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In/equalities in digital education policy – sociotechnical imaginaries from three world regions

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ABSTRACT
The interplay of digital technologies and inequalities are increasingly discussed in contemporary research, mostly focusing on different forms of digital divides and often addressed as a 'problem' that societies should face. Hence, digital education and its governance becomes a major arena for addressing inequalities. In this paper, we offer a cross-country and multi-voiced perspective on how socio-digital inequalities are problematized in digital education policy in three world regions – Latin America, Africa and Europe – studying cases through policy documents in Argentina, Mexico, South Africa, Botswana, Germany and Sweden. Our analysis shows how differences and similarities between digital education policy are rooted in various sociotechnical imaginaries that go beyond the national as they are highly situated in spatial–temporal contexts and rooted in historical trajectories. Our contribution aims at a further exploration of the entanglements of educational technology and in/equalities through global conditions and local (hi)stories.

Introduction

Digital technologies constitute an educational field and policy issue in mostly every country of the world, a topic of significance to a global educational audience (Selwyn and Facer 2013) that can be confirmed both in policies and practices, both part of a global trend that settles into different national and cultural contexts.

Digital education policies express certain sociotechnical imaginaries (Jasanoff and Kim 2015), from which expectations about the uses of digital technologies in education can be unpacked, considering that education is an integral part of those imaginaries (Rahm 2023). These policies are expected to improve certain skills and practices as well as perform an equalizing effect (Therborn 2013). In this paper we intend to approach how digital educational policies problematize inequalities and link digital technologies with egalitarian goals; and how socio digital inequalities (Helsper 2021)

are represented to be in educational governance in different countries. We will try to unpack these questions by analyzing policy documents throughout Carol Bacchi's *What's the problem represented to be* (WPR) approach (Bacchi 2009, 2012a, 2012b), in which policies are not considered as solutions to given pre-existent problems but as problematizations through which we are governed.

We have analyzed different digital education policies from six countries – Argentina, Botswana, Germany, Mexico, South Africa and Sweden – for further discussing the sociotechnical imaginaries and the egalitarian expectations that emerge in those imaginaries. Our main focus is to study how these policies from very different local contexts directly link digital technologies with socio-digital inequalities. We intend to establish connections and study digital technologies in education from local policies but also, as Galison suggests, beyond localism (Galison 2016).

The policy documents that are part of this corpus were produced between 2010 and 2022, in a brief period in which digital technologies in education expanded including an array of issues such as access to computers and connectivity, digitalization, platformization, datafication, AI and uses of VR and other contemporary technologies in the classrooms worldwide.

Theoretical and methodological approach

For understanding how digital education policies are linked to egalitarian expectations, we frame the analysis under Jasanoff and Kim's concept of sociotechnical imaginaries, defined as 'collectively held, institutionally stabilised, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology' (Jasanoff and Kim 2015, 4).[1] In this paper, sociotechnical Imaginaries (STIs) are considered as a constitutive part of societal and political life, as they generate and legitimize certain promissory visions and ideas of a reality that creates, shapes and legitimates a certain social order. We approach policies as problematizations where specific discourses (Ball 1993) and historically situated sociotechnical imaginaries that expect/desire particular outcomes materialize. To explore STIs as a form of rationality, this article approaches policy through Baachi's Whats the problem represented (WPR) to be perspective (2009), which defines policies as problematizations that let us explore how particular issues are thought about. In this study, policies are therefore considered as the places where problems are constituted, decisions are made, and solutions, with the intention of governing societies, are proposed (Bacchi 2009; 2012b).

Our entry point to the analysis were policy documents such as national laws, local regulations, curricular documents, and international organization's reports and evaluations. We specifically focus on contrasting how policies in each country problematize and constitute inequalities and expect digital technologies to improve equality in terms of access, skills and/or participatory capacities. What we intend is to establish a conversation between three world regions in which important regulations about digital education were put into play with an equalizing expectation in the first years of the twenty-first century.

