

PLATFORMIZED EDUCATION: NEW CONTOURS OF EDUCATIONAL POLICY OF SÃO PAULO STATE¹

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ABSTRACT

Since the 1990s, the educational policy of the state of São Paulo has operated according to a business management approach, a model intensified by the current state government with the platformization of education. The study aims to discuss the recent contours of São Paulo's educational policy through, above all, the implementation of digital platforms in the practices of school communities as part of the educational privatization process. The research involved a review of national and international literature and a qualitative analysis of internship or work situations reported by Pedagogy students from a public university or by teachers and managers from the state network of a municipality in the interior of São Paulo, as well as the positions of unions and education entities in São Paulo, based on recent studies on the topic. The results indicate that the platformization undertaken by São Paulo's educational policy determines business school management and highlights the privatist bias of education with the acquisition of technologies to control the entire process of educational work. Furthermore, the proposal to militarize public schools through a state program also highlights educational privatization by allowing partnerships and public financial transfers to private military entities. It is concluded that such a combination tends to make public education even more precarious, hindering critical training and the exercise of democratic management.

Keywords: Educational policy; Platformization; Artificialization; Privatization; São Paulo.

RESUMO

EDUCAÇÃO PLATAFORMIZADA: NOVOS CONTORNOS DA POLÍTICA EDUCACIONAL DO ESTADO DE SÃO PAULO

Desde a década de 1990, a política educacional do estado de São Paulo opera pelo viés gerencialista de gestão, modelo intensificado pelo atual governo estadual com a plataformação do ensino. O objetivo do trabalho é discutir os recentes

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contornos da política educacional paulista por meio, sobretudo, da implantação de plataformas digitais nas práticas das comunidades escolares como parte do processo de privatização educacional. Desenvolveu-se a revisão de literatura nacional e internacional e a análise qualitativa, tanto de situações de estágio ou de trabalho relatadas por estudantes de Pedagogia de uma universidade pública ou por professoras e gestoras da rede de estadual de um município do interior de São Paulo, quanto de posicionamentos de sindicatos e entidades da educação paulista, ancorando-se em estudos recentes sobre o tema. Os resultados indicam que a plataformização empreendida pela política educacional paulista determina uma gestão escolar gerencialista e evidencia o viés privatista de educação com a aquisição de tecnologias para controlar todo o processo do trabalho educativo. Ademais, a proposta de militarização das escolas públicas por meio de programa estadual também notabiliza a privatização educacional ao permitir parcerias e repasses públicos financeiros a entidades militares privadas. Conclui-se que tal combinação tende a precarizar ainda mais a educação pública, tolhendo a formação crítica e o exercício da gestão democrática.

Palavras-chave: Política educacional; Plataformização; Artificialização; Privatização; São Paulo.

RESUMEN

EDUCACIÓN PLATAFORMIZADA: NUEVOS CONTORNOS DE LA POLÍTICA EDUCATIVA DEL ESTADO DE SÃO PAULO

Desde la década de 1990, la política educativa del estado de São Paulo ha operado según un enfoque de gestión gerencialista, modelo intensificado por lo actual gobierno estatal con la plataformización de la educación. El objetivo de este trabajo es discutir los contornos recientes de la política educativa del estado de São Paulo a través, sobre todo, de la implementación de plataformas digitales en las prácticas de las comunidades escolares como parte del proceso de privatización educativa. Se desarrolló una revisión de la literatura nacional e internacional y un análisis cualitativo, tanto de situaciones de prácticas o de trabajo relatadas por estudiantes de Pedagogía de una universidad pública o por docentes y directivos de la red estatal de un municipio del interior de São Paulo, como también de las posiciones de sindicatos y entidades educativas de São Paulo, a partir de estudios recientes sobre el tema. Los resultados indican que la plataformización empreendida por la política educativa del estado de São Paulo determina una gestión escolar gerencialista y resalta el sesgo privatista de la educación con la adquisición de tecnologías para controlar todo el proceso del trabajo educativo. Además, la propuesta de militarizar las escuelas públicas a través de un programa estatal también destaca la privatización educativa al permitir asociaciones y transferencias financieras públicas a entidades militares privadas. Se concluye que tal combinación tiende a precarizar aún más la educación pública, dificultando la formación crítica y el ejercicio de la gestión democrática.

Palabras clave: Política educativa; Plataformización; Artificialización; Privatización; São Paulo.

Introduction

Since the mid-1990s, São Paulo's state education policy has been marked by a managerialist approach to management (Ramos, 2016; Jacomini; Nascimento; Stoco, 2023; Jardim; Miranda, 2024) resulting from the reform of the Brazilian state (Carinhato, 2008), which aimed to make public services more efficient through the rationalization of fiscal resources and privatization, thereby reducing the state's role as a provider.

The New Public Management (NGP) expresses this managerial perspective that aims to apply private sector principles and strategies to the public sector. In the field of educational policy, this involves rationalizing tasks and resources, segmenting decisions and actions at the strategic and operational levels, basing pedagogical and administrative work on results and performance bonuses, decentralizing policy implementation, but not its regulation, evaluation, and control (Ramos, 2016).

