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ARTICLE / ARTIGO

Repositories as public policy instruments for Open Educational Resources: the eduCAPES case

Repositórios como instrumentos de políticas públicas de Recursos Educacionais Abertos: o caso eduCAPES

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Abstract: Educational resource repositories have played a strategic role in digital education policies, especially after the COVID-19 pandemic and the expansion of hybrid and distance education. This article presents a multidimensional analysis of the eduCAPES portal, the main tool for promoting Open Educational Resources (OER) at the Open University of Brazil (UAB). Based on interviews, a questionnaire and documentary analysis, we constructed the trajectory of the portal and the challenges faced in its consolidation. The data point to the absence of a clear identity for eduCAPES, both conceptually as an "OER repository" and as part of a systematized public policy. The study also reveals conceptual, operational and institutional gaps, as well as conflicts among actors and disjointed actions. The analysis shows that, although important initiatives exist, they have not been articulated in a strategic and lasting way. The study also reveals gaps related to the technical aspect. In analyzing the conceptual, technical and political elements, it highlights the importance of integrating repositories into a broader political project. It concludes that, to be successful, public OER repositories must, in addition to offering technical functionalities and optimizations, be anchored in actions that recognize "open" as a conceptual principle and promote the active engagement of the various stakeholders involved in the construction of a structuring policy.

Keywords: Open Educational Resources, Digital Repository, Higher Education, Public Policies, Distance Education.

Resumo: Repositórios de recursos educacionais têm desempenhado papel estratégico em políticas de educação digital, especialmente após a pandemia da COVID-19 e a ampliação do ensino híbrido e a distância. Este artigo apresenta uma análise multidimensional do portal eduCAPES, principal instrumento de promoção de Recursos Educacionais Abertos (REA) na Universidade Aberta do Brasil (UAB). A partir de entrevistas, questionário e análise documental, construímos a trajetória do portal e os desafios enfrentados para sua consolidação. Os dados apontam a ausência de uma identidade clara do eduCAPES, tanto conceitualmente como «repositório» quanto como componente de uma política pública sistematizada. O estudo revela ainda lacunas conceituais, operacionais e institucionais, além de conflitos entre atores e ações desarticuladas. A análise evidencia que, embora existam iniciativas importantes, estas não foram articuladas de forma estratégica e duradoura. O estudo também ressalta lacunas relacionadas ao aspecto técnico. Ao analisar elementos da ordem conceitual, técnica e política, destaca a importância de integrar repositórios a um projeto político mais amplo. Conclui-se que, para que tenham sucesso, repositórios públicos de REA devem, para além de oferecer funcionalidades e otimizações de ordem técnica, ser ancorados em ações que reconheçam o 'aberto' como princípio conceitual, promovam o engajamento ativo dos diversos atores envolvidos na construção de uma política estruturante.

Palavras-chave: Recursos Educacionais Abertos, Repositório Digital, Ensino Superior, Políticas Públicas, Ensino a Distância.

1. Introduction

The Open University of Brazil (UAB) was created in 2005 to promote the development of distance learning in public higher education, focusing on offering undergraduate courses and initial and continuing training for teachers in basic education, as well as expanding and extending the range of courses and programs available in the country (BRASIL, 2006). Currently, with 150 higher education institutions, 1,000 hubs, and 919 active courses (CAPES, [n.d.]-a), and a forecast of 290,000 more openings by 2026 (CAPES, 2023), the UAB today represents the main public distance higher education offering in Brazil.

Since its creation, the UAB system has operated on the basis of a collaborative framework between the federal government, federative entities, and public higher education institutions, which are linked to face-to-face hubs. Its activities are managed collectively by the Diretoria de Educação a Distância (DED) [Distance Education Directorate] of the Coordination for the Improvement of Higher Education Personnel (CAPES); by the Fórum Nacional de Coordenadores UAB (National Forum of UAB Coordinators), made up of representatives from Instituições Públicas de ensino superior (IPES) [Public higher education institutions]; by Regional Forums, which bring together hub coordinators and UAB coordinators; and by Area Forums, which bring together course coordinators from Higher Education Institutions (IES). This decentralized management and operational structure makes the UAB System a challenging environment in which to implement and consolidate its policies, including those relating to processes related to opening up knowledge.

The institutionalization of Open Educational Resources (OER) at UAB, the subject of this study, has many variables involved, as well as a plurality of decentralized institutional dynamics and cultures, which are not always receptive to the changes they bring. OER have characteristics in line with UAB's proposal for expansion and equity. They are capable of impacting the system and its institutions in the sense of reducing costs and broadening the reach of materials produced under the logic of openness, which would, consequently, be a driving factor for the expansion and internalization of public higher education in the country. However, the process for these to become institutionalized within the system has been marked by ups and downs since its conception in the early 2010s, as we will see in this study.

