Harnessing Technology for Social Justice: Radical Approaches to Digitally Revolutionize Social Work

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No social work endeavor is worthwhile unless it achieves the goal of social justice. This chapter focuses on issues of equity and social justice in the planning and delivery of technology-mediated services (TMS). Information technology delivers important advantages, and the role of radical digital social work interventions is to guide the design and development of equitable TMS. Social workers can work with communities and populations to create nonhierarchically based, customized interventions across macro, mezzo, and micro levels of service. This chapter considers several solutions that intersect with technology-based sociotechnical system design augmented by a *cyberfeminism approach*, that is, the critical perspective that technology and virtual spaces should be used to empower and equalize to promote social justice.

CONCEPTUAL FRAMEWORKS

Before engaging in the delivery of TMS, careful consideration must be given to the way those services are designed before they are delivered. Some design considerations must address technical aspects guided by our professional values. The technical considerations can be ideally informed by sociotechnical systems theory (STS), while cyberfeminism frames social justice and equitable outcomes that form the basis for our values.

STS

STS has been used in a broad range of organizational applications over the decades (Clegg et al., 2011; Mumford, 2000; Pasmore, 1995). While a full explanation of

STS is beyond the scope of this chapter, the following illustration addresses those factors that social workers should consider when engaging in TMS. Specifically, all work with technology is situated in organizations comprising humans. In addition, while technology is ideal for managing data and facilitating communication within organizations, it is not capable of creating knowledge or instilling values. Technology can facilitate relationships, but it cannot replace them; it can convey feelings, but it cannot understand them. Technology can only serve larger human goals; it can never supplant them.

Schematically, the sociotechnical system comprises two subsystems: (1) the social subsystem and (2) the technical subsystem. The social subsystem includes the components (a) Structure and (b) People, and the technical subsystem includes the components (c) Technology and (d) Tasks. Most important to understand is that these four components must continually interact for the whole system to perform most efficiently. (For a diagram of this relationship, see https://is.theorizeit .org/wiki/Socio-technical_theory; see also Larsen & Eargle, n.d.)

For example, the *Structure* is the agency, organization(s), or interagency collaboration in which *People* work. *Technology* broadly includes everything we use to get our work done, which ranges from pen and paper to computers and the internet. Most important are the *Tasks* we perform to serve the needs of our clients. Represented thusly, no single component of the diagram is more important than the other. Conversely, the extent to which any component fails to be addressed is the extent to which the overall system will fail to achieve its goals. It is vital to understand that technology is not a replacement for humans; indeed, humans are the driver for all technology interfaces.

As such, humans can introduce radical (i.e., the opposite of how things have always been done) practice innovations. By doing so, these radical approaches will "disrupt" traditional approaches. STS must be contextualized in the larger environment. As discussed throughout all the practice applications in this text, COVID-19 has changed the environment for everyone, including how we deliver our services. To regain some control over those services, STS may help us function more efficiently to address that disruption.

Social Justice and Cyberfeminism

While social justice is a concept that most social workers have at least heard of, if not practiced, cyberfeminism might be new. The development of cyberfeminism was grounded in the perspective that sought to decouple the use of technology from traditional gender roles and constraints (Braidotti, 2003; Chatterjee, 2002; Hall, 1996; Haraway, 1990). Beyond gender roles, cyberfeminism challenges us

to examine all defined social roles from a critical perspective. In the context of digital social work, cyberfeminism calls for the breaking down of hierarchical role constraints within agencies and creation of opportunities for greater flexibility within interagency collaborations. The script of leadership becomes flipped, if you will, and collaborative decision making can become the norm.

Moreover, the deconstruction of the roles that perpetuate power and privilege is one of the hallmarks of cyberfeminism and its contribution to our understanding of how we should view its use. For example, the traditional power dynamic (i.e., role) of provider and client is one in which the provider, though offering support, dictates the mode and delivery of services. By deconstructing the power dynamics, cyberfeminism suggests the client and therapist eliminate the hierarchy and make shared decisions regarding treatment or that the client requests certain modes of service delivery that the provider can choose to provide.

Social justice in the context of technology can be understood more directly—that is, how the use of technology is constrained by one's social identity, whether that identity is grounded in one's sociodemographics (McNutt, 1998, 2018) or by one's defined social roles (see cyberfeminism). Regarding identity being grounded in one's sociodemographics, those sociodemographics are associated with technology access, affordability, and the larger societal infrastructure dictating whether one's house or neighborhood even has access to the internet. Regarding identity being defined by one's social roles, do we employ a "diverse" range of ways in which to engage our clients? Do social workers have limited access to technology based on their "role" in the organization? Are they also constrained in its use by that role?

In 2016, the United Nations General Assembly declared internet access a basic human right (Sanders & Scanlon, 2021). Yet here we are several years later, and only some progress has been made in bridging the digital divide (see chapter 3 for a definition) in Europe, Latin America, and the United States (Sieck et al., 2021; Tomczyk et al., 2019), while the rest of the world continues to lack widespread access. In addition to directly advocating on this issue, this chapter also demonstrates that digital access is a fundamental building block for engaging in social work practice. Jointly, social workers should also be able to engage in online interventions *if* evidence demonstrates their efficacy.

