

SOCIAL WORKERS AT THE FOREFRONT IN PROMOTING DIGITAL JUSTICE

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Abstract

In the post-COVID-19 pandemic era, social work education has undergone a rapid transformation due to the increasing integration of technology through online courses, virtual simulations and digital field placements. While these technological advancements offer opportunities for quality learning, not all learners from different parts of the world benefit equally from these advancements. This is particularly evident as learners from developing countries and rural areas who are disproportionately disadvantaged by the digital divide compared to learners from developed countries and urban settings. While discussion on the impacts of the digital divide has received limited attention within the social work literature, the role of social workers also remains underexplored. Social workers, with their foundational commitment to human rights and social justice, are uniquely positioned to address these disparities. By integrating key components of structural and empowerment theories, this conceptual paper proposes an integrative framework to illustrate the pivotal role of social workers in bridging digital divide and responding to the digital vulnerabilities in the context of technology-mediated social work education. These roles include: (1) Learners of Digital Technology, (2) Educators of Digital Technology and (3) Advocates for Digital Inclusion. The papers discuss implications for advancing digital social work.

Keywords

Technology-mediated social work, digital divide, digital inclusion, digital justice, digital social work.

1. Introduction

Ensuring access to quality education is one of the fundamental goals within the United Nations' Sustainable Development Goals (SDGs), specifically Goal 4, which targets ensuring inclusive and equitable education for all (United Nations, 2015). Technological innovations are significantly reshaping the education system (Haleem *et al.*, 2022) and have contributed substantially to enhancing the accessibility of quality education, thereby advancing these goals (Makinde *et al.*, 2024). By leveraging digital tools and online platforms, technologies enhance teaching and learning (Çelik & Baturay, 2024) and break down barriers to education related to geographical location (Makinde *et al.*, 2024). Particularly, during the COVID-19 pandemic and periods following it, advancements in digital technologies have significantly contributed to enhancing access to education without geographical borders (Makinde *et al.*, 2024; Yam *et al.*, 2024). The impact of the pandemic underscored the critical role of digital technology and numerous tools emerged to support learning during this period, which facilitated access to education

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and enhanced student learning amid a global crisis, an outcome that would have been unattainable without the positive impacts of educational technologies (Vargo *et al.*, 2021). This shift to technology-mediated learning modalities following the pandemic became widespread as higher educational institutions adapted to pandemic conditions, with many institutions accelerating their digital transformation to facilitate remote education.

In addition to enhancing teaching and learning outcomes, technological advancements have also altered the traditional notion of the classroom and learning experiences, as well as the roles of educators and learners (Haleem *et al.*, 2022). As the traditional notion of classrooms has been altered, digital classrooms have become a space for accessible and interactive learning spaces where innovative content is delivered for learners within flexible and collaborative learning spaces (Haleem *et al.*, 2022). Nevertheless, the progress in advances in technologies is not without challenges (Ferguson & Roofe, 2020). As it also provides numerous benefits, the integration of technological innovations holds significant challenges (Çelik & Baturay, 2024). Moreover, while the current technological advancements hold promises for expanding access to quality education (Okoye *et al.*, 2025), providing alternative mechanisms to engage students in the learning process and enhancing their learning experiences through interactive tools (Van De Werfhorst *et al.*, 2022), the impact of the digital divide remains a key concern. As a result of the digital divide, the benefits of technology in education may not be equally accessible to everyone and such digital advancements may not provide equal opportunities for all learners (Bartikowski *et al.*, 2017).

Digital divide is the gap in access to technology (Soomro *et al.*, 2020) and gaps between those who have access to digital equipment and facilities such as computers and the internet and those who do not (Van Dijk, 2005), disparities in digital literacy (Raihan *et al.*, 2025). It also refers to the disparity between individuals who possess and those who do not have adequate knowledge of and access to digital technologies (Centeio, 2017).

