Critical studies of education and technology ... reasons to be hopeful?

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Critical studies of education and technology … reasons to be hopeful?

Background

The past couple of decades have seen the steady rise of digital technologies as a prominent element of education around the world. Digital technologies are now a key feature of education provision in the global north from pre-schools through to tertiary and community education – touching the educational experiences of young children through to seniors. In these regions, education provision now increasingly takes place through platforms and other large systems - dependent on cloud providers and the data industry in ways that were scarcely imaginable a few years previously. At the same time, ed-tech continues to grow in prominence in global south regions as governments, NGOs, philanthropic and industry actors look to implement various digital education innovations to help low-income and middle-income countries address fundamental problems around failing teacher workforces and lack of universal basic education.

While there continues to be much practitioner enthusiasm, financial investment and commercial hype around such technological developments, we are currently living through particularly unsettled times for the use of digital technologies in education. The worldwide school shutdowns triggered by the COVID pandemic and subsequent periods of 'emergency remote schooling' at the beginning of the 2020s have since been renounced in a detailed UNESCO report as 'an EdTech tragedy'. This has been followed by pronounced regulatory turns in many countries – from Ireland to Indonesia - against student use of smartphones and other digital devices, accompanied by efforts in countries such as Denmark and France to curtail the educational reach of 'big tech' corporations. Now we are seeing growing public and practitioner concerns expressed around the dehumanising effects of AI-driven education, and the environmental burdens caused by the production, consumption and disposal of digital technologies.

These shifts have certainly been reflected in the changing nature of academic scholarship and research in the area of education and technology over the past few years. In particular, we are now seeing growing interest in what can be termed 'critical studies of education and technology' (CSET) – bringing together academics, researchers, teachers, writers and technologists with a shared interest in approaching tech use as a problematic. This is resulting in academic research and scholarship that is focused primarily on the politics of ed-tech, and producing accounts of power, control, inequalities and disadvantage associated with and/or arising from the presence of digital technologies in education. While critical accounts of education and technology have been developed over the past 40 years, the past few years have seen a sharp increase in the number of academic researchers taking this approach. All told, there is now a fast-growing academic literature offering critiques of education and technology – offering a timely counterpoint to the traditional 'what works' approaches to how digital technology might be used in education settings.

In light of the increased significance of this area of research it seems appropriate that we talk more openly about what it means to take a 'critical' approach to education and technology. Against this background, this brief report draws on the outcomes of 53 expert 'CSET' meetings that were coordinated and convened around the world between the 17th and 21st February 2025 (see Appendix A for further details of this process). These meetings brought together over 500 individuals from across academic, research, educator policymaker and industry communities – all with a shared interest in 'problematising education and technology'. Each meeting was asked to address the following four common questions:

- **What are the pressing issues, concerns, tensions and problems that surround ed-tech** in our locality? What questions do we need to ask, and what approaches will help us research these questions?
- **What social harms are we seeing associated with digital technology and education** in our locality?
- **What does the political economy of ed-tech look like** in our region? What do local EdTech markets look like? How are global Big Tech corporations manifest in local education systems? What does ed-tech policy look like, and which actors are driving policymaking? What do we find if we 'follow the money'?
- **What grounds for hope are there?** Can we point to local instances of digital technology leading to genuine social benefits and empowerment? What local push-back and resistance against egregious forms of ed-tech is evident? What alternate imaginaries are being circulated about education and digital futures?

Meeting coordinators were invited to prepare and submit brief reports detailing their participants' discussions around each of the four questions. This material is being used to prepare two separate synopsis reports – drawing together common themes, pointing to areas of divergence and generally bringing together an overview of what issues arose across the 53 meetings. First, is a report focusing on the first three questions – titled '*Education and digital technology: an international overview of issues, problems and ways forward*'. Second, the report that you are currently reading presents a synthesis of the discussions around the fourth of the meeting questions – what grounds for hope might there be amongst the many reasons to feel despondent and discouraged around the current state of education and technology?

This fourth CSET question was intended as a provocation for academics, researchers, teachers and others working along 'critical' lines to reflect on the purposes and intended outcomes of their work. Critical scholarship is not simply an exercise in pointing out problems and raising difficult questions (although these are very important aspects of any critical piece of scholarship). Ultimately, critical scholarship needs to make a difference … so, what might this difference look like? How can critical studies of education and technology make the world a (slightly) better place?

