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Curating Digital Learning Objects: contributions to Brazilian Basic Education

Curadoria de Objetos Digitais de Aprendizagem: contribuições para a Educação Básica brasileira

Curaduría de Objetos Digitales de Aprendizaje: contribuciones a la Educación Básica brasileña

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Abstract

This article discusses the role of digital technologies in educational practice, with an emphasis on devices that function as Digital Learning Objects within the context of cyberculture. It seeks to address the following question: in what ways can these devices be pedagogically integrated into Basic Education? To this end, the study proposes an analytical curation of devices with educational potential, examining their possibilities for mediation in teaching and learning processes. Given the continuous expansion of the digital ecosystem and the impracticality of mapping all available digital objects, the study delineates thirteen technological categories capable of fostering innovative pedagogical practices. This is a qualitative research study grounded in the mapping and curation of software and applications. It does not aim to exhaust the existing universe of digital tools, but rather to offer a systematized selection that contributes to theoretical and practical reflection and encourages dialogue with researchers and educators.

Keywords: Digital Learning Objects; Cyberculture; Curatorship.

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Resumo

O presente artigo discute o papel das tecnologias digitais na prática educativa, com ênfase em dispositivos que atuam como Objetos Digitais de Aprendizagem no contexto da cibercultura, buscando responder à seguinte problemática: de que maneira esses dispositivos podem ser integrados pedagogicamente à Educação Básica? Para tanto, propõe-se uma curadoria analítica de dispositivos com potencial educativo, examinando suas possibilidades de mediação nos processos de ensino e aprendizagem. Diante da constante expansão do ecossistema digital e da inviabilidade de mapear tais objetos digitais disponíveis, o estudo delimita treze categorias tecnológicas capazes de favorecer práticas pedagógicas inovadoras. Trata-se de uma pesquisa qualitativa, fundamentada em mapeamento e curadoria de *softwares* e aplicativos, que não pretende esgotar o universo existente, mas oferecer um recorte sistematizado que contribua para a reflexão teórico-prática e fomente o diálogo com pesquisadores e educadores.

Palavras-chave: Objetos Digitais de Aprendizagem; Cibercultura; Curadoria.

Resumen

El presente artículo analiza el papel de las tecnologías digitales en la práctica educativa, con énfasis en los dispositivos que actúan como Objetos Digitales de Aprendizaje en el contexto de la cibercultura, buscando responder a la siguiente problemática: ¿de qué manera pueden integrarse pedagógicamente estos dispositivos en la Educación Básica? Para ello, se propone una curaduría analítica de dispositivos con potencial educativo, examinando sus posibilidades de mediación en los procesos de enseñanza y aprendizaje. Ante la constante expansión del ecosistema digital y la inviabilidad de mapear todos los objetos digitales disponibles, el estudio delimita trece categorías tecnológicas capaces de favorecer prácticas pedagógicas innovadoras. Se trata de una investigación cualitativa, fundamentada en el mapeo y la curaduría de softwares y aplicaciones, que no pretende agotar el universo existente, sino ofrecer un recorte sistematizado que contribuya a la reflexión teórico-práctica y fomente el diálogo con investigadores y educadores.

Palabras clave: Objetos Digitales de Aprendizaje; Cibercultura; Curadoria.

Introduction

The research addresses digital technologies used in education with a focus on learning processes. Accordingly, this study concentrates specifically on Digital Learning Objects (DLOs), a term adopted throughout this work. It proposes the curation of DLOs as a reflective and analytical contribution to educational practice in Basic Education. To ensure conceptual clarity, the discussion is grounded in key theoretical constructs that delineate and support the research proposal.

These constructs include the concept of digital literacy, drawing on Camas (2012), who identifies at least five distinct literacies within the technological field: computer literacy, media literacy, digital literacy, scientific literacy, and information literacy. Such literacies are considered indispensable in contemporary society, particularly within the context of cyberculture.

The study also engages with the concept of technology, aligning with Pinto (2005), who discusses four principal meanings: technology as the epistemology of technique (that is, technique as science); technology as the totality of techniques; technology as synonymous with technique; and technology as the ideologization of technology. This latter meaning receives particular emphasis, as it directly relates to the discussion of educational practices developed in this research.

