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School Technology in a Scenario of Acceleration: Persistence, Wear, and Limits

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ABSTRACT

This article examines the modern school as a historical technology of knowledge transmission whose persistence and effectiveness were produced by a stable set of regularities linking knowledge, bodies, time, authority, and expectations under a shared rationality. From a theoretical-genealogical approach grounded in educational historiography, Foucauldian genealogy, and critical studies of technology, acceleration, and digital culture, the article analyzes how schooling institutionalized the modern pansophic ideal - 'teaching everything to everyone' - and how this principle is now being displaced by platform-mediated and networked ecosystems of knowledge circulation.

Rather than interpreting the so-called 'school crisis' as a problem of efficiency or implementation, the article conceptualizes it as technological wear produced by friction between a form designed to organize the long temporalities of formation and an environment marked by digital acceleration, knowledge abundance, algorithmic visibility, and non-hierarchical circulation. The analysis does not treat ICT as instructional tools to be incorporated into classrooms; it examines the broader digital condition in which school technology persists while losing its capacity to hegemonize contemporary educational experience. The resulting scenario is an interregnum without guarantees, characterized by the coexistence of school persistence, unequal conditions of appropriation, and knowledge drifts that overflow schooling without constituting stable alternatives.

KEYWORDS: school technology; digital knowledge ecosystems; pansophia; acceleration; platform-mediated learning

1. INTRODUCTION: THE SCHOOL AS TECHNOLOGY

The school of Western modernity, emerging at the beginning of the seventeenth century and globalized from the nineteenth century onwards, can be understood as both a pedagogical institution and a technology of governance of knowledge transmission. This dual condition constitutes one of the central features that explain its historical effectiveness and persistence. Its persistence represents a remarkable achievement: for more than two centuries, schooling articulated knowledge, bodies, time, authority, and expectations under a shared rationality (Müller et al., 1989). The contemporary problem addressed in this article is how that technology now operates within a digital environment in which knowledge circulates through platforms, networks, feeds, repositories, search engines, and informal learning communities that do not depend on the school as their organizing center.

As an epiphenomenon of modernity, schooling does not operate solely at its visible or explicit levels, such as curriculum or didactics. Educational historiography has shown that schooling has constructed a horizon of intelligibility within which education became thinkable, practicable, and evaluable, guaranteeing human teaching in a manner entirely novel in human history, and defining what counts as legitimate knowledge, how it should circulate, and under what conditions it can be recognized, even under state regulation (Popkewitz, 2011).

From this perspective, Michel Foucault proposed that schooling, as an emergence of an initially disciplinary society, could be understood as a technology with its own regularities, predictable effects, and recognizable limits (Foucault, 2004). It is precisely here that one of its greatest achievements lies: like all technologies of power, it managed to combine heterogeneous elements -institutions, techniques, architectures, expert knowledges, and regulations- into relatively stable

patterns that oriented conduct and produced subjects. This stability expressed a remarkable capacity to absorb reforms, pedagogical innovations, and discursive changes without losing the core of its functioning. Languages, instruments, and justifications changed, but school technology persists (Narodowski, 2022).

The hypothesis guiding this article starts from this recognition: school technology enabled the massive expansion of education through the institutionalization of the discourse that sustains it, namely, that all human knowledge should be for all human beings, and that the school appears as the best means for its realization (Hunter, 2020).

However, schooling now faces a new challenge, not because it has 'failed' with respect to an original promise, but because the very set of regularities that made its historical success possible has begun to constrain attempts to imagine new adaptations of schooling. The issue is not simply whether schools can incorporate digital devices, platforms, or applications. The more fundamental issue is that the digitalization of knowledge circulation modifies the environment in which the school defines legitimate knowledge, organizes attention, and distributes authority. Thus, the problem no longer lies, as it once did, only in designing and redesigning 'better' school policies - a task in which educational research has accumulated valuable knowledge - but in developing a theoretical model capable of conceptualizing education under conditions in which schooling remains constitutive while no longer monopolizing the circuits of cultural transmission.

This horizon is closely linked to the pansophic ideal of modernity (Čížek, 2019). The promise of universal access to knowledge, historically organized through schooling, was one of the great regulatory principles that legitimized the expansion of schooling. That universality did not yield immediate results (and still has not), but it functioned as a normative motor that made it possible to order, sequence, and administer knowledge, enabling an unprecedented expansion of socially recognized access through its institutionalization in a specific technology, which made mass education possible (Paglayan, 2024).

Understanding the school as a technology thus allows us to take advantage of an analytical shift already consolidated in educational studies, moving beyond debates about "the school we want" or "the best pedagogy" toward the analysis of its conditions of possibility and its effects. These first-order questions are not rejected here; on the contrary, the aim is to understand their conditions of possibility in light of contemporary transformations.