Education is one of the equalizers that Therborn proposes in his multi layered definition of inequality in which vital, resource and existential conditions that interact shape human experiences (2013). In increasingly digital societies, redistributing access and digital skills throughout education is expected to produce an equalizing effect. Furthermore, as Rahm suggests, digital education and teaching digital skills has become a pre-condition for social inclusion in increasingly digitized societies that expects citizens to become digital (Rahm 2018; 2023).

The analysis of the digital education policy documents and what problems they represent to be regarding inequalities also reflect contemporary discussions which help to analyze nuances in and among very different contexts: even when the access divide – the ones who access, the ones who don't – among nations show more connectivity in rich countries than in poorer ones (Hargittai and Hsieh 2013), reproducing the unequal distribution of power among nations, the access gap falls short to explain the complexities of inequalities that are produced, reproduced, reinforced or prevented by digital technologies.

Definitions of digital inequalities are immediately connected to conceptualizations of inequalities and linked to socio demographic conditions, and as Ragnedda alerts, 'to understand the persistence of digital inequality, we need to comprehend its relation to other aspects of the structure and reproduction of social inequality' (Ragnedda 2020, 12). However, it is necessary to consider that structural conditions are not enough to approach this problem. In the educational field, the remote schooling experience triggered by the COVID-19 pandemic was an urgent call to rethink inequalities. In terms of access the pandemic experience unveiled deep inequalities: UNESCO reported how a third of the students could not access education under isolation measures because of lack or poor connectivity (Meinck, Fraillon, and Strietholt, 2022). It is important, however, to move beyond access and approach digital inequalities from a multilayered, more complex perspective that might need a theoretical kaleidoscope (Kuhn, Khoo, and Czerniewicz 2023) to fully understand and analyze how they operate in education.

In this paper we are guided by Helsper's and Hargittai's definitions of digital inequalities, both multilayered and built upon different dimensions. Helsper defines socio digital inequalities as 'the systematic differences in the ability and opportunity for people to beneficially use (or decide not to use) ICTs, while avoiding negative outcomes of digital engagement now and in the future' (Helsper 2021, 46). In a similar fashion, Hargittai (2021, 1) defines the concept as 'how people of different backgrounds incorporate the Internet into their lives; how their digital and social contexts, their skills and their uses differ, and how the life outcomes associated with these differences vary'. Digital inequalities, hence, also demand the analysis of outcomes – a third form of digital divide that considers differences in what people get from doing similar things online. Even when scholar definitions and research agree in the need to approach digital inequalities considering it's complexities, the documents we analyzed refer rarely move beyond access and skills.

We collected a total of 476 policy documents from the six countries with the main goal of contrasting in terms of how inequalities are constituted and how they expect digital technologies to improve equality. Each team searched for policy documents produced by different actors – mainly national and local states – and organized them in terms of relevance according to their approach to digital education.[2] This search and analysis are part of a larger research project that seeks to study the reconfigurations of educational inequalities in a digital world, which includes policy, practices, and infrastructural studies.[3]

The following Table 1 shows the corpus built for this project.

The policy documents show a form of consensus reached by different collective actors that are key stakeholders in the production of problematizations (Rahm 2023). Public actors such as national or local ministries are key actors in our corpus, though international organizations and private actors also have played a significant role in the discussion and policy making processes regarding digital technologies. Our initial approach to the policy document collection was

Table 1. Policy documents curated and type of documents.

