

Reading internationally: If citing is a political practice, who are we reading and who are we citing?

Felicitas Macgilchrist, Ben Williamson, John Potter

Across multiple disciplines from communication science and political science to astronomy, research has pointed to gender citation bias, racialised citation bias and the regional tilt of many international journals towards authors based in a small set of countries, including the USA, UK and Australia (e.g., Caplar et al., 2017; Dion et al. 2018; Trepte and Loths 2020). These citation patterns not only have an effect on the quality of research publications and the breadth of perspectives and insights circulating as contributions to knowledge, but also on the futures of individual scholars working in systems in which citation scores matter for careers. Citing is political. We recognize these biases in articles in *Learning, Media and Technology*, and encourage contributors to consider whether their manuscripts reflect the diversity of researchers in the field, and thus of research perspectives, and/or if their research and writing would benefit from incorporating a broader range of research.

One issue we would like to focus on in this editorial is the *linguistic* diversity of published research. Given today's online translation machines, it is becoming easier to scan international research, looking for work that takes a critical, questioning approach to learning, media and technology. For this editorial, we reflected on empirical and theoretical work that is grounded in social, cultural, political or media theory. Who are we reading? Who could we be reading? Where can scholars writing for *Learning, Media and Technology* be looking if they want to read and cite beyond the core set of English-language journals that we often see cited in these pages?

With this editorial, we set out to broaden the range of scholars who inspire us. We travelled west from our three locations in Europe to explore the research landscape in Latin America, taking in Spanish and Portuguese publications along the route. With absolutely no claim that we have covered the depth and range of exciting research in this region, we here simply point to some highlights that we discovered, thanks to human and machine networks that helped us explore recent research.¹

Platformisation, datafication, surveillance

Recent research on platforms in schools or higher education in Latin America, Portugal and Spain has pointed to the expansion of market logics in education (CGI 2022). A key concern is that since the 'cybernetic turn' (Santos 2003), educational institutions have been destabilised. New powerful market actors have been reshaping education in ways from which they profit, and thus also reshaping social relations (CGI 2022: 6f.). The integration of digital technologies into education has further strengthened the hegemony of market discourses (Magalhães 2021) and configured a quantified, bibliometricised, neoliberal

¹ Many thanks to Laura Czerniewicz for the initial inspiration for this piece. While automatic translators are not yet good enough to translate work for publication, they are good enough for us to make sense of key arguments and empirical materials in the Spanish- and Portuguese-language literature that we accessed for this piece; mostly from Latin America, but also from Europe.

academic subject (Saura and Bolivar 2019). Google or the big five corporations (Alphabet, Meta, Amazon, Microsoft, Apple) stand at the centre of scholarly interest. Analyses of Google for Education, for instance, observe new processes of 'techno-educational control', new 'extractive dynamics of data' and new 'rentier relationships' with the technology industry (Saura et al. 2021). A report from one university in Brazil which began to outsource its email service stated that the 'free partnership' with Google would allow savings of R\$ 6 million per annum (currently approx. 1.2 million EUR; cited in Parra et al. 2018).

Requests made through Brazil's Access to Information Law (LAI) have shown the extent to which public institutions of higher education in Brazil rely on the services of Google and Microsoft: 74% of public universities and state departments of education have assigned their email servers to external Google and Microsoft services (Gonsales and Amiel 2020). In addition to making this LAI dataset available for reuse (Amiel et al. 2021), the team developed a script that automatically collects data from institutions' email servers (Cruz et al. 2019). Aggregated results are visualised in the Education Observatory (*Educação Viglada*;) website, launched in March 2020 with data from Brazil. At the time of writing, it shows data from public higher education institutions across all South American countries. Of the 448 institutions surveyed, 79% use services from Google and Microsoft (<https://educacaoviglada.org.br>). The data reveal stark differences across countries, with only one university in Uruguay (less than 8% of the surveyed institutions), for instance, relying on these services. This project thus provides one of the first specific, detailed studies of the functioning of surveillance capitalism – through corporate tie-ins, free giveaways, (meta-)data collection and data analysis – in public education. The research group raises concerns about Google's potential to extract information (from metadata alone) about research and development trends through its strategic position:

Even if we have brilliant minds at the 'ends' (the users of the system), could not highly relevant innovations be anticipated and managed by the actor that occupies a privileged position within this information ecosystem? For example: what is the interaction network of an important group working on nanotechnology? What are they reading? What are the search terms they use? Which conferences do they attend? What sites are they visiting, what news are they reading? Thanks to big data and data mining all this information can be obtained with full respect for individual rights. Could a group, in possession of this information, gain cognitive advantages in a scenario of competition for technological innovation? (Parra et al. 2018: 86; transl. DeepL)

Alongside the intensification of surveillance capitalism, the researchers highlight further implications of this intense use of big tech services in public institutions. Beyond data privacy issues, these include the reduction of personal autonomy when users have no real choice about whether to use the products or not, the loss of HE institutions' sociotechnical independence and the long-term defunding of HE's capability to independently develop, innovate or maintain public IT services and infrastructures (Amiel et al. 2021).