In the current administration of Tarcísio de Freitas in São Paulo, in 2024, whose secretary of education is the businessman Renato Feder, we observe not only continuity but also a further deepening of the managerialist model, especially through 'platform managerialism', which directs teaching and management practices toward achieving goals that are disconnected from the realities of schools, "defined in instances outside the school that systematically and structurally control the work of teachers and the actions of students through information technologies structured on platforms" (Dias *et al.*, 2024, p. 4).

The governor Tarcísio de Freitas received the declared support of Jair Bolsonaro during his election campaign and was elected with a government program closely aligned with the values of the former president. Thus, the agenda of customs (Pereira, 2022) and nods to the military in the field of public security (Cotrim, 2022) were strategies adopted during the campaign and remain in place during his term

of office. Added to this are privatization efforts involving projects in the areas of waterways, roads, railways, lottery, education, and basic sanitation (Junqueira, 2023), as well as the transformation of municipal and state public schools into civic-military schools (São Paulo, 2024) through a program similar to that of the former president's administration.

This work aims to discuss the recent contours of São Paulo's educational policy, highlighting, above all, the implementation of digital platforms – and the adoption of slides as teaching material and artificial intelligence (AI) in their production – in the practices of teachers, school administrators, and students as an aspect of the educational privatization process, in addition to the strategy of converting public schools into civic-military schools – although this is not the primary focus of this article. In addition to reviewing the most recent national and international literature on the topic of platformization and artificialization of education, we discuss, qualitatively, reports from students, teachers, and administrators, as well as news articles and public statements from São Paulo unions and entities/groups linked to the field of education.

Initially, we present the theoretical contributions regarding educational policy, the prevalence of the managerial model in its development in the state of São Paulo, and, more recently, the presence of digital platforms in the state education network. Subsequently, we describe the methodological procedures of the study, results, and discussions, concluding the work with some conclusions, limitations, and recommendations for future research.

Educational policy in the state of São Paulo

Educational policy, as a social public policy, involves a set of intentional actions implemented by governments that express the clash of dif-

ferent ideas (Souza, 2006) and that aim to resolve conflicts related to the common good. For Saviani (2011), public policy is called “social” to confront the essentially antisocial nature of the capitalist economy. Therefore, educational policy refers to the measures that the State, in the form of government, takes regarding the direction of the population’s education (Saviani, 2011).

The measures of the duty to educate in the history of Brazilian education, from the colonial period to the present day, point to the tendency of the government to, firstly, delay robust public funding for national education and, consequently, to transfer its responsibility for implementing educational policy to society, preserving for itself the decision-making, regulatory and evaluation power of systems and institutions, in addition to the results achieved by student performance (Saviani, 2013). This is what Ramos (2016) calls supervised decentralization, since decisions on educational programs and actions, curricular parameters and large-scale evaluations remain centralized in the State, but the implementation of such measures is transferred to schools and society as a whole, including the business community through public-private partnerships (Arelaro, 2007). Such partnerships allow public education to be managed privately based on business parameters of efficiency, effectiveness and productivity, encouraging teachers and students to be held accountable for the success or failure of academic performance indices and the meritocratic perspective that conceals the relationship between social inequalities and educational inequalities (Freitas, 2012).

Since the 1990s, Brazil has witnessed the advance of neoliberalism in the way it manages the State and its social policies, with intense reformist repercussions in the state and educational spheres (Carinhato, 2008). The choice and maintenance of neoliberal social policies, especially those related to education, make clear the ideological desire to maintain that the private is better than the public (Freitas,

2012). This perspective results in incessant proposals for a supposedly high-quality education that do not work and that always demand new top-down reforms (Freitas, 2018) guided by New Public Management (NPM), that is, by a managerialist management model that applies principles, values and strategies of private administration to public administration (Ramos, 2016).

It is in this sense that Freitas (2018) highlights the hijacking of education by the business community in order to achieve its purposes of ideological confrontation through constant reforms, aligning the demands of the productive processes of flexible and hypertechnological capitalism, under the coordination of international agencies, to adapt all internal productive stages to the logic of global productive restructuring.

The NGP guidelines have also reached the state of São Paulo since the mid-1990s, accompanied, conflictingly, by the values of democratic management and socially referenced education defended by the country’s redemocratization movement and contained in the 1988 Federal Constitution. Hegemony, however, belonged to educational policies supported by neoliberal principles with the “[...] adoption of management mechanisms from the corporate sector, in the establishment of teaching quality standards measured in large-scale tests, in curricular standardization, in the control of teaching work” (Jacomini; Nascimento; Stoco, 2023, p. 6). Thus, the São Paulo government “began to establish partnerships with the private sector, establishing, as the basis for government actions, work based on productivity, goals and performance results” (Jardim; Miranda, 2024, p. 5).

In the state of São Paulo, both a concept of educational quality linked to the measurement of learning through external and standardized tests and a management concept focused on results, especially quantitative ones, were consolidated (Jacomini; Nascimento; Stoco, 2023). Thus, priority was given to performance and

school flow indicators, including to value the strong presence of the private sector in public education (Jardim; Miranda, 2024). With the government of Tarcísio de Freitas (Republicans), we can observe not only the continuity of what was built in almost 30 years of administration by the Brazilian Social Democracy Party (PSDB), but also the deepening of such assumptions and practices in educational policy, now under the aegis of digital platformization and artificialization.

