage it in the digital space. To clarify the meaning of professional in the composite noun 'professional identity', the general notion and what it is like to be a professional are first examined.

³²³ Thus, to remove the colleague from her network of Facebook connections and as a result from viewing the personal profile and the content that she put out.

Self-presentation is then introduced with respect to Goffman's theory of performance (1959), symbolic interactionism, and the Interview Study data. Finally, these notions are used to interpret academics' presentation of their professional online identity to examine their strategies and what they mean to them.

What is professional identity?

The fundamental characteristic that must be possessed to be considered a *professional* is to belong to a profession, that is, to a group of people who exercise a profession. The dictionary definition emphasises the group aspect as 'characterised by or conforming to the technical or ethical standards of a profession'.³²⁴ As such, being professional also includes having a personal attitude that complies with the group's expectations and involves adhering to a standard code of conduct.

The above may be better understood by considering its reverse: being *unprofessional*. Thus, someone who is unprofessional breaks the boundaries of what is accepted and anticipated of them, especially by their peers. Being unprofessional may imply a contravention of social norms or the exhibition of behaviours that fall outside what is expected. Thus, implicit in the professional attitude are the dangers of falling outside of it, of being unprofessional.

This issue is particularly relevant for the grouping of academics. As the Interview Study has shown, for this group, the professional attitude commands a broad set of rules that stem from their multiple roles as educators, researchers, experts, and institutional representatives. Moreover, several roles embody many codes of conduct; thus, there is a greater risk of falling outside their professional persona.

Managed presentation as a performance

A large body of the literature on the online presentation of self and identity refers to the analysis of communication by the symbolic interactionist and the sociological work of Goffman (most notably by Livingstone, 2008; van Dijck, 2013). Such literature is first introduced and then extended to discuss the case of academics in the digital arena. Regarding Goffman, Section 2.2.3 of the Literature Review outlines his

³²⁴ Professional. (n.d.). Retrieved August 13, 2018, from <https://www.merriam-webster.com/dictionary/professional>

theory of self-presentation as a *sign activity*; this section encompasses Goffman's parallel of self-presentation with drama.

Apart from being manifestly expressed, communication involves a symbolic interaction between the parts involved in the communication exchange. This idea was formalised in the symbolic interactionism theory by Cooley (1902) and Mead (1934). They maintained that the actions that are part of self-presentation carry symbolic meanings that influence the responses that others have. It follows that self-presentation is not only a managed and calculated activity but also one that tries to anticipate people's responses. It can be attained by varying the presentation's content, form, or timing. Furthermore, according to Mead, meaning is created through this shared symbolic world, not only by language but by all other physical and artificial constraints (Mead, 1934; Woodward, 1996, as cited in Denzi, 2014).

The analysis of the symbolic interaction in a communication exchange was further developed by Goffman concerning drama (1959). Examining the precise meaning he ascribed to self-presentation is essential to understand the concept. Goffman (1959, p. 22) used the term self-presentation to indicate:

All the activity of an individual that occurs during a period marked by his continuous presence before a particular set of observers and that has some influence on the observers.

Goffman thus posited that self-presentation constitutes the range of behaviours intended to manage the impression given (1959).³²⁵ Impression management, as a manifest activity in self-expression, can therefore be viewed as a type of performance akin to that which takes place in drama. When people interact and socially engage with others, they are like actors who participate in a drama; they play an established social role, such as a teacher or a friend (Goffman, 1959). According to Goffman's drama theory, social life can be described as a series of performances where people project their identities to others and engage in mutual performance activities (1959).

Front stage and backstage behaviour

³²⁵ Goffman categorised the parties involved into actors and observers.

According to Goffman, linked to each ‘part’, certain behaviours, or ‘fronts’, include how people appear and behave in front of an audience (1959). Fronts include fixed characters, such as race or body size, or transitory characters, such as facial expressions or speech patterns, which can change during a performance (Goffman, 1959, p. 24). These he characterises as *front (stage) behaviours* as they occur in front of others.

Concurrent with *front*, there are back³²⁶ behaviours. These behaviours are suppressed because they might ‘discredit the fostered impression’ (Goffman, 1959, p. 111). They take place in a back region or *backstage*, where the performer can retreat to receive assistance (about this performance) or to take a break (to relax) (Goffman, 1959, p. 113). The backstage is not accessible to the audience because it is where the performers will be out of character or will not stand up for the principles displayed in the front stage performance.

Perhaps, in backstage, self-presentation could be represented by the many layers that, apart from the physical, include digital over social media platforms, which are part of the performance but remain obscure to the audience.

Exhibition spaces

Social interactions over digital platforms lack many of the features of offline self-presentation described by Goffman. For one thing, apart from video calls, they do not occur synchronously, in real-time; thus, the immediacy of the physical performance is removed. Conversely, in a textual exchange, typical of messaging platforms or social media, considerable time is allowed to craft and calibrate the given response. However, Goffman’s analysis can help one understand what goes missing in online interactions and how characters of self-performance can be reframed and reinterpreted by the affordances of the technology and the specific uses people make of them.

Hogan (2010) suggested that social media creates *artefacts* in an *exhibition space*. Artefacts are the social media content in the form of profile pages, posts, photos, and feedback, which, by recounting past performances, serve to exhibit an online

³²⁶ ‘Back’ behaviour is my wording; Goffman did not directly label these behaviours, but generically used the expression backstage activity.

persona. In Goffman's sense, social media is the stage for performances and a constant exhibition where the actor is also the exhibition curator (Hogan, 2010). However, most online identity presentations³²⁷ take the form of an exhibition (where a profile of artefacts can be made public) rather than a direct performance.

Self-presentation

Regarding the preceding Theme I, self-presentation or the presentation of identity should be distinguished from self-expression. For one thing, expression and presentation are different modes of communication. Presentation is about giving an appearance that has been created beforehand. In self-presentation, the appearance of oneself has been thought out and pre-planned. In contrast, expression is about showing ideas and feelings through words or actions. In self-expression, what is shown is immediate, unmediated, and not premeditated.

The two terms are also often characterised by good and evil motives. While self-expression is often considered authentic, genuine, and spontaneous, self-presentation can be viewed as inauthentic, concocted, or resulting from other external factors (Schlenker, 2012). It can be characterised as the difference between directly expressing what one thinks and preparing what to say to obtain a particular outcome.

However, the fact that self-expression is authentic, spontaneous, and originates from within does not mean it is altruistic or good. It also does not mean that the speaker cares about their audience. Apart from the positive features of the self, self-expression may involve expressing negative feelings such as anger, frustration, envy, or self-centeredness. Conversely, the motives to engage in self-presentation are not always about control or power (Schlenker, 2012); they can be altruistic. Self-expression also takes place among friends, family members, and marriages.

Leary (1995) defined self-presentation as ‘the attempt to control images of self before a real or imaginary audience’; it is a controlled exercise.³²⁸ In contrast with other personal behaviours, such as expressing feelings, opinions, or facts, self-presentation focuses on how actual or anticipated reactions influence communication

³²⁷ Hogan used the term *presentation of self* in reference to Goffman's analysis and, it is assumed, as a generic term.

³²⁸ Presentation of identity is a form of self-presentation; the appended reflexive clause self- refers to the general presentation of oneself, what one is as a person.

(Schlenker, 2012). Self-presentation is always a calculated activity in that one manages the impression given to others.

The reason that brings people together to engage in self-presentation is to communicate aspects or stories about themselves to others. However, this is not done arbitrarily; on the contrary, many considerations come into play. The manner of self-presentation, for instance, may involve an evaluation of the people that one is addressing and knowledge of their behaviour (Baumeister and Hutton, 1987, as cited in Chua *et al.*, 2016). As a result, self-presentation may include pleasing the audience by fulfilling their expectations and preferences (Baumeister and Hutton, 1987).

People as agents and targets

In self-presentation, there is always an awareness of one's audience. Such awareness is particularly prominent on social media platforms, given that people present a highly selective version of themselves (Mendelson and Papacharissi, 2010, p. 4, as cited in Chua *et al.*, 2016).

For Schlenker, the study of self-presentation concerns the conduct of *agents* and *targets* (2012). The conduct of an agent shapes the attitude and behaviour of the audience by presenting specific information about oneself; for the target, it is about how they respond to it (Schlenker, 2012, p. 542).

There are critical situations where the actor is unsure whether they will manage to project the intended kind of impression. In these cases, the actor will plan and even rehearse their performance, as one might do before a job interview or going on a date (Schlenker, 2012).

Accordingly, self-presentation is not only about controlling one's performance and influencing the audience. Instead, other factors come into play, and the actor's behaviour (as the person who engages in self-presentation) is influenced by the social context and what they set themselves to do (Schlenker, 1980).

Manipulative and truthful motives

The fact that self-presentation is a premeditated form of communication does not necessarily imply that there are only egotistical motives.

Psychological research shows that when people present a bogus image of who they are, in their personality or dispositions, they are prone to exaggerating the version

of the person they want to portray (DePaulo, 1992), which the audience may perceive as inauthentic. Conversely, self-presentation is most effective when people are motivated to make a truthful impression and are confident that the audience will respond positively.

Therefore, self-presentation is not only about manipulating the impression that others have of who we are; it does not only aim at achieving interpersonal goals by influencing the responses of others; it is not only a manipulative or deceptive activity. Regrettably, these unethical behaviours are often attributed to the self-presentation of unscrupulous politicians or salespeople (Schlenker, 2012). Although self-presentation involves packaging information to accomplish goals, the goals can include conveying an authentic portrayal of self (as the actor sees it), not just a deceptive one (Schlenker & Pontari, 2000).

The self-presentation that aims to manipulate the impression of others is frequently packaged with bountiful information to create a desired impact on the audience. However, just because this type of presentation is 'packaged' to convey a superior performance, it does not necessarily follow that it would be perceived as more superficial, inauthentic, deceptive, or self-centred than the lousy lecturers.

Self-presentation is not merely a role-play that conforms to the audience's expectations. Instead, many elements of the person come together in a presentation to replicate a transaction with the audience in a social context (Schlenker, 1985, 2012). In the transaction, the person conveys an aspect of personality, social roles, and self-concept.

Influences on online self-presentation

A further line of analysis is given by platforms' political nature, such as in the case of Twitter, which has been described as a political arena (Enli & Skogerbo, 2013). This raises the question: despite being carefully managed, how much is the presentation of one's online identity under the spell of political, economic, and other interests?

External influences are difficult to realise, let alone measure or quantify. Undoubtedly, the medium is at the intersection of the interests of several parties apart from the users. van Dijck's argument (2013), discussed in the Literature Review, about

the non-neutrality of social media platforms, is quite cogent in this respect. Owners play a significant role in regulating and designing their platforms. After all, the technological affordances (what they permit users or owners to do) shape what and how they can be put out (van Dijck, 2013).

Other influences are in the outcome of self-presentation. Apart from presenting and viewing others' profiles, social media platforms allow for obtaining feedback, thus collecting information about one's online presence. It may be comments or 'likes' (Boyd, 2014). Feedback is especially important for confirming one's identity, which is undoubtedly true for teenagers (Turkle, 2011). Nevertheless, feedback is also crucial for academics since they seek to establish, consolidate, or expand their status and research.

Presentation of an online academic identity

Academic boundaries

The respondents to the Interview Study expressed contrasting views about how the presentation of their professional identities affects the boundary between individual and professional persona.

For some, their professional identity naturally extends to other parts of their lives: first, because they have a passion for what they do, and second, because digital communications technologies make demands that extend from their office to their home.³²⁹ This was the case, for instance, for Adam, who said that his passion for and activism in the political field defines, to a substantial extent, who he is, thus his identity, which is manifested by his significant presence on Twitter.

However, for other respondents, such as Sophie, personal lives are where they ought to be, free from the rules of conduct that go hand in hand with maintaining an online professional identity. For this latter group, a separation of the two spheres is necessary. Unless the two are distinct, personal, or unprofessional, aspects of their lives may spill over to the public digital domain.

From the interview data, different interpretations of identity have emerged. One take is that what is presented over digital communication technologies is not an

³²⁹ The most recurrent is of course checking and answering emails.

immutable and integral identity. Instead, self-presentation fronts an ongoing construction of one or many identities, where these are continuously managed and revised. The very nature of social media allows performing an identity by crafting what is put out in the digital space. Adam referred to these as *media-mediated versions* of an identity:

It's a lot easier to be funny on Twitter, to re-draft the tweet and get a couple of goes... So, in that sense, you are presenting yourself in a managed way, you know? And you have your biography and things in there which you update; it's a window on the world. [A1]

At the other end of the spectrum, other respondents, such as Fang, pointed out the perceived futility of engaging 'in the Internet game'.³³⁰ Junior academics such as Fang reported having been embroiled and challenged by online social exchange and exchange rules and learning from them.

Adam also argued that there is no online identity as such for him, but what is presented in the digital space are *extensions* of one's identity.

The people there would never meet you in person. But again ...I see it [online identity] as an extension rather than a different thing. [A1]

Most of Adam's Twitter followers will never meet him in person, but only through the extended identity he presents through his tweets and research work. This position implies a core identity underlying the extension of Adam's identity that is consistently presented to others but stretched out to target particular media and situations.

Nevertheless, Adam's posturing does not immediately resound with what was reported by the other participants in the Interview Study. Again, his stance may reflect a personal take representing a subgroup of academics for which there is no separation between personal and professional self-presentation. Overall, this conception of

³³⁰ 'Internet game' is a made-up expression that condenses what was reported by several respondents.

identity disagrees with the argument made by van Dijck that social media users strive to manifest a multifaceted or composite self.³³¹

Academics' self-presentation strategies

The interview data show that the academics interviewed employ several distinct strategies to carefully manage the online presentation of their professional identity. Indeed, this may also reflect the subgroup of academics selected for the Interview Study, thus those who work within media and communication.³³² Nevertheless, the confrontation with the literature points to a more generic propensity of this group to manage their online identity more strictly.

The diagram in Figure 31 illustrates the strategies identified from the coding of the interview data. Such strategies have been grouped into common purposes, which are those that emerged from the conversations with the Pilot Study cohort, which was limited to three academics from UCL.

Although the diagram was initially explicitly created from the Pilot Study data, with minor modifications, it consistently reflected the findings from the main Interview Study that followed it.

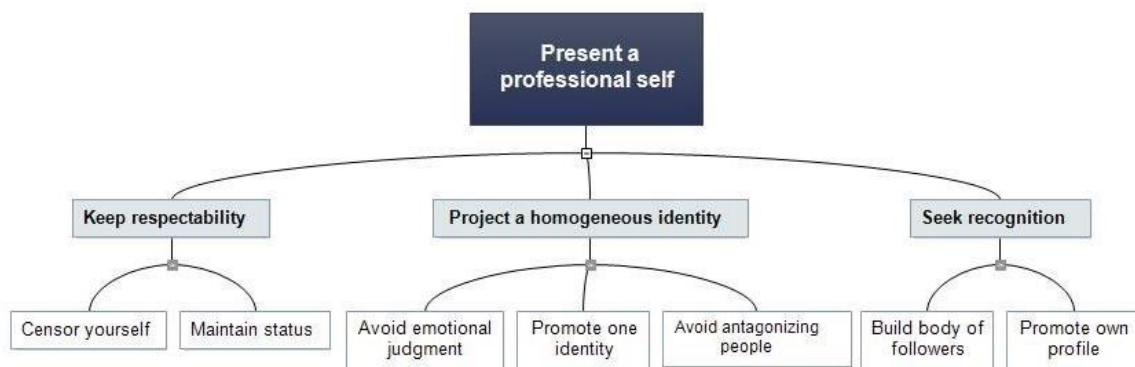


Figure 31: Codes part of the professional identity theme

³³¹ Like other researchers in media studies, van Dijck used self and identity interchangeably.

³³² As stated previously, because they understand well the working and the impact of self-presentation on digital media platforms,

In the diagram, the strategies are grouped under three main objectives: keeping respectability, projecting a homogeneous identity, and seeking recognition. Furthermore, the byways of the strategies guarantee the presentation of an online identity.

The Interview Study data hints that academics *fine-tune and adjust* their presentation of identity on digital platforms. It is often the outcome of personal experimentation, negotiations with the medium, and an awareness of how it works. More senior academics seemed to have mastered a higher command of online communication and self-presentation.³³³ It may relate to their extensive experience in teaching and as educators, such as calibrating their relationships with their students and other staff members.

Several strategies, such as censoring, maintaining status, and avoiding emotional judgement, aim to avoid or minimise the risks associated with what is put out in the digital space, which extends to what is posted, written, shared, and promoted. These risks appear to relate to avoiding being unprofessional or avoiding discussing topics that may be controversial.

Some of these strategies are further explored.

- Self-censorship

For one thing, the Interview Study has revealed that the professional aspects of academics' online identity cause them to be especially cautious about what they put out in the digital space, which also extends to how they manage their online persona. One respondent to the Pilot Study expressed this sentiment in powerful terms, voicing the fear of falling into the 'trap of neglecting what you are saying'.

Other academics reported that what was at stake was not so much a preoccupation with the content they put out on the Internet; they are very cautious about what they say on most occasions. Instead, they argued that this extends to other potential implications, such as how what they say online could be used against them.

³³³ As was the case with senior academics interviewed in the Pilot Study.

While consistent with their own and accepted values, a *careless utterance*,³³⁴ again in the words of this respondent, may be prone to be misunderstood and misconstrued.

While these principles of attentiveness apply to anyone who is a contributor to a social media platform, the interview responses suggest that this is particularly the case for academics who need the most time to maintain a professional persona that extends to the many social roles that they maintain, not in the least as public figures and knowledge producers.

- Present the best version of oneself

A self-representation strategy can involve creating an idealised version of oneself and setting aside more personal or less appealing aspects of one's personality. Adam made this point with a touch of humour:

[I]n terms of identity, yeah, of course, I curate, and I present one aspect, I present the most glorious part [laughter]. [A1]

In curating and presenting a single aspect of his identity, Adam also presents a consistent identity on social media, which is most likely to be consistent with his expected social role. In between the words, some respondents do, so-to-say, boast about having achieved a substantial social influence, such as having many followers on Twitter. It can be assumed that such self-presentation includes carefully evaluating who their audience is (Baumeister & Hutton, 1987) and fulfilling their expectations.

The presentation of identity in academics contributes to what Barbour and Marshall (2012) described as a *prestige economy*. Being part of the prestige economy may involve curating an exhibition space on digital platforms that enhances and promotes their professional identity.

- Choice of digital tools

³³⁴ In the sense of not being fully thought out.

For Sophie, there is a reciprocal relationship between people's choice of tools or self-presentation and how these shape them.

Does who I am have an impact on how I use social media? ... [It does with regard to] with whom I interact within social media and the kind of the features [that are part of the] of the [software] program... obviously [how I am] it shapes it to a certain extent how I do that [how I present myself], who I am.
[A3]

Self-presentation online is also facilitated by not always taking place in real-time. Although in streaming platforms, mobile VoIP³³⁵ applications (such as WhatsApp), and meeting platforms (such as Zoom or Skype), communication occurs in real-time, most communication on social media platforms is asynchronous. Thus, content such as photos, video clips or messages is uploaded and responded to later. This facilitates self-presentation because it gives users, in this case, academics, time to prepare and review what is said or presented. Such strategies also represent a balancing act between outer demands (professional) and inner needs (individual).

More generally, the choice of tools may also define academics' self-presentation, identity, and other aspects of their self. This point ties in with the literature on self-presentation, which views it as a part of an interchange between the social and the private aspects of the self.³³⁶ It can be tied with symbolic interactionists positing that the self is constructed through social interactions (Schlenker, 2012). People understand themselves by confronting others and their reactions (Mead, 1934; Cooley, 1902). The strategies of online self-presentation outlined and the resulting balancing act between outer and inner demands may, therefore, forge academics' inner motives and values.

³³⁵ Voice over Internet Protocol, or VoIP, is a type of voice and multimedia technology of communication that use the Internet, thus the IP protocols, rather than telephone networks.

³³⁶ In all processes that are part of the self, such as identity, self-thought, and narrative self.

5.3.3 Theme III: fast temporality

Definition

This theme was manifest, explicitly expressed in the interview with Adam. However, it resonated with what was recounted in other interviews. The narrative below summarises it.

Academics see themselves immersed in a *fast temporality*, which can be characterised as the condition of the contemporary digitally mediated and networked society. Social media and ubiquitous mobile connections introduce a relationship with time characterised by a continuous flow of information. Users of digital communication platforms are triggered to be constantly connected and use the newest tools and platforms to stay on top of these innovation waves. This faster pace of information exchange and consumption extends to a faster mode of thinking where many thoughts, ideas, and impressions may be only briefly the focus of attention. Such a process runs at the expense of introspection, that is, taking time to ponder, reflect, and look more in-depth into things, people, and ideas. As digital media consumers and knowledge producers, academics are caught up in this conundrum. While the fast exchange of information increases possibilities for exchange and connection, it imposes practices that devoid them of the solitary thinking time they need to reflect deeply on ideas. It also removes the ability to keep questioning digital communication technologies' nature in how they filter, mediate, and recreate our lives.

Illustration from data extracts

Fast time

Among the interview responses, there are several negative statements about how the Internet, digital media, and social networks, among other things, are increasing the work requirements of academics, thus placing additional burdens on their time. Such activities may involve taking care of teaching-related tasks and being involved in research and publication projects. Lupton pointed out that the increased demands on academics' time originate from the need to manage a rapidly increasing number of ideas (2014). There are thus things to do and more to think about.

Emily expressed such a sentiment concerning calls for publication:

Sometimes there are so many calls that you say, 'Oh I'm getting overwhelmed by [conference] calls. So, I prefer not to know about them.' [A6]

It can be assumed that there have always been many conferences and calls for papers, but digital communication increases awareness of what is happening. These include a whole host of reminders about academic events, in the first place, from emails and online boards.

The drastic solution for Emily and her solution for other 'impositions' from digital communication media is to step away and, in a way, ignore them. As a resident academic, she says she can switch off from such communications as conference calls. If there is something important, she explains, the department will let her know about it directly. This strategy counts as a way of temporarily getting out of fast temporality.

Interestingly, in another interview passage, Emily made a similar remark about mobile phones. Although they are and have been an integral part of her research work, she has opted (at least at the time) to stop using them:

I don't have time... [for a mobile phone] because I'm so totally exhausted... because I have been working with these tools for a long time, and I just want to keep things very simple, do you know? So, I have actually stopped using them. [A6]

Emily acknowledged that having a mobile phone is part of a lifestyle, and everybody expects everyone else to have one. However, Emily has developed different strategies in her determination not to own a mobile phone. Just like for conference calls, she reasons that anyone who can call her can also send her an email so that it is taken care of.

By switching this communication to email, which is asynchronous communication,³³⁷ she opts for a slower pace and a more manageable interaction with other people and digital networks.

³³⁷ Asynchronous communication sets out a different relationship, where the response can be negotiated and need not be immediate.

In the interaction with digital media platforms, which can result in a *multitasking frenzy*, too many things call for attention at once. Thomas said that the use of social media, with the constant and manifold demands on his attention, seems to have weakened his capacity to concentrate:

It's really hard for me to say if it was easier to concentrate, for example, before [in the pre-digital era] because I started being a user of social media [later in when he started university] ... not like kids nowadays... I still find that my attention and my capacity for concentration are spotty now, but I don't know if it's because I have more work, I have more things to focus on, I have more response abilities... or I'm just becoming older, I don't know. [A2]

Interestingly, though Thomas is relatively young, around thirty years of age, he says he feels old with respect to his younger self and the new generation's (assumed) increased ability to engage with social media. The condition of fast temporality seems to translate for academics in the necessity to keep track of many things at once, affecting their perceived capacity to concentrate.

Slow time

Very tellingly, Thomas compared building scholarship before and after computerisation and digitalisation. Knowledge-making nowadays is faster because of the ease with which resources can be accessed via the Internet. In this sense, digitalisation has indeed changed access to knowledge and the speed of knowledge production.

Just because I do a lot of things about the history of knowledge... [I] can just imagine how slow it was to build scholarship when you had to wait for your quarterly journal to arrive once a semester to your office... then you would read it, and you would engage with that... Now the speed of knowledge, the speed of access to knowledge, and creation of knowledge are much faster. Doing a literary review is much easier now that you have all those online libraries... [A2]

Although Thomas described one positive aspect of digitalisation with respect to the availability of resources, he also expressed a kind of nostalgia through the tone of

his voice and the context of this remark. When that quarterly journal arrived at the office, there was perhaps an excitement in taking the manuscript into one's hands and becoming deeply immersed in reading and studying it.

Compared to contemporary digital networked society, slow time as the mode of the intellectual production of academics in the past has been put aside by the benefits of access to information and resources. These considerations about digital temporality are clear in everyday practices. However, it is unnecessary to have lived in a pre-digital era to appreciate the demands of digital tools and the experience of slow time: one must only switch off from it for some time.

Slow time in the absence of external demands is critical in knowledge production. Several interview respondents mention limiting their access to digital media for some periods. The focal point of the work of an academic, at least for those in the humanities and social sciences, is the process of putting and ordering ideas together in writing. Emily makes her Facebook account inactive as a strategy to avoid distractions, such as when he must immerse himself in writing.

When I'm doing deep writing, I deactivate my Facebook.

By deactivating her social media account, Emily can be said to have entered a slow time, having fewer demands and distractions, a mode of time where he can better concentrate and dwell on ideas.

Meaning and significance

This section first defines fast temporality and puts the increase of technological change and the perception of time in a historical context; second, it looks at the debates in sociology and STS³³⁸ about the acceleration of society and the ideas of fast and slow thinking; third, it examines academic knowledge production, the notion of accelerating academia, and proposes to characterise academic knowledge production as a street with slow and fast lanes; finally, it returns to the interview data and suggests that slow

³³⁸ Science and technology studies, or STS, is an interdisciplinary field of study that brings together several disciplines to examine the place that science and technology have in society's structure and practices. Unlike sociology, history, and economics that have preceded it, it does not treat science as a privileged form of knowledge (Rohracher, 2015).

lane is also a space that may allow for critical self-reflection on the nature and our relationship with network society and digital communication technologies themselves.

Temporality

New communication technologies, such as social media platforms and ubiquitous mobile connections, have expanded a relationship with time characterised by a continuous flow of information. It originates from the worldwide transformations of societies into a series of interconnected socio-technical infrastructures³³⁹ that Castells most notably characterised as a network society at the turn of the 21st century (1996, 2009).³⁴⁰

In the compound *fast temporality*, temporality has a different connotation than time, as in clock time. Rather than measuring time as a unit, temporality describes how a sequence of events through time is experienced, both mentally and physically, by those who experience it (Mayhew, 2015). Furthermore, because temporality is a subjective experience, the passage of time is also constituted by social practices (Castree *et al.*, 2013). Temporality, therefore, includes all the modes and practices that constitute our experience of time.

Fast temporality is the subjective experience of the rapid passage of time. It may have a positive connotation, mainly when it is the outcome of personal choice. There is a sense that time passes quickly when one is absorbed in an incredibly joyful or meaningful activity. The experience may be actual in the process of completing a piece of work and when the associated deadline is met. It may be the contrast between living in the centre of a vibrant city, with its bursting city life of cafes, restaurants, and people strolling around and living in a tranquil and remote area with little entertainment.

Fast temporality can also result from an eventful time, which may involve joyful and fulfilling social interactions. It may involve meeting many interesting people in contrast to being alone. And yet, while some people, generically the young, may seek a time-filled lifestyle, others strive for a slower temporality. These examples reveal

³³⁹ In many ways this is also the realisation of the global village that was foreseen by Marshall McLuhan in the early 1960s (1962).

³⁴⁰ The notion of a network society was also theorised by van Dijck in *The Networked Society* (2020, first published in 1993).

that fast time's perception and value judgement are circumstantial and personal. Some people can enjoy it more at a particular time in their lives and in a specific context.

Conversely, fast temporality has a negative connotation when imposed by external demands. It results in more time being required (such as to complete work) but little given. It can be experienced as a sense of always catching up with time or failing to give a task the time and care it needs or deserves. It can also be the mental state of not being able to switch off from preoccupations and demands on our attention from digital devices and find time for ourselves.³⁴¹

How does this hold for the digital world? Digital technologies accessed through smart communication devices and ubiquitous connections can enhance the positive experience of fast time. They make it easier to connect to people and access information wherever. Nevertheless, on the flip side of the coin, these technologies also give access to or give the perception of more things happening that need attention and to be taken care of.

