



Hijacking the Digital Backlash in Education

Ingrid Forsler¹ · Sarah Hayes² · Petar Jandrić³ · Felicitas Macgilchrist⁴ · Neil Selwyn⁵ · Saga Hansén¹

Received: 20 October 2025 / Revised: 23 October 2025 / Accepted: 25 October 2025
© The Author(s) 2025

Keywords Digital backlash · Education · Education policy · Screen time · Agency · Postdigital

Introduction

This paper is a continuation of a panel discussion ‘The Digital Backlash in Education: Critical and Postdigital Perspectives’¹ where Sarah Hayes, Petar Jandrić, Felicitas Macgilchrist, and Neil Selwyn reflected on the current political pushback

¹ ‘The Digital Backlash in Education: Critical and Postdigital Perspectives’ panel discussion was held at Södertörn University, Stockholm, on 6 February 2025. An audio recording of the session can be found at <https://shows.acast.com/mkv-podden/episodes/live-podd-the-digital-backlash-in-education>. Accessed 17 October 2025.

✉ Ingrid Forsler
ingrid.forsler@sh.se

Sarah Hayes
s.hayes@bathspa.ac.uk

Petar Jandrić
petar.jandric@tvz.hr

Felicitas Macgilchrist
felicitas.macgilchrist@uni-oldenburg.de

Neil Selwyn
neil.selwyn@monash.edu

Saga Hansén
saga.hansen@sh.se

¹ Södertörn University, Stockholm, Sweden

² Bath Spa University, Bath, United Kingdom

³ Zagreb University of Applied Science, Zagreb, Croatia

⁴ Carl von Ossietzky University of Oldenburg, Oldenburg, Germany

⁵ Monash University, Melbourne, Australia

against digital technologies in schools. The panel was moderated by Ingrid Forsler and Saga Hansén, who also initiated this conversation to follow up on some of the themes raised in the discussion.

The panelists emphasized that although a rapid de-digitalization of schools might be insufficiently considered and possibly counterproductive, we do need another kind of digital backlash that considers questions of social justice, inclusion, and the diverse experiences of teachers and learners in different contexts. But what kinds of backlash should we envision and how do we get there? To dig deeper into this question, each speaker was invited to reflect further on the topic through a set of questions, addressing what such an alternative backlash should be *about* as well as *where* and *how* to continue this discussion about what kinds of technologies and education we want for the future.

About the Interlocutors

Ingrid Forsler is an Associate professor in Media and Communication Studies at Södertörn University, Sweden. Her research interests concern imaginaries and future visions related to digital technologies in education. In later years, she has followed the increased public criticism against school digitalization, focusing especially on the influence of popular neuroscience on the digital backlash in the Swedish context.

Sarah Hayes is a Professor of Education at Bath Spa University, UK. Hayes has written extensively on how digitalization reshapes different kinds of knowledge production, focusing on topics such as higher education policy, language, digital inclusion, critical pedagogies, and citizen science. She is an associate editor of *Postdigital Science and Education* and has been very influential in developing the field of postdigital research.

Petar Jandrić is a Professor of Information Science at Zagreb University of Applied Science, Croatia. Jandrić's research interests concern the relations and intersections between critical pedagogy, technology, and society. He is also a key figure in the development of postdigital theory and Editor-in-Chief of the *Postdigital Science and Education* journal, book series, and encyclopedia.

Felicitas Macgilchrist is a Professor of Digital Education and Schooling at Carl von Ossietzky Universität Oldenburg, Germany, and curator of Oldenburg's Re:Lab. Macgilchrist's research explores the nexus of digital culture and schooling, using critical theory, ethnographic, and speculative approaches, with a particular focus on educational technology (edtech). She is an editor of *Learning, Media and Technology* and the Palgrave Studies in Educational Media book series.

Neil Selwyn is a Professor in the School of Education, Culture and Society at Monash University, Australia. Selwyn has spent the last 30 years examining the sociopolitical dimensions of digitalization in schools and higher education, focusing especially on the practical challenges of implementing technology-based education. He also produces and hosts the Education Technology Society podcast.

Saga Hansén is a PhD Student in Media and Communication Studies at Södertörn University, Sweden. She is writing her dissertation on digitalization's impact on educational media production in Estonia and Sweden. Her research interests surround

political, economic, and cultural dimensions of digitalization at the intersection of education and media and cultural production studies.

About the Conversation

The conversation was conducted over email between April and July 2025. The answers were then compiled into one document and shared with all interlocutors for final editing.

What Do We Mean by Digital Backlash in Education?

Ingrid Forsler (IF): Over the past decades, countries worldwide have embraced digitalization as a cornerstone of educational reform and, in prolongation, of social and economic progress. However, concerns are increasingly being raised about the potential negative impacts of excessive screen time on the cognitive abilities and wellbeing of children and young people. Most of this criticism targets the presence of private digital devices in educational settings, particularly mobile phones that have been banned from the classroom in several countries (Selwyn and Aagaard 2021; Grigic Magnusson et al. 2023; Reed and Dunn 2024; Størup and Lieberoth 2023; Wikström et al. 2022), but also digital tools and systems developed for educational purposes. In some national contexts, for example in Sweden, the framing of school digitalization as a ‘blind experiment’ with no proven benefits for learning has already led to significant policy shifts in education and childcare with the aim to reduce the use of digital technologies (Forsler et al. 2024).

This shift in the previously uncontested project of school digitalization can be understood as part of a broader *digital backlash* ‘where norms about digital habits, consumption, and behavior are being called into question’ (Albris et al. 2024:13). While the term backlash might evoke an image of a ‘quick and sudden pushback’, Helles and Lomborg (2024: 27) suggest that we are in fact dealing with a much slower, gradual transformation process of the public discourse. This change can be related not least to the growing awareness of large-scale data misuse and digital surveillance revealed in the mid-2010s. These revelations marked the beginning of a broader erosion of public trust in the major technology companies that ultimately led to a questioning of the role that social media platforms and digital devices play in people’s everyday lives. Such questioning is particularly pronounced in societies with high levels of digital penetration and Internet usage, including the US, Europe, Australia, and the Nordic countries (Helles and Lomborg (2024); Syvertsen and Enli 2020: 1273).

Up until recently, however, initiatives to limit the use of digital technology have mainly taken place among individuals, underpinned by ideologies of self-regulation and personal responsibility (Bagger 2024; Moe and Madsen 2021), and not within organizations or institutions (with the exception of some workplace initiatives) (see e.g., Fast 2021; Guyard and Kaun 2018). The ongoing digital backlash in educational systems worldwide thus marks a historical shift, not only in the digitalization of education, but also in the politics and practices of digital disconnection. Just as

schools previously served as experimental spaces for digitalization, where new technologies were introduced, tested, and integrated into educational practices (Cuban 1986; Good 2020; Watters 2021), they are now becoming testing grounds for de-digitalization politics in a broader reconsideration of the role and impact of digital technology on individuals and societies.

These ongoing efforts to limit digital media use are taking place in an educational landscape that is already deeply digitalized. Schools today operate within complex digital ecosystems that extend beyond the classroom, encompassing administrative platforms, private communication tools, learning management systems, and AI-driven educational technologies (Carvalho and Lamb 2023; Jandrić and Knox 2022; Macgilchrist 2021b; Traxler et al. 2022). In this context, digital tools are not only pedagogical instruments but also integral to organizational routines, communication and established pedagogical practice, which comes with a range of challenges for educators and learners in implementing new de-digitalization guidelines.

In addition to practical challenges, these ongoing politics also raise important questions about the broader forces and ideas underpinning the digital backlash in education. Unlike the more general digital backlash, questions about platform capitalism and the power of global EdTech corporations have so far not been the focus in these debates. When played out in an educational context, the digital backlash can rather be seen as a conservative pushback against progressive pedagogical ideals and a reorientation of learning as a primarily cognitive, rather than social, activity (Forsler and Guyard 2023; Selwyn 2025a). Paradoxically, this ‘back to basics’ approach draws on some of the same arguments as the previous digitalization hype, namely a one-sided focus on learning activities and self-directed learning at the expense of teaching and the role of the teacher (Biesta 2005; Knox et al. 2020), as well as an increasing reliance on ‘scientific evidence’ from fields such as behavioral science, medicine and neuroscience (Decuypere and Hartong 2023; Forsler and Guyard 2020, 2023; Williamson et al. 2023, 2025).

