



**Parallel Process in Final Field Education: A Continuing Education Workshop to Promote Best Practices in Social Work**

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# Information Communication Technology (ICT) and Social Work: Moving Social Work Education and Practice Into the 21st Century

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## Abstract

As the largest group of mental health service providers, more than counselors, marriage and family therapists, psychologists, psychiatrists, and school and career counselors combined, social workers are in prime position to make a profound influence on the nation's well-being through effective integration of technology in social work education and services. Social work programs currently use technology for pedagogical purposes (to reach students across broad geographical areas), but few if any provide instruction on information and communication technology and how to integrate it into social work practice. We have no systematic vision of what social work students need to learn about information and communication technology, or how they can integrate technology into service delivery. To address conceptual gaps we build upon the work of existing research to provide direction for using technology in social work practice.

Keywords: technology, social media, social work practice

## Information Communication Technology (ICT) and Social Work: Moving Social Work Education and Practice into the 21st Century

Trends indicate that more than 3.2 billion unique individuals access mobile technology worldwide (International Telecommunication Union (ITU), 2015), suggesting that almost half of all people on earth (47%) can access services, information, and support delivered through Information Communication Technology (ICT). As the largest group of mental health service providers, more than counselors, marriage and family therapists, psychologists, psychiatrists, and

school and career counselors combined (Bureau of Labor Statistics, 2016), social workers are in prime position to make a profound influence on the nation's well-being through effective integration of technology in social work education and services (Berzin, Singer, & Chan, 2015).

Social work education programs currently use ICT for pedagogical purposes (e.g., online and hybrid courses that help reach students across broad geographical areas), but few teach how to integrate ICT into practice innovation. Fewer still consider the interdisciplinary necessities of using technology within practice settings, such as collaborative efforts between social workers and educators that regularly incorporate education technology into their pedagogy (Travis & Childs, in press).

A final missing piece of ICT use in social work education is consideration of how to best thread cultural responsiveness through technology's pedagogy and practice relevance. Culture is woven tightly into the fabric of how people perceive stress, trauma, and behavioral health, and cultural competence is an integral component of the pedagogical climate and therapeutic relationship (Chu, Leino, Pflum, & Sue, 2016). While newer empirical evidence suggests that race/ethnicity is neither independently predictive of mental health outcomes nor synonymous with culture (i.e., common values, thoughts, ways of behaving via shared experiences; Rosenthal & Wilson, 2012), social workers must continue to be cognizant of how evolving racial and cultural identities and worldviews, as well as regionally-specific social determinants of health correlated with race (e.g., neighborhood disadvantage), may play a role in needs and in the therapeutic relationship (Gustafsson et al., 2014). The percentage of foreign born citizens is expected to continue to

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grow (Colby & Ortman, 2015), and among US-born citizens, the multiracial (1st), Asian American (2nd), and Hispanic (3rd) groups are the fastest growing members of the population. The year 2044 is projected to be the majority-minority threshold, when the proportion of non-Hispanic white residents falls below the majority portion of the population (Colby & Ortman, 2015). When looking closely at poverty and inequality, the United States “has the lowest overall ranking among our 10 well-off countries, a result that arises in part because it brings up the rear of the pack in three of the six domains covered here (safety net, income inequality, wealth inequality)” (Grusky, Mattingly, and Varner, 2016). When including less well-off countries, only Greece, Estonia, and Spain fare worse than the United States, which ranks 18th out of 21 countries.

To this point, we have no systematic vision of what social work students need to learn about information and communication technology, or how they can integrate technology into service delivery. While researchers have provided some preliminary direction for examining this gap in vision (Berzin, Singer, & Chan, 2015), there remains insufficient attention to how we can leverage the advances of allied disciplines (e.g., education) using technology, or the importance of considering cultural realities within technology-integrated pedagogy or practice strategies. To address these conceptual gaps, we build upon the work of existing research to provide direction for “developing, testing, and refining pedagogical and practice strategies” using technology (Berzin, Singer, & Chan, 2015, p. 14).