Analog, Digital, and Hybrid Delivery

Combining STS, cyberfeminism, and social justice should result in a more nuanced understanding of how technology can be used to facilitate and enhance social work practice. Returning to the Tasks in the STS diagram (see "Diagram/

Schematic of Theory," 2016), our profession has been dominated by an *analog* mindset when delivering services. That mindset is embodied by three criteria:

1. Services are delivered at a physical location.

2. The social worker and client are at this location.

3. The social worker and client are at this location at the same time.

If any one of these criteria is not met, then social work cannot be performed. Over the past several years, COVID-19 has caused service delivery to disrupt those criteria. We have had to fundamentally rethink and redo the provision of social work services. Conversely, not all social work practice is now performed online—that is, we are not entirely *digital*. Whether intentional or not, we engage in a *hybrid* practice. We may still meet with a client at the same time, but this meeting may take place online. We still communicate with clients, but it may be through an email or secure message. Social workers may still go to the office, or they may work from their home office. Although clients and practitioners are not sharing the same traditional analog sense of time and space, they are not necessarily divided. Digital and hybrid approaches can transcend time and physical space, and the clients and practitioners share this digital space.

Once the possibility of delivering hybrid services has been experienced by both clients and social workers, how could we go back to analog delivery again? More importantly, if we did, would we be violating social justice principles in the process? The following practice examples examine social work practice from this analog versus digital mindset mindful of the STS framework, cyberfeminism, and social justice.

CONCEPTUAL FRAMEWORKS AND THEIR SOCIAL WORK PRACTICE CONTEXTS

We commonly understand that social work practice takes place in micro-, mezzo-, and macro-level contexts. The other chapters in this book provide detailed examples of those practice modalities. This chapter, instead, seeks to achieve two objectives: (1) explain how our conceptual frameworks factor into the design of the delivery of those services and (2) provide evidence of the effectiveness of those services. Evidence-based literature contains hundreds of examples that we could have cited. Instead, we reference those publications that illustrate the application of our framework.

Micro-Level Practice

This section includes examples from telehealth (including hospital social work), telebehavioral health, crisis management, psychoeducation, and health education. Most of the research in this area has been cross-sectional studies that limit the generalizability of the findings. However, of the studies selected, the variables of most interest were those reflective of STS and social justice issues related to access.

Telehealth

Per STS, typical Tasks involved include assessment, diagnosis, treatment, and referral. Without technology, these tasks must be performed in person with one provider seeing one client at a time while they are in the same location. Data can be gathered via paper and shared if physically copied, faxed, or stored in a location where others can access it. A digital approach allows the following: online telehealth visits; communication via secure messaging; remote symptom monitoring to collect data (e.g., smart watch, smartphone apps); and asynchronous follow-ups using text, email, discussion boards, and so on. Although these tasks are possible, the question remains as to whether they are effective or efficient. Fortunately, the research literature helps to answer that question.

Much of the research literature has focused on the displacement of "in-person, human contact" (Cristofalo, 2021) when technology is used. While social workers readily acknowledge the value of these in-person interactions, we give little consideration for *hybrid relationships*, that is, in-person contact supplemented by technology-facilitated communications. Always expecting clients to meet with us in person presupposes that clients always want to meet with us in person when a phone call or email may suffice. Telehealth visits also allow greater flexibility in accessing services and increasing intervention satisfaction since clients are not asked to make multiple trips to the clinic (Cooper & Zerden, 2021). This study also found that although in-person communications at on-the-ground clinics decreased due to COVID-19, social workers increased their electronic communications with nurses and medical assistants, thereby increasing the number of clients with whom they were working.

Whether clients meet with social workers in person or not, the emphasis should always be on the clients' health outcomes. For example, in their randomized intervention, Gellis et al. (2014) found significant improvement in client problem-solving skills and self-efficacy in managing their medical care along with significantly fewer emergency department visits. Participants also reported improved access to care and a heightened sense of security. This access to care

is especially important for clients who live in rural or remote areas. Here, too, the research literature speaks to the use of technology-facilitated interventions. Cornell et al. (2021) reported data from 144 sites with a focus on rural practice settings for veterans who have limited access to U.S. Department of Veterans Affairs healthcare providers. The practice modalities included in-person and telephone along with video telehealth. While in-person encounters decreased over the study period (yet continued when medically necessary), telephone and video telehealth visits increased, resulting in an overall net increase in client encounters. Some sites also saw an increase in the number of requests for video services over telephone services.

Similar findings were reported on a positive psychology intervention for hemodialysis clients with depression (Hernandez et al., 2018). The intervention was delivered entirely online through a website the clients accessed while they were receiving dialysis. Results indicated a significant improvement in depressive symptoms with a reported effect size (Cohen's *d*) of .67 for all clients and an effect size of 1.4 for those clients with elevated depression scores on the pretest. Although client feedback included recommendations on how to improve the website interface, the intervention was well received overall. Most importantly, a benefit for the hemodialysis social workers was that it increased their capacity to deliver this intervention to clients because the content was online and did not have to be delivered in person, which left time for other tasks or follow-up on issues raised by the intervention. Other studies found a reduction in emergency department visits and an increase in primary care visits (Franceschini et al., 2021).