Practices, appropriations, social relations

The same handful of large corporations increasingly mediate young people's educational experiences in schools in Latin America. A 2019 survey indicated that 65% of the school students in Brazil who used the Internet had an Instagram profile, 85% had a WhatsApp account, and of these, 61% used WhatsApp for school work (CETIC 2019, cited in Gonsales and Amiel 2020: 4). Teachers in Mexico and Argentina communicate intensively in WhatsApp group chats, with new 'popular' leaders emerging through their authority in a specific kind of chat which emphasises socio-emotional well-being (Dussel and Fuentes Cardona 2021). Over the past 15 years, several national one-to-one initiatives have distributed tablets or computers to students, e.g. the Conectar Igualdad Programme in Argentina, Mi Compu in Ecuador, One Laptop Per Child in Peru and Paraguay, Plan Ceibal in Uruguay. These initiatives aim to increase access to technology in order to transform teaching and learning practices and combat digital inequality.

In this context, scholars have taken up inspirations from, e.g., science and technology studies, cultural studies, feminist technoscience, historical research, media theory and decolonial perspectives to trace the complex, fragile, ever-shifting constellation of practices that unfold in schools today. 'Critical cybercultural studies' in the field of education aim to shift the terrain of debate away from the narrow issue of access and towards critical analysis of the situated entanglement of technologies, culture and knowledge (Rueda-Ortiz and Uribe-Zapata 2022). Benitez Larghi (2020), for instance, critiques the reductionism of large-scale studies which only evaluate the one-to-one programmes against their initial policy objectives, rather than exploring which, if any, pedagogical transformations have been set in motion. Where these evaluation studies have found scarce evidence for a positive impact on pedagogical practice, Benitez Larghi suggests they have been looking in the wrong place. By exploring the heterogeneous experiences in Argentina through the lens of a critical theory of technology, combined with an anthropological approach to (creative media) appropriation, he illustrates how students' learning practices *at home* were transformed after they had received their own netbooks. A set of novel epistemic practices emerged in new spaces and at new times which complemented rather than revolutionised learning practices in school (see also Benitez Larghi 2018).

Weaving together German media theory with media history and anthropology, Dussel and Trujillo Reyes (2018) understand schools as fragile social worlds, whose technological assemblages produce inscriptions of culture and organise human experience in particular ways. This perspective contests the view – still prevalent in much international research on education and technology, including critical research – that technologies are external objects that 'arrive' at schools. Instead, school itself is seen as a dense and complex 'sociotechnical environment populated by artefacts (books, plates, notebooks and folders, maps, portraits, scripts) that materialise particular ways of recording and organising human knowledge and memory' and that carry with them particular histories of power (Dussel and Trujillo Reyes 2018: 148, transl. DeepL). These media infrastructures are, however, also transformed by each encounter in the present, depending on how they are inscribed into new heterogeneous networks. Combining this theoretical perspective with ethnography, the authors observe how, for instance, teaching is transformed when students orient to individual devices, and the teachers' coordination of bodies, spaces and artefacts around a shared task becomes less central. They observe how learning changes as it aligns with the speed of digital culture; how 'research' shifts to 'search', and how students' present themselves as they produce videos or presentations. The paradox for the authors is that digital media seem

to support 'modern' pedagogies but are actually reasserting very 'old' pedagogical ideas: Across different schools in Mexico and Argentina, the technological set-up looks like it supports constructivist pedagogies and creative, communicative, collaborative or independent learning. Yet instead, by placing information (data) at the heart of teaching and learning practices, an eminently traditional goal of classic education – students achieving mastery over information that has been provided by epistemic authorities – is reasserted.