In this research, temporality is linked to how the speed and ubiquity of digital communication techniques influence the experience of time, specifically for the study group and, thus, academics. In addition, it is intertwined with their role in transmitting, consuming, and producing knowledge. However, most importantly, it encroaches on subjective states such as self-reflection, one of the elements at the essence of self.

Technology's influence on the consciousness of time

Technology's influence on time awareness in our digital society is part of a more extensive and ongoing historical phenomenon.

Social scientists and historians have acknowledged that technology has played a pivotal role in speeding up the social world, markedly from the onset of the Industrial Revolution in the 18th century. During this period, several technological innovations have transformed the consciousness of modern times (Wajcman, 2019). The impact of the railroad in Great Britain on the collective perception of the relationship between space and time is a remarkable example of this (Schivelbusch, 1986). Among the

³⁴¹ This point was also raised by Nowotny in her 1994 book *Time: The Modern and Postmodern Experience* (as cited in Wajcman, 2019), where she maintained that our restless age takes away the time that we need for ourselves.

technologies that have changed the perception of temporality are the introduction of new communication technologies of the telegraph and the telephone in the early and later parts of the 19th century, which became available to the masses with the electrification of cities at the turn of the 20th century (McNeil, 2002).

In this era, technologies have also directly affected the perception of time. Mulford (1934) maintained that the clock was the key invention of the Industrial Revolution in that it introduced new practices of time efficiency and discipline. The invention of the portable clock turned *time* into *clock time* (Wajcman, 2019). The corresponding cultural change in modernity has advanced a clockwork universe where the experience of human time, typically characterised by finitude, transience, and rhythmicity, was substituted with time as the subject of human design (Barbara, 2004).

Accelerating societies

The acceleration of society in the second half of the 20th century has been linked to changes in globalisation's economic processes, the advancement of digital technologies, and an increased speed of technological change and how we have adapted to it.

It has been argued that acceleration results from a convergence between space and time. The notion of *space-time compression* has been a focus of discussion in the social sciences, also concerning the current sociological narrative of the so-called postmodern society.³⁴² Sociologists and geographers, notably Harvey (1989) and Thrift (1996), have discussed and linked it to capitalist society's need to circulate goods, services, and ideas fast. The increase in the volume and speed of material and social transactions over space has resulted in a 'shrinking' and thus compression of space-time that spreads to society, politics, and culture (Warf, 2017). Geography has also started to consider space and time as social constructions because different societies measure, organise, and perceive them differently. In his 'dromology', the science of speed, Virilio linked them to developments in the military and media and argued that speed redefines perception and our worldview (1986).

An acceleration of social and cultural change characterises the information era. At the turn of the 21st century, Gleick's book *Faster: The Acceleration of Just About*

³⁴² The notion of postmodernism is only marginally considered in this research.

Everything (1999) illustrated the increase in the speed of everyday living. Multitasking, email, and information overloading are many activities that narrow down personal time (Gleick, 1999). With the introduction of smartphones and social media, the acceleration in the pace of living has only increased. This societal transformation has been widely discussed in sociology, particularly in the writing of Giddens (1990) and Beck (2000).

The sociological analysis of time has investigated the political, economic, and social forces at play, introducing the discourse on power revived by postmodern thinking. Sharma argued that temporality is sustained by a ‘choreography of power’ (2014). Her notion of a *speed theory* allows us to map and critique the temporality of acceleration, instantaneity, and immediacy (Sharma, 2014).

Wajcman maintained that as the rhythms of life become faster, there is a corresponding accelerated pace of technological change (2008). It is, in fact, the design of technologies that impose practices of the fast time (Wajcman, 2019). However, in a 2008 paper, Wajcman objected to the overall deterministic role ascribed to technology regarding general theories of information and knowledge in a networked society (2008).

A fuller analysis of the relationship between temporality and technological innovation considers the mutual shaping of the two (Wajcman, 2008).³⁴³ By using mobile phones,³⁴⁴ for instance, people adopt creative ways of reinterpreting and incorporating them into their lives. Through ubiquitous connections, mobile technology compresses time and space, thus changing the character of temporality and relations (Wajcman, 2008). Nevertheless, at the same time, the users accept incorporating these tools into their lifestyles.

Perception of fast-time

The acceleration of society and the parallel increase in technological change result in changes to the personal experience of time and thinking patterns

³⁴³ Wajcman in this paper described from the STS (science and technology studies) perspective.

³⁴⁴ Even the comparatively simple smartphones in use in 2007–8 when the article was presumably written.

Wajcman also emphasised that time pressure and the sense of being hurried are complex phenomena that are difficult to analyse. While there is empirical evidence that people feel short of time, the experience is not uniform (2008). It varies along social-economic lines, artefacts, and identities. Wajcman argued that the key to understanding the paradox of an accelerating society is to locate the phenomenon in the household rather than in the individual (2008, p. 59). The design of technologies themselves requires fast time practices that promulgate efficient time management, such as in the design of digital scheduling applications (Wajcman, 2019).³⁴⁵

The experience of temporality also shapes thinking. Kahneman, introduced in the Literature chapter, argued that it materialised in two ways: in System 1 with *fast thinking* and in System 2 with *slow thinking* (2011). While the former characterises intuition and is, for the most part, subconscious, the latter characterises rationality. According to Kahneman, these systems are highly subjective. People who acquire expertise will rely more on System 2, which can be easily recognised as the mode of thinking that academics use in their research work (2011). However, academics would appeal to fast thinking in specific and extreme situations, such as in response to extreme violence (Kahneman, 2011).

However, the dichotomy of slow versus fast time, particularly the idea of a slowing down society as a positive trend, has come under criticism (Hue, 2015; Vostal, 2019). Vostal questioned the mushrooming in the rhetoric of the slow discourse (2019). These attempts to slow down modernity hide political and economic ends that target and dispossess groups of people at the margin of industrialisation and modernity (Vostal, 2019).

Academia and fast time

Academics coping with an accelerated society

As the illustrations of data extracts show, the idea of temporality occurred in multiple passages of the interviews with the cohort of academics. In this respect, the theme of fast time was derived in the coding by bringing together several subthemes

³⁴⁵ Wajcman interviewed Silicon Valley calendar designers to explore how efficient time management ideals influence the conceptualisation and the production of digital applications (Wajcman, 2019).

or codes that link back to some interview passages. These subthemes are shown in Figure 32 below.

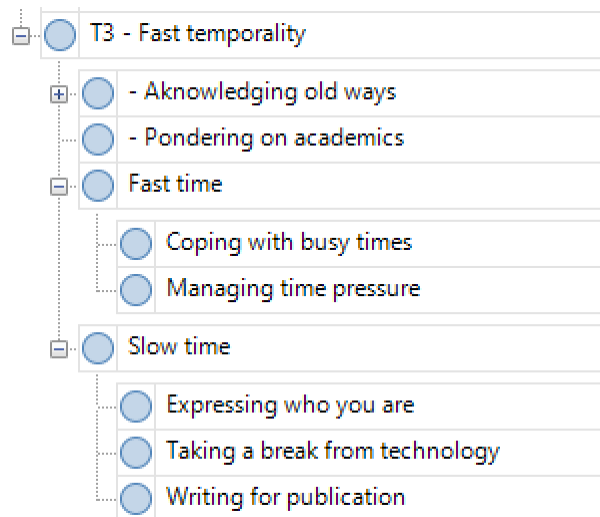


Figure 32: Representation of the nodes about fast temporality in NVivo

The data coding pointed to a partition and contrast between ‘fast time’ and ‘slow time’ that groups together some subthemes. The others capture an acknowledgement of older, pre-digital practices of academia. Such testimonies arose from both senior academics who have directly experienced this transition and the transformations brought about by digitalisation, and younger academics who have reflected on this indirectly, presumably in their research work.

Most of these subthemes express uneasiness about the acceleration brought about by digital communication technologies. This is because these technologies have increased demands on academics’ time, consistent with the empirical data presented by Lupton in her 2014 study. However, overall, it agrees with the literature examined, suggesting that digital communication technologies have increased the *speed of (experienced) time*.

Along with personal experience with digital communication technology, other social-economic factors are responsible for accelerated academia.

Hiljoki and Mantyla (2003) looked at the time perspectives in academic work that have resulted from changes in the organisational structure of universities. They singled out four core perspectives about how academics experience time: scheduled time, timeless time, contracted time, and personal time. They argued that there are tensions and dilemmas in academics' relationship with these time perspectives. It has also been argued that the acceleration of time in our era has a gender aspect. With the additional pressures of child-rearing, female academics have been forced to take up unaccommodating coping strategies such as cutting down on their sleep (Acker & Armenti, 2004).

Participants in this research study appear to have developed strategies to minimise excessive time pressure stemming from these new emerging technologies and practices. The passages from the data illustrate that these have included a cutting off from technological ties, such as avoiding using their mobile phone or going on a retreat in a remote location, for example, in the mountains.

Academics can indeed take a leave of absence, a sabbatical, to focus on their research work and, therefore, on knowledge production.³⁴⁶ Nevertheless, they cannot completely escape from their fast lane of experience even under such circumstances. Even in the mountains, Bill feels the need to remain connected to the outside world and digital networks. What is needed is a rebalancing of these fast and slow lanes of intellectual engagement and production. It may involve a new awareness of these modes' influence, particularly on their intellectual engagement and production, and a consequent radical change in the relationship with these technological devices by using or creating alternative modes of interaction.

Slow and fast lanes

The reflection from the interview data, but specifically the explicit remarks made by Thomas, point to an articulation of the predicament of fast time for academics concerning their role as knowledge producers.

Here, it is contended that the production of current academic knowledge can be represented by a one-way street with two separate lanes: a *slow lane* and a *fast lane*.

³⁴⁶ Again, this is in reference to academics working in the humanities and social sciences.

The fast lane is where academics are confronted daily by rapidly evolving knowledge dissemination and production, which digital communication technologies have accelerated. To keep abreast of the demands on them and to keep up with their peer group, they are required to go fast, so to speak, because they are in a fast lane. This attitude requires compliance with several practices: in the first instance, publishing at a fast pace in what is sometimes described as a publication frenzy;³⁴⁷ in parallel, they must maintain a social media presence and promote their research.

In this fast lane, academics are confronted daily with demands and challenges on their time.

The slow lane is where academics can disconnect from this ‘turmoil’ (using the term that Thomas uses) and take a break from the impositions of digital communication technology that Thomas defines as ‘madness’. The slow lane can be characterised as a separate space where they can delve deeper into their research and affirm their role as social critics of knowledge production.

[W]e are creating knowledge, which is supposed to be a slower venue, and not be stuck to the zeitgeist.³⁴⁸ [A2]

The above excerpt, together with the narrative of the interviews, suggests that academics aspire to an alternative and detached method of intellectual production.

Reflecting on the digital condition

Intellectual production in the slow lane

Excerpts from the interview data and the explicit remarks made by Thomas suggest that creating new and insightful ideas and writings may require a shift in intellectual production.³⁴⁹ It can be thought of as a prolonged state of inner and solitary thinking, focusing on the tasks at hand and, in this way, allowing for more reflexive and reflective thought. In an accelerated society driven by digital communication, such

³⁴⁷ Or in the ‘publish or perish’ aphorism.

³⁴⁸ German terms that refer, for a particular period, to the spirit (the outlook of people and culture) of the time.

a mindset may involve filtering or withdrawing from fast-paced digital environments. This point was stated overtly by Thomas.

So, for me, the key asset and role that academics should have is to be able to get away from this madness and shed a different light on these processes.

For academics, whose focus is producing intellectual work, getting away would mean experiencing temporality and, using the metaphor of ‘travel’, being in a *slow lane*. It could be particularly true when this group of academics is absorbed in the solitary production of abstract knowledge. Furthermore, it matches the profile of academics in the Interview Study, thus those working in the humanities and social sciences.

Thomas exemplified the contrast between fast and slow knowledge production by comparing academics with journalists. Journalists, who mostly write news stories for fast consumption, must stay abreast of a myriad of emerging information and thus function in fast-paced environments. However, the type of output that journalists produce is for fast consumption, and, in this sense, it cannot always be very analytical.

Unlike journalists, who are news producers, academics can offer a deeper perspective on events by affording to spend more time analysing, reflecting, and thinking things through. However, this is changing, according to Thomas:

The difference between academics and journalists is that [academics] were supposed to be the ones who can have a slower pace and be able to be more reflexive about where these things are going. [A2]

Thomas suggested that reflexive and insightful knowledge requires turning to another frame of mind (or experiential mode). Thus, the ability to focus on deep thinking and writing may slow down one’s thought processes in developing, pondering, and critiquing ideas.

Thomas’s point is that contrary to other groups of people, academics can usually thwart this fast temporality in knowledge production. They can stop and reflect on the technological world we live in and the socio-technical objects that are part of it. Most importantly, academics are in a privileged position to take a step back from this

‘madness’ (Thomas’ expression in the quotation above) and to critique and fight its excesses.

In their capacity for slow thinking, Thomas advocated for academics to become, once again, social critics of the modes of knowledge production that characterise today’s age and to self-reflect on their condition.

Slow lane and critical reflection

Nevertheless, was there ever a slow time in academia? This statement is problematic: apart from being a social phenomenon, time is also a subjective experience peculiar to an individual’s particular circumstances. Thomas maintained that, in the recent past, before the digital revolution, academics could engage in slower modes of thinking. Conversely, he suggests that fast-paced thinking and knowledge production dominate the present time. He hints that this has been as a result of social changes.

One could argue that such experience of time is only relative to that with which one compares it. Moreover, there is a myriad of personal and social factors that influence the individual perception that we have of time. Historically, industrialisation and the automation of manual tasks, as has been described, have pledged to free up individual time. In this respect, this is certainly true if we take a sufficiently long perspective from the beginning of the industrial revolution.

The absence of multiple and competing demands could characterise slow time in knowledge production. Thus, this slow mode may allow for critical self-reflection to bloom, not just the leisure to have plenty of time to concentrate on one’s work but also to foster an attitude of looking at a mirror of oneself and our technological condition.

Wibben made a similar point about storytelling (2006). She argued that slow is the mode of thinking required by academics who see themselves as critical scholars and thus engage in *disruptive storytelling*. According to Wibben, storytelling is a critical intervention to bring marginalised stories to light. It is the practice of gathering the elements that are part of a story and may imply a novel way of interpreting it. While producers of media news stories must move quickly to keep up with world events,

academics can have the luxury of staying attentive over time (Wibben, 2016). In this way, they can also forge a more comprehensive and multifaceted narrative of events.

Wibben pointed out that an essential element of criticism is reflexivity, which she defined as an interrogation of their position and privilege, how this can be perceived, and adopting a stance of curiosity (Wibben 2016 and 2011). Wibben's central concern is how “acts of violence” create rigid thinking and division among people upon rigid political or ideological lines when self-reflexivity in academics is most needed.

It may be added that in this vision, thus, when immersed in a slow lane of knowledge production, academics may express a more sizeable portion of their true self, such as their genuine critical and intuitive self. However, the Internet has materialised several impositions on their lives rather than freeing up the capacity to express a more authentic part of who they are. For the grouping of academics, this results in having to comply with norms of behaviour and changing inner mental thinking patterns.

These two modes of experiencing the digital, or how the digital permeates our lives, are not existentially exclusive. Thus, the necessity for a ‘slow lane’ of experience does not preclude the requirement at other times to go faster, in the ‘fast lane’, with access to or an overload of information when required. The issue arises when ‘fast’ is an all-embracing default mode of knowledge production and ‘obscures’ the other modes of work and experience.

Fast temporality and the experience of speed should not be seen as unfavourable. In his *Accelerating Academia* (2016), Vostal argued that the experience of fast time and acceleration in academia are not negative. On the contrary, they can enhance and invigorate experiences comparable to an amusement park (2016). Admittedly, there are excesses to acceleration in our networked and digital society, but these have always been present in science (2016). Therefore, with due care, academics can positively embrace speed and, in this way, avoid being overwhelmed by it (Vostal, 2019; Krematova, 2018).

5.4 SUMMARY OF FINDINGS

This chapter outlined the findings of the Interview Study with an exposition of the interview data and a discussion of coding and thematic analysis.

The interview data has been presented with reflections on significant extracts from the interviews. For the Pilot Study, the presentation of data highlighted specific topics that emerged; for the main study, it first introduced the interviewee and then focused on what each had to say about self and identity.

Testimonies from the Pilot Study show that, despite working in the humanities, the academics interviewed make a very sophisticated use of digital communication tools. It shows that the participants in the study have had a prior career outside academia and that various factors, such as the relationship with their tutors at university, have instilled in them a desire to do research and re-enter academia at a later time. Respondents in the Pilot Study have candidly revealed that they use specific social media platforms to promote their academic identity and to check and compare their metrics with some of their peers. In regard to the question of self, they see digital platforms as a way to express different aspects of their persona, such as an aspirational version of who they want to be, as a way to breathe information, and as tools to bridge connections with others and reinforce a feeling of belonging. Probing their role as educators and experts, the Pilot Study has revealed their concerns about privacy and the dangers implicit in expressing personal opinions.

The presentation of the interview data in the main study highlighted many cues about how the grouping of academics interprets self and identity concerning new technologies. Although separate questions were used, some responses about self and identity overlapped.

With the question of self, the academics interviewed expressed how digital communication technologies touch upon many aspects of their personal and professional lives. What has emerged is a repertoire of strategies to tame the influence of digital media. These involve how they express themselves, different ways to connect to the Internet, and staying away from it. The respondents also hinted at the influence of such technologies on how they view themselves and their relationship to their institutional environment by continually catching up with time constraints or presenting an embellished online image. Interestingly, they revealed how immersion

in digital communication stirs their need to stay on top of what is happening in news events and the academic world.

In response to the question about identity, the interviewees described how they present their identity online, often emphasising the need to manifest a congruent professional identity. Some used personal anecdotes or tales from their research, such as their experience working with the elderly. It also emerged how different digital platforms favour specific modes of identity presentation; furthermore, interaction with such platforms has been described as creating new media-mediated identities.

Three main themes from the data coding were discussed: (a) *spaces of expression*, (b) *manifestations of identity*, and (c) *fast temporality*.

Theme (a), spaces of expression, described how increased online public spaces of display result in narrowing personal spaces for privacy. The metaphor of space, as in spaces of expression, was used to demarcate a division between, on the one hand, the widening and, on the other, the narrowing of private spaces. The discussion and interpretation of this theme first defined the generic use of the terms public and private, thus what they mean concerning the grouping of academics and as applied to digital communication technologies. Second, it reflected on the importance of private spaces specifically for humanities academics and, by extension, for digital humanists. Finally, it scrutinised and challenged the paradigm of sharing and the notion of anonymity as an enabler for the expression of true self.

Theme (b), the manifestations of identity, regarded the intricacies of presenting an online personal and professional online persona. This section defined professional identity and, by examining relevant areas of the literature, the challenges that academics face to present and manage this identity in the digital space. Self-presentation was then introduced with reference to Goffman's theory of performance and symbolic interactionism and the Interview Study data. Finally, these notions were used to interpret academics' presentation of their professional online identity to examine their strategies and what they mean to them.

Theme (c), fast temporality, related to how the interviewed academics perceived digital communication technologies as forcing on them time constraints, thus making them long for a slower pace of living that also allows them to develop ideas. This

section first defined fast temporality and put the increase of technological change and the perception of time in a historical context; second, it looked at the debates in sociology and STS about the acceleration of society and the ideas of fast and slow thinking; third, it examined academic knowledge production, the notion of accelerating academia, and proposed to characterise academic knowledge production as a street with slow and fast lanes; finally, it returned to the interview data and suggested that the slow lane is also a space that may allow for critical self-reflection on the nature and the relationship with network society and digital communication technologies themselves.

The next chapter, which discusses the Social Media Study, explores theme (a) quantitatively. It investigates ways social media data can widen the understanding of academics' relationship with digital communication technologies. In this way, it bridges the mixed methods elements of the research design.

Chapter 6: Social Media Study

The chapter outlines the results of this research project's Social Media Study portion with an analysis and discussion of the findings. The structure of the chapter is shown in Figure 33.

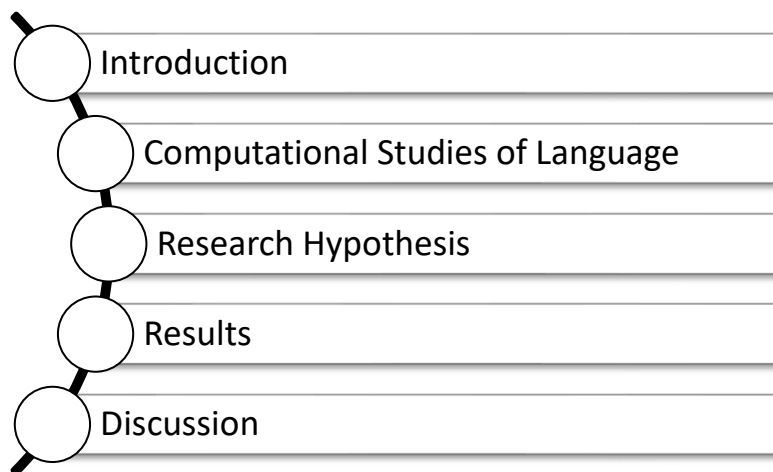


Figure 33: Overview of the Social Media Study chapter

The chapter begins with an overview of the theory regarding computational social media studies (as the chosen method of investigation) and the topics being examined (Section 6.2). Section 6.3 briefly outlines the hypotheses based on the language used by the cohort on Twitter. Section 6.4 presents the main findings, including visual representations of the data. Finally, the discussion (Section 6.5) summarises what has emerged and frames it with respect to the other thesis chapters and the research project.

6.1 INTRODUCTION

This chapter develops an additional element of the conceptual framework by further investigating the notion of *expression* in the exposition of the Social Media Study. Through an instrument and a series of hypotheses developed from the findings of the Interview Study, the Social Media Study first extends to a large population the research question about how academics express their self online (*B2*) and, second,

addresses explicitly research question (C1) by validating findings about the academic presentation of a professional identity. By way of mixed methods, this research project employs principles of digital humanities, which are about engaging with and using digital technologies while maintaining a human-centred perspective on social phenomena.³⁵⁰

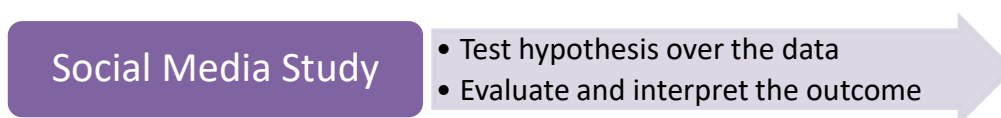


Figure 34: Components of the Social Media Study³⁵¹

As summarised in Figure 34, the Social Media Study collected and analysed data from Twitter to examine how academics present their identity on this platform. Several hypotheses about academics derived from the preceding Interview Study were tested using computational techniques. The hypotheses, which are outlined in Section 5.3, are in the form of linguistic features. In addition, Twitter data from the cohort of academics is compared with a random group of Twitter users. Finally, this chapter describes, interprets, and critiques the study's outcomes.

The following section introduces the areas of computational studies over social media data.

6.2 COMPUTATIONAL STUDIES OF LANGUAGE

Language as a means to study people

In the last ten to fifteen years, there has been an explosion of interest in analysing data made available by social media platforms (Matz *et al.*, 2017). As explained in Section 3.2., this research has drawn from social psychology to understand the personal experience we have of digital communication technologies. Computational

³⁵⁰ These principles are detailed in Section 2.3 of the Literature Review chapter and Section 3.1 of the Theoretical Framing chapter.

³⁵¹ This is derived from Figure 23 in the Instrument Development section of the Research Strategy chapter.

approaches to social psychology³⁵² are used to study and analyse social media data to infer and predict psychological states.

For a long time, psychology has examined how people use words as markers of natural, social, and personality processes (Pennebaker *et al.*, 2003). Such research has postulated that language is a reliable and consistent means of analysis, predictive of behaviour and subjective personal characteristics, making it an ideal instrument for studying mental states such as personality (Boyd & Pennebaker, 2017). Furthermore, research in computational psychology holds that the analysis of the language that people use can reveal much information about who they are, the people they are talking to, and the situation they find themselves in.

Computerised language analysis³⁵³ carried out over large textual datasets captures a further dimension in psychology's study of personality: words as markers of general characteristics (Pennebaker *et al.*, 2007). Computational analysis and the resulting statistical models can reveal several psychological traits that, apart from personality, include motivation and volition. Crucially, these states are not transparent on a small scale, where they would appear unintelligible or unconnected (Kulkarni *et al.*, 2017). This way, computational analysis of large datasets functions as a magnifying lens working on the reverse; thus, zooming out on individual psychological features makes a population's general characteristics visible.

The computational language analysis research field has a long history beyond its applications to social media data. For example, the General Inquirer, developed in the 60s, is generally considered the mother of all computerised text analysis (Stone *et al.*, 1966). Combining a set of complex word count routines, the General Inquirer was designed as a multipurpose text analysis tool, both need-based and strongly informed by the psychology tradition.

The General Inquirer was superseded by the Linguistic Inquiry and Word Count (LIWC),³⁵⁴ today's most popular language analysis method (Pennebaker *et al.*, 2003). LIWC is both a software application that handles files and counts the words and a

³⁵² Also referred as Computation Social Psychology.

³⁵³ Computational analysis of language.

³⁵⁴ The LIWC dictionary is at http://lit.eecs.umich.edu/~geoliwc/LIWC_Dictionary.htm

series of dictionaries of significant categories of words. The principle behind LIWC is counting words for psychologically relevant categories. The LIWC application analyses text by linking words to select entries in the dictionary. Then, it calculates the percentage for each dictionary entry and outputs a psychological category score.

Scope of language analysis

The amount and characteristics of the available data determine the type of language analyses that can be carried out. In conventional psychological analysis studies, the analysis of digital communication technologies, specifically on social media data, can be *descriptive* or *predictive*. On the one hand, descriptive analysis aims to determine the psychological character of individuals and communities; predictive analysis, on the other, makes predictions about personal and social variables (Kern *et al.*, 2016).

Descriptive studies are carried out by analysing existing data (as in the current study). The availability of big data³⁵⁵ from social media, such as blogs, websites, email hosts, and online publications, has facilitated such studies, giving new insights into society, and helping understand a population's psychological states, such as thoughts, feelings, and motives. Predictive studies, conversely, can extend real-time monitoring of problematic behaviours. Moreover, such predictions may involve studying the health and well-being of a particular social group. For example, some of Facebook's predictive systems monitor its users for suicidal tendencies.³⁵⁶

The Social Media Study has used a descriptive approach to its data. Rather than making predictions about a larger dataset, it has used collected and used data to determine the psychological traits of academics in their presentation of an online professional identity.

³⁵⁵ Big data is an indirect result of the digitalisation of the social world. It is produced continuously by retail purchases, CCTV footage, banking and financial transactions, the scanning of barcodes, and, pertinent to this research, social media platforms. Coined in 1997, the term big data framed the technical challenges and problems of computer visualisation (Cox & Ellsworth, 1997)

³⁵⁶ <https://www.facebook.com/safety/wellbeing/suicideprevention>

Capturing language constructs

Two primary language analysis approaches are used to infer variables from textual data correlating to psychological state: *dictionary-based* and *open-vocabulary* (Schwartz *et al.*, 2013).³⁵⁷

Dictionaries are pre-defined lists of words associated with a construct. For instance, in the LIWC 2003 Dictionary (Pennebaker *et al.*, 2003a), the term ‘cried’ belongs to the category ‘sadness’. Dictionary-based methods count the number of words in the text for selected dictionary categories. The advantage of a dictionary approach is that it allows using a predetermined list of words to infer values in the data. Furthermore, it is an approach that has been amply validated (Kulkarni *et al.*, 2017).

In contrast to dictionary-based approaches, open-vocabulary approaches identify the predictive words statistically (Schwartz *et al.*, 2013).³⁵⁸ Moreover, they provide complementary methods of language analysis that can extend the reach of the findings (Boyd & Pennebaker, 2017).

Studies that use non-pre-defined dictionaries need manual human validation. Since words can have multiple meanings, act like parts of speech, and be used positively or negatively, human input is required to determine the correct meaning for which they are used (Grimmer & Stewart, 2013). In studies that necessitate human validation, groups of people rate the accuracy of the language features, thus how well they capture the intended psychological construct.

