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Digital Literacies: a Conceptual Discussion around Critical Praxis

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Abstract

The education community has examined how to implement critical digital literacy in practice. However, the efforts to achieve this are met with pressing social and technological challenges. With this article, we want to advance the conversation toward practical implications to analyze and interact with the meanings of texts in "the digital" to empower civic engagement and social transformation. We expose challenges that hinder the practical application of critical digital literacy: a corporate-driven confusion of information with knowledge, the impact of standardized algorithms on access to information, the privileging of some discourses and the silencing of others, and the impact of government censorship. Subsequently, we review pertinent cases from research and discuss critical theory arguments to propose an actionable response to those challenges. We suggest some essential practices that can embody context-appropriate approaches to strengthen critical digital literacy.

Keywords: civic engagement; critical pedagogy; digital literacy education; educational technology; transformative education

Alfabetizações digitais: uma discussão conceitual em torno da práxis crítica

Resumo

A comunidade educativa tem examinado como implementar a literacia digital crítica na prática. No entanto, os esforços para alcançar esse objetivo enfrentam desafios sociais e tecnológicos urgentes. Com este artigo, queremos avançar a conversa em direção a implicações práticas para analisar e interagir com os significados dos textos no "digital" para capacitar o envolvimento cívico e a transformação social. Expomos os desafios que impedem a aplicação prática da literacia digital crítica: uma confusão impulsionada pelas empresas entre informação e conhecimento, o impacto dos algoritmos padronizados no acesso à informação, o privilégio de alguns discursos e o silenciamento de outros, e o impacto da censura governamental. Posteriormente, analisamos casos pertinentes da investigação e discutimos argumentos da teoria crítica para propor uma resposta viável a esses desafios. Sugerimos algumas práticas essenciais que podem incorporar abordagens adequadas ao contexto para fortalecer a literacia digital crítica.

Palavras-chave: engajamento cívico; pedagogia crítica; educação em literacia digital; tecnologia educacional; educação transformadora

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Alfabetizaciones digitales: una discusión conceptual en torno a la praxis crítica

Resumen

La comunidad educativa ha estudiado cómo implementar la alfabetización digital crítica en la práctica. Sin embargo, los esfuerzos para lograrlo se enfrentan a retos apremiantes sociales y tecnológicos. Con este artículo, queremos avanzar en el debate hacia implicaciones prácticas para analizar e interactuar con los significados de los textos en "lo digital" con el fin de potenciar la participación ciudadana y la transformación social. Exponemos los retos que dificultan la aplicación práctica de la alfabetización digital crítica: la confusión entre información y conocimiento, impulsada por las empresas; el impacto de los algoritmos estandarizados en el acceso a la información; el privilegio de algunos discursos y el silenciamiento de otros; y el impacto de la censura gubernamental. Posteriormente, revisamos casos pertinentes de la investigación y discutimos argumentos de la teoría crítica para proponer una respuesta viable a dichos retos. Sugerimos algunas prácticas esenciales que pueden incorporar enfoques adecuados al contexto para fortalecer la alfabetización digital crítica.

Palabras clave: compromiso cívico; pedagogía crítica; educación en alfabetización digital; tecnología educativa; educación transformadora

Introduction

In this article, we aim to contribute to the practical applications of critical digital literacy. Using Ciardiello's instructional model (2004) as a foundation, we present an updated framework offering suggestions on how teachers and students may engage with critical digital literacy in the current times—a required update given the technological advancements and the sociopolitical changes since his model was proposed. We also discuss issues that may challenge the practice of and engagement with critical digital literacy. To do this, we integrate practices and arguments from previous research that addressed these concerns. First, we define the core concepts of this article.

Literacy, in its most basic definition—the ability to read and write—has long been a universal requirement. In this article, we argue the need to go beyond 'letteracy' (Lankshear & Knobel, 2007) in accordance with how Freire (2005a, b) envisioned that traditional literacy was insufficient. Literacy, however, has had to adapt to digital sources. We understand digital literacy as "an expanded conceptualization of literacy that is responsive to the ongoing changes in information and communication technologies that are part of everyday life," and that requires people to engage in: "*inquiry, analysis, collaboration, creation, reflection, and social action* [emphasis added]" (Hobbs & Coiro, 2019, p. 402). Students and teachers, therefore, face the challenge of navigating emerging issues in the digital world and making informed choices about their learning sources at a fast pace.