More recently, however, other arguments for a reduction of technology in schools have begun to emerge, at least within the academic debate. These arguments move beyond the potential effects of technology on learning cognitive development and instead approach digital resistance as a way of questioning the assumption that technological development is both inevitable and inherently desirable (Good and Ciccone 2025; Nichols et al. 2025). From this perspective, rethinking and downscaling digital technologies in schools is not only about reducing their use, but also about developing more sustainable and socially equitable ways of engaging with technology and organizing education (Macgilchrist 2021a; Selwyn 2025b). The dialogue that follows seeks to contribute to this growing field of inquiry.

What Should the Backlash Be About?

IF & Saga Hansén (SHN): In your work, you have all addressed different challenges related to the ongoing digitalization of education, from environmental consequences to commercialization, data integrity, and teachers’ working conditions. While these perspectives are well-established and scrutinized within critical

research, they have not been very visible in the public debate about reducing technology in schools. At the same time, as you point out in your blogpost from the symposium Neil, some of the ongoing de-digitalization initiatives have become very popular among parents, teachers, and even students and need to be taken seriously (Selwyn 2025a). So, if we are to hijack the digital backlash, what kind of questions should we focus on and how do we make sure this is done in a way that is meaningful for the people most closely affected by educational politics?

Felicitas Macgilchrist (FM): Perhaps we should use the word ‘forwardlash’ rather than ‘backlash’ if we are attempting to reshape the discourse surrounding contemporary concerns about the role of digital technologies in schools or, more broadly, in young peoples’ lives. The concerns are certainly valid, so we could join others in moving forward with them. Many readers of this article will know someone who has experienced hate online, especially people identifying as women or as trans who are active on social media; large numbers of young people report that they’ve experienced cyberbullying; social media has been associated with real troubles for young people’s mental health; disinformation (‘fake news’) is widespread and feeds right-wing populism; AI-generated images and voices are used to spread rumours and shame people.

Many of these issues are framed in psychological or biomedical terms. I have been in situations (in Germany) where these were the predominant concerns of the participants. However, when other, more sociopolitical or planetary concerns were raised by young people or other participants, this resonated strongly with the policymakers. These are concerns that are less present in the public spaces of digital backlash discourse, e.g., that the planet is burning, democracy is being eroded, fascism and authoritarianism are on the rise, or that young people’s networked lives are being surveilled and exploited for data-generated profit. But when they are mentioned, people (who are not themselves in the alt-right) recall their importance.

Indeed, as the question above suggests, we need to find ways to join struggles to keep attention on these sociopolitical and planetary issues, showing how they are equally as pressing to everyday lives and immediate concerns as the psychological and biomedical pressures that people feel. This is not about awareness-raising; awareness is already widespread. One way to do this is to raise questions. For instance, if people agree that public education is supposed to foster democracy, critical scholars can ask about the outcomes for democracy when schools increase their uptake of ‘generative AI’ technologies. Participants are likely to have experienced ‘AI slop’. Discussions might turn to how chatbots reduce the plurality of political positions articulated in schooling and how that is arguably moving us away from a robust democracy and closer to fascism (McQuillan 2022). Local communities are often also very interested in probing the design and development of technologies used in education. This can mean talking about how politics that they do not like is encoded into the technologies and thus becomes effective in the quotidian practices of everyday schooling. A second way that critical scholarship can move the discussion forward is by opening up ways of imagining other futures.

Petar Jandrić (PJ): I own a small sailboat, just of the right size for an academic – big enough to carry the whole family, reasonably cheap to maintain. However cramped, this space offers so many options for design improvements! I tremendously

enjoy improving my boat, yet I'm also very aware that my boat's interior and exterior inevitably shapes my time spent onboard.

My boat's amenities (lights, running water, fridge, etc.) all run on a 12 V electrical system but my computer, Wi-Fi, and other office equipment, require 220V. While I could refit the electrical system for less than the price of a new mobile phone, I just refuse to do that. Of course, I understand that it is good to have electricity, and that I can always switch it off. However, I also understand that there will always be arguments for turning on my computer 'just this one time'—arguments that I just won't be able to refuse. And now? Sorry, no computer, can't help you. I'll see you in Autumn!

In recent decades, navigation equipment has tremendously improved. For the price of another mobile phone, I could buy several gadgets and know my boat's speed and location, speed and direction of the wind, and so on. While I admit that these gadgets are quite useful, I just do not want them on my vessel. Instead, I use my good old compass and paper charts.

Traditional navigation has many advantages. It is literally indestructible and does not need any support systems – just hands, pencils, rulers, callipers, and eyes. It is dirt cheap. Its usage keeps the sailor alert, thus increasing safety. And it is so educational! At the age of 12, my son Toma is not only a capable sailor; at school, he also excels at geography. Have I mentioned that teaching my son how to sail has been one of the most beautiful father-son experiences?

My boat, I think, is a good example of a meaningful digital backlash. The inability to turn on my computer protects me from social pressures external (boss with an argument that cannot be refused) and internalized (my own feeling of responsibility). Traditional navigation makes my boat simpler and cheaper to maintain, my mind focused, my travels safer; it also does wonders for my relationship with my son and his success at school.

While our spaceship Earth is very different from my sailship *Passat*, I think that the underlying logics can be partially reused. This seems to relate to your current work on future postdigital classrooms, Ingrid (Forsler et al. 2025). Can we perhaps learn something from considering postdigital spaces of education as boats? They all need to be safe, healthy, educational, convivial, happy – and just before sailors and students arrive somewhere, there is always already a new port to reach or a new thing to learn!

Sarah Hayes (SH): There has been a lot of attention on devices like phones in de-digitalization initiatives that call for reduced *screen* time. For balance, I will focus on the *time* element, rather than the *screen* as such.

Firstly, George et al. (2023:157) suggest that 'screen time has become an epidemic among young people, with profound impacts on health, relationships, productivity, and development'. Such challenges are of course not confined only to young people, and the time element relates to us *all*, in our individual contexts and post-digital positionalities (Hayes 2023). Certainly, the opportunity cost, distractions, and health considerations of excessive screen use is one potentially pressing, but also debateable, issue. I am smiling as I write this, given that a pop-up on my screen just urged me to try Adobe's AI Assistant to save myself *time*! Instead, I will *take time* to consider this offer, and think about, not only how my system tracks my screen hours,

and my critical writing about *time*... but also my own choice of whether I want to pause my writing to experiment with a time-saving AI.

Secondly, there are multiple dimensions to time compression which apply also to time using screens. The effect of digital devices like the mobile phone is not simply one of acceleration, therefore a rich analysis of the reciprocal relationship between technological innovation and changing time practices is needed (Wajcman 2008, 2017). We have long heard that automation will afford each of us *more* time, yet we see little evidence. Given a proliferation of GenAI software now designed to carry out pedagogical tasks (Selwyn 2019), we may question which aspects of education we are seeking to save time on, and *why*?

As Keri Facer observes, time does not just ‘exist’ as a neutral container for human life, waiting to be discovered. The time measures we use are a product of people, technologies, and political decisions. They remind us that any measure of *time* is always selected from many possible measures of *change*, some of which may be in conflict’ (Facer 2023: 60). It is not enough to *only* ask how to prevent excessive screen time from damaging adolescent brains and futures (George et al. 2023: 176). Let’s ask too, what young people actually watch and do on screens, in what context, and what critical connections they make, or do not make (Blum-Ross and Livingstone 2018). This cannot be a question that only involves one simple measure of time.

Neil Selwyn (NS): We should be careful not to imagine ourselves as having superior or more sophisticated perspectives on these issues. It can be easy for critical scholars to presume that only *they* can see the true horrors of the digital age, and that it falls to them to reveal these insights to unsuspecting others. So, it is perhaps not a good idea to see ourselves as ‘hijacking’ the digital backlash to fit our own agendas. Instead, we need a bit more humility and willingness to accept what is currently being said about the digital backlash as our starting-point.

