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Big Tech Corporations in Brazilian Higher Education: pathways toward Public Education Platformization

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Abstract: This article examines how the entry of Big Tech companies into Brazilian public universities impacts one of the primary public spaces dedicated to human formation. The study is fundamentally grounded in José van Dijck's work, who proposes understanding society through the concept of platformization, alongside dialogue with Zuboff's surveillance capitalism (2020) and Nussbaum's theory of human capabilities (2012, 2015). To analyze the context experienced by institutions that have adopted these corporations' services, five Brazilian federal universities were selected. Their institutional documents – specifically, Institutional Development Plans, Information Technologies Management Plans, and agreements signed between universities and Google or Microsoft for application provision – were analyzed, complemented by questionnaires administered to information technology managers. The findings indicate that the entry of Big Tech into these universities generates not only increasing technological dependence but also significant interference in administrative and academic processes. This occurs primarily through the induced use of tools focused on numerical data analysis related to task performance, which compromises the comprehensive formation of human capabilities. The presence of these major foreign technology corporations in Brazilian public universities induces a process of public education platformization, undermining educators' autonomy and promoting educational privatization through algorithmic surveillance and educational data monetization.
Keywords: big techs; public universities; platformization; human formation.

1 Introduction

The pioneering study by Cruz, Saraiva and Amiel (2019) on the presence of Google and Microsoft in Brazilian public education, especially in higher education, found that 80% of the state universities and 22% of the federal universities surveyed direct their email messages to these corporations' servers. This means that these universities' institutional emails are now hosted on the servers of international priva-te companies. Furthermore, these institutions have begun using these companies' platforms as resources for learning, research, interaction, and formation.

In a more recent study, Cruz *et al.* (2024) reinforce the continued use of technological solutions offered by these corporations in the public higher education institutions in Brazil. According to Lima (2020) and Amiel (2021), this phenomenon needs to be carefully analyzed, given that studies that critically analyze its real impacts on the educational landscape are still scarce. These companies operate with business models based on surveillance and the collection of personal data, which raises important ethical and political questions. Blikstein *et al*. (2021) highlight that these corporations have encouraged teachers to participate in training programs directly provided by Google and Microsoft, with the aim of training them in the use of their applications. For the authors, this creates a relationship of technological dependence and hinders the development of autonomous and critical digital literacy, detached from proprietary and closed technologies.

It is in this context that the following question arises: how does the entry of Big Tech companies into Brazilian public universities impact one of the main public spaces dedicated to human formation? To answer this question, we conducted a survey with five public universities, one in each region of the country, based on the analysis of institutional documents and the application of a questionnaire to their managers. The study, conducted in 2024, involved the collaboration of five managers who answered questions about the challenges of managing Information Technology services in universities and the motivations that led to the adoption of Google or Microsoft applications.

The data indicate that the presence of Big Tech companies in public universities impacts both the organizational and the academic systems, imposing business models based on monitoring and collecting personal data, in addition to disseminate educational principles guided by an economic logic. This logic tends to override the ideal of a comprehensive and pluralistic human formation, committed to strengthening democracy and developing human capabilities, as advocated by Nussbaum (2012, 2015).

The article is structured in three parts. The first two present the concepts that underlying the study, highlighting the surveillance capitalism and the platformization of the society, articulated with the understanding of the university as a space for human formation. The third part analyzes the data collected from the five federal universities participating in the study, using Martha Nussbaum's perspective of de-mocratic education as theoretical framework.

2 Surveillance capitalism and its impact on Society

In the late 1990s, the popularization of the internet and the expectation surrounding the arrival of the third millennium were, according to Shiller (2016), some of the factors that drove the technology companies in Silicon Valley, recognized as the main technology hub in the United States, to establish themselves as attractive risk investment options. Google and Amazon were, in this context, among the more than 500 companies that saw their values skyrocket on the US stock market. However, the euphoria was short-lived, and in the early 2000s, the market values of these companies began to decline dramatically. This phenomenon was categorized as the bursting of the dot-com bubble (Shiller, 2016). In Zuboff's (2020) view, it was precisely at this moment that surveillance capitalism emerged, which points to the existence of a new logic of accumulation that directly interferes with the constitution of the human subjectivity and future.