Summary of main themes emerging from the CSET meeting reports

#1. Framing CSET as a political project: At the heart of CSET is a desire to challenge dominant power dynamics and ideologies behind the ongoing digitisation of education. We need to have more open conversations around the politics and political intent of taking 'critical' approaches to education and technology. What do we want CSET to achieve, and what needs to be done to achieve this?

#2. Paying more attention to existing forms of ed-tech that we want to see more of: CSET scholarship is often drawn to focus on problematic aspects of educational technology. However, there are many existing examples of digital technology use in education that embody genuinely inclusive, democratic, collectively empowering and/or other progressive values … we need to pay more attention to such instances of educational technology, celebrate their success, and reflect on how these might be replicated elsewhere.

#3. Supporting the new forms of ed-tech that we want to see: Many mainstream discussions convey a sense of digital resignation – i.e. that there are no feasible alternatives to current dominant forms of digitisation, and that education simply needs to respond to any new technology (such as Generative AI) as best as possible. In contrast, it is important for CSET scholarship to promote the belief that other forms of ed-tech are possible … and find ways of supporting people to imagine what these new forms of ed-tech might be.

#4. Building networks and making alliances with like-minded others: The CSET community is not alone in being concerned with the politics of technology, and issues relating to digital power, control, inequalities and disadvantage. There are many groups, projects, collectives and organisations that are critical of the current state of technology and/or education … there is clear value in forging alliances and working collectively.

#5. Encouraging ed-tech resistance: There is growing public and professional appetite for resisting and rejecting harmful forms of digital technology use … CSET scholarship needs to be involved in these wider debates, and work to push public understandings and ambitions around the digital backlash in more progressive directions.

#6. Changing the nature of the ed-tech conversation: CSET scholarship needs to remain mindful of the importance of what is said about ed-tech (and who gets to say it) … this involves working to influence dominant narratives around education and technology, while also working to diversify the voices that drive discussion and debate.

#7. Acknowledging – and making the most of – the privileged position of working in the university sector: Universities tend to consider themselves as relatively peripheral

(and powerless) in relation to the main domains of ed-tech industry and policy. Nevertheless, those of us working in universities can summon considerable power, resources and freedom to engage in ed-tech critique … we need to be emboldened and make the most of our (relatively) privileged positions.

#8. Having an open conversation about what it means to be hopeful: Some people remain wary of appearing positive about technology. The CSET community needs to have open conversations around what it means to be 'hopeful' … and what forms of hope can embolden – rather than compromise - critically-minded approaches to education and technology.

Main discussion points in more detail

#1. Framing CSET as a political project

At the heart of CSET is a desire to challenge dominant power dynamics and ideologies behind the ongoing digitisation of education. We need to have more open conversations around the politics and political intent of taking 'critical' approaches to education and technology. What do we want CSET to achieve, and what needs to be done to achieve this?

Most of the arguments and inferences that drive the critical studies of education and technology are profoundly political in nature – challenging dominant power dynamics around the ongoing digitisation of education and fundamentally challenging the ed-tech status quo. Despite this, many people engaged in CSET and CSET-adjacent work can be reluctant to frame their work as overtly political. As the stakes around the digitisation of education grow ever higher, it could be argued that there is a need to declare CSET as an overtly political project and engage in forms of scholarship that are overly activist in their intentions and actions.

CSET can therefore be seen as "require(ing) activism and advocacy" (Oslo) that strives toward "reclaiming the political, pedagogical, and ethical meaning of technology in education" (Barcelona). In this sense, the critical studies of education and technology is an appropriate space for scholar-activism – building on a spirit of 'activist research' and 'hacker research' (Santa Catarina).

Such ambitions highlight the need for a number of more explicit conversations that need to take place across the CSET community. For example, we need to acknowledge, clarify and celebrate the normative concerns of the CSET project – the particular forms of change, reform and emancipatory outcomes that our work seeks to achieve. As mentioned previously, we also need to be actively engaged in contemporary struggles around technology and education. As well as recognising and pointing out instances of injustice associated with ed-tech, CSET academics and professionals should be encouraged to engage in direct action themselves and support the actions of others.