Two widely used open-dictionary techniques of language data analysis are *latent Dirichlet allocation* (LDA) and *sentiment analysis*. LDA is a set of algorithms³⁵⁹ developed in 2003 by Blei *et al.* (2003). Given a dataset that can be a set of documents, LDA generates topics based on the frequency of words. It represents the documents as

³⁵⁷ For constructs that are not captured by a dictionary, thus where the psychological feature that is examined cannot be reduced to clusters of words (for instance, a psychological concept), the validation is done manually.

³⁵⁸ This is done by the application to the data of machine learning techniques and algorithms.

³⁵⁹ The authors describe LDA as ‘a generative probabilistic model for collections of discrete data such as text corpora’ (Blei *et al.*, 2003), but this text attempts to simplify these technical, computer science-specific definitions.

mixtures of topics based on terms with a high probability of supporting the given topics.

Sentiment analysis captures a series of psychological attributes expressed in written language, including opinion, sentiment, appraisal, attitude, and emotion. It is also referred to as *opinion mining*. Although there is a difference in meaning between sentiments and opinion, one deriving from feelings and the other from judgment, they are causally related in the analysis (B. Liu, 2015). The terms sentiment analysis and opinion mining are used interchangeably in academic research.

The focus of sentiment analysis is polarity detection, that is, determining whether an opinion originates from positive or negative, but also, in some cases, neutral sentiment (Pak & Paroubek, 2010).³⁶⁰ Traditionally, this is done by counting the overall frequency of words representing the opinion in a *bag-of-words* approach.³⁶¹ In addition, sentiment analysis can include human validation when the sought opinion as an attribute is a concept and cannot be reduced to a single phrase (Casani *et al.*, 2018). Finally, alternative methods, such as rhetorical structure theory, are used to capture sentences' semantics and discourse structure (Kraus & Feuerriegel, 2017).

This Social Media Study has used a dictionary-based approach to language analysis. The pinpointed psychological features of professional identity presentation could be directly matched to linguistic features current in the LIWC2015 dictionary. Therefore, manual validation was not needed. Additional language features from the dictionary were added for analysis to extend its scope, as it was depicted in Figure 28. As a result, LIWC2015 was used to determine the significance of the selected language features in the datasets and test the hypotheses.

Social computing studies

Most social psychology research on social media data has focused on detecting and predicting *personality* (Digman, 1990; Boyd & Pennebaker, 2017). Within social psychology and other subfields of psychology, such as *personality psychology*, personality is taken to frame the mental make-up that characterises our identity.

³⁶⁰ The other use is for sentiment classification.

³⁶¹ Bag-of-words refers to the different sets of words in the documents of text, without considering the sentence structure or what it means (Hirschberg & Manning, 2015).

Personality determines our thinking patterns and behaviours, and it is considered, to a large extent, a persistent character of our minds over time (Seidman, 2013),

Most of these studies on personality have been carried out on two leading social media platforms, Twitter, and Facebook. For Twitter, the focus has been on analysing textual data and metadata elements such as hashtags; on Facebook, it has included other communication forms such as images, videos, and add-on applications. Psychological personality models have been applied to language analysis techniques, such as natural language processing (NLP),³⁶² to study social media users. For instance, the *Big Five*³⁶³ model of personality has been used to infer or predict specific psychological characteristics of social media users, such as the prevalence of depression or mental fitness (Schwartz *et al.*, 2013). It has also been used, unknown to most users, for other more controversial aspects, such as determining their political inclinations, as in the much-publicised Facebook and Cambridge Analytica scandal (Schneble *et al.*, 2018).

A feature of personality that has attracted much research on social media, for instance, has been self-esteem (Forest & Wood, 2012; Marshall *et al.*, 2015). Self-esteem can be characterised as a judgement about one's self-worth (Rosenberg, 1965; 1986). Personality psychology has studied self-esteem as both a psychological state and a personality trait, the latter since it can remain stable over time (Deaux *et al.*, 2018). Data from social media has allowed us to study self-esteem in particular populations (Vogel *et al.*, 2014; Soomro & Ahmad, 2017).

However, this project's study of self and identity using social media data posed some challenges. Although the notions of self and identity are often linked to personality studies in the literature, they are not identifiable psychological states. As a result, unlike self-esteem, self and identity do not fall within identifiable psychological

³⁶² Natural language processing, shortened as NLP, is a group of computational techniques that are used in the analysis of natural language, that is, human language. NLP is commonly used in flagging spam emails, automated chatbots, and online language translation applications. More generally, NLP techniques can extract knowledge from user data, including the analysis of what people write on social media platforms.

³⁶³ These five factors identify the basic dimension of personality. These are *extraversion*, *agreeableness*, *conscientiousness*, *neuroticism*, and *openness to experience* or intellect. The big-five model has been accepted and has been widely used by studies in psychology since the 1980s (Colman, 2015).

constructs and models, such as the Big Five. The mental phenomenon of self is indeed too broad and all-encompassing to be captured in a study using computational data techniques. Many of its experiential attributes cannot be clearly reduced to language constructs.

The research project has used social media data to examine identity. The Social Media Study gathered Twitter data to investigate how identity is manifested and expressed by the academic cohort. Apart from being a constituent of self, identity is a more circumscribed mental phenomenon than self, directly traceable in its manifestation in social media. Rather than using psychology models, identity has been inversely determined by a series of psychological traits in the data, detailed in Section 6.3.

Twitter

In essence, Twitter is a social networking and microblogging site. It was born as an experimental concept to allow the sharing of basic information between a small group of people through SMS messages (which could accept only 140 characters). Developed as a media service, it was launched as Twittr³⁶⁴ in 2006 (Burgess & Baym, 2020). Quickly, its format proved to be extraordinarily successful. It was popularised at the South by Southwest Festival, a conference and music festival, a year later in 2007. During the conference, tweets were displayed live on a plasma screen, in this way promoting its ease of use and immediacy. After the conference, it was adopted internationally since its participants used it to stay connected with one another (Burgess & Baym, 2020). By 2012, Twitter had passed 500 million³⁶⁵ users (as number of accounts), of which 141 million were outside the US, becoming the second-biggest networking site after Facebook.³⁶⁶ Currently, Twitter is available in 33 languages and is widely used in non-English-speaking countries such as Japan, Brazil, and Indonesia. Although by the start of 2019, Twitter was said to have over 330 million monthly active users,³⁶⁷ there are constraints to its existing user base. Despite the considerable

³⁶⁴ At the time the domain name Twitter.com was not available.

³⁶⁵ 517 million accounts as of July 1, 2012.

³⁶⁶ <https://semicast.com/twitter-reaches-half-a-billion-accounts-14m-in-the-us/> Retrieved 18 July 2023.

³⁶⁷ <https://eu.usatoday.com/story/tech/news/2017/10/26/twitter-overcounted-active-users-since-2014-shares-surge/801968001/>. Retrieve 18 July 2023

number of users, a minority posts the vast majority of tweets (Wojcik & Hughes, 2019). Furthermore, in 2020, it was estimated that approximately 48 million accounts (thus, 15% of all accounts) could be fake and managed by automated programs called bots (Rodríguez-Ruiz *et al.*, 2020).

Twitter and microblogging

Twitter's textual format makes it a form of microblogging. *Microblogs* are short (micro) blogs enriched by social media's interactive rich features, such as the ability to subscribe to a network or to have updates. They differ from traditional blogging, which takes the form of an online diary or journal, and *weblogs*, online blogs, where the author's messages are usually organised chronologically or around topics. Instead, microblogs incorporate the whole publishing-aggregation life cycle (Tayal & Komaragiri, 2009).

Readers of a traditional blog can comment on the blog entries, entering a long-distance conversation because such a conversation is scattered over time with the author or *blogger*. What distinguishes microblogging from blogging and separates Twitter, in this case, as belonging to the former is a restriction on the length of the writing, which makes it an exchange of a series of brief messages. The shortness of the messages affects both the content, thus what can be expressed in a few lines of the posts, and the exchange, the frequency, and ways of communication.

Another feature of microblogging, specifically Twitter, is that the exchanged messages often target a discussed topic and are often triggered by or in response to it. In this way, microblogging involves a *continuous conversation* with fast exchanges of messages, which may carry on until the interest in the topic has been exhausted (Boyd *et al.*, 2010).

Tweet messages

A *tweet* is a short textual message sent and displayed on the Twitter platform. For example, it may sum up a thought, such as a current personal or general concern, or it may spring from news event stories. In addition, a tweet can include a hashtag,³⁶⁸

³⁶⁸ More precisely, a Twitter hashtag is a single keyword that is prefixed by # (e.g., #digital). It is also referred to as a Twitter entity. It is used to categorise and reference the hashtag as a topic of discussion. In another sense, a hashtag is a way for the author to label the topic of the tweet and create an association with tweets that use the same hashtag.

a marker that identifies its topic and links to an external resource, such as video clips and images. Currently, the length of a tweet is presently limited to 280 characters.³⁶⁹

As an instrument of social analysis, a tweet condenses several elements that give insights into the person writing or sending (tweeting) it. For example, the language expressed in a tweet can include information about that person's thoughts, impressions, emotions, and behaviour. Although most individual tweets may contain little information of value, the aggregation of millions of messages in a social media study can provide critical knowledge about a population. For instance, knowing that a single Twitter user has the flu may be of little importance. However, the analysis of millions of messages in a medical study can help trace the development of a flu epidemic.

Twitter users

This study has focused on two types of Twitter identity: the identity of the conferences and the identity of the users who follow and may have participated in such conferences. The only use of the former is in identifying the latter.

A Twitter user does not need to be a person. It can also be an entity such as an organisation or a company,³⁷⁰ and, in what applies to this study, it can represent an academic conference. In the latter case, the people who maintain the user account for the conference manage it and respond to tweets.

Communication type

Twitter functions as a platform. Apart from providing an online service that allows users to communicate with one another, it also shares its resources and data. Twitter data can be accessed programmatically through its application programming interface (API).³⁷¹ Twitter's API layers can be accessed securely via an authentication layer on the Web as publicly addressed via URLs.³⁷² The Twitter API, with some

³⁶⁹ It was limited to 140 characters until 2017: <https://developer.twitter.com/en/docs/basics/counting-characters>

³⁷⁰ Or even a fake entity or user created by an automated computer programme called a bot.

³⁷¹ An API is generally defined as a set of procedures, definitions and protocols that describe the behaviour of a software component. It provides an interface in the sense that the user of the API does not need to know the working of the application to use its functionality, but only the operations.

³⁷² Although the access to Twitter data can be defined as open when compared to other platforms, there are some limits to the access to users' data. Such limits are set in the volume of that access to its APIs, thus in the amount of data that can be retrieved at a given time. At the time of writing, the access

restrictions, has been a model for an open social network platform.³⁷³ One reason for Twitter's success has been ascribed to its open API (Tayal & Komaragiri, 2009).

The rationale for using Twitter

Twitter was the optimal choice for this study for three significant reasons. First, because of its popularity in academia. In fact, for several years, it has been the most popular social media platform among academics (Van Noorden, 2014).³⁷⁴ In the Twitter ecosystem, academics express what they think about topics and concerns of their peer group, but also in response to current events. Second, compared to other social media platforms such as Facebook, Twitter data was comparatively easy to access.³⁷⁵ Third, the Twitter conversation exchange reflected and influenced what happens in the digital space and the social world. While popular topics of conversation could remain confined in the Twitter arena, many others would spill over and influence public discourse at large.

6.3 RESEARCH HYPOTHESES

Three hypotheses were used to scrutinise how academics engage in public debate on social media platforms, specifically how they present their online identity on Twitter. They were derived from the theme *presentation of a professional identity*,³⁷⁶ which emerged from the thematic analysis of the Interview Study. Based on these hypotheses, the language that academics use on Twitter was compared with a random sample of users.

In manifesting a *professional academic identity* on Twitter, the language used by academic users would display the following features:

H.1 More words with a measured tone; fewer words convey certainty and opinion.

It indicates how the cohort carefully manages its online identity.

rate is a limited to 15 requests every 15 minutes, with each request allowing access to the profiles of 20 users. This means that it takes about 15 minutes to retrieve data from 300 users.

³⁷³ This contrasts with Facebook, which has conversely gradually reduced data access to researchers, and whose social network model is thus restrictive.

³⁷⁴ This has not changed, or rather its popularity has increased, since this paper was published.

³⁷⁵ Admittedly, such policies on data access are in a state of continuous change:

<https://help.twitter.com/en/rules-and-policies/twitter-api>

³⁷⁶ This theme is discussed at some length in Section 5.4.1 of Chapter 5.

H.2 More words are in the third person, and fewer are in the first person singular.

It indicates that they mildly engage in debate, such as political debate.

H.3 More words related to positive emotions and certainty.

It indicates that they do not embark on controversial and (negatively) emotionally charged issues.

An additional range of related language features was selected from the LIWC2015³⁷⁷ dictionary. For each feature, Table 6 below describes (where available) the associated psychological trait based on empirical research; it is adapted from Tausczik and Pennebaker (2010).^{378, 379}

³⁷⁷ LIWC stands for Linguistic Inquiry and Word Count; LIWC2015 is the 2015 version of the software and dictionary.

³⁷⁸ This was using the LIWC dictionary prior to LIWC2015, which has been used for this study.

³⁷⁹ In the variable column the terms within square brackets represent dictionary categories rather than the variable measured.

Table 6: Description of the LIWC dimensions initially selected

Variable	Examples	Psychological correlates
<i>[Summary of dimensions]</i>		
Total word count (WC)		
Analytic Thinking		Suggests formal, logical, and hierarchical thinking patterns
Clout		Refers to the relative social status, confidence, or leadership
Authenticity		Tends to speak more spontaneously and not self-regulate or filter what they say
Tone		
Words per sentence (WPS)		
Words with 6+ letters (sixltr)	Percentage of words longer than 6 letters	Education, social class
Dic (Dictionary words count)	Percentage of all words captured by the dictionary	Informal, non-technical language
<i>[Function]</i>		
<i>[Pronouns]</i>		
Personal pronoun (ppron)		
I	I, me, mine	Honest, depressed, low status, personal, emotional, informal
You	You, your, thou	Social, elevated status
<i>[Affect]</i>		
Positive emotion (posemo)	Nice, love, sweet	
Negative emotion (negemo)	Hurt, ugly, nasty	
Anxiety (anx)	Worried, nervous	
Anger	Hate, kill, annoyed	
Sadness	Crying, grief, sad	
<i>[Cognitive process (cogproc)]</i>		
Certainty (certain)	Always, never	Social-verbal skills, emotional stability
<i>[Drives]</i>		
Risk (risk)		

Analytic thinking, Clout and Authenticity are the key variables tested among all the dimensions selected in Table 6.

The Analytical Thinking variable is a language dimension based on several categories of words.³⁸⁰ It was initially referred to as Categorical-Dynamic Index (CDI) (Biber, 1988) and captures how people use words that suggest formal, logical, and hierarchical thinking patterns (Pennebaker *et al.*, 2014). People low in Analytic Thinking tend to write and think using more intuitive and personal language. Conversely, the language high in Analytic Thinking tends to be rewarded in academic settings; it correlates with reasoning skills and grades. Furthermore, language scoring low in Analytic Thinking tends to be viewed as less cold and rigid and more friendly and personable (Pennebaker *et al.*, 2014).³⁸¹

The Clout variable refers to people's relative social status, confidence, or leadership. Despite being related, the concept of Clout differs from that of Power (and the language variable power).³⁸² Power and the need for power reflect people's attention to or awareness of the relative status in a social setting. The Clout algorithm was developed based on the results from a series of studies where people were interacting with one another (e.g., Kacewicz *et al.*, 2014).³⁸³

The Authenticity variable refers to the degree to which people reveal themselves in an 'authentic' or honest way, such as by speaking more spontaneously and not filtering what they say.³⁸⁴ Rather than deception, it reflects self-monitoring. Prepared texts such as speeches written ahead of time and texts where a person is socially cautious score low in Authenticity. Conversely, spontaneous conversations, such as between close friends, score high.

³⁸⁰ <https://www.liwc.app/help/liwc#a>

³⁸¹ Analytic Thinking, before being normalised, is calculated as follows: [articles + prepositions – pronouns – auxiliary verbs – adverbs – conjunctions – negations] (Jordan *et al.*, 2018).

³⁸² <https://www.liwc.app/help/liwc#Clout>

³⁸³ Analogously to Analytic Thinking, Clout is based on the formula: [we-words + you-words + social words – i-words – swear words – negations – differentiation words] (Jordan *et al.*, 2018).

³⁸⁴ <https://www.liwc.app/help/liwc#Authenticity>

6.4 RESULTS

6.4.1 Overview of methods used³⁸⁵

The data about academics, consisting of about 1.6 million tweets, was retrieved programmatically from the Twitter API in 2018. The sampling involved identifying academics as participants in academic conferences and groups promoted on Twitter and then collecting tweets from their tweets' history. The random sample of about 1.2 million tweets was collected from the internet archive for the same period. The raw data of each dataset was initially manually pre-processed to remove unnecessary textual elements, adjusted to a uniform format, and selected English-language tweets. Further processing was carried out prior to LIWC2015 analysis to facilitate its operations; in the end, the data consisted of about 15,000 tweets for each dataset. For the LIWC2015 processing and word count, a series of significant psychological and linguistic categories were selected from the LIWC2015 dictionary (see Figure 28). The data results of LIWC2015 were assessed by conducting statistical analyses, which included frequency, normality, non-parametric, and size of difference.

6.4.2 Data distribution

As Section 4.6.3 of the Research Strategy chapter mentioned, the normality test revealed that the dependent variables (language features) in the independent samples (the two Twitter datasets of academics and random users) were not normally distributed.³⁸⁶

³⁸⁵ Full details of the procedures followed can be found in Section 4.7.3 of the Research Methods chapter.

³⁸⁶ Full results of the normality test can be found in the Appendix C.

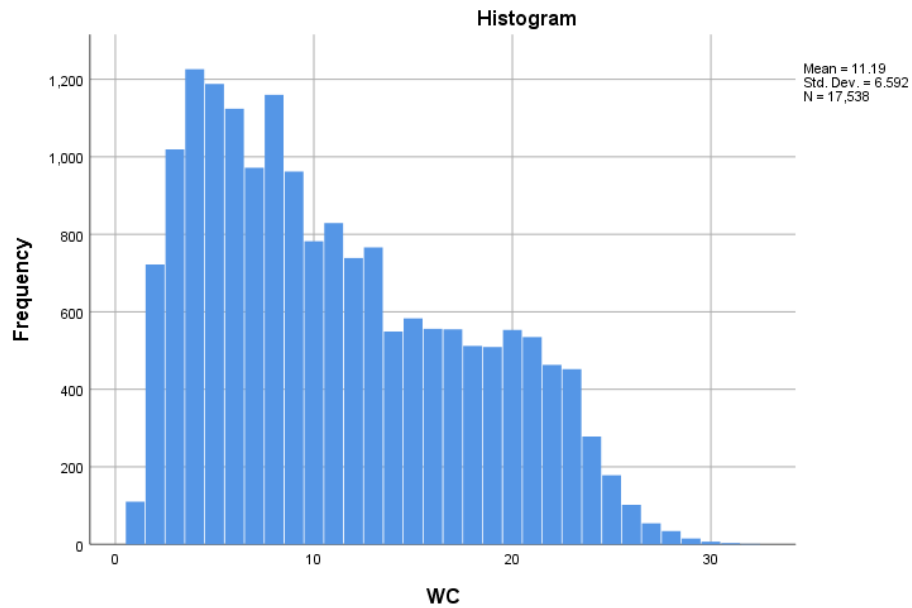


Figure 35: Example of non-normal distribution in the datasets³⁸⁷

Contrary to what can be seen in the above figure, a normal distribution should display the data in the graph as a quasi-symmetrical arch.³⁸⁸

6.4.3 General data marks

The most frequently used words in the group of academics are shown in Table 7, and the descriptive analysis is presented in Table 8. The outcomes of the Mann–Whitney U test and the effect sizes are presented in Table 9. Also, the distribution of the variables showing significant differences is depicted in Figure C1 (Appendix C), where both samples' distributions (rescaled) can be checked.

³⁸⁷ The image was obtained with SPSS and shows the non-normal distribution of the data for the variable word count in the random sample.

³⁸⁸ Most statistic manuals explain these results.

Most frequently used words

Table 7: Most used words in academic data³⁸⁹

	Word	#
1	new	54794
2	digital	48716
3	like	36132
4	us	36018
5	great	32378
6	today	30520
7	work	30181
8	data	29716
9	people	29710
10	time	28308

6.4.4 Outcomes of hypotheses

Table 8 below shows the result of the data analysis. For each linguistic feature, the associated values of the median and interquartile range (IQR), together with the first and third quartiles, are detailed for the academics and random sample of Twitter users.

³⁸⁹ Words without a significance, e.g., the article ‘the’ etc., were excluded.

Table 8: Result of each linguistic feature for the two Twitter groups

Academic Group					Random Group			
Variable	Quartiles				Quartiles			
	Median	IQR	1	3	Median	IQR	1	3
WC	16	10	10	20	10	11	6	17
Analytic	93.26	29.44	68.29	98.34	71.39	74.44	18.82	93.26
Clout	50	35.38	50	85.38	50	59.5	29.92	89.42
Authenticity	4.97	36.24	1	37.24	17.46	73.76	1	74.76
Tone	25.77	71.81	25.77	97.58	25.77	73.23	25.77	99
WPS	10	9.33	6.67	16	8	7	5	12
Sixltr	33.33	21.15	25	46.15	25	22.67	15.79	38.46
Dic	54.55	30.16	39.13	46.15	70	30.44	52.17	82.61
<i>Function</i>	27.27	24.13	15	39.13	37.5	27.78	22.22	50
<i>Pronouns</i>	4.17	10.71	0	10.71	11.11	20	0	20
Ppron	0	6.45	0	6.45	5.88	14.29	0	14.29
I	0	0	0	0	0	8.33	0	8.33
You	0	0	0	0	0	0	0	0
Affect	0	8	0	8	4.35	12.5	0	12.5
Posemo	0	5.88	0	5.88	0	8.33	0	8.33
Negemo	0	0	0	0	0	0	0	0
Anx	0	0	0	0	0	0	0	0
Anger	0	0	0	0	0	0	0	0
Sadness	0	0	0	0	0	0	0	0
Cogproc	5	11.11	0	11.11	0	12.5	0	12.5
Certain	0	0	0	0	0	0	0	0
Drives	5	10.23	0	10.53	0	11.11	0	11.11
Risk	0	0	0	0	0	0	0	0

Table 9: Mann–Whitney U test and effect size

Variable	Z	Sig.	Effect size
WC	-137.44	.000	0.69
Analytic	-187.97	000	0.94
Clout	-153.17	000	0.77
Authentic	-107.52	000	0.54
Tone	-140.88	001	0.71
WPS	-178.03	000	0.90
Sixltr	-139.05	000	0.70
Dic	-70.41	000	0.35
<i>Function</i>	-86.60	000	0.43
<i>Pronouns</i>	-83.15	000	0.42
Ppron	-89.71	000	0.45
I	-98.45	000	0.49
You	-126.90	000	0.64
Affect	-111	000	0.60
Posemo	-130.82	000	0.66
Negemo	-127.26	000	0.64
Anx	-138.49	004	0.70
Anger	-130.11	000	0.65
Sadness	-135.82	000	0.68
Cogproc	-134.30	034	0.68
Certain	-133.50	000	0.67
Drives	-139.63	000	0.70
Risk	-140.72	000	0.71

6.5 DISCUSSION

The Social Media Study aimed to assess hypotheses about the academics' presentation of professional identity on Twitter. Manifest differences were found between the two groups of academics and random Twitter users.³⁹⁰

Regarding the most used words, academics on Twitter use several words related to their profession. Given that the users were selected from those belonging to Twitter

³⁹⁰ Data collection and sampling for the two groups of Twitter users are described in Section 4.7.2 of the Research Strategy Chapter.

groups related to the study and research on social media, it is not surprising that the words *digital* and *data* appear among the ten most used words. Furthermore, the word *new* may also characterise this specific sub-category of the cohort and in relation to new technologies; it may be assumed that academics who work in the historical or geological fields may use the word *new* less. Finally, the word *great* may indicate that academics on Twitter use positive language and express positive emotions.

Interestingly, the word *time* is included within the most used words, which correlates with the finding of the coding of the Interview Study³⁹¹ where academics seemed to express a particular concern with time and the condition of temporality.

On top of the variables specific to the hypotheses, several others were selected from the LIWC2015 dictionary. It was decided that a larger spectrum of 23 linguistic variables would provide a better overview of academics' psychology in the sample data. The rationale for selecting extra variables was to consider those with characteristics related to the main hypotheses (see Section 6.2). Wherever present in the literature, such features were briefly described in Table 6.

The overall results show a marked positive difference in all the variables between the group of academics and the random samples of users. This indicates that, on these markers, the selected academics present themselves differently.

Analytic (sig = 0.01, r = 0.94) and *WPS* (word-per-sentence) (sig = 0.01, r = 0.90) are the variables with the highest difference, with an effect size over 0.90. Such values far exceed Cohen's interpretation of a significant difference, thus ≥ 0.50 .³⁹² This indicates that the group of academics selected on Twitter can be identified, on the one hand, by their analytical thinking, hence displaying formal logic and hierarchical thinking patterns (to be contraposed to the use of intuitive and personal language) and on the other, by the use of more words per sentence, which may indicate soberer and thought-through tweets (in contrast with short tweets written on the spur of the moment).

Other variables markedly different in the academic group (effect size equal or over 0.70) were *clout* (sig = 0.00, r = 0.77), *tone* (sig = 0.01, r = 0.71), *sixltr* (sig =

³⁹¹ See Section 5.3.3 for a discussion of temporality.

³⁹² See Appendix C.

0.01, $r = 0.70$), *anx* (sig = 0.00, $r = 0.70$), *drives* (sig = 0.00, $r = 0.70$), and *risk* (sig = 0.00, $r = 0.71$). While high values in *clout*, indicating high social status or leadership, *sixltr*, using longer words, and *tone* confirm the presentation of professional identity by academics on Twitter, high values in *anx*, anxiety, and *risk* are more difficult to attach to this proposition.

H.1 Academics carefully manage their online identity

Given the specific sample, the data only partially validates the hypothesis that academics carefully manage their online identity (H.1). The variable *tone* in LIWC2015 does not measure restrained tone in their language. Instead, *tone* is associated with positive/negative values. The data indicates that the tone in the academic's sample is primarily positive. It can be noted, however, that the value of *authentic*, although high in the Cohen range, is low compared to the other variables, which may indicate that their tweets are written carefully rather than as a result of an emotional response. A higher value of the *analytic* variable, thus analytic thinking, also confirms this.

H.2 Academics mildly engage in debate

The data does not allow a precise evaluation of the hypothesis that the group of academics selected mildly engage in debate (H.2). Given the high values of the variables in the Cohen scale, which are almost all within the medium to large difference ($0.30 \leq 0.50$ and ≥ 0.50), it is difficult to discern if the high difference in the emotional variables indicates a corresponding large emotional engagement. Additionally, it cannot be determined whether there is more emotional engagement (thus, emotional language) in the language used in tweets around a debate or a specific debate.

H.3 Academics do not embark on controversial/emotionally charged issues

The data confirm the hypothesis that academics do not embark on controversial/emotionally charged issues, or at least, less frequently than those in the random set (H.3). Academics use language with positive emotions (*posemo* with sig = 0.00, $r = 0.66$) and display certainty (*certain*, sig = 0.00, $r = 0.67$). While the former indicates that they do not engage in negative, emotionally charged issues, the latter also conveys emotional stability. These features confirm the hypothesis.

Furthermore, academics were also found to use longer words (high value of the variable *sixltr*, thus of words of six or more letters). Apart from indicating education and social class (Tauszik & Pennebaker, 2010), this pattern has been found to point to psychological distancing (Pennebaker, 2011; Kaati *et al.*, 2016).

Although they display control over what they write in their tweets, the data indicates that the academics selected positively display a wide range of emotions compared to the random sample. However, considering the value of all the chosen dictionary variables, it can be argued that such emotions are controlled by rational thinking, distancing, and using precise language to convey them. As a result, these displays of emotions are highly refined and may not fall into the controversial/spur-of-the-moment category.