Training to support workers when using new technologies must be a continual administrative priority for healthcare organizations (Cornell et al., 2021; Cristofalo, 2021; Gellis et al., 2014). Because the organizational context has changed, it is, indeed, incumbent on administrators to provide the training necessary to deliver clinical interventions. In the United States, this is especially important when staff need to ensure clients that compliance with the Health Insurance Portability and Accountability Act of 1996 (also known as HIPAA) has been met (Cooper & Zerden, 2021; List et al., 2021).

Client access to technology must always be considered. However, the answer does not have to be a computer in every home with broadband access (at least not immediately). A hybrid approach of a healthcare home visitor with that technology capability coming in person to the home mitigates both of those situations (Cristofalo, 2021). Additional healthcare data would be generated and accessed by providers via telemetry (Gellis et al., 2014), or the home visitor would facilitate a virtual visit with the rest of the healthcare team during that visit (List et al., 2021).

While social workers must expect to examine issues related to efficacy, training, and access, systems theory would condition one to expect the unexpected. That is, even though our organizations are heavily influenced by our environmental context, changes in organizational practice can also influence that environment. For example, Franceschini et al. (2021) found that the shift to online services resulted in an increase in interorganizational service delivery due to all community agencies' becoming more dependent on one another to meet the increased community needs. As a result, the possibility of being able to gather broad-based data across all these agencies helped inform community needs, identify community resources (to avoid duplication), and identify advocacy opportunities where existing policies needed to be modified.

Telebehavioral Health

The Tasks associated with behavioral health include assessment, diagnosis, and treatment, with information and referral to a lesser degree. The analog components of behavioral health are well established: one provider working in person with one client (i.e., individual, group, or family) at a time in a scheduled 50-minute visit that takes place in a physical location where both are present and that necessitates client travel. Therapist–client communication only occurs during these visits. Of course, there are variations to this modality, but this form of intervention predominates behavioral health treatment.

A more digital approach to behavioral health would incorporate technology and might include online video sessions, secure email or texting communications outside of sessions, or bibliotherapy with discussion boards. A hybrid approach might include initial in-person session(s) integrated with any or all the digital techniques. The research literature with telebehavioral health is much more robust (hundreds of published articles, many of which are randomized clinical trials), and the following studies reflect those studies that illustrate pertinent aspects of STS and social justice.

The biggest difference between an analog and digital or hybrid approach is the synchronous or asynchronous component. An analog approach is entirely synchronous because it requires that the therapist and client be at the same place at the same time. A digital approach can still be synchronous when the therapist and client are still meeting at the same time, but they do not have to be in the same place. A totally asynchronous approach does not require working together at the same place and time.

Asynchronous modalities have been growing over the years as technology and the software it supports has become more ubiquitous in our lives (Chan et al.,

2018). These modes include text messaging, store-and-forward messages, asynchronous video, computerized guided therapy, mobile device momentary assessment (e.g., Google Pixel Watch, Fitbit), mobile device sensors, mobile app–based psychotherapy and psychoeducation (apps that help people track and journal or provide therapy), and computerized guided therapy containing independently completed modules that can be guided by a clinician.

The evidence on the efficacy of asynchronous or hybrid approaches is robust. In the first study of its kind, Yellowlees et al. (2021) reviewed outcomes of 160 clients randomly placed in synchronous versus asynchronous telepsychiatry services. The outcomes were similar. However, the asynchronous modality provided the following benefits: can be scaled (a provider can engage with several clients asynchronously and increase their care among more clients); can reduce bandwidth or internet access issues, thus potentially reaching more and more diverse client populations; and can be done in the client's primary language.

Additional studies have examined specific interventions addressing common issues. Fernandez et al. (2021) found that video-delivered psychotherapy (VDP) was no less efficacious than in-person per this meta-analysis. VDP is the closest analog to in-person psychotherapy. Most efficacy was found when the VDP addressed anxiety ($g = 0.99$), depression ($g = 1.29$), and PTSD ($g = 1.00$), especially when using cognitive–behavioral therapy (CBT). For example, the effect size of VDP using a CBT intervention was 1.34, noting that CBT might lend itself well to virtual delivery because it is standardized, is "less dependent on the dynamics of the client–therapist relationship," and "subtleties in the interaction might be less consequential in an intervention like CBT" (Fernandez et al., 2021, p. 10)—for example, using CBT to treat insomnia (Sweetman et al., 2021). Other systematic reviews have also found medium to large effect sizes when using CBT to treat depression (Berryhill et al., 2018).