Dias *et al.* (2024) point out that, since 2020, the state of São Paulo has implemented several digital platforms in its public school network with the aim of improving education and recognize that the need for remote teaching during the COVID-19 pandemic has driven this process of educational platformization. According to the authors, this process makes teacher autonomy non-existent, as teachers do not have the freedom to choose whether or not to use them in their classes. As a result, the platforms end up being used as tools to control teaching work and management itself, to set goals for online access by the school, and to reduce learning to the number of hours and activities submitted by students. This is, therefore, the sophistication of the development of an authoritarian education “limited to a neoliberal and neo-technicist conception, which reduces education to training and subjects pedagogical work to a mere ‘application’ of content and materials” (Dias *et al.*, 2024, p. 21), which promotes, in practice, its systemic perpetuation – albeit with a new guise – in the state of São Paulo.

Methodology

The experiences and reflections gained in a course on public school planning and administration in the Education programme at a public university in the first semester of 2024 form the foundation of this work. Several internship or work situations reported by 27 students in the course and everyday school situations mentioned by two teachers and two administrators

from the state education network in a municipality in the interior of São Paulo encouraged the study of the implementation of digital platforms as an important pillar of the state of São Paulo’s current educational policy. In this sense, we assume that these reports shared through conversation circles – whose authors are kept confidential – contain “episodic knowledge [which] is organised in a way that is closer to experiences, being linked to concrete situations and circumstances” (Flick, 2009, p. 172), being recorded in a separate document through notes and comments.

The *informed consent* (Flick, 2009) was obtained from students, teachers, administrators, and guest contributors to the course during classes in which the proposal to problematize and theorise the phenomenon of digital platformization in education based on their reports was explained. These descriptions were not reproduced entirely in this text, but were paraphrased and summarised by the author, whose consent for their use was also provided in the course lectures. It was clarified that consent could be withdrawn at any time and that additional information could be provided.

We also developed a qualitative analysis of journalists’ reports and, in particular, news items and statements from trade unions and representative bodies for teaching and non-teaching staff in the state of São Paulo available on websites. These were taken as documentary data that contextualised the information, i.e. as ‘communicative devices’ for constructing a particular version of experiences and events. (Flick, 2009, p. 234). The choice of materials was based on the search for information related to organisations recognised by the researcher and collaborators as relevant representative expressions of teachers, specialists, and supervisors of education, as well as education professionals and researchers in the state, namely: the Union of Teachers in Public Education of the State of São Paulo (Apeoesp), the Union of Education Specialists of the Official Magisterium of the State of São

Paulo (Udemo), the Union of Teaching Supervisors of the Official Magisterium of the State of São Paulo (Apase), the Public School and Democracy Group (GEPUD), and the Public School and University System (REPU). The search was conducted directly on the organisations' websites, which also led us to access news articles indicated in hypertext, without the need to use databases or search strategies.

National and international articles published in the past five years on the subject of the study comprise the literature review (Creswell; Creswel, 2021), which contextualises the domestic and global scenario regarding the platformization and artificialization of education, as well as assisting both in the qualitative examination of situations and documentary data and in the construction of arguments (Flick, 2009) of the results and discussions. The qualitative analysis of the content allowed us to identify *key excerpts* from the materials through which similar paraphrases were synthesised (Flick, 2009) and helped to build an understanding of the topic under study.

The *SciELO² virtual library and CAPES Periodicals Portal³* were defined as sources for surveying national scientific articles on the topic of platformization and artificialization of basic education without period restrictions, using isolated and combined keywords: *platformization, platform, algorithmization, algorithm, artificialization, artificial intelligence, education, teaching, school*. Preference was given to studies involving educational policies for basic education in face-to-face formats and literature reviews, excluding works on distance learning, isolated investigative practices or experiments involving the application of specific platforms or artificial intelligence. Seventeen articles published between 2020 and 2024 were selected.

For international literature review, searches

2 *Scientific Electronic Library Online*, available on: <https://www.scielo.br/>

3 'Portal de Periódicos da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES)', available on: <https://www.periodicos.capes.gov.br/>

were conducted in the database *Web of Science⁴*, accessed through the *CAPES Periodicals Portal* with an institutional profile. As the national articles, even without a time frame, covered the years 2020 to 2024, we decided to choose this period for the foreign articles. The keywords used were the same, but now in English. Twenty-eight articles related to the level equivalent to our basic education were selected, without favouring any particular types or methods of research, produced by researchers from various countries, such as the Netherlands, Spain, Germany, Denmark, England, Belgium, Sweden, France, Lesotho, Hungary, the United States, Australia, Malaysia, China, Morocco, and Colombia.

Results and discussion

During classes on the subject of planning and administration of public schools, several students reported the increased use of digital platforms in the state public schools where they were doing their supervised internships or teaching initiations, highlighting the imposing nature of the São Paulo State Department of Education (SEDUC-SP) via the regional Education Directorate: the determinations came 'from the top down' without any type of consultation with the school communities, leading managers, teachers and students to have to 'manage' to learn how to use the platforms and continually handle them.

