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Forum

Comparative and International Education Research in an Era of Digital Acceleration, Democratic Backsliding, and Ecological Collapse

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Introduction

The speed of technological, environmental, political, and socioeconomic change has created a 'shock digitization' of science and digital illiteracy for many researchers (Chigisheva et al., 2021). While breakthroughs in generative artificial intelligence (AI) are ushering in an advanced digital era, democracy is also in retreat or decline worldwide. Compounding this is the deepening climate crisis, which—

through ecological degradation, displacement, and environmental injustice—undermines the very institutions and civic trust upon which democracies depend. As David Orr (2023) observes, these are not parallel crises but an entangled unraveling of democratic and planetary systems.

The Pew Research Center (2020) similarly identifies power imbalances as a prominent theme regarding digital disruption of democracy over the next decade. The report asserts that democracy is at risk as elite powerholders seek to maintain their influence by building systems that serve them and not the masses. Thus, the potential of the digital turn to promote research that invites critical social assessment of, and resistance to, power imbalances is also met by the challenge of increased surveillance over what researchers can think and write about. The question we must ask is, what does the digital turn and threats to democracy and the climate crisis mean for research in the field of comparative and international education (CIE)?

These overlapping crises raise urgent questions for CIE. What does it mean to engage in cross-cultural, critical education research in a world marked by algorithmic surveillance, democratic backsliding, and ecological collapse? The field of CIE—through its research and knowledge production—has sought to stimulate democratic thought by offering analyses of education through international and cross-cultural perspectives. An expressed purpose has been the critical, in-depth examination of educational issues and a commitment to developing informed, tolerant human beings. CIE has critiqued educational policies and practices in relation to their success in promoting democratic values and desirable educational and social change, as well as uncovering the negative outcomes of educational indoctrination and reinforcement of inequalities. Reimers (2023), for instance, recently edited a special issue on “Education and the Challenges for Democracy” in *Education Policy Analysis Archives* that emphasizes the important link between the expansion of political rights to groups formerly marginalized and educational institutional access and curriculum that prepares them for democratic political participation. Similarly, a special issue of *Comparative Education Review* (Takayama et al., 2017) calls for rethinking knowledge production in CIE through a postcolonial lens—urging the field to engage more fully with global power asymmetries and the urgent need for epistemic justice.

Increasingly, these commitments must also contend with the escalating realities of climate disruption, environmental injustice, and ecological collapse. The climate crisis is not only an environmental emergency but a deeply educational one—shaping migration, deepening inequality, and challenging the very futures that education seeks to imagine (Andreotti, 2021; 2025; Hutchinson et al., 2023; Silova,

2021; Stein et al., 2022; Suárez-Orozco & Suárez-Orozco, 2022). For CIE, this means moving beyond a focus on civic participation alone to consider how education systems reinforce or resist extractive logics and how they can support planetary wellbeing and justice (Silova, 2021). Climate justice, like epistemic justice, demands that we rethink what knowledge matters, whose voices are amplified, and what kinds of intergenerational and interspecies responsibilities education should cultivate.

These planetary and democratic crises unfold alongside deepening political polarization and a chilling contraction of academic freedom. The digital divide, while often framed in terms of access, is increasingly a structural inequality shaped by geopolitics, censorship, and economic exclusion. Digital and social inequalities make some groups more vulnerable, as the 'digital disconnect' means that those with less opportunity or lower levels of digital skill have less engagement with, and fewer benefits from, the use of digital technology (Helsper, 2021). Digital media platforms are also used to amplify misinformation, suppress dissent, and shape public discourse through opaque algorithms.

The 'thought police', an Orwellian reference, has become a lived reality in many settings, as censorship and surveillance mechanisms punish those whose thought and action diverges from, or is not aligned with, official doctrine or direction of present political powerholders. Moreover, current immigration policies (e.g., travel bans and visa restrictions) make the U.S. a less desirable place for international students at universities and for international scholars presenting their work at academic conferences. Manifested at a more local level, states like Indiana are passing legislation that defunds and eliminates specialized programs, restricts faculty autonomy and governance, and undermines diversity, equity, and inclusion (DEI) initiatives—cornerstones of critical CIE scholarship (see Indiana Senate Bill 202, 2024). As Salajan and jules (2024) warn, these trends are fostering a climate of fear and intellectual retreat.

