

ASCILITE 2024

Navigating the Terrain:

Emerging Frontiers in Learning Spaces, Pedagogies, and Technologies

The entanglement of learning spaces, pedagogies, and technologies with the global polycrisis: A manifesto for higher education for good

Laura Czerniewicz

University of Cape Town

This concise paper emphasises and amplifies the themes of this year's ASCILITE Conference by elaborating on their importance contributing to higher education's vital agenda of advancing human rights, democracy, justice and sustainability. We address the conference themes — learning spaces, pedagogies, and technologies— from a macro perspective, considering a range of urgent global issues with which higher education is entangled. These issues shape the possibilities and risks of higher education everywhere, as well as technology-enhanced learning in particular. In the paper, we consider a range of challenges posed by the current global polycrisis, present a framework in the form of a proposed manifesto for confronting these challenges within higher education, and offer a set of questions for collective consideration in order to strengthen the higher education community's ability to cope with a threatening and unstable future.

Keywords: higher education, polycrisis, manifesto, future

In this paper, we consider a range of challenges posed by the current global polycrisis, present a framework for confronting these challenges within higher education, and offer a set of questions for collective consideration in order to strengthen the higher education community's ability to cope with a threatening and unstable future.

Global polycrisis

Society globally is suffering a concatenation of crises —a *polycrisis*— where each crisis impacts on and magnifies the others. These crises, all of which are relevant to higher education, include: inequality; the climate crisis and ecological degradation; a human rights crisis; debt and cost of living crises; as well as conflict, wars, rising autocracy and involuntary migration. We understand that these global crises are experienced locally.

The crisis of inequality is both intersectional and horizontal; it is the thread that runs through all other crises. While there are stark disparities between the Global South and North, no continent is immune to extreme inequality. Since 2020, two-thirds of new wealth has gone to the top 1%, tied up with corporate and monopoly power which evidence shows to be “an inequality-generating machine” (Oxfam, 2024).

The climate crisis pervades everything. We know that it is accelerating, that 2023 exceeded 1.5 degrees Celsius of warming on average for the first time, a key limit in the Paris Climate Agreement. It is tragically the case that greenhouse gas emissions from high-emitting countries have caused substantial economic losses in low-income, tropical parts of the world, and economic gains in high-income, midlatitude regions (Callahan & Mankin, 2022). Globally, ten percent of the world's population owns 76% of the wealth, takes in 52% of incomes, and accounts for 48% of carbon emissions (Stanley, 2022). The growing interest in the impact of technology on greenhouse gas emissions is to be welcomed (Digitalization for Sustainability, 2022; Sattiraju, 2020). While some attention has been paid to the carbon footprint of higher education (RAT, 2022), there is a need for a much more concerted focus on higher education's role in this regard, especially with the post pandemic rise of blended and technology enhanced learning, and the infiltration of big tech into the sector.

ASCILITE 2024

Navigating the Terrain:

Emerging Frontiers in Learning Spaces, Pedagogies, and Technologies

In a year in which half the world's population is voting in national elections in 60 countries, many argue that the future of democracy itself is at risk. The climate of political uncertainty is exacerbated by a documented rise in authoritarianism, autocratisation, and polarisation (Boese et al. 2022). The role of higher education as a knowledge creation space, influencing society, has never been more important.

Digital technology is also entangled in the global polycrisis. The 2021 Nobel Peace Prize laureate, Maria Ressa, describes big tech as “connective tissue”, “at the cellular level” of society (Ressa, 2024). Despite continual advancements, the early optimism of an ‘open digital world’ to empower all humanity and to foster collaboration, compassion and creativity has not been realised. Almost 80% of the world's population own a cell phone, making this the most ubiquitous digital device globally (ITU, 2023). This statistic, however, masks the ways that access, ownership, use, skills, costs and benefits are skewed by wealth and urban/rural divides in every country (ITU, 2023). Digital divides for students are ameliorated to some extent by on-campus connectivity (as was vividly illustrated during the Covid pandemic). At the same time, cell phones turn everyone into data points – feeding into the structures of surveillance capitalism (Zuboff, 2019). Digital IDs, being rolled out everywhere, have a similar effect. Furthermore, in many countries the digital world is controlled by the state – which can turn it off. In 2022 there were 187 shutdowns across 35 countries (Rosson et al., 2023). Within and across countries, the digital world is overwhelmingly in the hands of proprietary platforms.