The reports point to the acute exhaustion of management and teaching teams who, without time and quality attention to pedagogical issues, have their activities reduced to the bureaucratic task of inserting information into platforms or carrying out pro-forma activities and assessments with students. There is hardly any time left to talk to colleagues about aspects of pedagogical work (or even personal aspects of daily life), even less to reflect on this policy of platformizing school activities, preventing

4 Available on: <https://www-webofscience-com.ez31.periodicos.capes.gov.br/wos/woscc/basic-search>

movements of coordination between professionals and students for the necessary debate and resistance.

Teachers and school administrators from the state public school system with whom we have contacted report that their colleagues want to give up their positions under this current state government, as they say they are at the limit of their possibilities of action. Discouragement and the feeling of 'doing a lot for nothing' seem to predominate. A school principal from the Full-Time Education Program (PEI) describes the dismay of having to adopt practices imposed by the current education policy in São Paulo precisely at a time when the organization of her school unit was achieving synergy in the implementation of the various work fronts of the PEI. If careers in the São Paulo teaching profession do not seem attractive to active professionals, imagine for pedagogues in training.

Another school principal provided us with her access data for digital platforms and, ensuring their confidentiality, we projected all of them in one of the classes of the subject. The principal's objective was to contribute to the training of undergraduate pedagogy students. This made it possible to have an overview of the functioning of 17 platforms currently in use in the São Paulo education system: Matrículas 2024, Aluno Presente, Alura, Redação Paulista, Tarefa SP, Mega Escola, Wi-Fi nas Escolas, Khan Academy, Matific, Equipamento SP, Apoio Presencial, Leia SP, Super BI, Me salva!, Edu.Profissional, Prova Paulista and Elefante Letrado. Not to mention the SP Media Center (CMSP), which had already been offering classes and assignments during the COVID-19 pandemic in 2020.

Students of the subject report that some schools have been monitoring student absences through the platform but also going from classroom to classroom for conferences. If attendance or enrollment numbers drop, the Education Board quickly gets in touch, sometimes via messaging app, to demand that the rates remain at the 'green' level.

Some tasks completed by students are graded by the platform itself, and the space for teachers to develop and evaluate issues in a more qualitative way is limited. What these platforms generate most are numbers: students, subjects of rights and who should also be part of their learning process together with teachers, are reduced to numbers. There is no qualitative data about their activities that can help teachers improve teaching, learning, and the development of children and adolescents.

The In-Person Support platform aims to record the management team's assessment of teachers' classes, but instead of consistent and effective pedagogical support, what is observed is a mere control regarding whether or not teachers are present in the classroom. One teacher pointed out that, in her school, the principal never visited the classrooms and that she must possibly be using the platform in her own workroom, recording positive assessments for the entire teaching staff. However, another teacher reported that very positive and constantly high rates also seem to be a target of the Education Directorate, as they raise suspicions about the veracity of the information.

Given this situation, we understand that it would be necessary to both seek out what unions and entities in the teaching profession have discussed and positioned themselves on this issue, and to survey what academic production already exists on the subject.

What researchers and unions are discussing

The literature review in this study aims primarily to contextualize the national and international framework on the platformization and artificialization of education, although it also supports some of the qualitative analyses proposed.

In Brazil, there are productions about this topic in various areas (journalism, medicine, nursing, engineering, computing, among others) and, in education, many related to the

application of specific platforms in school subjects, including in contexts of distance learning or education for people with disabilities.

On the topic of artificialization and the presence of artificial intelligence (AI) in education, dozens of reflective, opinionated, and literature review works were found, most of which reach similar conclusions: AI contributes to the personalisation of teaching and the provision of feedback, but concerns surround ethical issues – particularly in relation to data privacy – and the training of education professionals to use and teach it. Thus, we did not find any exploratory or empirical studies related to public education systems that examine the effects of artificialization on pedagogical and managerial activities in schools. For now, field research has been limited to a few case studies focused on specific institutions.

Among the 17 national articles selected in the literature review for this study, there is only one work whose results indicate a positive view of digital education in primary schools: Kobus and Gomes (2020) believe that public administration needs to free itself from bureaucratic constraints and fear (or lack of interest) in adapting to technological innovations.

Eight other studies seek not only to praise or disqualify platforms and artificial intelligence, but also to weigh their risks and potential (Nichyshyna *et al.*, 2023; Oliveira, *et al.*, 2023; Costa Júnior, *et al.*, 2024; Lima; Ferreira; Carvalho, 2024; Santos *et al.*, 2024). Particularly noteworthy are the works of Ferreira (2023), who draws attention to knowledge and reflection beyond screens and the non-neutrality of algorithm programming, and Silva and Couto (2024), who address the joint action of humans and non-humans in pedagogical practices.

The article by Campos and Lastória (2020) emphasises the computational instrumentalisation of education in the context of the 21st-century digital cultural industry, highlighting a commodified appropriation of cultural heritage. Wilke and Feijó (2023) situate the phenomenon of the platformization and

artificialization of education within the business model of this new phase of capitalism.

In the context of educational policies, the work of Mallmann (2023) highlights the technicality and instrumentalisation in the disorderly provision of equipment and training for education professionals, which ends up trivialising the idea of innovation and contributing to the hegemony of platforms in public education. According to Silva (2024), the curriculum has undergone a process of algorithmization that makes learning and its new inequalities ubiquitous, commercially captures attention, and regulates subjectivities through digital data. Teaching work, as pointed out by Viegas (2024), may become even more precarious due to the increased workload and control of their work and social activities through datafication processes.