#### **Technology and Social Work Literature: Implications for Professional Education**

In 2005, Beaulaurier and Radisch reported on the myriad journal articles and special editions written about the use of computers and computer programs in social services, but noted that “very little has been written about how this technology might be incorporated into existing social work curricula” (p. 130). However, Beaulaurier and Radisch are primarily referring to the use of Microsoft Word, PowerPoint, and other

instructional-assisting technology. Beaulaurier and Radisch provided information on what they termed autodidactic learning devices (ALD) which provide the ability to educate students on interacting with virtual clients. Even though they believe ALD can be beneficial, they recommend them for more macro- than micro-level practice. Unfortunately, this is still the case; technology continues to be perceived in the literature as a viable pedagogical tool primarily for enhancement of curricula provision and instruction, specifically online, and not as a practice methodology which should be included in social work practice curriculum (Blackmon, 2013; Buquoi, McClure, Kotrlík, Machtmes, & Bunch, 2013; Benedict, Balogun, & Ukpere, 2014; Young, 2015).

#### **Technology as a Tool in Service Delivery: Why?**

Social workers should be leaders in the field of practice, identifying innovative and client-focused treatment methodology to enhance practice effectiveness and the scope (theoretical and geographical) of service provision. However, currently we are lagging behind other professions such as education and business, and the number of potential clients not being served is rapidly increasing. The lack of technology-based instruction in social work practice curriculum is resulting in the graduation of social workers who are inadequately prepared for the changing world and workforce; therefore, those members of oppressed, marginalized, and underrepresented populations which social work is ethically mandated to serve and advocate for are not being considered in social work curricula decision-making processes.

#### **Technology & Practice Opportunities**

A more robust technology-integrated education would help graduate social work students with comprehensive knowledge, advanced practice skills, and the ability to reach more diverse, underserved, and previously marginalized-from-society individuals. Social workers would be able to provide services to

clients who do not have the ability to access social services because of personal or geographical limitations. More persons in need of social service assistance would be able to access it, which could only increase their personal effectiveness and functioning, as well as increasing their ability to positively impact the micro and macro systems in which they reside. Technology introduces an entirely new level of flexibility for potential clients. It removes many barriers to service. For example, it allows the freedom to not rely on formal service delivery, and to have access to resources for well-being 24 hours per day (Berzin, Singer, & Chan., 2015). In these instances, people have a much greater opportunity to personalize and set their own pace for services. Thus, technology can complement and augment formal service delivery (Mishna, Fantus, & McInroy, 2016). Self-paced service has shown to increase client level of engagement and commitment within formal care (Proudfoot, 2013). Technology can also supplement formal care with a more informal self-health approach that is bolstered when more tools and resources are available for use.

Contemporary researchers challenge social work to “harness technological advancements and leverage digital advances for social good” (Berzin, Singer, & Chan, 2015, p. 3). More specifically, ICT are social media, virtual reality, video chat software, e-mail, and text messaging (Berzin, Singer, & Chan, 2015; Perron, Taylor, Glass, & Margerum-Leys, 2010). Berzin, Singer, & Chan (2015) believe integration of such technology should be a priority for the social work profession, and could be accomplished easily based on the fact that there were 640,000 social workers engaging in direct practice across the United States in 2015 according to the Bureau of Labor Statistics.

Research associates use ICT with powerful advantages for social work practice. Craig & Lorenzen review evidence of how service provision has advanced with ICT, reducing hospital stays; improving timing in accessing resources, services, and information for clients; improving coordination of care, collaboration and exchange of knowledge, information, and resources; empowering hard to reach clients;

increasing the speed of reporting instances of child abuse or neglect; and increasing the speed of providing assistance to clients who are at risk of harming themselves (Craig & Lorenzo, 2014, p.850).

However, current literature has been more often generated by psychologists and counselors highlighting a “gap between the direct practice expertise of social workers and the growing body of literature on how and when to best integrate technology into practice” (Berzin, Singer, & Chan, 2015, pp. 4-5). Berzin, Singer, & Chan (2015) believe technology can be used to support existing practice methodologies, not replace them, thus increasing the efficacy of social work practice and the ability to further individualize treatment options. Perron, Taylor, Glass, and Margerum-Leys (2010) believe “online relationships can have properties of intimacy, richness, and liberation that rival or exceed offline relationships” (p. 2). They believe this level of relationship, key to the efficacy of social work practice, is made possible by the fact that relationships developed via technology involve “mutual interest rather than physical proximity” (Perron et al., p. 2).

### Technology Challenges

Although technology can potentially create positive outcomes for social work practice and the clients served, there are limitations to integration of technology into practice. These limitations include, but are not limited to, the previously discussed lack of technology-based education and training available to social workers, limited evidence-based knowledge about the use of technology to address issues of human functioning and mental health, and limited financial resources to test available technology in social work practice. Other challenges include a tension between whether technology is used to simply advance existing methods or to introduce qualitatively unique and different educational or practice strategies and desired outcomes (Livingstone, 2012).