Like all modalities of technologization, schooling undergoes cycles of expansion, saturation, and reconfiguration. Like previous technologies of knowledge transmission such as writing or printing (Ong, 2013), its centrality since the twentieth century does not in itself guarantee future adequacy. The present tension does not announce its disappearance, but it does indicate growing friction between a form designed to organize the long temporality of formation and an environment marked by digital acceleration, platform-mediated circulation, algorithmic selection, non-hierarchical access to information, and the erosion of institutional monopolies over knowledge. Where politics once operated with subjects, decisions, and ends, the viral takes its place: propagations without message. The viral circulates, corroding the certainties and territories of the modern (Baudrillard, 1995).

This work explicitly begins by recognizing the historical achievements of the school form and the epistemological relevance of pedagogical and educational studies that have analyzed and refined it. Its purpose is to take one further step: to show that the school, as a specific historical technology, continues to condition education, but that what was for a long time a strength is beginning to become insufficient for fully understanding the present.

In this sense, the article does not propose a program of deschooling nor an alternative model in the sense of Ivan Illich (1971). Nor does it align itself with a nostalgic or moral critique, or with a techno-utopian celebration of replacement. It also does not study ICT as classroom instruments or measure their effectiveness as didactic resources. Its object is prior and more structural: the friction between school technology and a digital knowledge ecosystem that multiplies forms of production, access, circulation, and appropriation beyond the school form. The intention is to assume the absence of guarantees as a condition of analysis and to think not of an 'after' the school, but of unstable virtual scenarios in which new forms of knowledge production and circulation emerge without claiming institutional status, while school technology persists as a dominant, valuable, and still effective reference, albeit increasingly strained by processes that unfold beyond its margins.

2. METHODOLOGY

This article adopts a theoretical-genealogical methodology. It is not an empirical study of digital practices, nor a normative proposal for school reform. Its method consists of reconstructing the historical regularities that made schooling possible as a technology of knowledge transmission and then analysing how those regularities are strained by contemporary digital conditions. The procedure combines three operations: first, a historical reconstruction of the school form and its pansophic principle; second, a conceptual analysis of the school as a technology of governance; and third, a theoretical confrontation between that technology and the platformized, accelerated, and reticulated circulation of knowledge.

The analysis relies on the explanatory capacity of selected conceptual frameworks, but these frameworks are not used as decorative references. Foucauldian genealogy is mobilized to identify the conditions of possibility of schooling and the regularities through which it governs knowledge, bodies, and time. Deleuze, Guattari, and De Landa are used to conceptualize decentralized assemblages, rhizomatic circulation, and lines of flight that do not stabilize as institutions. Accelerationist authors such as Fisher, Land, and Brassier are used to interpret the temporal disjunction between school formation and techno-capitalist acceleration. Critical studies of digital culture and platform society are introduced to specify the infrastructures through which this disjunction becomes educationally visible (Selwyn, 2016; Williamson, 2017; Van Dijck et al., 2018; Knox, 2019).

This approach makes it possible to engage with the complexity of the educational phenomenon without reducing it to the usual variables of performance or policy implementation. It enables an analysis attentive to transformations in the techno-cultural environment, to shifts in the temporal regimes of knowledge, and to drifts that overflow traditional frameworks. In this way, the adopted methodology constitutes an analytical resource that enhances the understanding of the present, drawing on the accumulated achievements of the educational field while extending its interpretive capacity toward scenarios that resist capture by normative or instrumental approaches.

The development of the article follows a progressive analytical trajectory. First, it examines the historical persistence of the school in the face of techno-capitalist and digital acceleration, interpreting the so-called 'school crisis' as a process of technological wear rather than as a problem of efficiency or implementation. Second, it reconstructs the role of pansophia as an organizing principle of modern schooling, showing how, as a regulatory fiction, it enabled the governability of the promise of the universality of knowledge. Third, it analyzes the contemporary overflow of this principle in platform-mediated, networked, and informal circuits of knowledge. Fourth, it considers the ambivalent consequences of this overflow: it may open non-school forms of access, but it may also presuppose unequal resources, dispositions, and capacities of appropriation. Finally, it discusses why the school retains relevance as a site of intergenerational responsibility, shared cultural mediation, and formative delay, even as its monopoly over legitimate knowledge weakens.

On this basis, the article conceptualizes the current scenario as an interregnum marked by interference, the absence of guarantees, and the unstable coexistence between the persistence of schooling and educational practices that overflow it without replacing it. Finally, it proposes a reading of the present educational moment in terms of limits: not as a guaranteed transition towards a post-school stage, but as a field of tensions that redefines the relationship between knowledge, technology, and education.