6.6 LIMITATIONS

Although the results are significant, there are limitations to the study. Firstly, the sample only brings together English-speaking academics who use English as their main language of communication on Twitter. Although English has become academia's default language, other communities use other languages, such as Japanese or Spanish. As a result, the study does not consider geographic or culture-specific variations that may arise where another language is used in the tweets of academics. Such a stance may be particularly significant in countries with more stringent control of social media on particular cultural-specific issues (such as on religious grounds). Furthermore, this study does not engage with the cultural, political, and historical issue surrounding the establishment of English, as a result of colonization and globalization, as the lingua franca in Asia and other parts of the World, which has been debated within the digital humanities (Majhanovich, 2013; Aiyegbusi, 2022; Nilsson-Fernández, & Dombrowski, 2022).

Secondly, the language used on Twitter is also influenced by external factors such as the particular historical and political periods and the degree of freedom of expression allowed on the specific platform used, thus, Twitter. In the former case, it may relate to the topics being discussed and the consequent degree of engagement of academics. Emotive language and engagement would generally increase, for instance, during an election, as has been the case with the US presidential elections of 2016 and 2021. In the latter case, the platform may impose forms of censorship or stricter rules

of engagement. In this sense, the results may also have to be viewed in a larger social context. Section 7.3 in the Consolidation chapter considers some of the social-cultural implications.

Thirdly, the result of this study over the third hypothesis (H.3) seems to run counter the recent narrative about academic storms on Twitter and grants for further investigation.^{393, 394} Yet the presence of Twitter storms by academics does not invalidate the study's outcome (Vasterman, 2018). It may be the case that the cohort of academics in the time frame selected for the study was not involved in and responded to controversy on Twitter. Furthermore, the presence of Twitter storms by academics cannot in itself prove that they have freedom of expression, as such freedom can be granted only to specific topics of conversation but not others.

Finally, since the results show that the tweet *content* is demonstrably different, a discussion about whether the authors and their mode of operation differ is granted. However, it may be the case that the effect is illusory. Hence, the difference between academics and non-academics may be due to other factors. For example, it may be determined by the difference between people with a high education level or the typical middle-class high social capital that academics possess. In this data, we cannot rule out the influence or presence of other factors. Although we have a random sample as a control, we do not know anything about their demographics. So even though it is possible to speculate and advance possible explanations over the study results, these must be treated cautiously.

6.7 SUMMARY

The Social Media Study has upheld several hypotheses about the presentation of the professional identity of academics on Twitter, which were derived from the coding of the Interview Study data. Data about academics was collected from the Twitter API during February 2018, a comparable sample of random data from a historical Twitter archive from the same period. LIWC2015, a word-counting application and dictionary, was used to look at the presence of specific language features that validate the

³⁹³ A Twitter storm is a burst of traffic in negative messages in response to a tweet (see: Pfeffer, Zorbach & Carley, 2014).

³⁹⁴ Such Twitter storms, for example, were the result of academic labour activism (Vatansever, 2021).

hypotheses in academic tweets, comparing them between the two groups of academics and random Twitter users. The results showed an overall marked difference between the two groups. Academics use language that projects an academic identity by conveying analytical thinking and hierarchical thinking patterns. There was, however, an unclear determination as, together with language that indicates social status and leadership, thus a controlled and meditated expression of identity, there were markers of anxiety and risk-taking. While the data reasonably supports the first hypothesis, that academics carefully manage their online identity, it does not allow a precise evaluation of the second, that they mildly engage in debate. The data also confirms the third hypothesis, that they do not engage in controversial or emotionally charged issues, as it displayed positive emotions and certainty.

Chapter 7: Consolidation of Findings

This chapter discusses the social implications of this research project, also bringing together some of the findings of the studies. The content of the chapter is summarised in Figure 36 below.

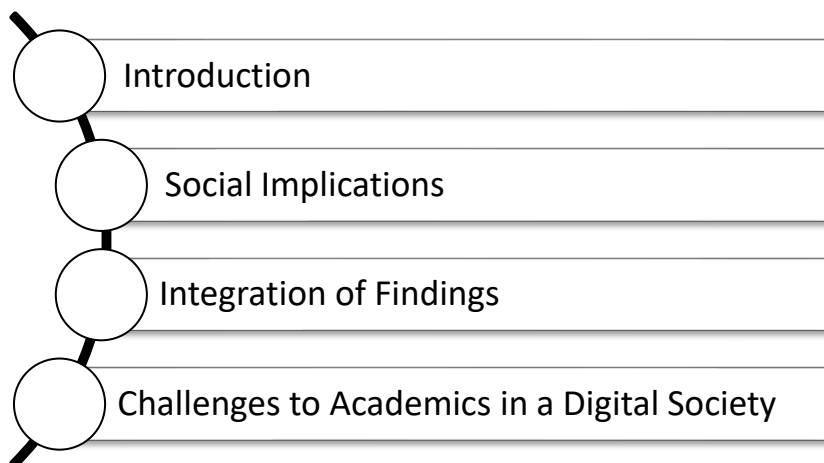


Figure 36: Overview of the Consolidation of Findings chapter

Section 7.2 outlines the findings of the cross-cultural study. Section 7.3 describes what conclusions can be drawn by comparing and integrating the results of the two major studies. Finally, Section 7.4 critically examines some challenges academics face in our increasingly digitally networked society.

7.1 INTRODUCTION

This chapter consolidates on two fronts: (a) over the integration of the findings and (b) over the conceptual framework.

With (a) it serves, on the one hand, to combine the findings from the Interview Study and the Social Media Study (in Chapters 5 and 6, respectively) and the findings from the small cross-cultural element embedded in the Interview Study. On the other hand, with (b) it tackles the concept of *relationship* by looking at academics' connection to the broader society through digital communication technologies. Finally,

this chapter critically extends some of the outcomes that have emerged in the practical and theoretical assessment of the studied phenomena.

Research question addressed

Through the element of the *relationship* of the conceptual framework, and together with the narratives of academics presented in Chapter 5, this chapter helps to address the research question about the social world (B3).

This question is examined at two points: first, in Section 7.2, through the description of what emerged from the cross-cultural element, and second, in Section 7.4, with the outcome of the research about the roles of academics as key informants, institutional representatives, and experts explored in the Interview Study.

The chapter engages with this question in Section 7.4 by presenting a narrative of the challenges that academics face in an era where digital communication platforms and advanced computing networks define a digital society. This section also seeks to bring this research up to date with technological changes and what emerged in the digital through COVID-19. It investigates the impact of these technologies on academics' peer groups, the university environment, and society at large, whether the advancement and sophistication of digital communication technologies foster a social role that sees academics as knowledge providers in a society increasingly organised around technological systems, and whether academics with expertise in media and communication techniques can help gauge how these technologies affect our subjective experience.

This chapter also integrates and triangulates the mixed methods approach of this research with the two primary studies. For clarity of exposition, they are outlined in Section 7.3.1.

7.2 SOCIAL IMPLICATIONS

This research project has explored and upheld the view that the self is not only a personal and psychological phenomenon, part of how our mind works, but also a social construct.³⁹⁵ This latter view, from social psychology, contends that some of its constituent parts, such as self-concept and identity, are directly shaped by the social

³⁹⁵ See Section 1.2.1 of the Literature Review chapter.

world and, by extension, relevant to this research by the use, experience, and mediation of digital artefacts. Furthermore, subjectivity draws from the experience of being part of a community of people immersed in society, where digital platforms have increasingly come to mediate much of this experience.

By focusing on the concept of *relationship* from the conceptual framework, this section explores how the testimonies of academics' engagement with digital communication technologies, discussed in Chapter 5, link to their connection with others and the social world. Moreover, under the social nature of self, it reflects on how these relations may, in turn, shape their inner subjective experience.

General observations

Although limited in scale (it only considers 11 respondents in three geographical locations), the cross-cultural element provides valuable insights into how social and geographic factors impact academics' relationship to digital media technologies. Apart from what the interview data shows, there are noteworthy indirect findings from the recruitment process and the conduct of the interviews.

Academics who work at a particular academic institution, such as University College London in London, UK, are also part of an international community. In recent decades, globalisation has fostered the interchange not only of research and international student projects but also of academics (Solimano, 2008). It means that several academics have citizenship and, with it, a cultural background different from their institution's host country. The international aspect of academia has increased prevalence over national and culture-specific considerations.

The data collected does not allow for a significant comparative analysis between the three locations where the interviews were held. Indeed, this was not the intended purpose of the cross-cultural element. Because it is part of a more extensive study using a semi-structured interview method, the interview questions and their prompts were adapted to fit into the conversation flow, the topics that arose, and several slightly different versions of the questions were asked. As a result, the lack of uniform markers does not allow for a direct comparison of the results.

However, the data provides valuable intrinsic findings. Moreover, because of the international nature of academics, these findings extend beyond the set geographical boundary where they resided and were interviewed.

Recruitment of interviewees

Indirect findings emerged from the interviewees' recruitment process. A case in point is recruiting candidates for the Interview Study in Japan, which proved particularly difficult compared to other geographical locations. Firstly, most of the email invitations went unanswered or were not accepted. Several reasons were given in the latter case, such as lack of time. Secondly, a few of the respondents enquired about financial rewards. Despite this, two candidates were found in the end, and the interviews were carried out, but only thanks to networking by the local institution in Japan, NAIST, where the writer was residing at the time.

The language barrier was undoubtedly a significant obstacle. Whilst most Japanese academics publish in English-language international journals, spoken English was observed less commonly, and recruitment of participants for interviews to be conducted in English was less straightforward than in other locations. This effect was evident in email correspondence and interaction with Japanese researchers.³⁹⁶ It can be argued that sitting for an interview requires strong language competence and confidence in one's communication ability. As a result, the prospect of an English interview for a doctoral thesis may have been considered taxing.

Another reason was cultural and related to a different interpretation of inter-academic collaboration in Japan. Overall, it has been assumed that academics took part in the Interview Study either out of the spirit of helping out a trainee researcher or because of a commitment to the shared value of collaboration. However, from some of the email correspondence, it transpired that academics in Japan expected remuneration³⁹⁷ for their time.

As discussed in Section 5.3.1 of the Interview chapter, digitalisation and social media have facilitated and strengthened the value of academic collaboration. However, it may be that this value has not been fully adopted in Japan or that it contrasts with other local-specific customs and habits. After all, Japan maintains many non-digital practices that have been superseded in other industrialised nations, particularly the social practices of everyday living. For instance, one of these (directly experienced by

³⁹⁶ The recruitments and interviews were carried out while the writer was based in Japan.

³⁹⁷ See the redacted email in Appendix A.

the author) is the registration process with the local city council where one resides. Not only is this not digitalised, but it involves much paperwork and handwriting of various documents, of course in Japanese. One of the consequences is that moving location and residency registration within Japan is very laborious and particularly problematic for non-Japanese speakers. As this example shows, culture-specific non-digital practices may be connected to the monetisation of academic collaboration in Japan.

Academics' critical attitude

In the extract below, one of the respondents emphasised the critical stance of the academic environment where the respondent works in the UK.

I don't work on very controversial things. So, for me, it's not pressure that I feel, and I'm in a department that allows very much critical theory and critical type of investigations to happen ... [so] I don't feel a lot of pressure. I'm sure that if I was to have other types of scholarships, another type of theoretical approach... surely, it's not that easy, even in the UK. [A1]

The passage above does not clarify what the respondent meant by critical theory. While 'critical theory' may imply a particular philosophical and political association, ^{398, 399} 'critical investigation' denotes a more general undertaking. At the same time, the fact that the respondent specified that it is a prerogative of his department hints at the fact that other departments in the UK may not hold the same values. It can be assumed, therefore, that the UK allows for institutions that favour a critical theory approach and may embrace it as both an academic and political enterprise.

The case of digital humanities shows that several external factors can come into play in determining the levels of deemed acceptable critique or political activism in a university department and in a discipline. Berry argued that the lack of cultural critique in the digital humanities derived from their means-focused role in aiding other disciplines (2022). Their primary function and acquired worldview, in fact, had been

³⁹⁸ Critical theory has been introduced in Section 3.1.3 of the Theoretical Framing in relation to the Critical Digital Humanities. In contrast to the notion of theory in the social sciences as a system of abstract propositions which can be empirically investigated, critical theory maintains that theory is subjective, historical, and forms part of society (Buchanan, 2018).

³⁹⁹ The term 'critical theory' is nowadays also used more loosely to refer to any kind of theorising (Buchanan, 2018).

in the preservation of cultural heritage and archives through digital archives and digital tools. As a result, funding for the digital humanities was aimed at modernising and digitalising humanities departments. Digital humanities centres were principally placed within English and History departments, which required the transformation of archives through digital tools (Kirschenbaum, 2010; Berry, 2022). In this case, a more “conservative” (and assumedly less critical) attitude resulted from their academic positioning and funding rather than their practitioners' personal beliefs and principles.

At the other extreme, the social engagement of academics may lead to taking up more radical critical political projects, such as critical theory and social justice. Leaving aside the merits of such positions, it can be assumed that in that context, an academic of a different political persuasion (such as centrist, conservative or anarchist) may find it difficult to express their ideas where polarised opinion is present. It follows that constraints to expression can arise not only from the outside but from within a localized academic community such as the department of a university, and their influence will depend on an academic's personal inclination and activism. This again points to the fact that academics' critical stance is a complex and multifaceted phenomenon.

Reputation and social rank

Given social and cultural variants, it is fair to assume that there are localised differences in how academics are perceived in society. First, this may be attributed to the social roles they are invested in. For example, in societies where they are invested in a predominant role as experts, academics may be significantly esteemed by the population.

The interview data indicated disparate ways in which academics are perceived. Tainted with irony, one respondent expressed this aspect very clearly, comparing the contrasting perceptions of academics in Singapore and Australia.

I know my position here is... you are someone very respectable, and as a professor, you have a certain rank that you don't have in Australia. There you are worse than your garbage man in Australia if you are an academic; no one knows what you are doing. [A6]

Singapore is portrayed as a society that places academics high in the social hierarchy. As an academic, one has a particular rank that commands respect from people. This fact can be interpreted by the meteoric economic rise of Singapore, which, within two generations, has rapidly grown into a global economic power and a technological hub; furthermore, by the role that the partnership between industry and academia has played in it. According to Hornidge (2007), the scientific community (of which academics are part) has created Singapore's vision of itself as a *k-society*, or knowledge or information society, which has been one of the key factors for its development and growth.

The same does not seem to hold for Australia. Like Singapore, Australia has some of the world's most renowned universities, indicating a high social investment in knowledge production and transfer (Altbach, 2013). However, in contrast to Singapore, this appears not to trickle down to people's general perception of academics. The respondent seemed to hint that one of the reasons is that no one knows what academics are doing. This may mean that academics in Australia are not invested in society or that their role is not promoted as contributing to society's well-being, as is the case in Singapore.

Another inference is that academics' more extensive freedom of speech does not translate into their ability to make a more significant social impact. Assuming that Australia is a freer society when it comes to critiquing its government than Singapore (discussed further ahead), what academics say may not significantly impact the general public, given their lower social esteem.

Saving face

Some of the most enduring socio-cultural habits trespass into the digital arena. One of these, particularly prevalent in East Asia, is the notion of *saving face*. One of the respondents explained their reluctance to engage in the first person with questions about self and identity because of this. The extract below⁴⁰⁰ includes the query that stirred this response.

⁴⁰⁰ Partially quoted in Section 5.2.2

[*Question*] Would you do the same? ...[T]hat is, post personal stories on issues personal to you ... [such as] ... if you felt the need to reach out to more people because you [were] going through a difficult path in your life... with work or career?

[*Answer*] I think it's also the culture, where you don't put it [out]. I think it's about 'saving face' culture in Asia. You would not put out that stuff that embarrasses yourself ... that five years later people can say ... this guy was at a lower point [in his life] five years ago. So, I think that that sort of preference. You may do it by phone with your close friends. So, for me, I don't put out stuff that is based on deep interrelation stories online. [A7]

Saving face is the idea of avoiding public display to evade individual or group embarrassment. Prevalent in countries of East Asia influenced by China, it is a significant dimension of Confucian culture that shapes all forms of social interactions (Hu, 1944). It is a concern for face, in terms of prestige, good name or dignity, and is manifested in a solid sensitivity to group belonging and other people's opinions (Redding & Ng, 1982). It is the idea that people care about how others perceive them.

Interestingly, the respondent's concern is not mitigated by the fact that the interviews will be anonymised, so the readers will be unable to identify them.

Concern for saving face seems to extend not only to the individual but to the group that they represent. It is, therefore, not only a concern about the direct effect that personal disclosure will have on them as individuals but also on the group to which they belong, such as academics or educated persons from East Asia.

At the same time, the recourse to saving face may also exemplify a habit of mind. The notion of saving face is so prevalent in East Asia that people are reluctant to show face in any situation of public display. In this way, saving face seems to bypass the modes of self-representation offered by digital technologies.

The case of Singapore

The interview data indicated tacit boundaries on what academics can express online. For example, in the case of Singapore, there appear to be limitations on academics' free speech. This respondent hinted that political speech is a particularly sensitive topic of debate in Singapore.

[*Question*] For example, in the context of Singapore, do you think... that you are free to put forward what you want?

[*Answer*] Yeah, clearly, in Singapore, there is a level of political awareness... [Y]ou cannot be as vehemently political as you can be in other places. [A6]

The consequences of direct critique of the government are not immediate retributions. After all, Singapore is assumedly to be a democracy and not an authoritarian state. However, such consequences for academics may be indirect and deferred, such as hurdles in their career progression or difficulties in accessing research funding. Another interviewee mentioned a notorious case where an academic incurred a personal penalty for daring to critique the government.

Here in Singapore? Yeah, there is Cherian George, for example. A fellow by the name of Cherian George... was critical of the government. I think he was up for tenure, and he was denied tenure. So, now he's in Hong Kong, I think. So, there are cases like that. [A4]

Cherian George's case is notorious because he extensively critiqued politics and new media in his research about Singapore and Southeast Asia. A Singaporean by birth, in 2009, five years into a ten-year academic post at the NTU,⁴⁰¹ he was promoted but not granted tenure even though he had fulfilled all criteria for both. The following year, he was denied a role he had earned as head of journalism. In 2010, George was permanently denied tenure again (Tan, 2021). While the university maintained that the decision was not political, in a blog post clarification, George maintained that it was instead due to a 'perception' that his critical writing could pose a 'reputational risk' to the university's future (George, 2014). According to George, there had been a political influence on both the provost and the tenure committee's decisions about tenure.

As a result of this climate, academics who work in Singapore may need to be particularly careful about voicing their opinions when these are critical and concern

⁴⁰¹ At the Wee Kim Wee School of Communication and Information of the Nanyang Technical University. <https://www.ntu.edu.sg/wkwsci>

local politics or the government. Given that social media amplifies one's voice, such a stance must extend to anything one expresses online.

The above also highlights that censorship affects academics differently based on their research area and temperament. It can be assumed that personal character also influences the choice of a less politically involved research area. The interviewee reported that even when living in Europe or the US, where there is a higher level of free speech, they were not prone to express anything excessively contentious on social media. Working in Singapore did not present an issue in their case. Conversely, an academic with a different temperament and strong concern about social issues or free speech may clash with the institutions in a society such as Singapore. The takeaway is that censorship will affect academics differently because of their character and area of research.

Although the interviews seemed to refer to a critical attitude in the negative (thus, with words such as 'complain,' 'criticise,' or 'protest'), it can be argued that there is value in holding the government to account. Academics have a privileged position to do this because of their public profile and expertise. However, at the same time, this puts them in the spotlight for possible reprisal.

7.3 INTEGRATION OF FINDINGS

7.3.1 Context and procedures

As detailed in the Research Strategy chapter, this project implemented an exploratory sequential mixed method design. Thus, the influence of digital communication technologies on the cohort of academics has been explored, first, in the qualitative Interview Study and second, by carrying some of the findings forward in the quantitative Social Media Study. By embracing a predominantly qualitative approach, thus, qualitative dominant, a broad description of real-life perspectives, diverse interpretations, and generated theory has been given.⁴⁰²

The integration of methods has represented an explicit conversation between quantitative and qualitative components (Plano Clark, 2019; Bryman, 2007).⁴⁰³ These

⁴⁰² Described in Section 4.3.1 of the Research Methods chapter.

⁴⁰³ Bryman (2007) defined integration as the mutual illumination between the different elements of a mixed methods study.

have complemented each other, such as in the qualitative analysis of academics' online self-presentation.

Points of integration

Integration occurs at two points: (a) in connecting the analyses, thus, the two main studies, and (b) in the final generalisation of insights. These are exemplified in Figure 37 below:⁴⁰⁴

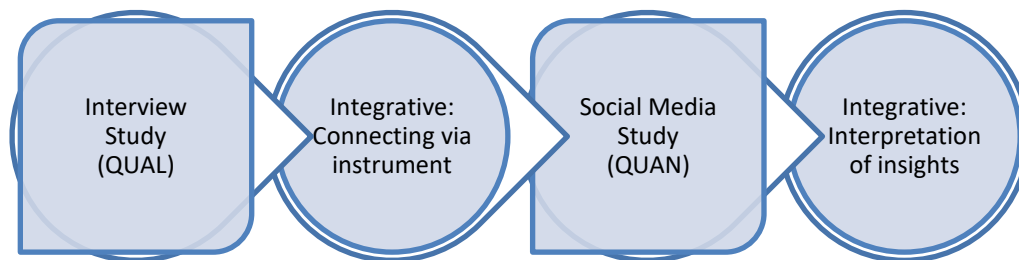


Figure 37: Points of integration in this research project⁴⁰⁵

The integration combines two integrative analytic approaches at the design level: *connecting* and *merging* (Fetters *et al.*, 2013; Creswell & Plano Clark, 2017).

- As connecting, integration involves connecting the two studies and bringing the data findings together. This has allowed the qualitative and quantitative data to enter a dialogue (Plano Clark, 2019). Integration as a connection has involved creating an instrument.
- As merging, integration is achieved by *joint displays* and *mixed interpretations* (Fetters *et al.*, 2013). Joint displays are side-by-side visual representations, such as tables, matrices, or figures, that relate and connect qualitative and quantitative findings (Plano Clark, 2019). They also provide

⁴⁰⁴ This has been adapted from Creswell and Plano Clark (2017) and Plano Clark (2019).

⁴⁰⁵ Prototypical core mixed methods design representing three different logics for combining the quantitative and qualitative study components, as adapted from Creswell and Plano Clark (2017) and Plano Clark (2019).

insight into the analytical and integrative thinking employed in creating them (Plano Clark, 2019).

Mixed interpretations are discussions and insights into the main points of integration of the study findings.

Mixed methods research question

The mixed methods research question, built upon its generic formulation in Section 3.4 of the Theoretical Framing Chapter, was:

- Do the Social Media Study results confirm the findings about academic professional identity presentation generated from the analysis and coding of the Interview Study data?

7.3.2 Combined interpretation of insights

Connecting analyses

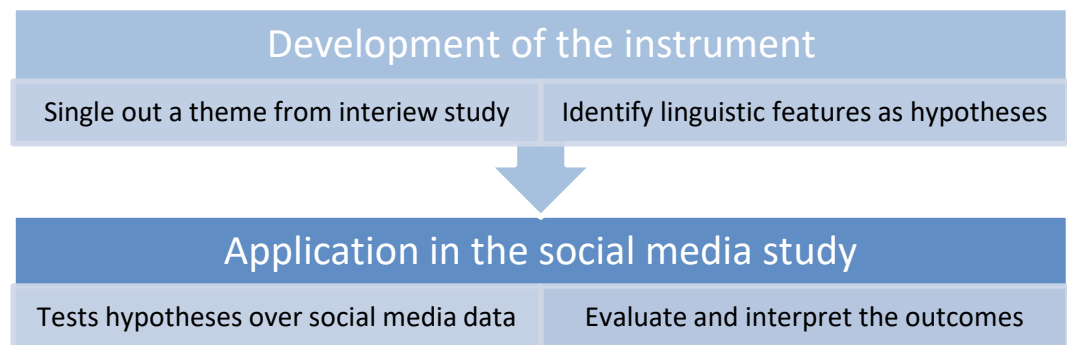


Figure 38: Development and application of the integrative instrument

As shown in Figure 38, the creation and application of the instrument have, in the first place, highlighted the difficulty in defining the instrument. The latter has involved critical reflection and research about the relationship between measurable mental characteristics and trackable language features. The research has highlighted the ample literature on LIWC studies (detailed in Table 6, Section 6.3 of the Social Media Study chapter). It has also uncovered that these methods are amply used, but not often formalised, in studies that apply NLP to social psychology. The writer of this

research has benefitted from carrying out part of the project at the Social Computing Laboratory of NAIST,⁴⁰⁶ which specialises in NLP. Such experience showed that understanding these methods comes from working directly with other researchers and obtaining guidance about instrument-creation techniques.

Joint displays

Joint displays are an approach for integrating qualitative and quantitative data in mixed methods studies (Creswell & Plano Clark, 2018). A joint display consists of arranged or juxtaposed data from different elements of the research project, facilitating a nuanced comparison of the findings and generating new insight from the integration through constructive interaction (Guetterman, 2023). It also provides insights into the analytical and integrative thinking employed in creating it (Plano Clark, 2019). *Visual joint displays* consist of tables, matrices, or figures, sometimes accompanied by meta-inferences, indicating convergence or divergence of qualitative and quantitative elements (Guetterman, 2023). The research on joint displays has proposed frameworks for creating joint displays that adhere to the type of mixed methods design used, such as exploratory or convergent (Creswell and Plano Clark, 2018; Fetters, 2020).

Figure 39 depicts a side-by-side visual joint display that combines some of the results of the Interviews and Social Media studies. It follows this research project's explanatory sequential mixed methods design (described in Section 4.3.1 of the Research Strategy chapter), representing a generalisation of findings. Therefore, the type of joint display used is an *exploratory sequential design joint display* (Guetterman, Fetters, & Creswell, 2015; Guetterman, 2023).

⁴⁰⁶ Sociocom, <https://sociocom.naist.jp/>

Self-expression		
Advancing a non-combatant image	1	1
Expressing who you are	3	4
Private vs public spheres	4	11
Expressing personal aspects	7	11
Expressing transparently	1	1
Mashing of spheres	4	8
Private	7	14
Professional & academic	8	20
Bragging about one's work	2	4
Promoting one's research	1	2
Public	5	12
Applying self-censorship	2	2
Separating the two spheres	7	16

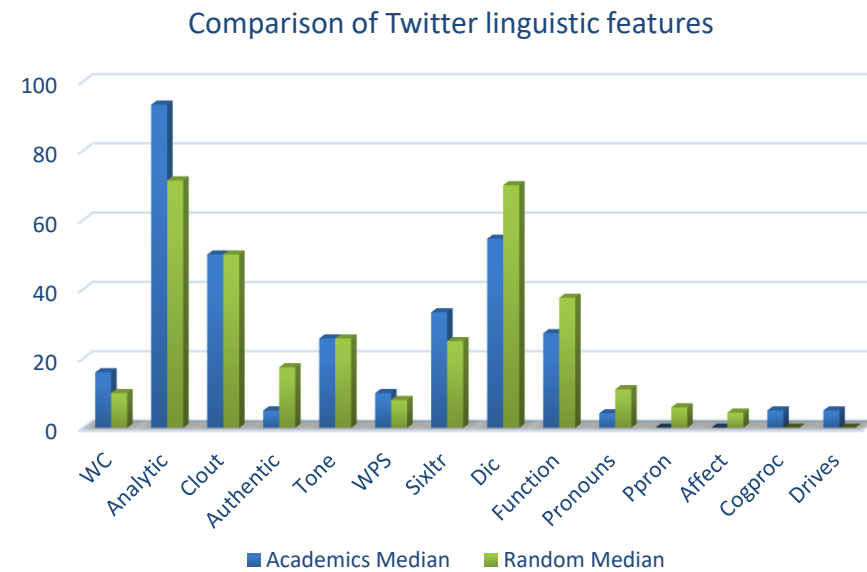


Figure 39: Joint display of coding hierarchy for academics' self-expression (QUAL) and prominent linguistic features (QUANT)

3333

The graphic on the left of Figure 39 depicts the hierarchy of identified codes of the self-expression theme from the Interview Study data coding analysis⁴⁰⁷. The two data columns on the right-hand side denote the number of files and the number of interview extracts where the codes were identified. It was created using NVivo and is included in Appendix A. The diagram on the right of Figure 39 shows the median values of the linguistic features analysed in the two Twitter datasets of academic and random users. Its significance resides in the difference (and the extent of the difference) of the features between the two groups and in so far as it confirms or rejects the hypotheses raised, outlined in Section 6.3 of the Social Media Study chapter. The image was created using SPSS.