However, Berzin, Singer, & Chan (2015) posit that technology-based and -involved social work practice can increase the geographical scope of

service provision. Perron et al. (2010) support the premise of technology as a means to increase the geographical scope of social work practice. They cite Bonk (2009), who “argues that, with the development of ICTs, even the most remote areas of the world have opportunities to gain access to the highest quality... resources” (Perron et al., 2010, p. 2).

Ethical standards are a priority for all social work practices. The introduction of technology innovations prompted the National Association of Social Workers (NASW) and Association of Social Work Boards (ASWB) to develop Standards for Technology and Social Work Practice (NASW & ASWB, 2005). Few federal laws or guidelines exist for online mental health services, and most responsibility falls to each state (Lopez, 2014, p.817). NASW is the leading national force on prioritizing ethical principles for ICT use. Concerns exist about the use of specific types of ICTs, for example with using the video chat and social media as practice methodologies. However, these same concerns about ethical behaviors like maintaining appropriate boundaries should be of similar concern whether engaged in social work practice in person or via an online or virtual method. In general, these concerns can be addressed straightforwardly by including curriculum which requires critical analysis and identification of preventive strategies to ensure ethical practice regardless of the provision method.

### **Technology as a Tool in Service Delivery: How?**

Historically, discussions about inequities in digital device use referred to differences in access to the actual device or connection to the Internet. The “digital divide” tended to mean that children from wealthier homes had significantly more regular access to the Internet at home and school (Craig & Lorenzo, 2014.; U.S. Department of Education, 2016). However, while this fundamentally is still a problem, a more contemporary divide is a “digital use divide” and it refers to inequities in how technology is used. While some use technology for “creative and transformational” learning experiences, others use it for passive content consumption (U.S. Department of Education, 2016). We are

now in a period where we must prioritize not only equity in access, but also “how” technology is used.

Differentiating these uses is significant because recent research suggests that media and technology use predicts decreased well-being among children, preteens, and teenagers above and beyond any influences of nutrition and physical activity (Rosen et al., 2014). Additional research suggests that inserting explicit functional value to ICT use that is linked in a tangible way to well-being may be beneficial (Saglioglou & Greitemeyer, 2014,. While not absolute, it is likely that significant value exists in making distinctions between meaningful learning and growth-oriented uses and more passive content consumption uses.

### **Specific Fields of Practice: A Need for Interdisciplinary Approaches to Practice with Technology**

Interdisciplinary work is necessary to advance social work’s use of technology, from the skilled professionals to help with the computer and technology infrastructure that must be developed, maintained, and advanced (Berzin, Singer, & Chan, 2015), to other professionals that are using technology in their work to make people’s lives better. Interdisciplinary research and practice stems from the recognition that we need a more holistic understanding of how the world works. This has added significance when we’re talking about social science research and understanding the lived experience of human beings. More complex and dynamic insights can lead to more comprehensive and robust approaches to improving health and well-being (Aboelela et al., 2007).

Interdisciplinary research involves multiple professions working jointly to address common problems or research questions, but still coming from discipline-specific perspectives (Aboelela et al., 2007. In these instances, the issue is discussed using the language of at least two distinct approaches, and may be framed using distinct or intersecting research/measurement models. These multiple research styles help determine the multiple data sources and analysis steps. The

distinct models and specific underlying definitions shaping the “problem” allow the presentation of jointly generalizable and disparate field-specific findings – which leads to common language and profession-specific practice languages (Aboelela et al., 2007).

### **Educational Trifecta: Location, Technology, and a Vision**

Education as a profession is uniquely poised to be the discipline of choice for social workers thinking about effective strategies for integrating technology, especially if interested in youth work – a priority population for the authors. Evidence continues to mount about how effective school environments are for concentrating interventions to improve mental health and social and emotional learning (Aber, Grannis, Owen, & Sawhill, 2013; Durlak & Weissberg, 2011; Greenberg et al., 2003; Jones, Greenberg, & Crowley, 2015). Educators, while still making strides to improve, also have a strong history of working with education technology (U.S. Department of Education, 2016). The importance of education technology in improving outcomes for youth has culminated in a vision at the highest national level. For example, the U.S. Department of Education issued a 2016 National Education Technology Plan (NETP), entitled Future Ready Learning, specifically geared toward the role of technology in education.