Among the initiatives taken by CAPES, often in collaboration with other actors such as IPES, representatives of public authorities, experts and organized civil society, to introduce, disseminate and maintain a culture of OER in distance higher public education, one of the most notable was the creation of the eduCAPES portal (<https://educapes.capes.gov.br>), currently the main tool for disseminating OER within the UAB. The portal was created by CAPES in 2016, with the aim of meeting the need to share, publicize, and disseminate, at the time, the so-called "educational materials produced in the courses offered under the Open University of Brazil System" (DOU, 2016a; our translation). However, the portal is currently undergoing a period of underutilization, which has led to a reversal of its purpose, as it has been identified as one of the factors, for reasons that will be presented in this paper, that hinder the dissemination of OER on the UAB.

The creation of repositories, referatory, portals, and digital libraries is a central element of an open education policy, more broadly, or of a specific policy for OER, and seeks to expand and guarantee equitable access to quality digital educational resources (Fengchun et al., 2021). As Santos-Hermosa (2023) points out, "The Covid-19 pandemic has reinforced the general need for OER in all educational sectors. Undoubtedly, repositories play a vital role in this field, as they improve and facilitate access to OER" (Santos-Hermosa, 2023, p. 65).

Recent global projects to enhance public portals and platforms in education, such as UNESCO's Gateways to Public Digital Learning, point in this direction (UNESCO, [n.d.]).

Despite their recognized importance and proliferation, we still face significant challenges and a knowledge gap on how to sustain and maintain OER repositories as part of government and institutional policies. These challenges include financial sustainability (Mesquita & Amiel, 2023), data quality and quantity of access (Perifanou & Economides, 2022), and perhaps most importantly, the creation of a culture and practices geared towards openness (Mesquita & Amiel, 2023; Paragarino et al., 2016). Repositories can therefore be central elements in a systemic effort to promote open education (Inamorato et al., 2016).

This article seeks to point out the elements that confirm the need for a systemic outlook for OER repositories, analyzing the case of the eduCAPES portal, in view of the importance of Open Educational Resources in meeting the goals of the UAB and a global agenda in favor of fair and equal access to education. The research also sought to identify, map, and present points of attention related to the use of the portal and its management processes, to serve as a starting point for the development of strategic actions aimed at technical and managerial improvements, to make the role of repositories and portals such as eduCAPES increasingly effective as instruments for the dissemination of OER.

2. Methodology

A multidimensional approach was adopted to analyze the eduCAPES portal, considering the technical, political, and behavioral dimensions involved in its creation and management. The study was based on three main sources of data: interviews, a questionnaire, and documentary analysis.

Semi-structured interviews were conducted with seven strategic participants: four UAB managers, two from CAPES, and one external expert. Identities have been preserved, and the interviewees are referred to in the text by the acronyms CAPES_gestor, UAB_gestor, and Especialista_1. A questionnaire with open-ended questions was also administered to 240 UAB coordinators and vice coordinators, with 55 respondents. The answers were categorized according to their content. Additionally, CAPES institutional documents, regulations, and ordinances related to the eduCAPES portal and UAB were examined.

The research employed a multidimensional analysis technique (Sardinha, 2000) in conjunction with a mixed-methods approach, which integrates qualitative and quantitative data within a single research design (Creswell & Plano Clark, 2018). The

interviews were transcribed and organized according to the criteria of chronology, thematic relevance, and convergence or divergence between the testimonies, with the aim of identifying patterns, conflicts, and complementarities in the portal's trajectory.

3. Results

In Brazil, in the early 2010s, a discussion emerged about public policies based on encouraging Open Education and the use of OER in public educational institutions (Amiel et al., 2018; Rossini et al., 2021). According to Rossini & Gonzales (2012), this discussion was structured along three axes: (1) Public access to educational materials and an open education strategy that includes the individual, the family, the community, and the whole of society in the collaborative learning and production of knowledge; (2) The economic cycle of production of educational resources and its impact on citizens' right to learn; (3) The impact of digital, online, and open resources on teachers' ongoing development.

3.1. OER at UAB: incentive measures or public policies?

These axes underscore the importance of a systemic approach to OER in the context of public higher education, given their strategic potential for achieving the objectives of expansion and equity in access to quality education, as outlined in Decree No. 5,800, which established the UAB System. However, recognizing this importance is not enough for public policies to be formulated and implemented consistently, especially when it comes to a plural context with specific complexities that involve different actors in its management, as is the case with the UAB.

According to the ambiguity-conflict model presented by Matland (1995), the effectiveness of public policies is directly influenced by the levels of ambiguity in their formulation or objectives and conflicts in their implementation contexts. For the author, the greater the ambiguity (in the formulation of policies or their objectives), the more local actors tend to shape the policy, which is why a bottom-up approach or the development of a policy through the participation of the involved actors can be more effective (Matland, 1995).

