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ABSTRACT

Given the central role of digital devices and screens in academic work, their use and our relationship to them are under-theorised in mainstream research into digital education. The Covid-19 pandemic, however, rendered the use of digital screens central to life in 'lockdowns'. This paper will consider the relationships between digital screens and anti-epidemic face masks, considering these artefacts in terms of functionality, academic subjectivities and epistemic practices, drawing on sociomaterial perspectives, Goffman's categories of lecturing *self*, and the history of anti-epidemic mask-wearing. I illustrate this with a vignette of teaching via digital screens, given by a member of faculty in an interview study exploring the impact of the lockdown on university staff. It will conclude that the digital screen may be viewed as a 'digital mask'; carrying out a practical function, but also performing an ideology of hygiene and reason. The implications for digital higher education post-pandemic are discussed.

Introduction

Given the central role of digital devices and particularly screens in academic work, their use and our relationship to them are somewhat under-theorised in mainstream research into digital education. The Covid-19 pandemic, however, rendered the use of digital screens central to life in the 'lockdowns' which were imposed around the world, mediating a large part of communication for work and personal purposes, primarily via video calls using platforms such as Zoom. In the context of universities, this led to a widespread and sudden pivot to online teaching, in addition to online meetings from inside the home, where populations were ordered to shelter from the virus. This had a sudden and profound effect on how the university operated, with thousands of staff and students isolated and confined to using digital technologies for their roles, in particular using screens for video calls.

Screen performance: a vignette

In March 2020, all university campuses in the UK were closed, and staff and students were required by law to stay in their homes, and not to travel or meet with others from outside their immediate household, a situation that continued for several months. As a result, face-to-face teaching and most in-person research ceased, and teaching, learning and scholarly activity were required to take place remotely from home. During this time, the Moving to Online Teaching and Homeworking (MOTH

2020) project was conducted by a team of researchers at UCL Institute of Education, in order to investigate the experiences of academic and professional services staff under lockdown. Following institutional ethics clearance, a survey of staff was conducted and interview volunteers were recruited. A semi-structured approach was taken, and participants were asked to describe how they had approached their work during this period, using discussion of a 'typical lockdown day', and vignettes describing particular incidents relating to the lockdown and their work. One participant, David, described how he created a video to be used to promote his module to prospective students in his department, where normally he would have turned up in person to give a talk about the module. He chose to record the video outdoors, partly as he felt uncomfortable with filming in his home (see Gourlay 2020 for a discussion of this aspect of the interview, plus Gourlay 2021 for a discussion of this vignette in terms of social topology). He describes the difference between recording the talk in advance, compared to delivering it in person:

> The temptation is, you know, you, you're recording a lecture. We had to do these asynchronous lectures, you record it and you fluff your lines. Now in a lecture, you, you know, a proper lecture, you'd just carry on, wouldn't you? There's a temptation to say, oh, I've screwed that up, I'll stop and record it again. Lots of us are perfectionists. It eats the time.

In his description, David suggests that the fact it is being recorded as a video instead of a live event causes him and others to become 'perfectionist', and re-record the video repeatedly every time he makes a small error. He goes on to describe how he made the video at the weekend as he had more time to spare, but had to make more than one attempt due to the wind conditions interfering with the sound:

> And I just thought, well actually I haven't got the time, but because it was the weekend, and it was a nice sunny day. Then it rained, so I went outside in the rain and videoed the, the thunderstorm. Then I videoed the rain splattering on the patio. We did it twice, in fact. But it was windy, so I came back, downloaded the video and all you heard was, you saw me and, with my mouth going, and all you heard was the wind. So, we had to go back again the next day. Because it was the weekend we'd go for a walk anyway. And I had my wireless headphones on, recording the video on my phone whilst doing the camera.