1. Defining the Critical Component in Digital Literacies

Digital literacy (DL) education places action and dialogue at the core of its practices. DL education also aims to connect individuals' concerns regarding educational and social injustices with their personal experiences and cultivate a critical attitude toward technical proficiency (Pangrazio, 2016). Such components enable individuals to explore and question the sociopolitical context behind the person sending the message. The message receiver should be encouraged to ask whose interests are encoded and promoted in the message to identify forms of social, economic, and political inequity (Morgan, 1997). When this is accomplished, people can "analyze, critique, and transform the norms, rule systems, and practices governing the social fields of everyday life" (Luke, 2012, p. 5). Collaborative reflection and action opportunities emerge when we operate from these critical elements in DL.

Scholars have maintained an ongoing dialogue regarding how technology has redefined critical literacy. Some researchers have focused on the technicalities (Buckingham, 2010) and impacts on human cognitive skills, labor market qualifications, and user competence resulting from these changes (Lupton, 2014; Mangen *et al.*, 2013;

Sparrow *et al.*, 2011; West, 2019). Others (Alvermann & Moore, 2011; Forzani & Corrigan, 2020; Gee, 1990; Leu *et al.*, 2013) have directed their efforts toward exploring the critical and social nature of literacy.

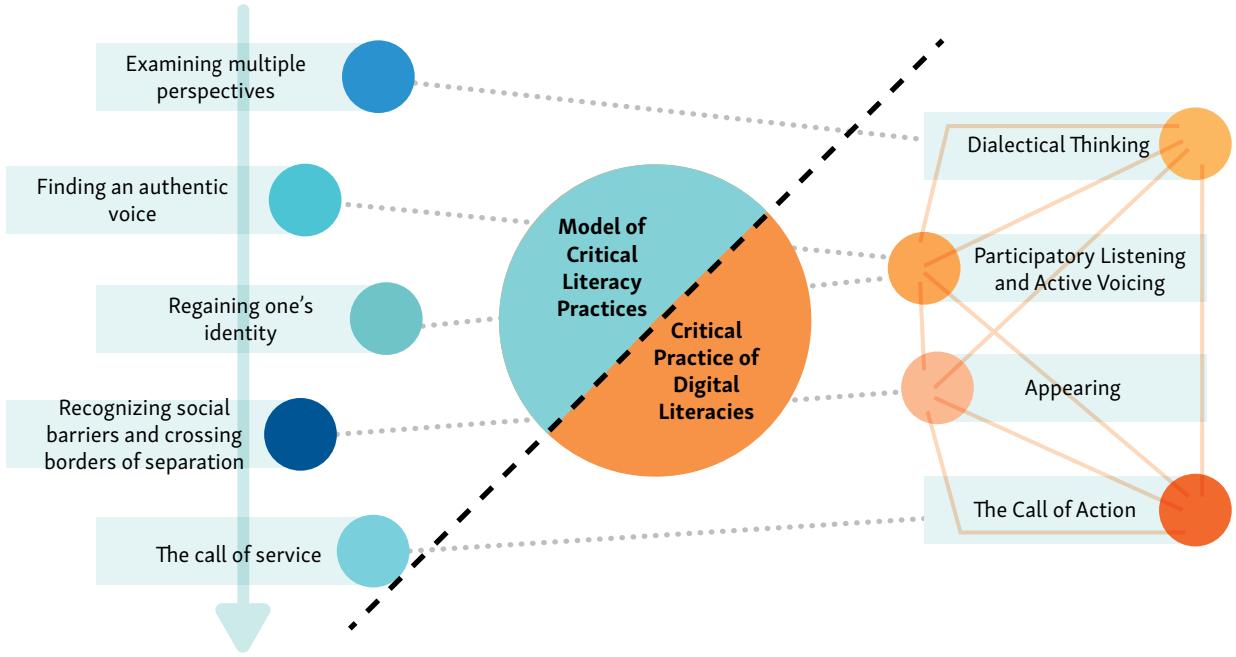
However, given the growing complexity of social and digital environments, researchers and educators should continue to explore and share pragmatic and meaningful implications to implement critical DL. With this article, we want to advance the conversation toward critically analyzing and interacting with the meanings of texts in "the digital" to empower civic engagement and social transformation (Pötzsch, 2019; Share *et al.*, 2019). In the following section, we propose how Ciardiello's model can interact with contemporary technology to help people exercise critical digital literacy practices that advance social action. We also discuss factors that may pose a challenge to this goal.