Social Justice and Telebehavioral Health

Across all these studies and modalities (Chan et al., 2018; Fernandez et al., 2021; Yellowlees et al., 2021), STS and social justice principles become readily apparent. The interventions are time efficient (i.e., need not be scheduled for a certain time or amount of time, do not take the same amount of time as a synchronous appointment), thereby reducing costs to access. Additionally, digital services can help providers treat "hard-to-reach" clients—for example, those with PTSD, social phobia, personality disorders, and other mental health issues that can keep clients potentially homebound. Both clients and providers report wanting to use digital

services, especially via smartphones and apps, which people tend to have more than laptops or computers.

The preference for these modalities was especially striking for clients and providers who reflect diversity in terms of populations and issues for which social stigma and discrimination were prominent. One notable study examined a group of Chinese adolescents in an internet-based depression program versus control group (Ip et al., 2016). The effect size was .36, indicating the internet-based program was effective. The authors suggested benefits of internet-based interventions included better standardization, scalability, and cost-effectiveness.

While clients in many cases clearly prefer internet-based services, concerns still linger whether providers find this mode of delivery inferior to in-person delivery, especially related to the secondary gain some providers receive from analog interactions. However, those secondary gains need to be critically examined. Providers working in situations in which funding is low, staffing is sparse, and clients are spread out or difficult to reach have found that digitally based services can address all these gaps (Dearinger, 2020; Jaffe et al., 2020). Providers reported that the ability to scale their services, especially during a public health emergency, was particularly helpful for them. Digital services allowed providers to continue serving clients despite shutdowns, quarantines, or other physical barriers (Jaffe et al., 2020) that would otherwise have left remaining providers with a large burden of care. Additionally, providers noted their no-show rates improved tremendously as the barriers of space and time were eliminated (Resnick, 2020; Sklar et al., 2020). Other social work providers found that telehealth improved their rapport and relationships with clients (Glenn, 2020; Sklar et al., 2020) by encouraging practitioners to be more present and intentional with language, expressions, and affect. These are new findings during the pandemic and postpandemic. However, researchers have been noting the benefits to and satisfaction of providers engaging in telehealth since at least 1998 (Fitzmaurice, 1998; Stamm, 1998). These seminal articles also point out that telehealth enabled providers to increase their ability to see more clients, demonstrating the longevity of these themes.

The research evidence is clear that client outcomes are comparable whether services are delivered in person or online for many modalities and client issues. Clients prefer online services in many situations, and providers have reported satisfaction in delivering those services in that manner. Therefore, when decisions arise as to whether it is appropriate to deliver online interventions, then we simply need to consider this: The services need to be tailored to those served!

Crisis Management

People experiencing crises have used the telephone for decades to access help. Not surprisingly, crisis interventions and management were one of the first services to experience the benefit of delivering services online. While this review is not exhaustive, social justice issues predominate, and the use of online technology has been found to be especially helpful to reach out to underserved or stigmatized populations and those individuals who live in rural or remote areas.

Online services have been especially helpful for the LGBTQ+ population (Fish et al., 2020). One study examined the usefulness of synchronous and asynchronous text-based crisis support services. The researchers examined qualitative data from the Q Chat Space, a national, anonymous, weekly facilitated online chat-based support group program. Online services were available to LGBTQ+ youth when other resources were not due to mandated physical distancing during COVID-19. Q Chat Space participants doubled during state shutdowns. Likewise, the Trevor Project also reported a doubling of the volume in crisis services during the pandemic. The findings indicate that text-based services were more helpful to this community because of youths' concerns about their confidentiality and fear of being overheard by family they were sheltered in place with. Results also have indicated the need for these online services to support LGBTQ+ youth because of their unique challenges and needs (e.g., needing to having connections with an affirming community for the sake of their mental health).

Access issues were illustrated by a crisis line service (Lifeline Australia) in remote locations in Australia (K. Williams et al., 2021). Due to internet access issues, this service relied on basic text messaging since the Australian population has widespread access to mobile devices. Survey results found that 87.9 percent rated the program as easy or very easy to use, and 83 percent reported they would recommend the service to others. With reference to hybrid technology use, this service was found to be "not a replacement for telephone services or face-to-face counseling but may serve as a valuable initial contact for further services" (K. Williams et al., 2021, p. 33). By being able to text when in distress and receive immediate support, help-seeker outcomes can be improved, especially in the areas of reduced psychological distress, increased coping and self-care, increased sense of belonging, and reduced high-risk behaviors (e.g., suicide, self-harm, violence, substance use).

Due to the high vulnerability risks of the populations with the following circumstances, we believe all social workers should be aware of some of the better-known applications that serve these individuals:

Aspire: Domestic violence app disguised as a newsfeed to help protect survivors; provides a section that allows a person in distress to discreetly send a premade message (and, if enabled, the location of the person in distress) to trusted contacts; app also has a "quick escape" button that automatically changes the screen to news if privacy or safety becomes an immediate issue while using the app. https://www.whengeorgiasmiled.org/aspire-news-app/

Crisis Text Line: Text-based connection with trained crisis counselors available in the United States, Canada, United Kingdom, and Ireland by text (text START to 741-741) and online. https://www.crisistextline.org

Lifeline Australia: A 24-hour suicide prevention service for Australians that is accessible via phone (13 11 14), chat, text (0477 13 11 14), or website. https://www.lifeline.org.au/