The state of Paraná stands out among the articles surveyed. Santana, Santana, and Figueiredo (2022), focusing their study on a specific platform launched by the state, point out how much the policy is represented in a positive way to teachers and students, while at the same time its discourse devalues the mediated schooling process and teaching work. Palú, Arbigaus and Silveira (2023), on the other hand, note an increase in the bureaucratisation of educational and school management, even though the government's promise was to move in the opposite direction (the authors also include the state of Santa Catarina in their study). Pasini and Silva (2024), in particular, highlight the standardisation of teaching practices in Paraná as a result of the platformization process. Finally, the article written by Barbosa and Alves (2023) analysed the convergence of secondary education reform and the implementation of digital platforms in the state, considering that this process may favour the regulation and surveillance of school activities, as well as the expansion of privatisation.

The international academic and scientific research scenario also raises concerns about the growing presence of platforms and algorithmic

programming in the schooling of children and adolescents, highlighting the relevance of the topic of study at a global level. Dialogue with Brazilian and global production is fundamental to understanding the phenomenon, seeking scientific evidence that supports or refutes the benefits of platformization and artificialization in education, and building consensus around what best promotes student learning.

The works of Kerssens and Dijck (2021, 2023), Kerssens (2024) and Houben and Pierson (2022) deal with the Dutch educational reality, discussing public and private interests in pedagogical issues and data protection in relation to digital platforms. The Catalonia region in Spain also stands out in studies of the problem with the works of Jacovkis *et al.* (2023), Parcerisa *et al.* (2023), Rivera-Vargas *et al.* (2024a, 2024b) and Gonzalez-Mingot and Marín (2024) that deal with everything from the lack of public leadership to confront digital technology giants and the discursive tensions involved, to the perceptions of students, teachers and families about the processes of inserting platforms in schools.

The works of Nichols and Garcia (2022), Pangrazio *et al.* (2022), Kim *et al.* (2023), Famaye *et al.* (2024) and Saltman (2020), researchers affiliated with US universities, consider the notion of educational platforms as multifaceted markets, the datafication processes between teachers and students resulting from their use, students' perceptions of AI and its presence in schools, and the perspective that artificialization for profit may favor the privatization of public education. Zayed (2024), although from the University of Illinois, conducted a study on Egyptian education in which he criticizes the commercialization of education with digital platforms.

In Germany, the articles by Gleiß *et al.* (2023) and Lankau (2024) explore, respectively, the potential disadvantages of the public-private National Digital Education Platform (NDEP) and the sensible and age-appropriate use of AI for school activities and learning. In China, two

studies developed by researchers from universities in China and Malaysia examine teachers' willingness to accept AI (Yao; Abd Halim, 2023) and their conceptions about teaching this intelligence in schools (Yau *et al.*, 2023).

Komljenovic (2021), a researcher at an English university, discussed in her work the transformations in the education sector resulting from digital rentism. The article by the Danish Cone (2024) discusses affective aspects situated in public education guided by the growing economy of digital platforms. The remaining foreign productions deal with artificial intelligence in schools: the Colombian Bula and the French Bonilla (2024) conducted a systematic review on the impacts of AI on teaching processes, curriculum, teacher training, school management and ethical dimension. Bokor, Kovacs-Magosi and Nagy (2021) in Hungary, Martens, Wolf and Marez (2024) in Belgium, Walan (2024) in Sweden, Molefi *et al.* (2024) in Lesotho and Marrone *et al.* (2024) in Australia investigated some aspect of the understandings and concerns of students, teachers, school administrators and parents around AI and/or the algorithmization of education. It is worth highlighting the study by Tamimi, Addichane and Alaoui (2024), from the Sidi Mohammed Ben Abdellah University in Morocco, which found that high school students rely heavily on AI to complete their homework, which is detrimental to learning and skill acquisition.

In general, we observed that foreign productions demonstrate more evident concerns about the influence of *Big Techs*, the giants of technology, innovation and digital markets, on education and schools than national productions.

Revisiting the Brazilian context, especially the state of São Paulo, it is worth highlighting that the Public School and Democracy Group (January 2024), formed by professionals from public basic and higher education in São Paulo, understands that the platformization of state education has been developed in an undemocratic manner and without transparency in

procedures, intensifying surveillance over teaching work (and the discomfort in relationships) and consuming a large part of the management teams' time in bureaucratic control and evaluation actions. The group highlights the managerialist perspective of 'SEDUC-SP' (São Paulo State Department of Education) unilateral measures as devices for controlling school management and the teaching staff, without any commitment to the quality of student education.

Through a resolution, SEDUC-SP linked the retention of school principals in their positions to the engagement rates of school communities with the platforms. They are now 'digital foremen' (Grupo Escola Pública e Democracia, abr. 2024, p. 1) and the platforms became a discussion forum in school planning. "In the São Paulo state network, it is not technology that is at the service of education; it is public schools that are at the service of technology, subjugated by its metrics, its language, its format, and its pasteurised content" (Grupo Escola Pública e Democracia, abr. 2024, p. 2).