I am reminded here of Lee Vinsel’s (2024) plea for critical technology scholars to pay more attention to the ‘pain points’ that people experience from the mundane technologies that shape their everyday lives. Clearly, then, the digital backlash highlights many such education-related ‘pain points’ – concerns over mental health issues, declining student interest, dehumanised classrooms, worse working conditions, data rights, and so on.

Crucially, then, critical scholars can work with people to focus our collective thinking towards the pains rather than the technologies. This hopefully moves us away from never-ending arguments over whether we need to ban phones in schools and, instead, moves everyone on to talking about the root causes of these issues. Clearly, much of the digital backlash is entwined with wider malaise(s) with late capitalism, post-Covid readjustments, and the hollowing-out of public education. I suspect that primarily this is what the digital backlash in education is all about.

In this sense, the role of the critical scholar is not to barge late into the conversation and insist on talking about our own esoteric concerns around environmental or commercialism issues (however important these might be). This is a surefire way to further alienate a public already suspicious of academic ‘experts’. Instead, our role can be to work with people to explore where their concerns are not ‘digital’ issues per se, but symptoms of much broader societal problems. Of course, it

remains important to work through where the digital is *actually* at fault – exacerbating existing trends or perhaps introducing new ones. Yet, throughout these conversations, critical scholars should not be looking to introduce a whole new bunch of concerns. Instead, we can double-down on what people are already telling us is currently wrong with how they are experiencing current digital conditions and begin to collectively work through what the problems are.

How Can We Introduce New Questions into the Debate?

IF & SHN: In contrast to the critical perspectives raised by you and others, the current digital backlash in education is mainly concerned with the development of cognitive abilities, well-being, and health of children and young people. As discussed above, this aligns with the broader processes of *learnification* (Biesta 2005) on the expense of the social and civic mission of schools. What would it take to reclaim a more holistic approach to digital technologies in education, addressing also questions of democracy, civic education and inclusion?

NS: My immediate thought is that we need to reintroduce a lot of *old* questions into the debate! Relating back to my first answer, one important initial question that we really need to get people talking about is exactly *what* social problems are presented as being solved by the current government and industry responses to the digital backlash? More telling, perhaps, is the follow-up question of why these particular responses (such as bans) are being proposed at this particular time by the people that they are?

In addition, I'm really interested in encouraging questions around the effects of the backlash. How are bans, restrictions, and the enforced absence of digital technology actually working out for different people and social groups? Which people and what institutions are being most harmed by these disruptions in technology use? What new problems are being created?

Indeed, there is a clear need to encourage closer scrutiny of the agendas, ideologies, and interests that are being served by the backlash. In whose interests are things like phone bans and a return to textbooks and handwriting working? Who benefits in what ways? We also need to encourage people to 'follow the money' – perhaps less of a question and more of a prompt to scrutinise the shifts in economic and political power likely to result from the digital backlash.

A final thought is the value of working with people to reflect on the perennial question of 'how things might be otherwise?' One key aspect of this, for example, might be working to develop collective responses to the concerns implicit in our digital backlash discussions that are *not* placing the blame on individuals and their inappropriate use of technology. Why is it that the digital backlash is resulting in bans on device use, setting limits to 'screen time', or encouraging 'digital detoxes' and a 'mindful' digital balance in one's life?

These current 'solutions' all frame the problems of the digital age in familiar neo-liberal terms of this being a problem of individual consumer behaviours and pathologies. Instead, these issues need to be discussed as something that affects us all and

require regulation of the BigTech corporations producing these products rather than blaming and curtailing the people who use them.

SH: Moving on from time, to consider (the interrelated) aspects of language, it is well overdue to question *who* excessive digitalisation is actually *for*, and *why* are we doing it on such a scale? This feels like the societal conversation we never had. Related to this in education, we have long upheld a political discourse that is infused with the assumption that digital always *enhances* learning (Hayes 2015). Furthermore, we have isolated different challenges from one another, with each trending issue occupying its own policy, such as, *student engagement*, *wellbeing*, or *digital capability*, to name just a few (Hayes 2018). However, in postdigital-biodigital society our challenges are inextricably interconnected across our bioinformational lives and knowledge ecologies (Peters et al. 2022). Importantly, they affect young people *differently*, given their positionalities, data interactions and potential disadvantage (Hayes et al. 2023).

In McDonaldised forms of policy language, technology is often prioritised over people to support educational efficiencies - yet prosumerism flourishes alongside - as we provide endless free academic labour to support this (Ritzer et al. 2018, 2024 Hayes 2019). Additionally, the diversity of young people's contexts and varying digital access gets omitted, in generalized programmes of study that are more easily measured and counted (Hayes and Jandrić 2014). Now that GenAI has flooded the data-driven systems we already use, our unique locations and encounters (not simply generic sets of policies) require illumination, if education is going to contribute meaningfully to social and economic justice.

There are new and complex questions around *language* too, that take us way beyond the unhelpful binaries of either banning, or uncritically embracing, GenAI in education. These are not simply technical or intellectual questions but are intertwined with human existence and meaning. For example, not only does GenAI draw from the collective words and data of billions, it also then offers our language back to us in a different form that is no longer ours. This has implications for minority cultures and communities that lose *voice*, as well as increased bias towards perspectives from the dominant global north. Taking an Information Commissioner's Office definition of AI, 'as with any other form of decision-making, those impacted by an AI supported decision should be able to hold someone accountable for it.' (ICO (2025). Yet it is difficult to see how accountability can be followed through democratically, if the voice of that 'someone' can no longer be isolated or detected.

PJ: Education is an intrinsic aspect of our humanity; together with eating, breathing, sex, and perhaps a few more things, it is what makes us human. And, as I wrote a few years back, 'humans are not only beings of logic and emotion—we are also beings of myth and faith' (McLaren and Jandrić 2020: 255). This lends itself to many implications, and for the sake of brevity, I will concentrate only on two: disciplinarity and the genre.

A more holistic approach to digital technologies in education implies shredding traditional scholarly turfs and disciplines. Education studies, therefore, should strive towards an integration of knowledges arriving from information science, sociology, anthropology, and many other traditional disciplines. Despite a lot of lip service to multi-, inter-, and trans-disciplinarity, such integration is still a distant goal

burdened by factors from epistemic restrictions to political economy of research (Jandrić 2025).

This is especially the case when we bring in knowledge systems that are typically excluded from scholarly discourse, such as mythology and religion. I tried to explore this in my own scholarship, such as the book *Postdigital Dialogues on Critical Pedagogy, Liberation Theology and Information Technology* (McLaren and Jandrić 2020), and in my work as the editor of the Postdigital Science and Education book series. Actually, one of the first books in the series was Maggi Savin-Baden and John Reader's *Postdigital Theologies: Technology, Belief, and Practice* (2022)! I received a lot of criticism for placing mythology and religion on the same conceptual plane with traditional scholarly research. I take this criticism as a badge of honour – when powers-that-be complain about losing their power and influence, I'm definitely on the right track!

So how can we start to play with such radical postdisciplinarity, in a world in which our very thinking is limited not only by external forces but also our own imagination? Future studies scholars are now beginning to unpack internal restrictions to our imagination in various ways (see Barrios-O'Neill 2025) for one example). Speaking of educational research, one important strategy is to play with the genre.

As Michael Peters and I wrote a while ago (Peters and Jandrić 2018: 171), 'forms of language we call "genres" serve as the basis for the expression of thought'. I will now skip a lot of philosophy from Wittgenstein to Foucault, to assert that changing the way we discuss things will also change the content of our discussions (this is also the essence of the oft-used concept of postdigital dialogue) (Jandrić et al. 2019). Answering your question about the digital backlash with a reflection about my boat is one such example: this simple change of register from Petar the academic to Petar the sailor has brought about a shift in my own thinking. Can this metaphor perhaps be of use to others? What other metaphors can we develop? What other positionalities (Hayes 2023) can we employ?