Aissaoui (2022) reviewed studies on the digital divide and described the three different levels of digital divide. The first level of the digital divide refers to access to digital equipment, such as computers and the internet. However, as Aissaoui (2022) described, mere access to digital equipment does not empower an individual if they lack the ability to use it, which is related to digital literacy and described as the second level digital divide. Second-level digital divide emphasizes gaps in the ability to use these technologies and the digital skills (Hargittai, 2002). The third level digital divide refers to the disparities in the skills and competencies to effectively apply digital resources to achieve specific objectives, where, in addition to access and digital literacy, such disparities in effective use of technology may result in different outcomes (Van Deursen *et al.*, 2021). Similarly, drawing on Social Cognitive Theory, Wei *et al.* (2011) identified three interrelated domains of the digital divide, such as (1) the *access divide*, (2) the *capability divide* and (3) the *outcome divide*. Access divide emphasizes access to or ownership of digital devices such as computers either at home or in schools (Wei *et al.*, 2011). The capability divides, which are beyond the mere disparities in having digital equipment, refer to inequalities in capabilities to exploit or use digital equipment. The capability divide is the result of the access divide. The outcome divide, on the other hand, represents inequalities in terms of learning and productivity or outcomes of using the technological equipment or facilities, which arise from the access and capability divide. As Wei *et al.* (2011) described, the access divide is the determining factor for the capability divide, where both access and the capability divide may have a combined effect on the outcome divide.

Empirical evidence indicates that students' access to such devices is positively associated with their learning and academic performance (Wang *et al.*, 2024). Digital divide also exacerbates existing inequalities during crises, such as the COVID-19 pandemic, leading to significant barriers for learners, differences in outcomes and opportunities resulting from unequal access to and use of digital technologies (Reynolds *et al.*, 2022). Such access to digital devices is largely dependent on the socio-economic status of the learners (Bartikowski *et al.*, 2017). Such disparities in the above three levels of digital divide may hinder the ability of learners to participate fully in digital learning spaces and leverage the benefits of technological advancements in education (Van De Werfhorst *et al.*, 2022). It is the result of various factors, including socio-economic status and geographical location (Van Dijk, 2020). A recent review by Lythreatis *et al.* (2022) identified several key factors contributing to the digital divide, including sociodemographic and socio-economic characteristics, personal attributes, social support, the type of technology used, digital training, rights, infrastructure and large-scale events. Notably, the review found that educational attainment is the most influential factor across the majority of studies (Lythreatis *et al.*, 2022). The COVID-19 pandemic has further exacerbated the pre-existing digital divide, disproportionately impacting marginalized students from low-income, rural and underrepresented communities and thereby creating additional barriers to education (Shao & Kostka, 2023). In addition to the digital divide, concerns also remained regarding the effective way of integrating technology into education. Also, there is an increasing call urging countries to emphasize contextualized integration of technology, where the focus should be on enhancing learning experiences and the needs of students and supporting teachers in their teaching instead of replacing in-person and teacher-led instruction (UNESCO, 2023). As a result, a thoughtful integration of technology is critical, by which educators consider learners' context, needs, experiences and diverse backgrounds (Vargo *et al.*, 2021).

As social work education has become increasingly digitalized during the COVID-19 pandemic and in the post-pandemic era, where the digital divide becomes increasingly evident (Lai & Widmar, 2021), social workers are uniquely positioned to address these disparities and advocate for digital inclusion (Sanders & Scanlon, 2021). As the social work profession becomes increasingly digitalized (Lopez-Pelaez *et al.*, 2025), social work educators are required to enhance their digital competencies, prepare students to effectively address socio-technical injustices (Taylor-Beswick, 2023) and advocate for human rights and justice as integral parts of their practice in an increasingly digital society (Sanders & Scanlon, 2021). More importantly, while the implications of the digital divide for social work education have received limited attention (Steyaert & Gould, 2009), the role of social work educators in addressing the digital divide remains underexplored within the social work literature.

In this paper, we draw our argument on the role of social work educators based on the Structural Theory (e.g., the role in understanding systemic barriers and impacts of digital exclusion) and Empowerment Theories (the role in enhancing one's own digital competency, preparing students for a digitalizing society and advocating for digital inclusion). We proposed a framework to illustrate multiple roles of social workers in a digitalizing society. The begins by discussing the digital divide and its implications for technology-mediated social work education, followed by insights into the digital divide using both theoretical frameworks. Lastly, the article describes the role of social workers in addressing the three levels of the digital divide. The paper makes significant theoretical

contributions by describing the manifold role of social workers in advancing digital social work education.