The need for continued investment led Google to change its approach regarding an area that, initially, the company's founders hadn't valued much: advertising revenue. By becoming a high-precision internet search engine, Google was able to obtain diverse information from users using its databases. However, the company didn't view these data sets as potential revenue streams. The profitability of clicks, likes, and shares—something so commonplace and mundane today—had not yet been discovered. Until then, users' online behavior was monitored with the intention of improving the service for themselves. Google's shift in business direction, aimed at increasing the company's profits, meant that the analysis of excess user behavioral data—which Zuboff (2020) calls behavioral surplus—became the basis for predictive products sold to companies needing to market their products in this vast new digital world. In Zuboff's (2020) analysis, the commercial surveillance project was not merely an incident or consequence of informational capitalism, much less a derivative of the internet and digital technologies: it was an intentional human action that generated a new asset class in which profit trumps people. Thus, the discovery of behavioral surplus marked a critical turning point not only in Google's history but also in the history of capitalism.

Throughout the history of capitalism, constant changes in modes of production have been observed to ensure the continued existence of this economic system.

Piketty (2014) argues that capitalism is not a single entity and that the continuous creation of new forms of production and appropriation of capital will continue to be one of the conditions for its existence. Our thoughts, preferences, doubts, and joys have become assets to be commercialized without our authorization, even though we always agree (or are forced to agree) to the terms of use of email services and websites. Zuboff (2020) explains that the patents created by Google to identify and understand users more accurately are the true methodology behind the company's successful profits. These inventions, based on extensive algorithmic combinations, made it possible to "read the mind" of the users and connect them with advertising (merchandise) best suited to their needs. Silveira (2018) calls this process "modulation," which can be understood in four stages: user identification; profile formation; development of devices for daily monitoring of online interactions; and influence on users to guide their behavior. The researcher points out that some patents registered in the name of large technology companies, such as Samsung, Apple, Microsoft, Google, Amazon, and Facebook, can capture users' emotional behavior through typing speed, the use of a specific key over a given time interval, the frequency of a specific signal emission, among other factors. The maxim "your way, in your time"—widely used to suggest that the user creates or uses the product according to their needs—is nothing more than a result obtained from the analysis of personal data left during interactions on the World Wide Web.

For Zuboff (2020), Google is the pioneer of surveillance capitalism, but it wasn't long before other companies, such as Microsoft and Facebook, began using the same tricks in search of greater profitability for their profits. The scope of these companies, which initially appeared to encompass only personal lives, began to gain space within governments as well as an opportunity to "solve" social problems they identified with minimal expenditure, using the services developed by these corporations. In Brazil, we can point to the example of the migration of data from the Unified Selection System (Sisu) to Microsoft's database. The Ministry of Education's own website published a note highlighting the significant benefits of this migration, stating that the decision not to invest public resources in "[...] a system that would only be used 12 days a year" (Menezes; Pera, 2020) was the correct one. Thus, handing over Brazilian student data to a foreign company was the Brazilian government's supposed solution to balance its fiscal accounts.

According to Cruz and Venturini (2020), public-private partnerships between the state and international technology organizations reflect the expansion of surveillance capitalism, which constantly needs to gain new markets. For this reason, Southern Cone countries have become the new focus of these companies, given their low state investment in science and technology. Google and Microsoft are Latin America's new "partners," offering free and effective solutions to public institutions in these countries, especially schools and universities.

Based on a discourse that highlights the bureaucratic limitations of the state (specifically regarding political discussions and state legislation), technology companies find the appropriate space to advance their innovations. The premise is that they quickly provide practical, low-cost solutions to address social issues. Morozov (2018) calls this phenomenon technological solutionism and argues that Silicon Valley companies tend to market themselves image as "global equalizers." In this sense, Google's motto is that it can "provide access to all the world's information."

In the view of Silicon Valley tech startup entrepreneurs, all the world's ills are caused by people's lack of information. Therefore, apps that monitor daily routines or connect passengers and drivers could be the solution to the health and public transportation problems in large cities. It is the user, not the state, who is responsible for ensuring the upholding of their social rights. Morozov (2018) argues that believing that mere access to information is the solution to the development of an egalitarian society excludes political debate from the center of discussions about the true causes of social inequalities. The permission that governments are giving to large technology corporations to store national information, such as the Sisu data saved in Microsoft databases, is a way of dodging the consequences of a real political and economic crisis produced over the last two decades of the 21st century (Morozov, 2018).