Challenges in higher education

The steady erosion of public higher education has been well documented, with widespread agreement that underfunding and neoliberalism are at the root. Underfunding in most places is characterised by staffing cuts, the growth of an academic precariat, rising costs for students, widespread resource restrictions, loss of programmes (particularly liberal arts, social sciences, humanities), and more. Financial hardship often leads to exclusion, especially affecting marginalised students and communities. The culture of the market is embedded in the sector (to a greater or lesser extent) across the world through privatisation of practice, discourse and culture. Boosted by the pandemic, tech companies infiltrated the tertiary education sector with attractive offers that struggling institutions and national education departments found difficult to refuse. The costs have included a loss of autonomy and control, opaque data flows, threats to academic freedom (Fiebig et al., 2023), potential privacy violations, and the ability to sell data to third party providers. In addition, ‘open’ movements across higher education (e.g., open science, open access, open education) are increasingly constrained by closed, opaque infrastructures that limit both access and possibilities.

The current mainstreaming of AI into higher education requires consistent, critical attention. Despite effective application in some areas, multiple forms of human harm are caused by the creation and use of AI systems, the opacity of which makes informed decision-making impossible. At one extreme, we cite growing evidence of the contribution of AI to worsening the climate crisis (Luccioni et al., 2023) and the exploited labour used in the creation of AI models and content (Geburu, 2023; Okolo, 2023). AI reflects the world we are in, and even then, the reflection is partial and “skews hegemonic” (Bender, 2023). No-one is immune from being “excoded” (harmed by algorithms) and those already marginalised are at greater risk (Buolamwini, 2023).

Manifesto for higher education for good

Global challenges and those in the higher education sector refract into teaching spaces. Just as technology and pedagogy is entangled (Fawns, 2022) so is pedagogy invisibly entangled with the challenges of the sector. And classrooms are also the sites and manifestation of broader social issues with which educators must inevitably engage.

At no other moment were the intersections of macro, meso and micro, more stark than during the lockdowns of the Covid-19 pandemic. As the worst moments passed, educators globally grappled with what better futures could look like, at the level of principles. From the work of the 70+ authors who contributed to the

ASCILITE 2024

Navigating the Terrain:

Emerging Frontiers in Learning Spaces, Pedagogies, and Technologies

book *Higher Education for Good: Teaching and Learning Futures* (Czerniewicz and Cronin, 2023) emerged a 'manifesto for higher education for good', complemented by a wider scholarship, focused on shaping something better than the desperate state of higher education in so many places.

The manifesto for higher education for good has five tenets, each of which is detailed below. Each tenet forms an overarching objective which needs detailed attention in order to become actions in particular contexts. The questions offered under each tenet are a contribution to emerging research agendas for higher education futures, particularly with respect to technology enhanced learning (TEL):

1) Name and analyse the troubles of higher education

There is no escaping the need to name and confront the challenges before us. As educators, we can map out the complex tensions and contradictions and what they mean for higher education. Mindful of the underfunding and overworking that characterises higher education, we ask how it can be possible to undertake this work, and pose the following questions:

- How can we come to understand the ways that wider global crises –inequality, human rights, climate, conflict, and polarisation– emerge in and impact higher education?
- We all recognise the need for deep research by and across the sector. How can cross-sectoral research agendas and projects be developed and continued, underpinned by equity concerns?
- We believe, as we elaborate later, that we need more collaboration across higher education. How can we as a TEL community make the necessary collaborative projects happen, and urgently?

2) Challenge assumptions and resist hegemonies

After naming and analysing problems, actively challenging and resisting that which is untrue and/or unjust is essential in any movement for social change. Many critical approaches to digital education/TEL challenge the dominant discourses of individualism, neoliberalism, and big tech. This may take the form of pushing back against dominant Silicon Valley narratives of education; challenging platformisation across education; challenging academic metrics systems; refusing, when possible, to use proprietary platforms and extractive tools; and resisting knowledge and cultural hegemonies. A commitment to social and epistemic justice is vital. For us, this raises the following questions:

- How can we take the opportunities, wherever possible, not only to advocate for the positive aspects of digital technologies and TEL approaches, but also to effectively challenge and resist dominant and harmful discourses, models, tools and practices?
- How can we better build requisite critical digital and data literacies to know the difference between choosing to contribute openly online and being exploited when using online platforms, particularly AI-based systems?
- How can we in the TEL community consistently pay attention to our own terms of engagement?