2. Digital Divide in Technology-Mediated Social Work Education

The integration of technological tools has rapidly transformed student learning experiences across various disciplines, including social work (Afrouz & Lucas, 2023). Digitalizing social work education has become a new advance in the profession, whereby technology enables the social work education and practice at a distance, at speed and through a screen (Taylor-Beswick, 2023). As advancements in digital technology continue to reshape the landscape of social work education (Toros *et al.*, 2023), the integration of technology into teaching and learning processes has become increasingly essential. Increasing utilization of digital technology in social work education, encompassing online courses, virtual simulations and digital field placements, has redefined the preparation of future practitioners by offering increased flexibility, scalability and innovative approaches to social work education (Steiner, 2021; Toros *et al.*, 2023). More importantly, the need for incorporating digital technology into social work education was officially recognized following the release of the “Standards for Technology and Social Work Practice”, which was created through the collaborative efforts of international social work organizations (National Association of Social Workers). The guidelines were developed and guiding social workers' ethical, effective and competent use of technologies in both educational and practice contexts.

The use of technology in social work education and practice has significantly transformed the way social work education is delivered and social work services are provided (Afrouz & Lucas, 2023). However, as social work educators have become increasingly rely on digital technology to support teaching and learning (López-Peláez *et al.*, 2025), the digital divide remains a critical challenge in modern-day social work education (Sanders & Scanlon, 2021) and a key concern in effective implementation of technology-mediated social work education. While the integration of digital technology into social work shows promise for enhanced accessibility and quality of social work learning, the impacts of disparity in access and use of digital technology in social work education and the position of social work educators are less discussed in existing literature (López-Peláez *et al.*, 2025). Despite the increasing advancement and integration of digital technology into social work education (Afrouz & Lucas, 2023), the pivotal role of social work educators in bridging the digital divide within technology-mediated learning environments remains underexplored.

As social work educators increasingly adopt technology-mediated learning modalities, they face unique challenges that stem from the digital divide, which is particularly apparent in developing countries, where socio-economic disparities shape the landscape of educational attainment and the use of technology. In most low-income countries, large sections of the population have limited access to digital technologies, which limits how technologies are used in daily lives as well as in education (Mathrani *et al.*, 2022). More importantly, such a divide contradicts social work's core commitment to equity and justice (National Association of Social Workers, 2021). As underprivileged learners, who are most affected by socio-technical injustices and systemic exclusion (Passey *et al.*, 2024), often lack access to or are insufficiently equipped to participate in technology-mediated learning environments, it is the professional responsibility of social workers to be at the forefront of advocating for digitally excluded populations (López-Peláez *et al.*, 2025).

In fact, the current focus of digital social work is now broadened beyond a mere focus on the digital divide (which often focuses on access and use of technology) into emphasizing digital vulnerability (López-Peláez *et al.*, 2025). In both cases (responding to digital divide and vulnerability), social work educators have a pivotal role in increasingly digitizing society through alerting themselves to the risks of digital exclusion and enhancing their digital competencies, preparing social work students equipped with digital competencies and advocating for the digitally excluded and vulnerable population. These should be professional roles for social work educators. More importantly, as digital divide is also recognized as a human rights and a social justice issues (Sanders & Scanlon, 2021), which are the ethical principles of the profession, it positions social work educators in a critical role to advocate for policy changes, developing digital literacy programs and ensuring equitable access to technology for digitally excluded populations.

For technology-mediated social work education to be effective, it is essential that educators acknowledge and address the implications of the digital divide (Holmarsdottir, 2024), as it significantly influences both the learning process and educational outcomes (Taylor-Beswick, 2023). Critical competency for social work students in response to technological advancement in education and social services is enhancing their understanding of the multifaceted impacts of the digital divide and building their digital skills. This may include not only enhancing their understanding of the disparities in access to technology and variations in technological use among vulnerable populations but also involves building their competencies to respond to the issues of digital vulnerability, which include the adverse impacts of that individuals or groups face due to their limited access to or inadequate use of digital technologies (Holmarsdottir, 2024). Such efforts require an intentional design of educational curriculum that integrates social work values with digital technology skills for educators to foster effective digital social work in an increasingly digital society (López-Peláez *et al.*, 2025).

