There has been a substantial growth in the relationship between public educational institutions and large technology companies involving the use of digital services for education. Corporations such as Google and Microsoft, which are among the most valuable companies in the world, have offered educational institutions in Latin America, largely without immediate financial cost, access to educational technologies and information storage in their data centers. These relationships have intensified, especially since the COVID-19 pandemic, given the increase in demand for remote learning and the lack of proper infrastructure to support it.

In the field of open education there is still little concern for many of the technical aspects of openness. While the community tends to focus on legal concerns and open licensing; works to promote professional development for the creation and sharing of OER; and engages in policy-making, as a whole it tends to ignore the the constituent characteristics of technical platforms and infrastructures that make the open educational resource ecosystems possible and that act as mediators of open practices. The choice and selection of learning platforms has very real consequences for how openness takes place.

A large part of the income of the companies involved in these agreements comes from a business model based on the collection and processing of data and the commercialization of profiles for behavioral marketing, product improvement, and building loyalty. These are based on the possibility of predicting the actions of connected individuals by tracking their behavior, which Zuboff (2020) has famously ‘surveillance capitalism’: a new mode of production that extracts value from the various possibilities of capturing and processing and using the data generated in digital environments. We often misunderstand the added value of thousands of aggregated data points from millions of users - data cross-referenced, sold, and processed in ways we are not aware and cannot predict when using services and applications (Etzioni, 2012; Solove, 2007).

Progressively, our relations of sociability, citizenship, consumption are being transferred to the digital environment. In education, the widespread adoption of ‘solutions’ such as Google Workspace for Education and Microsoft 365 have become the systems were educational and research content is archived; where student-teacher communication is permanently recorded; where sensitive academic and personal data is stored. Adoption of these systems sometimes also extends to the physical resources that are used (such as the operating systems in computers or the computer itself). The adoption of such systems provides a dilemma to the open educator, as it also makes clear an imbalance of power. To what degree can a student choose not to use, say, Facebook for content sharing if this is suggested or demanded by a teacher? What choice do teachers have as to where they conduct their classes and share their videos if administrators adopt a platform like Google Workspace? Nonetheless these platforms are often seen as neutral grounds for open practices. We have little information about its workings and its technologies for organizing information are protected by intellectual property and trade secret rules. Essentially, we know little of how data and metadata, collected through use of these platforms by students, teachers and administrators, is used, as a trade for ‘free’ services. As emphasized in the UNESCO OER Recommendation (2019), privacy and data protection are also qualities of OER ecosystems.

We argue that open educators should be aware of these concerns and make qualified choices whenever possible. As such, we will present data form the “Education Under Surveillance” project, which has been tracking surveillance capitalism in Brazilian education since 2018, and in Latin America since 2020. To do so, we use a mix of manual data collection and automated scripts to map data on e-mail servers for educational domains, which has shown to present reliable data on these relationships.

In Brazil, the project has mapped data on all public higher education institutions, state-level secretariats (responsible, mostly, for high schools) and municipalities with over 500,000 inhabitants. In this universe, including all mapped servers, the data indicate that over 65% of institutions(secretariats) servers are associated with either Microsoft or Google. This translates to over
75% of the states servers (N=41 mapped servers), and as high as 86% of state public university servers (N = 43 mapped servers).

In South America, we collected data on 498 public higher education e-mail domains, including universities, colleges and institutes. Among them, 71% (N = 355 mapped servers) are stored in Google data centers (N = 293 mapped servers) and 12% in Microsoft servers (N = 62 mapped servers).

In countries with more than 10 public higher education institutes (with the exception of Guyana, French Guiana and Suriname), only three countries have a larger number of e-mail domains allocated in their own data centers: Uruguay, with 83% (N=24 of 29 mapped servers), Argentina, with 63% (N=51 of 81) and Venezuela, with 55% (N=12 of 22). On the other hand, the countries with less control over their e-mail domains are Ecuador, with no institutional e-mail allocated on its own servers (N=29 mapped servers), Peru, with 3% of e-mails on its own servers (N =2 of 62 mapped servers) and Colombia, with 4% (N=4 of 73). Ecuador is the only country with a market that is equally controlled by the two companies and with the largest number of Microsoft servers (52%, N=15). In the other countries where the solutions offered by the companies dominate, Google has the majority of the market especially in Peru (84%, N=52 of 60 mapped servers) and Chile (83%, N=33 of 40). In absolute numbers, Brazil has the largest number of institutional domains of public higher education institutes stored on Google servers, totaling 76.

References