3. RESULTS

3.1. Techno-capitalism and acceleration

The persistence of the modern school is particularly striking when compared with the profound transformations that have affected other central technologies of modernity. Modes of production, communication, clinical practice, and social organization have been rapidly reconfigured by techno-capitalism and digital infrastructures (Land, 2011; Selwyn, 2016; Williamson, 2017). Yet the school has preserved a remarkably stable structure. Gridded classrooms, homogeneous age groups, sequenced time, standardized curricula, and centralized pedagogical authority (Narodowski, 1994) continue to organize educational experience, even where digital devices, platforms, or contemporary languages are incorporated. 'Innovations' and 'fashions' tend to be absorbed as complements or supports for a pre-existing grammar (Fernández Enguita, 2020). This demonstrates the capacity of schooling to metabolize novelty within its own devices of order, sequencing, and control (Paglayan, 2024).

Schooling was conceived to operate within a slow, progressive, and cumulative temporal regime characteristic of Enlightenment modernity (Narodowski, 1994). Knowledge was to be organized, transmitted, and assimilated over extended trajectories, under the premise that the future could be planned on the basis of the past, within what Margaret Mead (1970) classically termed a “postfigurative culture”, in which tradition exerts a central influence on the present and adults (in this case, teachers) act as its ambassadors.

Accelerationist studies (Land, 2018; Fisher, 2009) show that techno-capitalism is characterized by discontinuous temporal dynamics marked by accelerated obsolescence, permanent updating, and the fragmented circulation of knowledge. In digital environments, this dynamic becomes materially organized through search engines, platforms, recommendation systems, feeds, collaborative repositories, tutorials, and networked communities. The value of knowledge no longer necessarily resides in its stability or depth, but in its capacity to be activated, recombined, circulated, made visible, and discarded rapidly. Culture becomes ‘prefigurative’: tradition carries diminishing weight, the new negates the old (Mead, 1970), and the adult position as a locus of knowledge is continuously exposed to serious risks of obsolescence (Narodoswki, 2016).

The school thus finds itself stretched between two temporalities. On the one hand, it continues to operate as a technology of stabilization, ordering, classifying, and hierarchizing knowledge with universalist pretensions. On the other hand, it is surrounded by accelerated flows of information, attention, and learning that do not recognize its temporalities or its criteria of legitimation. This tension has not been resolved through incremental reforms nor through the incorporation of screens, computational networks, or digital technologies. On the contrary, many such reforms intensify the dissonance by attempting to adapt a technology such as schooling (organized around long temporalities of waiting) to the continuity of an environment governed by acceleration, where discontinuity is the norm.

The relevant issue is not merely that digital instruments enter the school as ‘inputs’ intended to modernize practice. It is that, once incorporated, they tend to be subordinated to devices proper to school technology: sequences, trajectories, age-based progressions, assessment criteria, and accreditation. Outside the school, the same digital infrastructures operate through recombination, updating, lateral displacement, visibility metrics, and network effects (De Landa, 2016; Van Dijk et al., 2018): educational processes are increasingly shaped by digital infrastructures oriented toward algorithmic governance, data extraction, and market logics, which are reconfiguring how teaching, learning, and decision-making take place (Mio-Puig-cercs et al., 2026). From a different theoretical register, similar conclusions are reached: the ‘grammar of schooling’ (Po-pkewitz, 2011) functions as an inhibitor of innovation and reform, such that failures of implementation should be attributed to this mode of organization rather than to design flaws (Labaree, 2021), or, at the very least, to designs that insufficiently account for the characteristics of school grammar.

This perspective makes it possible to add a new layer to what has for fifty years been called the “crisis” of education (oombs, 1968), moving beyond the neoclassical economics of education, which interprets it as a deficit of efficiency, and the neo-institutionalist political science approach, which understands it as a problem of incentives and regulation. From a technological standpoint, it is instead a process of wear (De Landa, 2016). Schooling begins to show signs of saturation because the patterns of correlation that sustain its devices (Foucault, 2004) between knowledge, time, authority, and subjectivity, become increasingly misaligned with the material and cultural conditions of the accelerated and prefigurative present.

The approach developed here does not replace these perspectives but repositions them. Problems of efficiency or implementation may exist, but they become derivative expressions of a more fundamental friction between school technology and its outside, its environment (Behrent, 2013). The school continues to function, but increasingly as a device that administers exception, as vast zones of knowledge production and circulation develop beyond its control, particularly, though not exclusively, on the internet. In this context, the school does not disappear; it persists, but with growing difficulty in presenting itself as the organizing center of the cognitive ecosystem, as it confronts a new reticulated spatiality (De Landa, 2016).

In this scenario, schooling can no longer claim a monopoly over legitimate education, not even at the symbolic level. Yet it can be observed that it continues to operate as if such a monopoly remained intact, reproducing a logic of closure that hinders recognition of transformations that do not fit within its institutional framework. This should not be read as “blindness” or “resistance to change”, but rather as an expression of the way in which any technology protects its principle of operation,

even when the environment modifies the assumptions that once sustained it. This reveals a constitutive tension: the school continues to position itself as a reference point for defining what counts as “education”, while no longer controlling, in a privileged manner, the circuits through which knowledge acquires social relevance.

