

Critical Digital Andragogy

Jacqueline M. McGinty and Kimberly M. Rehak

Indiana University of Pennsylvania

Abstract: Critical educational approaches challenge practices and structures that perpetuate inequalities. The goal is to surpass knowledge acquisition, emphasizing the interconnections of community and context. Twenty-first-century adult education environments must attend to digital literacy and aim to help close the digital divide. One way to address this issue is to promote critical digital andragogy as part of adult education practice. This article explores the concept of critical digital andragogy and the effects of technology on adult education. Adult educators must empower learners when engaging in digital spaces. The authors suggest strategies that adult educators should implement when using digital tools in their teaching practice.

Keywords: critical, digital, andragogy, adult learning, technology

Digital literacy is essential for adult learners. According to the World Economic Forum, digital literacy is part of the twenty-first-century toolkit (Bandura & Méndez Leal, 2022). Many of today's adult learners do not receive digital literacy instruction in school and need digital skills to succeed across every aspect of society. Although many adults have increased technology use, especially since the COVID-19 pandemic, there is still a digital divide (Vogels, 2021). Technology is rapidly evolving, and to keep pace with the digital world, adults must continuously advance their skills and access to new devices and tools. Blackley & Sheffield (2015) suggest that, given the widespread emphasis on "21st-century learning skills" in educational discussions, it may be an opportune moment to reexamine adult learning theory, or andragogy, in the context of these modern learning abilities and the characteristics of today's learners. The changes accompanying technology use call for us to critically analyze learning and instruction in digital environments.

The persisting digital divide highlights the equity issues surrounding technology access and use. Although internet and smartphone use has increased for all Americans, low-income adults still fall behind in access to high-speed internet and digital devices (Vogels, 2021). Approximately 40% of low-income adults lack broadband internet, home computers, and tablets (Vogel, 2021). Another study found that many adults have access to smartphones but need larger devices to participate fully in online/distance learning (ProLiteracy, 2020). To fully participate in society, adults need to have access to high-speed internet, and they need to have the skills to effectively utilize a variety of digital tools such as laptops, personal computers, and tablets. There are many initiatives across the United States to increase all Americans' broadband access and internet use (Digital Inclusion, 2023). Training in digital literacy is essential to using and adopting these tools successfully.

In addition to using different digital devices, adults must know how to navigate digital environments safely and effectively. To help learners develop agency in digital spaces, adult educators must include digital literacy in their teaching practice. It is essential to design learning

experiences that attend to factors related to educational technologies, including privacy, cybersecurity, access, ethics, accessibility, and inclusion. Blackley and Sheffield (2015) developed the term "digital andragogy" to combine andragogical practices with digital teaching and learning (p. 407). The concept of critical digital andragogy takes their work a step further to encompass not only course design but also training for educators and learners on critical aspects associated with technology use. This paper aims to highlight the importance of digital literacy in adult education and offer tips for educators on practicing critical digital andragogy. A short background on critical digital andragogy is provided, followed by best practices for promoting accessibility, equity and inclusion, ethics, privacy and safety, and learner agency.

Background

To develop our perspectives on critical digital andragogy, the authors reviewed foundational literature on critical theory, critical digital pedagogy, and adult learning. Through this comprehensive review, a connection between the principles of critical theory and the evolving field of digital education for adults was identified, highlighting new pathways for learner empowerment and engagement. The concept of critical digital andragogy grew from critical educational perspectives and their connections to the digital world (Blackley & Sheffield, 2015; Stommel, 2014). We can explore critical, digital, and andragogy to understand the concept further.

Critical refers to critical theory. Critical theory is a philosophical orientation that addresses marginalization and aims to liberate humans from oppression and domination (Bohman, 2021). The field of adult education has many connections to critical theory. Wang et al. (2019) highlight that critical theory is especially relevant for mature individuals, as they face not only life challenges and personal development issues but also encounter pervasive influences such as personal and institutional beliefs, dominant societal practices, inequality, intolerance, and feelings of estrangement. Adults often face institutional and personal hurdles in their pursuit of lifelong learning. One of the hurdles is the growing digital component of our daily interactions. The need for continuing education and training is expanding as the digital world continues to grow and change.