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Furthermore, the theoretical framework incorporates a conception of education grounded in Freire (1987), especially his reflections on educational practices and their relationship to teaching practice. From this perspective, the study advances considerations regarding praxis and poiesis. In critically examining the relationship between technologies and pedagogical practice, the conceptual foundations of DLOs, and related terminology, are based on Wiley (2000) and Alexandre (2017). These authors support the adoption of the term Digital Learning Objects, understood as learning objects in digital format.

With regard to methodology, this qualitative study adopts curation as its principal instrument. The discussion begins with the concept of curation itself and extends to knowledge curation and digital curation. It culminates in the central objective of the research: the curation of Digital Learning Objects. This process goes beyond mere mapping, as it articulates potential educational practices associated with the curated resources.

Following the development of this theoretical framework, the guiding research problem is presented: How can digital technologies be adopted as Digital Learning Objects in educational practice within Basic Education? Based on this problem, the study identifies, through a curated selection, which digital devices may function as DLOs and examines how they can actively contribute to educational practices in Basic Education.

Curatorship in the Context of the Covid-19 Pandemic

According to Lima (2022), the word *curatorship* etymologically derives from the Latin *curatelae*, meaning the act of healing or watching over something. The term is closely related to *curator*, which refers to one who administers, cares for, and values. Both terms have been appropriated by different fields and institutional contexts. Souza (2021) explains that curatorship refers to the act of caring, overseeing, and preserving. Traditionally, it has been associated with the fields of Arts and librarianship, given their work with the organization, maintenance, and preservation of physical materials. However, the role of the curator is now linked to a broader range of activities (Souza, 2021, p. 18).

Contemporary society may be described as living in an era of curation. The abundance of available information creates the need for individuals and institutions to select what is most relevant within a given context. From Cortella's (2018) perspective, the task of curatorship involves establishing criteria, organizing collections, and making selected information accessible.

Knowledge curation can thus be understood as an interdisciplinary practice, permeating journalism, communication, literature, law, arts, information science, and education. In addition to engaging with issues that emerged during the Covid-19 pandemic, knowledge curation has become particularly significant for Basic Education. This is especially evident in discussions surrounding the implementation of the Common National Curriculum Base (BNCC, 2018) and its implications for professional practice and institutional organization at this educational level (Lima, 2022).

The BNCC explicitly addresses the skills students are expected to develop. In describing its second general competence, it emphasizes that pedagogical approaches should be grounded in scientific principles and foster investigative, critical, reflective, imaginative, and creative capacities. Such approaches aim to enable students to investigate causes, solve problems, and create solutions, including technological ones.

In March 2020, schools in the State of Paraná adopted a hybrid educational model in response to the Covid-19 pandemic. This model, which combined limited face-to-face instruction with extended periods of remote teaching, remained in place throughout 2021. The hybrid context expanded opportunities for teachers to integrate Digital Learning Objects more effectively into their educational practices.

These digital artifacts and technological devices can enhance teaching and learning processes by increasing dynamism, fostering collaboration and group work, promoting student engagement, and supporting the development of decision-making, planning, creativity, and autonomy.

Therefore, it is justified to promote a curatorship aimed at identifying which types of digital devices can be adopted as Digital Learning Objects and how they can actively contribute to educational practices in Basic Education. In 2008, the United Nations Educational, Scientific and Cultural Organization (UNESCO) established three levels of information and communication technology (ICT) competencies for teachers: technology literacy, knowledge deepening, and knowledge creation (UNESCO, 2008). Similarly, in 2018, the Common National Curriculum Base (BNCC) was updated, introducing ten general competencies to be developed in conjunction with curricular components.

Educational practice and digital literacy

As Camas (2012) argues, digital literacy comprises a set of interconnected literacies, including computer, media, digital, scientific, and information literacy. In contemporary society, marked by multiplicity and cultural complexity, merely reading and interpreting alphanumeric codes is insufficient. Digital literacy therefore

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extends beyond basic decoding skills and requires broader competencies aligned with technological contexts.