Thus, technologies are considered products of society and, in this sense, are neither neutral nor exempt from interests. Therefore, the point to be debated is understanding the true intentions behind the veil of innovation and practicality, as demonstrated by Google and Microsoft, when they chose public universities as the new field of activity for their ventures. Ultimately, a crisis of democracy remains evident, brought about by neoliberalism, in which states increasingly become diminished in relation to investment in areas such as job creation, education, and healthcare. In this

scenario, large technology corporations gain space to become the new regulatory institutions of the society.

3 The platform society

In the current scenario, in which surveillance capitalism (Zuboff, 2000) is considered the business base of large technology corporations, the reflections of this economic model's choice reverberate throughout society. In this sense, the concept of platformization has been addressed in several studies (Owen, 2019; Andréa, 2020; Dijck, 2022; Lemos, 2023) on the influence of large technology corporations on people's daily actions and even on society's economic, geopolitical, cultural, and educational relations. Platformization is understood through a multifaceted perspective from the areas of communication, computing, administration, economics, politics and cultural studies, which provides a dialectical characteristic to this terminology and dismisses, a priori, any argument that it is a techno-deterministic concept regarding the changes that have occurred in society following the incorporation and popularization of digital platforms.

The using the term "platforms" to describe online services offered by large technology corporations is, in fact, a very apt way to inform our current dependence on Big Tech. It is through platforms that we access the universe of information. Without them, we cannot achieve our desired goal, whether it's answering a question, listening to music, accessing news, or watching a video. Nichols and Garcia (2022) emphasize that the concept of platforms has evolved to encompass new modes of digital communication and has increasingly been used by technology companies to describe their services.

Therefore, by positioning themselves as service platforms, Big Tech companies evade regulations. When, for example, Facebook publishes defamatory, prejudiced news, it is exempt from punishment because it is not a media vehicle. It is merely the medium, the platform that disseminates the content, and therefore cannot be penalized for something it did not create, but merely disseminated. This situation is merely a reflection of how corporations have altered the foundations of society, which, for some, sounds like a renewal of ways of living. For others, all these changes brought about by

platforms must be analyzed with due caution, as they affect the future of humanity (Antunes, 2018; Van Dijck; Poell; Wall, 2018; Zuboff, 2020).

It is important to emphasize that when referring to the changes brought about by platforms, the intention is not to attribute sole responsibility for changes in the social, cultural, and economic infrastructures of countries to a single technological product. In fact, according to Andréa (2020), the intention is to recognize that the business models adopted by platforms decisively influence how we understand and manage our relationships in society. Van Dijck, Poell, and De Waal (2018) suggest that platforms are not causing a revolution in society; in fact, they are gradually infiltrating the institutions and practices on which democratic societies are based. For this reason, the authors adopt the term "platform society," as it emphasizes the intertwined relationship between online platforms and social structures. Furthermore, they emphasize that understanding the implementation of digital platforms within societal structures can raise a discussion about private benefits and corporate gains versus public interests and collective benefits arising from the social practices involved in this process. The discussion surrounding platforms, for the authors, reflects not only economic and social values, but also, and inevitably, political and ideological values. This is why we need to pay close attention to the role that online platforms play in organizing societies in a globalizing order.

Van Dijck, Poell, and De Waal's (2018) study of the platformization of society sheds light on how Big Tech's algorithmic architectures and business models have interfered with learning processes and driven the distribution of online learning materials, impacting curricula and influencing the administration of schools and universities. For Van Dijck, Poell, and De Waal (2018), Big Tech, especially Google, Microsoft, Facebook, Amazon, and Apple, have influenced the very idea of education as a common good. These corporations seek to promote a new concept of teaching and learning that ignores the democratic and public values of education—moving away from an education rooted in Bildung and moving toward an idea based on the mere development of cognitive and social skills, with a view to entering the job market. This means that the ideological values of Big Techs place in opposition concepts such as: Bildung versus skills development; education versus learning; teacher autonomy versus automated data analysis; public institutions versus corporate platforms (Van Dijck; Poell; De Waal, 2018).

Thus, the platformization of higher education cannot be analyzed as something neutral, as mere access to digital tools. According to Garcia (2023), these platforms can interfere with the values, organizational culture, activities, and academic and administrative assessments of the educational institutions that use them. The author highlights that, although their use can generate significant benefits, such as in data management and the analysis of performance metrics, they present threats that impact a new definition of the mission of the higher education. Data extraction and monetization are cited as examples of threats, as technology companies access and store the data of teachers, students, and staff, thus transforming it into products to be marketed to these audiences. Furthermore, according to Garcia (2023), with this same data, they can understand the logic behind how institutions operate and offer "new solutions" to potential problems.