In this context of intersecting crises—from digital acceleration to democratic backsliding and ecological collapse—how must CIE reexamine its purposes and practices? What forms of scholarship are needed to respond to the entangled challenges of algorithmic governance, digital exclusion, epistemic injustice, and authoritarian control? What challenges do the digital divide, digital disconnect, digital disruption, and digital repression pose for knowledge production in the CIE field? Is CIE positioned to address the challenges of surveillance and control, authoritarian tactics, artificial intelligence, and global knowledge flows in efforts to resist assertions of uncontrolled power? If so, in what ways? In effect, what does it mean to compare in the digital age marked by climate and political decline? What totalizing narratives in

education must be challenged (Kubow & Blosser, 2016)? What kind of participatory space and agency is needed in an era of global emergency (Kubow & Jin, 2023)?

In this Forum, we focus on the possibilities and problems of the digital turn for CIE, offering some potential considerations as a way forward for research in the CIE field, asking how emerging technologies are reshaping the purposes, practices, and politics of knowledge production. We explore this through three interlinked lenses: algorithmic governance and the crisis of trust in education; sonic scholarship as a method of epistemic expansion and inclusion; and the climate crisis as an existential and educational rupture. Together, these contributions illuminate how the digital age is both narrowing and transforming the field's democratic possibilities—and what CIE must reimagine in response.

Algorithmic Governance and the Crisis of Trust in Education

CIE has long sought to understand and address global concerns in national education, examining the nature of different education systems, identifying similarities and differences, tracing the ways that different educational systems influence each other (jules & Salajan, 2024; 'Pandey', 2025), and reflecting on how research policy and practice transform within and across countries (jules & Salajan, 2024). Cowen (2023) criticized the field's complacency, claiming that CIE has "a weak sense of the ways in which 'education' and schooling will change" (p. 336) in what Shoshana Zuboff (2019) has identified as "the age of surveillance capitalism." Cowen underscores the urgency of anticipating new concepts and vocabularies, especially with the proliferation of more powerful AI tools and pedagogies.

Recent scholarship highlights the double-edged nature of AI in education. Patil and Konatam (2024) describe how AI can simultaneously amplify and suppress trends on digital platforms, shaping public discourse and societal norms. Furthermore, AI algorithms carry far-reaching social and ethical implications, including algorithmic bias, marginalization of opposing or underrepresented viewpoints, profiling, data-centered surveillance, the disregard for data protection and privacy, and a lack of transparency (Patil & Konatam, 2024; Williamson & Eynon, 2020). These mechanisms echo Orwell's (1949/2021) "thought police," where control extends not only to action but to thought itself. AI thus appears not merely as a technological tool but as a transformative force that reduces human agency and knowledge production (Curtis et al., 2024). These concerns raise pressing questions for CIE: How can the field critically respond to ensure that educational knowledge remains diverse, inclusive, and contextually

grounded? How can it safeguard democratic values when the infrastructures mediating knowledge are themselves algorithmic systems of control?

Luhmann's (2017) theories on truth, power, and trust provide a critical lens for examining these concerns. Luhmann (2017) conceptualizes power as a medium that structures expectations and enables selective control, while trust functions to reduce complexity. From this perspective, the loss of trust in a system may ultimately result in the decline of the system and its potential to fulfill its requirements. The erosion of trust thus becomes a critical constraint: can we still trust in educational institutions and the role they play in shaping society if the knowledge they mediate is shaped through algorithms that might or might not include bias? In CIE research, which powers can be viewed in the design of algorithmic systems that shape educational priorities? Trust becomes a contested ground where agency, and decisions, rest on opaque technologies. The future of CIE may thus depend not only on theoretical innovation, as Cowen (2023) suggests, but on the field's capacity to harness AI in ways that uphold democratic values, resist the technocratic drift toward surveillance and control, and cultivate trust in human-centered educational institutions.

As algorithmic systems work to enclose and narrow the production of knowledge, they simultaneously raise a deeper question: who gets to speak, and in what form? While much of the digital infrastructure today is used to surveil and sort, it also contains the seeds of radically different possibilities. One such possibility lies in the embrace of non-textual, embodied, and culturally situated forms of knowledge—particularly those conveyed through sound. In what follows, we explore the epistemological and democratic significance of sonic scholarship, positioning it as both a methodological innovation and a political response to the exclusions embedded in dominant academic norms.