Pimentel (2018) defines digital literacy as a competence derived from the social use individuals make of their ability to encode and decode signs—such as letters, numbers, icons, emojis, and emoticons embedded in digital artifacts. This competence enables both interaction and interactivity (Pimentel, 2018, p. 12).

From this perspective, digital literacy has a direct impact on Basic Education. The technological society that emerges from cyberculture allows users to access digital systems globally and, within the limits of linguistic compatibility, interact with individuals from diverse cultural backgrounds (Fofonca & Lima, 2020, p. 22). As technologies have evolved from analog to digital formats, teacher education programs must incorporate the pedagogical adoption of digital technologies in educational practice (Lima, 2022).

To remain pedagogically relevant in the context of cyberculture, teachers must develop competencies aligned with the five essential literacies identified by Camas (2012). Mastery of these literacies enables educators to approach their didactic practices critically and with awareness of the contextual variables inherent to cyberculture.

Conceptions of technologies

To examine the concept of technology, this study draws on Pinto (2005) as its primary theoretical reference. In common usage, technology is often associated with modernity, electronics, and the digital world. Pinto (2005), however, conceptualizes technology through four distinct meanings. First, technology may be understood as synonymous with technique. Second, it may refer to the totality of techniques present in a given society. From this perspective, every technological process constitutes a comprehensive social phenomenon. Thus, even societies considered "primitive," such as Indigenous peoples in Brazil, possess technology. Major technological innovations are therefore the result of historical and collective processes. Third, technology can be conceived as an epistemology of technique, that is, as the scientific reflection and systematic study of techniques and their productive possibilities. Fourth, technology may be understood as the ideologization of technique, occurring when the stage of technical development becomes elevated to the level of social ideology. The last two meanings receive particular emphasis in this study, as they directly relate to the concept of educational practice discussed herein.

Pinto (2005) also offers an important warning: when emphasis is placed more on the product than on the human being who created it, there is a mistaken assumption

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that the work creates the human. In fact, the opposite is true; human beings create the work. Digital technologies are instruments through which individuals transform their surrounding reality, solving problems and facilitating daily life. When human beings exercise a technique, they produce culture. When they employ digital technologies to do so, the resulting phenomenon may be termed digital culture or cyberculture. This cyberculture, in turn, exerts significant influence on education.

From Freire's (1997) perspective, education, as a form of intervention in the world, must create opportunities for conscious social action and remain connected to lived reality. In this regard, it is possible to establish a dialogue between Pinto's (2005) conception of technology and the reflections of Pimentel, Francisco, and Ferreira (2021) on digital games, technologies, and education. These authors emphasize that education and humanization are inseparable processes. To educate is, fundamentally, to form and transform individuals by valuing continuous processes of change and the ongoing development of human potential (Pimentel; Francisco; Ferreira, 2021, p. 107).

Within this framework, education is understood as a practice aimed at enabling and promoting social transformation rather than perpetuating the status quo. For the purposes of this study, educational practice is conceived in the sense of praxis: a social and pedagogical action that is intentional, conscious, reflective, continuous, and collective (Lima, 2022). Such a delimitation is necessary because these premises challenge dominant social structures. As Chauí (1980) argues, class hierarchies are maintained and expanded through ideology, which is reproduced in schools through curricular knowledge, teaching practices, and the instrumentalization of pedagogy from Basic Education to higher education.

Accordingly, critical awareness of reality becomes essential. However, critical reflection alone is insufficient; it must be accompanied by transformative action. Empty discourse must give way to concrete responses to the challenges outlined in this study. Freire's (1987) notion of "banking education" contributes to the formation of uncritical individuals, often driven by emotion and lacking analytical rigor. Such characteristics may, for example, lead individuals to share misinformation without verifying sources or engaging in careful examination.