While the benefits of technology-mediated social work education are well documented (Afrouz & Lucas, 2023), studies on how the digital divide constrains these benefits are still insufficient. The specific role of social workers in addressing the digital divide requires more discussion in the existing literature on digital social work (López-Peláez *et al.*, 2025). Social workers may play a vital role in ensuring equitable access to technology and digital literacy for all, particularly vulnerable populations (Zemaitaityte *et al.*, 2024). There are insufficient studies on the ways in which social workers can advocate for the digital inclusion of marginalized or underprivileged learners within digital learning environments. For instance, a systematic review of 28 studies examining the benefits and uncertainties of technology-mediated social work education identified several advantages associated with the use of digital tools and online platforms in social work practice. While the review also highlighted concerns regarding the impact of technology, particularly issues related to privacy and confidentiality, it primarily addressed surface-level aspects of the digital divide, such as access to technology. The review offered limited attention to a more comprehensive understanding of the digital divide, which extends beyond mere access and encompasses factors such as insufficient digital skills, language barriers and other structural obstacles that contribute to socio-technical injustice (Afrouz & Lucas, 2023).

Furthermore, given that available studies on the role of social work educators in terms of responding to the digital divide in technology-mediated social work education largely from Global North countries (Afrouz & Lucas, 2023), there are also limited studies on technology-mediated social work education from the Global South. Most

importantly, the discussion on the implications of the digital divide in the context of technology-mediated social work education is absent. This article provides an illustrative framework to describe the pivotal role of social work professionals in addressing the critical challenges of the digital divide. Based on structural and empowerment theory, we developed a framework to describe the role of social workers in technology-mediated social work education in the context of the increasing digital divide. The article discussed the urgent need to prepare social work students with a systematic understanding of the impacts of the digital divide and their professional role.

2.1. Digital Divide through the Lens of Structural Theory

Structural theory in social work emphasizes the impact of societal structures and institutions on individuals and their problems (Mullaly, 1993). It suggests that social problems are not solely individual failings but are often rooted in inequalities and power imbalances within the larger social system. According to this theory, the origins of societal challenges extend beyond individual pathology, emphasizing the importance of addressing broader systemic factors. It provides insight for social workers to consider how factors like poverty, discrimination and lack of access to resources contribute to an individual's problem and advocate for systemic change. It is often characterized as a moral theory, as it offers valuable insights for social workers seeking to understand the root causes of social problems as a critical foundation for effective advocacy. By identifying and analyzing these underlying causes, social workers may be better equipped to target their interventions and advocacy efforts.

Based on structural theory, the digital divide can be understood as a manifestation of broader societal inequalities, where lack of access to technology and digital skills disproportionately affects marginalized groups. The theory provides insight into the social and economic inequalities that underpin access to and use of technology. Digital divide is not just about access to digital devices or the internet, but is deeply intertwined with social, economic and political structures that perpetuate disadvantages. Digital redlining is a commonly reported phenomenon of the digital divide, which implies systemic inequalities perpetuated by technology and access to digital services at individual, community and societal levels (McCall *et al.*, 2022). While the digital divide disproportionately affects low-income or rural populations (Singh *et al.*, 2022), limited connectivity hampers access to quality education opportunities; it is not limited to these groups (Raihan *et al.*, 2025). Social workers, with their focus on human rights and social justice, can leverage structural theory to address the digital divide by advocating for policy changes, promoting digital literacy and ensuring equitable access to technology. The theory provides an insight for social workers to understand systemic barriers to access and use of digital technology and its impact on learners.

2.2. Digital Divide Through the Lens of Empowerment Theory

In social work literature, empowerment refers to supporting individuals and communities in taking control over their lives, making their own decisions and working towards their personal goals, ultimately enhancing their quality of life (Adams, 2017). This core principle is deeply embedded in the mission and values of the social work profession and is highlighted, either explicitly or implicitly, in the National Association of Social Workers (NASW) Code of Ethics (National Association of Social Work, 2005).