These forms of scholar-activism are often implicit in CSET scholarship and research currently taking place. Efforts to build public understandings of educational technology are being framed, for example, in politically-explicit terms of Freirean notions of raising critical consciousness (Oldenburg) or "resistance against big capitalism" (Helsinki). These examples can be amplified and spread throughout the CSET work. Key here is 'an attention to detail' (Santa Catarina), but also the need for humility and a sense of fun. CSET researchers can co-opt and embrace the spirit of Sara Ahmed's notion of the feminist 'killjoy' (Helsinki). As the Bristol meeting put it: "Keep a sense of humour – don't take tech too seriously, find ways to undermine and work around it" (Bristol)

#2. Paying more attention to existing forms of ed-tech that we want to see more of

CSET scholarship is often drawn to focus on problematic aspects of educational technology. However, there are many existing examples of digital technology use in education that embody genuinely inclusive, democratic, collectively empowering and/or other progressive values … we need to pay more attention to such instances of educational technology, celebrate their success, and reflect on how these might be replicated elsewhere.

A number of different types of technology might be seen to fit in with the broad values and concerns that underpin the critical studies of education and technology. Most obvious are open-source and free-software movements – valorised by many in CSET circles for offering community-orientated alternatives to proprietary EdTech and Big Tech hardware and software. There is a wide range of open-source alternatives to most of the popular software and systems used in schools and universities (see Appendix B for some of the open-source technologies named during the CSET meetings).

Encouraging the development and adoption of open-source technologies and free software can be seen as "a key tool for building a more democratic, participatory, and locally adapted education" (Buenos Aries II) as well as "reclaiming the pedagogical purpose of technology" (Buenos Aries II). In this spirit, CSET can play a key role in identifying, publicising and supporting the take-up of non-profit, free and open-source technologies – particularly in terms of developing the expertise required to engage with these technologies within teacher and school communities (Oslo). Similar attention can also be focused on supporting local Open Educational Resource communities (Augsburg) and other forms of Open Learning Materials (Utrecht), as well as efforts to establish publicly-owned and open-source digital infrastructures for regional and national education systems. All told, CSET can work to support the development of "open digital ecosystems that do not rely on the proprietary platforms of Big Tech companies" (Gothenburg).

CSET can also explore ways of directly stimulating the development of such technologies by communities of teachers and other education professionals - "that better fit the needs and practices of local education" (Utrecht). This might be pursued through organisations such as the Dutch 'National EducationLab AI' (Utrecht) or through "'green shoot' local attempts" to develop open-source and free software (India). This raises the possibility of CSET-inspired hackathons, participatory co-design projects and other ways of bringing diverse (and usually excluded) groups into the design and development of technology.

Finally, there are a few forms of education technology use that are widely seen as chiming with CSET concerns over inclusion and fairness. There is certainly scope for CSET to further explore and support the development of technologies to support greater accessibility and inclusion of dis/abled students and teachers. While adaptive technologies have long been seen as a relatively successful area of educational technology, this remains under-scrutinised by CSET research. Various CSET meetings raised the ongoing development of "live captioning, closed captions, live translations,

pluralistic approaches to learning opens access to education to students with different learning needs, and international students" (Sydney). With developments such as 'universal design' gaining in prominence (Galway), it seems important that CSET engages with the claims being made in this area as well as working with dis/ability groups and activists to explore alternate approaches to the development and use of accessibility and assistive technologies (Oldenburg).

In a similar manner, there are clear opportunities for CSET to focus further on the development of various socially-inclusive forms of technology and wider 'tech for social good' movements. This involves scrutinising the social impacts of such technology, as well as supporting the development of new technologies intended to democratise education participation, improve accessibility to education opportunities, and empower previously disadvantaged groups and communities (Santiago de Compostela).

Technologies that fit this brief include the use of smartphones and M-learning for otherwise disconnected populations (Lyon) - especially smartphone-based education with offline capabilities to address data access/cost challenges (South Africa II). There is continued interest in collaborative spaces and networks (Santiago de Compostela), especially those that support people to engage in the co-production of digital content and knowledge – e.g. makerspace, hackerspaces and repair cafes (Oldenburg). There is also growing interest in the social inclusion capabilities of AI-based tools to support multilingual engagement and the increased inclusion of different language groups (South Africa I, South Africa II).