This kind of research provides a response to the calls for more in-depth investigation of how media technologies are being taken up in practice. With qualitative research methods, these studies open up educational practices for analysis which goes beyond questions of successful implementation, learning loss or the risks-and-benefits of technologies. Instead, they develop insights from a theoretical perspective that 'technology is imbricated in society to the point that it is no longer possible to think of them as two spheres that exist independently' (Rueda Ortiz and Franco-Avellaneda 2018: 17, transl. DeepL).

Open education, hacker ethics, counter-hegemony

Against the background of surveillance capitalism and policies which continue to prioritise 'access' within a rhetoric of development and modernisation, open education can play a key role in fostering a culture of sharing, decentralising epistemic authority, increasing transparency and upholding digital rights, autonomy and institutional independence (Gonsales 2016; Gonsales and Amiel 2020). Open educational resources (OER) have been presented as a self-evident horizon of possibility for post-pandemic educational practice in Latin America (Lugo and Loíacono 2020). Edit-a-thons in Argentina in which people with little or no experience of editing Wikipedia pages come together with Wikipedians have foregrounded indigenous knowledges, people and history, and addressed gender bias in Wikipedia entries (Aimar et al. 2021). From the perspective of knowledge as a common good, 'citizen labs' including FabLabs, hackerspaces and living labs have been proposed as spaces which enable collaboration among diverse people (Ricaurte Quijano 2018). If knowledge production is collective and should be open, citizen labs that bring the academy together with citizens promise to break open the silos in which academic knowledge is created and disseminated (see also Vila-Viñas and Barandiaran 2015).

An orientation to open education and hacker ethics was also visible among participants from Latin America in workshops on data literacy (Raffaghelli 2022). Bringing together work on data literacy, data justice and social justice, Raffaghelli aimed to understand the degrees of freedom perceived by educators when they were presented with instances of data injustice. Drawing on educators' engagement with the Mothers of Plaza de Mayo, with Google Lens' misappropriation of a resistance t-shirt, and with learning analytics' neo-colonialist extraction of student data, Raffaghelli reflects on the possibilities of moving data literacy away from the technocratic skills required by future data scientists, which simply reproduce structural inequalities, and towards critical reflections and community interventions. If not counter-hegemonic themselves, these spaces for reflection are at least, as she writes, 'engines of counter-hegemony'. In spaces beyond formal education, community-based projects have contested state policies on education and technology. Rueda Ortiz and Franco-Avellaneda (2018) contrast ICT policies for education in Colombia with grassroots practices of resistance and transformation. Where policies imagine technology as politically neutral and beneficial to (economic and human) development, grassroots projects *delocalize* practices,

reaching out to diverse experiences and knowledges across localities. These projects politicise technology by inquiring into the people and decisions behind specific technologies, policies and laws on technology.

Each of these examples of open knowledge practices, hacker ethics or counter-hegemonic projects of resistance and social transformation imagine futures otherwise in educational spaces. They exude, in our reading, a hopefulness that 'we' (educators, policy-makers, activists, open source developers, scholars, etc.) can design, develop and institute practices – perhaps large-scale like Argentina's state-produced GNU/Linux operating system 'Huayra'; perhaps small-scale in community projects, workshops and libraries – that will fundamentally transform the educational landscape, reshape power relations, and enable alternatives to surveillance capitalism, reductionist policies or technocratic practices.

Citing as political practice

The array of critical journals in Spanish and Portuguese which are fully open access (and without article processing charges) is phenomenal. As the references to this editorial attest, Latin American journals on digital culture or society regularly include research on education. Also, several educational journals include critical scholarship that fully evades questions of 'what works' to instead interrogate assumptions about which kinds of technologies and which kinds of practices appear 'natural' or desirable in educational settings. Many journal websites present article titles and abstracts in Spanish, Portuguese and English, making it easy to scan current work or search for specific topics.

If citing is a political practice, then institutions also need to reflect on what their everyday practices enable or block. The institutions of academic publishing in English-language journals based in the UK or USA need to allow authors more space for references. They (we) need to encourage reviewers to comment on the linguistic, gender, racialised biases in manuscripts. And editors need to read more broadly to invite a more diverse array of scholars to submit manuscripts.

'De-colonising the curriculum' has rightly become an aim in many university departments and the ideas contained in this article have connections to this initiative. By making the effort to hear voices which are under-cited and generally under-represented in academic publication we can take steps towards greater access and equity in research. Similarly, there is scope for significantly enhancing research and teaching by paying attention to the increasing numbers of articles which are co-authored across linguistic borders, bringing together perspectives arising from academic mobility between different parts of the world, in person, or, post-Covid, through remote collaboration.