Another point highlighted by Garcia (2023) is the emphasis on instruction, reiterated by the use of digital platforms in schools. For the author, mere instruction erases the fundamental aspects that make up the educational process: socialization, the formation of subjectivity, and related cultural, economic, and political issues. This bias is confirmed by the interpretation of documents such as "Real Impact for a Better Future," prepared by Microsoft Brazil (2019). Throughout this text, we observe the preponderance of the term "learning" to indicate how the tools and platforms offered by the company can help managers and teachers deliver personalized learning to students, so they can achieve the best results:

> By using innovative, accessible, and easy-to-manage resources, teachers have more time to create personalized learning experiences that lead to better outcomes. [...] Educational institutions benefiting from Microsoft's Office 365 solution are transforming learning. This is because, in addition to the school, teachers and students gain access to a suite that includes Word, Excel, PowerPoint, OneNote, and Outlook tools that have become market requirements (Microsoft Brasil, 2019, pp. 21-23).

A In the document, we can also analyze how the use of technologies in the classroom is seen as responsible for improving the quality of education, in addition to stimulating young people's entrepreneurship to build a better world:

> The [Entrepreneurial] Journey also brings technological access to schools and contributes to improving the quality of education and encouraging entrepreneurship. On the other hand, teachers receive technology training and become capable of shaping a new generation of citizens. They prepare

> children and young people to innovate and reinvent the future (Microsoft Brasil, 2019, p. 7).

A Thus, the point highlighted by Garcia (2023) is substantiated when he emphasizes the exaltation of the concept of learning based on the role that digital platforms have assumed in the educational process, to the detriment of a broader perception of education. In the same vein, Biesta (2021) emphasizes that the emphasis on the issue of learning distances the political meaning of education, given that such a conception treats the educational process from an economistic perspective. Thus, the learner (the client in this relationship) knows what their needs are, so it is up to the school (the provider) to be available to meet them. In Biesta's analysis (2021, p. 38), the major problem with this learning-centered conception of education is that "[...] education itself becomes a commodity – a 'thing' – to be provided or delivered by the teacher or educational institution, and to be consumed by the learner."

Finally, we consider that the idea of the platformization of society, discussed here, offers us clues to understanding how this phenomenon permeates public education to the point of modifying its formative perspective, relegating it to a performance-based metric from the completion of tasks, much as employees in a company are evaluated based on the delivery of products and the achievement of goals. In this scenario, teachers assume, in addition to all their pedagogical and administrative obligations, the multiple roles of digital content creator, online information manager, discussion forum facilitator, and others necessary for survival in the digital culture universe.

Brazilian public universities are no exception to this pattern, not only due to the growing demand for distance learning courses at both undergraduate and graduate levels, but also due to the constant rhetoric surrounding the potential innovations afforded by the use of digital technologies in higher education. This understanding facilitates the entry and permanence of Big Tech companies, as these companies associate the idea of innovation with the use of their digital tools.

4 Big Techs in public universities

To understand the impacts of Big Tech on public universities, we used the results of a documentary analysis and a questionnaire administered to administrators at five Brazilian federal universities that have adopted Google or Microsoft services. The

selection of institutions was based on two criteria: (1) geographic location, with one university selected per region of the country; and (2) universities with more than 25,000 students and the highest number of courses or formation initiatives focused on the use of corporate applications, promoted by the Distance Education (DE) and/or Human Resources departments. This choice is justified by the fact that these departments are generally institutionally responsible for teachers formation and staff in the use of information and communication technologies for teaching and mana-gement activities.

Regarding the document analysis, the following documents were examined: the Institutional Development Plan (IDP), the Information Technology Management Plan (ITMP), and the terms of agreement signed between the universities and Goo-gle or Microsoft for the provision of applications. With the aim of deepening the un-derstanding of the reasons that led to the adoption of Google or Microsoft applica-tions in teaching and/or management actions, a questionnaire consisting of six clo-sed-ended questions was initially administered between June and August 2023. The instrument also included space for additional comments. In total, five in-formation technology managers participated, two of whom were from the same insti-tution. It should be noted that it was not possible to administer the questionnaire to the managers of one of the initially selected universities. To ensure the anonymity of the participating institutions, they will be identified in the text by the letters A, B, C, D, and E.