Andragogy is a framework that guides the development of adult learning. Andragogy centers on the self-directedness of adults and promotes learning environments that value the experiences and contributions of adult participants. Andragogy focuses on adults as independent learners, in contrast to pedagogy, which focuses on children as dependent learners. The digital andragogical approach, as described by Blackley and Sheffield (2015), places the learners as self-directed entities in control of their learning. They define digital andragogy as "the practice of educators to equip and encourage adult learners to choose and use the affordances of accessible digital technologies to personalize their learning and facilitate their interactions with peers and tutors" (Blackley & Sheffield, 2015, p. 408). In a digital andragogical approach, the educator must design online learning experiences that are easy to navigate, contain a variety of modalities for accessing information, include directly applicable scaffolded information, and encourage collaboration, individual contribution, and reflection (Blackley & Sheffield, 2015).

People often use Pedagogy when discussing educational practices for children and adults. In some environments, pedagogical approaches are the dominant format for delivering instruction.

For example, educators often refer to critical pedagogy when discussing higher education and community learning environments where adult learners are increasing. Critical pedagogy focuses on critiquing power and oppression structures in K-12 and higher education. Critical approaches focus on promoting agency and empowering learners at any age or level (Stommel, 2014). Critical digital pedagogy extends critical pedagogy to digital environments. Open and networked educational environments shouldn't just be storage places for content. Instead, they need to serve as interactive platforms where students and teachers actively participate as the main drivers of their own learning (Stommel, 2014).

By aligning critical digital pedagogy with the unique needs and experiences of adult learners, a more nuanced understanding of how to create inclusive, responsive, and transformative learning environments was achieved. This synthesis not only expands the traditional understanding of andragogy but also offers fresh insights into how critical digital tools and methodologies can be effectively integrated to foster a more participatory and reflective educational experience for adults.

Best Practices in Digital Learning

Adult educators need to be confident in modeling digital literacy in their practice. Adult education programs should include training in technology and expanding digital skills. It is essential to critically reflect upon digital policies and practices to ensure that our instructional approaches do not marginalize learners (Xu & Shah, 2020). Equity gaps are inherent in digital learning environments, and educators need to be aware of the issues and take steps to reduce the inequities (Kubic, 2021). By practicing critical digital andragogy, adult educators can promote digital literacy by attending to specific course facilitation and delivery aspects. When creating learning experiences using digital tools, we must model best practices and account for access and accessibility, equity and inclusion, ethics, privacy and safety, and learner agency.

Access & Accessibility

When designing adult learning experiences, it is vital to consider whether learners have internet access and the hardware and software tools needed to participate. In addition to digital tools, we must consider whether learners possess the computer knowledge and skill to navigate digital devices, which includes the learning management system (Xu & Shah, 2020). Adult educators should take steps to provide directions for participants about how to access the course, how to use digital tools, and where to seek technical assistance.

It is also essential to ensure that class and multimedia tools are accessible for learners with disabilities. If you create videos, include closed captions and alternative (ALT) text for images. Check color contrast for presentations and use a font style and size that is appropriate for digital media. When designing online courses, follow the accessibility guidelines established by the Quality Matters Rubrics, www.qualitymatters.org, and the WCAG Web Accessibility Guidelines, www.w3.org. Many word processing and presentation tools offer accessibility checkers, be sure to utilize them as you create documents and instructional media.

Equity and Inclusion

Course materials need to be inclusive. Inclusive college course materials are essential to provide equal access and opportunities to all students, regardless of their background, abilities, or needs.

By ensuring that materials are accessible and reflective of diverse perspectives, educators create a learning environment where every student feels represented and supported (Gunawardena et al, 2019). Inclusivity not only promotes a more equitable educational experience but also enriches the learning process by incorporating varied viewpoints and experiences, fostering critical thinking and empathy among students (Hammond, 2015). Resources should include a variety of perspectives, and there should be opportunities for learners to connect with the subject matter. Adult educators can leverage the principles of Culturally Responsive Teaching to promote equity and inclusion in their practice. The Motivational Framework for Culturally Responsive Teaching (Ginsberg, 2018; Ginsberg & Wlodkowski, 2019) can guide adult educators toward developing learning experiences that are inclusive, meaningful, relevant, and effective in helping learners reach their goals. In this framework, Ginsberg & Wlodkowski (2018; 2019) outline criteria for inclusion, attitude, meaning, and competence in a learning environment. Learners need to connect to the class community and feel respected by the instructor and peers. Create safe spaces for students to reach out, get technical assistance, and ask questions about the course. Also, clearly explain digital tools and ensure that they are safe to use and easy to navigate. To promote a positive attitude, facilitators should involve the participants in decision-making and offer a variety of ways to connect with course content (Ginsberg, 2018). Consider using digital technologies to create options for learning content by using a variety of multimedia applications for learners to engage with. To promote meaning-making, support learners by scaffolding challenging tasks and guiding them toward personally relevant projects (Ginsberg, 2018). Furthermore, help students explore the digital landscape and engage in real-world problem-solving while building digital literacy skills. To build confidence, encourage learners to demonstrate their knowledge in different ways by providing options for submitting assignments such as written works, visual graphics, video, or other forms of multimedia (CAST, 2018).