For this reason, it is insufficient to analyze the present by starting from improvement or innovation. The problem is not only how to make the school ‘work better’, but how this historical technology enters into friction with a digital ecosystem that overflows its fundamental assumptions. Internet-based learning, platform-mediated knowledge production, tutorial cultures, networked communities, and informal digital practices do not simply provide new resources for schooling; they alter the conditions under which knowledge becomes visible, usable, recognizable, and socially valuable. This friction produces an ambiguous situation: the school persists as an obligatory reference, while an increasing number of learning processes do not necessarily pass through it. This is not a defect but a real coexistence between institutional continuity and functional decentering (Narodoswki & Campetella, 2020).

The consequence of this process is not a clearly defined post-school scenario, but a terrain marked by the coexistence of a stable institutional form and a growing set of practices that surround it, traverse it, or ignore it. In this zone of indeterminacy, the exhaustion of the school’s capacity to hegemonize contemporary educational experience becomes visible. However, this exhaustion should not be read in a one-sided way. The school’s partial non-coincidence with acceleration may also preserve a distinct formative value: delay, sequence, adult mediation, sustained attention, and the possibility of relating to cultural legacies without immediately submitting them to the rhythm of updating. In sum, the diagnosis does not point to the ‘death’ of the school from a catastrophic nihilism (Brassier, 2007), but to the relative loss of its organizing sufficiency under conditions of acceleration, overabundance, and non-hierarchical circulation of knowledge (Land, 2018).

1.3.2. Pansophia: from organization to overflow

Originally, pansophia was established in the classical pedagogical studies of the sixteenth and seventeenth centuries, particularly in the work of Jan Amos Comenius (1984), where pansophia functioned as a systematic response to an emerging modern problem: the need to organize knowledge in societies shaped by the scientific method, the expansion of knowledge, the printing press, and the progressive state organization of education. In this sense, pansophia should be understood as an ideal of universal dissemination of knowledge constructed as an organizing principle capable of articulating school technology (Čížek, 2019; Narodowski, 1994).

The promise of “teaching everything to everyone” operated as a proclaimed objective, but its effectiveness did not lie in its full realization. Its power functioned as a regulatory fiction capable of legitimizing a new technology. In Foucauldian terms, pansophia can be read as an episteme (Foucault, 2004) that delimited the possibilities and limits of what could be thought in educational matters: it established what could be considered relevant knowledge, how it should be organized, and under what conditions it could be legitimately transmitted.

From this perspective, pansophia was neither external to the modern school nor an abstract ideal that the school “betrayed” or “failed to achieve”: it was one of its conditions of possibility. Universal access to knowledge was historically unviable, rendering knowledge a scarce good. Consequently, the tension between proclaimed universality and material limitations was resolved through disciplinary fragmentation, curricular sequencing, age-based distribution of knowledge, the ordering of children’s bodies, and certification through assessment (Hamilton, 1992). Universality was translated into differentiated trajectories, hierarchies of knowledge, and legitimized mechanisms of inclusion and exclusion. Pansophia constituted the great utopia of modern education, and the school was the technology that made it governable without renouncing its universalist claim.

This operation proved effective. The relative stability of the corpus of knowledge, the centrality of the state as organizer of legitimate knowledge, and the scarcity of alternative channels of circulation reinforced the identification between education, schooling, and pansophia. Learning “everything” did not mean accessing the totality of knowledge available in a society, but rather successfully completing the prescribed school itinerary (Hamilton, 1992). The pansophic promise was symbolically fulfilled through the individual certification of the school trajectory, regardless of actual access to the totality of socially produced knowledge or to its permanent updating (Čížek, 2019).

The volume, speed, and heterogeneity of knowledge (still marked by scarcity, albeit in rapid expansion due to scientific advances) remained within margins that could be processed by school technology. This condition is central to understanding the stability of schooling: pansophia could only be sustained as an ideal while excess knowledge remained controllable, classifiable, and sequenceable. It was not a matter of “knowing everything”, but of knowing what the school defined as the foundations of knowledge (Comenius, 1984). It is precisely this condition that begins to erode once knowledge becomes abundant (Desai & Lemley, 2023), and pansophia starts to manifest itself as excess. This excess overflows schooling through agencies of transmission and appropriation that do not always recognize themselves as educational: platforms, search engines, tutorial cultures, forums, digital repositories, collaborative environments, audiovisual circuits, and algorithmically organized flows. These practices do not usually claim pedagogical legitimacy, nor do they present themselves as reforms or alternatives. Yet they fulfill decisive formative functions in contemporary social life. This feature - their non-programmatic character - becomes fundamental: knowledge overflows and is no longer necessarily institutionalized.