Google and Microsoft stand out in the education field due to their continuous investments in the area since the early 2000s. Both created specific sectors - Google for Education and Microsoft Education - with the aim of offering services, such as applications and training, aimed at developing educational initiatives from basic education to higher education.

Google for Education presents its products to educational institutions with the promise of improving the management of learning experiences and inviting schools and universities to make Google their educational ecosystem by connecting all of its applications. Microsoft, in turn, offers universities the Office 365 Education suite upon joining the partnership. It consists of email tools, a word processor, spreadsheets, slide presentations, notepads, file storage, and web conferencing systems. According to the company's website, one of the major advantages of using the Office 365 suite is the ability for teachers to train students in a set of skills and applications most valued by job recruiters. The alleged advantages highlighted by the company are reflected in the

perception expressed in the response of a manager participating in this survey, when he mentioned one of the reasons why the institution chose to partner with Microsoft:

> You see, [...]. We did a extensive research to determine which product would be best for us. Google undoubtedly has a number of advantages that go without saying, but what stood out most about Microsoft is the questiono f constant accessibility of all its applications, in addition to the fact that we give our students access to tools that are common in the job market and in life outside of university, such as Word, Excel etc[1] (Interviewee A).

The questionnaire administered to managers asked the reasons that led the institution to partner with Google or Microsoft. Among the answer options, all respondents indicated "service functionality such as text editors, cloud file storage, and online meeting environments" as one of the reasons. Two managers supplemented their responses with the following statements:

> It's a platform with fully integrated, shared, and collaborative online solutions, as well as specific tools that provide an improved student/teacher interaction experience. Furthermore, more than 85% of the computers and workstations at the institution run Windows operating systems, with the Microsoft Office suite installed on most of these machines. This is crucial for the institution's users to be able to work with Office 365 tools in the cloud with greater easiness and interactivity (Respondent D)[2].

By observing the responses, it's clear that partnering with Google/Microsoft has generated numerous benefits for institutions, particularly in the administrative sphere, due to the access to management applications that are deeply integrated into people's daily lives. This contrasts with a solution developed by the institution itself or using open-source software, which would require time and financial resources to train teams in the use of these tools, for example.

These would be plausible arguments, especially when we consider factors such as cost-effectiveness, efficiency, and effectiveness, given that we are dealing with public institutions. However, it is important to consider that establishing partnerships with Google and Microsoft establishes a relationship of dependence on a foreign entity that could interfere with the scientific processes of universities. Therefore, we emphasize that it is not simply a matter of finding the "[...] most common, complete, and cost-effective solution" (excerpt from respondent A1's statement) to overcome

[1] The interview was conducted remotely and lasted 70 minutes in June 2023.
[2] The questionnaire was applied online, using an electronic form, with six closed questions and an open space for comments, between June and August 2023.

technological infrastructure challenges in institutions; the issue is much deeper and more complex.

The principles governing Big Tech are riddled with a logic of monitoring, collecting, and monetizing personal data. Furthermore, they generate a kind of dependency, to the point where we believe that only they can provide the best solutions for the technological challenges faced by universities. This can be inferred from the statements of two administrators participating in the study regarding the possibility of other solutions that could be used to replace Google/Microsoft services at the institution:

> Only a partnership with Microsoft could replace or complement the Google service we already use. Currently, only Google has a platform capable of competing with Microsoft's solution in terms of excellence, diversity, security, and the volume of resources offered. Developing a solution that delivers similar, fully integrated, stable resources, and the level of support offered by Microsoft or Google would require such substantial investments that it could be a barrier to the Brazilian government's technical and financial viability. (Respondent E).

When managers point to Big Tech solutions as the most effective, we realize that the notion of digital sovereignty was not taken into account when establishing the partnership between the public university and the technology corporation. Digital sovereignty is currently a prominent topic in the internet governance debates, as was the case at the 13th edition of the Brazilian Internet Forum, held in June 2023. The concept of digital sovereignty includes the perspective that the State itself has the capacity to regulate its digital infrastructures, without dependence on international actors. From this scenario, the European Union, through the Gaia-X project, led by Germany and France, has sparked a discussion among its countries regarding digital sovereignty, with the aim of building its own digital infrastructure, in accordance with the relevant laws, and thus becoming independent of any international technology corporation.