Alongside scholarly research, I think that we need to tell stories, develop narratives, inspire ourselves in wide seas, high mountains, and traditional rituals – and we need to build all those insights into our praxis. Digital backlash is just too important to be left to educators and education science!

FM: If critical scholars are to amplify those positions in society that take a more holistic approach to education, and help to reshape public debates or policy decisions on how digital technologies are developed for and utilised in education, a key issue that motivates me is—returning to the notion of forwardlash—to emphasise a 'third position'. The very metaphor of a backlash is a symptom of the dichotomy we often find in journalism and policy discourse: 'for or against'; 'opportunities and threats'; 'pros and contras'. But there are rarely only two positions on sociotechnical developments. We need to emphasise a third position that steps out of reductive dichotomies and asks: For whom, when, and in which situations is this beneficial, and for whom, when, and in which situations is it harmful? This third position emphasises that the key issue is not *whether* a given technology is used, but *how* it is used. Even GenAI can be used to critique hegemonic discourse or exploitative, capitalist structures, if it is used in creative and critical ways.

A key issue allied with this third position that motivates me is also the need to ‘design differently’. This means both *developing technologies differently* by, for instance, involving marginalised voices and radical political positions in co-design processes that subvert contemporary cyberlibertarian, eugenic tendencies (Gebru and Torres 2024; Golumbia 2024). It also means *developing different technologies*, such as convivial or consentful technology (Data for Black Lives 2021; Vetter 2018). Designing differently can draw on a host of recent concepts, making sure that the tech is oriented to, for instance, respectful design, design justice, technical democracy, technical agonism, or trauma-informed design (Holloway et al. 2023; Macgilchrist 2024; Strickland 2022; Swist and Gulson 2023; Tunstall 2019).

Where Should the Debate Take Place?

IF & SHN: One of the problems with the current debate on digitalization that was also raised in the panel discussion, is that it is too polarized. More nuanced approaches have little chance to get through in the debate in traditional mass media outlets where you are expected to be either for or against digital technologies in schools. Social media platforms have, in turn, increasingly become subject to the intertwined logics of commercialization and right-wing radicalization. While local dialogue and development work may benefit those directly involved, there remains a challenge in disseminating these insights to the broader educational community, especially in places where such initiatives are absent. Given these preconditions, where should this alternative debate take place to facilitate dialogue and collaboration?

PJ: Polarization is a refuge for the weak-minded. While the clear positioning for vs. against provides conceptual clarity, moral integrity, and ease of handling ideas, ‘the postdigital is about dragging digitalisation and the digital—kicking and screaming—down from its discursive celestial, ethereal home and into the mud. It is about rubbing its nose in the complexities of everyday practice.’ (Ryberg in Jandrić et al. 2019: 166)

These complexities are everywhere – in my office, in this online discussion, in my sailboat, and indeed in Downing Street or the White House. Now it does not take a genius to conclude that the question that concerns everyone should be discussed everywhere. While it is hard to beat this logic, I don’t think that the recommendation itself is very helpful. So let’s dig in a bit deeper.

It is generally accepted that parents are free to educate their children as they please. A few years of basic schooling are compulsory in most countries, and most social systems will take obviously abused children from their parents. Apart from that, I am free to teach my son that the world is a flat surface lying on the backs of four elephants who sit on the giant turtle. In the world’s most developed countries, there are people who refuse to vaccinate their children, and then the children die of preventable diseases such as measles (see Langford 2025). As far as I am aware, not one of these parents has been criminally charged or punished. Reading these news, I believe that many of us would agree that the society should reconsider the question of parental responsibility.

A slightly more general version of this argument can be applied to the question of the digital backlash. In the first instance, I'd like to ask: Who gets to decide about the digital backlash? How much deciding power should remain in the private sphere (in the case of children, parents), and how much deciding power should be collectivized? When we answer these questions, then the locations for making decisions about the digital backlash will become obvious. Of course, this recommendation is also easier said than done... but I really believe that the allocation of responsibility is one of these 'new questions' that you mentioned earlier, Ingrid, that we should start talking about.

FM: I believe it is worth trying to get nuanced positions into various public spaces. Partly because I firmly believe that it is precisely the nuanced position that resonates with many people's experience of life. Creative, critical, lively approaches strengthen the plurality of perspectives in legacy media. Narratives about the frictions, pleasures and pressures of everyday practices in schools that emerge from qualitative research do get picked up by policymakers, parents, journalists, educators, school leaders and others.

NS: I think that any pushback against the current digital malaise stands the best chance of succeeding if it is grass-roots and striving to be a social movement rather than top-down state intervention. Key here, then, is working with whole populations to make connections between one's own personal digital discomforts and other people's similar experiences – getting us to recognise that we are not alone, and to develop some form of solidarity.

In many ways, this follows C. Wright Mills' (1959: 186) calls for social scientists to help 'build and to strengthen self-cultivating publics'. With regards to the current digital backlash, then, this would involve helping people cultivate careful thinking about the root causes of their digital discontent. In Mills' words, this involves encouraging people to translate 'personal troubles into public issues' and then work to translate these 'public issues' into agendas for meaningful change and reform.

I think that it is really important that these initial local discussions take place offline – not distorted by algorithmic biases, attention-economy logics, and echo-chambers of Facebook and LinkedIn. In addition, these initial discussions should not be driven by parties who are avowedly for *or* avowedly against digital technology. Instead, these discussions have to include the majority of people who currently remain ambivalent, uninterested, or perhaps completely resigned to the current digital condition.

Then, as with any social transformation, we need to look for ways of changing social practices around digital technology (see Shove et al. 2012). Ideally this demands nothing less than establishing a new regime of what digital technology is – i.e. in terms of infrastructure and tools, modes of access and governance, forms of knowhow, social conventions and routines. Ideally, these transformations need to take hold across all areas of everyday life and society.

Such change will not be easy to achieve, but one obvious starting-point is to promote alternate ways of 'doing' digital technology that people encounter on a regular basis. In this sense, schools, libraries and other education institutions are ideal sites for alternate digital practices to become visible and viable. If we want our societies

to start talking about how other forms of digital living are possible, demonstrating this through our own digital practices in education is a great place to start.

SH: Alternative debates help to reveal that one person's 'digital backlash' is very different to another's. Therefore, critically nuanced and participatory dialogue across-sectors, inclusive of charities, businesses, local authorities, policymakers, schools, universities, and in particular, young people themselves (Hayes et al. 2023) is needed. With Michael Jopling from Brighton University and Alex Cole, CEO of TinVentures, a social enterprise business, we recently ran 'listening events' with disadvantaged young people in UK regions. They shared their perceived opportunities and barriers to realising their hopes and ambitions in a data-driven digital society. Some raised digital access disparities, were concerned about assumptions that everyone learns in the same way, or felt that alongside digital skills, they needed to learn how to interact well in face-to-face interview situations. Those who were disabled discussed problematic stereotypes and bias with peers when applying for work.

Young people like these are receiving many mixed messages, from campaigns for a Smartphone Free Childhood (Dale and Smith 2025), to calls for AI skills to boost economic growth and modernise education (Gov.UK 2025). In a recent study that investigated restrictive phone policies in schools, there seemed to be no evidence that banning phones brings benefits to adolescent mental health or wellbeing. A more holistic approach was recommended to question how other behaviours that influence mental health and wellbeing are affected by increased phone use, such as sleep, physical activity, attainment and classroom behaviour (Goodyear et al. 2025). Given that much of the world's social, economic and political life now takes place across digital platforms, instead of banning devices, engaging young people in debates that help them to appreciate the algorithms that are optimised for private profit, rather than human rights, seems to be worthwhile.

Bringing international perspectives to bear on the simplistic for or against GenAI debates also helps to highlight differing 'digital backlash' responses, alongside disruptions from war, unrest, natural disasters, and power outages (Hayes et al. 2025). In a recent dialogue in Zagreb with a group of 'citizen researchers' (Hayes et al. 2024b), a range of challenges and provocations to universities were raised. If cross-sector projects are to better address issues of global importance in postdigital society, then universities need to adapt their processes to enable agile partnerships that connect with, and rapidly disseminate, community research issues. Simply acknowledging the importance of knowledge exchange from a position in universities will not connect productively with the pressing concerns of those who are researching matters of global importance in wider communities.