In contemporary society, it is therefore necessary to strengthen awareness of the school's role and to identify pedagogical projects capable of challenging paradigms that no longer respond adequately to the realities of cyberculture. This need becomes particularly evident in relation to Digital Learning Objects and their pedagogical potential. Ultimately, these considerations reinforce the central importance of digital literacy and its critical integration within Basic Education.

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Digital Learning Objects

Both in schools and in everyday life, computational artifacts are expanded at every moment, with a view to improving life and the facilities that digital technologies can provide us. With the reflection of the Covid-19 pandemic and the technological demand of the times we live in, it is considered that there has been a significant advance in the integration of digital technologies, especially in ways of life and in the ways of acquiring knowledge.

And, in this scenario, hybrid classes and virtual learning environments gained even more space, making the necessary use of digital learning objects in educational environments, whether in the virtual teaching model or in the face-to-face model.

The concept to be delimited in this section is DLOs. However, to understand the term DLOs, we first need to understand the concept of Learning Objects (LO). Wiley (2000), as well as Sosteric and Hesemeier (2002), discuss the term LO and even associate it with digital, but use the nomenclature learning object only, without the word digital. Wiley (2000) points out that practically every researcher has his own definition of LO and defines it as any digital resource that can be used to aid learning. Sosteric and Hesemeier (2002) agree with the previous description and include both image and film in their concept. Braga (2012) points out that LOs need to have characteristics that favor reuse and learning. Therefore, the definition of DLOs comes from the concept of LO and includes the word digital to explain the difference from other LO, such as a blackboard or notebook that are also LO but are not digital.

Some observations from the curatorship

This study was conducted in Curitiba during the years 2020 and 2021, within the context of the Covid-19 pandemic. It consists of a curatorial investigation aimed at the critical selection of digital devices as Digital Learning Objects (DLOs), with a focus on educational practice in public Basic Education.

The research is bibliographical in nature and adopts a qualitative approach, as defined by Creswell (2014), since it seeks to examine the phenomenon in depth. Regarding its qualitative dimension, Creswell (2014) emphasizes that data collection should occur within the natural context of participants, with researchers themselves responsible for designing instruments and procedures, following established methodological standards and contributing to the academic literature. Similarly, Bicudo (2014) states that qualitative research operates within a defined time frame, systematizing knowledge in each field, identifying significant findings, and mapping thematic trends and dominant approaches.

Sampieri, Collado, and Lucio (2013) explain that such studies aim to examine subjects that have not yet been thoroughly investigated. In this case, the research

problem involves curating which types of digital devices can be adopted as Digital Learning Objects and how they may actively contribute to educational practices in Basic Education.

The method adopted is curatorship, understood as a process capable of contributing to curricular components in Basic Education and to the continuing professional development of teachers. It offers possibilities for more innovative and critical educational practices, consolidated through new pedagogical movements and emerging literacies.

In the educational field, the traditional Enlightenment model of teaching no longer adequately addresses the complexities of a society characterized by continuous access to knowledge mediated by digital technologies. Current challenges require a renewed understanding of pedagogical conceptions that reconnect theory and praxis, since theory lacks contextual meaning when dissociated from practice (Camas; Fofonca; Hardagh, 2020, p. 120).

Based on these premises, the study outlines methodological paths that engage with contemporary culture, marked by constant transformation and instability. Such changes must be incorporated into pedagogical praxis. The methodological proposition developed throughout the research highlights the relevance of digital devices for educational practice and underscores the importance of knowledge curation. This role involves a continuous search for the evolution of educational practices, particularly by demonstrating how digital devices can be integrated into contemporary teaching processes.