One of the most relevant characteristics of these drifts is their indifference to classical criteria of school validation. Education becomes decentered into a rhizomatic assemblage in which points of inflection are horizontal (Deleuze & Guattari, 1980), as the old hierarchies of schooling flatten out: with the end of scarcity, knowledge disperses without walls to contain it. Knowledge circulates without passing through formalized curricula, without adjusting to age-based sequences, and without requiring institutional evaluation or accreditation. Authority is not conferred only by institutional status, but also by visibility, influence, replicability, algorithmic prominence, the capacity to generate recognition, or the ability to solve concrete problems.

The viral, as Baudrillard (1995) noted thirty years before the term gained widespread currency, is the characteristic assumed by practices whose contagion is antagonistic to territorial localization. Learning ceases to be organized within a bounded space and is reconfigured as a discontinuous and contingently situated event.

These dynamics do not respond to a deliberate pedagogical design nor to an explicit educational project; rather, they emerge from logics intrinsic to the contemporary technological environment. The distinction between producers and recipients of knowledge becomes blurred (Postman, 1994), and knowledge is constructed through transitory assemblages (De Landa, 2016) rather than through formalized teaching processes. In many cases, the adult world - still postfigurative and once central to schooling - does not even perceive the existence or relevance of some of these new practices. This is not a deliberate exclusion of the school world, but a decoupling of scales and languages.

The contrast with the school could not be sharper. While schooling is organized around principles of territorial homogenization of ages, groups, contents and times, these drifts operate through heterogeneous aggregation in a deterritorialized form (Deleuze & Guattari, 1980). Diverse audiences couple contingently, as occurs in contemporary cultural practices where mashups, collaborations, and genre crossings connect publics that school logic, based on classification and segmentation, would hardly be able to assemble. This is not a planned expansion of access to knowledge, but a proliferation of connections that escape vectors of centralized ordering (Desai & Lemley, 2023).

This disanchoring does not imply that the school has lost relevance, nor that these forms of learning replace the public school in an equivalent manner. Rather, it signals a transformation in the status of socially significant knowledge. What proves formative, regardless of the normative judgments one might formulate, no longer necessarily coincides with what is taught, evaluated, or certified by the school. At the same time, the school remains distinct from these drifts because it is institutionally charged with the formation of children and adolescents, with the mediation of cultural legacies, and with a responsibility that cannot be reduced to the mere circulation of information. This distinction is crucial: the article does not equate all learning practices, but analyzes the weakening of the school's monopoly over recognition and legitimacy.

From this perspective, contemporary drifts of knowledge should be interpreted neither as symptoms of educational deficit nor as spontaneous expressions of emancipation. Their effects are not egalitarian by definition. Access to an open digital ecosystem presupposes material resources, time, language, attention, digital literacies, family support, and prior school trajectories. But the school should not be treated as an implicitly egalitarian baseline either: historically, school technology has also organized inclusion and exclusion, common formation and social differentiation, access and selection (Paglayan, 2024). The question of equality is relevant, but it should not be assumed as a self-evident

luating contemporary knowledge drifts. Instead, it is better understood as a historically situated problem of appropriation, especially given that schooling itself has long combined processes of inclusion and exclusion. Deleuze and Guattari (1980) warned of the risk of applying concepts proper to territorial regimes to contexts of growing deterritorialization. These drifts are collateral effects of a techno-cultural ecosystem that reorganizes relations between knowledge, authority, and subjectivity (Fisher, 2009).

This scenario compels a rethinking of how education is conceptualized. Rather than asking only how to incorporate these new practices into the school or how to regulate them through educational policy, it becomes first necessary to interrogate them as symptoms of a structural mutation (Land, 2011). The problem lies in an education organized around a centralized technology facing an outside of dispersed learning processes, without center or unified direction. The question is not whether this outside is better or worse than schooling, but how it modifies the conditions under which knowledge is accessed, appropriated, valued, and transmitted. It is within this displacement that prevailing discourses on schooling begin to appear not only insufficient, but conceptually inadequate for accounting for what is learned today and how it is learned.

1.3.3. Interference, interregnum, and the absence of guarantees

Contemporary drifts of knowledge do not constitute clearly delineated alternative horizon nor a coherent project of educational transformation: there is no effective political ordering principle. They operate as interferences: irruptions that alter traditional modes without offering a new principle of organization. These interferences neither replace the school nor confront it directly; they traverse it, surround it, and, in many cases, render it partially irrelevant and even a burden for engaging with accelerated and prefigurative modes of learning. To date, their effect has not been refoundational, but destabilizing.

As indicated in the previous sections, the primary effect of these interferences is neither emancipation nor guaranteed democratization of knowledge. They do not, in themselves, promise verifiable normative outcomes, ethical formation of subjects, or more egalitarian communities. Nor should they be dismissed as mere inequality machines. Their effects depend on historically situated conditions of appropriation. Lacking explicit pedagogical intentionality and a normative horizon, these practices cannot be adequately evaluated only in terms of classical educational ends. Like all deterritorialized events, their potency lies in their capacity to disorganize prior orders, not in their aptitude to replace them with new, stable ones (Deleuze & Guattari, 1980). The situation that emerges can be described as an interregnum, insofar as it does not appear to constitute a linear transition toward a post-school form, but rather a suspended time in which inherited categories lose explanatory efficacy while new ones have yet to stabilize. The school persists, but increasingly as a technology that insists on postponing its own relative obsolescence. It does not disappear, but neither does it fully reconstitute itself. Interferences multiply, yet they do not converge on a new center. Between what persists and what destabilizes, a space of indeterminacy takes shape that resists both planning and conceptual closure.