It is essential to consider the existence of multiple actors and contexts when formulating public policy, as the link between policy design and execution is crucial to its successful implementation. Without considering feedback, local contexts, and realistic implementation, policies can be doomed to ineffectiveness and, in some cases, even generate counter-effects (Birkland, 2019).

In the case of the systematization of the use of OER at the UAB, it is possible to see throughout its history a set of actions, which we can call public policy, outlined and executed by the government, through CAPES, in collaboration with other actors, such as institutions and "policy entrepreneurs" (Kingdon, 2007), individuals who explore opportunities and act to promote change, if we consider their definition from a design perspective.

According to Peters (2015), who develops the concept of public policy from this perspective, it can be understood as a set of activities carried out by both the state and non-state actors that are aimed at solving public problems and defining collective

objectives through processes that involve not only formulation, but also other phases such as implementation and evaluation that occur in institutionalized and interactive contexts. According to Peters (2015), public policy can be understood as a set of deliberate actions taken by public authorities to address collective problems, distribute resources, regulate behavior, or promote well-being. For the author, public policies are not only actions, but also non-actions, i.e., when the government deliberately chooses not to intervene in a problem (Peters, 2015).

To understand public policy from a design perspective is to recognize that it must be conceived as a problem-solving process, considering that public policies will always be more effective when policymakers have a deep understanding of the nature of the problems they face. Furthermore, this approach demonstrates that public policy is a multi-stage process, involving a cycle of formulation, implementation, and evaluation. In other words, it would be a mistake to think that formulation and implementation without evaluation are enough to guarantee results.

3.2. Record

From 2010 onwards, CAPES promoted actions with specialists and UAB editorial commissions to debate OER, copyright, and public policies, laying the foundations for the future institutionalization of the subject. Later, in 2016, the technical report produced by researchers from the UNESCO Chair in Open Education – NIED / Unicamp for the Diretoria de Educação a Distância of CAPES (DED/CAPES) [Distance Education Directorate of CAPES] mapped the level of use and perception of Open Educational Resources (OER) by teachers and coordinators on the UAB system (Soares & Amiel, 2017, p.4). The research was part of a review conducted by CAPES of the policies, actions, and systems aimed at making OER available on UAB.

The report revealed the low level of engagement of UAB coordinators and teachers with the tools created by CAPES to encourage the use and dissemination of OER in the context of the System, highlighting the decentralized nature of the initiatives, that is, each IPES was responsible for its own demands and working conditions in relation to the use of OER on the UAB, except for materials produced from funding distributed through UAB calls for proposals published by CAPES. The latter were based on the premise, set out in the text of the notice itself, that the resources would be deposited on SisUAB - the platform then used to support the execution, monitoring and management of UAB processes, which at that time also served as a "space for the exchange of educational resources produced within the UAB system ". The survey also highlighted that respondents reported unfamiliarity with the SisUAB system, a factor that contributed to the teams' low engagement (Soares & Amiel, 2017).

We can consider that the process of formulating public policies that sought to systematize the use of OER on UAB began in the early 2010s, in line with the movements and discussions surrounding the use and dissemination of OER in Brazilian higher education, as already mentioned. However, the regulations and provisions for effective implementation became public in 2016 with the establishment of the eduCAPES portal and the subsequent publication of CAPES Ordinance 183 (DOU, 2016b), which makes it mandatory to make educational resources produced by UAB scholarship recipients available under an open license, automatically converting them into OER.

The regulations and devices implemented in 2016, including the creation of eduCAPES, came to light amid a climate of low engagement in the UAB community and, in a way, injected new expectations regarding the transformation of this scenario. The report produced for DED/CAPES in 2016 also pointed out that CAPES planned some complementary actions to the launch of the new dedicated repository (eduCAPES) that was being developed at that time, such as a campaign to encourage the deposit of OER by the UAB community, which should have an impact on the engagement of these actors, improving the situation reported in 2016 (Soares & Amiel, 2017).

To identify correlations between changes in eduCAPES, incentive mechanisms, or public policies related to the use of OER on the UAB, and their respective political contexts, we created a chronology of eduCAPES based on materials collected and interviews conducted during the research (Table 1).

3.3. eduCAPES Portal: definition, technical structure, and operational dynamics

eduCAPES was established in 2016 through Ordinance 106, which defines its purpose as "meeting the need to publicize, share and disseminate the materials produced in the courses offered under the Open University of Brazil (UAB) System" (DOU, 2016, p. 14).

CAPES expected that eduCAPES could overcome the limitations of its predecessor, SisUAB, by offering, as a repository, greater support for open licensing, improving the management and accessibility of these educational resources, and allowing interoperability between repositories from other public institutions. In its presentation, eduCAPES is defined as a "portal of educational objects for use by students and teachers in basic, higher and postgraduate education (...)" a portal that "encompasses thousands of learning objects" in different formats and languages, such as textbooks, research articles, theses, dissertations, video lessons, audios, images, among other "research and teaching materials that are openly licensed, published with the express authorization of the author or in the public domain" (eduCAPES, [n.d.]-b)

eduCAPES combines the functions of a repository and a referatory, integrating its own materials and those of partner institutions through interoperability. Here, we consider the definition of repositories as "virtual environments that collect, store, organize, preserve, retrieve, and disseminate the scientific, technological, and intellectual production of an institution or a country" (IBICT, [n.d.]; our translation) and that of referatories as systems or platforms that gather descriptive metadata of educational resources available on the web and do not store the objects themselves, but offer qualified references for access (Distância, [n.d.]).