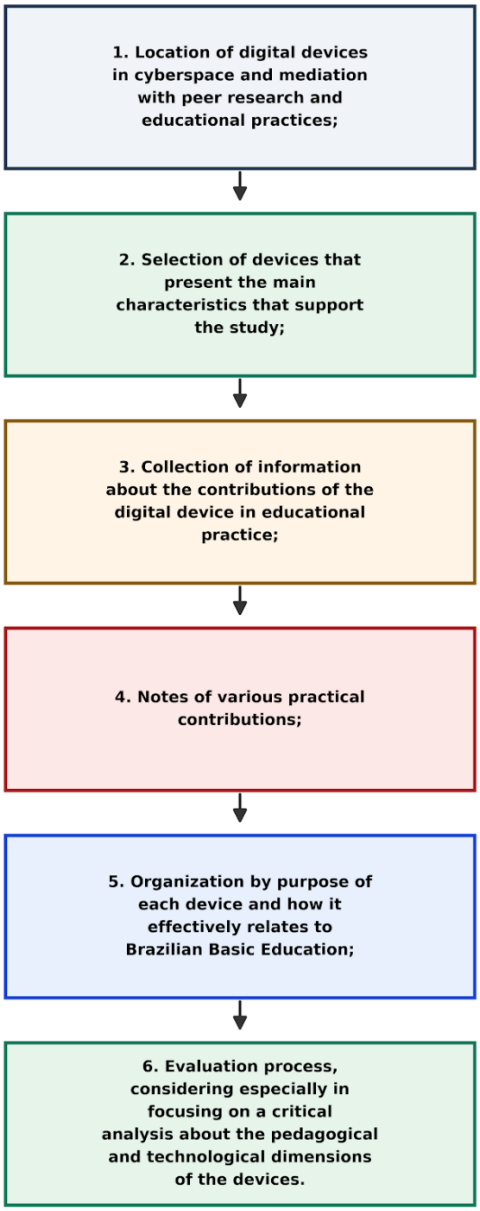
Through a qualitative methodology, the study seeks to contribute to Basic Education. In this context, curation is grounded in what Camas, Fofonca, and Hardagh (2020) define as knowledge curation. Although knowledge curation relates to multiple fields, education, and communication gain particular prominence in light of advances in digital and immersive technologies. The authors argue that critical inquiry constitutes the core of curatorial development, as curatorship enables an intersection between research and self-learning (Camas; Fofonca; Hardagh, 2020, p. 120).

According to these authors, curatorship has the potential to select and systematize knowledge in response to the growing adoption of digital technologies. It may therefore serve as a methodological pathway for research focused on Digital Learning Objects, fostering intersections among research, self-learning, education, and communication.

Accordingly, the methodology of curatorship is presented as the guiding method of this study. It permeates all principal analytical categories and seeks to demonstrate its relevance in addressing the research problem. This approach goes beyond mere mapping and collection in cyberspace. Instead, it involves the selection and articulation

of pedagogical and technological dimensions of digital devices, aiming to rethink teaching practice in Basic Education, as illustrated in Figure 1.

Figure 1: Curatorship as a method



Source: Paraphrase elaborated from Souza (2021)

It is important to emphasize the methodological process, as curatorship, while increasingly adopted in educational research, remains a relatively recent approach and involves several subjective variables. These include considerations such as whether the device is free of charge; whether it promotes digital literacy; whether it functions offline; whether it supports simultaneous access by multiple students; whether its content is grounded in scientific sources; whether it is appropriate for the intended age group; and whether it effectively contributes to educational practice rather than merely

serving as a distraction. Device selection is also influenced by contextual factors. In this study, the Digital Learning Objects (DLOs) were selected with particular attention to the realities of students in public Basic Education schools. For this reason, preference was given to resources that promote digital literacy, are freely accessible, and, when possible, can be used without internet access.

The rapid emergence of new digital objects adds complexity to the curation process. Digital resources often differ in subtle yet significant ways, and such distinctions may substantially affect their pedagogical value. Curatorship therefore involves classifying, organizing, and grouping identified objects according to defined criteria. In some cases, a single object may fit into more than one category. Throughout the study, categories were created, merged, or excluded as the analysis progressed. The processes of grouping, regrouping, and relating DLOs, together with the curator's prior knowledge and experience, influence the final outcome of the curation. Consequently, replicating this research may result in the selection of different DLOs. Nevertheless, the objectives and guiding purposes underlying the selection would likely remain consistent.

The study sought to identify diverse types of Digital Learning Objects, including those focused on audio, drawing, text, numerical reasoning, images, videos, and games, among others. In applying the proposed method, data collection occurred during the first four stages of the methodological pathway.