Applying Empowerment Theory to address the digital divide in social work suggests the role of social workers to promote opportunities for enhancing access, equity and ultimately, social justice for marginalized populations. Digital divide, as discussed earlier, is beyond access to digital equipment and its impact is also manifold. The digital divide often stems from socio-economic disparities, geographical, infrastructural and knowledge gaps (Lythreath *et al.*, 2022). Also, it involves three levels of digital divide, including lack of access to digital technologies, gaps in digital literacy and differences in using technology to maximize gains (Aissaoui, 2022). In addition to promoting access to digital equipment (first-level digital divide), it is also important to enhance the capacity, skills, competence and agency of learners (Van Deursen *et al.*, 2021). Empowerment theory would provide insight to understand digital divides beyond the first-level divide and emphasize the second and third-level divides (Aissaoui, 2022). Moreover, as the digital divide constitutes human rights and social justice issues, which are the core principles of social work, the empowerment theory may provide an insight into advocating for the fundamental right of everyone to access digital technology and digital inclusion as social justice in the digital world (Sanders & Scanlon, 2021). This may inform the design of targeted digital literacy programs for addressing these disparities (Baraka, 2024). Empowerment Theory focuses on enhancing the capacity of individuals and communities to transcend barriers and improve their circumstances, making it particularly applicable to the challenges posed by the digital divide. The key to empowerment theory is enhancing an individual's digital competency and access to digital resources. In this paper, we argue that the digital divide is a barriers that hinder individuals from maximizing the leverage that technological advancements (Sanders & Scanlon, 2021).

The theory provides social work educators with a focus on building competency to overcome the digital divide through integrating empowerment components into the curriculum that would help students to be prepared for a digital world (Sharma *et al.*, 2022). By integrating Empowerment Theory into the learning spaces, social work educators are positioned to prepare students who may enforce policy changes that enhance digital inclusion. In addition to their role in the classroom, social work educators may also advocate for social justice and improved access to digital resources. Based on the principle of empowerment theory, the paper argues that digital empowerment is a mechanism to address the digital divide (Sharma *et al.*, 2022) and social workers are positioned at the forefront to address this gap (Sanders & Scanlon, 2021). In this case, the role of social workers would be multifold, including designing and implementing targeted programs to address all three levels of digital divides.

3. Positioning the Role of Social Workers: An Integrative Framework

While the impacts of the digital divide on education are increasingly recognized, a specific and comprehensive framework to understand its implications on technology-mediated social work education is currently lacking. While existing studies are often drawn from various theoretical perspectives in the field of general education, there is no unified framework that fully captures the complexity of the digital divide, its impact on social work education and the pivotal role of the social worker as learner, educator and advocate. To respond to this need, this article attempts to integrate structural and empowerment theories. The framework illustrates that disparities in digital access often led to differences in digital capabilities, such as technological skills and self-efficacy, which, in turn, result in unequal digital outcomes. This sequential relationship highlights

how initial inequalities in access (structural) can perpetuate further disadvantages in skill development and ultimately, in the benefits derived from digital engagement. A nuanced understanding of these interconnected domains is essential for social workers, as it enables them to tailor their advocacy and interventions to address specific levels of the digital divide. By recognizing how access, capability and outcomes are linked, social workers can more effectively advocate for policies and practices that promote digital inclusion, support skill-building initiatives and ensure equitable digital outcomes for marginalized populations. Understanding these disparities and their contributing factors, as well as their impact on learning processes and outcomes, is a crucial responsibility for social workers seeking to integrate technology into their teaching and practice.

The primary aim of this paper is to present a comprehensive framework that highlights the pivotal roles of social workers as learners, educators and advocates within the context of the digital divide and technology-mediated social work education. The paper integrated key components of structural theory (Mullaly, 1993) and empowerment theory, offering illustrative insights into how these theoretical perspectives can inform and enhance social work in a digitally mediated learning space. To illustrate the key role of social work educators, we have developed a conceptual framework that positions social workers' role in bridging the digital divide as: “Learners”, “Trainers” and “Advocates”.