3) Make claims for just, humane, and globally sustainable higher education

Making legitimate and explicit claims to better futures is necessary, both to fuel resistance to dominant narratives and to inspire the production of new visions. Individually and collectively, we must make claims for higher education that recognise, value, and serve all, particularly marginalised individuals and communities, and all those hurt by increasingly iniquitous systems and structures. Collectively, *Higher Education for Good* authors make claims for higher education that is just, humane, and globally sustainable. We argue that the higher education community has a particular responsibility to contribute in whatever way possible to address climate, social, and algorithmic injustice. We pose the following questions:

- How can digital/TEL educators work to change the dominant values and models of AI?

ASCILITE 2024

Navigating the Terrain:

Emerging Frontiers in Learning Spaces, Pedagogies, and Technologies

- Do digital/TEL educators have a particular responsibility to ensure not simply data protection but data justice – not just individual protection and privacy as per law, but a need for data also to be regulated in the collective interest or for the common good??
- What is the role of digital/TEL educators in raising the environmental and ecological issues of digital-related work (including AI)?

4) Courageously imagine and share fresh possibilities for higher education

Finding the space, will and support to be imaginative can be hard. Yet there are many ways to imagine and share fresh possibilities, i.e., to think, collaborate and communicate differently, and to cross borders of discipline, sector, geography, and more. These include: using speculative approaches (asking “what if” instead of “what is”); using alternative genres (e.g., storytelling, dialogue, poetry, artwork); and creating opportunities for different generations to work together, blending diverse motivations, skills, experiences, and outlooks, but sharing a sense of urgency and purpose. These are tried and true approaches used in other social movements globally, including climate justice, peace, and human rights movements. This prompts several questions:

- What methods are we in the TEL community using to communicate and inspire equitable change?
- How might we use more imaginative, alternative, border-crossing approaches?
- How can we create spaces, freedom and support for imagining alternatives?

5) Make positive changes, here and now

Challenges are to be expected, not only in terms of opposition but also in terms of collaboration. All effective social movements and communities for change contend with a plurality of voices, shifting coalitions, and conflict, even when there may be agreement on an overall goal. A range of approaches are needed, as the challenges faced within higher education are widely shared.

- How do we create space and time for collective work and building power?
- Finally, what changes can we make (or commit to) right now, as a group of conference participants, with minimal resources?

Looking ahead

Without a doubt, our challenges are great: a global polycrisis, accelerated platformisation and datafication, and the erosion of higher education. Critical thinking and collective action are necessary. These begin in the learning spaces that are at the heart of this conference. The pedagogies discussed in depth here create the literacies needed to interrogate the manufactured ‘realities’ sold to students; all being made worse by sophisticated AI.

Posing and exploring urgent, deep, and difficult questions is part of strengthening our ability to cope with an unstable and threatening future. Part of the agenda of change, is the articulation of questions, in effect, the outlining of an agenda for research and action. These questions are intended to help frame a shared language which may help academics, educators and professionals in diverse contexts work together, in communities, diverse partnerships, and coalitions.

Given that higher education both reflects and shapes broader social issues, and given the global polycrisis, we also argue that working with broader social movements offers a way forward. Also, there is much to be learnt from movements for social change, historical and current, which remind us that a single action may not feel like much, but collectively and in coalition they add up, and can effect long-term and structural change.

ASCILITE 2024

Navigating the Terrain:

Emerging Frontiers in Learning Spaces, Pedagogies, and Technologies

The challenges we face are much bigger and scarier than the differences between us. Surely we can commit to what Cynthia Cockburn (1998) calls “careful and caring struggle in a well-lit space” (p. 11). It is not easy, and it will be imperfect. It requires courage and trust. It may not be the future we had originally imagined. But it will be the future we make, all of us here, together with others with shared visions and values.