2. Toward a Critical Praxis of the Digital Literacies

In this article, we understand "praxis" as the capability to "name the world, to change it" (Freire, 2005a, p. 88). This concept fundamentally connects critical reflection with transformative action—it is not merely theoretical understanding but the active application of critical consciousness to create social change. In the context of digital literacies, praxis means developing the ability to both critically analyze digital texts and take concrete actions to challenge and transform digital inequalities. Similarly, we maintain that critical literacy involves identifying relations of power when learning to read and write (Anderson & Irvine, 1993). It also entails practices and competencies that make people aware that texts elevate certain discourses while suppressing others (Luke & Freebody, 1997). Based on these understandings of literacy and praxis, we examine the need to implement critical literacy practices that enable students to engage with social concerns. These practices should integrate digital tools and platforms to facilitate individuals' interaction with and transformation of the conditions in our world.

For this conceptual article (Jaakkola, 2020), we propose that digital literacies would benefit from *reassessing* the values of critical theory. Serving as the method theories (Lukka & Vinnari, 2014), Ciardiello's model is the core that connects this discussion. Ciardiello (2004) provided "a model of critical literacy practices related to a social justice issue" (p. 138) to challenge the hidden agendas of texts and help students become "critically competent and caring citizens" (p. 139). His model presented a linear development which consisted of five themes: examining multiple perspectives, finding an authentic voice (in the current article this theme is presented together with 'regaining one's identity' due to the ways digital platforms shape self-representation), recognizing social barriers to freedom, finding social alternatives, and taking social action. When Ciardiello (2004) introduced his model twenty years ago, we interacted in a simpler digital environment than we do now. To exemplify, in 2004, Facebook saw its dawn, and the most common digital action was still exchanging emails through desktops (Dolunay *et al.*, 2017). We rearranged these and proposed four themes. We also added some cases for each theme that may guide teachers in empowering their students to engage critically to stop social inequity. In addition to that, we will consider some challenges hindering this goal. Our proposed approach, placed alongside Ciardiello's, is presented in the diagram below; the names we suggest for these practices are in brackets. The following section will elaborate on participatory listening and active voicing.

Figure 1.
Critical Digital Literacies diagram of Ciardiello's model and a proposed 'update



Own elaboration'

2.1 Finding an Authentic Voice and Regaining One's Identity [Participatory Listening and Active Voicing]

People face challenges in developing an *authentic* voice when examining multiple perspectives in texts. Ciardiello described authentic voices as those typically contested by the dominant discourse, the voices of people navigating rules that do not support diverse political and social ideologies. When presented with multiple perspectives in texts, the reader encounters the challenge of choosing whether to embrace or resist a discourse (Ciardiello, 2004). The reader must also recognize that in the social world, as well as in the virtual one, inequitable power dynamics exist that enable the voicing of certain discourses while suppressing others (As presented by Amnesty International, Chapter 5: Online violence against women). In the digital environment of Web 2.0, people encounter texts aligned with their tracked interests or those of their (virtual) friends or followers. This type of interaction disrupts the development of an organic thinking process, a dialectical encounter, which perpetuates biased and inequitable *virtual* relationships.

2.1.1 The Privileging of Some Discourses and the Silencing of Others

Digital technologies and the Internet provide individuals with access to varied, unchecked, multi-source information, resulting in overwhelming informational exposure. As addressed in the previous theme, technology users frequently encounter texts tailored by their Internet-tracked and stored browsing habits or through interactions with their most frequently visited virtual contacts. These factors shape users' social media feeds according to their preferences and limit their interaction to a small subset of the population (Sunstein, 2017). Furthermore, even though users have access to the Internet as a whole to find counter-argumentative sources, they rarely engage in patterning or pattern restructuring (Logan & Tandoc, 2018) as they typically seek information that aligns with their existing beliefs or mindset (Rana, 2018), or content that features their actions and lives (Chen *et al.*, 2016).