Developed using the free and open source DSpace software, its structure follows common standards among digital public repositories. Its purpose was initially to meet the need to disseminate the materials created on UAB, but partnerships with institutional repositories were established through interoperability. The first was the repository at São Paulo State University (UNESP), whose creative team was coordinated by the professor who collaborated as CAPES' technical partner in the eduCAPES project, working to support the Coordination of Hub Infrastructure, linked to the technology sector, and who led the project internally. The portal currently has partnerships with 18 institutional repositories, which broadens its reach and integrates content from various public institutions.

Table 1. eduCAPES implementation timeline.

Year	Actions	Scenario
2016	eduCAPES was established by CAPES Ordinance 106 of July 14, 2016. Transfer of materials from SisUAB to eduCAPES Portal awareness campaign Publication of ordinance 183 of 2016, which makes it compulsory to publish educational resources produced by scholarship holders with open licensing	Change in the federal political scene: Impeachment of President Dilma and the inauguration of Michel Temer
2017	Implementation of internal actions for an OER policy at eduCAPES (definition of standards and review of materials) Connection with repositories from other universities	Publication of the technical report on OER at UAB (Amiel & Soares, 2017)
2018/2020	Reduction in eduCAPES management and maintenance activities due to staff shortages Interruption in the collection of statistical data on eduCAPES uploads and use	Bolsonaro Government - Instability in the Ministry of Education (MEC) with successive changes of ministers and dismantling of the technical team, dismantling of directorates, and budget reduction Start of the Covid-19 pandemic Increased turnover of UAB coordinators UAB Forum activities suspended
2021/2022	Initial training and certification course for "OER Ambassadors" at IPES	Period still affected by the pandemic Maintenance of the scenario of political instability (MEC)
2023	Resumption of the collection of eduCAPES statistical data and discussions on improvements and updates to the eduCAPES portal	Beginning of the Lula government Resumption of the UAB Forum Alignment actions between CAPES management and UAB coordinators
2024	Persistent usability problems Publication of CAPES Ordinance 309 updating the guidelines for UAB grants without mentioning the obligation of open licensing	Identification by UAB coordinators of the need to review OER policies

3.4. The eduCAPES implementation process

To this day, SisUAB is UAB's management system, concentrating the flow and organization of its administrative and operational information. It continues to record course offerings, coordinators, centers, and their respective offerings, as well as the number of students, among other important information for the operation of activities. However, its function as a space for sharing educational resources was abolished in 2016 to make way for eduCAPES. The interviews reveal different views on the creation of eduCAPES: while some managers highlight the commitment to open access, others

emphasize the need for centralization and continuity in access to educational materials, which was previously not made possible by SisUAB.

In the same year that eduCAPES was established, a new CAPES ordinance was published in the Diário Oficial da União with the purpose of "regulating the guidelines for granting and paying scholarships to participants in higher education courses and programs in the Open University of Brazil (UAB) System" (DOU, 2016b; our translation). Ordinance 183 made it an obligation for scholarship holders to publish all the material they produced during the grant period as OER. The ordinance did not specify where these materials should be published, nor did it mention eduCAPES. No explicit documents or references were found in the analyzed documents regarding a correlation between this obligation and eduCAPES, which is inconsistent with the strategic perspective of a public policy.

It can be inferred that the merging of repository and referatory functions, as well as the lack of standardization of licenses arising from this dynamic, may have affected UAB managers' perception of their role and possibilities for interaction with the portal (see item 5.1).

In addition to the publication of Ordinance 183 in 2017, CAPES implemented a formal OER policy for eduCAPES in the same year. According to CAPES_gestor_1, the policy aimed to ensure that new content published was licensed openly, which was achieved through two actions: 1. Publication of internal guidelines - creation of rules stating that new materials published must have open licenses, specifically, Creative Commons licenses; 2. Adaptation of publication flows - the process of submitting and validating materials was adjusted to require institutional authors to inform the open license at the time of submission, ensuring compliance with OER guidelines.

On the other hand, printed documents made available by UAB_gestor_1, a set of terms of commitment signed by CAPES grant holders on UAB in their IPES, in a period after these actions, show that the sections where the scholarship holder should indicate the type of open license to be used in the educational resource produced had not been filled in. Furthermore, when asked if there was any control over the scholars' terms of commitment and the licenses used in the materials they produced, all the UAB managers interviewed stated that there was not. These inconsistencies may provide clues to the disparity between the number of materials made available year on year and the corresponding percentage of open licenses.