References

- Bender, E. M. (2023, April 13). Chat GPT is not intelligent. *Tech Won't Save Us* [podcast]. https://techwontsave.us/episode/163_chatgpt_is_not_intelligent_w_emily_m_bender
- Boese, V. A., Lundstedt, M., Morrison, K., Sato, Y., & Lindberg, S. I. (2022). State of the world 2021: Autocratization changing its nature? *Democratization*, 29(6), 983–1013. <https://doi.org/10.1080/13510347.2022.2069751>.
- Buolamwini, J. (2023). *Unmasking AI*. Penguin Random House.
- Callahan, C. W., & Mankin, J. S. (2022). National attribution of historical climate damages, *Climatic Change*, 172((40). <https://doi.org/10.1007/s10584-022-03387-y>
- Cockburn, C. (1998). *The space between us: Negotiating gender and national identities in conflict*. Zed Books.
- Czerniewicz, L and Cronin, C. (Eds) (2023). *Higher Education for Good: Teaching and Learning Futures*. Open Book Publishers. <https://doi.org/10.11647/OBP.0363>
- DeRosa, R (2023) Writing from the wreckage: Austerity and the public university. In L. Czerniewicz & C. Cronin (Eds). *Higher Education for Good: Teaching and Learning Futures*. Open Book Publishers. <https://doi.org/10.11647/OBP.0363>
- Digitalization for Sustainability. (2022). Digital reset: Redirecting technologies for the deep sustainability transformation. TU Berlin. <https://doi.org/10.14279/depositonce-16187.2>
- Fawns, T. An Entangled Pedagogy: Looking Beyond the Pedagogy—Technology Dichotomy. *Postdigit Sci Educ* 4, 711–728 (2022). <https://doi.org/10.1007/s42438-022-00302-7>
- Fiebig, T., Gürses, S., Gañán, C., Kotkamp, E., Kuipers, F., Lindorfer, M., Prisse, M., & Sari, T. (2023). Heads in the clouds? Measuring universities’ migration to public clouds: Implications for privacy and academic freedom, *Proceedings on Privacy Enhancing Technologies*, 2023(2), pp. 117–150. <https://doi.org/10.56553/popets-2023-0044>
- Gebru, T. (2023, November 13). Timnit Gebru says harmful AI systems need to be stopped. *The Economist*. <https://www.economist.com/the-world-ahead/2023/11/13/timnit-gebru-says-harmful-ai-systems-need-to-be-stopped>
- International Telecommunications Union (ITU). (2023). More than three-quarters of the world’s population own a mobile phone. <https://www.itu.int/itu-d/reports/statistics/2023/10/10/ff23-mobile-phone-ownership/>
- Luccioni, A. S., Jernite, Y., & Strubell, E. (2023). Power hungry processing: Watts driving the cost of AI deployment? *arXiv*. <https://doi.org/10.48550/arXiv.2311.16863>
- Okolo, C. T. (2023, November 14). Addressing global inequality in AI development. In: Lindgren, S. (Ed.) *Critical Studies of Artificial Intelligence*. Edward Elgar. <https://doi.org/10.4337/9781803928562.00040>
- Oxfam. (2024, January 15). Wealth of five richest men doubles since 2020 as five billion people made poorer in “decade of division”. <https://www.oxfam.org/en/press-releases/wealth-five-richest-men-doubles-2020-five-billion-people-made-poorer-decade-division>
- Ressa, M. (2024). Democracy faces the abyss in 2024. *The Gathering 2024*. Daily Maverick. <https://app.frame.io/reviews/e27d8ae9-0e8e-4404-b8c3-3c36bbaca227/bf610e2d-85aa-4a48-b863-59aca68954df> [video].
- Rosson, Z., Anthonio, F., & Tackett, C. (2023, February). Weapons of control, shields of impunity: Internet shutdowns in 2022. *Access Now*. <https://www.accessnow.org/wp-content/uploads/2023/05/2022-KIO-Report-final.pdf>
- Royal Anniversary Trust (RAT). (2022). Accelerating the UK tertiary sector towards net zero. <https://www.queensanniversaryprizes.org.uk/wp-content/uploads/2023/01/Accelerating-towards-Net-Zero.pdf>

ASCILITE 2024

Navigating the Terrain:

Emerging Frontiers in Learning Spaces, Pedagogies, and Technologies

Sattiraju, N. (2020, April 2). The secret cost of Google's data centers: Billions of gallons of water to cool servers. *Time*. <https://time.com/5814276/google-data-centers-water/>

Stanley, A. (2022, March). Global inequalities. International Monetary Fund, Finance and Development. <https://www.imf.org/en/Publications/fandd/issues/2022/03/Global-inequalities-Stanley>

Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. Profile Books.

Czerniewicz, L. (2024). The entanglement of learning spaces, pedagogies, and technologies with the global polycrisis: A manifesto for higher education for good. In Cochrane, T., Narayan, V., Bone, E., Deneen, C., Saligari, M., Tregloan, K., Vanderburg, R. (Eds.), *Navigating the Terrain: Emerging frontiers in learning spaces, pedagogies, and technologies*. Proceedings ASCILITE 2024. Melbourne (pp. 386-391). <https://doi.org/10.14742/apubs.2024.1129>

Note: All published papers are refereed, having undergone a double-blind peer-review process. The author(s) assign a Creative Commons by attribution license enabling others to distribute, remix, tweak, and build upon their work, even commercially, as long as credit is given to the author(s) for the original creation.

© Czerniewicz, L. 2024