#3. Supporting the new forms of ed-tech that we want to see

Many mainstream discussions convey a sense of digital resignation – i.e. that there are no feasible alternatives to current dominant forms of digitisation, and that education simply needs to respond to any new technology (such as Generative AI) as best as possible. In contrast, it is important for CSET scholarship to promote the belief that other forms of ed-tech are possible … and find ways of supporting people to imagine what these new forms of ed-tech might be.

It is important to build on the growing interest amongst CSET researchers and writers around futures thinking and promote these approaches to thinking otherwise about education and technology. As one of the Buenos Aries meetings put it, "Being able to discuss other possible futures is a ground for hope. Working on the forms of the future" (Buenos Aries I). In this sense, there is value in CSET scholarship continuing to engage in speculative design, participatory research, and hybrid forums in order to produce "alternative visions beyond commercialized technology solutions" (Australia).

When doing so, however, it remains important to ensure that such efforts are collaborative and draw on diverse perspectives and standpoints, thus offering "hope in providing a less egregious ed-tech by involving more stakeholders (end-users) in participatory design"(Agder). Moreover, in framing these 'future' orientated activities, particular attention needs to be paid to the implications for the present-day formations

of education and technology, as well as looking back to past forms of educational technology that might be rediscovered, reprised and reanimated – i.e. "reviving the spirit of past initiatives" (Buenos Aries II)

Many meetings raised the importance of "engag(ing) teachers in speculative design exercises … (in order to) actively shaping technological futures rather than passively reacting to market trends" (Gothenburg). Here, then, it is important to support teachers (and students) to "construct alternative imaginaries that do not stem from a deficit-based logic but instead recognize the knowledge and trajectories of teachers and students. (Barcelona). Securing the involvement of teachers and students can ensure that these imagined futures are practically-focused (London III) and result in 'local' forms of technology that fit the idea of 'convivial' educational technologies that are understandable, manageable & controllable by the communities that use them (Sydney). This is what the Bristol meeting described as:

> "'locally sourced', locally owned, locally repairable and locally accountable uses of tech. Resisting both booster and critical hype, paying attention to the micro as potential origins for new ways of doing the future, and more hopeful futures-in-the-making" (Bristol).

#4. Building networks and making alliances with like-minded others

The CSET community is not alone in being concerned with the politics of technology, and issues relating to digital power, control, inequalities and disadvantage. There are many groups, projects, collectives and organisations that are critical of the current state of technology and/or education … there is clear value in forging alliances and working collectively.

There are clear alignments between the education-related concerns being developed within the critical studies of education and technology, and like-minded critical voices in areas such as healthcare, public services, youth studies and similar. CSET can benefit greatly from making better connections with these areas of critical scholarship, as well as broader tech activist movements and organisations concerned with society-wide issues such as digital surveillance, data privacy and digital rights. A number of such groups and movements were highlighted in meetings (see Appendix B for a full list) – ranging from the Electronic Frontier Foundation and Algorithm Watch through to hacker and 'anti-fascist resistance to tech' (Oldenburg).

CSET can work to support and steer the work of these groups in educational settings – drawing attention to aspects of educational technology that these groups might address, as well as making connections with issues that these groups are raising in other domains. One important set of connections to make is how educational technologies fit within the activist movements around the digital empowerment of minoritised populations that might usually fall beyond the gaze of CSET research in school and university settings. The Santa Catarina meeting highlighted the need for researchers in their locality to make links, for example, with the Landless Workers'

Movement, Indigenous education groups and similar collectives, with a focus on "resist(ing) the capitalist consumer model by maintaining traditional ways of life while leveraging technologies to showcase their realities to society (Santa Catarina).

Following this line of thinking, it is also important for CSET researchers to make connections between their work and the interests of teaching unions as well as local education authorities and municipalities – especially in regions with a "strong tradition of trade unions" and organised labour (Agder).

#5. Encouraging ed-tech resistance

There is growing public and professional appetite for resisting and rejecting harmful forms of digital technology use … CSET scholarship needs to be involved in these wider debates, and work to push public understandings and ambitions around the digital backlash in more progressive directions.