However, when it comes to the curriculum, the caveat is to do more than simply adjust reading lists. Reading should be accompanied by teaching and learning about context, nuance and theoretical range in work which does not originate from the usual, over-represented sources. This in itself could become a focus of close reading activities across subject areas in various disciplines. Learning, media and technology, and in particular the critical attention to these areas represented in this journal, mirror life in the digital age. Platformisation, datafication and AI in education may have global and pan-cultural similarities at scale but take on different meanings as practices play out in different contexts.

We need to pay attention to this in teaching and research to avoid 'de-colonisation' becoming a tick-box activity.

A further caveat concerns the power of translation systems based on artificial neural networks. They offer powerful tools to support readers to engage with research worldwide. Yet the broad critique of the power dynamics of 'AI' is also relevant for these systems: Human workers are exploited to do the labour underpinning AI (e.g. data labelling); authority is shifting from humans to machines; the computing resources for training (language) models cause immense environmental impact (see, e.g. Crawford 2021, Williams et al. 2022).

In this editorial, we aimed to reflect on our recent explorations with machine translations, adding our voices to the critical conversation on citational practices. We hope the references to this editorial lead readers of *Learning, Media and Technology* to a fascinating set of journals, which may lie outwith their usual reading practices. We envisage critical research on the educational implications of the power of AI-based translations. And we invite submissions from scholars around the world who take this kind of critical, contextualised approach to education and digital media, culture and technology.

References

- Aimar, L. A., Pagola, L. I., & Zanotti, A. (2021). Editaiones para el abordaje de sesgos en Wikipedia en español: Análisis de tres experiencias de edición colectiva y simultánea sobre la enciclopedia libre. <https://ri.conicet.gov.ar/handle/11336/153391>.
- Amiel, T., Pezzo, T., Cruz, L. R. da, & Oliveira, L. A. (2021). Os modos de adesão e a abrangência do capitalismo de vigilância na educação brasileira. *Perspectiva*, 39(3), Article 3. <https://doi.org/10.5007/2175-795X.2021.e80582>.
- Benítez Larghi, S. (2018). La experiencia juvenil del tiempo y el espacio a partir de la apropiación de las Tecnologías de Información y Comunicación en La Plata, Argentina. *Andamios*, 15(36), 343–368. <https://doi.org/10.29092/uacm.v15i36.613>.
- Benítez Larghi, S. (2020). Desafíos de la inclusión digital en Argentina. Una mirada sobre el Programa Conectar Igualdad. *Revista de Ciencias Sociales*, 33(46), 131–154. <https://doi.org/10.26489/rvs.v33i46.7>.
- Caplar, N., Tacchella, S., & Birrer, S. (2017). Quantitative Evaluation of Gender Bias in Astronomical Publications from Citation Counts. *Nature Astronomy* 1 (6), 1–5. <https://doi.org/10.1038/s41550-017-0141>.
- CGI (GT plataformas educacionais) (2022). *Educação em um cenário de plataformação e de economia dos dados: problemas e conceitos (Education in a Scenario of Platformization and Data Economy: Problems and Concepts)*. São Paulo, Brazil: Brazilian Internet Management Committee. https://cqi.br/media/docs/publicacoes/1/20220929112852/educacao_em_um_cenario_de_plataformiza%C3%A7ao_e_de_economia_de_dados_problemas_e_conceitos.pdf
- Crawford, K. (2021). *Atlas of AI*. Yale University Press.

Cruz, L. R. da.; Saraiva, F. O. de, Amiel, T. (2019). Coletando dados sobre o Capitalismo de Vigilância nas instituições públicas do ensino superior do Brasil. *Simpósio Internacional Lavits*, 6, 1-18. <https://bit.ly/3kC9HnH>.

Dion, M. L., Sumner, J.L., & Mitchell, S.M. (2018). Gendered Citation Patterns across Political Science and Social Science Methodology Fields. *Political Analysis* 26(3), 312–27. <https://doi.org/10.1017/pan.2018.12>.

Dussel, I. (2020). La escuela en la pandemia. Reflexiones sobre lo escolar en tiempos dislocados. *Práxis Educativa*, 15, 1–16. <https://doi.org/10.5212/PraxEduc.v.15.16482.090>.

Dussel, I., & Fuentes Cardona, M. G. (2021). Los Grupos de WhatsApp y la construcción de nuevas ciudadanía en las escuelas. *Educação & Sociedade*, 42. <https://doi.org/10.1590/ES.251642>.