Apart from what is shown on the joint display, which also depends on the type of joint display used, it is left for the reader to interpret further and draw insights. However, a sample reading is provided below.

Interpreting joint displays involves *linking*, which is the activity of finding commonalities between qualitative and quantitative data (Fetters, 2020).

The joint display in Figure 39 shows that the findings from the Twitter study appear to validate ideas that emerged from the interviews. These are the main linking elements. Compared with the random sample of Twitter users, the tweets of academics display higher analytical and less authentic language traits. Analytical features, as explained in Section 6.5 of the Social Media chapter, imply that academics think through what they put out on social media, in this way also being less authentic. This correlates with the subthemes ‘Advancing a non-combatant image’, ‘applying self-censorship’, and ‘separating the two spheres’ (public and private). These themes also prompt a re-reading and reflection on the interview data passages and the result of the coding in the Interview Study chapter. Section 5.3.2, “Presentation of an online academic identity”, discussed how an element of self-censorship is part of academics’ strategies to maintain a professional online identity and avoid possible trouble since what they say may be misused or misinterpreted. The subcode “Bragging about one’s work” does not seem to be captured by analysing the language they use in their tweets. Such language traits could be reflected in the “Clout” feature, described in Table 6. It

⁴⁰⁷ This theme was interpreted in Section 5.3.1 and 5.3.1 of the Interview Study chapter.

may imply that their “bragging”, rather than being emotional, is impassive and subtle. Such a finding will require further validation but represents one of the insights that can be gathered by examining the joint display in Table 39.

Reflecting on mixed methods research question

As outlined in the Discussion section of the Social Media Study (Section 6.5), the Social Media Study has confirmed many of the hypotheses addressed. In addition, it has been positively determined that academics use strategies to present online a professional version of their identity.

The findings from the Social Media Study appear to confirm the idea of an academic, professional identity, which is controlled and calibrated to project a positive and uncontroversial image. One strong marker has been the presence of analytical thinking in the tweet sample examined. Thus, the consistency in the data results supports the framing of professional identity in academics.

Goffman’s idea of symbolic interaction has not been fully validated, as studying the symbols used on Twitter was not the aim of this research project. Specific symbols, such as emoticons, hashtags, and images, are used in Twitter communication. Still, it is unclear whether they represent elements of a symbolic world in Goffman’s sense, as is the case for embodied bodily interaction.

However, from the high degree in presentation management, the presence of a sizable backstage can be speculated. It is unclear whether this metaphor can be transposed fully to the ‘performance’ on Twitter. While performance in a theatre, used by Goffman in his image, is synchronous, the communication of Twitter has asynchronous elements. The conversation, therefore, can take place at different times. However, implicit in this, specific time frames would add significance to the response. A much-delayed response that is normally expected quickly, for instance, may be taken to denote hesitation.

The market difference of several language variables in the academic group examined, compared with the random sample, somehow traces a boundary around their online presentation on Twitter. However, the validation of such boundary would require confirmation to study what stands on the other side, thus, what characters

determine the presentation of their personal self on a non-professional platform other than Twitter.

An element of self-censorship can be assumed. Firm boundaries on presenting a professional identity indicate that their ‘performance’ is highly controlled and thought through.

As one of the ten most frequently used words, a concern with time ties in with what has emerged in Theme III.⁴⁰⁸ It indicates an awareness of or a concern with time. In the former case, as an awareness, it involves fast speed as one of the modes of social media, a constant presence and awareness of the discourse being carried out, and the times expected to respond to it. The latter involves issues around coping with fast time, as indicated in the interview extracts (Figure 32 in Section 5.3.3). The Social Media Study, however, does not capture whether academics desire a slower time, such as to develop more profound knowledge and ideas.

Reflecting on the conceptual framework

The conceptual framework, comprising the concepts of experience, expression, and relationship, laid out in Chapter 4, was used to structure the two research studies and the bird’s-eye view conceptual perspective held in this chapter.

The analysis of personal experience has pervaded the Interview Study. Many individual stories, perspectives, preoccupations, strengths, and weaknesses have been expressed in the interview dialogues. In addition, it has traced how the personal sphere connects to their social context as manifested in specific cultural habits (such as the notion of saving face explored in Section 7.2) or concerns about the drive towards a technocratic form of society.

The notion of expression has been adapted to include self-presentation. Although the idea of expressing true self online was deemed inspiring, it appears not realisable. Digitalisation enables a society of increased surveillance rather than an open space of privacy and anonymity required for the expression of true self. As it has emerged in Theme I from the Interview Study, the private space of expression is narrowing.

⁴⁰⁸ In Section 5.3.3 of the Interview Study chapter.

Nonymity, as role play, is not a good determinant of expression, as digital media platforms increasingly monitor and impose restrictions on what can be said online.

The analysis of the relationship concept has helped trace the general themes, such as how digitalisation favours academics belonging to an international community. Although the intricacies of the concept of relationship spring from personal experience, thus from the testimonies of academics, the digitalisation of relationships through the medium appears to limit possibilities of free expression.

7.4 CHALLENGES TO ACADEMICS IN A DIGITAL-NETWORKED SOCIETY

By engaging with the cohort of academics using empirical and critical means, this research project has gathered insights into their relationship with digital communication technologies. The focus has been on their subjective personal experience as a baseline, and the analysis has been extended to examine shared and social implications. More broadly, this section scrutinises challenges that academics, as a collective, face given the increasing digitalisation of society and the solidifying of global communication networks.

Substantiation from the research findings

The digitalisation of the social world has dramatically increased, markedly after COVID-19. This research has examined the testimonies of academics and the influence digitalisation had on their personal and professional experiences. One of the underlying themes that emerged earlier in this research was that digital transformation through new modes of communication media fostered the creation of new structures in society.

Despite the democratisation and widespread access to knowledge and information, these technologies appeared to concentrate power structures and favour the creation of new technological systems of control. The issue of technocracy related to academics had emerged earlier in the project in their role as experts and knowledge providers. Furthermore, academics appeared to perceive a social responsibility, from their intellectual and knowledge standpoint, to engage with society's political and social structures, although the data has shown this to be based on individual circumstances, one of these being their character. Undoubtedly, as the data

demonstrated, another variable is their area of knowledge and expertise. The case for a critical turn in digital humanities⁴⁰⁹ has shown that some disciplines and areas of knowledge are more disposed to engage critically in contemporary social, political, and moral issues.

The three challenges academics face regarding digital society reflect this research's emphasis on subjectivity and personal experience, the development of human values, and individuals as independent persons with free will. The challenges engage with several preambles drawn either directly from the collected data or indirectly from reflecting on the research findings and the literature. They posit that our digital-networked society favours the formation of (international) global communities, creating intellectual elites and solidifying a society of control. For each of these aspects, the challenges address academics' stance. In the first place, digital society is defined.

Digital society

A digital society can be characterised by its most impactful technological developments. Katzenback and Bachle (2019, p. 2) proposed *algorithmic governance*, *autonomous systems*, *transparency*, and *smart technologies* as defining characteristics of our present digital society.

The notion of a digital society is a development of the antecedent *networked society* and *information society*, each emphasising a particular aspect of technological development. In the early 90s, Castells highlighted the connection aspect of computer systems, investigating the ethical and political challenges that emerged from interconnected networks (1996, 2009). The subsequent discourse stressed the importance of information acquisition, storage, and processing in the information society (Moore, 1997; Mansell, 2009). The notion of a digital society, with intrinsic elements of programmability and datafication (Berry, 2011), stresses how increased digitalisation progressively withdraws agency from people, rendering them reliant on intelligent machines and algorithmic technologies.

⁴⁰⁹ Section 3.2.2

7.4.1 Part of an international community

Preamble: Digitalisation favours the creation of global communities.

In the Social Implications section (7.2), it was argued that the increased digitalisation and interconnection of contemporary society had favoured the creation of global communities that bypass traditional geographical and political boundaries. One result is that power and decision-making have shifted away from individual people to technical systems and international organisations.

The international character of contemporary academia emerged from the onset of this research project.⁴¹⁰ The recruitment of the participants to the Interview Study heightened the fact that universities' departments are made up of a thriving international community of academics, at least in the locations selected,⁴¹¹ thus often with a nationality other than the place where they reside. Among the interviewees, only two 22%⁴¹² worked and resided in their country of birth. Furthermore, the data also showed that academic mobility is favoured as many respondents held roles in several other countries before their current position. As a result of these factors, or perhaps because of them, academics had citizenship and, with it, a cultural background different from the institution's host country and, therefore, belonged to communities and an overall academic community that bypassed geographical boundaries. Mobility and digitalisation are two factors that have favoured the creation of a global academic community.

Challenge: How can academics remain rooted in the localised social context?

The phenomenon of international mobility of highly skilled people has been thoroughly researched, mostly outlining its advantages. Mobile researchers have been shown to contribute to organisations by re-combining existing knowledge (Slavova *et al.*, 2016) and highlighting novel perspectives seldom missed domestically (Franzoni *et al.*, 2017). However, although mobile academics initially contribute to increased local collaborations, their contribution to international collaborations dips rapidly with time (Wang *et al.*, 2019).

⁴¹⁰ As also noted in Section 7.2

⁴¹¹ The UK, Singapore, and Japan. See Section 4.4.1 of the Research Strategy chapter.

⁴¹² This includes the three respondents to the Pilot Study and eight in the main Interview Study.

These perspectives have stressed the benefits of academic mobility and international communities to institutions and organisations. Nevertheless, notwithstanding these unarguable benefits, the digitalisation and delocalisation of relationships have diminished academics' involvement in local communities, distancing them from localised forms of knowledge.

Local knowledge

Local forms of knowledge have, in the past, been marginalised. Several factors, both historical and pragmatic, have contributed to their denigration. A significant factor has been attributed to the influence of modernism and its foundation on the values of enlightenment and empirical science (Canagarajah, 2002). Such influence has also created a divide between assumed higher forms of knowledge, that is, science-based, and lower forms of knowledge, such as localised or folk knowledge. Other pragmatic factors regard, for example, the process of knowledge construction that, by favouring generalisation, systematisation, and system building, leads to the distancing from cultural and localised knowledge forms (Canagarajah, 2002). Indeed, the knowledge promoted by science and technology with digitalisation undoubtedly favours this process.

The term 'local knowledge' has been attached to many uses. For example, Canagarajah (2002) distinguished between an anthropological, academic, social, and professional sense. However, only the first two senses are most relevant to this research.

In the anthropological sense, local knowledge encompasses orientations and beliefs rooted in the history of a community through its practices (Geertz, 1983/2000). In the academic sense, it represents an alternative form of knowledge to legitimised or established disciplines (Foucault, 1972). These two meanings can be combined concerning academics' relationship with local knowledge.

In its essence, the meaning of local knowledge can be distilled to the knowledge that is *context-bound*, *community-specific*, and *non-systematic* (Canagarajah, 2002); it is the antithesis of technological knowledge that appears unbound to any particular geographical context, which is community-agnostic and systematic.

Canagarajah (2002) also pointed out that local knowledge has long been stigmatised as a lower type of knowledge. The reason is that it has been contraposed to scientific knowledge, often with the intent of denigrating it as irrational or backward or encapsulating forms of received wisdom or unexamined belief.

Academics and local knowledge

The challenge supports the view that being aware of and engaging with local forms of knowledge is important.

Admittedly, localised knowledge may appear less relevant given the lure of globalised digital societies promoted, for example, by social media. However, an additional factor is that these technologies influence the drive towards knowledge homogenisation. A respondent to the Interview Study stated the ambivalent role of digital communication technologies in, on the one hand, consolidating centralised forms of knowledge and, on the other, allowing for the creation of novel and peripheral bounds.

That's the interesting thing. Because on the one hand it's centralised, but on the other hand it's also fragmented. You can see that there are processes that have been going on for a long time where people have tried to centralise and homogenise knowledge like the research action framework, and things like that; that's very important now in the UK. [A3]

...It's creation of a whole lot of bureaucracy that is supported by these technologies. But then the technology also gives you the ability to present yourself, or kind of be very specific and reach out to groups of people that you may have never otherwise reached. [A3]

The question remains whether digital communication technologies allow for creating bonds within the local community, which expresses local knowledge. However, this seems to imply a form of bodily engagement gained by such activities as visiting one's surroundings and interacting physically with the people that inhabit them. Conversely, at least on the surface, digital communication technologies promote digital connections by exchanging messages over the Internet with similar people. In this way, they can distance academics from the local community in which they live.

The context remains one in which the role and functioning of universities have changed as they appear to push for internationalisation outside national boundaries. There have been contrasting views about whether this is a positive (e.g., Mestenhauser, 2002)⁴¹³ or negative development (e.g., Jones & de Wit, 2012).⁴¹⁴

Furthermore, the internationalisation of academia raises the issue of the role of ‘adopted’ academics with respect to localised knowledge. On the one hand, ‘adopted’ academics may find it challenging to appreciate localised forms of culture and grasp the historical–political context, given that by growing up in another country, they may not immediately be sensitive to local issues. At least at first, they will lack a social network of acquaintances based in the local community. However, this is likely to change over time.

On the other hand, the diverse backgrounds of academics can offer opportunities to engage with local knowledge. For example, they may possess a novel curiosity to help rediscover local culture and circumstances. This way, they may be more willing to become locally engaged and share practices attached to their cultural background.

The ongoing conversation with local knowledge may help to question established forms of knowledge, also serving as a springboard to advance critical thinking. In this way, recognised knowledge paradigms can be put under scrutiny by existing local practices which are unorthodox and non-systematic (Canagarajah, 2002). In addition, it can help reveal how established knowledge may have originated from the oppression of localised forms of knowledge, such as under the influence of colonialism (Canagarajah, 2002). Therefore, academics may wish to engage with local knowledge because it possesses a transformative power and can determine the construction of alternative forms of knowledge.

7.4.2 Siding with global elites

Preamble: Digitalisation amplifies academics’ social standing and participation in creating public policy.

⁴¹³ Mestenhauser also argued that this represents a positive development against what he calls academic ethnocentrism in the acquisition of new knowledge.

⁴¹⁴ Jones and de Wit stressed that internationalisation uncritically perpetuates Anglo and Eurocentric worldviews.

Social media platforms have absorbed a large part of the political debate. For some time, Twitter, for example, has become the virtual town square (Kavanaugh *et al.*, 2009), where citizen participation is transformed into political discourse. Some respondents to the Interview Study stressed this aspect, pointing out that the social influence of academics has been magnified as a result. It has allowed them to become an active part of a mobilised elite.

But ... media, social media, is a great example of this; it gives academics the chance to become part of a much more engaged and mobilised elite. So, they engage in debates and deliberations much more. So, it's not so much that you don't have an elite; the shape of that elite is changing. [A1]

In this role, their work extends to dealing with public policy as stakeholders.

So, I think the kind of amplification aspect is getting more diverse audiences and having all these different aspects presented of yourself and, your professional self I'm talking about in this case, [it] is really good... and I do a lot of work with policy, stakeholders, and things like that. [A1]

According to the respondents in the above extracts, this is a positive development. They appear to believe academics deserve a role not only in informing but also in directing and influencing public policy. Moreover, they tacitly accept the existence of such elites and their role in policymaking and leading society.

Challenge: *How can academics remain independent critics if they belong to global elites?*

Reflection on the literature highlighted the possible roles that academics play in a technological society ruled by elites of scientists and technologists, thus a technocracy. As a result, the role of academics in a technocratic society, such as institutional representatives and knowledge providers, was also embedded in one of the interview questions. However, the topic of technocracy also emerged independently in the Interview Study. One of the respondents said that Singapore is a case in point of a technocratic society.

But I think obviously that your focus on technocracy is really interesting in the context of Singapore, which is essentially a technocratic society. [A4]

Another respondent described the *smart city* as one of the structures that define a technocratic society.

Singapore: it's on a fast roller coaster ride to having the smart city. Everyone has been founded by it. It's like... they are mad for the smart city. Censors are [going to be] optimising, maximising resources and a positivist mind set. Everything has a ball...; everything is utilitarian. There is no room for any exuberance here. Everything must have a purpose. The water bill, for instance. They are tracking the use of everything. You cannot collect your own water from the sky because it's the government's. Everything is monitored. So, your water, when you get your utility bill, if your water use is below the apartment people standing around you, you are told how to be even better at water use. [A6]

The role academics play in digital societies, which are increasingly organised as technocracies, has permeated this research project. More recently, it was also fuelled by the increasing rhetoric in academic institutions about sustainability and sustainable development,⁴¹⁵ which embodies several of its principles.

Technocracy and Sustainable Development

Technocracy is often defined as a system for a society ruled by technical experts or where they convey much power (Dusek, 2006; Scott, 2014). This idea has a long history going back to ancient Greece. Plato theorised it in his *Republic* through the figure of the 'philosopher kings' who, trained in mathematics, could access the

⁴¹⁵ Many UK universities have implemented principles of sustainability and sustainable development, often under the guise of a (vaguely defined) climate emergency. For example, <https://www.aru.ac.uk/about-us/sustainability>; <https://www.cranfield.ac.uk/about/our-sustainable-university>; <https://www.sheffield.ac.uk/sustainability/strategy>; <https://www.york.ac.uk/about/sustainability>; <https://www.ucl.ac.uk/sustainable/sustainability-ucl>

ultimate nature of reality⁴¹⁶ and embody ideal rulers of society (Bloom, 1968).⁴¹⁷ Plato, however, never used a term approximating that of technocracy and did not include it in the five types of regimes he identified.⁴¹⁸

The notion of what was later defined as technocracy took shape in the writings of Saint-Simon (1760–1825) and Comte (1798–1857) at the beginning of the 19th century. With the coming of industrial societies in Europe, Saint-Simon proposed diverse ways about how these could be ruled, such as with what he called a Council of Newton,⁴¹⁹ made up of scientists, technicians, and bankers (Saint-Simon, 1803/1925). Comte expanded these ideas, arguing for the superior status of scientific knowledge over other non-scientific types. His doctrine of the Law of the Three Stages sees society evolving from a religious to a metaphysical stage and, finally, to a positive stage (Comte, 1853). In Comte's view, in a society based on scientific knowledge and with politics as social engineering, religious leaders are replaced by an elite of technical experts (Comte, 1853; Dusek, 2006).

These ideas were taken up in the 20th century to create societies ruled by social scientists, thus technocratic. John M. Clark introduced the term technocracy in the early 1920s (Akin, 1977). In the US, technocratic movements existed in the 1920s and 1930s, while technocracy principles were upheld by the German social-democratic regime under the Nazi Party and the Soviet Union (Akin, 1977; Dusek, 2006; Wood, 2016). Technocratic thinkers in the 60s and 70s advocated the advent of a post-capitalism and post-industrial society, which was articulated, for instance, in the writings of David Bell, particularly in his *The Coming of the Post-Industrial Society* (1973). Bell postulated that convergence in social and technical activities signalled the rising authority of science and theoretical knowledge, and that society's hierarchies would increasingly be supplemented by meritocracies and collective modes of decision-making, thus by technical experts. Interestingly, one of the interviewees sceptically remarked that Bell's theories about a post-industrial society had come and gone several times, becoming fashionable and later dismissed (1973; Duff, 1998).

⁴¹⁶ For Plato, its essential nature is represented by the *Forms*. Plato proposed the idea of the Forms as the real structures underneath perceived reality. Apart from encapsulating the essence of things, e.g., the triangular of triangular things, it extended to ideal forms in the sphere of ethics such as virtue, courage, and justice. The philosopher kind, through this mathematical training, would have been able to access Forms and thus possess the ultimate philosophical wisdom.

⁴¹⁷ Bloom, A., 1968, *The Republic of Plato*, translated, with notes and an interpretive essay, New York: Basic Books.

⁴¹⁸ Aristocracy, timocracy, oligarchy, democracy, and tyranny.

⁴¹⁹ Named after Isaac Newton.

Although dormant for many years, debates about technocracy have resurfaced concerning the rise of populism with the Brexit vote and the 2016 American elections (Foster *et al.*, 2021; Rockman, 2019). Populist movements, particularly in Europe, have been interpreted as protesting the centralising of technocratic power in supranational entities such as the European Union (EU). Indeed, these large supranational organisations, particularly the United Nations (UN) and the EU, have organisational and operational structures shaped as technocratic systems, accenting the central role of experts in decision-making, eluding full democratic overseeing, and promoting policies that employ forms of social engineering. Many of the UN's and related bodies' policies have centred their actions on *Sustainable Development*.⁴²⁰

Simply put, sustainable development is the idea of maintaining (economic) development over time. Thus, it addresses development 'that meets the needs of the present but without compromising the ability of future generations to meet their own needs'.⁴²¹ The term 'sustainable' conveys noble environmental concerns, such as humans' impact on nature and social equity, particularly in the developing world (Conwan, 1997). However, the idea of sustainable development differs from its implementation as a principle of social reorganisation of the world, which is usually referred to in capital letters as Sustainable Development.

The UN initially promoted Sustainable Development in the 1970s with the institution of a UN Environment Programme Secretariat⁴²² and consolidated it in the 1980s when the report *Our Common Future* was issued.⁴²³ Notably, the report contends that Sustainable Development and environmental issues should become central to decision-making about social issues, energy policy and other development work (Reid, 1995; Rogers *et al.*, 2014).

Sustainable Development principles were famously advanced at the Earth Summit⁴²⁴ in Rio, Brazil, in 1992, positing that equal importance should be given to

⁴²⁰ The importance attributed by the UN to Sustainable Development can be gauged by looking at their web portal. <https://www.un.org/en/>

⁴²¹ This definition is from the 1987 United Nations Brundland Commission's *Our Common Future*: <http://www.un-documents.net/our-common-future.pdf>

⁴²² <https://www.unep.org/about-un-environment>

⁴²³ World Commission on Environment and Development (1987). *Our Common Future*. Oxford: Oxford University Press.

⁴²⁴ Officially named as UN Conference on Environment and Development.

the economy and the environment. The summit launched an agenda for the 21st century, later named Agenda 21, that formalised these ideas and proposed a vision for action. Ratified by over 178 countries, Agenda 21 aimed to carry out a Sustainable Development readjustment of the world as:^{425, 426}

A comprehensive plan of action to be taken globally, nationally, and locally by organisations of the United Nations System, governments, and major groups in every area in which human impact on the environment

In 2015, Agenda 21 was supplemented⁴²⁷ by Agenda 2030, an action plan comprised of 17 Sustainable Development Goals (SDGs) and 169 associated targets (Assembly, G. 2015).^{428, 429} These affirmed to guide all nations' political, economic, and social policies and implemented via a revitalised Global Partnership.⁴³⁰

⁴²⁵ <https://www.un.org/en/conferences/environment/rio1992>

⁴²⁶ <https://sustainabledevelopment.un.org/outcomedocuments/agenda21>

⁴²⁷ Agenda 21, or Millenium Development Goals, held sway from 2000 to 2015.

⁴²⁸The UN General Assembly was summoned in New York in occurrence with the 70th anniversary of the UN to set out the sustainable development goals complement the Millennial Development Goals (2010–2015) of Agenda 21.

⁴²⁹ <https://sdgs.un.org/2030agenda>

⁴³⁰ The UK government, for example, stated in 2017 that it is fully committed to delivering all SDGs. <https://sdgs.un.org/2030agenda>



Figure 40: The Sustainable Development Goals symbol with the goals' descriptions

On the surface, the SDGs, shown in Figure 40 above, appear to be very virtuous. They claim to tackle head-on some of the most significant issues affecting humanity, such as poverty (goal 1), hunger (goal 2) and education (goal 4).⁴³¹ They contend to achieve world prosperity that respects the planet and its inhabitants.

Critics of the UN agendas have argued that SDGs represent an extensive top-down plan for an undemocratic⁴³² reorganisation of the world, centralising power structures, promoting global utopias, reversing established economic models, and hiding private and group interests (Wood, 2016; 2018). Moreover, they argue that SDGs purport to install a new globalised form of communitarian economic

⁴³¹ <https://sdgs.un.org/goals>

⁴³² Hartley (2020) acutely points out that there is no mention of 'democracy', or its derivative words, in the SDG's reports: <https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf> (accessed 2 May 2023)

development, in this way substituting traditional market economy models with Sustainable Development under the guise of transitioning to a Green Economy.⁴³³

Academics and technocracy

This section has argued that digital communication platforms favour the consolidation of elite groups and, together with technological innovation, a drive towards technocracy. Furthermore, in its reincarnation under Sustainable Development, and with the increased datafication of everyday life, a theme further developed in the next challenge in creating a global technocratic society.

The interview data show that academics have an ambivalent attitude towards these issues. On the one hand, they welcomed the increasing influence they have gained over policy formation on platforms such as Twitter. Their position as policy influencers undoubtedly has legitimacy from the point of view of providing expertise

⁴³³ A deeper look, however, reveals several difficulties with the idea of Sustainable Development. First, the breadth and number of goals (17) and associated targets (169) make them clearly unattainable within the timeframe for completion (2030) and, thus, unrealistic and vague (Easterly, 2015). Admittedly, how much they are aspirational and how many workable goals are unclear. Despite this, they have fostered the allocation of immense amounts of public money and resources internationally and locally for their realisation. Second, although agreed upon by 193 (representatives of) member states of the UN, the SDGs have not been democratically vetted. The representatives of national states have committed to the (non-binding)⁴³³ goals without public debate, scrutiny, or people's consent. Instead, a set of emergencies (such as global warming/climate change) has been used to justify a utilitarian approach to decision-making, subsidising individual rights in favour of the so-called common good of the planet. This is particularly relevant given their direct impact on people and communities. Third, the agendas and the SDGs enact a form of large-scale social engineering at a planetary level. It has been argued that Sustainable Development is, in all effects, an incarnation of technocracy (Wood, 2016; Hartley, 2020). Although it may have initially (in 1992) been driven by genuine concerns about the environment in its emphasis on sustainability, Sustainable Development calls for the development of a top-down engineered world society (Wood, 2018). With this, the SDGs' scope extends beyond preserving the environment and safeguarding people. Fourth, hidden behind their implementation and targets, SDGs conceal less virtuous political, commercial, and financial interests. Koire (2011), for example, described Agenda 21 as a 'green mask', arguing that the 'Sustainable Development' and 'green policies' hide autocratic tendencies aimed at centralising power structures. Thus, behind the 'green mask' and edicts to 'save the world', the civil liberties of local people are eroded by city planners and non-governmental foundations and trusts (Koire, 2011; Smyth, 2011; Fischer, 2018). Furthermore, the 'mask' also seems to hide enormous commercial interests, such as the forthcoming carbon credit brokers (Kanter, 2007) and green loans (Kerr & Avendano, 2020). Fifth, the charitable objectives of the SDGs are at odds with the fact that they are supported by, or in partnership with, for-profit global private financial institutions, thus falling outside democratic overseeing.⁴³³ Most of these interests have been promoted by the World Economic Forum (WEF), which underscores the private sector's involvement as a stakeholder in a public-private partnership driven by elitist and private interests.⁴³³ Indeed, some of these supranational interests have merged. A case in point is that in September 2019, the WEF and the UN entered a formal partnership to implement the SDGs.⁴³³ In the wake of the pandemic, the former promoted Agenda 2030 goals as part of a *Great Reset* (Schwab & Malleret, 2020), which sees the rollout of an envisioned fourth industrial revolution (Schwab, 2017).

on a particular area of knowledge, in this case, in their role as knowledge informants. However, it can be argued that it has less legitimacy when their expertise and knowledge are used to gain a privileged position in areas that are not in their competence, such as the political sphere. Moreover, although academics have unique intellectual abilities in managing, theorising, and producing abstract knowledge (Chapman & Kern, 2012), this does not translate into other types of practical knowledge or wisdom. It can furthermore be argued that, just like for different groups of people, their judgement may be clouded by ideology, trust in authority, or adherence to utilitarian considerations.