NHS [National Health Service] 111: Access to urgent medical and mental healthcare by phone (111) in the United Kingdom or online; services are offered in large print, easy print, British Sign Language, audio only, or via a translator for accessibility. https://111.nhs.uk/

National Human Trafficking Hotline: U.S.-based service that reports ability to respond to clients globally; service in 200 languages with phone, webchat, and text (text BEFREE to 233733) options to help human trafficking survivors; website has a "quick exit" button that takes users to The Weather Channel (https://weather.com/) if needed. https://humantraffickinghotline.org

PFLAG: U.S.-based organization for parents, families, and allies of LGBTQ+ individuals with a repository of crisis intervention resources available for those struggling with suicide, running away from home, HIV/AIDS, domestic violence, assault, and substance use; some resources are specifically for LGBTQ+ communities; others are topic based for the general public. https://pflag.org/hotlines

Trevor Project: Provides text (text START to 678-678), phone, and webchat options and an international online community ("TrevorSpace") for LGBTQIAP+ individuals; website alerts users to a quick exit strategy for privacy or confidentiality by pressing "Escape" three times if on a computer, or, if on a mobile device, tapping three times anywhere, which will shut down the website or app and remove all Trevor Project information from the user's cache. https://www.thetrevorproject.org/get-help/

The value of these services is easily apparent. All these applications have been built with privacy and security concerns at the forefront of their design. To enhance their impact, it would be helpful to reexamine the STS Tasks domain across these practice contexts. Many individuals who experience crisis situations initially present for help-seeking in healthcare settings. Social workers in that setting should readily provide information about these apps, as appropriate, to their clients. In turn, referrals can be made to behavioral health counselors in their communities. Next, we review how technology can be used to make those referrals.

Information and Referral

Two unassuming words—"information" and "referral"—seem insignificant until we realize that no services would ever be provided if people did not have "information" about those services and some type of "referral" had not been made. Telephones have facilitated these referrals for decades, sometimes augmented by fax services. While technology has been used, it is still analog in function—that is, telephones require that people be present at the same time. Faxes are also images of information requiring all the pertinent information on that paper to be recorded (or keystroked) again for it to be used by the receiving party in their own information systems. A more digital approach would be e-referrals that do not require synchronous communication (although not automatically precluded) and the transmission of information in a digital format that does not need to be keystroked again (Fitch, 2009). In addition, the information and referral Task intersects numerous types of professions, practice fields, and geographical and organizational contexts (Darracott et al., 2019) and has ramifications beyond social work.

Several studies have examined these factors across a range of populations and issues: individuals with dementia and their caregivers, including those living in rural and remote areas (Longstreth et al., 2020); foster youth in kinship care (Rushovich et al., 2017); an early intervention program for at-risk children (Dunst & Bruder, 2002); mental health services for elder LGBTQ+ individuals (Marmo et al., 2021); and smoking cessation (Kegler et al., 2015; Mullen et al., 2016; R. S. Williams et al., 2016). A scoping review of healthcare systems from around the world has shown effectiveness in the use of these technologies with positive benefits in terms of the quantity and quality of referrals along with improved workflow efficiency and productivity (Azamar-Alonso et al., 2019). Specific to Tasks, e-referrals provide the means for any authorized person in the system to be able to view the content of the referral, its status in real time, and the delivery of more timely services. At the community level, practitioners are able to participate more collaboratively with

healthcare personnel in care and service coordination, thereby improving overall care planning (Warren et al., 2011).

In contrast to the successful adoption of e-referrals in the healthcare sector, child welfare continues to experience an uneven rollout of this technology. For example, and pertinent to STS, Los Angeles County experienced barriers associated with its technological infrastructure and other workload demands (Dellor et al., 2015). Specifically, not all workers had access to the internet or workstations where meetings were taking place with clients. Regarding workload demands, workers did not believe they could take the time to learn the new system due to the need to respond to emergency cases.

Both problems could be solved through administrative remedies by providing tablets with Wi-Fi access and the time for training on the new system, especially if making timely referrals might reduce future crisis situations. Perhaps building on lessons learned from prior projects, such as Dellor et al.'s (2015), a new project in Ohio is seeking to establish a cross-system intervention involving child welfare agencies and substance use treatment organizations (Bunger et al., 2020). A key component of this rural-based project is the ability to make e-referrals. Specific to barriers encountered in prior research, this project places interorganizational policies related to cross-system collaboration at the forefront. E-referrals, performed by specifically trained personnel, will occur in one system to be distributed to the appropriate agencies (instead of building separate referral systems for each agency). Addressing the STS domains of the policy context (i.e., the Structure of the interorganizational context), worker training, facilitation of tasks, and easy-to-use technology indicate a more likely than not successful outcome, with those results forthcoming.

When issues with e-referrals do arise, rarely is technology the primary problem. For example, in the Dellor et al. (2015) qualitative study, issues with the electronic health record were not mentioned (as they were in Hysong et al., 2011, for example). Instead, all issues could be addressed through administrative remedies—specifically, the need for updated policies, well-defined roles, clarified procedures and protocols, and sufficient personnel. Interestingly, regarding sufficient staffing, the e-referrals system shed light on staffing issues unbeknownst when working with paper-only systems. Conversely, settings that did have sufficient personnel noted improvements in kept follow-up appointments.