Ethics, Privacy, and Safety

A critical aspect of digital literacy is demonstrating the ethical use of the internet and digital tools (Beck et al, 2021). To model digital ethics, engage in responsible internet use by treating others with respect in online interactions, avoiding using the internet for cheating, engaging in responsible digital commerce, and respecting the privacy and autonomy of other internet users.

For example, be aware of fair use and copyright rules and ensure that the content you use is credited to the original author. Copyright laws protect an author's right to their creative works restricting how the content can be distributed (Covello, 2019). Adult educators should act ethically and respect privacy and safety as part of their teaching practice. For example, evaluating the personal information that learners must provide when acquiring, accessing, and using different technologies is essential when using digital tools. Be mindful of free digital tools that track learner location, behaviors, and personal information. Commonsense Media offers a free online resource for evaluating the privacy of different digital applications, www.privacy.commonsense.org. Carefully select technologies that do not risk the learners' information security. Demonstrate how to read privacy policies and user agreements for digital tools. Engage in conversations about cybersecurity and safety when using digital tools.

Agency

Learner Agency is an essential aspect of critical digital andragogical and pedagogical perspectives. Learner agency is when a person experiences a feeling of control and ownership over their learning (Hase & Blaschke, 2021). As passive recipients of knowledge from experts, learners become part of an oppressive educational structure that diminishes agency and self-

efficacy (Blaschke et al., 2021; Hase & Blaschke, 2021). This top-down, expert-led transmission of information had a long history in educational institutions when information access was limited (Hase & Blaschke, 2021). The internet and other digital technologies have changed the landscape of knowledge and information access, and anyone connected to the internet can acquire information from millions of sources on nearly any topic. Adult educators can use information accessibility to promote agency in learning environments. Digital technologies increase our access to information and expand our networks and ability to build online learning communities.

We can promote agency by encouraging learners to explore concepts by connecting to online communities and joining networks of individuals interested in similar topics (Blaschke et al., 2021). Educators who want to enhance student agency in their teaching should consider the concept of learning ecologies. According to Blaschke et al. (2021), learning is seen as a process that evolves and alters rather than proceeding in a linear fashion, varying across different situations. They further assert that the strength of networked learning ecologies is in their ability to promote learning that spans throughout life, extends across different aspects of life, and delves deeply into the learning experience. Learning ecologies encompass many different environments, including online, hybrid, and face-to-face learning and the environments where people live, work, and play (Blaschke et al., 2021). This perspective views learning as an emerging process that does not follow a straight line and changes across different contexts (Blaschke et al., 2021). “The potential of [networked] learning ecologies lies in facilitating lifelong, lifewide, and lifedeeep learning” (Blaschke et al., 2021, para 8). Learning ecologies are multidimensional and encourage student agency as part of a person’s learning journey. According to Blaschke et al. (2021), lifelong learning refers to learning across your lifespan, lifewide learning encompasses informal, formal, and other adult learning throughout life, and lifedeeep learning is how a person defines their exploration of knowledge.

Discussion

Digital literacy is becoming one of the essential skills that adults need. As adult education extends into digital spaces, learners must receive support to safely and effectively use technology in all aspects of their lives. Adult educators must understand how to design and deliver training experiences that prepare adults to navigate the digital world. A critical digital andragogical perspective can help adult educators identify issues related to access and accessibility, equity and inclusion, ethics, privacy and safety, and learner agency. The intentional practice of critical digital andragogy can also encourage adult learners to join the conversation to help identify their needs and co-construct what it means to be a 21st Century adult learner (Blaschke et al, 2021; Gunawardena et al., 2019). As the digital world continues to evolve, adult educators must keep pace with the changes and share their knowledge with others. The authors of this paper created a resource guide for *critical digital andragogy* offering additional tips, links, and suggestions for practice. We invite you to use, share, and revise the information in the guide to support adult learners as we navigate adult education in the 21st century.

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