For data analysis, specific methodological criteria were established, grounded primarily in the National Common Curricular Base (BNCC, 2018), particularly its provisions concerning digital technologies. The study emphasized the general competence related to digital culture, which involves understanding, using, and creating digital information and communication technologies in a critical, meaningful, reflective, and ethical manner across various social practices, including educational contexts. This competence encompasses communicating, accessing and disseminating information, producing knowledge, solving problems, and exercising protagonism and authorship in both individual and collective life. Accordingly, the analytical criteria addressed two main dimensions of the DLOs: their pedagogical implications and their technical characteristics.

The BNCC's general competence related to digital culture aligns with the pedagogical principles articulated by Paulo Freire (1987, 1997) and with Pinto's (2005) reflections on technology. It extends beyond merely teaching students how to use digital tools; rather, it requires that students understand and critically create digital technologies within diverse social practices. This perspective echoes Freire's emphasis on communication, knowledge production, problem-solving, and the development of autonomy and authorship. In this sense, the BNCC's digital culture competence is

consistent with Pinto's (2005) argument that technologies must be understood and appropriated critically and reflectively.

As a result of the curatorial process, 101 Digital Learning Objects were selected and organized into 13 groups, as presented in Table 2.

Table 2: Digital learning objects divided by groups and their respective objectives

Group	Category	Digital Learning Objects (DLOs)
01	Animation and Comics Creation & Editing	Draw Cartoons 2; FlipaClip; PicsArt Animator; GIF & Video; Canva; Pixton; Storybird; StoryboardThat; Sway
02	Presentation Creation & Editing	Prezi; Google Slides; Canva; Genially; Keynote; LibreOffice Impress; Microsoft PowerPoint; Poll Everywhere; Powtoon; Trakto; UtellStory; Visme; Kids Doodle
03	Audio Recording & Podcast Production	Audacity; GarageBand; Podomatic
04	Avatar Creation	Bitmoji; Boomoji; Doodle Face
05	Newspaper Creation & Collaborative Writing	Paper.li; Flipsnack; Twitter; Wikipedia
06	Virtual Wall Creation	Padlet
07	Image & Video Creation, Editing, Drawing Tools & Media Repositories	3D Brush Augmented Reality; Finger Colors; Infinite Painter; Inkscape; Art Paint & Color Drawing Book; Microsoft Paint 3D; PaperDraw; SketchBook; PicsArt Color; SketchUp Free; Super Simple Draw; Tux Paint; Biteable; GIMP; JellyCam; OpenShot; Photos (Windows 10); PlayPosit; Powtoon; Raw Shorts; Rocketium; Wikimedia Commons; PowerDirector; Clips; Flickr; Giphy; iMovie; KineMaster; Microsoft PowerPoint; Music Video Maker; OneDrive; PicPac Stop Motion & TimeLapse; Pinterest; Stop Motion Maker – Life Lapse; StopMotion Lunnis; Video Editor; Vue; Windows Story Remix; YouTube Studio
08	Infographic, Concept Map & Mind Map Creation	Infogram; Piktochart; Venngage; Visme; Bubbl.us; CmapTools; GoConqr; MindMeister; MiMind; Mind Map Maker; Mindomo; Popplet Lite
09	Gamification	Blockly Games; CodeMonkey; Flexbox Froggy; Grid Garden; Kahoot!; Lightbot; Minecraft Education Edition; Monster Coding; RoboGarden; Scratch; Tynker
10	Language Learning	Elevate; Memrise; HelloTalk; Duolingo
11	Mathematics Platforms	GeoGebra Classic; HeyMath; Khan Academy; Photomath
12	Augmented & Virtual Reality	3D Brush Augmented Reality; Google Arts & Culture
13	Accessibility	Hand Talk; @Voice Aloud Reader

Source: Curated by the authors (2020)

With regard to educational practices, the analysis was conducted by examining situations and possibilities for the adoption, appropriation, or integration of Digital Learning Objects (DLOs), as well as how these resources may contribute to meaningful teaching and learning processes. Particular attention was given to the development of

specific knowledge within curricular components, in alignment with the competencies established by the BNCC (2018).