Perrotta *et al*. (2021) warn that, although such applications may have helped institutions during challenging times, such as remote learning during the COVID-19 pandemic, their architectures are primarily focused on measuring student performance data, holding teachers accountable, streamlining the curriculum, and intensifying accountability processes, all of which have negatively impacted the educational dimension of teaching. Another issue is data privacy and transparency in relationships

between corporations and universities.

Regarding the partnerships entered into with Google, within the scope of the universities analyzed (Universities B, C and D), no type of contract, cooperation agreement or similar document was identified, so that the simple adhesion to the free services of the Google Workspace suite is the initial contact between the institution and the technology company. As for University A and University E, regarding the partnership with Microsoft, we found two documents, respectively: “Protocol of intentions between University A and Brazilian Microsoft Software and Video Games Trading LTDA, aiming at collaboration for the promotion of education and entrepreneurship” and “Online Service Terms October 1, 2019”. In the first document, specifically, it is noted that, in addition to access to conventional tools, such as email, training on the use of Office 365 will be available to teachers, carried out by Microsoft consultants, as well as suggestions for content aimed at the STEM area[3].

The sudden and unilateral change in the terms of membership in favor of the corporation is also a matter of concern. This is the case with file storage space and limited access to tools initially included in the contracted packages. In May 2023, institution D published a note on its website informing about storage limitations, both for emails and for files, documents, photos, etc. The service, previously offered unlimited by Google, would now have limited access, which would lead to a reorganization of the university's administrative processes. The same thing happened at University A when, in March 2024, the community was informed about changes to the Office 365 Education usage policies, which reduced file storage space and disabled the functionality of some applications. Given these unilateral changes, with no possibility of prior adjustment by the other party to the agreement, it appears that universities are being held hostage by corporations, as they, in some way, influence the organization of the institutions' administrative processes.

From the data presented, it is clear that technology corporations, upon gaining access to public educational institutions, disseminate their ideas regarding business management, such as the constant measurement of student and teacher performance and the logic of cost savings. Ultimately, these corporations are not seeking

[3] STEM is an acronym in English used to identify teaching methodologies with an emphasis on the areas of Science, Technology, Engineering and Mathematics.

partnerships with Brazilian public universities to carry out projects that could truly benefit the country's education system. In fact, especially when we look more critically at the issue of the lack of transparency and the creation of dependence of universities on this technological ecosystem, they are, to a certain extent, impeding the country's digital sovereignty, through a market configuration in which education is seen as a broad market for monitoring and data collection, within a system of surveillance capitalism.

By analyzing the data gathered about the presence of Big Tech companies in Brazilian public universities, it becomes clear that public universities are constantly being urged by the market to rethink their role as educational institutions in 21st-century society. Faced with economic pressure, formative time becomes shorter, the development of knowledge that sustains humanity is relegated, and research becomes largely quantitative. This, then, is a perverse logic that removes the historical concern for an formation committed to democratic citizenship from the formative purpose. The university ceases to be a space for free and creative thought, an inherent characteristic of human beings, and becomes yet another space for the production of human capital geared to market needs. The economy, rather than broad formation, begins to dictate what should be thought, taught, and researched.

This analysis is supported by Nussbaum's (2012, 2015) thinking regarding the need to envision a comprehensive formation, focusing on human development. In this vein, the updated concept of Bildung presents relevant aspects for considering education as "[...] a form of critique and development of sensitivity against capitalist civilization and against the sense of rationality reduced to mere instrumentalization" (Dalbosco; Mühl; Flickinger, 2019, p. 8). It is postulated that the primary purpose of the university is the development of scientific production and human development focused on community living, in the context of a complex, plural, just, and democratic society.