It is worth noting that, in August 2023, the state of São Paulo had decided to no longer receive books from the National Programme for Books and Teaching Materials (PNLD). Instead, the state secretary of education mandated the use of slides as teaching materials to be displayed by teachers on TV sets. The decision was suspended by the São Paulo courts a few days later. In a technical note issued on 15 August 2023, the Public Schools and University System (REPU)' (2023, p. 25) emphasised that the slides "exhibit methodological problems, conceptual errors and poor contextualisation".

In April 2024, it was the turn of artificial intelligence to be included by the secretary of education in São Paulo's educational policy, with OpenAI's ChatGPT being used to develop teaching materials – digital lessons – for the education network. Thus, teachers who are specialists in curriculum would now have the sole responsibility of evaluating and making adjustments to artificially generated materials.

It did not take long for the Public Prosecution Office of São Paulo (MP-SP) to request clarification on the basis of this artificial intelligence tool in studies based on scientific evidence or successful experiences nationally and internationally. Actually, the MP-SP has been conducting investigations since September 2023 to verify the inclusion of technologies and platforms in the state network and the process of digitising education, but SEDUC-SP does not always provide (when it does provide) the necessary clarifications (Palhares, 2024).

According to Venco (2024), the adoption of ChatGPT for the creation of digital lessons produces homogeneous material for completely heterogeneous school realities, in addition to reducing the number of teachers – especially through competitive examinations – in favour of the use of technologies in public education in São Paulo. For the author, "ending public service, as we know, is the golden dream of the managerial state. And the tools are being used in an attempt to neutralise the construction of reflective thinking" (Venco, 2024).

A possible implication of the use of artificial intelligence in public schools, in addition to the decline of exclusively human teaching and learning, is the training of this intelligence based on data provided by teachers and students in the education system. The AI fed and trained by a large education network such as that of the state of São Paulo without the 'consent' of teachers and students will become an even better and more refined tool for the owner company to sell to other education systems. Such artificialization is increasingly integrated into the "algorithmic actions of platforms that guide, condition, control, and monitor [...] educational actions and activities" (Silva; Couto, 2024, p. 13).

A similar concern was expressed by the Public School and Democracy Group (Jan. 2024) regarding the increased surveillance of teachers and administrators through digital platforms, given that these are private sector tools whose educational contributions are uncertain, but

which “will generate thousands of pieces of data that can be used and/or sold, placing a huge set of public data in the hands of private companies, with obscure and legally dubious uses” (Grupo Escola Pública e Democracia, jan. 2024, p. 1-2).

In the view of Fernando Cássio (Basilio, 2024), a professor at the School of Education at the University of São Paulo (USP), platformization is a pretext for purchasing equipment guided by the vision of a secretary who is, in reality, a technology entrepreneur and who understands nothing about the complexity of education. This aspect seems to become clear when we refer to the book he authored and published recently (Feder, 2023), since the production provides us with a greater understanding of the work he carried out as head of the education department in the state of Paraná and the origin of his managerial proposals: there are no references at the end of the book and no scientific evidence is presented that the platforms implemented by him are beneficial for student learning and development; his propositions are predominantly based on experiences and exchanges with people belonging to this business world and with public managers with a managerial bias, including foreigners.

We consider that the processes of platformization and artificialization of public education in São Paulo are expressions of neotechnicism that is organized around three major axes: “accountability, meritocracy, and privatization. At the center is the idea of controlling processes to guarantee certain results defined a priori as ‘standards’, measured in standardized tests” (Freitas, 2012, p. 383).

According to information from Agência Brasil (Mello, 2024), the Teachers’Union of the Official Education of the São Paulo’s State (Apeoesp) called for a mobilization for the period from May 13 to 17, 2024 against digital platforms in schools, encouraging the non-use of the tools throughout the week. For Apeoesp, the platforms take away teachers’ autonomy in planning and using other teaching materials in

classes, controlling (and therefore demanding) access to them and the teaching work itself by determining a standardization of teaching procedures. Teachers allege that there is strong pressure on their performance and that the curriculum is being emptied, since the platforms present predefined content and require almost no teacher mediation.

The Union of Specialists on Education of the Official Teaching Profession of the São Paulo’s State (Udemo), through an institutional video on its YouTube channel (Udemo Sindicato, 2024), argues that the state of São Paulo is going against the grain of national and global public education and is spending large amounts of public funds, time and energy on what is of lesser importance to student learning – platforms that favor control over pedagogical projects –, undermining what really matters and makes a difference in public schools: the teacher. Thus, SEDUC-SP has persisted in not investing in training, careers, public exams, better salaries and working conditions for teachers.

Conversely, the Union of Supervisors of Education for Official Teachers in the State of São Paulo (Apase) recommends that supervision, as a function of the State and not of the government, be conducted without using managerial, reductionist tools that are flawed in their assessment (Apase, 2024).

The study by Dias and collaborators (Dias *et al.*, 2024) is one of the few that exists, to date, that contemplates the process of platformization of the state education network in São Paulo. The authors highlight the curious fact that the same process occurred in the state of Paraná when Renato Feder, Secretary of Education, held the position until 2022. It is no coincidence, therefore, that Feder is paving a similar path in public education in São Paulo. It is his (business) project for educational reform. Mallmann (2023, p. 564) warns of the ‘falsehood of announcing novelty, of the new, through the vulgarization of innovation’, highlighting the importance of critical debate on the insertion of technologies in public policies.