How Should We Talk About What Is to Be Done?

IF & SHN: One intriguing idea that was brought up in the panel discussion is the need for new concepts to talk about these questions and enable other kinds of technology and educational development. To wrap up this dialogue, would you like to suggest a concept or perspective that you think is missing from the debate, either a new one or one that deserves to be highlighted?

SH: For too many decades now, simplistic promises of what digital technologies will deliver to improve education and save us time have masked the realities of individual sociotechnical relations. The terminology of Technology Enhanced Learning (TEL) is just one example, where the embedded assumption that technology (not people) has delivered ‘enhanced learning’ flooded policy discourse, to influence practices (Hayes 2015, 2019). Now that AI is the topic of the moment, a small acronym once more submerges complex critical debates, amid bold claims that ‘Artificial Intelligence will deliver a decade of national renewal’ (Gov.UK 2025).

Yet the concept of Human-In-The-Loop (HITL) once referred to the *necessity* of humans undertaking data and error correction within early computing systems that did not operate independently. Faced now with sophisticated AI capabilities, I suggest that shifting dialogue from HITL to TIHL (Technology in the Human Loop) is one way to re-establish the ongoing necessity of human critical judgement to be wrapped around digital technologies for education, rather than simply brought in at key programming moments, as HITL. Technology that resides in the ‘human loop’ is a helpful reminder too, that a social contract underpins our educational systems, no matter how automated they become (Hayes et al. 2024a). It enables us to visualise postdigital education in terms of places of ‘entangled encountering’ (Giakoumakis et al. 2025) and also ‘slowness’ as postdigital positionality, where in conversation, ‘we make our unique positionings to encounter, not as objects of datafication, platformization, and the automatisms of AI, but as subjects that decide a direction, including the one of uncertainty or intentional lack of action’ (Raffaghelli et al. 2025: 2).

TIHL therefore emphasizes agency, choice, and diverse personal narratives within our ‘digital backlash’ debate. This is crucial in ‘drawing full attention to the reconfigurations of power that are taking place in the name of automation’ and for deciding what we ‘devolve to technology, and what aspects of education we are definitively *not* willing to hand over’. (Selwyn et al. 2023: 12). This is a pressing matter given these findings in a Higher Education Policy Institute (HEPI) survey: ‘In 2025, we find that the student use of AI has surged in the last year, with almost all students (92%) now using AI in some form, up from 66% in 2024’ (Freeman 2025).

It is time therefore to work with our students, and not against them, on TIHL - to collectively wrap the human loop around the technology – including a desire to critically value their own voices, decisions and creativity in their ongoing technological encounters.

NS: Returning to my initial response, we need to be careful not to fall into the trap of seeing ourselves as automatically having a right to declare ‘what needs to be done’ (especially if we are primarily expecting *other* people to ‘do’ these things). As Luc Boltanski (2011) reminds us, critical capacity is not the unique preserve of social scientists, and the digital backlash clearly shows that wider publics are now beginning to formulate strong views on the rights, wrongs, and injustices of the current digital moment. Indeed, if we look at actual attempts to get Google products out of schools or to boycott personalized learning systems, then it is parents, students, local officials and civil society that have been leading the charge – not critical scholars!

So, one thing that critical EdTech scholars might think about doing is more openly and vocally supporting these grass-roots movements – perhaps taking more of a scholar-activist stance on pushing back ourselves against Big Tech through direct action and advocacy (rather than churning out yet more journal articles that are highly unlikely to cut through to non-academic audiences). This requires academics to think beyond their usual ambition of wanting to ‘change the nature of the conversation’ around educational technology and, instead, focus on how they might contribute to changing the nature of the technologies that we let into our lives.

In this spirit, the best first step for critical scholars of EdTech might be to start making connections with those who are already ‘doing things’ and see how we can be of support. The general population are clearly not dupes – most people are fully aware of the fraudulent nature of much Big Tech discourse, that we live in conditions of rampant surveillance and so on. Crucially, many of these people are likely to have the best ideas of what can be done practically to challenge these concerns.

As such, taking a scholar-activist approach doesn’t mean that we should assume that we can waltz in and start doing it all ourselves. Instead, being a scholar-activist involves genuinely connecting with community groups and subaltern publics to be part of a common pursuit of struggle and action. The academic’s role is one of support and facilitation, rather than trying to lead the charge and direct operations.

FM: I agree, and I think part of this is for us to constantly create new concepts and metaphors. Finding new words to shed light on patterns and practices that are well-known to practitioners is one of the things that the humanities and social sciences are particularly good at. Well-known in the sense that scholarship then brings concerns from the field (educators, students, activists, etc.) to new audiences who can then engage differently with these concerns. The holy grail might be to find a concept metaphor that practitioners hear and think: yes, exactly, that’s what I felt, but never had a word for.

Some concept metaphors work better than others. In Germany, Kerstin Rabenstein, Nadine Wäger-Böck, and I recently suggested the metaphor of maintenance (*Wartung*)—as used in, e.g., cultural theory, STS, and media studies—to try to capture a key practice and aspect of slow, quotidian, thoughtful care work in everyday life in digitally networked schools (Rabenstein et al. 2025). Teachers are not repairing, in this argument, because school is not broken (despite what the EdTech industry says). They are constantly tinkering with quotidian kinds of maintenance work to sustain relationships, to support learning, to slow acceleration down, to build capacity, and to negotiate rules. They are doing maintenance of sociotechnical transformations (in German: *die Wartung des Wandels*) as a way of caring about their students and what happens in their classrooms. We shall have to wait and see whether this metaphor resonates with broader educational communities in Germany.

And, as I said earlier, I think designing differently is a key aspect that could receive more attention. Designing differently can refer to developing technologies, but also to ‘design-in-use’ when people co-opt software, hardware or infrastructures, and reshape them as they use them. Exciting concepts that show us how to design differently include convivial technology, consentful technology, respectful design, design justice, technical democracy, technical agonism and trauma-informed design. Many of these are community-based, where scholars connect with local

communities and their pressures and needs. These kinds of concepts can open up ways of collectively imagining an education otherwise. Some of this work also includes specific methods and procedures for making sure diverse voices contribute to imagining what kind of education for what kind of futures ‘we’ want for whom (and also for interrogating who is meant by this ‘we’) (Benjamin 2024).

PJ: I am all for introducing new concepts, but I think that we should do that very carefully. Back to the example of the unvaccinated Texas 6-year-old child who died of measles, whose parents do not feel guilty and have still not vaccinated their remaining four children, the father saying that ‘the measles are good for the body’ (Langford 2025). Do we really need new concepts for this? Or can we simply use good old concepts such as the Biblical sin of omission?

As I write these words, Greta Thunberg with a bunch of activists sails towards Gaza on a small sailboat carrying a symbolic amount of humanitarian aid. According to BBC’s (2025) live stream, the sailboat was intercepted by Israeli navy and taken custody. A few hours before they intercepted the sailboat, the Israeli navy switched off GPS signal, leaving the sailboat without satellite navigation. But a good old compass can never be switched off, so our activists were safe! While it is cozy to turn on our GPS and autopilot and carelessly sail into the sunset, a compass combined with drudgy manual steering will give us more freedom. In my opinion, any discussion about the digital backlash must begin and end with that simple question: What is the worth of our freedom?

Concluding Summary: From Backlash to Forwardlash?

IF & SHN: Attempting to summarize the above responses would be neither possible nor meaningful. Rather, we wish to draw attention to a set of themes that emerge across the contributions and that hopefully can serve as points of departure for a continued discussion about the possibilities of digital resistance within and outside the academic field.