After he had managed to shoot the video, he then tackled editing it. He describes how he added the video to a *PowerPoint* slideshow with information about the module, which he talked over. However, he also decided to add an audio track of birdsong in order to provide continuity with the birdsong recorded outdoors in the video, which he describes as 'hours of work':

> And then I had to join it all together. And so I did that, and then at the bit in the middle, which is me talking over a PowerPoint file. But of course, the problem with it, you didn't have the birdsong. So I then downloaded a clip with birdsong, to put on it. And it's with iMovie. So now you get me outdoors with birdsong, and then me talking to the PowerPoint with birdsong. So, you know, it was hours of work. That's what I thought I would do. Because it's a bit of fun, It's enjoyable, but it's very time-consuming.

It was clear from the interview that David had enjoyed the creative aspect of making the video, but he also talked about how this approach would not be sustainable:

> You couldn't do it for … Quite seriously, I do worry, slightly, about the fact that everyone's being encouraged to do asynchronous, because, I think, it does lead … I mean, if you doing it, sort of, once of for fun, then that's a different story.

He also alludes to the difference between making his own video, and Lecturecast software being used to record him giving a live lecture at the campus. He draws a distinction between that and producing his own video, in terms of where the responsibility and ownership lies:

> Well, the, the difference is, I think, because first years tend to be in the big lecture theatres that have, now what's it called? Lecturecast. But I think that the difference is, if you are, if you are just turning up and Lecturecast is happening, you're not producing that video. You're not responsible for its production. UCL have done that, they've got it. Whereas, if you are sitting at home producing the lecture, it's your work. You are the, the producer of this thing, rather than just turn up, give the lecture. And it's videoed by somebody, well, it's not even by somebody, by a computer camera that just is there. And that's the difference.

He goes on to emphasise the point that he felt his 'home-made' video reflected on him, and that is led him to expend a lot of effort, also making the point that not everyone has the knowledge to use technology such as iMovie. Interestingly, he also suggests that creating a 'fun' and well-made video related to showing that he was 'coping with all this stuff':

> And people … You know, you want it to look good, because it reflects on you, actually, you know? Um, and I think that's the, the danger. That people are, are going to get either obsessed with making sure it's correct and, and so you end up … You know, oh, you screwed your lines up, so you stop the recording. And then you end up with having to merge it all together if you, if you, if you know how to do that. Lots of my colleagues won't know how to do that. And then you, you know, you put the fun end on all this stuff, because it's, you know, it's your work and, and you're trying to say, actually, you know, I'm coping with all of this, and doing all this stuff.

David's vignette reveals a complex picture in terms of his engagement with screens, and the nature of this videoed performance. In the next section, I will consider some work that has explored the nature of engagement with digital screens.

Screens

Arguably, given the central role of digital devices, and particularly screens in academic work, their use and our relationship to them is somewhat under-researched and under-theorised in mainstream research into digital education. This section will review relevant papers, focusing in particular on a strand of work by Decuypere and Simons, who use sociomaterial perspectives to analyse the relationships between digital and academic practices across several papers.

In the first paper of the series, Decuypere and Simons (2014a) examine the 'composition of academic work in digital times'. Using Actor-Network Theory, they reject the notion that academic practice can be analysed in terms of the categories of human, nonhuman, material or digital, instead proposing that academic practice is *humandigital*. They begin by pointing out the emphasis placed on the digital as *input* and academic practice as *output*, and the related lack of focus on actual day-to-day practices in research focused on digitisation and academic work, leading to a 'black boxing' (Latour 1987) of the practices themselves. They conducted an interview study with six members of faculty, focusing in fine-grained detail on the previous day's work in terms of the actors and relations involved in their activities, with actors including nonhuman entities such as devices and computer programmes. Their paper focuses on one interviewee, Mary. The actors and interactions between them were then entered into the network visualisation programme Gephi (www.gephi.org) which allowed the interactions to be depicted in terms of the actors and the interactions between them, also showing the intensity/degree of connectedness in the interactions. Their analysis reveals academic work to be composed of *regions*, in which clusters of actors interact; an example for their analysis of Mary's account is *convening*, in this case an online gathering. Of relevance to this paper, they discuss *boundary actors* which are situated on the intersections of two or more regions, giving the example of a printer. Boundary actors:

> … do not possess one unequivocal function but, on the contrary, install and certain efficiency and flexibility that allows to conduct a manifold of different activities in the course of one single day. Moreover, their interconnectedness also gives them a certain authority, at least compared to actors that are completely embedded within one region. (Decuypere and Simons 2014a, 103)

In Decuypere and Simons (2014b), they continue their focus on the effect of digitisation on day-to-day academic practices, using the technique of topological visualisations in the interviews described above to form what they call an 'explorative atlas'. They once again focus on how practices are relationally composed, focusing on the 'spatiotemporal constellations enacted in these practices and how the digital acts and operates' (2014a, 16). Reviewing the literature, they characterise the notion of 'the digital university' as comprising openness, flexibility, networks and a non-hierarchical, global character (e.g., McCluskey and Winter 2012), although they also point out the hyperbole that has attended discussions of the impact of the digital (e.g., Ruppert, Law, and Savage 2013; Woolgar

2002). They divide research into this area of academic practice into two areas, what they call a *personal approach* which focuses on how academics perceive their jobs. The second characterised as *contextual*, focusing on the digital as an impact factor. As with the previous paper, they adopt a sociomaterial approach to the issue which focuses on the practices themselves, as opposed to the individual or the institution, focusing on the *composition* of work (e.g., Latour 1989; Latour and Woolgar 1986), and the agency of the digital, using topological visualisations of digital academic practices, referring to the same interview study. The analysis describes the *form* of an academic practice, using 5 dimensions: regions, centres, density, interfaces, and infrastructure, drawing on sociomaterial literature ' … giving topological accounts of the concrete compositions of different practices' (Decuypere and Simons 2014b, 121), citing Bowker and Star (1999), Decuypere and Simons (2014a), Latour et al. (2012), Law (2002), and Mezzadra and Neilson (2012). Topological visualisations of academic practice have a particular focus:

> Instead of looking at what happens when, and for what reason (focusing on chronology, intentions and explanations), the focus is on who and what plays a role, and the relations involved in this who and what (focusing on topology, distribution, and rich descriptions). (Decuypere and Simons 2014b, 121)

In Decuypere and Simons (2016a), they report on a separate ethnographic study which was conducted at two research centres in academic contexts, exploring 'what screens do: the role(s) of the screen in academic work'. They ask the following three questions: 'First, which positional relations do academics need to uphold with the screen in order to be able to operate? Second, in which forms do these digital devices come into being? Third, what sorts of (in)compatability between activities are established because of the mutual interplay of between academics and screens?' (Decuypere and Simons 2016a, 132). They explore the role of the digital in it, focusing on ' … the specificities and the concrete operations of *the screen*, as the prototypical device that is associated with the digital.' (Decuypere and Simons 2016a, 133). As with their approach to devices in the previous study, they analyse the screen as an actor, as opposed to simply a device which is used, looking at how academic practice is governed by and through digital devices, with reference to Williamson (2016). They conducted an observation study in two research centres. They use the concept of *choreography*, referring to Goffman's (1959) use of the term to ' … analyse the social positionings of different actors, for instance the roles they perform in social life, and how they act differently in public ('on stage') as compared to more private ('backstage') settings.' (Decuypere and Simons 2016a, 134). These deploy three choreographic dimensions: first the *scenery* of academic settings, in which they ask the question ' … which relations do other actors have to uphold with the screen in order for both to be able to operate (a question pertaining to the positions of these actors)?'. The second dimension is *roles*, in which they ask ' … how does the scree come into being in these settings (a question pertaining to its different performances)? Thirdly, they analyse the *script* asking ' … how precisely on the screen and other actors act upon one another (a question pertaining to moments in which different activities are conducted in an (in)compatible manner)?' (Decuypere and Simons 2016a, 135). They propose that different ways of relating to the screen generate specific types of time and space, with reference to the work of Felt (2015), (Galloway 2012) and Kittler (1986). The next section moves the focus to online teaching, looks at Goffman's concept of the multiple lecturing *selves*.