Social workers can be found within a range of professional settings. In these instances, social workers are thrust into interdisciplinary teams, interdisciplinary decision-making, and able to innovate and advance new strategies to excel at practice within these settings. But some disciplines, like education, are very advanced in their effective use of technology. In these instances, social workers must be prepared to practice using the limited existing evidence available at the time, be prepared to add to the evidence base through their own applied research strategies, and be prepared to share disciplinary space with other professions.

Social workers can work effectively with educators to reimagine what outcomes are

possible for youth within an educational setting. When looking at the National Education Technology Plan (NETP), the vision for the future of education also involves greater agency in learning, so that students feel as if they are co-creators in what and how they learn information (U.S. Department of Education, 2016). This intersects with concerns about disparities in educational outcomes, as many youths feel they are marginalized, do not belong, and that teachers have low expectations (Travis, 2016). Evidence helps us understand that the most effective school environments are those that promote high quality engagement, equity (in treatment and opportunities), and excellence (in expectations; Travis, 2016). Social workers and educators can collaborate to help youth learn and grow, where youth feel empowered as individuals and as part of an equitable community of learning excellence (Travis & Childs, in press). This emphasis on social and emotional learning within educational spaces has resulted in improved educational outcomes for youth involved in this interdisciplinary approach.

Both social work education and teacher education can leverage opportunities for each discipline independently and collectively to better use technology in effective ways (Berzin, Singer, & Chan, 2015). Youth learn and grow in these instances; self and community development are intertwined and learning becomes a lifelong skill and endeavor (Aber et al., 2013; Jones et al., 2015; Travis & Leech, 2014; U.S. Department of Education, 2016). In addition, using “personalized and individually paced services” enhances self-health and engagement, allows more flexibility, and real-world applicability of technology skills attained. ; --- (Berzin, Singer, & Chan, 2015, p.6; Proudfoot, 2013).

### **Education x Social Work: The Developmental Dynamics**

Interdisciplinary approaches integrating social work and education are poised to help youth learn and grow through meaningful technological experiences, and by exploiting a fundamental premise of classroom dynamics. The

culture-based EMPYD model helps us understand the special roles of connection, sense of community, and active and engaged citizenship in the positive development of young people. In particular, these indicators anchor other elements of positive development like confidence, competence, caring, and character. But sense of community also has a multiplier effect, so that when sense of community is strong it tends to reinforce confidence and competence.

The classroom is a unique space where educators have the opportunity to complement, or even supplement, a strong sense of connectedness to positive supportive adults by students. Classrooms and schools are also in the position of being psychologically and physically safe spaces where youth can feel a sense of belonging, pride, and agency (or not), helping to reinforce the other areas of development (see Figure 1). Thus, the classroom and school space is a major point of leverage for this development, anchored in the influential microsystem relationship between student and teacher, and extended outward with the sense of community that can be established both within the classroom and school wide (Travis & Leech, 2013).

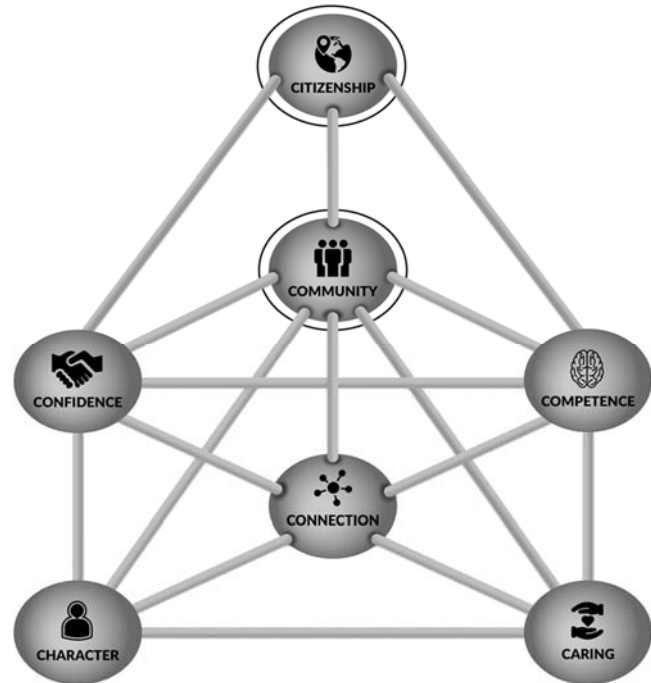
### Specific Fields of Practice: Culturally Responsive Pedagogy and Practice with Technology

Technology shows promise for assisting social work pedagogy and the organization and delivery of services. The growth edge of these practice strategies is using technology for specific, meaningful, and functional uses.