3.1. Social Workers as Learners of Digital Technology

As digital technologies and Artificial Intelligence continue to advance rapidly, social workers are increasingly expected to stay informed about and utilize these innovations, adapting their training and practice to meet the growing demands of technology integration (Fjeldheim *et al.*, 2024). Following the COVID-19 pandemic, the use of technology in social work education has expanded, making it vital for social workers to develop strong digital skills. Integrating technology into social work education equips students with the competencies needed to successfully navigate the digital world (Taylor-Beswick, 2023). Digital competency involves the technical, communication and problem-solving abilities of social workers for effective interaction within a digital environment (Fiorentino *et al.*, 2023). Enhancing social workers' digital competency involves equipping and updating themselves with knowledge and competencies of emerging advancements in digital technologies in human services (Fjeldheim *et al.*, 2024). Based on the Standards for Technology in Social Work, own competency building is also reported as the professional standards for social workers in response to technological advancement (National Association of Social Work, 2005). Such a proactive approach enables social workers to stay upfront in navigating the advantages of digital technology, advancing their professional contribution in rapidly changing digital society and bridging digital divide. In fact, striving to enhance their professional knowledge and skills and to apply them in practice is one of the core ethical principles of social workers (National Association of Social Workers, 2021).

Studies on the urgency of advancing digital competencies for social workers are recently emerging. For example, Zhu and Andersen (2022) reported on the status of digital competency among social workers in Norway and noted that integration of digital competence knowledge areas across Norwegian social work education is still limited. Furthermore, based on exploring 33 social workers' personal diaries, Fiorentino *et al.* (2023) explored social workers' perspectives regarding technology-mediated social work during the pandemic and they reported that during the pandemic, social workers were uncertain, reluctant and unprepared and encountered challenges in using technology in

their social work roles. Fiorentino et al. (2023), adopting a special dimension, further discussed the need for social workers to be prepared to balance between physical, mental and social spaces for effectively navigating digitally mediated social work education. Furthermore, as López-Peláez et al. (2025) suggested, the shift to digital social work requires social workers to incorporate digital competencies into their work to function in a digital context.

Finally, we argue that the role of the social worker as a 'learner' underscores the necessity for ongoing professional development and continuous upskilling in response to the rapid advancements in digital technology.

3.2. Social Workers as Educators of Digital Technology

In a rapidly digitizing society, preparing students with digital competencies in human services should be a priority for social work educators (Taylor-Beswick, 2023). In addition to their role as lifelong learners, social workers are required to be upfront in taking on the role of “digital educator”, through integrating technology into their practice and teaching others on how to navigate the digital world effectively and addressing the digital divide by making intentional efforts (Toros *et al.*, 2023). In fact, enhancing the digital competencies of social work students is a fundamental principle of modern-day social work education. Social workers have a responsibility to proactively educate clients, students and communities regarding digital literacy, online safety and the responsible use of technology (Zemaitaityte *et al.*, 2024). By doing so, social work educators can contribute to the development of a digitally literate workforce capable of meeting the evolving demands of the field and promoting equity in access to digital resources (Taylor-Beswick, 2023). Such intentional effort of social workers to enhance the practice readiness of students contributes to enhancing learners' self-efficacy, self-awareness and interviewing skills (Toros *et al.*, 2023).

Most importantly, to tackle the digital divide, the Standards for the use of technology, jointly developed by several social work professional associations, require social work educators to recognize and be responsive to various aspects of cultural diversity. This includes considering students' levels of technological familiarity, their access to the internet and any language obstacles they may face (National Association of Social Workers, 2017). Reflecting on these standards, Reamer (2019) argues that social work educators must remain well-informed of rapidly evolving practice standards and corresponding ethical guidelines in the use of technology in social work education. Such sensitivity is required of social workers to recognize and respond to the digital divide.

There are insufficient studies illustrating how such intentional efforts or the initiative of social work educators in training students with digital competencies enhance their readiness in an uncertain world (Taylor-Beswick, 2023). Based on the experiences of social work students about their digital development, Taylor-Beswick (2023) conducted a phenomenological study to understand the digital development of final year students in England and suggested a framework to inform the digitization of social work education. The framework was designed to inform the development of social work curriculum, the content and delivery. Most importantly, Taylor-Beswick (2023) noted that, in addition to using technology for education, social workers are also required to play an essential role in educating others about technology. Likewise, López Peláez et al. (2020) noted a gap between current needs and the actual level of digital skills among the social service workforce and suggested that social workers need to play an important role in addressing such gaps. As we discussed earlier, this is related to the third level of digital

divide, whereby social workers need to educate themselves on how to effectively use digital technology for advocacy purposes (Van Deursen *et al.*, 2021). As the digital divide also involves differences in attitude, skills and usage of digital technology, social workers should also be in a position to effectively utilize available technology to facilitate learning and advocate for social change (Van Deursen *et al.*, 2021).