As described by Ramanadhan et al. (2020), direct care providers, such as health aides and case managers, are typically at capacity with meeting declared needs, and they have little ability to engage in prevention efforts that they know could decrease the demand for healthcare services. The ideal would be a

community–clinical partnership that could address this objective. Ramanadhan and colleagues used social network analysis to explore the factors that facilitated such a partnership along with the barriers that were encountered. Unsurprisingly, referrals, both paper and electronic, were the most significant contributor to the partnership. Pertinent to this chapter were the STS components—specifically, the ability of technology to facilitate the delivery of community services in a timely and efficient manner. As with other studies, the barriers were unrelated to technology. Rather, they centered on training and support, development of new protocols, and sufficient staffing to deliver the services (a point to which we return to later in this chapter). Related to the protocols, concerning was the experience of resistance to the evolution of service delivery. As the community partners became more involved in identifying the need for health services, the very nature of how services needed to be delivered was going to have to change. Confidentiality and privacy issues related to client information that crossed sectors among healthcare providers, community partners, schools, and so forth were challenged because the new amount of information that was being shared had never been previously experienced.

Noteworthy is that in almost all the studies cited, social justice issues were paramount: The service was provided to an underserved or stigmatized population that had difficulty accessing services either due to location or other transportation barriers. Technology also shed light on workforce issues—specifically, role expectations not previously examined and an issue of central focus in cyberfeminism.

Psychoeducation and Health Education

Psychoeducation and health education is the final micro-level practice context that may rise in prominence in coming years. When approached from an analog perspective, psychoeducation and health education can be rather time consuming for the provider because these services present several barriers for the participant in terms of time and place constraints. A more digital or hybrid approach addresses both constraints.

Online psychoeducation with parent management training is a quintessential component of case management for many at-risk families. Using an online psychoeducation group with asynchronous peer support discussion groups, Wilkerson et al. (2020) explored the impact of using both on parenting and oppositional defiant disorder (ODD). The effect size was significant from pretest to posttest for an increase in parental self-agency and a decrease in the likelihood of ODD. Use of asynchronous elements can increase results and encourage more participation if synchronous services are a barrier—for example, reducing stigma

barriers by allowing participants to remain anonymous, reducing relationship barriers through the noncoercive nature of participation, and reducing programmatic barriers through an asynchronous online platform that could transcend logistical barriers.

Similarly, web-based psychoeducation was found to be effective with people who experience pathological dissociation (Fung et al., 2020). The small to moderate effect size of the Web-based psychoeducation group was found to decrease comorbid symptoms ($d = .31$) and result in an increase in clinical recovery ($d = .25$). However, there was no significant decrease in dissociative symptoms (effect size $d = .09$). Pertinent to STS, clients could access services online that might not be in their communities, and these online services were found to be cost effective by eliminating or reducing travel costs. The asynchronous delivery meant that more people could be reached and in a timelier manner.

Mezzo-Level Practice: Community Development and Community Organizing

Much of what has already been discussed clearly interfaces with mezzo-level social work. Indeed, most of the articles cited referred to community prevention, collaboration work, interorganizational task forces, and so on. Instead of reiterating those uses in this section, this discussion focuses on the transformative aspects of technology on social work practice at the mezzo level.

One of the original pioneers of social work technology, Walter LaMendola has examined its use over the decades (LaMendola, 1985, 2010, 2019; see also VanDeMark et al., 2010). Specific to mezzo-level work, he found that technology interventions can incorporate different senses of presence, maximize flow, evoke empathy, and increase engagement (LaMendola, 2019). Technology does not have to be a lifeless, cold interface for human interaction. It can enhance human relationality, which is at the core of community development work. By circumnavigating the constraints of time and place, it can be an ideal tool to create human networks that are diverse, disruptive, and persistent. These new practice roles and contexts are the hallmarks of cyberfeminism and portend what some may consider radical social work, a theme to which we return in the conclusion to this chapter.

Perhaps unconstrained by historical modes of practice, social work students recently had to radically adapt to new educational modalities considering COVID-19 restrictions. Nowhere was this impact felt more urgently than in our field education classes. Fortunately, students, together with intrepid instructors, found ways to acquire their practice competencies while still meeting the needs

presented in their communities. One such project found students engaged in community development work to address a community-identified need (domestic violence) through meetings and the development of a guide (Davey et al., 2021).

Social media continues to grow in importance as a digital organizing tool (Lee, 2020). Although "community" organizing is constrained by geography, digital organizing allows social workers to organize around issues. Lee (2020) discussed vicarious trauma for macro-level social workers due to exposure to negativity posted on social media, news, and so on. Lee also pointed out that internet technology can be used for community development, such as awareness raising of social issues, community building, activism, and organizing.