Thinking education within this interregnum requires relinquishing the temptation to formulate totalizing solutions capable of resolving every problem of the present. There is no institutional design capable of capturing processes defined precisely by their non-programmable character. Nor are there solid normative criteria that would allow one to determine in advance which drifts will produce valuable formative effects and which will not. The relevant question is more limited and more difficult: under what conditions can subjects appropriate these dispersed forms of knowledge, and how does schooling continue to matter when appropriation is unequal, unstable, and no longer fully organized by the school itinerary? The overflow of pansophia merely augurs an exponential increase in instances of knowledge within a scenario marked by the end of knowledge scarcity.

The absence of guarantees does not constitute a deficit to be corrected. Any attempt to reintroduce certainties through reforms, standards, or alternative models risks reproducing the very logic it seeks to modify. This is not to dismiss such initiatives, but to note that their effectiveness will not be conditioned by totalizing pretensions, but rather by challenges that are likely to be less ambitious and more attuned to accelerated temporalities and reticulated spaces.

In this sense, the article does not propose a suspension of critique, but rather a displacement of its object (Foucault, 1979). Instead of prescribing desirable futures, the task is to describe with precision the limits of the existing technology and the tensions that emerge when it fails to fulfill the function that once legitimized it. Attention shifts from normative design to analytical

cartography, from the question ‘what should be done?’ to the question ‘what is occurring?’; from prescription to dense description. This does not exclude political questions, but it prevents them from being introduced as unexamined assumptions. Or, in Foucauldian terms, what is required is a genealogy of the present that seeks to identify the strengths and weaknesses of the diagram of power relations (Farge, 2023). In this sense, the analysis aims to render visible a field of forces in which education can no longer be conceived as a unified, homogeneous, monopolistic system centered on its school locus.

Thus, the school as technology loses its unquestioned status, while the interferences proliferating outside it do not consolidate into normative alternatives. Thinking from this position entails accepting the discomfort of a present without guarantees, in which education can no longer rely either on the security of its own institutions or on the illusion of an immediate replacement.

1.4. Discussion: equality, responsibility, and the ambivalence of school time

The scenario outlined throughout this article does not lead to a definitive conclusion nor to a definitive position regarding the future of education. Its significance lies in a more precise displacement. If school technology no longer fully hegemonizes knowledge transmission, this does not mean that the digital overflow of pansophia should be read as democratization. Abundance is not equality. Networked circulation may expand access to knowledge, but it also shifts inequality from formal availability to conditions of appropriation: attention, time, linguistic competence, digital literacies, family resources, prior schooling, and the capacity to distinguish knowledge from noise. The article therefore incorporates equality not as an external normative postulate, but as a problem generated by the very mutation it analyzes.

At the same time, the school cannot be treated simply as the egalitarian baseline disrupted by digital learning. Modern schooling has historically expanded access to recognized knowledge, but it has also organized selection, hierarchy, failure, and differentiated trajectories. Its relevance today does not derive from a presumed equality, but from a more specific function: it remains the institution charged with the formation of new generations under conditions of public responsibility. Children and adolescents are not merely users of cultural content. They are subjects whose relation to knowledge requires mediation, protection, temporal organization, and access to cultural inheritances that cannot be reduced to visibility or immediate utility. This is why the school remains distinct from broader non-school learning practices, even when those practices acquire formative power.

The friction between schooling and the accelerated digital environment must therefore be read ambivalently. On one side, it expresses technological wear: the school struggles to organize a cognitive ecosystem governed by acceleration, updating, and dispersed circulation. On the other side, this non-coincidence may preserve a meaningful formative difference. The school can suspend immediacy, impose delay, create sequences, sustain attention, and mediate cultural legacies through adult responsibility. These operations may appear obsolete when measured against the temporalities of techno-capitalism, but they may also constitute part of what still makes schooling educationally significant. The point is not to restore school centrality, but to understand why its loss of its monopoly does not eliminate its formative specificity.

The contribution of the article should therefore be located in this tension. It does not claim that schools are finished, nor that digital drifts are emancipatory, nor that platforms provide a coherent alternative to schooling. It argues that the school persists while the conditions under which knowledge circulates, becomes visible, and is appropriated have changed. This persistence is neither pure failure nor pure resistance. It is the persistence of a technology whose historical strength now encounters an outside that it cannot fully absorb. The educational problem of the present lies precisely in that unresolved coexistence.