In contemporary digital spaces—through screens, clicks, and bots—students typically lack opportunities to experience organic cognitive processes or engage in critical practice. Likes, retweets, forwarding, sharing, and (re-)posting represent new, fast-paced practices in the digital world that impede these goals. Additionally, "[f]rom maps providing visual and auditory directions, word definitions offered through multiple digital dictionaries, and how-to articles and videos in every possible category imaginable, we no longer need to actively participate in organic thinking processes" (Cladis, 2020, p. 342).

Limited access to technology, poor quality Internet, censorship, or insufficient technological literacy may hinder the development of an *authentic* voice. For example, organic thinking processes enable individuals to create new ideas through confronting, comparing, and restructuring ideas of others. People develop the capacity to construct reasons for embracing or challenging a discourse. In contexts where people cannot engage in organic thinking digitally, they will have limited opportunities to develop these capacities. The absence of these thinking characteristics has "detrimental effects on human capacity for creativity, critical thinking, and language expression" (Cladis, 2020, p. 342). Therefore, teachers should focus on digital literacy practices that enable students to collaborate in transforming their social conditions while also being aware of contextual limitations of students in developing participatory listening and active voicing. In inequitable contexts, digital technology plays a vital role in providing people with opportunities beyond just reading or writing critically. It facilitates mutual listening, expression of opinions, and critical thinking engagement.

After confronting segregation in texts and society and identifying oppressive discourses, critically conscious individuals must recognize the effects of prejudice and subjugation experienced by marginalized groups. They should actively seek methods to develop critical practices. Ciardiello (2004) recognized the importance of this when observing how "victims of prejudice and discrimination often internalize the negative images that a dominant discourse (such as one favoring segregation) ascribes to them" (p. 144). Participatory listening and active voicing, facilitated to some extent by digital technologies, enable certain users to question dominant discourses and engage in horizontal conversations. These practices of participatory listening and active voicing may precisely be what encourages and enables people to avoid distancing (Bauman, 1998) from physical communities and prevents them from acting exclusively through incorporeal means such as the Internet.

Questioning dominant discourses and identifying allied voices remains fundamental to constructing both our society and our identities. Through digital technologies, certain individuals discover methods to tell their stories, amplify their long-silenced voices, and challenge their representation (Schreuder, 2022; Stewart, 2013). Flores (2018) provides a compelling illustration of this. She facilitated a youth writing program where she encouraged participants to critically examine their worlds and collaborate in sharing their truths. Her research demonstrates how to engage with critical literacy and digital tools to question social conditions, transcend mere consumption, and participate socially. We maintain that this enables people to manage information, express themselves, decide, and participate "to contribute without being interrupted or excluded by others" (Bali *et al.*, 2020, p. 10). This perspective emerges as central for those facilitating and participating in critical digital literacy practices, whether as teachers, social leaders, or Internet users, particularly in contexts where social injustices persist.

2.2 Examining Multiple Perspectives [Dialectical Thinking]

A fundamental element in critical literacy practices involves facilitating multiple-perspective analysis of texts. To achieve critical literacy, people must understand that texts contain multiple meanings based on the viewpoints and values of their authors. Many individuals spend hours navigating virtual environments, interacting with new

apps or hardware, and fundamentally redefining how they participate, collaborate, or connect socially with others[4]. Therefore, reflecting on how technology and the digital world influence multiple-perspective analysis becomes essential. When considering this, we must examine access to information. With Internet-powered devices at our fingertips, people can access information from multiple languages and sources. However, while this represents progress towards knowledge democratization, we identify the *standardized customization* generated by Web 2.0 algorithms as a significant obstacle to critical literacy, which empowers civic engagement and social transformation.