Country	Corpus	Type of documents	Authorship of the documents
Argentina	33	Laws, decrees, curricular documents, evaluations, analysis, and recommendations.	National Ministry of Education, International Organizations, Universities.
Botswana	8	Programs, plans and proposals.	International Organizations, National government, private sector companies.
Germany	70	Guidelines, Strategy Papers, Curricular documents.	Ministries of Education and Governments of State and Federal States (Länder)
Mexico	228	Constitutional reforms, laws, programs, projects, Web sites capture.	Federal government (from presidency office to ministries).
South Africa	95	Educational policies, Frameworks, plans, strategies, Curriculum documents.	National and supranational.
Sweden	36	Strategy papers, action plans.	Ministry of Education, quasi-national actors, entangled with private actors, municipalities.
Total	476		

reviewing public policies and once these policy documents were organized and analyzed according to the socio-technical imaginaries they express and the problematizations of inequalities they formulate, we continued to build up the corpus with relevant documents produced by actors as international organizations and/or private actors. In some cases, what makes these documents relevant for our corpus is that public policies directly refer to them; while in others they are actors that play a key role in the implementation of policies.

To demonstrate the versatility of data collection and analysis, we outline two local stories that tell of the strategies employed by different research teams, contextualizing the numbers and data in the table above and also illustrating both the frictions and richness of international research collaboration. The South African team started their data collection using a random search on Google, Google Scholar, and Scopus. This provided an initial overview of the data material, which was subsequently supplemented by a more focused document search on the websites of various national ministries. In the process, the South African team became aware that an unusually large number of guidelines and policy documents from supranational organizations such as the OECD, UNESCO, or UNICEF had chapters or sections on digital education in South Africa. Following this trail further, documents from the World Bank or supranational commercial actors such as Microsoft or Facebook were also integrated into the data material. Ultimately, a collection of 95 relevant documents emerged in which themes and patterns related to concepts such as access, equality, gender, and urban/rural areas were noted. The agenda that these documents stress is compatible with the key issues that international organizations set influencing policies at the local level, mostly in less developed countries (Akkari and Lauwerier 2015).

To contrast, the history of data collection in Mexico: An internet search of education policies of the last 22 years led the Mexican team to realize that digital education is present in the policy discourse, but not in documents explicitly written for this purpose, but in short sections of broader policies. For this reason, the team decided to include all those policy documents in their corpus and then search for mentions of digital education and the contexts of the mentions in the documents. The result was a comprehensive corpus of 228 documents, a number that far exceeds the corpora of the other countries. To analyze this volume of data, the Mexican team applied the digital analysis tool InfraNodus, which allowed to perform text network analysis and interrogate key terms such as 'technology' or 'inequality' in their lexical contexts. These two stories bring into the picture some local aspects of an international endeavor. It remains to be noted that while data collection differs due to local specifics, the overarching methodology remains congruent across countries, making it possible to contrast cases and trace local and global interweaving.

The document analysis allowed us to detect a strong consensus about digital education as an object of policy making with egalitarian expectations, whether it's for distributing access or for proposing curricular reforms. Also, for envisioning a future that is increasingly and undoubtedly digital. While some similarities emerge in very different national contexts, each nation shows specific features that tie digital educational policies with certain traditions and scenarios. Global flows and local histories are entangled in these policy documents. Rather than being understood as dichotomies, we analyze the local as part of global flows and understand that what is considered global can also be analyzed as a particular site with longer networks and more powerful mediators (Strathern 1996). Intending to display a multiple scalar logic (Higginson, McLeod, and Rizvi 2019) we approach these global – local flows as global connections (Tsing 2005) in which digital technologies have become a universal claim that is experienced differently, ultimately expressed in local histories. Throughout the analysis, we aim to contribute to bring 'global aspects' into the picture, considering digital technologies to be global forms (Ong and Collier 2005) that 'are able to assimilate themselves to new environments, to code heterogeneous contexts and objects in terms that are amenable to control and valuation' and also 'limited or delimited by specific technical infrastructures, administrative apparatuses, or value regimes' (11).

A common ground for approaching digital technologies in education

In this section, we aim to introduce some findings that emerged from the policy documents analysis in each country and put them together into a conversation that highlights similarities and specific features. We don't intend to compare in the conventional sense (Bacchi 2012b), but to discuss a shared sociotechnical imaginary that operates in different contexts. Our policy document corpus allows us to see global connections, defined by Tsing (2005) as zones of cultural friction that give grip to universal aspirations.