The past few years have seen growing public push-back against the digitisation of education, as well as society in general. What has been described as a 'tech-lash' has resulted in strong support for bans on school use of smartphones and young people's use of social media, and efforts to curtail the influence that Big Tech corporations exert over what takes place in classrooms. On one hand, these moves might be seen as complementing arguments that have long been made by CSET scholarship around the harms of excessive digitisation. On the other hand, many of these current debates could be seen to be "poorly channelled and is sliding mainly towards technophobic proposals" (Montreal).

As such, CSET needs to make efforts to more centrally involved in these ongoing debates. There is a need to push back against the reactionary rejection of all things digital and oversimplified analyses of scientific, neurological and medical studies around issues such as 'screen-time'. There is also a need to see the current tech-lash as "represent(ing) an opportunity to instil a transformative critical posture" (Montreal). This might involve introducing new lines of critique and alternatives to current proposals for bans – such as developing support for the regulation of platform providers. As the Gothenburg meeting reasoned:

> "The backlash against over-digitalization in classrooms—though sometimes ideologically driven—has opened up space for more nuanced conversations about the role of technology in education" (Gothenburg).

Alongside engaging in these society-wide debates, there is also opportunity for CSET communities to engage in more localised acts of digital resistance. On an individual basis, CSET academics and professionals can model critical engagement with digital technologies throughout their own practices – engaging in visible tactics of 'interruption', 'subversion' and 'refusal' (Melbourne). These might include what the London III meeting described as acts of 'checking out' from dominant forms of EdTech

and “looking for alternatives” (London III). Other examples include refusal to adopt AI detection services and proctoring software (Galway), or explicitly engaging in forms of technology use that minimise environment harms (Bristol)

CSET academics and professionals can also work with local groups of students, educators and institutions to engage in ‘conscious projects’ (Porto) of resistance and obfuscation. The Santiago de Compostela meeting suggested the following examples of local resistance:

- **“Critical reflection:** Questioning the role of technology in the classroom, particularly its impact on student autonomy and learning, is a crucial first step.
- **Delaying device adoption:** Agreements between families and educational institutions to postpone the adoption of mobile devices help ensure more thoughtful and prepared use.
- **Opposition to automation:** Concerns about the automation of assessment and curriculum design underscore the importance of human involvement and critical judgment in education.
- **Resistance to commodification:** Rejecting curricula that prioritize commercial interests over pedagogical value, while advocating for transparency and critical reflection in decision-making.
- **Valuing the artisanal:** Recognizing that artisanal learning, artistic expression, and community work cannot be easily "datafied" and ensuring their meaningful inclusion in curricula” (Santiago de Compostela).

Such actions should be undertaken to demonstrate the possibilities of alternate ways of engaging with digital technologies – moving public and policy attention away from notions of banning and banishing all forms of digital technology, and instead promoting the principle of considered and appropriate engagement with a diverse range of technologies:

> “(This) is not a binary issue of use/don't use but a more complex and artful space of thinking how alternative possibilities can be thought of and enacted that are better aligned with particular values and functions. Simple examples might be persuading people to use a whiteboard instead of PowerPoint, or to make phone calls instead of Zoom meetings. They are still using technology but in an alternative way that changes the ethical considerations” (Melbourne).

Running throughout these actions should be a sensitivity toward “the material conditions necessary to resist or reconfigure current ed-tech dynamics” (Barcelona) and the need to pursue ‘structural strategies’ that do not further disadvantage already digitally disadvantaged populations (Barcelona).

#6. Changing the nature of the ed-tech conversation

CSET scholarship needs to remain mindful of the importance of what is said about ed-tech (and who gets to say it) … this involves working to influence dominant narratives around education and technology, while also working to diversify the voices that drive discussion and debate.

When engaging in outward-facing work, CSET academics and professionals should look for opportunities where they can shape the public imagination around education and technology and strive to 'change the nature of the conversation'. This includes making public arguments designed to problematise dominant discourses around technology and education – for example, what has been termed the 'solutionist' mindset around the introduction of new technologies. As the Barcelona meeting reasoned: "Critique of the technocentric 'problem-solution' model, proposing instead an education that asks for whom and for what purpose technology is developed" (Barcelona).