2.2.1 The Impact of Standardized Algorithms on Access to Information

Roberts-Mahoney *et al.* (2016) explain that such customization "serves to transform complex characteristics of human beings into discrete 'skills' that are converted into data points subject to the authority of a computer algorithm beyond the control of the individual student, the school, or the community" (pp. 12–13). Such personalized learning services are driven by algorithms that track behaviors and opinions "to maximize learning effectiveness and efficiency" (Bienkowski *et al.*, 2012, p. 32). Consequently, people using technological devices are directed to learn and access information according to predetermined parameters, which limits knowledge construction and promotes narrowly defined *practical* and testable learning outcomes.

A second crucial aspect concerns how people learn while navigating digital spaces. People must recognize that learning does not depend solely on information type, and indeed, anything that "include[s] moving images, words, sounds, gestures, and performances supports the integration of literacy practices, regardless of their origin" (Alvermann & Moore, 2011, p. 157). The digital learner bears responsibility for evaluating the type of information they select to learn about the 'real world' through digital spaces (e.g., Facebook, YouTube, Twitter, now X, TikTok, etc.).

These conditions created by digital spaces require people to develop active and conscious social engagement to determine what and how they learn in digital informal learning spaces. The two interconnected aspects mentioned earlier raise concerns about exercising critical digital literacy practices since digital environments are significantly influenced by how Web 2.0 algorithms organize users based on their opinions, life publications, preferences, and more. Levy (2020) addresses this matter by arguing that "Facebook's algorithm provides fewer posts from counter-attitudinal outlets, conditional on participants subscribing to them; and participants use Facebook less frequently when exposed to counter-attitudinal outlets" (p. 26), which contradicts Facebook's traffic and engagement objectives. Research on social media indicates that its algorithms cause long-term increases in affective polarization through exposure to pro-attitudinal news. However, people do not develop political learning—there is no change in their political opinions (Levy, 2020; Mason, 2016).

Algorithms create echo chambers for all social media users. The objective is to avoid exposing users to complex or challenging input and instead provide them with agreeable content they can relate to. Bauman articulated this in an interview (De Querol, 2016), stating that "social media fails to teach dialogue because it makes controversy avoidance so easy" (par. 11). Social media effectively isolates users' "immaculate" opinions and places dissenting voices many clicks distant. Consequently, when lacking specific critical objectives, media platforms can transform emerging critical individuals into passive online activists. However, notable examples demonstrate people leveraging social media for advancing justice (See #MeToo movement, Black Lives Matter, Arab Spring, TikTok users supporting Kellogg's union, etc. See also van Leent & Mills, 2018; Saunders *et al.*, 2017).

For instance, Hobbs and Coiro (2016) demonstrated effective strategies to address such challenges. Through "collaborative and creative media production activities" (p. 624), they facilitated a project where participants

4 Statista (2022). 4.59 billion social media users worldwide as of 2022. "Most popular social networks worldwide as of January 2022, ranked by number of monthly active users (in millions): Facebook: 2,910; YouTube: 2,562; Instagram: 1,478; TikTok: 1,000.

engaged in "sharing their knowledge to demonstrate that everyone has something to share and learn from everyone when it comes to the use, analysis, and creation of digital media texts, tools, and technologies" (p. 624). The participants developed expertise in using, analyzing, and creating digital media resources while enhancing their digital literacy awareness. This example illustrates methods for exploring multimodal texts through digital technologies *and* responding both collectively (i.e., in schools or other institutions) and individually (i.e., creating content via Facebook, X, TikTok, etc.) to issues requiring transformation.

2.3 Recognizing Social Barriers and Crossing Borders of Separation [Appearing]

Social barriers and divisive borders manifest in texts and meanings (Ciardiello, 2004) and exist within real-world politics. These political structures foster segregation and social injustice, requiring critical analysis and action. In texts and society, people must identify how dominant systems and discourses create divisions based on race, ethnicity, gender, sexual orientation, political ideology, social class, etc. The critical digital citizen must also recognize who benefits from restricting the access of certain groups to technology, computers, tablets, iPads, social media, and the Internet. Consequently, a challenge emerges from excluding people from adequate spaces for critical digital literacy practices, which influences who develops into a critical digital citizen. This issue parallels how books controlled literacy and learning prior to the information era. Historically, "the liberty of some has always depended upon the servitude of others" (Marcuse, 1972, p. 212), and the freedom achieved through the incorporeal channels of the Internet follows this pattern.