One main issue that emerges as a common ground in the policy documents is the fact that digital technologies have been a main concern in every country since the beginning of the twenty-first century. Policies are specifically formulated for the uses of digital technologies in education, expressing a consensus about the need to be connected and to learn digital skills to be able to manage in the contemporary world, by preparing for a labor market that is going to be highly digital or by improving digital citizenship capacities. In the documents we can find a shared conception of these times as unavoidably digital, imagining a future that will follow that trend and underlying the importance of school for educating the digital citizens according to socio-technical imaginaries (Rahm 2023).

Digital technologies are necessary to comply with the right to education and/or to improve educational quality (as Dussel and Williams analyze for the case of Mexico, 2023). A general agreement among our very different cases lies in the idea that 'digital education' equips students with fundamental tools to thrive in the future. The following policy documents texts exemplify these linkages:

> Digital education holds considerable potential with regard to the many current challenges, especially dealing with the growing heterogeneity among learners (implementation of inclusion, integration of immigrants, etc.) (2016-10_BMBF_Bildungsoffensive-für-die-digitale-Wissensgesellsc, 11: 188. Germany).

> It is undeniable that today these technologies contribute to building the new paradigm of the digitization of education, from which we can expect continuous, personalized, virtual and online learning for life and in any available space and time. (Secretary of Education 2020, 6. Mexico)

While digital technologies are a key part of this common ground among policy documents from different countries, in each local context we found expectations about the integration, uses and outcomes of these digital technologies. Digital technologies are always considered as resources that will greatly contribute to improving education, bringing schools to this connected contemporary world and very rarely discussed as opaque technologies that we must also approach from an ethical perspective. As we will discuss further in this article, only the case of Sweden problematizes what might be considered perils of digitization, but the general approach is mostly celebratory, linking uses of digital technologies in school with a general improvement. In every case there are also expectations of equalizing effects that digital technologies might have over inequalities. This dimension is discussed in the following section.

Definitions of inequalities and expected effects of digital education: from filling gaps to the improvement of individual capacities

The idea that digital technologies and digital education have no turning back (Sturken, Thomas, and Ball Rokeach 2004), and schools are a key institution for fully integrating them into societies clearly emerges from the reading of each document. In this understanding of the digital as something good, unstoppable, and necessary, 'digital education' also seems to be able to have effects over inequalities. However, the types of inequalities the policy documents of each country problematize refer to specific local conditions. We can establish a first line that separates two different groups of countries: on the one side, Argentina, Botswana, Mexico and South Africa (the so-called global south), and on the other Germany and Sweden. While in the first group inequalities are defined as structural problems related to poverty, social gaps, and access to digital technologies, in the second group of countries inequalities are defined as individual differences of students. In all

cases, digital technologies appear to be like magic bullets that can address all the ills of societies (Rafalow 2020).

It is not surprising that the poorer countries – the periphery – in our study define inequalities as a more systemic – structural problems: digital technologies integration into schools would have immediate effects over equality in terms of access to computers and reducing the digital gap, the first level of divide. In Argentina, the national program launched in 2010[4] refers directly to this goal: called Conectar Igualdad (relaunched again in 2021) and focused on secondary schools – the most critical for the system in Argentina (Dussel 2014) – it expressed a narrative of change (Dussel, Ferrante, and Sefton-Green 2013) and evaluations show how the netbook provided by the program was the first in many families and for many teachers, having relevant social impacts in terms of access, participation and reducing the digital gap (Benítez Larghi, Lemus and Welschinger, 2014).