Development of eduCAPES: the problem and solution streams

The modifications to eduCAPES were motivated by problems that emerged from certain demands perceived as problems to be solved, and were also influenced by changes in political contexts (Table 2). The semi-structured interviews conducted with the actors allowed us to recognize this dynamic, which, for the purposes of analysis, were organized based on the logic of streams for the creation of public policies (Kingdon, 2007). This led us to identify that the development of the portal, the changes implemented, and the actions surrounding it were not the result of a strategic policy or followed a plan with a defined direction.

Table 2. Problem and solution streams in the development of eduCAPES.

Period	Problem Stream	Solutions Stream	Political Stream
2014-2016	Lack of centralization and visibility of educational materials produced under UAB	Creation of eduCAPES	Dilma government (Science without Borders and Open Science programs). International movements for open science and transparency. CAPES takes the technical and normative lead in developing the portal
2016-2017	Problems with licensing materials from other repositories. Low engagement of IPES in the use and deposit of materials	Partnerships with institutional repositories via interoperability. CAPES Ordinance 183/2016, which makes the open licensing of materials produced by scholarship holders mandatory	Context of political instability at the federal level, Change of government from Dilma to Temer
2018	Lack of a specific policy for UAB materials	Institutionalization of the OER concept and training of managers and fellows in partnership with specialists. Development of methodologies for reviewing materials and defining licensing standards (CAPES)	National and international pressure for the adoption of OER in universities
2020-2021	Low flow of uploads and accesses to the portal, and difficulties in the management and technical maintenance of the portal due to a lack of teams	Partnerships with institutional repositories (UNESP), University of Brasília (UnB), and Federal University of Pará (UFPA). Interoperability via the Open Archives Initiative Protocol for Metadata H Temporary suspension of some of the portal's activities	Budgetary and administrative pressures on CAPES. Change of government from Temer to Bolsonaro.
2021-2022	Quality control of the materials sent is limited by the reduction in staff	Implementation of a report system, user evaluations of materials, and curation of the Desenvolvimento de Recursos Educacionais para a Educação Básica Program (PROEB) [Development of Educational Resources for Basic Education Program]	Social demands for transparency in the use of public resources for science

Public policy design emphasizes the importance of aligning objectives, instruments, and institutional contexts (Peters, 2015). Kingdon's model (2007) indicates that policy formulation occurs when problems, solutions, and political conditions converge, creating windows of opportunity. The trajectory of eduCAPES suggests that its changes occurred less as a result of strategic planning and more in response to emerging demands and political circumstances, which contributed to discontinuities and weaknesses in the consolidation of a consistent OER public policy.

Flow of making licensed materials available

Data provided by CAPES in 2024 shows the number of educational resources shared (uploads) on the eduCAPES portal, year by year, between 2016 and 2023, with the percentages of materials published with open licenses (Table 1). The partnership with external institutional repositories increased the volume of materials available, but the increase in OER has not been proportional. A look at the table below demonstrates the peaks in the volume of uploads and the disproportion in terms of open licenses in the same year.

Table 3. Open license resource sharing.

Year	Total of Submissions	Materials with Open Licenses	Percentage: with Open Licenses
2016	2.590	0	0
2017	12.474	123	1,6
2018	16.766	282	2,4
2019	10.6854	1.636	1,7
2020	16.060	590	6,5
2021	49.538	3.840	14,5
2022	220.683	1.785	1,3
2023	10.917	3.663	49,6
Total	43.5882	11.919	4,4

Although data on uploads between 2016 and 2023 has been made available, the lack of distinction between UAB materials and those from other sources makes it difficult to accurately analyze the impact of OER policies on the system. The data provided does not distinguish educational resources from other sources (partnerships with other institutional repositories, materials from the Desenvolvimento de Recursos Educacionais para a Educação Básica Program (PROEB), Strengthening the Network of Government Schools, and other training programmes linked to CAPES) from those published by UAB, which leads to discrepancies in the volume of uploads in specific years, such as in 2022, when the total was 220,683, with materials with open licenses accounting for only 1.3% (Table 1). The same can be said about 2023, when there was the highest rate of uploads of resources with open licenses (49.6%) since the portal was created (Table 1). Although the chronology indicated that this was a year in which various actions relating to eduCAPES and UAB were resumed, it is not possible to gauge precisely to what extent these figures reflect this resumption.

Here, we highlight the strategic importance of surveying and analyzing the portal's data to verify the direct impact of UAB's OER policies. The use of these filters and the systematic monitoring of data based on them could aid in one of the fundamental stages in implementing a well-structured public policy: evaluation (Peters, 2015).

In any case, when we look at the low percentage of openly licensed materials, considering that among them are also those in the public domain that cannot be counted as part of the OER policy on UAB, we realize that, despite occupying a central position in the OER policy for UAB, eduCAPES does not have a proportionally relevant amount of them, capable of characterizing it as an OER repository.

