

## ADVANCING OPEN EDUCATION POLICY IN BRAZILIAN HIGHER EDUCATION

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### Introduction

Brazil is in a peculiar spot when it comes to the development and implementation of Open Education (OE) policies. The country faces a considerable gap from what could be considered high-level access to educational technology while operating with limited equipment/infrastructure and unequal distribution. In terms of open content, the level of knowledge and awareness related to open education resources (OER) is still limited in Brazil. Moreover, much high-level content is made available by simple translation to Portuguese, and/or is ill adapted to local contexts. On the more positive side, most OER initiatives in Latin America are maintained by governmental funding on municipal, state, or federal levels (Amiel & Soares, 2016).

Such trends are understandable when governmental policies articulate the many dimensions addressed by open education. Governments have the resources to deal with institutional cultures, mapping and adjusting expectations and rewards. Also, it is through the state that technical requirements and blind spots (in terms of devices, cables, bandwidth, software, etc.) may be evaluated and corrected on the scale expected for the wide creation, refinement, and circulation of OER. In addition, such technological infrastructures demand technical training and maintenance; something that governments are able to engage in through concerted efforts and the implementation of bureaucratic and scientific guidelines.

Under such governmental oversight and influence, Brazil has managed to significantly advance its high-level OER policies during the past few years (for a review, see Amiel, Gonsales & Sebriam, 2018). Recent regulation by CAPES (Coordination for the Improvement of Higher Education Personnel, part of the Ministry of Education) in Brazil now demands that anyone receiving funds at the Open University of Brazil (UAB) in the form of scholarships, assistantships, and the like must choose an open license for the products of their work. This mandate was part of a series of actions aimed at promoting openness, and particularly OER, within the UAB. Importantly, the UAB is an initiative by the Brazilian government to further higher education through the networking of over 100 existing public higher education institutions in Brazil (which are, generally, more selective and prestigious than private institutions). Though such institutions stand for a relatively small part of the Brazilian higher education structure (recent data accounts for a total of over 2,400 institutions of higher learning in the country, with about 8 million students [INEP, 2017]), the faculties networked through the UAB system encompass a significant share of the public institutions maintained at the state and federal levels.

In this chapter, we present a study based on data collected from more than 100 public higher education institutions in Brazil, specifically, members of the UAB system. The goal was to understand their current perspectives and practices in relation to OER and open education. The study itself was part of a systematic set of actions that were put in motion in tandem with the policy changes, including the development of an awareness campaign, an online course on OE/OER, the launch of an OER portal, and several other initiatives by CAPES and partners.

It is important to mention that we were directly involved in many of these activities through our work in the Open Education Initiative (IEA) and the UNESCO Chair in Open Education (NIED/Unicamp), which was led by the first author. We present the collected data, and describe its relationship to policy change and future work, together with implications for the development of an OE/OER agenda for the region.

## Open University of Brazil

The Open University of Brazil (UAB) was officially created in 2006. Inspired by a number of previous experiences in distance education in Brazil and abroad (Costa, 2007), the primary goal of the UAB was to provide opportunities for higher education in regions not served by traditional institutions. Moreover, it focused on serving in-service teachers in order to provide higher and continuing education to meet the demands of the teaching profession. Brazil had (and continues to have to a smaller degree) many teachers without a higher education diploma, or without a diploma in one's actual area of activity.

Only in 1996, through enactment of an education bill (BRASIL, 1996; known as *Lei de Diretrizes e Bases*) did Brazilian legislators seriously recognize the importance of distance education and begin a movement towards defining how it should function. Early on distance education was seen as potentially making significant contributions towards providing the necessary qualifications and professional development opportunities for in-service teachers. It is important to remember that such goals were taking place in a country with continental dimensions, while operating with a strong concentration of population and educational opportunities in large cities and metropolitan regions.

In order to answer these substantial demands, UAB functions as a consortium that includes over 100 institutions of higher education (HEIs), such as the federal universities, which are responsible for the pedagogical and operational aspects of courses. Local and state offices have the role of providing support to students and an institutional presence, in the form of a local center (buildings know as *polos*) with appropriate connectivity, personnel, and infrastructure to provide face-to-face support, resources, tutoring, access to the Internet, and evaluation of learning. These are established in towns that are usually not served by HEIs. The staff of each *polo* is usually composed of technicians, support and maintenance personnel, and a local coordinator. The federal government, in particular CAPES, is responsible for establishing official regulations as well as funding (including the necessary costs associated with infrastructure and personnel at all levels).