2.3.1 The impact of government censorship

One factor contributing to the digital technological tension is censorship. This phenomenon occurs in countries across various political systems, from Hong Kong to the USA (Dolunay *et al.*, 2017; Meserve & Pemstein, 2020; Swanson *et al.*, 2020), with authorities justifying such censorship as a security response to terrorism, child pornography, religious extremism, political activism and messaging, and misinformation. Evidence demonstrates, however, that censorship also serves to control political opposition to the establishment (Meserve & Pemstein, 2020). Digital technologies currently offer fast and accessible communication channels, providing opportunities for visibility without requiring networks, infrastructure, or investment. Many marginalized communities can now communicate with millions of people within minutes of posting a message or uploading a video. For many, these communities previously lacked this capability.

Digital censorship has increasingly targeted social media, including the recent TikTok and WeChat restrictions in the USA. Conversely, social media platforms such as Facebook sometimes restrict government content in the Philippines. Limited human rights activism or political opposition exists to challenge the conflict between social media companies and governments. Awareness of such censorship and maintaining visibility in particular digital contexts remains essential for developing alternative methods of collaboration, communication, and reclaiming the right to political and social visibility for those typically ignored and silenced. This awareness can potentially bridge gaps between knowledge disparities and social inequities.

2.3.2 The Impact of Reduced Access

Another factor exacerbating the digital technological gap is insufficient access to the Internet and devices: "4.66 billion people were active Internet users as of October 2020, representing 59 percent of the global population" (Clement, 2020, par. 1). However, the highest usage rates occur in Asia (China with more than 854 million Internet users, and India with approximately 560 million alone) and Europe, accounting for 3 billion of total active Internet users. Notably, almost 4.3 billion are unique mobile Internet users (Clement, 2020), with 3.4 billion utilizing 4G

and nearly a billion people relying on 2G technology (UNESCO, 2019). In developing countries, access rates to the Internet and devices present significant barriers. In Latin America,

> Less than 50 % of LAC's population has fixed broadband connectivity, and only 9.9 % has high-quality fibre connectivity at home. While 87 % of the population lives within the range of a 4G signal, actual usage and penetration remain low (37 %). And only four out of 10 rural Latin Americans have connectivity options, compared with 71 % of the population in urban areas. (Drees-Gross & Zhang, 2021).

While some countries enjoy the benefits of a digital technological revolution, low-income countries encounter numerous challenges when implementing digital literacy programs. Kerkhoff and Makubuya (2022) examined how issues such as electrical and Internet outages, high student-to-computer ratios, and insufficient technical support for teacher training and device maintenance adversely affect digital literacy programs in Kenya. Haddix and Sealey-Ruiz (2012) proposed an approach that offers a pertinent solution for such contexts. They investigated how Latino and Black students use cell phones to compose narratives and seek peer feedback. The researchers demonstrated how "students are empowered to become producers and creators of knowledge within the classroom" (Haddix & Sealey-Ruiz, 2012, p. 190), and their participants expressed that they "can use these digital technologies that are integral to their identity in this space" (p. 191).

As demonstrated above, cell phones remain highly accessible in low-income countries and can serve as strategic tools for critically engaging students in analyzing their social conditions. In Colombia, during the pandemic, many teachers communicated with their students via cell phones to conduct classes, answer questions, and even conduct exams. Although this approach faced many difficulties, programs designed to use phones for developing critical digital literacy may yield benefits in contexts such as those described by Kerkhoff and Makubuya (2022).

These critical practices enable teachers and students to gain visibility and identify alternative tools and approaches for engaging with digital literacy to question, debate, and examine digital technological segregation and other social inequities. We propose that the critical digital citizen should not distinguish between the virtual and the real world (Jandrić *et al.*, 2018), as both domains continuously represent and re-create each other. Through analyzing the word and the world, the critical digital citizen establishes a right to appear and gains recognition in both the public sphere and the digital realm.

2.4 The Call of Service [The Call to Action]

Ciardiello (2004) characterized *the call of service* as the final phase in developing critical literacy. He expanded upon Freire and Macedo's (1987) insights, saying that "there is a moral dimension in learning how to 'read the word and the world' and recognizing how individuals can contribute to the common good" (p. 144). Ciardiello (2004) reflected upon civic responsibility, democracy, literacy, and citizenship. The call of service thus becomes a pathway for understanding what humanity can achieve through community service.