Lecturing selves

Goffman in his seminal work 'The Lecture' (1981) discusses the lecturing self as essentially performative and multiple, setting out the different selves he sees as being present in the lecture:

> At the apparent center will be the textual self, that it, the sense of the person that seems to stand behind the textual statements made and which incidentally gives these statements authority. Typically, this is a self of relatively long standing, one the speaker was involved in long before the current occasion of talk. This is the self that others will cite as the author of various publications, recognise as the holder of various positions, and so

forth … And he is seen as the 'principal' namely, someone who believes personally in what is being said and takes the position that is implied in the remarks. (Goffman 1981, 173)

This academic self for Goffman is 'textual', and is portrayed as active primarily in the advance preparation of the lecture, which involves study, reading and writing – at that time in the early 80s, this would of course not have been digitally mediated. When the lecture takes place as a live event, the 'animator' self is present, defined by Goffman as ' … the person [who] can be identified as the talking machine, the thing the sound comes out of' (Goffman 1981, 171). This self not only reads aloud the text prepared by the textual self, but also performs in a manner which is more spontaneous, in a form which Goffman calls 'fresh talk':

In the case of fresh talk, the text is formulated by the animator from moment to moment, or at least from clause to clause. This conveys the impression that the formulation is responsive to the current situation in which the words are delivered (Goffman 1981, 171)

This for Goffman is one of three types of spoken talk which form the lecture, the other two being memorisation and aloud reading. I will return to these forms of talk later in the paper, when I analyse David's vignette. However, before turning to this analysis I would like to add a further theoretical strand, reviewing recent literature on the history and anthropological status of anti-epidemic masks, before drawing these threads together in a discussion of how digital screens and masks may share certain features relating to practical and symbolic hygiene.

Masks

Lynteris (2018) provides a historical examination of the emergence of face masks as anti-epidemic PPE in the article 'Plague Masks'. He puts forward the argument that these devices should be seen as masks in the full anthropological sense:

By contrast to the vast majority of masks studied by anthropologists, these devices are not anthropomorphic, zoomorphic, or theriomorphic. In other words, they do not assume, mimic, or configure the physical features of an entity other than their wearer, the alternative identity or properties of whom the latter, be that individual and in some cases collective, is meant to assume, mimic, tame or master. Yet, if anti-epidemic face-worn devices are non-representational, they are still implicated, like masks studied by anthropologists, in the invocation, embodiment, and manipulation of a force: in this case *reason*. (Lynteris 2018, 448)

Lynteris goes on to suggest that the device functions as ' … an icon to agonistic medical rationalism … This was an apparatus that did not simply protect its wearers from infection. It also immersed them and their immediate social environment into a performance of medical reason and hygienic modernity' (Lynteris 2018, 449). Sand (2020) provides a historical overview of mask-wearing, with reference to the Covid-19 pandemic. He points out that prior to contemporary scientific knowledge regarding the spread of viruses, people in previous eras held intuitions that disease can spread invisibly, as may be evidenced in longstanding cultural practices of quarantine. Sand discusses Lynteris (2018) and the notion of surgical masks as a form of ' … bodily prostheses that transform the identity of the wearer' (2020, 4). The mask here is seen as having not only practical but performative significance. As he puts it; 'Practically, it created a barrier (however imperfect) against the inhalation of airborne pathogens. At the same time, it performed symbolically the idea of a regime against airborne pathogens' (Sand 2020, 4). Sand refers to Lynteris's discussion of the pneumonic plague in Manchuria in 1910–1911, in which masks as worn by medical professionals became a performance of 'hygienic modernity' (*loc cit*). Lynteris argues that the history of the PPE mask as ' … containing the seeds of reason as an unalienable ait of humanity' (Lynteris 2018, 449). As he puts it:

Designed to bring about a transformation, not simply in the individuals wearing it but also in the society embracing it and its principles as a whole, the personal protection apparatus would then be properly speaking a *mask*: it did not only block germs but also catalyzed a passage from one mode of being to another, from unreason to reason. (Lynteris 2018, 451)