To begin with, the question of *language* and how we talk about digital resistance is brought up in one way or another by all the interlocutors, stressing how the concepts that we use shape what can be said and how we engage with the world. The title of this conversation, - ‘Hijacking the Digital Backlash in Education’ - evoked some critical reflections, as the term ‘backlash’ suggests a linear timeline where digitalization is associated with progression, implying that any reconsideration of the merits of technology must necessarily be understood as a step backwards. The term also served as a kind of provocation and a starting point for a critical discussion which goes to illustrate how language can both reinforce binaries or help overcome them. In attempt of the latter, Macgilchrist suggests that rather than talking about a backlash, we could reframe the ongoing negotiations and contestation of digital technologies as a ‘forwardlash’.

Another contested term in the title of this paper is the notion of ‘hijacking’, which Selwyn warns might position critical scholars as having a more ‘sophisticated perspective’ on de-digitalization politics than the people most affected by it. Emphasizing that researchers should not tell people which questions are important,

he underlines that it is not enough to reshape the debate around digital technologies. Critical researchers should also seek to contribute in more concrete ways to for example the development of alternative technologies or by creating spaces that enable collaboration and joint action.

This leads us to our second theme, *agency and responsibility*. The digital backlash rests on the techno-determinist premise that technology does something to humans. In response to this bracketing of human agency, Hayes suggests a re-centering of the human in processes of automation and digitalization, stressing the importance of recognizing underlying power relations and making deliberate choices about the role technology should play in education and society. This re-centering is particularly challenging as problems and injustices associated with digitalization are largely structural, while solutions currently promoted in the disconnection debate tend to be framed at an individual level. Jandrić therefore identifies ‘allocation of responsibility’ as a central issue in the renegotiation of what kinds of digital futures we want, inviting questions about how responsibility should be distributed between social institutions and individuals, and how the power and capacity to exercise such responsibility can be ensured.

A third theme running through the responses is the importance of *context*. Digital technologies are not inherently problematic but become so when embedded within capitalist structures and logics. Such context awareness is strikingly absent from the current digital backlash, exemplified by Hayes through the notion of ‘screen time’, a concept which disregards the diversity of media practices and reduces them to a single measurable variable. Just as debates about digitalization have raised questions about whose interests are being served and who benefits from it, similar questions need to be asked of de-digitalization politics. If the present backlash is unproductive, then it becomes necessary to identify those forms of resistance that are meaningful and the spaces in which they can be enacted, preferably beyond the digital platforms that currently shape which voices and perspectives are heard.

Across the contributions, different places and constellations for such practices have been suggested, including libraries, schools, social movements, activist spaces, and even a sailing boat without digital navigation tools. The sailing boat, as described by Jandrić, enables not only alternative forms of learning but also the possibility of independence and agency in relation to the digital infrastructures that underpin contemporary life across personal, educational, and professional domains. One takeaway from this conversation is that several such metaphorical boats may be needed, each navigating the shifting tides of digitalization in different ways. The role of critical researchers in the future might be to help build these vessels, while inviting others to do the steering.

Acknowledgements This article draws on discussions from the symposium ‘The Digital Backlash in Education: Critical and Postdigital Perspectives’ which was supported by the Digital Transformations Centre of Excellence at Södertörn University.

Author Contributions Ingrid Forsler wrote the introduction and, together with Saga Hansén, formulated the questions and the concluding summary. Sarah Hayes, Petar Jandrić, Felicitas Macgilchrist, and Neil Selwyn each wrote their individual answers to each question. All authors reviewed the full manuscript.

Funding Open access funding provided by Södertörn University.

Data Availability No datasets were generated or analysed during the current study.

Declarations

Competing Interests The authors declare no competing interests. The third author is the editor-in-chief of the journal *Postdigital Science and Education*. He was not involved in the review process.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Albris, K., Fast, K., Karlsen, F., Kaun, A., Lomborg, S., & Syvertsen, T. (2024). *The Digital Backlash and the Paradoxes of Disconnection*. Gothenburg: Nordicom. <https://doi.org/10.48335/9789188855961>.
- Bagger, C. (2024). A decade of digital disconnection research in review: Where, what, how, and who? In K. Albris, K. Fast, F. Karlsen, A. Kaun, S. Lomborg & T. Syvertsen (Eds.) *The Digital Backlash and the Paradoxes of Disconnection* (pp. 109–128). Gothenburg: Nordicom.
- Barrios-O'Neill, D., Pauzner, M., Kutok, O., Meir, N. B. B., Jarvis, C., Dudek, L., Rungta, D., Ramirez-Figueroa, C., & Stadnuk, O. (2025). The PAD Framework: Postdigital Design Education for Post-Anthropocentric Futures. In P. Jandrić, J. Suoranta, M. Teräs, & H. Davis (Eds.), *Postdigital (Re)imaginings: Critiques, Methods, and Interventions*. Cham: Springer. https://doi.org/10.1007/978-3-032-01539-6_12.
- BBC. (2025). BBC Live. <https://www.bbc.com/news/live/clyg5x15n3zt>. Accessed 12 June 2025.
- Benjamin, R. (2024). *Imagination: A Manifesto*. New York: W. W. Norton.
- Biesta, G. (2005). Against learning: Reclaiming a language for education in an age of learning. *Nordic Studies in Education*, 25(1), 54–66. <https://doi.org/10.18261/ISSN1891-5949-2005-01-06>.
- Blum-Ross, A. & Livingstone, S. (2018). The Trouble with “Screen Time” Rules. In G. Mascheroni, C. Ponte & A. Jorge (Eds.), *Digital Parenting. The Challenges for Families in the Digital Age* (pp. 179–187). Gothenburg: Nordicom.
- Boltanski, L. (2011). *On critique: a sociology of emancipation*. Cambridge: Polity Press.
- Carvalho, L., & Lamb, J. (2023). Postdigital Learning Spaces. In P. Jandrić (Ed.), *Encyclopedia of Post-digital Science and Education*. Cham: Springer. https://doi.org/10.1007/978-3-031-35469-4_13-1.
- Cuban, L. (1986). *Teachers and machines: The classroom use of technology since 1920*. New York: Teachers college Press.
- Dale, B. & Smith, S. (2025) Conference to discuss smartphone impact on children. BBC News. <https://www.bbc.co.uk/news/articles/c8r5g688l6go>. Accessed 15 September 2025.
- Data for Black Lives. (2021). Consentful Tech Curriculum. <https://d4bl.org/reports/98-consentful-tech-curriculum>. Accessed 15 September 2025.
- Decuyper, M., & Hartong, S. (2023). Edunudge. *Learning, Media and Technology*, 48(1), 138–152. <https://doi.org/10.1080/107439884.2022.2086261>.
- Facer, K. (2023). Possibility and the temporal imagination. *Possibility Studies & Society*, 1(1-2), 60–66. <https://doi.org/10.1177/27538699231171797>.
- Fast, K. (2021). The disconnection turn: Three facets of disconnection work in post-digital capitalism. *Convergence*, 27(6), 1615–1630. <https://doi.org/10.1177/13548565211033382>.
- Forsler, I., & Guyard, C. (2020). Screen time and the young brain – a contemporary moral panic? In A. Kaun, C. Pentzold, & C. Lohmeier (Eds.), *Making time for digital lives: Beyond chronotopia* (pp. 25–42). Lanham, MD: Rowman & Littlefield.
- Forsler, I., & Guyard, C. (2023). Screens, teens and their brains. Discourses about digital media, learning and cognitive development in popular science neuroeducation. *Learning, Media and Technology*, 50(2), 191–204. <https://doi.org/10.1080/17439884.2023.2230893>.