Close attention should be paid to contesting – and perhaps reframing – common terms and concepts that currently underpin dominant understandings around ed-tech. For example, prominent justifications of digital technology in terms of 'efficiency' might be redefined – perhaps in terms of energy efficiency or minimal environmental impact. As the Augsburg meeting reasoned: "Efficiency as a contested concept in ed-tech (what is/should be efficient and why/to what use?)" (Augsburg).

Another discursive shift that CSET might pursue is challenging the success-focused 'what works?' nature of discussions around ed-tech – where examples of 'best practice' and successful use cases are publicised to the exclusion of discussions around notable ed-tech failures and unfulfilled promises. This would involve drawing attention to the aftermath of high-profile ed-tech ventures, and the inevitable shortcomings of initial hype. In short, this involves holding the ed-tech hype to account. As the India meeting noted:

> "A lesson: the case of BYJUs (once a unicorn) - it failed not just because of poor financial management and lack of transparency but also because of customer dissatisfaction regarding its product marketing claims and actual educational efficiency" (India).

Here, then, CSET scholars can play a key role in establishing online and offline spaces for such conversations to take place - "spaces for collective dialogue" (Barcelona). Emphasis needs to be placed on ensuring a diversity of voices – and widening the notion of who is seen to be a 'stakeholder' in ed-tech. Far more credence needs to be given to ensuring that these discussions are initiated, led and concluded by otherwise marginalised voices – e.g. children and young people, those who are uninterested or ambivalent about technology, and minoritized groups. As was noted in a number of meetings, if CSET research and scholarship is serious about developing "critiques of hegemonic worldviews" (Santa Catarina) then these efforts need to be led by voices from indigenous, queer, crip, Black and/or global south communities.

It is also important that discussions around ed-tech are interdisciplinary in nature – "Encouraging dialogue between fields such as education, computer science, and economics to address ed-tech challenges holistically" (Santiago de Compostela). This requires the development of mutual understandings and some level of "common language and align(ned) visions" (Helsinki). In this sense, it is important to develop the social awareness of technically-oriented participants, as well as the technical-awareness of those who are more socially-focused. This highlights the importance of "boundary spanners - people who can speak technical and pedagogical language and understand the needs of different groups" (Sydney).

#7. Acknowledging – and making the most of – the privileged position of working in the university sector

Universities tend to consider themselves as relatively peripheral (and powerless) in relation to the main domains of ed-tech industry and policy. Nevertheless, those of us working in universities can summon considerable power, resources and freedom to engage in ed-tech critique … we need to be emboldened and make the most of our (relatively) privileged positions.

Those in the CSET community who are fortunate enough to have secure university-based employment enjoy considerable privilege in terms of their capacity to command a platform to speak critically about educational technology, and to support the critical work of others (within and without) the academy who are in more precarious and constrained positions. As the Helsinki group put it:

> "We can use our academic freedom better, as a way to resist and take education towards the direction we want" (Helsinki).

University academics and professionals can act as role models in their own engagements with digital technologies, and also play an important 'public intellectual' role in mainstream news media, online forums and other sites of public influence – translating key CSET ideas and arguments into public and political discourse:

> "It is crucial for university intellectuals to occupy public and media spaces, including social networks, to disseminate critical perspectives already well-established in academia. This will establish knowledge that competes with the common sense propagated on the Internet" (Santa Catarina).

This public intellectual role pushes us to get involved in popular topics of contention (e.g. device bans, rise of Generative AI) - offering critical viewpoints as well as generating publicity for aspects of ed-tech that we consider worthy of support. Offering alternatives to Big Tech is likely to give inspiration and encouragement to people who otherwise might be encouraged to think that "there is an alternative" (Durham).

Beyond the capacity of university academics and professionals to step up into such public-facing roles, universities are also potentially powerful institutions in supporting critical attitudes and actions relating to current problematic forms of ed-tech. Those in the CSET community working in the area of teacher education, for example, can use their involvement in teacher training and professional learning as a key "crystallization point" (Zurich) – raising the critical consciousness of early-career teachers prior to joining the teaching workforce. It is important, for example, to ensure that theoretically-rich and conceptually-nuanced perspectives on ed-tech are included in teacher education courses where-ever possible.