Thinking about a comprehensive formation, focusing on human development, as advocated by Nussbaum (2012; 2015), means confronting the silent crisis in education caused by the direction of educational reforms, with the strong contribution of Big Tech companies focused on profit to the detriment of a more comprehensive formation, which is essential to strengthening a democratic society. In Nussbaum's words (2015, p. 4), "[...] obsessed with PNB, countries and their education systems are recklessly discarding skills that are indispensable for keeping democracy alive." By

centering education on profit, they fail to consider human development in its essence. By removing humanistic disciplines and the arts from school curricula, they will be contributing to the brutalization of the civilization. "If this trend continues," warns Nussbaum (2015, p. 4), "[...] all countries will soon be producing generations of profit-making machines, instead of producing upstanding citizens who can think for themselves, critique tradition, and understand the meaning of the sufferings and achievements of others." In the interpretation of Fávero, Tonieto, and Consaltér (2023, p. 342), "[...] forming upstanding citizens is essential for the future of democracy." The dimension of the collective spirit, in the construction of spaces of sociability and shared life, thus becomes a great challenge not only for educational institutions, but in all dimensions of democratic life. Recovering the dimension of community life, permeated by principles of solidarity, cooperation, and mutual aid, are fundamental elements for thinking about democratic life, which can be lived and experienced in educational spaces.

Laval and Vergne (2023, p. 22) are right when they say that democracy designates "[...] a society in which the principle of self-government is extended to all territorial and productive institutions, to all collective activities, be they economic, cultural, or educational." This presupposes the capacity of collective effort to create, develop, and strengthen such institutions, without which democracy itself becomes a chimera or empty rhetoric. If democracy "is synonymous with the instituting power of citizens and producers," it is important to realize that it "[...] does not occur without self-reflexivity at the heart of all institutions of the society, be they political or economic." Since democracy is a way of life, as John Dewey (1959) aptly expressed over a hundred years ago, then it is necessary to reaffirm the commitment that “[...] school and university must be ‘reconstructed’ as places where democracy can be experienced” (Laval; Vergne, 2023, p. 23). This commitment is threatened when these institutional spaces, incubators of democratic life, are threatened by the colonization of Big Techs.

5 Final considerations

With this study, we seek to understand the implications of the entry of large technology corporations into Brazilian public universities. Throughout the research, we

identified that this phenomenon is part of a broader process of platformization of the society, sustained by an economic base dominated by surveillance capitalism. We argue that the presence of Big Tech companies in Brazilian public universities represents the appropriation of a privileged public space for the development of a comprehensive human formation by international technology companies whose business models are based on the collection and monitoring of personal data. These companies, far from being neutral, understand education primarily as a qualification factor for the market, aimed at obtaining income and profit, to the detriment of a formation committed to democracy and the development of human capabilities.

We further argue that the presence of large foreign technology corporations in Brazilian public universities creates a dependence on their technological ecosystems, which directly affects the development of national solutions. Furthermore, this relationship leads to a process of platformization of the public education, which confiscates the autonomy of educators, fosters the privatization of the education, to perform na algorithmic surveillance, and encourages the monetization of data, relegating the university to the background as a space for critical and emancipatory creation.

We recognize, however, that the resources offered by Google and Microsoft can bring benefits, especially to university administrative departments. However, we emphasize the need for further studies on the effective impact of these products on the educational process. It is urgent to understand, in greater depth, how these companies influence decision-making by administrators and even the formulation of public policies in the field of education. This is not, therefore, about denying the importance of technologies, but about problematizing the ways in which such corporations have been interfering in social sectors—and, in this case, education. We argue that digital technologies should be at the service of consolidating democratic political processes, committed to human dignity and the common good. Ultimately, they should contribute to the advancement, not the regression, of educational processes, aiming for a broad cultural formation, oriented toward the development of autonomy, critical thinking, argumentation, ethics, socialization, and human responsibility.

We also emphasize that the applications offered by these corporations tend to prioritize the metricization of the knowledge, under the guise of a personalized, flexible, and innovative learning. However, this approach disregards fundamental and immeas-

urable dimensions of the education, such as empathy, critical thinking, and autonomous thinking, pillars of a formation committed to democracy and social justice. Public universities cannot delegate their educational responsibilities to the private sector, at the risk of compromising their historic role as a space for the production of free, democratic, and humanistic knowledge.

Finally, we conclude that it is urgent to demystify the fascination exerted by Big Tech's technological solutions. Although, at first glance, these tools appear to offer quick and effective responses to universities' demands, such as access to interactive virtual environments, they gradually reveal themselves as systems that generate technological dependence, reduce the complexity of formative processes, and hinder the development of autonomous and contextualized alternatives. Furthermore, they contribute to the consolidation of a colonized and uncritical thinking, in which only these corporations' solutions are seen as legitimate, to the detrimento of possibilities built on local realities, plural epistemologies, and technological sove-reignty.

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