Furthermore, the findings suggest that curatorship can function as a methodological strategy that enables the sharing of educational practices extending beyond isolated teaching experiences. It broadens the scope of pedagogical action by demonstrating how DLOs can foster digital literacy, creativity, autonomy, planning, decision-making, and logical reasoning. Above all, the analysis considered whether the selected Digital Learning Objects promote collaborative work and strengthen cooperation among participants engaged in dynamic teaching and learning processes.

Conclusions

Curatorship is a complex and ongoing activity. In the case of digital objects, it is never fully complete, as new digital resources emerge daily. These resources differ in specific attributes that may significantly influence their pedagogical applicability. One of the initial challenges of this study involved the classification and organization of the identified objects, particularly because several of them could be included in more than one category. As a result, categories were created, merged, and, in some cases, excluded throughout the research process.

This study sought to understand how digital devices, conceptualized as Digital Learning Objects (DLOs), can be adopted within educational practices in Basic Education. The relevance of this investigation lies in the limited number of studies that systematically articulate digital technologies with pedagogical practices specifically oriented toward Basic Education.

Following a systematic search in cyberspace, the identified objects were examined according to predetermined criteria. These included their potential to foster digital literacy; their availability free of charge; their capacity to operate offline; their ability to support simultaneous student access; the scientific reliability of their content; their appropriateness for specific age groups and grade levels; and their contribution to educational practice, as opposed to functioning merely as sources of distraction. Based on these criteria, the selected Digital Learning Objects were organized into groups according to their defining characteristics.

The findings indicate that the proposed curatorship enabled a comprehensive mapping that supports teaching practices through the critical appropriation of Digital Learning Objects in teaching and learning processes. This approach favors collaborative work and the sharing of resources that enrich educational practice. Moreover, it operates

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as a form of relational praxis that promotes digital literacy among both teachers and students, aligned with Freire's (1987) perspective on autonomy and critical education.

Digital Learning Objects, therefore, may serve as valuable pedagogical supports in educational practice, enhancing teaching and learning processes. However, they should be understood strictly as tools that assist teachers, not as substitutes for the educator's role.

In relation to the BNCC (2018), it is evident that the competence associated with digital culture can be operationalized through specific skills, including the critical adoption of Digital Learning Objects. The study proposes perspectives that encourage the rethinking of educational practice in Basic Education. Through the critical appropriation of digital resources, new learning environments and pedagogical models can emerge, models that extend beyond the traditional classroom setting and foster forms of education that empower students to assume a leading role, responding to the demands of contemporary society.

References

BICUDO, Maria Aparecida Viggiani. Meta-análise: seu significado para a pesquisa qualitativa. *Revemat: Revista Eletrônica de Educação Matemática*, Florianópolis, v. 9, p. 7-20, jul./dez. 2014. Available in: http://dx.doi.org/10.5007/1981-1322.2014v9nespp7. Acesso em: 22 ago. 2025.

BRASIL. Ministério da Educação. *Base Nacional Comum Curricular*. Brasília: MEC, 2018.

CAMAS, Nuria Pons Vilardell. A literacia da informação na formação de professores. *In*: TÔNUS, Mirna; CAMAS, Nuria Pons Vilardell. (org.). *Tecendo fios na educação:* da informação nas redes à construção do conhecimento mediada pelo professor. Curitiba: CRV, 2012.

CAMAS, Nuria Pons Vilardell; FOFONCA, Eduardo; HARDAGH, Cláudia Coelho. Pesquisa narrativa e curadoria de conhecimento na cultura digital. *RE@D – Revista de Educação a Distância e eLearning*, Lisboa, v. 3, n. 1, p. 115-130, mar./abr. 2020. Available in: https://revistas.rcaap.pt/lead_read/article/view/21956/16051. Accessed on: Aug. 22nd, 2024.

CHAUI, Marilena. *O que é* ideologia? 5. ed. São Paulo: Brasiliense, 1980.