1.5. Conclusions

This article has argued that the modern school should be understood as a historical technology of knowledge transmission whose effectiveness rested on the institutionalization of a pansophic promise: the governable organization of knowledge for all. Under contemporary digital conditions, this promise does not simply fail; it overflows. Platform-mediated circulation, networked practices, and the accelerated abundance of knowledge weaken the school’s capacity to function as the central locus of educational legitimacy, while leaving intact much of its institutional and cultural force.

The article’s contribution is not a model for replacing schools, nor a program for adapting them to IT. It is a conceptual map of the friction between two technologies of knowledge: the school form, organized around sequence, authority, delay, and certification; and the digital knowledge ecosystem, organized around circulation, recombination, visibility, and unstable appropriation.

The analysis also shows that the overflow of schooling cannot be treated as inherently democratic. Digital abundance may widen access, but it may also intensify inequalities in appropriation. Conversely, the school cannot be idealized as an egalitarian norm. Its contemporary relevance lies in a more ambivalent position: it remains a site of public responsibility and formative mediation precisely when it can no longer claim monopoly over socially significant knowledge.

Future research should therefore examine how concrete digital infrastructures, platform logics, and informal learning environments redistribute authority, attention, and cultural transmission, and how schools respond when their historical grammar encounters forms of knowledge circulation that they cannot fully govern. The limit of school technology is not a final point. It is the name of the unresolved present in which education is now being reorganized.

REFERENCES

- Baudrillard, J. (1995). Le crime parfait. *Galilée*.
- Behrent, M. C. (2013). Foucault and technology. *History and Technology*, 29(1), 54–104.
- Brassier, R. (2007). *Nihil unbound: Enlightenment and extinction*. Palgrave Macmillan.
- Čížek, J. (2019). From pansophia to panorthosia: The evolution of Comenius's pansophic conception. *Erudition and the Republic of Letters*, 4(2), 131–157.
- Comenius, J. (1984). *Didactica Magna*. Akal.
- Coombs, P. H. (1968). *The world educational crisis: A systems analysis*. Oxford University Press.
- De Landa, M. (2016). *Assemblage theory*. Edinburgh University Press.
- Deleuze, G., & Guattari, F. (1980). *Mille plateaux: Capitalisme et schizophrénie 2*. Les Éditions de Minuit.
- Desai, D. R., & Lemley, M. A. (2023). Scarcity, regulation, and the abundance society. *Frontiers in Research Metrics and Analytics*, 7, 1104460. <https://doi.org/10.3389/frma.2022.1104460>
- Farge, M. (2023). Du corps du pouvoir au pouvoir des corps: Corps, individu et sujet chez Foucault. *Philosophique*, 26, 115–132. <https://doi.org/10.4000/philosophique.1782>
- Fernández Enguita, M. (2020). *Más escuela y menos aula*. Morata.
- Fisher, M. (2009). *Capitalist realism: Is there no alternative?* Zero Books.
- Foucault, M. (1979). Il est inutile de se soulever ? In *Dits et écrits* (Vol. IV, pp. 708–719). Gallimard.
- Foucault, M. (2004). *Naissance de la biopolitique: Cours au Collège de France* (1978–1979). Gallimard.
- Hamilton, D. (1992). Comenius and the new world order. *Comenius*, 46, 19–36.
- Hunter, I. (2020). *The secularisation of the school: Studies in the history of public education*. Routledge.
- Illich, I. (1971). *Deschooling society*. Harper & Row.
- Knox, J. (2019). What does the 'postdigital' mean for education? Three critical perspectives on the digital, with implications for educational research and practice. *Postdigital Science and Education*, 1, 357–370. <https://doi.org/10.1007/s42438-019-00045-y>
- Labaree, D. F. (2021). The dynamic tension at the core of the grammar of schooling. *Phi Delta Kappan*, 103(2), 28–32.
- Land, N. (2011). Fanged noumena: *Collected writings 1987–2007*. Urbanomic.
- Land, N. (2018). *Teleoplexy: Notes on acceleration*. Urbanomic.
- Mead, M. (1970). *Culture and commitment: A study of the generation gap*. Natural History Press.
- Miño-Puigcercós, R., Lozano-Mulet, P., & Esteban-Guitart, M. (2026). The platformization of formal and informal contemporary educational contexts: Opportunities, tensions and risks. *Digital Education Review*, (48), 1–3. <https://doi.org/10.1344/der.2026.48.1-3>
- Müller, D. K., Ringer, F., & Simon, B. (1989). *The rise of the modern educational system: Structural change and social reproduction, 1870–1920*. Cambridge University Press.
- Narodowski, M. (1994). Infancia y poder: La conformación de la pedagogía moderna. Aique Grupo Editor.
- Narodowski, M. (2016). Un mundo sin adultos: Familia, escuela y medios frente a la desaparición de la autoridad de los mayores. Debate.
- Narodowski, M. (2022). Futuros sin escuelas: Tecnocapitalismo, impotencia reflexiva y Pansophia secuestrada. Puertabierta Editores. El nombre editorial debe escribirse Puertabierta, en una sola palabra.
- Narodowski, M., & Campetella, M. D. (2021). Are schools replaceable? Creative destruction in the post-pandemic society. *Journal of Interdisciplinary Studies in Education*, 9(2), xiv–xviii. <https://doi.org/10.32674/jise.v9i2.2392>
- Ong, W. J. (2013). *Orality and literacy: 30th anniversary edition* (3rd ed.). Routledge. <https://doi.org/10.4324/9780203103258>
- Paglayan, A. S. (2024). *Raised to obey: The rise and spread of mass education*. Princeton University Press.
- Popkewitz, T. S. (2011). Curriculum history, schooling and the history of the present. *History of Education*, 40(1), 1–19. <https://doi.org/10.1080/0046760X.2010.507222>
- Postman, N. (1994). *The disappearance of childhood*. Vintage Books.
- Selwyn, N. (2016). *Is technology good for education?* Polity.
- Van Dijck, J., Poell, T., & de Waal, M. (2018). *The platform society: Public values in a connective world*. Oxford University Press.
- Williamson, B. (2017). *Big data in education: The digital future of learning, policy and practice*. SAGE.