Macro-Level Practice

John McNutt has been the longest-running proponent of the use of technology to achieve the goals of equitable social policy. Early on, as the internet began to enter everyday life, McNutt quickly surmised that a digital divide would result and separate those in poverty from the benefits of this technology (McNutt, 1996, 1998). He encouraged social workers to be actively involved in providing education and training on how to use the internet along with providing the means to access technology and the internet. More recently, he has demonstrated how technology can be used to perform all types of macro practice: advocacy, collaboration, citizen empowerment, social justice via Twitter, support of the work of community action agencies, and use of social media for child advocacy, among many other practice illustrations (McNutt, 2018). Cases for the use of technology to achieve macro goals have demonstrated the use of blogs to achieve social justice, mobile apps to access government benefits, and Twitter to facilitate macro communities of practice (Goldkind et al., 2018).

Detailed examples for these practice areas are beyond the scope of this chapter; however, we highlight two notable applications. The first example involves the use of technology to perform advocacy associated with domestic violence. One of the biggest assets of using technology to perform domestic violence work is that it is *spaceless*—that is, geography does not constrain the advocate from performing their work or keep clients—especially those who live in rural or remote areas—from accessing services privately and confidentially (Harris et al., 2020). Harris and colleagues described their collaborative that brought together three Australian agencies: (1) the Women's Services Network, (2) Domestic Violence Resource Centre Victoria, and (3) Women's Legal Service of New South Wales. True to many components of a hybrid approach, the training and services were offered online and in person, depending on the user's situation and needs. Legal

policies were updated or revised to accommodate online services, and workers were retrained to use the technology. Most importantly, an app was developed to help survivors collect and store evidence necessary for protection orders and other legal proceedings. Harris discussed broad advocacy goals that can be achieved via Twitter—for instance, #WhyIStayed and #WhyILeft, both of which have had a profound impact on the narratives we associate with domestic violence.

The second example, from Spain, provides empirical evidence on the use of Facebook to support social networking, both in person and online (Castillo de Mesa et al., 2018). As found in studies from other professions, the online world is not a substitute for the in-person world in terms of power and reputation (i.e., online interactions cannot convey power and reputation in the same way face-to-face relationships do). On the other hand, online connections have made for many more opportunities to network and enhance social capital compared with in-person relationships alone. In essence, the ability to network and collaborate when time and distance are not barriers is greatly facilitated through the use of online social networking. Many more case studies on how technology can be used to facilitate macro practice can be found in recent textbooks, such as *Teaching Social Work with Digital Technology* (Hitchcock et al., 2019) and *Digital Social Work: Tools for Practice with Individuals, Organizations, and Communities* (Goldkind et al., 2018).

PRACTICE IMPLICATIONS

Social Justice

As stated at the beginning of this chapter, no social work endeavor is worthwhile unless it achieves the goal of social justice. As such, none of these technology-facilitated or evidence-based practices are possible without internet access for the clients we seek to serve. Indeed, the very people who lack adequate internet access (e.g., low-income households, racial and ethnic minorities, those with lower levels of education, rural/tribal communities) are the primary populations served by social workers (Sanders & Scanlon, 2021). Some U.S. states are taking concrete steps to address this issue, as is illustrated by California's Internet for All Now Act, originally passed in 2017 and signed into law in July 2021. Funding in the amount of $6 billion (about $18 per person in the United States) was made available to leverage private–public partnerships to bring broadband access to these very populations. To find similar initiatives, social workers should consider collaborating with local and national organizing groups (see the National Digital Inclusion Alliance website, https://www.digitalinclusion.org/).
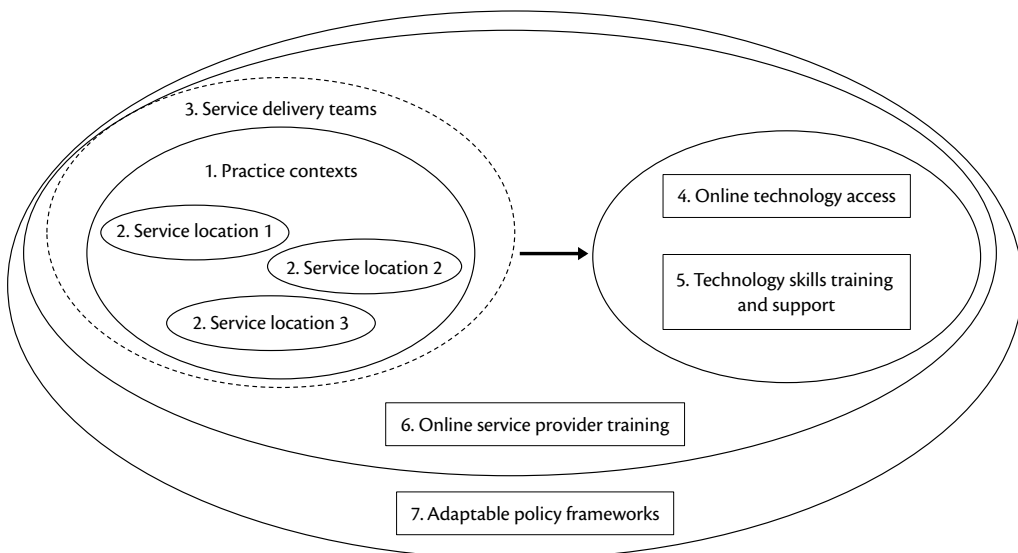
STS

The practice implications discussed thus far are fully in line with the tenets of STS illustrated in Figure 1.1.