The following quote from a piece of legislation illustrates the expectations of the national digital educational program:

> The distribution of a significative number of portable computers is a key strategy to ensure digital inclusion of secondary school students [and] of special education students […]. The increase of citizens that will use new technologies will contribute to reduce the gap between those who have access and those who don't, improving digital literacy of the country population and development. (Federal Council of Education, Argentina 2010)

In Mexico, the policy documents analyzed[5] allow to establish a distinction between periods of time – 2012–2018 and 2018–2022 – that coincide with different government administrations. Digitalization is presented as an external process that produces profound transformations in society, generating opportunities that must not be thrown away and challenges that are not easy to overcome. Taking advantage of this process the country can reach economic development and decrease long-term income inequality, by means of productivity increases. For this to happen, new investments and specific instruction are required. While in the first period the policy documents establish direct links between digital technologies and innovation, in the second period there is a growing concern about social inclusion. In both periods we can detect a clear link between digital policies and development, whether it's by the innovative or the inclusive potential.

In South Africa, digital education policies are intended to be some sort of repair tool: a repair for old wounds, mostly Apartheid; a repair for not being able to fully develop in other technological stages, allowing the country to enter a 4th industrial digital revolution and to give access to disadvantaged communities that cannot afford hardware and/or connectivity on their own:

> E-learning and innovative use of ICTs in the education sector can assist in addressing inequalities in education in schools across South Africa and facilitate ongoing improvement of educator skills […] as well as to improve educational access particularly to poor communities of South Africa by provision of LTSM […]. (Department of Basic Education, South Africa 2017)

In Botswana, digital education policies state that the access to internet throughout education ameliorates the effects of existing inequalities while also improving educational quality and getting the country into a global connected world. In both cases, uses of digital technologies in education are directly associated with improving living conditions of the poor and hold innovative expectations as an overall effect for the countries and their relative positions in a global world:

> [E]ducation and training should not be domesticated but globalised, and that institutions of higher learning should develop futuristic learning programs that can position Botswana as a globally competitive country. (Olopeng, Botswana 2019)

It is clear, in all the cases, that digital technologies are expected to fill different gaps such as income, access, connectivity and/or participation and eventually improve the opportunities of countries in a connected world. It is not surprising that the poorer countries in our study follow this trend. Wakunuma (2019) analyzes digitalization processes in the global south with a special focus in African countries pointing how digital policy making is a widespread phenomenon in these countries

underlying the importance of ICT for development. However, the policy documents from each country show how particular localities – local histories and local timings (During 2020) – are entangled in a global wave of increased digitalization of societies.

The policy document analysis in Germany and Sweden shows a different perspective on inequalities. Uses of digital technologies in education are expected to improve individual performances in terms of knowledge and participatory practices. In Germany, the documents show concerns about the development of digital competencies to enable 'participation' in a 'digital world'. The imaginary of 'participation' acts as a factor of silencing (Bacchi 2012a) inequalities in outcome, where structural inequalities manifest (Helsper 2021). It is interesting to point out that among the documents analyzed for the case of Germany, there are references to the need to improve access and connectivity in foreign countries, with a particular concern in providing access, connectivity and skills development for girls and young women in Africa. The so-called 'gender digital divide' is here only problematized in the context of 'development aid' but not in the domestic context.

In the case of Sweden, digital education and digitalization is presented to ensure democracy among citizens through increased access and digital competence, accordingly with a key idea in Swedish education about schools as the main institutions to ensure democratic values and strengthening the egalitarian spirit in which the state guarantees that every citizen has the same rights as others respecting individual differences. Further, digitalization is intended to contribute to comprehensive efficiency and an improved quality of life for citizens.

Though from different perspectives, digital educational policy is directly linked to the improvement of equality in different societies. There are global connections we can establish throughout these documents, and local definitions that are historically rooted. We explore the entanglements between the local and the global in the next section.

Local policies beyond localities: imaginaries about the digital present and future

The policy document analysis in the six countries brought another connection: digital education is expected to have effects on the relative position of each country in a global world. This brings questions about education and the global – local flows in which schools and digital technologies are entangled, and how the integration in schools can eventually improve that position by fostering development. Directly linking education with development and economic growth is not a new idea. Tedesco (1991) distinguishes three different paradigms of education and social development, which coincide with certain historical periods: first the citizenship consolidation in the nineteenth Century until the beginning of the twentieth Century, during the consolidation of nation states; second, contribution to labor force post wars and during the reconstruction process, in which the education of citizenships is replaced by the training of human resources; and, during the last years of the twentieth Century, a more skeptical perspective that considers education as a dispositive for reproducing existing social structures and the values that supports them. By the end of the twentieth Century, Tedesco envisages the design of a new paradigm in which skepticism is replaced by a more integral approach to development, in which the political role of education is particularly valued.