However, as noted, the call of service functions most effectively in communities with strong and stable democratic principles, where all members are equally represented and recognized, with shared agreement on common challenges. However, this differs from reality in many contexts. Students must address social injustices regardless of whether these issues concern or affect all community members. People mobilize collectively to solve problems, even when the problem affects only a single individual or a small group. Therefore, a call to action appears more appropriate. However, a challenge impeding such a call to action is the conflation of information with knowledge.

2.4.1 A Corporate-Driven Equation of Information with Knowledge

Concerning the use of technology in modern society, Freire (2005a) argued that "an analysis of highly technological societies typically exposes the 'domestication' of humanity's critical faculties by a situation in which individuals

are massified and possess only the illusion of choice" (p. 30). Therefore, we find the emergence of digitalism and market-oriented discourses that equate information with knowledge particularly significant for understanding people's motivation to address specific problems. We note how equating information with knowledge serves to "domesticate" people's critical faculties.

Continuously, people encounter a discourse that has proliferated globally, highlighting the "advantages" of living in a globalized digital world. Although access to abundant information on the Internet represents a positive development in the digital age[5], we argue that equating information with knowledge and subsequently linking knowledge to social transformation creates an illusion. We support Garcia and Mirra's (2021) assertion that "[e]ducational research must prioritize centering youth imagination in new conceptions of civics and literacies in a digitally connected era" (p. 642) to effectively address and transform current conditions of social injustice.

People must have opportunities to learn from one another, become content creators, voice their concerns, and highlight issues affecting them. People can develop these skills through problem-posing education. Freire's (2005a) framework for critically reading the world through problem-posing education is essential for understanding others' experiences of injustice and their personal narratives, and for advancing social justice. In this problem-posing education, literacy extends beyond basic reading and writing skills. Such education promotes,

> (...) not the stipulation of the facts, concepts, skills, and values that make us all "culturally literate," but the creation of the conditions necessary for all people to participate in the creation and re-creation of meanings and values. It requires a democratic process in which all people–not simply those who are the intellectual guardians of the "Western tradition"–can be involved in the deliberation over what is important. (Apple, 1996, pp. 39-40).

An exemplary demonstration of addressing this challenge is provided by Koudelka (2020). In a ninth grade reading support class in a rural school, she investigated methods for connecting youth educational experiences with civic imagination, which entails envisioning a more equitable world through examining the agency of students in addressing equity issues. The participating teacher in this study endeavored "to create participatory opportunities for students to strengthen their sense of agency to reach praxis—critical reflection and action targeting social inequities" (Koudelka, 2020, p. 389). The teacher guided students toward civic praxis, defining it as "experiences with equitable access tailored to the *personalized needs of the individual* and community [emphasis added]" (Koudelka, 2020, p. 390). Students collaborated with the teacher to:

> (a) identify an issue, (b) collect data and background information on the problem, (c) analyze the data to determine root causes of the issue and develop an action plan, (d) create an action plan or presentation, and (e) evaluate their experience" (Koudelka, 2020, p. 392).

The teacher cultivated a participatory culture by incorporating students' digital tools for investigating media (e.g., blogs, journals, and video platforms). This created opportunities "to disrupt the dominant narrative of citizenship and enabled students to exercise agency in multiple ways" (Koudelka, 2020, p. 396). It also empowered students to explore how they can "move our world forward" (p. 396). Koudelka (2020) presents an important model for teachers seeking to foster environments where students learn collaboratively and address inequities and individual needs. Another noteworthy example is provided by González (2022) (see also Firchow *et al.*, 2016; Shultziner and Shoshan, 2018), who conducted a youth participatory action research project with chicanx/latinx participants. Through journals and digital projects, young researchers collected *testimonios* from their migrant community. After analyzing the *testimonios*, students created a brochure, a composite (fictional) *testimonio*, and

5 The Cambridge dictionary defines digital age as: the present time, in which many things are done by computer and large amounts of information are available because of computer technology.

a website to illuminate social issues that affected them and their community. They shared these projects directly with the community from which they had gathered information.