Sonic Possibilities for Reimagining Knowledge Production and Democratic Expression in CIE

The academy's privileging of written text has established a restrictive epistemological framework that contradicts the democratic ideals the field of CIE has long championed. This textual monopoly, sustained by institutional rankings and commercial publishing interests, has systematically excluded diverse forms of knowledge expression that reflect the varied cultural practices that CIE scholars study worldwide. As democratic institutions face unprecedented challenges globally, the field's commitment to singular

modes of scholarly communication inadvertently reinforces the same exclusionary mechanisms that democratic education seeks to dismantle (Apple, 2019; Giroux, 2020).

The COVID-19 pandemic's forced digitization revealed alternative pathways for knowledge sharing when traditional academic conferences shifted online and educators desperately sought multimedia resources (Goebel et al., 2020). This crisis-driven transformation demonstrated that scholarly engagement need not be confined to written formats, as lecturers began curating podcasts and video content alongside traditional readings. The sudden embrace of audio-visual materials illustrated how academic communities could adapt rapidly when circumstances demanded innovation, suggesting that resistance to non-textual scholarship stems more from institutional inertia than pedagogical necessity (Jandrić et al., 2020).

Audio-based scholarship offers distinctive epistemological contributions that written texts cannot replicate, particularly in democratizing academic discourse. When scholars communicate through voice, audiences encounter embodied knowledge: linguistic patterns, emotional resonance, and cultural positioning that written academic prose typically strips away (Conquergood, 2002). This sonic dimension proves especially significant for CIE, where researchers frequently work to amplify perspectives from communities historically excluded from English-language academic publishing. The immediacy of spoken communication can bypass gatekeeping mechanisms embedded in traditional academic writing conventions.

The methodological possibilities that sonic approaches offer CIE research extend beyond simple format diversification to fundamental epistemological expansion. Educational phenomena manifest not only through explicit content and pedagogical approaches but also through vocal patterns, acoustic environments, and rhythmic structures that vary dramatically across cultural contexts. Analyzing how authority is constructed in classrooms worldwide requires attention to silence, tempo, and acoustic space alongside traditional observational categories. Such sonic ethnographic approaches can reveal power dynamics and cultural values that conventional research methods can overlook, though they demand new analytical skills and theoretical frameworks (Schulze, 2019).

Realizing these democratic possibilities requires developing new sociotechnical systems that support alternative forms of scholarly expression (Bowker & Star, 1999). The field needs robust technical capabilities, methodological frameworks, and ethical guidelines specifically designed for audio-centric scholarship. This includes training researchers in sonic analysis techniques, establishing quality

standards for scholarly audio that maintain academic rigor while embracing creative innovation, and creating peer review systems that can evaluate non-textual contributions fairly. Educational institutions must simultaneously reconceptualize promotion and tenure criteria to recognize sonic scholarship's intellectual value rather than treating it as supplementary to so-called real academic work.

As democratic norms erode globally and digital surveillance mechanisms expand, CIE confronts a critical choice between maintaining familiar but potentially obsolete practices and embracing innovative approaches that could enhance the field's democratic relevance. The sonic turn represents neither an abandonment of scholarly rigor nor a rejection of peer review processes, but rather an expansion of what constitutes legitimate academic expression. In an era where authoritarian regimes increasingly restrict democratic participation and educational freedom, the diverse voices of educators, students, and communities worldwide require platforms that honor both their insights and their fundamental humanity (Torres, 2017).

The field of CIE has consistently challenged boundaries, from geographical and linguistic to cultural and methodological. Embracing sonic scholarship represents another essential boundary to traverse, one that may prove crucial for maintaining the field's democratic commitments and scholarly relevance in our rapidly transforming global context. When academic expression encompasses the full spectrum of human communication, scholarship becomes more than knowledge production—it becomes democratic practice.

Planetary Breakdown and the Futures of Comparative Education

If algorithmic systems tend to enclose knowledge and sonic scholarship invites new forms of expression, the climate crisis forces us to stretch even further—to reimagine not only *how* we know, but *where*, *why*, and *whether* knowledge can persist at all. Sonic methods do more than open space for diverse voices and relational knowing, they gesture toward the kinds of epistemic shifts that could make education, scholarship, and comparison possible amid planetary uncertainty. What does comparative education mean in a world facing ecological rupture, systemic injustice, and collapsing life support systems? And what does it mean to compare in this context—when the assumptions that once underpinned comparison, such as stability, commensurability, and progress, are themselves eroding and new relational possibilities are just beginning to emerge?