3.5. UAB managers' perceptions of eduCAPES

In the questionnaire used to gauge the perception of UAB managers about eduCAPES, 59.7% of respondents stated that they were not users of the portal, while 35.1% reported using it frequently. There are also 5.2% who can be classified as sporadic users. Among the reasons given for not using the portal, justifications such as "my institution is new to the UAB System" appeared. These cases were not included in the categorization for analysis of the responses, as the study focuses on the history of experience using the portal within the institutions. In any case, it should be noted that the eduCAPES Portal is not presented to new institutions as a structuring tool for their educational resources policy.

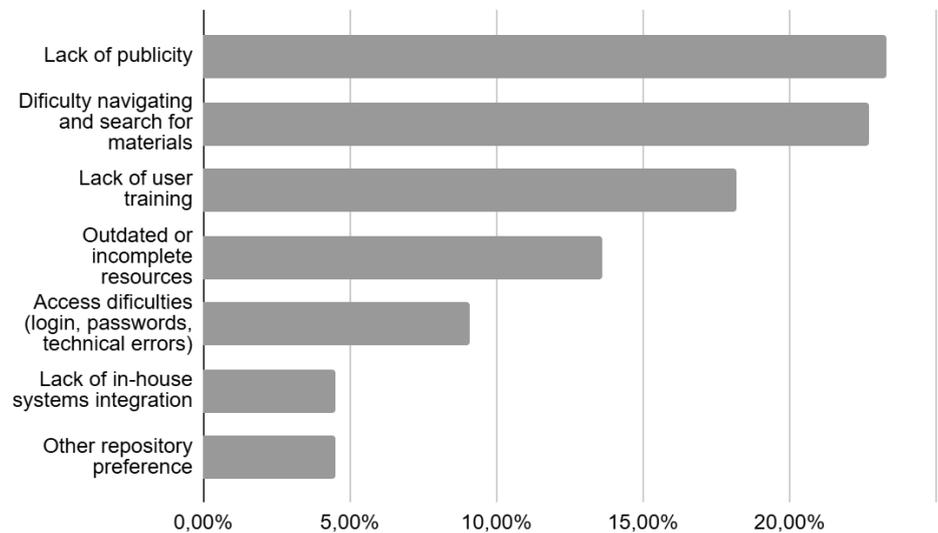


Figure 1. Reasons for not using eduCAPES.

Uses of the portal and types of materials searched for or shared

When asked how eduCAPES has been used by their institution, 43.5% of respondents who identified themselves as users or members of a user institution stated that they use it only to search for material, indicating that only 21% of user respondents/institutions are "active" in the production and sharing of educational

resources. In these cases, the coordinators themselves are mostly responsible for uploading shared materials. In some institutions, there is an official in charge of this task, who may be a librarian or a secretary. The majority of respondents state that there is no specific person responsible for uploads at their institution. Among the most common types of materials published by institutions are books, e-books, and videos.

Obstacles to the integral use of eduCAPES

Observing the obstacles mentioned by the UAB managers in the applied questionnaire allowed us to see the range of points of view among the actors in this category, as well as pinpoint specific aspects to be considered in a possible review of the portal and its uses.

Table 4. Organization of obstacle categories for using eduCAPES.

Obstacle Category	Totals per answer	Total per Category
Lack of knowledge	Lack of publicity in the UAB community (17)	17
Users' technical literacy	Lack of technical knowledge on the part of users (teachers and staff) (9). Lack of technical knowledge on the part of students (5)	14
Management (IPES)	Low adherence at IPES (3); Lack of management for OER production (5); Lack of a person responsible for uploads (2)	10
Functionality and browsing	Access errors (2); Technical problems with the upload system (2); Limitations on the number of new users (1); Difficulty browsing (2); Slowness (1); Search errors (1)	9
Quality of educational resources	Incomplete materials (2); Outdated materials (3); Little diversity of materials (4)	9
Management (CAPES)	Lack of support from CAPES (1); Lack of control over uploads (1); Lack of connection with other repositories (4)	6
Open license literacy	Lack of knowledge about OER on the part of the teams (5)	5
Does not use	Does not use (2); Opts for another repository (3)	5
There are no obstacles	Did not find obstacles (1); No answer (3)	4
Connectivity issues	Lack of equipment, connection, infrastructure (1)	1

The responses also made it possible to observe the level of engagement of the UAB community with the eduCAPES portal and compare it with that presented in the report carried out for DED/CAPES in 2016, which already pointed out similar obstacles, before the creation of eduCAPES, that is, when the OER produced on UAB were still made available via SisUAB (Soares & Amiel, 2017). This leads us to infer that the creation of eduCAPES was unable to solve all the difficulties encountered in distributing OER produced on UAB.