For Lynteris, epidemic-control technology contained not only the promise of safeguarding health, but

> … it also contained much broader, utopian promises of an anthropological transformation: a transformation that rendered the relation between practical promise and utopian hope both generative and hierarchical. (Lynteris 2018, 452)

In this analysis, with reference to the Manchurian outbreak, he argues that the masks worn by Chinese medical staff operated on three levels. Firstly, a means of halting airborne contagion, secondly proof of Chinese scientific sovereignty, and thirdly ' … a visual and material mediator-transformer of the Chinese people into a population in the biopolitical sense of the term' (*loc cit*). in this regard, he argues that this multiple nature of the medical mask confirms its status as not simply a practical measure, but a mask in the anthropological sense, with:

> ' … political, mythic, and broader performative capacities' (*loc cit*), occupying ' … a precarious but fecund position between tools, icons, and thresholds of humanity's wavering (if no altogether forlorn) self-realisation in reason and its scientifically driven fight against invisible forces of existential risk.' (Lynteris 2018, 452)

This analysis is clearly focused on a context very different from the contemporary challenges of the Covid-19 pandemic and its effect on higher education. However, I propose that it has something to offer an anthropological analysis of the role of digital screens, as not only a practical measure to reduce the spread of airborne pathogens, but also – like the medical mask – a performance of 'hygienic modernity' with performative capacities which extend beyond the practical. The next section returns to David's vignette about online teaching, discussing it in terms of both Decuypere and Simons' analyses of screens, Goffman's *selves*, and also Lynteris's consideration of the PPE mask.

David's video was somewhat unusual as an example of pre-recorded asynchronous online teaching, in that it was more elaborate and complex to produce than what might normally be expected. However, I suggest it illuminates some key features which are shared across pre-recorded asynchronous video-based lectures, analysed in terms of screens, and also masks. Analysed in terms of Decuypere and Simon's (2014a, 2014b) sociomaterial framing, David himself, his son who assisted with the video, the phone, natural setting, the weather, time over the weekend, his home computer, the *iMovie* programme, *YouTube*, the expectations of the university, the opinions of colleagues, and the anticipated impression on the future student viewers can all be seen as *actors*, interacting in the creation of the video. In terms of their later analysis (2016a, 2016b), the creation of the video may be seen as a complex *choreography*. The *scenery* of David's choreography is hybrid, involving the natural setting and also the use of the conventional academic digital medium, *PowerPoint*, albeit overlaid with a birdsong soundtrack. The scenery of the outdoor video required David to establish a relation with the screen of the phone held by his son (another actor) which it could be argued drew on the genre of a broadcast, perhaps of a nature documentary (a further actor). His *role* is also hybrid, partly in the mode of a presenter dressed in outdoor clothing and footwear talking to the phone screen, partly as 'lecturer', talking over *PowerPoint* slides using his home computer indoors. In terms of the *script*, the screens and actors act on one another in complex ways, with the phone screen used in the context of high wind and rain requiring him to do a 'retake'; a scenario reminiscent of Decuypere and Simon's 'moments in which different activities are conducted in an (in)compatable manner' (Decuypere and Simons 2016a, 135).

If we look at David's video in terms of Goffman's lecturer *selves*, it could be argued that the screen-mediated technology causes these to combine in a different manner than in the face-to-face lecture. The *textual self*, as with the face-to-face lecture, is responsible for the advanced preparation of the *PowerPoint* slides. However, the *animator self* is altered in several respects. As David's account shows, the final product of the video was completed via multiple 'takes'. The 'blooper reel' he sent me showed his making slips or hesitating, then stopping the recording and starting again, in the manner of a TV presenter. This is clearly not possible in a live, co-present and ephemeral lecture situation; instead the speaker would just carry on or rephrase if something had been less than clear

or missed. The fact that his speech was being recorded meant that David aimed for a 'slicker' performance without errors or re-phrasings. Also, the nature of 'fresh talk' is changed – is likely to be less spontaneous and more performed (see Gourlay 2021 for a full discussion of this phenomenon in relation to MOOCs) As a result, in Goffman's terms *forms of talk* used in the lecture are radically altered by the presence of the screen and the recording technology, becoming governed partly by the conventions of the genre of a TV broadcast. As such, the screen becomes a portal for performance over distance and also time.