On the other hand, in the interviews, several academics expressed concerns regarding the effect of digital societies on privacy, free speech, and technocratic systems such as smart cities, as seen in the last extract. Although they expressed these concerns anonymously, it is unclear how much they can freely voice them in the public sphere. The case of Cherian George, described in Section 7.2, shows that in our digital society, academics are an easy target for retributions by being part of and depending on their salaries from institutions that promote and favour forms of technocracy and international agendas. It should also be pointed out that such institutions, and much research funding, have primarily depended on private organisations.

Undoubtedly, academics as experts, given the complexity of digital societies and the intricacies of digital communication tools, can help critique undemocratic techno-social systems. As digital society's critics, they can be at the forefront of identifying elitist technocratic tendencies that threaten the democratic process. Nevertheless, academics are also invested in technocracy by being part of the decision-making of such supranational institutions. In the model proposed by Bell, their function is reduced to knowledge providers of more powerful elites that convey real power (1973). They may side, therefore, with technocracy in that it benefits them directly or because they favour autocratic forms of government.

7.4.3 Digital identity and control

Preamble: Digital platforms are being prepared to introduce digital identity systems.

The literature review's findings have shown how, increasingly, social media platforms require users to have a unique or true identity.⁴³⁴ Rather than being neutral, these platforms intersect with several interests. They are the centre of a power struggle over identity, such as between users and platform owners (van Dijck, 2013). According to her analysis, discussed in Section 2.2.2 of the Literature Review, while platform owners aim to promote their business interests with a uniquely identifying user identity (in the case of Facebook, for instance, in order to target advert campaigns better), users wish to present multiple identities and express aspects of their online self freely.

Although van Dijck's interpretation was very insightful when first proposed in 2012, it needs amending to convey the complexity of the technological and political developments that have occurred and come to light. The last few years have seen a further alignment of platform owners' pursuits, an infusion of political motives, and a push for users to adopt a digital identity as an identification and authorisation mechanism, or digital identity as an ID.⁴³⁵ Furthermore, international organisations' plans around digital identity have come to the public eye in the wake of the restrictions imposed on personal freedoms during the Covid-19 period, such as using QR codes for identification/authorisation mechanisms as health passes (Cisneros *et al.*, 2021). As a result, the new power struggle over identity on the interface has become multifaceted and wide-ranging.

Challenge: *What role can academics play in mitigating the implementation of digital identity systems that intrinsically enable the creation of a society of digital control?*

In order to unravel this challenge, the following will give an overview of the plans for the implementation of digital identity as an identification mechanism (ID) and how these can enforce the construction of a society of digital control. It will then clarify the distinction between digital identity as ID⁴³⁶ and online (digital) identity (examined in this research project) and briefly discuss these in relation to academics.

⁴³⁴ Comparing oneself with other academics, in Section 5.2.1.

⁴³⁵ Digital identity as ID will be used from here on to distinguish it from the notion of online or digital identity that has been so far used in this research.

⁴³⁶ Digital identity as ID will be used where the reference is unclear.

Identity and digital identity as ID

This research project has discussed identity as a personal construct that includes subjective elements such as feelings and beliefs. It has adopted definitions of identity from social psychology,⁴³⁷ which sees it as a projection of people's characteristics, such as those they use to identify who they are and to place themselves concerning other people or groups in the digital space (Section 3.2). In this sense, identity allows people to empathise and identify with others. It represents a person-centred notion also expressed through the digital medium.

Conversely, digital identity as ID addresses identity in mechanical terms and as a means to identify people. It includes technological systems attached to digital identities, such as biometrics,⁴³⁸ which use sophisticated techniques to uniquely identify people through body characteristics. Digital identity has been endorsed by several large international organisations, such as the World Bank,⁴³⁹ the World Economic Forum (WEF),⁴⁴⁰ and the European Union (EU),⁴⁴¹ governments, such as the UK and Canada,⁴⁴² and foundations, such as ID2020,⁴⁴³ often working in

⁴³⁷ The rationale for using social psychology is defined in Section 3.2 of Chapter 3.

⁴³⁸ Biometrics are biological measurements, or physical characteristics, which can be used to identify individuals. Biometric technology includes fingerprint mapping, facial recognition, and retina scans. <https://www.kaspersky.com/resource-center/definitions/biometrics>

⁴³⁹ Since 2015, the World Bank has advocated digital ID systems via its Identification for Development Initiative, ID4D (World Bank, 'Identification for Development (ID4D) Integration Approach Study' (Washington, DC: World Bank Group, 2015), 10.) which globally advances, particularly in advising governments on new modules of digital ID systems (World Bank, 'Identification for Development (ID4D) and Digitalizing G2P Payments (G2Px) Annual Report 2021' (Washington, DC: World Bank Group, 2021), 2.). In addition, it has promoted digital 'identification for development' in the developing world, giving moral legitimacy to digital identity systems.

⁴⁴⁰ The WEF has also pushed the implementation of a global digital ID as part of its Davos Agenda (<https://www.weforum.org/events/the-davos-agenda-2021>). Digital identities have been put at the centre of creating a digital infrastructure based on so-called *trusted interactions* (These are said to be needed for the envisioned future global society), which include access to healthcare, financial services, food, and smart cities (see Figure 41).

⁴⁴¹ The EU has aimed to introduce a European Digital Identity for all its union citizens operating through Digital Identity Wallets on mobile devices (https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-digital-identity_en).

⁴⁴² In collaboration with the WEF, Canada and the Netherlands have worked on similar digital identity programmes to develop a global ID system. Like the EU, Canada has introduced a digital proof-of-identity document to facilitate access to government services, in the first instance in airports, as part of its *Digital Ambitions 2022* (<https://www.canada.ca/en/government/system/digital-government/government-canada-digital-operations-strategic-plans/canada-digital-ambition.html>).

⁴⁴³ ID2020 has since 2016 advocated for ethical and privacy-protected approaches to digital IDs and organised yearly summits for regulators, policymakers, technology advocates, and development organisations (<https://id2020.org/>). It is supported by UNICC (United Nations International Computing Centre: <https://www.unicc.org/who-we-are/>), a digital service provider of the UN. Despite

partnership.⁴⁴⁴ These large organisations have been cooperating in creating and implementing a global network of digital identity infrastructures, emphasising the benefits of implementing digital identity systems. The ID2020, for instance, has advanced the vision of a ‘good digital ID for all’,⁴⁴⁵ and the WEF has emphasised the business advantages of digital ID. At the same time, the EU has argued that digital identity will benefit its citizens by accelerating access to its digital services and facilitating travelling by streamlining personal identification.^{446, 447}

The following fundamental distinction is drawn between the two meanings of (i) digital identity as a personal construct and (ii) digital identity as ID:

- (i) The way people identify themselves concerning personal or group characteristics through or in the digital space.
- (ii) The way people are quantitatively identified using digital technologies with technical processes based on principles of identification, authentication, and authorisation. It extends to unique biometric and individual identification data in digital infrastructure platforms as authentication mechanisms.

Although the above distinction establishes a difference in meaning and usage, it also indicates how these are interlinked: a case can be made that the notion in (ii) requires one to consider (i), while the introduction of (ii) will undoubtedly affect (i). On the one hand, implementing digital identity as ID should consider how people

its ethical guiding principles, ID2020 is a private initiative whose founding partners include for-profit organisations such as Microsoft, Accenture, Gavi (the vaccine alliance) and the Rockefeller Foundation.

⁴⁴⁴ Interestingly, although it emphasises the need to ease digital access to services during the Covid-19 pandemic, a partnership with the WEF existed since 2018 with the Known Traveller Digital Identity (KTDI), a precursor program to a global ID system (https://www.canada.ca/en/transport-canada/news/2018/01/the_government_ofcanadatotestcutting-edgetechnologiestosupportse.html; <https://childrenshealthdefense.org/defender/wef-canada-launch-federal-digital-id-program>). This indicates that plans for introducing a digital identity infrastructure precede the assumed requirements of restrictions due to the Covid pandemic.

⁴⁴⁵ <https://id2020.org/summit/2020-id2020-summit-sessions-webinar-series>

⁴⁴⁶ https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-digital-identity_en

⁴⁴⁷ The case of KTDI (mentioned in the footnotes) shows that although often justified to prevent or manage pandemics, the introduction of digital identity systems was in place long before COVID-19.

conceptualise their presence in the digital space and how this serves as the foundation for individual and community creations. On the other hand, it should be considered that the imposition of digital identity as an identifier, particularly with the introduction of monitoring systems, will restrict the possibilities for people’s presentation of their online or digital identity.

Importantly, digital identity as ID should not be considered on its own but in the context of implementing digital identity infrastructures in a digital society. This is exemplified in Figure 41, which represents a vision of digital identity infrastructure supported by the World Economic Forum and its partners.⁴⁴⁸

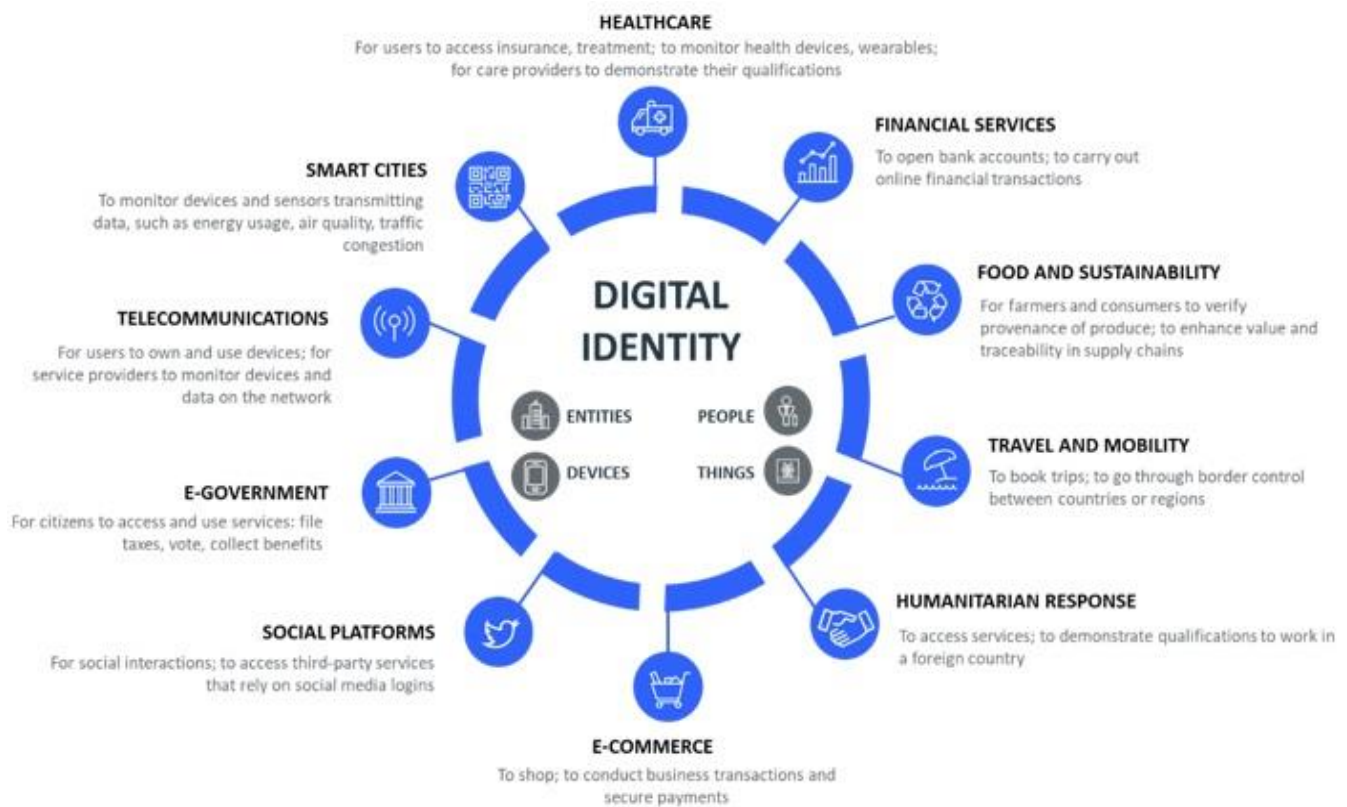


Figure 41: WEF vision of a digital identity framework

⁴⁴⁸ <https://www.weforum.org/agenda/2021/01/davos-agenda-digital-identity-frameworks/>

Figure 41 shows how digital identity is at the centre of very sophisticated infrastructures that propose a complete digitalisation of society. The digital identity platform proposed by the WEF links digital identity to essential services, such as healthcare and personal finance, which will include access to digital programmable money⁴⁴⁹ and imply the ability to move and travel freely. It furthermore nudges people into novel operations of a future centralised digital society. For example, linking digital identity to smart cities will extend the *datafication* of an individual's life, measuring and monitoring their every movement and energy use (Humayun *et al.*, 2022; Channi *et al.*, 2021; Du *et al.*, 2018). Furthermore, as seen in Figure 41 at the bottom left, under Social Platforms, the WEF proposed that digital identity is used as a login mechanism to access social platforms. This implies that whoever operates the digital identity platform can grant, withdraw, or restrict such access. Such integration of a digital identity may extend to integration into an Internet of Things (IoT), thus interconnected to intelligent devices and even an Internet of Bodies (IoB) (Matwyslyn *et al.*, 2019).⁴⁵⁰

Given the ramifications of a digital identity platform, digital identity cannot be simply viewed as an identification/verification mechanism.

Many concerns have been raised about the introduction of digital IDs and attached infrastructure platforms. It has been argued that once digital identity platforms are implemented, they can coerce people to abide by a plethora of rules and impede them from accessing essential public services. By introducing systems of control based on digital ID, individuals can be forced to comply with sanitary treatments or security measures by restricting their ability to move freely or access money. Individual freedoms can further be curtailed via digital identity by introducing a social credit system modelled on the system operating in China, where increasingly online and offline behaviour is transformed into a social score (Lee, 2019; Kostka, 2019); similarly, freedoms can be curtailed by the introduction of personal carbon credits

⁴⁴⁹ It precludes the introduction of new forms of centrally controlled and programmable digital money in the form of Central Banking Digital Currencies, or CBDC.
<https://www.bankofengland.co.uk/research/digital-currencies>.

⁴⁵⁰ IoB is the idea of collecting physical data with devices attached to the body and connected to the Internet.

allowances (Americano & Reformed, 2008) as a measure to restrict people from specific activities such as using mobility and travel.

The Center for Human Rights and Global Justice (CHRGJ)⁴⁵¹ at New York University has published a comprehensive report about the dangers of human rights concerning introducing digital IDs.⁴⁵² They argue that the actual and prospective introduction of these systems leads to extensive and severe human rights violations. Furthermore, the report points out that most consulted experts support such concerns and that violations based on digital IDs follow similar patterns across different countries.⁴⁵³ The criticism rests on ethical and human rights concerns directed at the large-scale plans for reorganising society under the UN agendas (discussed in the previous section), of which digital identity is part. The criticisms put forward by CHRGJ are evidence-based: violations of human rights have occurred in places where digital identity systems have been introduced, such as the Aadhaar digital system in India (Mir *et al.*, 2019; Mali and Avila-Maravilla, 2018).⁴⁵⁴ Moreover, as pointed out in this section, the report's authors also emphasised that global networks of digital promoters direct national digital identity infrastructures. As for resistance to implementing these systems, they noted a disconnect between global human rights activists and local organisations; furthermore, there is an undeveloped body of research about the impact of these systems.

The above reveals that digital identity is at the centre of plans for a radical reorganisation in a society centred on advanced computing technologies and strategic partnerships between private and public international bodies, such as the WEF and

⁴⁵¹ CHRGJ is a hub for human rights study at NYU. <https://www.law.nyu.edu/centers/chrgj-center-for-human-rights-global-justice>

⁴⁵² Paving a Digital Road to Hell? A Primer on the Role of the World Bank and Global Networks in Promoting Digital ID. (2022). *Digital welfare state and human rights project, center for human rights*. https://chrgj.org/wp-content/uploads/2022/06/Report_Paving-a-Digital-Road-to-Hell.pdf and *global justice, nyu school of law, New York*. https://chrgj.org/wp-content/uploads/2022/06/Report_Paving-a-Digital-Road-to-Hell.pdf

⁴⁵³ The report stresses that although systems of identification and registration based on biometrics have existed for hundreds of years (an example of this is the ordinary passport with a photograph), they have rapidly evolved until the current so-called *21st-century systems*. These identification systems have the following characteristics: interoperability and integration, data analysis and collection of biometric data, a sole source of identification, and electronic credentials for remote identification. The CHRGJ report puts forward concerns about these technological extensions to the capability of identification systems based on identity.

⁴⁵⁴ Although the Aadhaar was promoted to eradicate poverty.

organisations belonging to the UN. In fact, digital identity is part of the UN's Sustainable Development Goals of Agenda 2030. The introduction of a digital identity falls within SDG 16, which, with Target 16.9, proposes an identity for all, including birth registrations.⁴⁵⁵ In addition, the Legal Identity Agenda, promoted by the UN Department of Economics and Social Affairs, is part of Agenda 2030/Sustainable Development.⁴⁵⁶ As described in the previous challenge, Sustainable Development through the SDGs can be considered a form of technocracy.

Academics and digital identity

This research project has traced the many roles of academics in the digital space. It has also prescribed for academics, particularly those with an understanding of the intricacies of digital communication technologies, to become vigilant critics, given the technology's complexity.

It has been argued that true online identity is desirable to academics to extend their professional identity. One true identity helps them promote their status and research work and thus increase their online visibility and the reach of their research work. Even on a platform like Twitter, which allows multiple personal profiles, academics might prefer to have an account with their true identity, which genuinely identifies who they are. This is particularly the case for academics who have built, over time, a large body of Twitter followers, as pointed out by respondents to the Interview Study.⁴⁵⁷ Therefore, validation of a unique identity on social media could only benefit them, such as by getting rid of fake profiles.

However, implementing digital identity as an ID system poses the same challenges for them as for other groups of people. Its interconnectedness with digital platforms and identity as ID can be used to monitor, influence, and restrict access to digital services and society. The challenges posed by the introduction of digital identity platforms further emphasise that academics may be, on the one hand, willing participants sitting at the elites' decision-making table or, on the other, under threat by

⁴⁵⁵ <https://sdgs.un.org/goals/goal16>

⁴⁵⁶ <https://unstats.un.org/legal-identity-agenda/>

⁴⁵⁷ This was particularly the case for Nick who, during the interview, stated the number of followers (and with it the influence) he has on Twitter.

taking up a critical public stance, such as against the significant financial interests at play.

Implementing a digital identity as ID exacerbates some concerns academics have expressed in the Interview Study around privacy and free speech. Among such concerns were the possible misuse of personal data and the repercussions of engaging with sensitive topics. Whereas big data has been said to signal the end of privacy (Rubinstein, 2012), this erosion of privacy will be amplified by the introduction of digital identity systems. Although media organisations promote these systems as protecting users' data, such as against hackers, criminals, or other users with malicious intent, and facilitating daily activities, they disingenuously do not address the issues around possible misuses by platform/digital infrastructure owners, governments, and other power players overseeing the technology. Datafication, furthermore, fits into the description of *surveillance capitalism*, where collected personal data is traded and used not only to track but also to shape behaviour at scale (Zuboff, 2019).

7.5 CONCLUSION

The chapter has dealt with the relationship portion of the conceptual framework by examining the findings from the social implication embedded study, the integration of the qualitative and quantitative studies, and by looking at three challenges faced by academics given the drive towards a fully digital society.

The social implication has been gathered by looking at several factors, both indirectly from the build-up of the study and directly from the data. A general observation from the recruitment was that academics increasingly belong to an international community. The difficulty recruiting academics in Japan has been linked to local non-digital practices. Specific characteristics that have stood out from the data were the critical approach of some UK departments, the reputation that academics hold in different countries and the idea of saving face. An interviewee remarked on the contrast between the positive reputation of academics in Singapore and the negative in Australia, which has been linked to the leading role that academics have played in creating an industrial hub in the former and their lesser influence, where their

reputation is low. Saving face has been interpreted as a collective attitude predominant in East Asia that enters the digital space and bypasses individual anonymity.

Section 7.3 revisited the mixed methods approach and the research questions, identifying the integration points between the Interview Study and the Social Media Study. It then used the joint displays technique to compare and contrast findings visually from the two main studies.

Three challenges to academics in an increasingly digital society have been upheld: local knowledge, technocracy, and digital identity.

The first discussed the internationalisation of academics and their distancing from local forms of knowledge. Trends towards the mobility of academics from the literature heightened benefits and drawbacks. The importance of local knowledge was emphasised in a key paper. The paper argued that though long marginalised, local knowledge in its academic and anthropological senses represents an alternative form of knowledge other than that institutions legitimise. The section asserted that academics must become aware of the transformative power of local knowledge, such as to realise oppressive forms of established knowledge. This is truly relevant, given that digital technology tends toward uniform knowledge.

The second challenge, starting from comments in the interviews, discussed how the prominence of social media platforms had magnified the influence of academics over policymaking and their partaking to elites and how the respondent believes it is a positive development. The role of academics as knowledge providers was contextualised within the idea of technocracy. The development of technocracy was traced throughout intellectual history to its modern expression with the notion of Sustainable Development. The role of academics is critiqued for its ambivalence between elitism and adhering to democratic principles.

The last challenge focused on digital identity as an identification mechanism by revisiting the idea of the struggle over identity on media platforms. In order to stress the seriousness of this development, it gave an overview of the major organisations' promotion of digital identity as a positive and necessary outcome and, furthermore, about how digital identity is part of digital identity platforms that encompass a radical rethinking of digital society. Several criticisms were raised concerning human rights

and the dangers of a society of control and surveillance, explicitly drawing from a report from the Law School of New York University. The role of academics was portrayed as potential critics of such systems based on digital identity.

Chapter 8: Conclusions

8.1 INTRODUCTION

This research project aimed to examine the landscape of digital communication technologies shaping of the experience of self and identity by looking at the case of academics. It explored how academics engaged with these technologies directly through their testimonies (Chapter 5) and indirectly by looking at what they expressed on social media platforms (Chapter 6). The cohort was studied both in their particularities, such as the different social roles with which academics are invested, and to shed light on the influence these technologies have on all of us. The analysis and interpretation of the findings have used insights from the digital humanities (Section 3.1 of Chapter 3), where this project is positioned, and a conceptual framework based on the notions of experience, expression, and relationship (Section 3.2 of Chapter 3).

This final chapter is going first to reinstate and summarise the chapters conclusions and the research findings over the questions addressed (Sections 8.2 and 8.3); second, state the contributions it makes with respect to the state-of-the-art (Section 8.4); third, outline its limitation and how these can be addressed by further future research (Section 8.5).

8.2 SUMMARY OF CHAPTERS

The organisation of the thesis chapters was sequential. Therefore, each chapter built upon and developed the themes, instruments, and knowledge set up in the ones that preceded it. Additionally, it aligned with the chosen sequential and qualitative dominant mixed methods design.

Chapter 3 outlined the theoretical and conceptual frameworks for analysing the phenomena. It first identified these frameworks and explained their function in integrating mixed methods studies. Second, building on the publications cited in the literature review, it defined the selected interpretation of the notions of self and identity and justified their use of research in social psychology. Third, the conceptual notions

of experience, expression, and relationship were introduced and described. Finally, it expanded the research questions.

Chapter 4 explained the methodology and methods used. By outlining the principles and paradigms of the scientific approach, the chapter justified the choice of a chiefly pragmatist methodology, a constructivist perspective, and a mixed methods design. While acknowledging limitations, such as in the complexity of its design, it argued that mixed methods would accommodate several interpretations and engage directly with both the cohort of academics and the digital medium, thus enriching the scope of this research. For each of the studies, it described and justified its methods; therefore, the semi-structured interview, social media and selected methods, and the creation of the mixed methods instrument extended the studies.

Through the conceptual notion of experience, Chapter 5 described and critically reflected on the interview data. Testimonies were presented using key passages taken from the interviews. For the main study, this was preceded by a personal but anonymised introduction presented to the interviewees in order to give them a fuller subjective dimension. These personal stories revealed thoughts, feelings, and impressions, but also strategies the academics used to tame or enhance their professional identity, promote their research, and privacy concerns. The data coding exercise further reinforced and broadened the findings about the influence of digital communication technologies on subjectivity over the themes of private and public spaces of expression, the manifestation of a professional online identity, and the increased experience of a fast temporality.

The results of the Social Media Study were outlined and discussed in Chapter 6. Through the notion of expression and engaging directly with the digital using computing techniques from data science, the study extended one of the qualitative coding themes by quantitatively evaluating three hypotheses about academics' presentation of their online professional identities. The Social Media Study positively demonstrated that the academics used several strategies to present their online persona compared with a similar random sample of Twitter users. It showed that they carefully managed their online identity by mildly engaging in debate and avoiding addressing controversial and emotionally charged issues.

Using the conceptual framework of relationship, Chapter 7 presented a description of the embedded cross-cultural social implications mini-study, a combined interpretation of the findings of the mixed method design, and a reflection on academics' challenges in the wake of the increased digitalisation of society after COVID-19. The embedded study showed the ways in which culturally specific influences enter the digital sphere, as well as geographical preoccupations over free speech. The three challenges of local knowledge, technocracy and digital identity as ID shed light on the conflicting roles of academics: on the one hand, being part of elites and promoters of a digital society, and on the other hand, as prospective interpreters and critics of the digital.

8.3 RESEARCH QUESTIONS EXAMINED

As detailed in Section 3.4 of the Theoretical Framing chapter,⁴⁵⁸ this research project addressed several research questions about the influence of digital communication technologies by studying a cohort of academics (questions A1 and B1-3). In addition, a further research question was raised that connected the two primary studies (C1), detailed in Section 7.3 of the Consolidation of Findings chapter. This section summarised the findings for each research question.

A1 Academics, digital communication technologies and subjectivity

- *Do digital communication technologies influence the subjectivity of academics, and how?*

The interview data presented in Chapter 5 showed that digital communication platforms influence academics' self and identity and that it manifested in alternative subjectivities.

Alternative subjectivities

At various points in the interviews, the respondents observed, in different ways, how the mediation of digital platforms in their lives has created new modes of subjectivity. Although these new online subjectivities were perceived as separate from their personality, they remained consistent with held values. In this way, they could be manifested, and others could perceive them as authentic. Online identities were also

⁴⁵⁸ And reviewed and extended at the beginning of each main chapter (5, 6, 7).

expressed differently because of real-world personal experiences and the type of audience with whom the respondents engaged.

However, the persuasive engagement with digital communication entailed some negatives as well. The respondents described how it could result in losing extensive pre-digital repertoires of ways of doing things, such as communicating with one another directly and physically and using pre-digital tools. Furthermore, it was reported that rather than an enriching personal experience, these technologies could quickly become just another medium to deal with boredom and fill empty time.

B1 Experience of self

- *What influence do they exert on the academics' experience of self?*

Interestingly, the academics interviewed found answering the question of self regarding these technologies particularly challenging. Nevertheless, they reported such perceived influence on their sense of self and their identity in several passages of the interviews. These are summarised and broadly grouped here over the headings of *extending our minds, new subjectivities, and accelerating temporality*.⁴⁵⁹ Other related findings are enclosed within the findings of the other research questions (B2 and B3).

Interrogating the self

Several respondents to the interview study objected to or struggled with addressing the question about self. It was perceived to be too broad, inadequately phrased, or personal. As a result, and in response to the respondent's feedback, the question about self was altered and perfected several times.

Nevertheless, it remained undetermined whether this indicated that academics are reluctant to talk about personal experience in relation to self. Equally, it may have been connected to individual and personal preferences. As a matter of fact, sharing personal experiences during an interview with someone one does not know can be assumed to be uncomfortable or challenging for anyone. It also emerged that the reluctance to address the question of self personally, even though the data was anonymised, was also due to culturally specific habits. In this respect, the notion

⁴⁵⁹ The full findings are grouped in Section 5.2 of the Interview Study chapter.

of *face*, prevalent in East Asian countries, was discussed in section 7.2 of the Consolidation chapter.

Extensions of our minds

A positive influence of digital communication technologies over self was described as extending one's mind. A respondent to the Pilot (Section 5.2.1 of the Interview Study chapter) reported that digital communication tools do not so much affect the emotional aspect of his personal life but function as an extension of his knowledge. He added that with more knowledge comes an awareness of alternative viewpoints, making him, as a result, a more critical and reflective person.