Technology-integrated services should be explicit and involve collaborative plans that promote health and well-being. These should be client-centered and open to integrating the technologies that become available and are deemed important to the client. This includes gaming, social media, mobile technology, and wearable technologies among others (Berzin, Singer, & Chan, 2015).

Culturally embedded strategies have the value of respecting localized knowledge, people, resources, and strengths. They can also help to build cultural bridges among different groups through videos and actual videoconferencing with

Figure 1. Empowerment-based Positive Youth Development (EMPYD) Model



*The Empowerment-based Positive Youth Development (EMPYD) model, developed by Travis and Leech (2013) demonstrates the reinforcing nature of human development, and the central importance of connection, sense of community, and active and engaged citizenship. Reprinted from The Healing Power of Hip Hop (p.132) by R. Travis, 2016, Santa Barbara, CA:*

synchronous face-to-face (screen) communication (Abbott, Austin, Mulkeen, & Metcalfe, 2004). Technology provides a benefit, not only because of geographic bridge-building and geospatial capabilities that can literally track a person specifically by time and place (Proudfoot, 2013), but also the curating and archiving potential for culturally-specific material (Travis, 2016). There is the ability to document, research, and preserve contextually rich content. Digital cultural archives have been shown to be valuable as a source for preserving cultural strengths and assets and for improving cultural access to the general

public (Huang, Chen, & Mo, 2015). The opportunity to repurpose digital archiving strategies is promising for social work. It is the art of social work practice that allows an experienced practitioner to use this and other culturally rich information in an effective and engaging way. But it is these dynamic, flexible, culturally specific strategies that transcend traditional approaches in education, and also static, talk therapy approaches that cause many to eschew traditional psychotherapy models.

Youth culture is significantly relevant as well, with technology (hardware devices and software/internet) being very familiar to youths. In fact, these are discussed in the literature as features of young person's techno microsystem. The ecological proximity of screens and devices for youth is significant enough that we have to be aware of their ubiquitous presence in young people's lives, assess the prevalence of use, and assess their potential influence. These influences may be on their personal attitudes and behaviors around use, or their interpersonal relationships within the family. We must even assess potential influences technology has within a young person's peer network and social environment, such as cyberbullying (Brown, Demaray, & Secord, 2014) and the risky externalization of esteem through social media (Vogel, Rose, Roberts, & Eckles, 2014). We may have to make appropriate health education recommendations, such as pediatrician recommended screen-free time (American Academy of Pediatrics Committee on Public Education, 2001), and the potential health effects of excess screen time (Rosen et al., 2014).

### Charting a Path Forward

We have a strong foundation for understanding the opportunities available to social workers seeking to take advantage of the benefits technology has to offer. We have allied mental health professions engaging in a similar path forward. We can draw upon prior positive research findings, existing promising practices, and continually engage in applied research with newer innovations and outcomes.

Looking ahead more specifically, social

workers can benefit by working more closely with ICT professionals to lay the foundation for a solid technology infrastructure, including a clear training protocol for the profession; by having practitioners and administrators work more closely to agree on ICT usage goals and guidelines, practice objectives, and research/evaluation strategies; and by establishing a dedicated vision for technology and social work – similar to the National Education Technology Plan (Craig & Lorenzo, 2014; US Department of Education, 2016). A concrete agenda is needed for professional social work education and for professional social work practice (Baker, Warburton, Hodgkin, & Pascal, 2014). For example, it is feasible that within future accreditation standards students must learn research informed practice theories and strategies, as well as ICT tools as components of delivering these strategies. As it stands, these technologies fall within the existing accreditation parameter of practice competencies (Council on Social Work Education, 2015). However, in the future the profession can benefit from technology being one explicit domain of competency, along with a yet-to-be-determined reimagined vision of “relations between pedagogy and society, social worker and client, knowledge/growth and participation/engagement” (Livingstone, 2012, p. 20).

Social work can also benefit from a dedicated funding stream specific to technology and mental health. For example, the Australian Federal Government Department of Industry provided \$27.5 million funding for the Australia's Young and Well Cooperative Research Centre (CRC). The purpose of this center is to explore the role of technology in young people's lives (age 12 to 25), and to determine how those technologies can be used to improve their mental health and well-being. It is considered part of the government established Cooperative Research Centres Program. Established in 1991, the Cooperative Research Centres Program aims “to deliver significant economic, environmental and social benefits for the country through end-user driven research partnerships” (Young and Well CRC, 2015a).