CORTELLA, Mario Sergio. *Curadoria - Mario Sergio Cortella*. [S. l.: s. n.], 18 abr. 2018. 1 vídeo (4 min 25 s). Publicado pelo canal Mario Sergio Cortella. Available in: https://www.youtube.com/watch?v=7Sy9SrbLlKo. Accessed on: Accessed on: Jul. 29th, 2025.

CRESWELL, John. W. *Investigação qualitativa e projeto de pesquisa:* escolhendo entre cinco abordagens. 3. ed. Porto Alegre: Penso, 2014.

FOFONCA, Eduardo; LIMA, Gilso Rodinei Souza de. A aprendizagem ubíqua e os desafios interpostos à Educação Básica: notas sobre a cultura digital e a ubiquidade tecnológica na educação. *In*: FREITAS, Patrícia. Gonçalves de.; MELLO, Roger Goulart (org.). *Educação em Foco*: tecnologias digitais e inovação em práticas de ensino. 2. ed. Rio de Janeiro: e-Publicar, 2020. v. 2, p. 13-26.

FREIRE, Paulo. *Pedagogia da esperança:* um reencontro com a pedagogia do oprimido. 8. ed. Rio de Janeiro: Paz e Terra, 1997.

FREIRE, Paulo. *Pedagogia do oprimido.* 23. ed. Rio de Janeiro: Paz e Terra, 1987.

LIMA, Gilso Rodinei Souza de. *Dispositivos digitais como objetos digitais de aprendizagem:* uma curadoria com enfoque na prática educativa da educação básica. 2022. 117 f. Dissertação (Mestrado em Educação) – Setor de Educação, Universidade Federal do Paraná, Curitiba, 2022.

PEROVANO, D. G. *Manual de Metodologia Científica*. Curitiba: Juruá, 2014.

PIMENTEL, F. S. C. Letramento digital na cultura digital: o que precisamos compreender? *Revista EDaPECI*, São Cristóvão, v. 18, n. 1, p. 7-16, jan./abr. 2018. Available in: https://periodicos.ufs.br/edapeci/article/view/8545/pdf Accessed on: Jul. 29th, 2024.

PIMENTEL, Fernando Silvio Cavalcante; FRANCISCO, Deise Juliana; FERREIRA, Adilson Roxa. *Jogos digitais, tecnologias e educação:* reflexões e propostas no contexto da Covid-19. 1. ed. Maceió: EDUFAL, 2021. Available in: https://www.repositorio.ufal.br/bitstream/123456789/7841/3/Jogos%20digitais%2C%20tecnologias%20e%20educa%C3%A7%C3%A3o%3A%20reflex%C3%A3o%20e%20propostas%20no%20contexto%20da%20Covid-19.pdf Accessed on: Jul. 29th, 2024.

PINTO, Álvaro Vieira. *O Conceito de Tecnologia*. Rio de Janeiro: Contraponto, 2005.

SAMPIERI, Roberto Hernández; COLLADO, Carlos Fernández; LUCIO, Maria Pilar Baptista. *Metodologia de Pesquisa*. 5. ed. Porto Alegre: Penso, 2013.

SOSTERIC, Mike; HESEMEIER, Susan. When is a Learning Object not an Object: A first step towards a theory of learning objects. *The International Review of Research in Open and Distributed Learning*, [S. l.], v. 3, n. 2, 1 out. 2002.

SOUZA, Daise Antunes de. *A curadoria de conhecimento como dispositivo pedagógico nos anos iniciais do ensino fundamental:* desvelando a dodiscência em narrativas docentes on-line. 2021. 116 f. Dissertação (Mestrado em Educação) – Setor de Educação, Universidade Federal do Paraná, Curitiba, 2021.

WILEY, David. A. *Connecting learning objects to instructional design theory*: a definition, a metaphor, and a taxonomy. [S. l.: s. n.], 2022. https://homepages.uc.edu/~santosff/learning_communities/digital_learning_objects/extdocs/Connecting%20Learning%20Objects%20to%20Instructional%20Design%20Technology.pdf Accessed on: Jul. 29th, 2024.