LA TECNOLOGIA ESCOLAR EN UN ESCENARI D'ACCELERACIÓ: PERSISTÈNCIA, DESGAST I LÍMITS

Aquest article proposa comprendre l'escola moderna com una tecnologia històrica de transmissió del coneixement, la persistència i l'eficàcia de la qual s'expliquen per la consolidació d'un conjunt estable de regularitats que articulen sabers, cossos, temps, autoritat i expectatives sota una racionalitat compartida. Des d'un enfocament teòric-genealògic, recolzat en la historiografia educativa, la genealogia foucaultiana i els estudis crítics sobre tecnologia, acceleració i cultura digital, el treball analitza com l'escola va aconseguir expandir massivament l'educació mitjançant la institucionalització de l'ideal pansòfic modern -'ensenyar-ho tot a tothom'- i com aquest mateix principi comença avui a desbordar-se en ecosistemes digitals de circulació del coneixement. Lluny d'interpretar l'anomenada 'crisi escolar' com un problema d'eficiència o d'implementació, l'article la conceptualitza com un procés de desgast tecnològic produït per la fricció entre una forma dissenyada per organitzar el temps llarg de la formació i un entorn marcat per l'acceleració digital, l'abundància del coneixement, la visibilitat algorítmica i la seva circulació no jeràrquica. L'anàlisi sosté que l'escola no desapareix ni és substituïda, però perd capacitat per hegemonitzar l'experiència educativa contemporània. L'escenari resultant és un interregne sense garanties, caracteritzat per la coexistència inestable entre la persistència de la tecnologia escolar, condicions desiguals d'apropiació i derives del saber que la desborden sense constituir-se en alternatives.

PARAULES CLAU: tecnologia escolar; ecosistemes digitals de coneixement; pansofia; acceleració; aprenentatge mediat per plataformes;

LA TECNOLOGÍA ESCOLAR EN UN ESCENARIO DE ACCELERACIÓN: PERSISTENCIA, DESGASTE Y LÍMITES

Este artículo propone comprender la escuela moderna como una tecnología histórica de transmisión del conocimiento, cuya persistencia y eficacia se explican por la consolidación de un conjunto estable de regularidades que articulan saberes, cuerpos, tiempos, autoridad y expectativas bajo una racionalidad común. Desde un enfoque teórico-genealógico, apoyado en la historiografía educativa, la genealogía foucaultiana y los estudios críticos sobre tecnología, aceleración y cultura digital, el trabajo analiza cómo la escuela logró expandir masivamente la educación mediante la institucionalización del ideal pansófico moderno -'enseñar todo a todos'- y cómo ese mismo principio comienza hoy a desbordarse en ecosistemas digitales de circulación del conocimiento. Lejos de interpretar la llamada 'crisis escolar' como un problema de eficiencia o implementación, el artículo la conceptualiza como un proceso de desgaste tecnológico producido por la fricción entre una forma diseñada para organizar el tiempo largo de la formación y un entorno marcado por la aceleración digital, la abundancia del conocimiento, la visibilidad algorítmica y su circulación no jerárquica. El análisis sostiene que la escuela no desaparece ni es reemplazada, pero pierde capacidad para hegemonizar la experiencia educativa contemporánea. El escenario resultante es un interregno sin garantías, caracterizado por la coexistencia inestable entre la persistencia de la tecnología escolar, condiciones desiguales de apropiación y derivas del saber que la desbordan sin constituirse en alternativas.

PALABRAS CLAVE: tecnología escolar; ecosistemas digitales de conocimiento; Pansofía; aceleración; aprendizaje mediado por plataformas;

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