The question arises about how digital technologies are integrated in the roadmaps to development that these policy documents from the twenty-first Century define: are they more related to the education of citizens of a global world or to a digitalized and global labor market? Are the documents problematizing development or are they problematizing how to not fall behind a global trend? Which is the main political role of education – as Tedesco inquired – in the digital era as defined by policy documents?

In our corpus, we find different positions, though there is a consensus about the definition of the present and future as digital times; and that schools need to prepare students to participate and work in such scenarios. These can be read in the links between digital technologies in schools and the need to prepare students for a future digital labor market, like in the case of Argentina,

or as a need to catch up with digitalization to not fall behind in a global trend, like in the case of South Africa, that expects to enter a 4th industrial revolution. This approach is analogous to what happens in Mexico, in which educational policy alerts about technological backwardness, but also to what is found in some German policy documents, that claim the need to struggle for better positions in a world with technological leaders that are locally situated.

> *We want German universities to be even better prepared for the new requirements and thus to catch up with the pioneers of the digital transformation in an international comparison.* (Federal Ministry of Education & Research, 2019 [Germany])

It is noticeable that the policy documents define different temporalities: not only the poor global south is in need to catch up with already developed digital economies, but also powerful economies such as Germany struggle to play a leading position. The temporalities that emerge from the policy analysis seems to be a linear time of evolving progress, even when the starting points are situated in very different conditions. As Rufer notes (2010), there is a time – distance in the expression of what Anita Say Chan calls the myth of digital universalism and the future – oriented technological developments (Chan 2014) that blurs local expressions of global flows.

In opposition of the idea of catching up, some Swedish policy documents propose an expected place of leadership in a digital world, not in terms of the labor market or the creation of value, but to promote knowledge development:

> *The Government's overall goal for the national digitalisation strategy for the school system is for the Swedish school system to be a leader in using the opportunities offered by digitalisation in the best way to achieve a high level of digital competence among children and pupils and to promote the development of knowledge and equivalence.* (Ministry of Education, 2017 [Sweden])

Sweden is the only country in which the reliability of digital systems is problematized in some policy documents. There is a clear linkage between education and innovation that places the country as a leader in the digital world and the need to keep up in that position. However, there is a concern about devices and networks that can be trustful in terms of data management. It is the only case in the six countries in which the policy documents approach datafication and the techno economic ethics of cloud computing (Macgilchrist, Potter, and Williamson 2021).

Perhaps this is the only exception to the overall approach in the six countries, an approach in which it is assumed that the world is increasingly digital and increasingly global, though this does not constitute a problem. The direct linkages to development and economic growth do not explore any sort of environmental perspective or sustainable ways of integrating ICT, silencing the degradation of the planet that runs parallel to the continued expansion of digital technologies (Selwyn 2021).

Concluding remarks and further discussion

The analysis of policy documents in six different countries opens more questions and inquiry interests upon the ways in which educational policies problematize digital technologies. Our corpus confirms that digital education, whether it is understood as the integration of digital technologies in schools or as curricular decisions about the need to teach digital skills, emerged as a political issue in different world regions since the end of the twentieth century.