- Forsler, I., Guyard, C., & Andersson, L. (2024). Detoxing the brain: Understanding digital backlash in the context of the media effects tradition. In K. Albris, K. Fast, F. Karlisen, A. Kaun, S. Lomborg & T. Syvertsen (Eds.) *The Digital Backlash and the Paradoxes of Disconnection* (pp. 91–188). Gothenburg: Nordicom.
- Forsler, I., Bardone, E., & Forsman, M. (2025). The Future Postdigital Classroom. *Postdigital Science and Education*, 7(3), 682–689. <https://doi.org/10.1007/s42438-024-00488-y>.
- Freeman, J. (2025). Student Generative AI Survey 2025. HEPI Policy Note 61. <https://www.hepi.ac.uk/2025/02/26/student-generative-ai-survey-2025/>. Accessed 15 September 2025.
- Gebru, T., & Torres, É. P. (2024). The TESCREAL bundle: Eugenics and the promise of utopia through artificial general intelligence. *First Monday*, 29(4). <https://doi.org/10.5210/fm.v29i4.13636>.
- George, A. S., George, A. H., Baskar, T., & Shahul, A. (2023). Screens steal time: How excessive screen use impacts the lives of young people. *Partners Universal Innovative Research Publication*, 1(2), 157–177. <https://doi.org/10.5281/zenodo.10250536>.
- Giakoumakis, E., Vicars, M. & Arantes, J. (2025). Educational Illusion and Collapse: Postdigital Classrooms as Places of Entangled Encounter(ing). *Postdigital Science and Education*, 7(3), 884–898. <https://doi.org/10.1007/s42438-025-00572-x>.
- Golumbia, D. (2024). *Cyberlibertarianism: The Right-Wing Politics of Digital Technology*. Minneapolis, MN: University of Minnesota Press.
- Good, K. D. (2020). *Bring the world to the child: Technologies of global citizenship in American education*. Cambridge, MA: The MIT Press.
- Good, K., & Ciccone, M. (2025). Media quiteracy: Why digital disconnection belongs in the media literacy curriculum. *Journal of Media Literacy Education*, 17(1), 150–165. <https://doi.org/10.23860/JMLE-2025-17-1-10>.
- Goodyear, V. A., Randhawa, A., Adab, P., Al-Janabi, H., Fenton, S., Jones, K., Michail, M., Morrison, B., Patterson, P., Quinlan, J., Sitch, A., Twardochleb, R., Wade, M., & Pallan, M. (2025). School phone policies and their association with mental wellbeing, phone use, and social media use (SMART Schools): A cross-sectional observational study. *The Lancet Regional Health – Europe*, 51. <https://doi.org/10.1016/j.lanepe.2025.101211>.
- Gov.UK. (2025). Prime Minister sets out blueprint to turbocharge AI. <https://www.gov.uk/government/news/prime-minister-sets-out-blueprint-to-turbocharge-ai>. Accessed 15 September 2025.
- Grigic Magnusson, A., Ott, T., Hård af Segerstad, Y., & Sofkova Hashemi, S. (2023). Complexities of Managing a Mobile Phone Ban in the Digitalized Schools' Classroom. *Computers in the Schools*, 40(3), 303–323. <https://doi.org/10.1080/07380569.2023.2211062>.
- Guyard, C. & Kaun, A. (2018). Workfulness: Governing the disobedient brain. *Journal of Cultural Economy*, 11(6), 535–548. <https://doi.org/10.1080/17530350.2018.1481877>.
- Hayes, S. (2015). Counting on the use of technology to enhance learning. In P. Jandrić & D. Boras (Eds.), *Critical Learning in Digital Networks* (pp. 15–36). New York: Springer. https://doi.org/10.1007/978-3-319-13752-0_2.
- Hayes, S. (2018). Invisible labour: do we need to reoccupy student engagement policy? *Learning and Teaching*, 11(1), 19–34. <https://doi.org/10.3167/latiss.2018.110102>.
- Hayes, S. (2019). *The Labour of Words in Higher Education: Is it Time to Reoccupy Policy?* Leiden: Brill.
- Hayes, S. (2023). Postdigital Positionality. In P. Jandrić (Ed.), *Encyclopaedia of Postdigital Science and Education*. Cham: Springer. https://doi.org/10.1007/978-3-031-35469-4_35-1.
- Hayes, S., & Jandrić, P. (2014). Who is Really in Charge of Contemporary Education? People and technologies in, against and beyond the neoliberal university. *Open Review of Educational Research*, 1(1), 193–210. <https://doi.org/10.1080/23265507.2014.989899>.
- Hayes, S., Jopling, M., Connor, S., & Johnson, M. (2023). *Human Data Interaction, Disadvantage and Skills in the Community: Enabling Cross-Sector Environments For Postdigital Inclusion*. Cham: Springer. <https://doi.org/10.1007/978-3-031-31875-7>.
- Hayes, S., Jandrić, P., & Green, B. J. (2024a). Towards a Postdigital Social Contract for Higher Education in the Age of Artificial Intelligence. *Postdigital Science and Education* 6(2), 467–485. <https://doi.org/10.1007/s42438-024-00459-3>.
- Hayes, S., Jandrić, P., la Velle, L., Earle, S., Šrajcar, F., Dragić, Z., Kubat, S., Peraica, A., Švraka, D., Popović, S., Mumelaš, D., Pospiš, D., Vujanović, B., Lugović, S., Jopling, M., Tolbert, S., & Watermeyer, R. (2024). Postdigital Citizen Science and Humanities: Dialogue from the Ground. *Postdigital Science and Education*, 7(1), 188–223. <https://doi.org/10.1007/s42438-024-00514-z>.
- Hayes, S., Earle, S., Dukhan, S., Padayachee, K., Dison, L., Milas, M., Smit-Stachowski, A., Aharonson, V., Hoosen, N., Luo, M., Simbanegavi, P., Hewlett, L., Badenhorst, C., Wilson-Thompson, B.,

- Rusznayak, L., Langsford, D., Andrews, D., Osman, R., Weaich, M., Dube, S., Genga, R., Tam, C., Prinsloo, P., Ruiz, N., Najjuma, R., Gallagher, M., & Nartey, E. (2025). Perspectives from South Africa on GenAI in Higher Education: a Postdigital Dialogue with the Global Context. *Postdigital Science and Education*.
- Helle, R., & Lomborg, S. (2024). Techlash or tech change? How the image of Mark Zuckerberg changed with Cambridge Analytica. In K. Albris, K. Fast, F. Karlsen, A. Kaun, S. Lomborg, & T. Syvertsen (Eds.) *The Digital Backlash and the Paradoxes of Disconnection* (pp. 25–44). Gothenburg: Nordicom.
- Holloway, J., Lewis, S., & Langman, S. (2023). Technical agonism: embracing democratic dissensus in the datafication of education. *Learning, Media and Technology*, 48(2), 253–265. <https://doi.org/10.1080/17439884.2022.2160987>.
- Information Commissioner's Office. (2025). Definition of Artificial Intelligence (AI). <https://ico.org.uk/for-organisations/uk-gdpr-guidance-and-resources/artificial-intelligence/explaining-decisions-made-with-artificial-intelligence/part-1-the-basics-of-explaining-ai/definitions/>. Accessed 15 September 2025.
- Jandrić, P. (2025). Postdigital Transdisciplinarity: Towards a New Language of Possibility. *Communiars. Revista de Imagen, Artes y Educación Crítica y Social*, 13, 20–33. <https://doi.org/10.12795/Communiars.2025.i13.01>.
- Jandrić, P., & Knox, J. (2022). The postdigital turn: Philosophy, education, research. *Policy Futures in Education*, 20(7), 780–795. <https://doi.org/10.1177/14782103211062713>.
- Jandrić, P., Ryberg, T., Knox, J., Lacković, N., Hayes, S., Suoranta, J., Smith, M., Steketee, A., Peters, M. A., McLaren, P., Ford, D. R., Asher, G., McGregor, C., Stewart, G., Williamson, B., & Gibbons, A. (2019). Postdigital Dialogue. *Postdigital Science and Education*, 1(1), 163–189. <https://doi.org/10.1007/s42438-018-0011-x>.
- Knox, J., Williamson, B., & Bayne, S. (2020). Machine behaviourism: Future visions of 'learnification' and 'datafication' across humans and digital technologies. *Learning, Media and Technology*, 45(1), 31–45. <https://doi.org/10.1080/17439884.2019.1623251>.
- Langford, T. (2025). Parents of Texas child who died of measles stand by decision to not vaccinate. The Texas Tribune, 20 March. <https://www.texastribune.org/2025/03/20/texas-measles-family-gaines-county-death/>. Accessed 12 July 2025.
- Macgilchrist, F. (2021a). Rewilding technology. *On Education. Journal for Research and Debate*, 4(12). https://doi.org/10.17899/on_ed.2021.12.2.
- Macgilchrist, F. (2021b). Theories of Postdigital Heterogeneity: Implications for Research on Education and Datafication. *Postdigital Science and Education*, 3(3), 660–667. <https://doi.org/10.1007/s42438-021-00232-w>.
- Macgilchrist, F. (2024). Design justice and educational technology: Designing in the fissures. In B. Williamson, J. Komljenovic, & K. N. Gulson (Eds.), *World Yearbook of Education 2024 (Digitalization of Education in the Era of Algorithms, Automation, and Artificial Intelligence)* (pp. 294–310). London: Routledge. <https://doi.org/10.4324/9781003359722>.
- McLaren, P., & Jandrić, P. (2020). *Postdigital Dialogues on Critical Pedagogy, Liberation Theology and Information Technology*. London: Bloomsbury. <https://doi.org/10.5040/9781350099982>.
- McQuillan, D. (2022). *Resisting AI: An Anti-fascist Approach to Artificial Intelligence*. Bristol: Bristol University Press.
- Mills, C. W. (1959/2013). *The sociological imagination*. Oxford: Oxford University Press.
- Moe, H., & Madsen, O. J. (2021). Understanding digital disconnection beyond media studies. *Convergence*, 27(6), 1584–1598. <https://doi.org/10.1177/13548565211048969>.
- Nichols, T. P., Logan, C., & Garcia, A. (2025). Generative AI and the (Re)turn to Luddism. *Learning, Media and Technology*, 50(3), 379–392. <https://doi.org/10.1080/17439884.2025.2452199>.
- Peters, M. A., & Jandrić, P. (2018). Discourse, genre and curriculum. *Open Review of Educational Research*, 5(1), 164–178. <https://doi.org/10.1080/23265507.2018.1555487>.
- Peters, M. A., Jandrić, P., & Hayes, S. (Eds.). (2022). *Bioinformational Philosophy and Postdigital Knowledge Ecologies*. Cham: Springer. <https://doi.org/10.1007/978-3-030-95006-4>.
- Rabenstein, K., Macgilchrist, F., & Wagener-Böck, N. (2025). *Den Wandel warten: Ethnographische Fallstudien zu Bildung und Schule*. Bad Heilbrunn: Klinkhardt.
- Raffaghelli, J. E., Ferrarelli, M., & Rodríguez, N. L. (2025). Slowness as Postdigital Positionality in the Era of Generative AI: A Conversation. *Postdigital Science and Education*. <https://doi.org/10.1007/s42438-025-00554-z>.
- Reed, J., & Dunn, C. (2024). Postdigital Young People's Rights: A Critical Perspective on the UK Government's Guidance to Ban Phones in England's Schools. *Postdigital Science and Education*, 7(2), 376–385. <https://doi.org/10.1007/s42438-024-00464-6>.