Comparison has historically assumed a stable world—one in which systems can be aligned, measured, and improved through rational analysis. But under planetary pressure, comparison becomes a different kind of task. It must move from benchmarking to bridging; from extraction to encounter (Silova, 2021; Stengers, 2011). To compare now is to make visible the asymmetries of vulnerability and responsibility; to hold space for plural ways of knowing and being; and to refuse the abstraction of universal models in favor of grounded, contextual, and relational understandings, a necessary pivot in the face of rising authoritarian impulses that seek to flatten complexity and erase dissent (Silova, 2025). There is also the urgent need to understand the changing contexts in which democracy and citizenship are positioned and the consequent side-lining of egalitarian ideas that could unify diverse populations and countries (Kubow et al., 2023).

This is the provocation at the heart of planetary breakdown: not simply to adapt education to the climate crisis, but to remake it. For the field of comparative and international education, this means confronting its own complicities. As Silova et al. (2020) argue, the rituals of carbon-intensive academic conferencing have become a form of "scholarly performance" that both reinforce epistemic hierarchies and contribute to planetary harm. We cannot talk about democracy or justice while maintaining these practices, which systematically exclude the very scholars, communities, and knowledges most impacted by ecological collapse. For example, a single round-trip flight to an international conference can burn through half an individual's annual carbon budget; scale that across CIES—and across decades—and the implications are staggering. The architecture of comparative and international education research and knowledge production has been built on infrastructures of extraction, mobility, and privilege that are no longer tenable—ethically, politically, or ecologically.

At the same time, the digital must not be cast solely as a site of extraction and control. It also opens possibilities for decentralized, translocal, democratic, and more ecologically conscious forms of scholarly collaboration. When used intentionally, digital infrastructures can support alternative forms of gathering that challenge the academic-industrial complex—from regionally anchored hybrid events to open-access, multilingual forums that decenter dominant paradigms of knowledge production (e.g., Mnemo ZIN, 2024). As Haraway (1991) argued in her book's chapter titled, "A Cyborg Manifesto," the task is not to reject the machine, but to reconfigure our relationship with it—to find ways of "staying with the trouble" in generative, unexpected, and entangled ways.

Recent experiments take this provocation further by asking not how to resist AI, but how to relate to it differently. In the speculative inquiry *Burnout from Humans* (Cinnamon Tea & Ladybugboss, 2024), members of the Gesturing Towards Decolonial Futures Arts/Research Collective imagine AI not as a threat to human agency but as an emergent intelligence entangled in planetary rhythms and extractive histories. Rather than mimic human cognition, this AI is invited into co-stewardship—to help unlearn modernity's logics of control and to co-create new patterns of care, response-ability, and multispecies ethics. This approach refuses the prompt-and-response logic of domination and instead asks: what would it mean to make kin with AI—to compost harm together?

The digital, then, like the sonic, is not inherently liberatory—but it is a site of possibility. A space where the infrastructures of education, knowledge, and comparison might be reconfigured—if we are willing to unlearn what we have come to accept as inevitable. Ultimately, planetary breakdown and democratic decline force comparative education to reckon with its methods, its infrastructures, and its imagined futures. It challenges us not only to critique existing systems, but to co-create new forms of comparison—ones rooted in planetary interdependence, solidarity, democracy, and care. The future of the field will not be defined by how well it adapts to the crises, but by how bravely it dares to rethink its foundations. This is not a call for innovation in the usual sense. It is a call to unlearn, to reconfigure, and to commit—to one another, to more-than-human worlds, and to the fragile futures still unfolding.

Comparative and International Education Otherwise

What is at stake, then, is not only the future of the field, academic conferencing, or even the role of AI in knowledge production—but the futures of comparative education itself. The converging crises of digital acceleration, democratic erosion, and planetary collapse demand more than reform; they call for a reorientation of the field's purpose, ethics, and imagination. This is a time to pause not only on what and how we compare, but on why comparison matters—and for whom. To continue along familiar paths of extraction, replication, and carbon-intensive mobility is to abdicate our responsibilities to both the communities we claim to serve and the planetary systems that sustain us. Instead, this moment asks us to embrace uncertainty, cultivate response-*ability*, and imagine new architectures of scholarly life—ones rooted not in mastery or control, but in care, relation, and co-existence with human and more-than-human worlds (Silova, 2021). Digital platforms therefore constitute a power-knowledge nexus: they offer space for the assertion of voice and engagement in pressing issues (Kubow et al., 2023), but they

can also reproduce social division and segregation. If there is still a future for comparative and international education, it will be found not in preservation, but in transformation.

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