Dias *et al.* (2024) present a chart with the platforms, their functions, the year of their creation/adoption, and the number of accesses per week. They then describe and comment, albeit briefly, on each of the platforms. Therefore, what the authors refer to as ‘platform managerialism’ does not refer to the use or non-use of platforms and technologies themselves in public education – although there is a debate about the excessive use of screens and online activities in student learning in rich countries with high-quality education, such as Sweden, for example. It concerns the imposition and mandatory use of this system as a way of managing teaching staff and administrative teams in order to standardise teaching, the creation/monitoring of productivity indicators, the control of professionals and students according to goals established externally to schools (to their interests and needs), generating data that can be sold later, reducing learning to quantitative engagement on platforms and, finally, privatising public education with the acquisition of these digital tools and other technological equipment.

Saltman (2020), dealing with the US educational context, also highlights aspects of democratic corrosion in the political conduct of schools and curricula by digital privatization, standardizing content and pedagogy, as well as fostering an authoritarian cultural perspective.

SEDUC-SP did not base its decision on studies that prove or demonstrate scientific evidence that these platforms or technologies effectively improve student learning or the work of professionals in schools. It has thus undermined school autonomy and the right to democratic school management enshrined in the 1988 Brazilian Constitution and the 1996 National Education Guidelines and Framework Law (Dias *et al.*, 2024). The point is not that technologies, by themselves, are prejudicial to educational and school processes, but, as Lévy (1999) pointed out in the late 1990s, the central issue is our responsibility in deciding what to do and how to use new digital technologies,

which is the key question in the discussion developed in this work.

And “when teachers and school administrators use the platform without any resistance, it does not mean that they appreciate its use but rather reflects a fragile career that does not even offer adequate working conditions” (Dias *et al.*, 2024, p. 20).

As a way of confronting ‘platform managerialism’, Dias *et al.* (2024) suggest that academic and scientific research in the field of education should be taken as a reference for improving initial and continuing teacher training and for the exercise of teaching autonomy. According to the authors, it is necessary to develop alternatives that emerge from school communities, with collective participation in the reformulation of their political-pedagogical projects and curricula linked to the possibility of social transformation, promoting effective democratic management that is free and committed to quality education. After all, “the constraints that platform management imposes on school staff are many, but still possible to overcome” (Dias *et al.*, 2024, p. 21).

Pangrazio *et al.* (2022) even suggest that the platforms themselves be used to raise awareness and take action to combat the production of data for commercial and/or control purposes.

In the beginning of May 2024, Apeoesp published the ‘Informa Urgente’ n. 43 calling all the teachers to attend the ‘Alesp’, the legislative assembly of the state of São Paulo, for the public hearing that would be part of the debate on the Supplementary Bill 9/2024, of the Civic-Military School Programme of São Paulo state, and that it would be held on May 14th (Sindicato dos Professores do Ensino Oficial do Estado de São Paulo, 2024).

Despite the mobilization, on May 21st, Alesp approved the complementary bill, creating the Civic-Military School Programme that had been sent to the legislative house by Governor Tarcísio de Freitas in early March. The program will be executed by SEDUC-SP and State Public

Safety Secretariat with the aim of improving the quality of education as measured by the Basic Education Development Index (Ideb), confront violence and promote a culture of peace in schools, with the expectation that 50 to 100 public schools, including state and municipal schools, will adopt the model. For this purpose, school communities – from schools with academic performance below the state average, social vulnerability, and irregular school attendance (considering passing, failing, and dropping out) – will be publicly consulted, and the model will only be implemented with their consent. Reserve military police officers will be hired to work in the area of discipline and civics, with an estimated annual cost to the education department of R\$ 7.2 million for the remuneration of these new agents. (São Paulo, 2024)⁵.

The program implemented by Governor Tarcísio de Freitas bears similarities to the National Program of Civic-Military Schools (Pecim), which was established by presidential decree during the first year of President Jair Bolsonaro's administration (Brazil, 2019). The Pecim also envisioned a "partnership" between civilian and military personnel in public schools, incorporating public consultations with school communities and setting annual targets for adherence. This program was subsequently repealed by presidential decree under President Luiz Inácio Lula da Silva in 2023.

The former president's proposal in the educational area,

in a declared manner, he announced the 'ideário bolsonarista' (Bolsonaro's ideology) of ideological control of institutions, professionals and curricula, as well as the defense of proposals for the militarization of schools and homeschooling. In forty months of management, four Ministers of Education were appointed to the position [...]. These constant changes show, since the beginning of Bolsonaro's term, the lack of public educational policy with a focus on public schools (Valente; Pereira, 2023, p. 14).