- Ritzer, G., Jandrić, P., & Hayes, S. (2018). The velvet cage of educational con(pro)sumption. *Open Review of Educational Research*, 5(1), 113–129. <https://doi.org/10.1080/23265507.2018.1546124>.
- Ritzer, G., Ryan, J. M., Hayes, S., Elliot, M., & Jandrić, P. (2024). McDonaldization and Artificial Intelligence. *Postdigital Science and Education*, 6(4), 1320–1333. <https://doi.org/10.1007/s42438-024-00475-3>.
- Savin-Baden, M., & Reader, J. (2022). *Postdigital Theologies: Technology, Belief, and Practice*. Cham: Springer. <https://doi.org/10.1007/978-3-031-09405-7>.
- Selwyn, N. (2019). *Should robots replace teachers?: AI and the future of education*. Cambridge: Polity Press.
- Selwyn, N. (2025a). We might well need a digital backlash in education ... just not this one! Critical Studies of Education & Technology, 28 February. <https://criticaledtech.com/2025/02/28/we-might-well-need-a-digital-backlash-in-education-just-not-this-one/>. Accessed 24 March 2025.
- Selwyn, N. (2025b). *Digital degrowth radically rethinking our digital futures*. Cambridge: Polity Press.
- Selwyn, N., & Aagaard, J. (2021). Banning mobile phones from classrooms: An opportunity to advance understandings of technology addiction, distraction and cyberbullying. *British Journal of Educational Technology*, 52(1), 8–19. <https://doi.org/10.1111/bjet.12943>.
- Selwyn, N., Hillman, T., Bergviken-Rensfeldt, A., & Perrotta, C. (2023). Making Sense of the Digital Automation of Education. *Postdigital Science and Education*, 5(1), 1–14. <https://doi.org/10.1007/s42438-022-00362-9>.
- Shove, E., Watson, M., & Pantzar, M. (2012). *The dynamics of social practice: everyday life and how it changes*. London: Sage.
- Størup, J. O., & Lieberoth, A. (2023). What's the problem with "screen time"? A content analysis of dominant voices and worries in three years of national print media. *Convergence*, 29(1), 201–224. <https://doi.org/10.1177/13548565211065299>.
- Strickland, M. (2022). Reflections on Trauma Informed Design. In M. Ruiz & S. DeCou (Eds.), *From the Desks of Designers and Researchers bringing Design Justice Principles to Work* (pp. 14–17). <https://designjustice.org/zines>. Accessed 15 September 2025.
- Swist, T., & Gulson, K. N. (2023). Instituting socio-technical education futures: encounters with/through technical democracy, data justice, and imaginaries. *Learning, Media and Technology*, 48(2), 181–186. <https://doi.org/10.1080/17439884.2023.2205225>.
- Syvrtsen, T., & Enli, G. (2020). Digital detox: Media resistance and the promise of authenticity. *Convergence*, 26(5–6), 1269–1283. <https://doi.org/10.1177/1354856519847325>.
- Traxler, J., Connor, S., Hayes, S., & Jandrić, P. (2022). Futures Studies, Mobilities, and the Postdigital Condition: Contention or Complement. *Postdigital Science and Education*, 4(2), 494–518. <https://doi.org/10.1007/s42438-021-00245-5>.
- Tunstall, D. (2019). Respectful Design. The Context for Design's Ethical Obligations towards Cultural, Social, and Environmental Justice. Joint Futures Conference. <https://jointfuturesconf.com/keynote/dori-tunstall.html>. Accessed 15 September 2025.
- Vetter, A. (2018). The Matrix of Convivial Technology – Assessing technologies for degrowth. *Journal of Cleaner Production*, 197, 1778–1786. <https://doi.org/10.1016/j.jclepro.2017.02.195>.
- Vinsel, L. (2024). Start where the pain is: notes on topic-selection in technology studies. People & Things blog, 5 April. <https://peoples-things.ghost.io/start-where-the-pain-is-notes-on-topic-selection-in-technology-studies/>. Accessed 8 April 2025.
- Wajcman, J. (2008). Life in the fast lane? Towards a sociology of technology and time. *The British journal of sociology*, 59(1), 59–77. <https://doi.org/10.1111/j.1468-4446.2007.00182.x>.
- Wajcman, J. (2017). Automation: is it really different this time?. *The British journal of sociology*, 68(1), 119–127. <https://doi.org/10.1111/1468-4446.12239>.
- Watters, A. (2021). *Teaching machines: The history of personalized learning*. Cambridge, MA: The MIT Press.
- Wikström, P., Duek, S., Nilsberth, M., & Olin-Scheller, C. (2022). Smartphones in the Swedish upper-secondary classroom: A policy enactment perspective. *Learning, Media and Technology*, 49(2), 230–243. <https://doi.org/10.1080/17439884.2022.2124268>.
- Williamson, B., Macgilchrist, F., & Potter, J. (2023). Re-examining AI, automation and datafication in education. *Learning, Media and Technology*, 48(1), 1–5. <https://doi.org/10.1080/17439884.2023.2167830>.
- Williamson, B., Pykett, J., & Kotouza, D. (2025). Learning brains: educational neuroscience, neurotechnology and neuropedagogy. *Pedagogy, Culture & Society*. <https://doi.org/10.1080/14681366.2025.2521458>.