The local and national infrastructures articulated by the system are linked by the SisUAB platform, which is an online database through which the execution and follow-up of processes are managed by local coordinators and government personnel. The system is also served by the EduCapes repository (a website created to permit sharing of open and closed content; see <http://educapes.capes.gov.br>), which is designed to foster the sharing and circulation of open educational resources developed by the UAB community.

In light of this complex structure, we conducted our study with a subsection of the system. Our focus was on the perspectives and responses of actors involved with the HEIs. We present the study and the findings in the following sections.

## Methodology

In order to create a survey for UAB, we analyzed items that had been included in various recent surveys and questionnaires that focused on open educational resources and open education. We also reviewed a selection of recent literature in this area (Allen & Seaman, 2014; Camilleri, Ehlers, & Pawlowski, 2014; Conrad, Mackintosh, McGreal, Murphy, & Witthaus, 2013; De Beer, 2012; De los Arcos et al., 2014; Hoosen, 2012; Hylén et al., 2012; Inamorato dos Santos, 2013; Mishra & Kanwar, 2015; McGreal, Conrad, Murphy, Witthaus, & Mackintosh, 2014; Orr, Rimini, & Van Damme, 2015; Punie, Inamorato dos Santos, Mitic, & Morais, 2016; Santos-Hermosa, 2014; UNESCO, 2015; Venturini, 2014). Based on this review, we created a table to identify questions and indicators that were present in multiple surveys as well as those that were unique and particularly relevant to our research needs. Based on this analysis, we created a framework for our survey that included the following three key sections:

1. **Educational resources:** perceptions related to access, sharing, remix of educational resources (not focusing on OER);
2. **Open practices and resources:** perceptions, expectations, and critical evaluation of knowledge of OER, open practices, and associated fields;
3. **Institutional aspects:** perceptions and evaluation of the relationship between openness and institutional demands, needs, and outlook.

The questionnaire was sent to persons involved with the Open University of Brazil (i.e., professors, researchers, and technical staff), who were contacted directly by the Ministry of Education (CAPES) based on their registry. A total of 2,660 valid responses were computed, representing 103 public higher education institutions from all regions of Brazil. In this chapter, we focus on the third element, institutional aspects, which offers a wide-angle view of current practices and challenges for open policy in Brazilian higher education.

## Findings

We asked participants questions about their engagement with Open Access (OA), since it has a longer history as a movement, and it is often considered a precursor or contributor to the open educational resources movement. When asked whether they had published an article in an open access journal during the preceding five years, 59.5% responded positively. Considering that many pressures exist for publishing in closed journals (usually measured by journal-level, traditional impact factors), the high exposure to OA journals was a positive finding.

When asked about policy, only 18.2% stated that their institutions had an OA policy, 16.1% did not have an OA policy and 71% responses were “don’t know”. When asked about OER, the scenario was similar: 12.3% acknowledged that their institution had an OER policy, 21.3% responded no, and again the majority (59.9%) stated that they didn’t know.

Since this response had greater pertinence to our study, we conducted a review of previous studies and concluded that the reported number was optimistic. Respondents who pointed out the existence of OER policies were invited to indicate a site we could visit and investigate further. We received 134 responses. Of these, 72 were identified as valid after screening them; 14 promising OER-related policies were identified. A reading of each of these policies resulted in only two institutional policies that addressed OER specifically (Federal University of Paraná – UFPR and Fundação Oswaldo Cruz—FIOCRUZ). The analysis indicated a large number of links that led to institutional open access (OA) websites (e.g., student theses/dissertations), and sometimes to the site of the institutional library.

This analysis indicates that there is some difficulty in understanding the specific domain of OER among the academic community in Brazil. In fact, much of what is considered an example of “open” is simply something made available “online” by Brazilian and other institutions of higher learning. When asked whether a *policy should exist* regarding OA and OER, the response was overwhelmingly positive on a scale of 1 (low) to 5 (high). In fact, 88% of respondents were in favor of establishing an OER policy, while 89% were in favor of enacting such a policy for OA. Additionally, 80% considered it important to have an open source software policy. While there may be misunderstandings related to exactly what qualifies as OER or OA, there is strong support for institutional open policies in general.

When queried about current initiatives in their HEIs aimed at encouraging creation and use of OER, respondent data indicated that the following:

- 39.1% of respondents indicated the existence of training and awareness-raising;
- 31.9% indicated support in the form of human resources (e.g., assistantships);
- Nearly 20% indicated financial support (e.g., calls for production of open resources, or requiring open publication);
- 19.2% indicated formal incentives (e.g., points for career progression);
- Around 15% mentioned informal incentives (e.g., recognition, awards).