As articulated by Pasmore (1995), these practice implications would include the following:

- The practice context affects technology use so that this use cannot be understood divorced from the practice setting. The converse of this tenet is also worth noting: Technology cannot be haphazardly transferred among practice settings if it does not fit the use for which it was intended.

- Noting that the need for "fit" is too paramount and as a reflection of the diverse practice settings in which social work takes place, the resulting complexity dictates that "top–down" hierarchical control is not possible. Control over the design of technology must be driven locally by managers who oversee those domains with input from the end users. The resulting organizational structure should be more "democratic" or pluralistic to meet both the end user's and client's needs.

- The corollary to this tenet then becomes obvious: "Teams are a viable basic building block for organizational design in many instances" (Pasmore, 1995, p. 16). Such an assertion should be obvious to social workers who practice in emerging or complex situations. Interdisciplinary teams are the go-to Structure for meeting difficult to achieve objectives.

Figure 1.1: Illustration of STS Tenets

- Likewise, any technology designed to serve the needs of those teams should be flexible and adaptable beyond the scope of any one agency.

- Being adaptable requires learning new skills that may lead to new types of positions being created.

The COVID-19 pandemic that emerged in 2020 required numerous adaptations to the service delivery system, with many services and programming moving to virtual delivery. In retrospect, many of the adaptations that were spurred on by the pandemic should have occurred much sooner, such as the delivery of online therapy. However, organizations' penchant to maintain the status quo prevented such an adaptation, even though it is now clear that doing so before the pandemic would have made the pandemic transition more seamless. Anticipating such, Pasmore (1995) went on:

- Any such change also requires evolving changes in the support systems that make such a change sustainable. As we previously discussed, service provider training in the delivery of services has to be matched by the provision of changes in broadband access along with security or privacy enhancements to the technology used.

- Many COVID-19 innovations occurred before policy was even written, demonstrating that meeting client needs is not entirely dependent on "hierarchical arrangements being in place" (Pasmore, 1995, p. 16) before the innovation occurs.

- Most importantly, "organizations must develop evolutionary competence, which permits design arrangements to change as the system matures" (Pasmore, 1995, p. 16). Simply put, adherence to these STS principles means that social workers and the agencies in which they are employed must evolve as the social environment in which human behavior occurs evolves and develops. Having the technology tools necessary to fit the Tasks in those new contexts needs to be designed by the users of those tools, and social workers are best situated to provide input on those designs.

As mentioned in Ramanadhan et al. (2020), funding for prevention services can be problematic if they are not directly linked to "billable hours," the lifeblood for many organizations. However, due to COVID-19, Medicare, Medicaid, and many commercial providers recognized virtual visits as billable hours, resulting in increased billings (Cooper & Zerden, 2021). Whether alternative funding strategies become more commonplace (e.g., medical care homes, value-based healthcare), it is most important to remember that it was the use of technology that shed light on what

could be achieved at the interorganizational or community level. Furthermore, practicing across state or jurisdictional boundaries is not necessarily prohibited. Specific steps on how to do so can be found in Barsky (2017).

Truly communicating and collaborating across practice sectors through integrating data can lead to new theoretical insights, practice innovations, policy redesign, and research initiatives. Rarely are technology issues the roadblock to serving clients during these demanding times when virtual and hybrid modalities are in clear demand. Instead, practitioners are oftentimes confronted by policy barriers that preclude collaboration via the sharing of information (Franceschini et al., 2021; Ramanadhan et al., 2020). Either through not understanding how data can be encrypted and protected or a blind allegiance to how things have always been done, today's leaders and administrators should instead be obligated to stay ahead of the curve, listen to practitioners, and provide them the permission they need via policies and procedures to get the job done. Specific steps on how agencies should approach their use technology should include policies on information access, security and encryption, procedures for information breaches, the use of social media, and information system backups (Barsky, 2017).

CONCLUSION

If one were to take all these radical approaches together, thereby disrupting traditional social work practice, by definition, one could assert that the practice of social work would be "revolutionized" with the goal of breaking down practice structures into service delivery that is more client centered and context sensitive. By deconstructing hierarchical roles and power structures, social work services can be provided from a place of equity and representation. This breaking down (but not throwing away) and recontextualizing of social work practice, the roles whereby individuals engage in such practice, and the policies by which they operate must be imperative for social work, moving forward. As noted by López Peláez (2018):

> Changing realities mean social work must assess and diagnose problems and carry out interventions in a different way. Indeed, the advent of the internet and social media has revolutionized the way people communicate and social work users should recognize the fact that the use of verbal and written communication has radically changed their jobs. (pp. 814–815)

To wit, perhaps it is time for a new job title: cyberfeminist social worker.

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