Dussel, I., & Trujillo Reyes, B. F. (2018). ¿Nuevas formas de enseñar y aprender? Las posibilidades en conflicto de las tecnologías digitales en la escuela. *Perfiles Educativos*, 40 (Especial). <https://doi.org/10.22201/iisue.24486167e.2018.Especial.59182>.

Gonsales, P. (2018). Recursos educacionais abertos (REA) e novas práticas sociais | *Revista Eletrônica de Comunicação, Informação & Inovação em Saúde*. <https://www.reciis.icict.fiocruz.br/index.php/reciis/article/view/1078>.

Gonsales, P., & Amiel, T. (2020). Inteligencia Artificial, Educación e Infancia. La educación en la contemporaneidad: entre datos y derechos. *Panorama Sectorial de Internet*, 12(3), 1-24. http://forocilac.org/wp-content/uploads/2021/03/3-panorama_ESP_oct2020-WEB.pdf.

Lugo, M. T., & Loíacono, F. (2020). Planificar la educación en la pospandemia: de la educación remota de emergencia a los modelos híbridos. In: Garcia, J. M. & Cabeza, S. G. (Eds.), *Las Tecnologías en (y para) la Educación*. Montevideo: FLACSO, 15-44.

Magalhães, A. M. (2021). Caminhos e dilemas de educação superior na era do digital. *Educação & Sociedade*, 42. <https://doi.org/10.1590/ES.249245>.

Parra, H., Cruz, L., Amiel, T., & Machado, J. (2018). Infraestructuras, economía e política informacional: O caso do google suite for education. *Mediações - Revista de Ciências Sociais*, 63–99. <https://doi.org/10.5433/2176-6665.2018v23n1p63>.

Raffaghelli, J. E. (2022). Alfabetización en datos y justicia social ¿Un oxímoron? *Respuestas desde la contra-hegemonía*. 18. <https://dialnet.unirioja.es/servlet/articulo?codigo=8361359>

Ricaurte Quijano, P., & Quijano, P. R. (2018). Laboratorios ciudadanos y humanidades digitales. *Digital Humanities Quarterly*, 12(1). <http://www.digitalhumanities.org/dhq/vol/12/1/000352/000352.html>

Rueda-Ortiz, R., & Franco-Avellaneda, M. (2018). Políticas educativas de TIC en Colombia: Entre la inclusión digital y formas de resistencia-transformación social. *Pedagogía y Saberes*, 48, 9–25. <https://doi.org/10.17227/pys.num48-7370>.

Rueda-Ortiz, R., & Uribe-Zapata, A. (2022). Cibercultura y educación en Latinoamérica. *Folios*, 56, 205-218. <https://doi.org/10.17227/folios.56-17013>.

Santos, L. G. dos. (2003). A informação após a virada cibernética. In: Santos, L. G. dos et al. *Revolução tecnológica, internet e socialismo*. São Paulo: Fundação Perseu Abramo, 9-33.

Saura, G., & Bolivar, A. (2019). Sujeto Académico Neoliberal: Cuantificado, Digitalizado y Bibliometrificado (Neoliberal Academic Subject: Quantified, Digitised and Bibliometrified). *REICE. Revista Iberoamericana Sobre Calidad, Eficacia y Cambio en Educación*, 17(4), 9. <https://doi.org/10.15366/reice2019.17.4.001>.

Saura, G., Díez Gutiérrez, E. J., & Rivera Vargas, P. (2021). Innovación Tecno-Educativa “Google”. Plataformas Digitales, Datos y Formación Docente. *REICE. Revista Iberoamericana Sobre Calidad, Eficacia Y Cambio En Educación*, 19(4). <https://doi.org/10.15366/reice2021.19.4.007>.

Trepte, S., & Loths, L. (2020). National and gender diversity in communication: A content analysis of six journals between 2006 and 2016. *Annals of the International Communication Association*, 44(4), 289-311. <https://doi.org/10.1080/23808985.2020.1804434>.

Vila-Viñas, D., & Barandiaran, X. E. (2015). *Buen Conocer- FLOK Society: Modelos sostenibles y políticas públicas para una economía social del conocimiento común y abierto en el Ecuador*. Asociación aLabs.

Williams, A., Milagros M., & Gebru, T. (2022). The Exploited Labor Behind Artificial Intelligence. October 13. <https://www.noemamag.com/the-exploited-labor-behind-artificial-intelligence>.