Though the first two numbers might seem substantial, we read them in light of a broad view of what support means, and a wide interpretation of OER and openness. In any case, there still seems to be a large margin for growth in terms of encouraging OER development at HEIs in Brazil.

Training and awareness seem to be particularly important, especially in light of a number of other findings: though nearly 50% of the respondents said they would be comfortable explaining OER and associated practices to a colleague, the number drops substantially (28%) when asked if they would be comfortable helping someone choose a CC license.

There seems to be an extensive demand for support. When asked if they were in favor of CAPES taking the lead on a series of OER-related activities, the answers were all in favor of such leadership (Figure 19.1). Not surprisingly, financing of collaborative production of OER

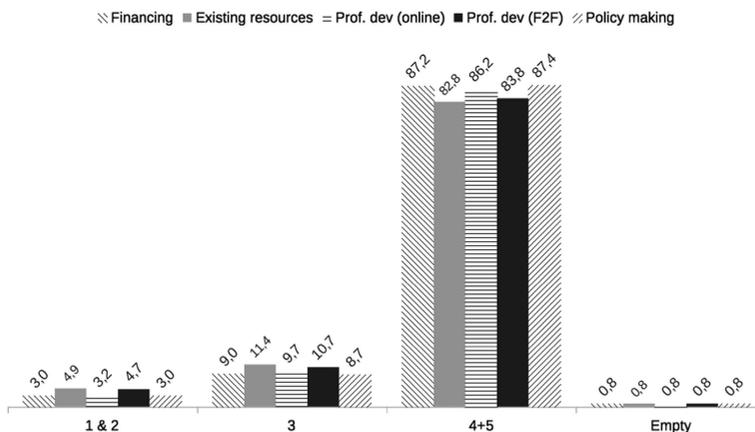


FIGURE 19.1 Support for CAPES

among multiple institutions was viewed favorably by 87.2%, as was providing financing with a clause incentivizing the reuse/remix of existing UAB resources—viewed favorably by nearly 83% of the study participants. Professional development for the production, dissemination, and reuse of educational resources was also positively viewed by 86.2% (online versions of courses) and 83.8% (face-to-face). Finally, nearly 87.4% were in favor of CAPES assisting their institutions in building OER-related policies.

## Discussion

Some scholars argue that the development of open education policies in Latin America is still in the “early stages” (Yang & Kinshuk, 2017). Based on our findings, we further note that the development of policies around OE and OER, specifically, have been rather slow in most countries, states, municipalities, and even institutions. There have been many exceptions and substantial advances in some countries around the world, but extensive policy development and practices is by no means the standard even in richer nations (COL, 2017). Examples of advanced work on OER policy include the country of Fiji, a comprehensive national strategy in Slovenia, and various state-level policies in the United States.

The UAB policy is part of a suite of recent policy changes in Brazil that affect the way educational resources are purchased or licensed in many governmental programs using public funds, effectively making Brazil one of these exceptions (for a review of these policies, see Amiel et al., 2018).

The results from this initial analysis of survey data indicate that, even though advances have been reached, the practices that foment openness in higher education in Brazil are still limited. The findings also reveal that there is high demand for both training and awareness around the topic of open education and OER. As a result, it is not too surprising that there seems to be substantial awareness of the need for policies aimed at promoting open education at the institutional level in Brazil.

The build-up and integration of OER demands a very concrete, and, at times, potentially contradictory articulation of action and infrastructure development. The challenge goes beyond the implementation of top-down policies. Even though the OE community goes to great lengths to establish common ground, tensions and grey zones remain. And even if a certain common ground (such as CC licenses) may serve as an interface between different institutional players, the time demanded for the development and crystallization of open practices and policies follows the (unpredictable) time demanded by the negotiation and accommodation of institutional cultures, tools, and techniques.

In this brief chapter we presented the UAB as perhaps the most significant example of systemic actions to promote OE in Brazil. The subset of data presented here indicate a significant level of engagement with openness, particularly in OA, but an important margin for better understanding OER (repositories, licenses, and the like). Positively, there is clear demand for the definition of policies for openness at HEIs, and interest in receiving support from the government to advance open practices at the institutional level. These data have helped support policies and decisions by CAPES (courses, awareness-raising, financial support for the remix of existing resources), as it aims to promote openness in the UAB. We hope that the pioneering work done by UAB in navigating the bumpy and sometimes complex terrain of promoting openness can help others reflect about the potentials for openness in their organizations, institutions, and systems in Brazil.



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