In this section, we aimed to identify challenges and examine critical practices that might resonate with teachers implementing digital literacies in diverse contexts, particularly those facing social injustice. In conclusion, given our current access to multiple forms and meanings through various sources, the urgency becomes apparent when individuals recognize the need for change and determine methods for collective action toward enhancing our social conditions. In the following section, we offer concluding thoughts regarding the four suggested critical practices of digital literacy discussed throughout this article.

3 Suggesting Critical Praxis of Digital Literacies

In this article, we have examined the five critical literacy practices from Ciardiello's (2004) instructional model: examining multiple perspectives, finding an authentic voice, and regaining one's identity, recognizing social barriers and crossing borders of separation, and the call of service. Building upon those practices, we have proposed an updated framework addressing how individuals interact with digital technologies to develop critical literacy. We have analyzed challenges that may impede the development and implementation of critical digital literacy and have presented four critical practices of digital literacy: participatory listening and active voicing, dialectical thinking, appearing, and the call to action.

As demonstrated throughout this article, if people engage in participatory listening through digital technologies, they can establish more democratic spaces to analyze the word and the world. Digital technologies enable students to gain a deeper understanding of the perspectives and backgrounds of message senders, authors, or creators. Participatory listening also enables individuals to challenge and share their ideas to reconstruct thoughts in more equitable ways collaboratively. Simultaneously, we contend that students must also practice active voicing. After engaging in thoughtful listening, they must then exercise their right to speak out. In traditional top-down literacy practices, students were expected to remain largely passive recipients. Through digital literacies, students can actively respond in real-time and through diverse digital forms of meaning by expressing their ideas and needs, challenging dominant discourses, and asserting their right to dissent.

The extensive volume of information from unverified sources demands critically aware and analytical digital citizens. Dialectical thinking has become increasingly essential, given the political dynamics embedded within digital literacies. This approach to critical literacy can guide students toward critical inquiry regarding how to analyze multiple-perspective forms of meaning, investigate the identity and motivations of message creators, and understand how they are being conditioned to use digital technologies as merely technically proficient users. Subsequently, given the participatory nature of digital technologies and contemporary digital engagement, individuals are empowered to appear.

Through a critical praxis of digital literacy, people can identify unfair access to the Internet and technological devices in various regions of the world and understand that such inequity affects humanity collectively. Individuals are thus positioned to advocate publicly and virtually for equitable access to the Internet and technology for all people. Butler (2015), in analyzing the demands expressed by people in public spaces, observed, "they are demanding to be recognized, to be valued, they are exercising a right to appear, to exercise freedom, and they are demanding a livable life" (p. 26).

We acknowledge the increasingly vital critical literacy skills people are developing, including: a) transitioning from reading texts on paper to interpreting multimodal and digital forms of expression, b) investigating the intentions of authors, c) recognizing one's own motivations for engaging with content, d) evaluating the implications messages may have on one's *subjectivization* and on the social structure to which the sender belongs. However, we

emphasize that these skills must translate into social action because we recognize that "any text—including digital ones—is mediated by our histories of participation, multifaceted identities, and power" (Wargo, 2019, p. 276).

Finally, aligned with the concept of appearing, comes the call to action. Critical digital citizens interrogate notions of the common good, examine who benefits from current systems, and determine how to contribute meaningfully. When they engage in this process across various digital spaces, they effectively practice critical digital literacy. Students should be encouraged to first observe, reflect, and analyze. Through this process, they will—ideally—develop the motivation to act regarding issues requiring restructuring or improvement. This final practice presents the greatest challenge because students and citizens, due to their specific contextual conditions, do not have equal opportunities for action or safe conditions. Some face more significant constraints, either technologically or politically. Therefore, students must be supported in exploring how they can address injustices within their contexts, as thinking without action remains a privilege many communities cannot afford.

Through the integration of these four practices—participatory listening and active voicing, dialectical thinking, appearing, and the call to action—educators can foster environments where students develop not merely technical digital competencies, but truly critical digital literacy. This praxis-oriented approach ensures that digital literacy education serves its ultimate purpose: empowering individuals to read, understand, and transform both the digital and physical worlds in pursuit of greater equity and justice.

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