Added to this is what Franco and Maranhão Filho (2020) call the tripod of values – privatization, theocratization and militarization – of the Bolsonaro government that influenced the context of education in human rights and threatened the concept of religious and gender plurality, among others, and the democratic regime itself. Privatization because it sought to reduce or reallocate state resources or allocate them to the private sector, as well as making efforts to shift the function of public education to the private sphere of the family. Theocratization because it actively advocated a cis-heterosexual standard with religious bases in the dimensions of gender identity and sexual orientation, in addition to intending to break with the secularity of the State. And militarization with the employment of a large number of military personnel in the executive branch, the promotion of feelings of nationalism and patriotism linked to supposed military rectitude in the moral field, mainly, in addition to the federal program of civic-military schools itself.

The impact of a pro-Bolsonaro agenda on public education in the state of São Paulo seems to be clear not only due to the advance of the militarization of public schools or the lack of dialogue, curtailment of teacher/management autonomy, and devaluation of education professionals (Soares, 2023), but also due to the privatizing vision of the state government, especially that of the Secretary of Education, Renato Feder. He is a partner in a digital products company that had contracts signed with the state government during the previous administration. In the current administration, three contracts are in force through bidding processes that total more than R\$243 thousand and, although an investigation was opened, it was shelved by the Public Prosecutor's Office of São Paulo (UOL, 2023).

Regarding digital platforms, according to professor Márcia Jacomini, from the Federal University of São Paulo, the São Paulo government has paid for these ready-made tools without undergoing evaluation by education

5 In August 2024, the Court of Justice of São Paulo suspended the law that created the program, but the decision was overturned in November of the same year by the Brazilian Supreme Court (STF).

experts (Ratier, 2024). Regarding the Civic-Military School Program, Ximenes, Santos and Alves (2024) highlight that, in addition to the additional payments that reserve military personnel will receive from the education department, the variation of which is above the initial salary of a teacher in the network, the program also authorizes partnerships with private entities to transfer funds, such as associations of enlisted personnel and reserve officers, which provide outsourced military human resources and outsourced instructional materials.

The militarization of public schools, despite the claims to the contrary, takes the role of contributing to student discipline as a way of disseminating values and behaviors of military doctrine, mobilizing the interest in “controlling and influencing the school curriculum, blocking advances in the democratic management of schools and in human rights agendas” (Ximenes; Santos; Alves, 2024). The obvious needs to be reiterated: education professionals, trained and prepared for pedagogical work and school management, should work in public schools. Military personnel are not education professionals.

The new contours of São Paulo’s educational policy are already having repercussions on the quantitative results so defended by supporters of managerialism in education: results from the São Paulo State School Performance Assessment System (Saresp) indicate that the first year of the government has worsened public education in São Paulo.

In 2023, the average scores of students in the final years of elementary education (6th to 9th grade) dropped by 10 points in Portuguese and 3 points in Mathematics compared to 2022. These scores returned to levels observed a decade ago and are even lower than those recorded immediately after the pandemic (Cafardo, 2024).

The discussion proposed in this paper adds to the scarce production on the problem of the platformization and militarization of public schools in São Paulo, given that the current state government is in the middle of its term.

The events are recent and seem to limit their study and in-depth analysis with the necessary rigorous academic-scientific criteria. The time required to study phenomena related to education does not seem to be the same as the measures adopted by the educational policy of the São Paulo government, which have been occurring quickly and drastically and negatively affecting the work (and health) of professionals and the learning of students in public schools.

Conclusion

The discussion about the current design of the state government for public education in São Paulo showed, through a qualitative analysis of reports on everyday school situations, news articles, and positions taken by unions/representative entities, as well as recent literature: 1) the deepening of managerialism in state educational policy, establishing it as the foundation of what is considered quality education and good school management; 2) the alignment of government views and actions in the field of public education adopted by the administration of former President Jair Bolsonaro and the current administration of the state of São Paulo; 3) a greater tendency for foreign productions to shed light on the influence of Big Tech on education.

The platformization and artificialization undertaken by São Paulo’s educational policy, in addition to determining a managerial perspective on the administration of public schools, highlight the privatization bias in education through the acquisition of digital tools and technological equipment to conduct, control, and supervise the work of teaching staff and management teams, reducing the learning process to quantitative engagement on platforms.

The militarization of public schools through the state’s Civic-Military School Programme also highlights the process of privatization of education by allowing partnerships and public financial transfers to private military entities.

The combination of platformization and militarization tends to further undermine public education in São Paulo by subordinating it to the dictates of neo-technicism and Public New Management (NGP) suppressing critical-reflective appropriation of school content and the exercise of democratic school management. Among all the repercussions of the new contours of São Paulo's educational policy, one of them, which perhaps has the greatest appeal to public opinion, is already evident: São Paulo's public education system has seen its scores in Portuguese and Mathematics decline in the latest Saresp assessment.

The limitation of this study is the exploratory-descriptive scope to which the literature review on the digital platformization of education in Brazil and other countries was restricted. The in-depth examination of the proposal and the possible consequences of converting São Paulo's public schools into civic-military schools is another limitation that needs to be emphasized. Therefore, as possibilities for future research, we suggest further investigation into the impact of Bolsonaro's agenda on public education in the state of São Paulo, with an emphasis on the militarization of schools, as well as a systematic analysis of the content of the national and international literature on the platformization and artificialization of education. Monitoring Brazilian and global production not only promotes understanding of the phenomenon in question, but also the collection of scientific evidence of its implications for student learning and the work of education professionals.

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