3.3. Social Workers as Advocates for Digital Inclusion

Social workers are uniquely positioned to be advocates for digital inclusion and as bridge-builders between marginalized communities, policymakers and technologies (Sanders & Scanlon, 2021). Social workers are first required to understand factors for the digital divide and how the digital divide can perpetuate and exacerbate existing inequalities (Baraka, 2024). This will be an essential requirement for social worker to effectively advocates digital inclusion (Sanders & Scanlon, 2021). More importantly, unlike other professionals who may also advocate for digital inclusion, social workers need to recognize the digital divide as a human rights and social justice issue (Sanders & Scanlon, 2021). Given that human rights and social justice are core values of the social work profession, social workers must recognize how the digital divide impacts human rights and the increased digital vulnerability of learners and they need to advocate for digital inclusion (Sanders & Scanlon, 2021). Social workers also need to work collaboratively to advance people's access to digital resources and promote the adoption of digital literacy (Sanders & Scanlon, 2021). Furthermore, social workers can play a crucial role in advocating for digital inclusion by integrating digital literacy into the curriculum (Eden *et al.*, 2024; Livingstone & Helsper, 2007), promoting ethical use of digital technology (Pascoe, 2023) and advocating for equitable access to technology for all. More importantly, in addition to advocating for digital inclusion, the National Association of Social Workers (2017) also recognized that using technology will enhance social workers' ability to engage in social action, develop social policy and promote social justice. Sanders and Scanlon (2021) suggested a six-step framework for effective advocating for digital inclusion. These include: (1) determining the most appropriate structure for an advocacy campaign focused on digital inclusion; (2) clarifying the nature of the cause and identifying the intended beneficiaries; (3) articulating the desired outcomes of the advocacy efforts; (4) identifying the target audience for advocacy messaging; (5) selecting effective strategies and tactics and (6) conducting both process and outcome evaluations. These steps may help social workers to understand, plan and conduct advocacy for digital inclusion.

Figure 1 below illustrates the key components of structural and empowerment theory to inform advocacy for digital inclusion.