Such technologies were also described as instruments to improve oneself. Thus, another respondent in the Pilot remarked that because he is never satisfied with himself, he strives to improve, for example, by finding new ways to be more productive. In this context, digital communication technologies help him find relevant information to become a better person.

However, it emerged that searching for specific information on the internet may also imply that we are not confronted by something new but rather access what confirms already-held beliefs. Section 5.3.1 of the Interview Study chapter discussed the notion of opinion bubbles. This section also examined how recommendation algorithms⁴⁶⁰ used in search engines further shape the nature of the information we access, confirming opinions held. The latter was taken to imply that although digital communication platforms can expand knowledge, they do not necessarily make us confront alternative understandings and critically engage with held beliefs.

Fast temporality

The academics interviewed described how the nature of digital communication technologies, with their continuous flow of information, resulted in a need to stay on top of a new plethora of academic tasks and events, such as a multitude of calls for publication and conferences. This insight emerged directly from the interview data and the coding exercise.

⁴⁶⁰ Hannak et al., 2013.

Fast temporality, thus, suggests that the respondents to the interview perceived digital communication technologies as forcing academics to adopt fast time as a faster pace of living and carrying out academic work. At the same time, the data indicated that it made them long for a slower pace of being, in this way allowing them to better approach academic production by fully developing and reflecting upon ideas.

The analysis and interpretation of the theme of fast temporality (Section 5.3.3) examined the literature about technological innovation and the development of time consciousness. Modes of fast temporality were shown to have both positive connotations, such as in eventful time, and negative, such as in more demands on one's time. The literature also indicates how the technological transformation from the 18th century led to the experience of space-time compression (Warf, 2017), together with changes in experienced time from finite and transient and rhythmical to subject to human and societal design (Barbara, 2004). The latter also brought to light how the experience of time is not uniform and can depend on social factors (Wajcman, 2008; Kahneman, 2011).

The resulting subthemes were interpreted as showing an uneasiness of the academics interviewed about the acceleration of perceived time brought about by digital communication technologies, but also by organisational changes, such as in the structure of universities, and gender aspects, such as in the further commitments that female academics have about child-rearing (Acker & Armenti, 2004). Although devising various coping strategies, such as networks-disconnected mountain retreats, academics seemed unable to escape from the experience of fast time and the allure of digital communication technologies.

A metaphor was proposed to interpret academic knowledge production⁴⁶¹ as a road with slow and fast lanes. It was suggested that travelling on the fast lane entails a cursory engagement with knowledge, such as that associated with journalists. Conversely, travelling on the slow lane could allow academics time for critical reflection; furthermore, self-reflection on the nature of their relationship with network society and digital communication technologies. It was argued that the slow lane also

⁴⁶¹ Accelerating academia.

entails a degree of disengagement from the fast temporality imposed by digital communication technologies and social media platforms.

Private and public spheres

This question was part of the interview questionnaire and explicitly addressed in the Interview Study. It was then extended first through the analysis and interpretation of the coding theme spaces of expression (Section 5.3.1 of the Interview Study chapter) and second via the exploration of the introduction of digital ID (Section 7.4.3 of the Consolidation chapter) concerning privacy.

The interview data did not always define the demarcation between the two spheres. In some cases, the specific research field of the academics interviewed demanded an all-encompassing and unique public sphere. That was the case for academics in political science and activism, which defined their online identity. The Pilot Study highlighted privacy concerns, such as the dangers of stating personal opinions that could be misused or misinterpreted. These worries were expressed as being six degrees away⁴⁶² from something unpleasant or dangerous. They made academics long for a private online space to meet their needs.

Regarding public spaces and confirming what was examined in Section 2.4 of the Literature Review chapter, digital communication platforms were described as tools to bridge connections with others and reinforce a feeling of belonging. Respondents to the Pilot Study remarked that bonds forged during their graduate and postgraduate studies were essential to continue their careers or re-enter academics, even at a distance of years. Digital communication technologies would undoubtedly facilitate this.

Disconnecting from the digital

The interview data showed that academics devise personalised strategies to combat digital intrusions, notably when digital communication platforms and social media appeared to dictate or affect what they do.

Such strategies could include avoiding reading emails early in the morning to circumvent being submerged by responsibilities. Social media was said to put

⁴⁶² Six degrees of separation by Stanley (1967) was discussed.

academics under a bombardment of stimuli, such as news stories of people trying to reach them. These strategies would prevent social media from controlling them. However, deactivating social media was said to have become problematic because it increasingly mediates fundamental connections, such as with distant family members.

B2 Expression of identity

- *How do they affect academics' expression of identity?*

Although the Social Media Study primarily addressed this research question, it was also examined in the interview responses and their interpretation and analysis (over the interview codes). The data revealed that digital communication technologies affect how academics present their identity, involving, for instance, presenting or giving more prominence to specific characteristics, beliefs, and inclinations to one's identity. It also demonstrated a particular clash over the presentation of their personal versus their professional identity. Among the positive aspects, it indicated how digital platforms make academics more visible by rendering their research accessible to more people. The latter was shown to be particularly important to an early career academic. The negative aspects of online identity presentation included privacy concerns and risks associated with sharing personal data (also explored in question B1).

Nuanced presentation

Rather than a fixed modality, the respondents to the Interview Study conveyed that identity presentation is multifaceted, composed of many aspects, and nuanced. They maintained that it is not pure presentation because identity encompasses manifold characteristics. Accordingly, the act of presentation always refers to forwarding particular aspects of one's identity. Indeed, this is markedly the case of presentation over digital platforms, which, like other media, bypass direct physical encounters.

Academics can perform several identities depending on who their audience is. Indeed, the respondents remarked that an interplay of identities is always the case. The presentation will, therefore, differ if their audience is a peer group, students, or family members. However, the academics interviewed remarked that such an identity interplay over social media could become blurred and difficult to discern. Nevertheless, on the other hand, the narrative of identity presentation of older people

in virtual worlds reaffirmed how the digital could help bypass age characteristics and aid in expressing features of true self.

Presentation strategies

The Interview Study showed that the academics interviewed used social media platforms selectively and for specific purposes. Different digital platforms appeared to favour distinct modes of identity presentation, confirming the finding by Lupton (2014).

Like other users, academics were shown to carefully manage their social media presence by curating the pictures they post on their profiles. However, in moderation, because aware that some platforms magnify hedonistic behaviours. Thus, they also used strategies to constrain the influence the digital has on them, to the extent of isolating themselves entirely from social media when required.

Although Twitter and LinkedIn were mainly used as official academic channels and Facebook for personal identity presentation, this depended largely on geographical-specific factors. Chinese academics, for instance, use Facebook to keep an academic profile and WeChat to connect informally with family and friends.

Overall, presentation strategies were mainly targeted at presenting a congruent professional identity.

Personal and professional identity

The interview data indicated a separation between the presentation of an individual (personal) and professional (academic) identity, the latter mainly dictated by institutional and peer codes of conduct. The constant need to rebalance the two was deemed to shape academics' presentation of an online identity. They expressed it as alienating other aspects of their self and repressing different identities.

The data showed that academics have a sophisticated way of engaging with social media platforms to promote their professional academic identity. Promotion of online identity was assessed as a continuous process requiring updating their various profiles with the latest publications and achievements since their followers would check them regularly.

Although projecting a rigorous online professional identity, the professional aspect among academics also involves a friendly and casual relationship with their

peer group. Respondents from the Pilot Study remarked that engaging professionally with other academics is like chatting with people they already know. However, it also emerged that online identity presentation preserves academic hierarchical structures, where junior academics strive to present a more professional identity when dealing with more senior colleagues.

The second theme from the coding exercise (Section 5.3.2) analysed and interpreted these findings. It first defined the terms professional (as complying with group expectations), unprofessional (as breaking the boundaries of what is accepted), and the dangers inherent in falling outside of the latter. Then, by looking at relevant areas of the literature, it examined the challenges that academics face to present and manage their professional identity in the digital space. The notion of self-presentation was introduced in light of Goffman's theory of performance and symbolic interactionism and the Interview Study data. Finally, it was shown from the coding exercise on the data that academics employ three main strategies to present a consistent professional identity online: self-censorship, giving a better version of themselves, and choosing appropriate digital tools.

Presentation of identity

The findings about academic presentation of identity of the Interview Study were extended and further examined in the Social Media Study in Chapter 6. Several hypotheses about the mode of presentation of academic professional identity, derived from the coding of the Interview Study data, were tested on Twitter between a group of academic users (with a sound understanding of media technology) and a random sample of users using data from February 2018. The Social Media study showed that academics, compared to random Twitter users, projected (in their tweets) an academic professional identity using analytical and hierarchical thinking patterns. Other markers of their psychology on Twitter were the use of language indicating social status and leadership and a controlled and considered expression of identity.

Spaces of expression

Space of expression was one of the three themes that emerged from coding the interview data (see Sections 4.4.4 of the Research Strategy and 5.3.1 of the Interview Study chapter). The respondents described how the widening of public digital spaces and its advantages for communication and personal promotion corresponded to a

narrowing of private digital spaces, thus spaces for personal expression and free from the risks and concerns associated with sharing. It showed that the latter had become a tentative desired state. Their testimony further uncovered how sharing in public spaces emerged as a risk requiring constant monitoring and consideration of what one puts out.

Using the political sciences' notion of spaces, it was contended that the boundary between private and public spaces for academics has shifted to include what it limits, thus, free expression. Borrowing from Piktin (1981), it defined academic spaces as 'in here' and 'in there', where the latter requires adopting specific social rules. The contention advanced was that even though the widening of digital public spaces has eased communication, this has come to the cost of limiting types of expression and requiring a degree of privacy.

The analysis was extended to the cohort selected, thus humanities academics. As academics who spend more time on their own doing independent work,⁴⁶³ it was argued that humanities academics have a distinct relationship with private physical spaces and, by extension, private digital spaces. For them, private digital space has a higher value as it is the location where they can engage in solitary work and ideas.

It was contested that the culture of sharing as promoting positive values (see also Valentianos in Section 2.4 of the Literature Review chapter) needed to be challenged in so far as the internet is not a plain field. Sharing may represent a compartmentalisation of opinion, such as with the discussed echo chambers effect.

The analysis extended to the expression of true self (see Section 2.2.4 of the Literature Review chapter) and the two characteristics of anonymity and authenticity. It was argued that anonymity requires a degree of privacy and that, lacking it, the expression of academics' true self is limited. It was further argued that self-expression entails truthful expression and the projection of authenticity. In turn, for academics, that may involve being more speculative, thus conveying a degree of uncertainty and openness, is what they say, coming across as vulnerable but more truthful. It was

⁴⁶³ Compared to other groups of academics, such as in the sciences, as argued and supported by the literature in Section 5.3.1.

argued that the expression of true self in academics, therefore, involved projecting a fuller persona as a way to better reach out to their audiences.

Digital identity as ID

The interplay between the questions about private and public spaces prompted an analysis of the current developments taking place with the implementation of digital identity platforms. Thus, the third challenge (Section 7.4.3) shed light on and critiqued the promotion of digital identity systems. It challenged the easy slogans, highlighting their advantages and stressing how they may come to represent surveillance and control systems.

A significant research paper by the Center for Human Rights and Global Justice (CHRGJ) at New York University was used to frame the critique of digital identity platforms, particularly regarding individual human rights such as privacy and freedom of expression. It also raised questions about how academics are both concerned about these developments but, more often, appeared tacitly to welcome them as wanting participants in elites' decision-making circles. Nevertheless, the notion of academics as critics of such systems grounded on their expertise and knowledge of digital technologies was advanced.

B3 Relationship with the social world

- *In what ways do they change academics' relationship with the social world?*

The intricacies of academics' roles as educators were addressed by the themes of private and public spaces and their expression of professional self. The cross-cultural study, furthermore, showed some culture-specific elements.

The three challenges to academics in an increasingly digital society, discussed in Chapter 7, posited that their expertise in digital communication technologies could be put to good use in monitoring and critiquing such systems where they come to infringe human rights.

Dependent cultural variables

The embedded cross-cultural study data (Section 7.2 of the Consolidation chapter) showed perceived differences between the reputation of academics among the general population in different parts of the world and how much this is socially determined. Specifically, the positive reputation of academics in Singapore and the

negative in Australia were interpreted in the context of the social role of academics in those societies. However, it remained unclear how much digital communication technologies amplify these perceptions.

The data showed how some culturally specific attitudes reported by academics persist in the digital space. For instance, saving face was interpreted as a collective attitude predominant in East Asia that seemed to endure in the digital space and even bypass the individual anonymity guaranteed in the interview study.

Local knowledge and internationalisation

The theme of local knowledge was identified from passages in the data. Furthermore, it emerged from reflecting on the internationalisation of academics and its distancing from other social groups. The challenge to academics in Section 7.4.1 of the Consolidation chapter argued for academics' importance in being aware of the transformative power of local knowledge, such as recognising oppressive forms of established knowledge. It was also argued that it is important for academics to counterbalance trends toward uniform knowledge implicit in digitalisation.

Technocratic society

As background for the literature review, readings and reflections on the philosophy and sociology of technology highlighted the issue of a society ruled by technical experts⁴⁶⁴, a technocracy, and the place academics may play in it. This was particularly the case in light of the prominent role social media granted academics over policymaking and being part of intellectual and financial elites. This concern was embedded into one of the interview questions and further developed in Section 7.4.2 of the Consolidation chapter. The interview data manifested concerns academics have about the implementation of a society of technological control, or technocracy, such as with the datafication of citizens' behaviour and systems of control behind smart cities.

The further analysis of recent literature, explicitly considering the events after the COVID-19 period, confronted this research project with the present time and showed the place that academics uneasily increasingly have as part of global elites, either as experts, informants, or decision makers. The data revealed how they sit in an

⁴⁶⁴ Such as by elites of scientists and technologists.

uncomfortable position. While on the one hand, they appeared to reject a digital society of control and surveillance, on the other, they seem to favour a picture of an engineered top-down society such as the one promoted by technocracy and sustainable development through the SDGs. Given that most universities are promoters of such visions, any critique of these values could make easy targets for retribution.

The recent developments and sophistication of digital communication technologies as part of a digital society undoubtedly foster this role as far as the leading large organisations that promote it, such as the UN, the EU, and the WEF, are shaped as technocracies.

Academics as digital critics

The Interview Study revealed academics' unclear relationship with these technologies.⁴⁶⁵ It showed that alongside acknowledging their benefits, the respondents expressed concerns about their shortcomings.

The analysis and interpretation of the coding exercise highlighted limiting academic boundaries (Section 5.3.1). Despite their promises to maximise connection, it appeared that open digital spaces meant exposure to increased algorithmic surveillance of dissent, which limits academic spaces of expression and, presumably, only allows accepted critiques.

As critics of digital communication platforms advanced with the three challenges in Chapter 7, the case for academics rested mainly on their expertise in understanding how these operate over the often-transparent influence they exert on people.⁴⁶⁶ In this respect, Chapter 7 also outlined problems in the all-encompassing, convenient, and vaguely defined idea of sustainable development and the possible role of academics in defending individual human rights. Finally, it was argued that academics should engage with local knowledge, relieving what Sowell defines as a tendency of

⁴⁶⁵ Admittedly, the study targeted a particular subgroup of academics that possesses an understanding of the working of social media.

⁴⁶⁶ From a broader perspective, it can be argued that academics as educators and (social) scientists should care about people more than they do about ideas and ideals. On these grounds, they could engage in critical work without misinterpretation or misrepresentation, grounded solidly on ethical principles based on individual human rights. As experts and critics, academics can see through some of the easy selling points and slogans with which many new technologies are promoted or nudged

intellectuals, of which academics are part, to retain a vision of the anointed (Sowell, 2009).⁴⁶⁷

CI Mixed methods integration

- *Do the Social Media Study results confirm the findings about academic professional identity presentation generated from the analysis and coding of the Interview Study data?*

Overall, the Social Media Study supported the hypotheses that academics carefully manage their online identity, partly supported that they mildly engaged in debate, and confirmed that by displaying positivity and certainty, they did not engage in controversial or emotionally charged issues.

8.4 CONTRIBUTIONS TO THE STATE OF THE ART

Through investigating the case of academics, this research project highlighted several ways digital communication technologies impact our sense of self and the expression and presentation of self and identity. It showed the extent to which these technologies exert an influence over subjectivity, such as via the artefacts' mediations (Sections 5.2 and 5.3.3 and Chapter 6), the rules they enforce (Section 5.3), digital community boundaries (Sections 5.2 and 5.3.2), and an underlying ideology of technology and datafication (Section 7.4).

In contrast with other studies that emphasise the benefits of technology, this research project adhered to a cautious and vigilant attitude. Sharing some concerns about their 'excesses' expressed by the so-called neo-Luddites (Jones, 2013), it acknowledged its benefits at the same time. Consequently, it endorsed but did not take up the pragmatic call of the *neo-Luddite digital humanities* to propose alternative (technical) models for digital media production (O'Gorman, 2017). Instead, it employed an approach to the critical digital humanities focused on critical thinking and human-centred concerns.

⁴⁶⁷ Sowell argued that intellectuals with a vision of the anointed disdainfully dismiss alternative views instead of answering them. One trait is that they create their own reality by filtering out information that is counter to their conception of what the world ought to be. They believe that they are part of an anointed elite that ought to lead others towards a better world (2012).

This research extends the state of the art (outlined in the Literature Review and Theoretical Frame chapters) over the following elements:

1. Self as a means of inquiry

This research contributed to the discourse on the self by stressing its importance as a means of inquiry into people's experience of digital communication technologies. As discussed in the Interview Study (Chapter 6), the notion of self⁴⁶⁸ allowed for a comprehensive representation of people, such as the cohort examined, as independent individuals, bringing together their direct experiences, perceptions, thoughts, and inner values. Furthermore, the interviews used self and identity as operational tools rather than fixed markers, allowing for more interpretation flexibility. As discussed in Section 7.4.3, this contrasts with mechanistic representations of people, such as those projecting a digitalisation of human experience, and this research contributes to a humanistic and human-centred⁴⁶⁹ approach to social research.

2. Articulation of academics' experience of social media

In the Interview Study chapter, the voices of academics emerged through their stories about how their academic and personal lives are shaped and manifested through the digital medium. Their subjective experience, which comprises their self and identity as well as other aspects of their persona,⁴⁷⁰ was addressed by examining how digital communication platforms extend and limit academic practices, influence their private sphere, and affect the relationship they have with the social world. Accordingly, this research contributes to the literature on academics and social media outlined in Section 2.4 over the scholarly themes of *engaging* and *sharing*.⁴⁷¹

3. Insights into the presentation of an online academic identity

This research project engaged with the theme of *academic identity presentation* in the interpretation and analysis of the results of the coding exercises over the interview data and in the extension to the analysis of the language they use on Twitter. While the former displayed and interpreted some of the testimonies over academic boundaries, self-censorship, selection of digital tools, and embellishment as some of

⁴⁶⁸ Including its other main constructs such as identity.

⁴⁶⁹ See Section 3.1 of the Theoretical Frame chapter.

⁴⁷⁰ Such as narrative self and self-thought.

⁴⁷¹ See Section 2.4 and within it, Figure 12.

the presentation strategies, the latter tested several hypotheses about modes of academic self-presentation on social media. These findings contribute to the research on academic identity presentation (Section 2.4 aforementioned) and, more generally, the scholarly research on *identity presentation*. Furthermore, it extends the literature on social media and digital humanities by revealing strategies that academics (in the group selected) used (at the time when the study was conducted) to present their online persona, in this way also shedding light on the operations of social media platforms such as Twitter.

4. Creation of a conceptual framework

The conceptual framework, introduced in Chapter 2 and detailed in Chapter 3, was used to organically guide the investigation into the different spheres of experience, expression, and relationship of the group of people studied in how they are invested in digital communication technology. Furthermore, it helped shape and integrate the empirical findings to bring together different dimensions of the phenomenon. These were extended through other relevant literature to interrogate the three themes examined in Section 5.3 from the coding analysis of the interview data. Hence, the proposed conceptual framework can be further inspected, extended, and used to investigate other organic phenomena or specific technologies that infuse the individual human experience.

5. Applications of a sequential mixed methods design

In implementing this research project, which used an exploratory sequential mixed methods design, one of the key qualitative findings about the presentation of professional identity was extended and validated by quantitatively examining the data on digital platforms (Chapters 5 and 6). This process also involved the creation of an instrument in the form of language features that forged the hypotheses (detailed in Section 4.6). The implementation of these methodological strategies contributes to the area of mixed methods research in the digital humanities.

6. Confrontation of academics with the present time

A further engagement with the current literature about digitalisation, in Chapter 7, brought this research project, which was pursued part-time over several years, to confront the social world after 2022, given the increased digitalisation of society

during COVID-19.⁴⁷² The challenges to academics raised in Chapter 7 critically questioned their ambivalent position regarding the impact of digitalisation and the construction of a digital society over the issues of free speech, democracy, liberty, and individual rights. With this, this research extends the literature that interrogates the role of academics in a digital society.

7. Critical perspective of digital communication technology

A critical perspective was set up in the Literature Review and the Theoretical Framework chapters by discussing the digital humanities' scholarly critique of the digital,⁴⁷³ the interpretation of this research, and the role this can play as a stratagem to monitor and keep these technologies in check. While acknowledging the benefits of digitalisation by directly engaging with its methods and tools,⁴⁷⁴ this research maintains that its complexity, persuasiveness, and implication for individual rights require vigilance. Such a critical stance permeates the interpretation of the findings of the coding exercise. Furthermore, these concerns were also upheld to emphasise the importance of the individual and subjective experience and, specifically, in Chapter 7, the challenges that the digitalisation and quantification of our experience, and the consequent uniformity, mechanisation, and standardisation of thought, pose to subjectivity in a digital society.

8. Role of the critical digital humanities in monitoring the digital

This research has proposed two lines of defence against the unchallenged further extension, or *eversion*,⁴⁷⁵ of the digital in our everyday experience: first, a reinvigorated critical stance of the digital humanities, and second, the idea of humanities academics as critics of the digital. The Literature Review chapter has highlighted the recent critical turn in the digital humanities, distant and close reading as one of its significant analytic tools, and the importance of tackling digital in its materiality, thus its historically, culturally, and materially situated existence. The Theoretical Frame chapter made a case for the critical digital humanities to direct an inquisitive gaze into

⁴⁷² This refers to the period starting on 11 March 2020 when the World Health Organization (WHO) declared the novel coronavirus (later named Covid-19) a global pandemic, the subsequent public health measures enforced by various countries, and the resulting societal changes.

⁴⁷³ Thus, digital technologies and digitalisation.

⁴⁷⁴ In the Social Media Study in Chapter 6.

⁴⁷⁵ See the end of Section 2.3.3 for an explanation and introduction to this term.

the digital world by using critical thinking, putting aside politically and theoretically laden interpretations, and focusing on the human-centred and humanistic interpretation of digital technology and the place we have in it. This research project has followed these precepts by providing a composite and encompassing picture of the phenomena under study at a situated historical time and for a specific group of academics. The materiality of the digital was revealed via the directly spoken testimonies and the significance it gained in the experience and daily life of real people, in this way also underlining the expansion of the digital into our inner experience. With these stances it extends the literature on critical digital humanities.

8.5 LIMITATIONS AND FUTURE RESEARCH

At the onset, the Introduction chapter (Section 1.4) foresaw possible limitations of this research project. They include the broad scope of the subject area, the complexity of the notions with which it engages (such as self and identity), the rapid advancements of digital communications technologies, and the fact that it represents a one-person effort. These were proven quite accurate.

First, by focusing on how academics experience and express themselves over digital communication platforms, this research has traversed several research areas, including media studies, digital humanities, social psychology, sociology and philosophy of technology, and data science. Although it has contributed to understanding these multifaceted, interdisciplinary phenomena, it only engaged operationally with specific research areas. Second, given the complexity of the notions with which it has engaged, such as self and identity, this research only sheds light on how these are perceived in the context of the research topic rather than adding to the understanding of their essence. Third, this research, spanning several years as a part-time PhD effort, has had, at various points, to recontextualise digital communication technology practices, given the speed of technological change. The re-examination of digital society in Section 7.3 of Chapter 8 exemplified this.

While this research project has examined the effect of digital communication technologies on the subjectivity of academics at large, further research could shed light on individual findings.

Additional research could assess the implication of fast temporality for academics introduced by digital communications. Using the framework of slow and fast lanes of knowledge production, proposed in Section 5.3.3, a targeted qualitative study could investigate how the findings differ for academics working in other research areas, such as the hard sciences. It could also compare academic knowledge production with that of journalists since the latter, it was argued, operates at the edge of fast temporality. Furthermore, focused research could examine the role of self-reflexivity in academic knowledge production in the slow lane, building from the argument introduced by Rockwell and Sinclair about humanities academics (2016).

The finding about modes of online self-presentation in Goffman's theory of performance as drama (1959) and symbolic interactionism could also be extended. Research could closely examine the ideas of frontstage and backstage behaviours as performance activities on online platforms and how these map the technology's affordances, thus the modes in which it can be used.

The role of private spaces for academics' online expression could be followed by further research. For example, it could look at boundaries as protective constructs of in-here spaces (Pitkin,1981); conversely, it could examine how extended online public presence can subtract from free expression. The latter could challenge the assumption that the extension of public spaces corresponds to free expression since, conversely, they may merely enlarge existing echo chambers and further marginalise minority views.

Additional research on online identity presentation of academics could investigate the relation between thought-concealment strategies and sensitive discussion topics. A tacit outcome of this research is that, although institutions and academics should promote freedom of expression, several ideas (shaped as dogmas) are not allowed to be challenged at the present historical time. Aside from the merits or shortcomings of these ideological constructs, the study could examine to what extent freedom of expression in academics is one-sided.

Further work should be undertaken around the current push towards digital identity as an authentication and authorisation mechanism to access digital society. Section 7.3.4 proposed a framework to distinguish online (digital) identity and digital identity as ID, emphasising how they are interconnected. Given the drive towards

digital identity platforms in the aftermath of COVID-19, briefly outlined in this research, a study that highlights the implications for subjectivity, such as the expression of self and the presentation of identity, should be undertaken.

Whilst this thesis contributes to understanding the contexts in which digital communication technologies shape our subjective experience, it only touches upon the philosophical underpinnings. Given the unstoppable drive to digitalisation, further research should address the notion of technological determinism, particularly about digital communication technologies, self, and subjectivity.

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Appendices

APPENDIX A

Description of codes

The images below depict the interpretation codes' hierarchy and their grouping together in NVivo.