We intended to analyze the sociotechnical imaginaries that emerge from the policy documents understanding those imaginaries operate as 'infrastructures of imagining and planning futures' (Sismondo 2020) for which education has historically been a key aspect (Rahm 2023). Though very dissimilar in their social structures, we could confirm that in every country the 'digital issue' is a main concern for educational policies, sometimes problematized in terms of access and in others in terms of skills and participatory capacities. The futures these imaginaries desire are related to a digital labor market in which each country can gain a particular position attained throughout the

improvement of digital education and to the reduction of the digital gap, that will eventually result in a more democratic and egalitarian society. The present and the future are assumed to be increasingly digital, and there is no problematization of the perils that digitization might also bring. Participation in the digital environment, for example, is related to citizenship education, though there is no further discussion about the risk of algorithmisation of citizen practices (García Canclini 2018).

As regards the linkages the policy documents establish between equality/inequality and digital technologies it can be noted that in all the countries, even with deep structural differences, there is an expectation of solutionism (Morozov 2014): digital technologies are considered tools through which societies can overcome social, digital, and individual inequalities, whether it is through access, through the improvement of skills or through recalibrating schools and schools' systems for better catering a future digital labor market. There is a challenge to move beyond access and skills and approach equality in socio digital ecological terms (Helsper 2021), not focusing on the haves or haves not, but in the post digital/precarious conditions (Macgilchrist 2021) in which policies unfold.

Another dimension that raises new questions for further research is how the global and the local, far from being dichotomies, operate in a common flow that is experienced in particular ways in different territories. Digital technolgies and digitalization, as a global forms (Ong and Collier 2005), circulate and are regulated, imagined, and eventually enacted differently in every country, entangled with local histories and ways of doing. The ways in which the policy documents bring the global into the local and take the local into the global propose a particular challenge. Digital policies for education establish a zone of cultural friction (Tsing 2005) in which development is expected to be attached to digital technologies, though there is no further discussion about what kind of development or progress each country imagines. Temporalities are established in terms of catching up or keeping up with a linear road to a digital future. No document focuses on the bumps of the road (Appadurai 2013) towards the imagined digital future. Instead, the policy documents analyzed express the 'rhetoric of the inevitability of technological change in education, seen as a seamless, unidirectional movement toward progress or decay' (Dussel 2020) that don't consider the complexities in which technologies are enmeshed.

It is interesting to point out that this is not the first time in which a global educational trend focused on educational media spreads and gets domesticated in different contexts. Hof and Bürgi (2021) for instance, study how computers were promoted and popularized as educational media in the early 1970s, propelled by international actors and organizations and paralleled by a change in technology. Building up from these ideas, digital technologies also implied a change in technology that is still driving a deep shift in every order of social, political and intimate life. Since the last years of the twentieth century, digital technologies implied different trajectories of change (Ong and Collier 2005) in different contexts. They were also problematized as educational policy issues, in many cases promising a whole school transformation (Cuban 2001) in which a solutionist perspective was dominant: wiring and connecting classrooms and teaching digital skills would update, even revolutionize, schools and schooling and bring innovative pedagogical practices, a similar trend of what happened in the 1970s.

After more than 20 years of digital education policies in different world regions, it would be interesting to conduct further research about the corporate actors that are driving the solutionist approach and to explore different pathways that are able to pose critical issues about digital policies and practices in schools and the pedagogical forms that unfold.

Notes

1. Jasanoff and Kim updated this concept from a previous one developed earlier, in which the nation state had a key role, while in this version socio technical imaginaries are not limited to and extend beyond the nation states.

2. The search was performed throughout the internet and/or by requests to local authorities and complemented in some cases with interviews with key actors that could further explain details about a set of policies (why they took some decisions instead of others, what were the expected outcomes, and which were the strategies to achieve them, under which political support these policies were eventually put into practice).
3. More in https://www.edu-digitalinequality.org/
4. The program follows a 1 to 1 model, providing each secondary school student with a netbook that belongs to him/her. It also provided netbooks for teachers, principals and equipment for schools.
5. The Mexico team used the software Infranodus for establishing proximities among concepts. A complete analysis of the Mexican case can be read at: Dussel, I. and Williams, F. (in press). Los imaginarios socio técnicos de la política educative digital en México 2012–2021, en Revista Profesorado, Vol. 6, N. 22.

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