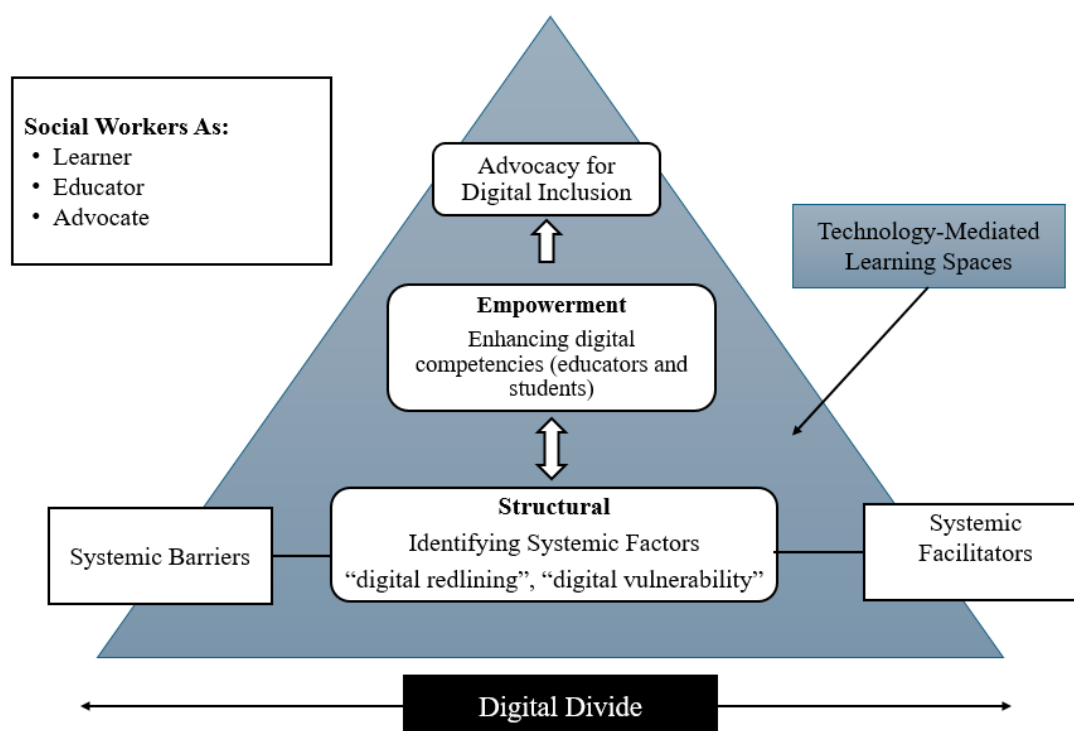


Figure 1. A conceptual framework

As the Figure 1 illustrates, within technology-mediated learning environments, both systemic barriers and facilitators exist that social workers should recognize to support their advocacy efforts. The framework suggests that social workers understand the digital divide across the continuum, recognize how systemic barriers affect learning spaces and acknowledge their role as change makers through effective advocacy. More importantly, the framework conceptualizes the digital divide as a continuum, rather than a simple “have” or “have-not” scenario. This means that access to and use of technology exists on a spectrum, with varying degrees of access, skills and engagement, rather than a clear-cut binary division. It also suggests that preparing students should involve a systematic understanding of the factors and impacts of the digital divide (structural theory) as well as social workers' advocacy role for digital inclusion (empowerment). A comprehensive understanding of the three levels of digital divides is critical, as empowerment may involve both learners' and educators' digital competency building. Such an integrative framework is an insightful illustration of the various roles social workers play in the rapidly advancing technological innovation that is transforming the social work profession. We argue that as social workers hold these multiple roles within digitally mediated learning spaces (i.e., learners, educators and advocates), they are uniquely positioned to contribute to the effective integration of technology within social work. This multifaceted involvement enables social workers to both adapt to and drive advancements in digital learning, while addressing barriers faced by disadvantaged learners and advocating for inclusivity.

In summary, the above three roles of social workers suggest that social workers are required to be prepared to navigate technological advancements, prepare others for them and advocate for digital inclusion to ensure that vulnerable groups in the population understand, access and effectively use emerging technologies to enhance their learning. A comprehensive understanding of the potential role of social workers is essential to

strengthen the effectiveness of social work education within rapidly advancing digital learning spaces.

4. Concluding Remarks

In this paper, we discuss the pivotal role of social workers in technology-mediated learning environments, highlighting their responsibility to understand the causes and impacts of the digital divide, to continuously enhance their digital competencies, to equip students with essential digital skills and to advocate for digitally excluded populations. Understanding the impacts of different levels of digital divide may inform multiple roles of social workers within a rapidly evolving digital landscape (López-Peláez *et al.*, 2025). Adopting such a mindset among social work educators will create a fertile foundation for the effective implementation of digital social work. Therefore, for technology-mediated social work education to be effective, social work educators must prioritize the development of both students' (Van De Werfhorst *et al.*, 2022) and their own digital competencies (Van Deursen *et al.*, 2021). Furthermore, social work educators have a critical role in advocating for interventions to address the digital divide and digital vulnerability. Without such efforts, the transition to digital learning risks exacerbating educational disparities and further marginalizing already disadvantaged students.

As digital tools continue to evolve, social work educators should integrate technology into their curricula while critically assessing how these tools may either bridge or exacerbate gaps among diverse student populations (Sanders & Scanlon, 2021). By cultivating a comprehensive understanding of the barriers imposed by the digital divide, social workers can design interventions that promote equitable access and enhance the overall quality of social work education. Addressing these inequities requires policy reform, resource redistribution and professional commitment to ensure that technological integration is consistent with the ethical values of the profession, including advocacy for inclusion, human rights and social justice. In this regard, higher education institutions may play a significant role in addressing the digital divide and ultimately contributing to the achievement of SDG4 through deliberate advocacy efforts (Ferguson & Roofe, 2020). Currently, there are limited studies on the topic of social workers' roles in advocating for digital inclusion in technology-mediated social work education and more research is required to explore how social workers can effectively advocate for digital inclusion and address the digital divide.

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