Name	Files	Referen
Fast temporality	0	0
Manifestation of Self & Identity	1	1
Personal experience	1	1
Professional & political Self	0	0
Relationship	1	1
Self-expression	1	1
Uses of digital technologies	12	34

Figure A 1: Representation of all high-level codes

Personal experience

Personal experience	1	1
Activities	2	6
Balancing the online & offline	3	4
Coping with busy times	2	4
Managing time pressure	3	5
Reflecting on the affordances of the medium	4	12
Sharing as a risk	5	6
Personal background	2	4
Changing academic area	1	1
Finding a sense of purpose	2	3
Making life decisions	6	6
Working outside academia	3	5
Relationship with technology	2	6

Figure A 2: Associations of the code *personal experience*

Relationship with technology	2	6
Appreciating digital affordances	6	16
Breaking down technology barriers	3	4
Coping with digital technologies	4	9
Examples	1	2
Limitations of technology	1	1
Passive uses	1	1
Showing off	1	1
Taking a break from technology	5	7
Writing for publication	4	6
Talking about the immigrant vs natives divide	3	5
Older generation	1	3
Resilience	1	3
Techniques used	4	5
Using uninformed consent	2	2

Figure A 3: Associations of the code *relationship to technology*

Relationship with technology	2	6
Appreciating digital affordances	6	16
Breaking down technology barriers	3	4
Coping with digital technologies	4	9
Examples	1	2
Blocking off people	1	1
Dealing with the smart city	2	2
Feeling overwhelmed by technology	1	1
Recalling telephone boot	1	1
Showing off on social media	1	1
Triggering of past memories	2	4

Figure A 4: Example of codes structure in NVivo

Self-expression

Self-expression	1	1
Advancing a non-combatant image	1	1
Expressing who you are	3	4
Private vs public spheres	4	11
Expressing personal aspects	7	11
Expressing transparently	1	1
Mashing of spheres	4	8
Private	7	14
Professional & academic	8	20
Bragging about one's work	2	4
Promoting one's research	1	2
Public	5	12
Applying self-censorship	2	2
Separating the two spheres	7	16

Figure A 5: Relationships of the high-level code *self-expression*

Relationship

Relationship	1	1
Cross-cultural aspects	5	7
Social relationships	0	0
Social-cultural context	6	10

Figure A 6: Relationships of the high-level code *relationship*

Self and identity

Manifestation of Self & Identity	1	1
Discussing aspects of self	9	13
Seeing the online as an extension of yourself	2	2
Discussing identity	6	15
Creating identities	1	2
Discussing personal identity	2	3
Discussing professional identity	6	7
Discussing social identity	7	12
Managing identities	4	8
Mediating your online identity	3	3
Merging of identities	5	7
Manifesting academic traits	3	5
Performing an academic identity	1	1
Pondering on academics	2	5
Promoting a professional identity	4	5
Projecting a multifaceted persona	1	1

Figure A 7: Relations of the high-level code *manifestations of self and identity*

Uses of digital technology

Uses of digital technologies	12	34
Academic research techniques	0	0
Academic software applications	1	1
Application of communication strategies	3	3
Email	4	12
Instant messaging apps	3	6
Physical devices	0	0
Social media platforms	4	6

Figure A 8: Associations of the high-level code *use of digital technology*

Fast temporality

Fast temporality	0	0
Coping with busy times	2	4
Managing time pressure	3	5
Sorting out your past	2	3
Taking a break from technology	5	7
Writing for publication	4	6

Figure A 9: Associations of the high-level code *fast temporality*

Professional and political self

Professional & political Self	0	0
Advancing a non-combatant image	1	1
Boasting about one's work	2	4
Discussing professional identity	6	7
Disseminating findings	3	4
Engaging with the elites	1	2
Performing an academic identity	1	1
Promoting a professional identity	4	5
Separating public and private	7	16

Figure A 10: Associations of the high-level code *professional and political self*

Quantification of data

Nodes compared by number of items coded

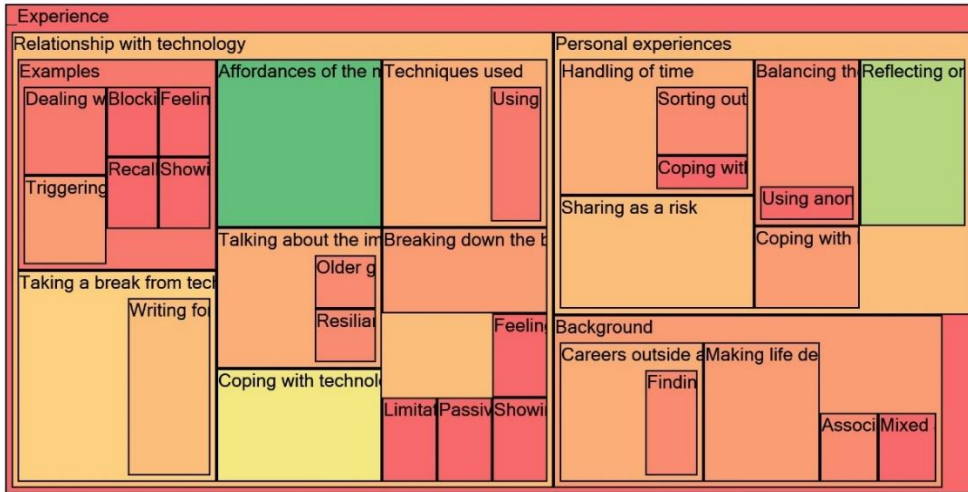


Figure A 11: Representation of the codes belonging to the *experience* theme

Nodes compared by number of items coded

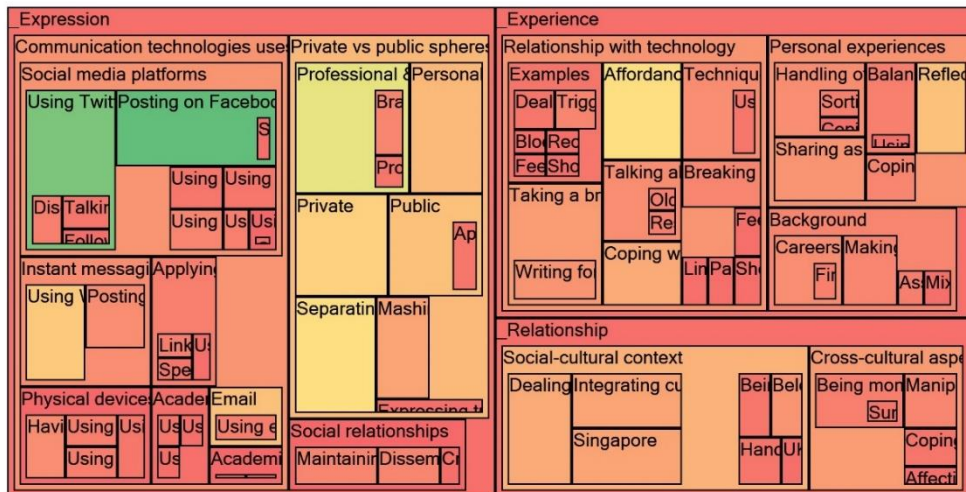


Figure A 12: Representation of the codes belonging to the *expression* theme

Nodes compared by number of items coded

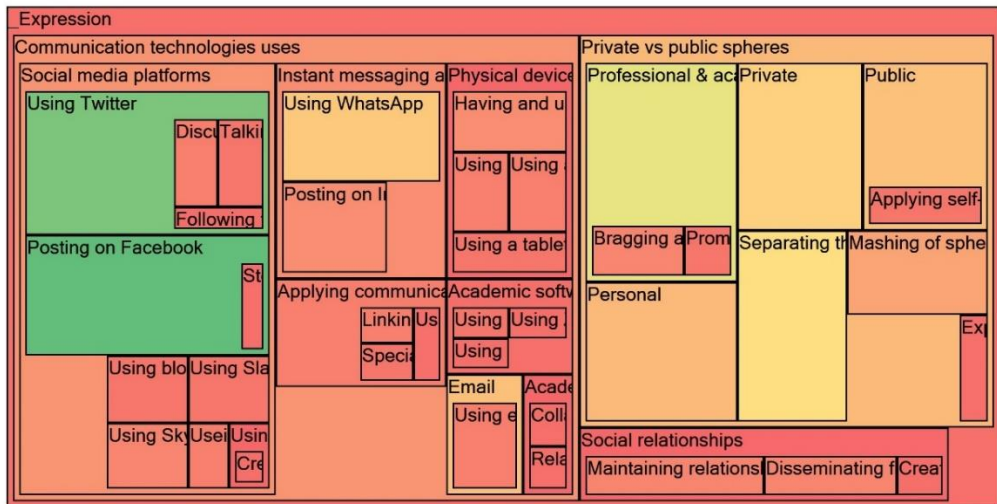


Figure A 13: Codes belonging to the *expression* theme

Nodes compared by number of items coded

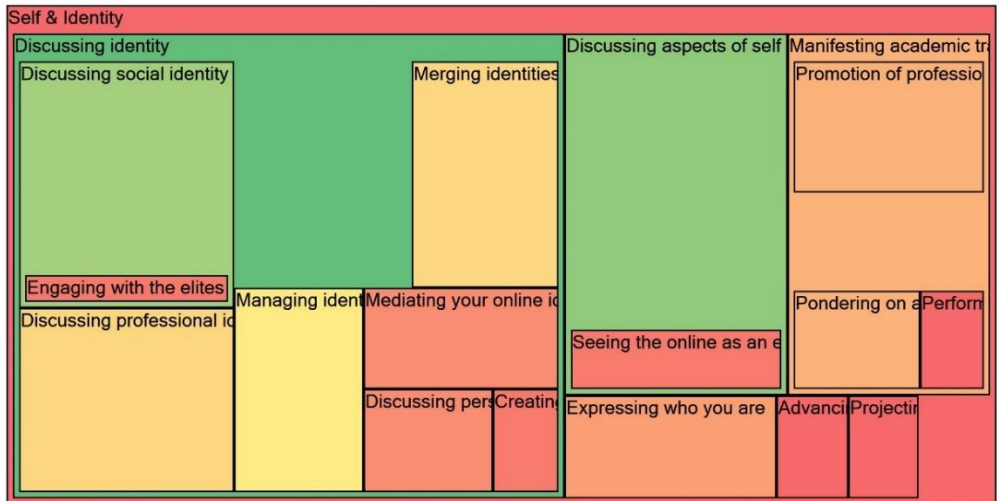
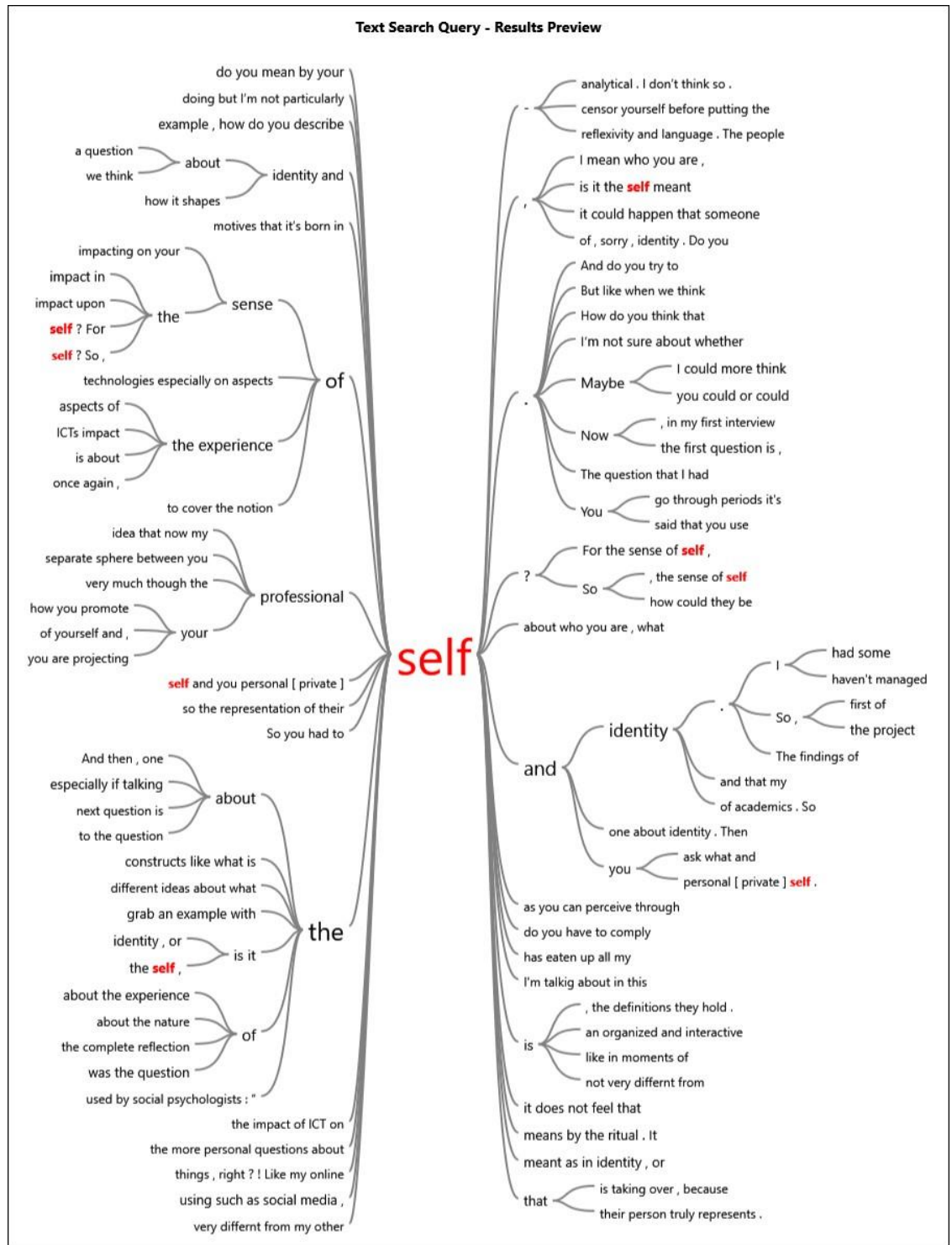


Figure A 14: Representation of the codes belonging to the *self and identity* theme

Interviews overall word frequency

using	things	people	also	question	one	facebook	twitter	different	way	really	academ	life	now	
		social	personal	know	much	some	techn	paolo	get	actual	feel	friend	ask	yes
think	like							kinds	platform	identit	may	going	see	exp
		media	works	just	want	interest	mayb					email		
								exampl	profes	resea	time	privat	ch	talk

Figure A 15: Representation of word frequency in the Interview Study data



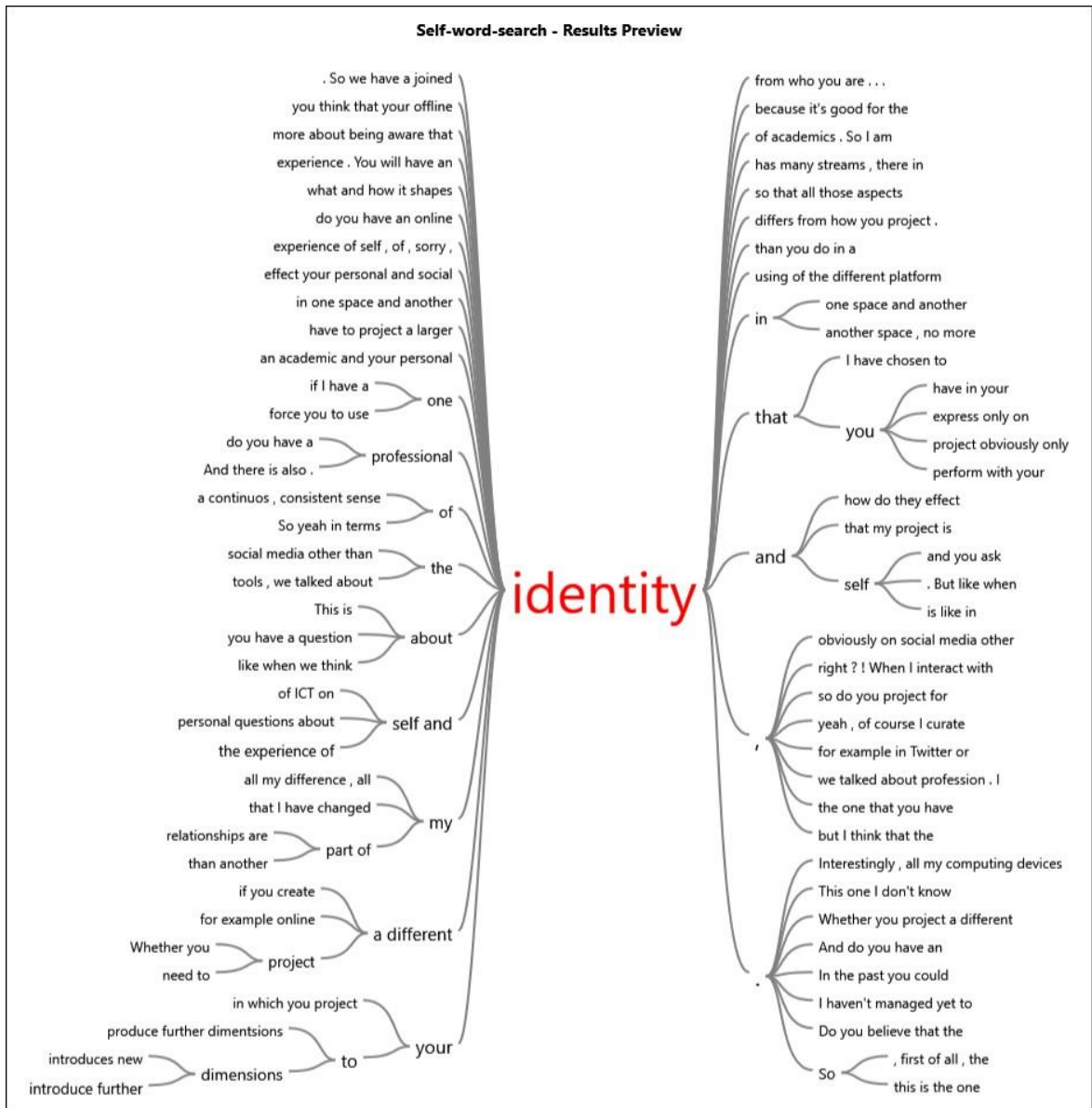


Figure A 17: Tree data representation of the term *identity*

APPENDIX B

Questionnaire

Preliminary interviews guide

Paolo Casani

	Version & Release	Revision date	Revision Description
1	v. 1.0	14/09/2016	Draft doc. with main questions created for Pilot.
2	v. 2.0	1/08/2017	Major update for the main study interviews; inclusion of factsheet information; inclusion of a definition of key terms; addition of further probes.
3	v. 2.1	5/09/2017	Various updates revised questions
4	v. 3.1	6/08/2022	Edits of doc. formatting; including a revision history table; correcting some spelling mistakes.

This guide is for my personal use only. Therefore, I will not give out a copy to the interviewees. Instead, it will serve as a tool to define the questions to ask and guide me during the interview.

Personal introduction

I am a research student at University College London carrying out a study about the impact of new digital technologies on an aspect of the experience of self and the creation and performance of identities.

Findings from the project will describe and identify perceived changes that are taking place in people's personal and social experiences as a result of the growing use and mediation of computing, information and communication technologies, in particular social media platforms.

The answers to the interview are going to be kept anonymous. However, I may quote some of what is said in my thesis without attribution. In order to facilitate note-taking, I would like to record our conversation. Only researchers on the project will be privy to the audio files, which will be eventually destroyed after they are transcribed.

Please let me know if you require further details about this project or have any other doubts I might not have addressed.

Summary of all questions

n.	Theme	Sub-themes
0	Background	
1	IT and technology use	IT and technology use
2	Social media use	What social media platforms, type of use, frequency?

Impact of digital technologies on self and Identity
University College London

1/4

3	Private vs public	Public (academic) vs private (personal) use of social media
4	Self	Experience of oneself confronting digital technologies
5	Identity	Identities that are expressed over social media platforms
6	Cross-cultural sphere	Cultural influences, technology dominance, technocracy
7	Questions	Questions for interviewer; other things omitted

Questions

0. Background

Q. What brought you into a career in academia and into your current role?

Probes:

What is your educational background?

How long have you been in your present position at this institution?

1. IT and technology use

Q. How do you use technology and the web in your everyday life?)

Probes:

Can you give me examples of particular tools and applications you use?

How many computers do you own? What kind? How long have you used them?

Do you own a smartphone? How do you use it?

2. Social Media Use

Q. Are you active on social networking sites (such as Facebook, Instagram, or Twitter)?

Probes:

How often do you use these media sites? How do you use them?

How important are social media platforms for your social and academic life?

How much time on average do you spend on social media each week?

3. Private vs public

Q. How do you use social media platforms for your personal and professional work?

Probes:

How do you maintain a separation between the professional versus private spheres?

Do you use different devices within the university to access your personal accounts?

4. Self

Q. Do you believe that the experience, influence and ubiquitous use of computer and information technologies are changing the nature of who you are?

Probes:

How are they affecting the perception of events, of the good and bad things happening in life? What impact do they have on the experience of you as a unique individual? Are they altering how you experience and think about your place in the world and the meaning of your existence?

Has an event that resulted in a disruption of digital communication made you consider the influence that digital communication technologies have on your experience of the everyday?

5. Identity

Q. Do you believe that the web and mobile technologies introduce further dimensions to your identity?

Probes:

How do they affect your social and personal identity?

Do you have an online identity that you express and perform only on social media? How do your online and offline identities differ?

How do your professional and private identities come into play online?

7. Cultural influence

Q. What do you think your role fits into a society that appears to be increasingly organized by the rule of experts and technological artefacts?

Probes:

In what ways in technologies enable you to express what you think freely?

Do you present an image of yourself that is in line with perceived expectations, peer group norms, and social norms in X [location where you live]?

Do you believe that the local social hierarchy and economic structures manifested in digital communication technologies promote or limit your free expression?

7. Questions to the interviewer

Q. What comments or questions do you have for me?

Probes:

What would you like to tell me that you've thought about during this interview?

Is there anything you would like me to explain?

Factsheet information

Things I will ask or detail if I will not be able to record before the interview. They allow contextualizing the answers given.

1. General

Name

Age

Gender

Country of origin

2. Specific

Position held

Number of years in academia

Definition of key terms

Social media

"Websites and applications that enable users to create and share content or to participate in social networking". (Oxford dictionary)

Self

"... an organized and interactive system of thoughts, feelings, identities, and motives that (1) is born of self-reflexivity and language, (2) people attribute to themselves, and (3) characterize specific human beings." (Timothy J. Owens, 2006, p.)

Identity

"... categories people use to specify who they are and to locate themselves relative to other people" (Michener & DeLamater, 1999, quoted in Timothy J. Owens, *Self and Identity*, Chapter 9 ...).

Michener, H. A., & DeLamater, J. D. (1999). *Social psychology*, (Vol. 4).

Owens, T. J. (2006). *Self and identity*. In *Handbook of social psychology*(pp. 205-232). Springer US.

Technocracy

Michael d. Barr (2006, p. 1) proposes the following definition of technocracy based on Winner (1977, p.144-165): "A technocracy is a system of governance in which rule is based on supposed impartial, objective criteria derived directly or indirectly from disciplines such as economics, management, law, medicine and engineering".

Information sheet



Information Sheet for Information Studies' Interviews

Title of Project: Impact of digital technologies on the self and identity

Researcher: Paolo Casani, PhD research student

Address: Centre for Digital Humanities, Department of Information Studies, University College London, London, UK

Contact Details: paolo.casani.14@ucl.ac.uk

This study has been approved by the UCL Research Ethics Committee

We would like to invite you to participate in this research project.

Details of Study

This research project is an exploration into ways in which computer, information and communication technologies (ICTs) are changing the nature of who we are and thus how we see, understand, and conceive ourselves and the world at large. The aim is to gauge insights and understand how these technologies influence how we experience and express our sense of self and create and perform identities.

In this study, we are going to investigate the practices, experience, thoughts and impressions of academics in relation to their use, as well as over the influence and mediation, of social media platforms.

Information that we are going to get from the study will help to increase the understanding of the impact of ICTs and social media at the subjective level of experience.

Please discuss the information above with others if you wish or ask us if there is anything that is not clear or if you would like more information.

It is up to you to decide whether to take part or not. If you do decide to take part, you are still free to withdraw your data from the project at any time up until it is transcribed for use in the final report.

If you decide to take part, you will be given this information sheet to keep and be asked to sign a consent form

All data will be collected and stored in accordance with the UK Data Protection Act 1998.

Participation will involve being interviewed about your experience, thoughts and feelings in relation to digital technology and social media platforms use.

The interview will last approximately 30–45 minutes. It will be conducted either face to face, in a location to be arranged, or remotely via Skype depending on whether or not it is possible to meet in person.

The interview is going to be recorded with either an audio recorder or via use of Skype recording software. The audio files will be kept safe and destroyed after completion of the study. Such recordings will be transcribed (written up) in order to facilitate analysis, and the transcripts sent back to the participants to review.

Impact of digital technologies on self and Identity
University College London
United Kingdom

September 2017

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Informed consent form



Informed Consent Form for Information Studies' Interviews

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

Title of Project: Impact of digital technologies on self and identity

This study has been approved by the UCL Research Ethics Committee

Thank you for your interest in taking part in this research.

If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you to decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

Participant's Statement

1. My participation in this project is voluntary. I understand that if I decide at any time that I no longer wish to take part in this project, I can notify the researchers involved and withdraw my data from the project at any time up until it is transcribed for use in the final report.
2. Participation involves being interviewed by a researcher from University College London, United Kingdom
3. I have read the notes written above and the Information Sheet, and understand what the study involves.
4. I consent to the processing of my personal information for the purposes of this research study.
5. I understand that such information will be treated as strictly confidential and handled in accordance with the provisions of the UK Data Protection Act 1998.
6. I understand that every effort will be made to maintain my anonymity and that I will not be named in any reporting of my participation. I understand that my participation will be recorded and I consent to use of this material as part of the project.
7. I agree that the research project named above has been explained to me to my satisfaction and I agree to take part in this study. I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

Signed:

Date:

Impact of digital technologies on self and Identity
University College London, UK

September 2017

APPENDIX C

Details of methods used

Normality tests

The results for (a) were as follows:

Table C1: Tests of normality of random dataset variables

	Kolmogorov-Smirnov ^a		
	Statistic	df	Sig.
WC	.114	17538	.000
Analytic	.222	17538	.000
Authentic	.217	17538	.000
Dic	.116	17538	.000
Clout	.180	17538	.000
Tone	.378	17538	.000
WPS	.132	17538	.000
posemo	.330	17538	.000
affect	.242	17538	.000
anx	.525	17538	.000
negemo	.442	17538	.000
Sixltr	.119	17538	.000
function	.095	17538	.000
pronoun	.185	17538	.000
ppron	.245	17538	.000

999Table C2: Tests of normality of academic tweets variables

	Kolmogorov-Smirnov ^a		
	Statistic	df	Sig.
WC	.408	19501	.000
Analytic	.273	19501	.000
Clout	.210	19501	.000
Authentic	.246	19501	.000
Tone	.384	19501	.000
WPS	.247	19501	.000
Sixltr	.075	19501	.000
Dic	.076	19501	.000
function	.069	19501	.000
pronoun	.269	19501	.000
ppron	.352	19501	.000
i	.491	19501	.000
you	.487	19501	.000
affect	.268	19501	.000
posemo	.330	19501	.000
negemo	.477	19501	.000
anx	.525	19501	.000
anger	.526	19501	.000
sad	.526	19501	.000
cogproc	.237	19501	.000
certain	.502	19501	.000
drives	.231	19501	.000
risk	.526	19501	.000

a. Lilliefors Significance Correction

The field 'sig' values in the table are lower than 0.5. Therefore, it indicates that data is not normally distributed, and the hypothesis cannot be accepted.

The following formulas and principles were applied:

- Normality test
- Strong descriptive figures:
 - Median
 - IQR

- Quartiles

A quartile is breaking the data into four distinct intervals or quarters. It is an extended version of the median.

- Lower Quartile (Q1) = $(N+1) * 1 / 4$
- Middle Quartile (Q2) = $(N+1) * 2 / 4$
- Upper Quartile (Q3) = $(N+1) * 3 / 4$

$$\text{Interquartile Range} = Q3 - Q1$$

Mann-Whitney U test

The Mann–Whitney U tests look at differences between two independent groups. It is the *nonparametric* counterpart of the (more common) T-test. The difference between the two is that while the T-test measures whether there is a difference in the *means*,⁴⁷⁶ the U-test measures a difference in the *rank sum*⁴⁷⁷ of the two groups.

Therefore, the Mann–Whitney U test is used when the data is not uniformly distributed. Together with many nonparametric tests, it is used to analyse the rank order of data instead of the raw data.

The latter’s advantage is that the data does not need to be normally distributed.

In the Social Media Study, a comparison was made between the two datasets of academic and random tweets. Since the size of the sets slightly differed (19,462 for the academic and 15,506 for the random), it was adjusted to the smaller denominator, 19,462.

⁴⁷⁶ A ‘mean’ is the average of a set of numbers.

⁴⁷⁷ The ‘rank sum’ is calculated by assigning a rank to each participant of the two groups and comparing the total rank for each group.

Effect size

It is calculated by dividing the *z-value* result of the Mann–Whitney U test by the square root of the total number of data entries.⁴⁷⁸ The following equation has been used:

$$\frac{Z}{\sqrt{n}}$$

n is the total number of independent variables and, thus, the number of academic and random tweets.

For the value *r* of from Pearson correlation, Cohen (1988) gives the following interpretation:

Table C3: Cohen’s interpretation of effect size values

small	$0.10 \geq 0.30$
medium	$0.30 \leq 0.50$
large	≥ 0.50

However, this interpretation varies depending on the discipline to which it is applied, the expectations of the experimenter, and their practical judgment.

⁴⁷⁸ Thus, the number of academics and random tweets combined.