Of the 240 questionnaires sent out, 55 managers answered the question about obstacles to using eduCAPES. The open responses were grouped into ten main categories, as shown in Table 4, ranging from technical and operational aspects to

management and literacy issues. The most recurrent categories were "Lack of knowledge", "Technical literacy of users", and "Management at IPES". The data reveals a variety of obstacles, suggesting the need for coordinated interventions that involve everything from improving infrastructure to training actions and greater institutional coordination. The graph below shows the consolidated distribution of responses.

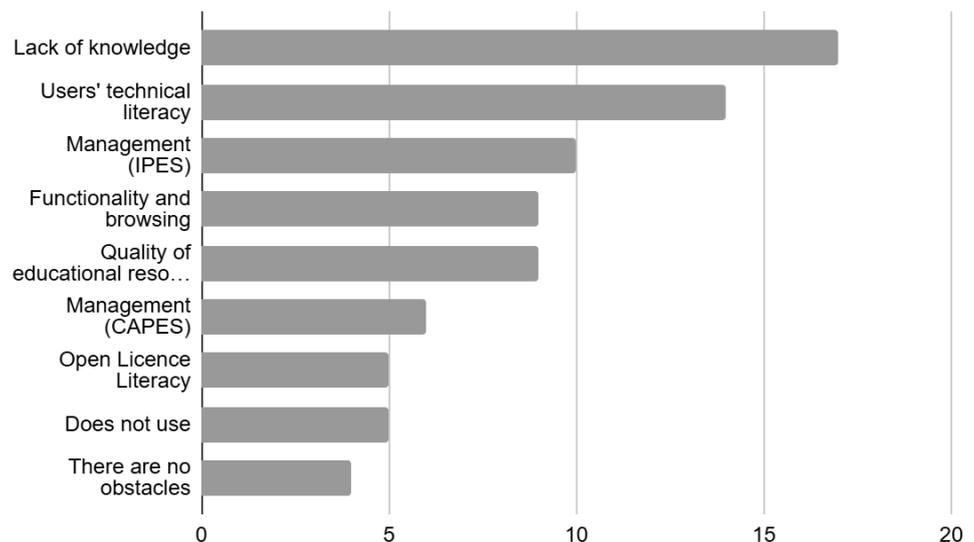


Figure 2. Obstacles for using eduCAPES, by category.

In contrast to the obstacles encountered in using eduCAPES, when asked about any significant contribution eduCAPES has made to their coordination, 49% of the respondents expressed themselves positively. Among these, the contributions mentioned include making quality educational resources available, reducing costs with the development of new materials, and facilitating the the agility of course offering.

Expectations about the portal

The questionnaire asked managers what the role of eduCAPES should have for IPES, UAB, and higher education in Brazil, and the answer with the highest number of incidences was: "to be more publicized". This is not exactly an answer to what the role of the portal should be, but it does provide some clues in regards to the level of engagement among the respondents. The other answers also fall short of expressing an expectation for eduCAPES from a strategic point of view in higher education. They are more operational in nature and appear as suggestions for technical implementation or ways to improve management.

Among the suggestions made by the managers were improvements in the curation of the collection, in navigational tools, organization by area of knowledge, as well as greater integration with other platforms, and technical training initiatives. Although the focus of the responses was more on operational issues, some comments indicate recognition of eduCAPES as a source of materials and a tool to promote the democratization of access to knowledge.

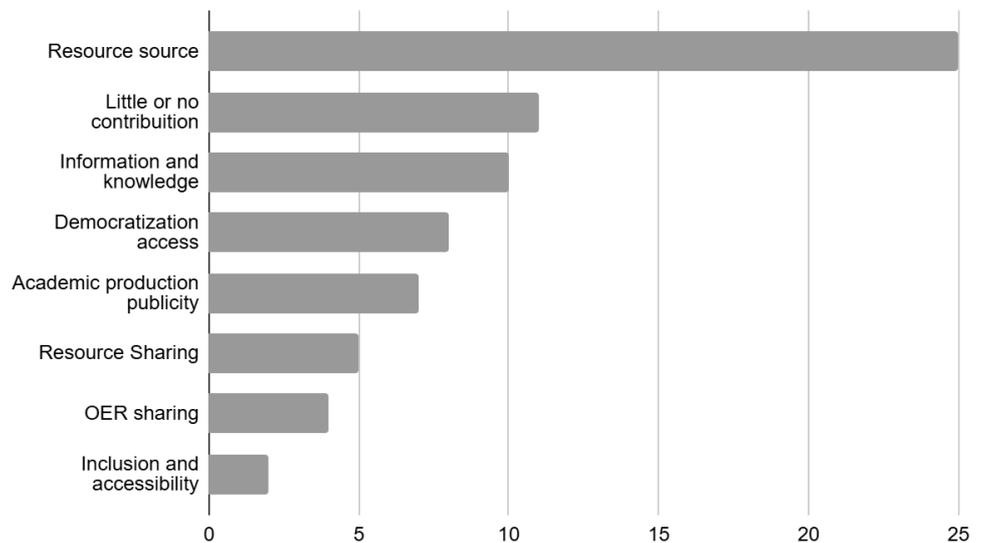


Figure 3. eduCAPES' contributions to UAB and higher education

However, when asked what eduCAPES' contributions to the UAB would be, the answers showed that eduCAPES has a role that is concentrated along two lines: 1) source of materials and 2) democratization of access (Figure 3).