### Existing ICTs: A Quick Look

At the direct practice level, there is tremendous range of ICT opportunities, from simple handheld apps that a person can incorporate into their day to the more active camera-driven Photovoice (Kowitt et al., 2015) to the much more technologically sophisticated use of 3D and virtual reality spaces. The aforementioned CRC gives us several e-Tools that are excellent examples of free-standing applications that are technology-based and user friendly. Their e-Tools project is a health promotion initiative with the purpose “to design, develop and evaluate six multi-platform positive mental health programs and/or tools targeting young people’s emotional, social, psychological and physical wellbeing” (Young and Well CRC, 2015b).

Music eScape, one of the specific e-Tools applied research initiatives, follows in the line of research demonstrating the meaningful role that many people feel music has in promoting their well-being (Travis, 2016). Music eScape is a user friendly mobile app that you can use on your phone to (a) create a mood map of your music library; (b) develop dynamic playlists to match your music to your mood; (c) create or select a music journey to express, enhance or change your mood; (d) with the swipe of a finger, draw a music journey from how you currently feel to how you want to feel; or (e) just make it fun – draw your own shape and see what it sounds like (Young and Well CRC, 2015c).

Blendspace is a unique web/internet platform that offers maximum flexibility and a limitless range of uses to help youth learn and grow. Its development was geared toward educators, but the explicit objectives are simply to help professionals to create, engage, and assess (Blendspace, 2016). Thus, it can be used for any professional that can find value in combining a variety of digital content to create, engage, or assess. What also makes Blendspace unique is its alignment with the Common Core State Standards (Common Core). The Common Core are meant “to bring clear and consistent learning goals that prepare students for college, career, and

life” (Common Core State Standards, 2016). The Common Core standards are built into the template, making it even more user friendly to directly link digital materials, activities, and overall lessons to specific learning goals and educational standards.

When thinking about the applicability of ICT and web platforms like Blendspace, we can similarly work toward creating tangible connections between digital materials and social work competencies or therapeutic goals. Taking it a step further, we can develop partnerships between social work and relevant disciplines within higher education to create dynamic interdisciplinary experiences. Whether it is traditional allied professions like nursing, public health, education, and business, or more dynamic cultural allies like the arts, ethnic studies, or computer science, opportunities for synergy are extensive.

We can also develop even more nuanced topical or practice strategy objectives to build into Blendspace templates. For example, some of the more common social work topics are child welfare, cultural competence, substance abuse, and ethics. Some of the more common practice strategy topics are cognitive behavioral therapies, family focused therapies, and motivational interviewing. In addition, cutting edge innovations in social work education and practice strategies, and the yet uncharted opportunities in cultural responsiveness can be brought to life through digital information. Blendspace is flexible enough so that exciting strategies like digital storytelling are only the tip of the iceberg for new ways to create, engage, and assess via information and communication technologies.

### Conclusion

Social workers should be leaders in the field of practice, identifying innovative and client-focused treatment methodology to enhance practice effectiveness and the scope (theoretical, geographical, and cultural) of service provision. However, currently we are lagging behind other professions such as education and business, and the number of potential clients not being served is

rapidly increasing. The lack of technology-based instruction in social work practice curricula is resulting in the graduation of social workers who are inadequately prepared for the changing world and workforce. Therefore, those members of oppressed, marginalized, and underrepresented populations, which social work is ethically mandated to serve and advocate for, are not being considered in social work curricula decision-making processes.

Social workers, currently the largest group of mental health service providers, are in a prime position to make a profound influence on the nation's well-being through effective integration of technology in social work education and services (Berzin, Singer, & Chan, 2015). Integration of technology, specifically ICT, could introduce an entirely new level of flexibility for potential clients by removing many barriers to service and creating more culturally-specific and engaging experiences. However, preparing to integrate ICTs into social service delivery modalities, specifically those involving therapeutic interventions, must involve careful planning to address cultural responsiveness issues, ethical concerns, and necessary curriculum modifications. In addition, this preparation for ICT-based service delivery should include not only interdisciplinary pedagogy, specifically with education, but interdisciplinary research as well. Research findings will provide evidence of the effectiveness of ICT-based therapeutic interventions as well as an in-depth analysis of practice and workforce implications and identification of ICT-based best practices.

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