This vignette can also be considered in terms of a comparison with the anthropological functions of masks. The use of the video is clearly a response to the danger posed by co-presence and proximity to others in terms of the virus, and so in that respect, it is literally concerned with safety and the avoidance of contamination. However, I would also propose that the digital screen in this example (and in pre-recorded asynchronous remote teaching via video platforms more generally) is also enrolled in a wider act of *symbolic hygiene*, in which the lecturer curates a carefully staged and scripted performance which is 'cleaned up' in various respects. The verb 'to screen out' is brought to mind. David is able to mask/screen out details of his domestic and personal life, and also to 'clean up' his verbal performance using the screen repeatedly until he achieves a recording which is free of the 'contamination' of verbal errors or hesitations. This is reminiscent of the practices discussed with regard to other participants in this study, such as rigging up a curtain in a bedroom to form a backdrop for online talks, or hiding aspects of personal or domestic life such as children demanding attention around the screen (Gourlay 2020), and could also be likened to the use of fake 'neutral' or corporate backgrounds, as provided in Zoom and other video conferencing platforms. In this regard, the screen might be compared to the anti-epidemic mask, decontaminating the mess of the non-professional setting, allowing for the creation of a heavily curated performance of elements that may be considered inappropriate to the pre-prepared video, and also elements which would be accepted as normal in a live face-to-face setting.

Discussion and conclusions

In this analysis of a vignette concerning video recording an asynchronous lecture, I argued that it constitutes an example Decuypere and Simons' sociomaterial *choreography* around screens. I went to on suggest that the act of pre-recording a lecture destabilises and radically alters the lecturer's forms of talk, drawing on Goffman's lecturing *selves*, leading to the event approximating a broadcast, as opposed to a co-present and ephemeral event, Finally, I suggested that digital screens may share some of the characteristics of medical masks used as PPE, not only protecting people from potential contamination from the virus, but also forming part of a sociotechnical assemblage performing *symbolic hygiene* which 'decontaminates' the lecture in a range of ways. Like the face mask, it can be argued that in the context of the pandemic, the screen also invokes a performance of reason and hygienic modernity, as a signifier of withdrawal for potential pollution and danger. This, I propose, leads to a screen performance which is fundamentally altered by asynchronicity, interference from broadcast genres, the invocation of reason, and particularly *hygiene* occasioned by the screen itself. Ideologically, I suggest that these notions of reason and hygiene may also pervade discourses surrounding 'online education' more broadly.

There is a range of implications which might arise from this analysis, in the context of post-pandemic 'discourses of inevitability' surrounding a longer-term move to more online teaching, and also the move to situating scholarly interaction more commonly in the form of webinars rather than face-to-face events. There is in this imaginary – I would contend – an underlying ideology of efficiency which reverts to the notion of education as 'delivery'. In this conception, apparently messy elements and 'noise' in the system are managed out, in addition to 'savings' made in terms of financial costs involved in face-to-face engagement. These may motivate institutions to pursue online engagement for reasons other than public health. Face-to-face engagement involves embodied human subjects, co-presence, happenstance, serendipity, unpredictability, materiality,

and all the physical and particular aspects of being in a room with people, sharing air, light and an evolved social and animal knowledge of being 'with' others. There is a risk that all of these aspects of communal human experience in this online imaginary will come to be regarded as dispensable, messy and troublesome. Additionally, it could be speculated that universities in a marketised system have 'painted themselves into a corner' during the Covid-19 pandemic in order to circumvent student complaints and avoid issuing refunds, with their strident claims that student engagement has not been badly damaged, and that the face-to-face experience can be replicated online – a persistent staple of 'Ed Tech' fantasies. If this were to become 'the new normal' once the risks of the pandemic have lowered, the losses for higher education and epistemic practices would be profound.

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