3.6. Analysis of results

The results obtained reveal the existence of different layers of controversy surrounding the role of eduCAPES in the context of the UAB as an instrument of public policy aimed at Open Educational Resources (OER). These controversies are manifested in three main dimensions—conceptual, technical, and political—and in many cases, they operate in an interdependent manner. Although the portal was set up with the aim of making public the educational materials produced under the UAB, its trajectory is marked by disputes over meaning, regulatory gaps, asymmetries in engagement, and uncertainty about its role.

Regarding the conceptual dimension, what can be observed is a scenario marked by strong ambiguity, as defined by Matland (1995), who associates the concept with vagueness in the objectives, values, or languages present in the formulation of public policies. The term OER, which should structure the design of eduCAPES, appears in a fragmented and imprecise manner and is not even mentioned in official documents. There is a coexistence of terminologies — "learning objects", "educational materials", "educational resources", and "digital content" — without a clear explanation of the conceptual framework that guides the policy. This lack of definition undermines alignment between the different actors involved, since there is no common vocabulary to establish commitments, guide practices, and organize responsibilities.

Conceptual ambiguity, in this context, acts as a factor of dispersion, as different interpretations of what is expected of the portal coexist without being explicitly stated or clarified. This contributes to eduCAPES being perceived sometimes as a technical repository, and other times as an access referatory, and also as an institutional

showcase. Without a clear and shared conceptual framework, each actor or institution tends to interpret its use based on one's own logic, which can lead to discontinuity, misalignment, and low appropriation. As Matland (1995) points out, in contexts of high ambiguity and low conflict, the symbolic model of implementation tends to prevail, where actions occur more to signal commitments than to produce effective transformations.

Regarding the technical dimension, the identified challenges encompass both the structural aspects of the portal and the operational and maintenance flows. Browsing difficulties, lack of integration with other systems, limitations in search mechanisms, curation and usability flaws compromise the user experience and feed a perception of the low effectiveness of eduCAPES. Added to this are the difficulties reported by the teams in carrying out uploads, the lack of a specific person in charge at the institutions, and the lack of technical support and systematic guidance on licensing and publishing OER.

Finally, in the political dimension, the results indicate that the development of the portal was significantly influenced by changes in the institutional landscape and administrative instability. The chronology of actions reveals how the advancement or retraction of OER policies within the UAB was subject to the confluence of external factors, one-off decisions, and discontinuities in management. The lack of a consolidated formal policy, a lasting action plan, and regular evaluation mechanisms makes it difficult to consolidate eduCAPES as a public policy. In many cases, the actions were more reactive than strategic, and the portal began to incorporate content and functionalities without a clear understanding of its long-term objectives, which contributed to its de-characterization.

For example, Table 2 summarizes the main changes made to eduCAPES over time, along with the respective factors that motivated them, illustrating the logic of responding to emerging problems rather than strategic planning. Table 3 organizes the categories of obstacles identified by UAB managers in relation to the portal's use, highlighting the structural, operational, and cultural aspects that affect its effectiveness.

All of these analyzes together indicate that eduCAPES is part of a field of disputes and uncertainty, in which the potential of a public repository aimed at disseminating OER remains latent, but not fully realized. The lack of conceptual clarity, coupled with technical weaknesses and political fragmentation, hinders the portal's understanding and effective use as a strategic instrument for public policy to promote open access and the democratization of knowledge in Brazilian higher education.

4. Conclusion

The analysis of eduCAPES reveals that although actions have been taken to promote the use of Open Educational Resources on UAB, they have not yet been integrated into a structured public policy. What can be observed is a sequence of relevant initiatives, but which have taken place with limited coordination, often influenced by changes in the institutional and political context. The conceptual ambiguity surrounding the meaning of OER, the overlapping functions of repositories and referatories, low levels of engagement among managers, and the accumulation of technical and operational

obstacles reinforce the perception that the portal still lacks a clear identity and a shared strategy.

We conclude that public repositories, such as eduCAPES, can play a crucial role in OER policies in Brazilian public higher education. Repositories should be treated as strategic instruments within systemic policies to promote OER, rather than focusing solely on their potential as a technical solution. We suggest that it is necessary to promote and guarantee the articulation and confluence between the conceptual, technical, and political orders. Without this, there is a risk that these repositories will remain underutilized, contributing little to the promotion of collaborative practices and more open education, which should guide OER policies.

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