CSET scholars can also work to encourage their universities to assume a more prominent role in guiding the development and implementation of alternate education technologies. Given the integral part that higher education sectors have historically played in driving the research and development of digital technologies, there is no reason that universities could not establish themselves as designers and developers of alternative educational technologies. As the Durham group reasoned: "Universities and colleges are full of bright computer scientists and others who can code tools" (Durham).

Moreover, universities can also act as hubs of leadership and support for changing the nature of educational technology within their local communities – e.g. neighbouring schools, libraries, early-childhood centres and elsewhere. In this sense, CSET scholars can work toward the establishment of "universities as civic leaders in the adoption of technology and use of AI" (Hull).

#8. Having an open conversation about what it means to be hopeful

Some people remain wary of appearing positive about technology. The CSET community needs to have open conversations around what it means to be 'hopeful' ... and what forms of hope can embolden – rather than compromise - critically-minded approaches to education and technology.

While it is now fashionable to frame CSET in terms of 'hope' and 'thinking otherwise' it is important to be mindful of the vulnerabilities and concerns that the notion of being engaged in 'hopeful' work raises – not least concerns that a 'hopeful' approach weakens the core ambitions of CSET scholarship. The sheer size, scope and scale of the issues implicit in the critical studies of education and technology can lead to feelings of hopelessness. As the Oslo meeting report replied (partially in jest) to the question of 'what grounds for hope are there?': "basically, no, we are all fu*ked 🙂" (Oslo). Similarly, the idea of coordinating local responses to how EdTech is entwined in global issues of climate collapse, humanitarian crises and the rise of authoritarian politics can feel equally overwhelming. This can understandably lead some CSET academics and professionals to "question to what extent we can consider this all 'locally', given the agenda is driven by global big tech, and also hosted globally as well" (Hull).

There is a need, therefore, for ongoing conversations about the notion of hope within critical studies of education and technology – not presuming that everyone shares the same commitment and definition of remaining open to things being better. In this sense, it is important that the hopes that many might want to see associated with CSET are not conflated with the sort of 'hope' that is often implicit in ed-tech industry hype. As the Australian meeting put it: "EdTech sells hope—efficiency, improved results, time savings - but needs scrutiny" (Australia). Similarly, the hope that we might want to associate with CSET should not be conflated with ideas of technological solutionism:

> "Hope in ed-tech? This may be the wrong question, as ed-tech is usually positioned as a solution. Looking for hope might bring technology as an answer, without looking at the holistic phenomenon" (Brig).

In particular, we need to make clear that any sense of hope does not arise from the supposed transformatory qualities of digital technology. As was reasoned in a couple of different meetings:

> "Hope lies in education that opens the space of freedom, possibilities and capabilities; not in technologies, which are generally of a prosaic nature" (Brig).

> "Hope does not reside in the technology itself, but rather in the capacity of educational, academic, and social communities to redefine its use based on principles of justice, inclusion, and sovereignty" (Barcelona).

In this sense, we need to be clear, therefore, that CSET is not engaging in forms of what Jeffrey Duncan-Andrade terms 'false hope' – i.e. the 'hokey hope', 'mythical hope' or 'hope deferred' that often pervade discussions of education. Some of these lines of reasoning were outlined in the London II meeting – highlighting the types of discussion that the CSET community needs to be engaged in when thinking about the 'reasons to be hopeful':

> **"Hope vs. Optimism** – the difference between hope from optimism: hope is about imagining new possibilities, while optimism relies on existing evidence.
> **Hope as a Practice** – Hope is an active skill that can be cultivated, much like the open-source mindset in education that fosters collaboration and adaptability.
> **Hope as Agency** – Hope empowers individuals to act; education should encourage students to question, explore, and create their own ways of doing things.
> **Hope and Mythmaking** – Hope functions as a form of mythmaking, using imaginative narratives to inspire and shape the future (even of things that don't exist at the moment)
> **Critical and Collective Hope** – Hope should be critically examined and placed in collective efforts rather than individual tech leaders (techbros)
> **Radical Hope in Education** – Hope is a radical act in an era of automation; education should serve as a 'hope engine' to inspire positive change"
> (London II).

APPENDIX

(A) Details of CSET meetings

In response to an open call in the Summer of 2024, 53 local meetings were held in various locations around the world between the 17th and 21st February 2025. These meetings spanned 25 countries and involved hundreds of participants.

These meetings were coordinated by local volunteers and took a variety of forms – mostly face-to-face and synchronous, but also with some hybrid and online sessions.

Meetings were encouraged to be organised and run in ways that best suited the local circumstances. The main criterion was that each meeting discussed each of the four main questions.

Where possible meetings were encouraged to be open-invitation – thereby establishing local networks of groups that can continue to make lasting connections and develop a sense of intellectual community into the future.

Meeting coordinators were invited to prepare and submit brief reports detailing their meeting's discussions around each of the four questions. This report presents an analysis of these meeting reports – drawing together common themes, pointing to areas of divergence and generally bringing together an overview of what issues arose across the 53 meetings.

The full collated text of all submitted reports is available online in open-access form. Anyone interested is free to make use of this document in any way they wish (on a CC BY-NC-SA 4.0 basis), and we encourage you to use this material for your own analyses.

Region	**Local meeting locations**
The Nordics	Agder, Copenhagen, Gothenburg, Helsinki, Oslo, Bergen
UK	Bristol, Durham, Hull, London (I), London (II), London (III), Norwich, Wolverhampton, Manchester, Oxford
Rest of Europe	Augsburg, Barcelona, Brig, Dublin, Galway, Lyon, Maastricht, Matosinhos, Oldenburg, Paris, Porto, Santiago de Compostela, Utrecht, Zurich, Perugia, Tel Aviv, Madrid
North America	Indiana, Minnesota, Montreal, Ottawa, New York, Illinois, Toronto
South America	Buenos Aires (I), Buenos Aires (II), Chile (online), Rio de Janeiro, Santa Catarina

South Africa	South Africa (Cape Town/ Stellenbosch), South Africa (online), Stellenbosch
South Asia	India (Bengaluru/ New Delhi)
Australia	Australia (online), Melbourne, Sydney, Ballarat, Canberra

(B) Examples of organisations, initiatives and projects highlighted in local meetings as examples of 'hopeful' practice /praxis

Local projects and initiatives

- Alliance for free education (Germany) - Bündnis Freie Bildung - https://buendnis-freie-bildung.de
- Bildungsrat von unten - https://bildungsrat.org
- EdTech Barcamps - Educamp and Edunautika - https://edunautika.de
- Lær Kidsa Koder - https://www.kidsakoder.no
- Maker networks - Norway Makers - https://norwaymakers.org/skaperverksteder/
- OERCamps - https://oercamp.de/about-oercamps-in-english/
- Schule muss anders - https://schule-muss-anders.de

Tech products developed by education institutions

- Cogniti – AI agent development tool (developed by an Australian university) - https://cogniti.ai
- *Passeio Cultural* – cultural heritage recording software (developed by a Brazilian university) - https://seer.ufrgs.br/index.php/educacaoerealidade/article/view/133030

Alternatives to Big EdTech products

- DuD-Poll (alternative to Doodle),
- Jitsi (alternative to Zoom)
- Kompetent in Technik und Sprache (mind mapping, word-clouds, collaborative writing, stop-motion clips)
- PeerTube (alternative to YouTube)
- QuizAcademy (alternative to Kahoot)
- TaskCards (alternative to Padlet),
- Tweedback (alternative to Slido/Mentimeter),
- ZumPad (alternative to etherpad, Google Docs)

Building an education digital infrastructure

- AI4Afrika - https://www.ai4afrika.com

- Mein bildungsraum (Germany) - https://www.meinbildungsraum.de
- National Education Lab AI (Netherlands) - https://www.ru.nl/en/nolai
- SIVON - Dutch schools cooperative that negotiates contracts with tech vendors - https://sivon.nl

Like-minded organisations & movements

- AlgorithmWatch - https://algorithmwatch.org/en/
- Chaos Computer Club (CCC) - https://www.ccc.de/en/
- Coalizão Direitos na Rede (Brazil) - https://direitosnarede.org.br
- Cyber-cirujas (Argentina) - https://mutamag.com/cyberpunk/entrevista-nicolas-wolovick-club-cybercirujas/
- Electronic Frontier Foundation (EFF) - https://www.eff.org
- Netzpolitik.org (Germany) – digital rights organisation - https://netzpolitik.org
- Soberania digital (Brazil) - https://soberania.digital