

## Information Communication Technology and the Social Worker-Client Relationship: Lessons from Communication Theory

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**Abstract:** *A core value in social work is the importance of the worker-client relationship. Communication is a key factor in this relationship. The pandemic, marked by a dramatic, rapid increase in communication through information communication technology (ICT), has underscored both challenges and benefits for the worker-client relationship. Informed by communication theories, this paper provides a conceptual framework for examining ICT interactions between workers and clients at the generalist practice level. The review revealed four challenges (e.g., more permeable worker-client boundaries) and five benefits (e.g., increased opportunities for social presence). Factors to be considered in guiding tool selection are: (1) communication medium “bandwidth”, (2) mutual directionality, (3) privacy and confidentiality, (4) message formality, and (5) complexity of message content. Implications for practice, education, and research emerged from this framework. For instance, increased methods of communication via technology can enhance social workers’ social presence in relating to clients. However, social workers must know how and when to use which tools. Finally, evidence is needed regarding how ICT use affects the worker-client relationship. Moving forward, we recommend applying communication theories to guide research on the impact of ICT on the worker-client relationship with the goal of establishing best practices for ICT use.*

**Keywords:** *Communication; generalist practice; pandemic; social worker-client relationship; technology*

Social work is a relationship-based profession. The importance of the human relationship is a core value of the profession (Murray, 2021; National Association of Social Workers, 2017). Social workers seek to build and maintain relationships with clients as partners in the helping process. This relationship is critical in providing a sense of connection and serving as the “communication bridge” (Kadushin & Kadushin, 1997) or vehicle through which clients and social workers develop the client’s plan of change. Clients seek relationships with social workers to help them confront and work through difficult issues (Bryan et al., 2016). The social worker-client relationship provides the foundation for successful outcomes and, in many cases, is the most important aspect of the change process (Falkenstrom et al., 2014; Rollins, 2020). As Trevithick (2012) observes, “The quality of the interaction and the trust and understanding that are held within the relationship can act as a vital thread toward achieving results” (p. 13).

An important feature of the social worker-client relationship is the social worker’s ability to communicate. Social workers’ primary responsibilities and activities involve

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communication in some form or another. Communication is a foundational skill in engaging, building, and maintaining the relationship at the generalist practice level and is the basis of all client-based interactions throughout the change process.

Communication can be categorized into three types—verbal, non-verbal, and fixed format (e.g., text, images). Verbal communication involves transmitting information orally via words. In this context, listening is an important component of verbal communication. Non-verbal communication is the process of conveying messages through body language such as facial expressions, posture, hand gestures, eye contact, and voice tone. This can be more subtle than verbal communication. Since culture and context are crucial in understanding non-verbal messages, they can be easily misinterpreted. Fixed format communication involves information exchange in a way that creates an artifact and may include text or images. While verbal communication is immediate, communication in fixed format often involves a time delay in sending and receiving messages. Thus, fixed format communication can be considered more formal than verbal communication, partly because fixed format exchanges can become permanent records.

The 2020 pandemic completely transformed how social workers and clients communicated with one another (Conrad & Magsamen-Conrad, 2022). Due to the need for physical distancing, new modes of communication as well as different ways to use existing communication tools became paramount, with a focus on the use of electronic forms of communication (Funk, 2021; Goldberg et al., 2021). This communication process is referred to as electronically-mediated communication and is defined as:

....any type of communication that occurs between two or more people and is made possible through the use of electronic devices, such as (cell) phones, pagers, computers, etc. It follows that electronically mediated interpersonal communication is what results when the same devices are utilized in creating and maintaining an interpersonal relationship. (Pästae, 2016, p. 178)

Rather than in-person and paper-based modes of message exchange, electronically-mediated communication occurs via the use of information communication technology (ICT) tools (i.e., email, text messaging, social media, and video conferencing) through the Internet. These tools provide opportunities for verbal, non-verbal, and fixed format (e.g., text-based, photos) exchange between social workers and clients in both real-time (i.e., synchronous) and delayed (i.e., asynchronous) processes. Given the importance of communication in the social worker-client relationship, particularly during the pandemic, understanding how electronically-mediated communication via the use of ICTs has affected this relationship is paramount.

The use of ICTs presents challenges in the communication process between social workers and clients. For instance, some forms of electronically-mediated communication (e.g., email) lack non-verbal cues to help with monitoring the mutual understanding of the exchanges. This can lead to misinterpretation, which, if left uncorrected, can harm the developing relationship (Mishna et al., 2012). Further, the “24/7” context within which electronic communication occurs as well as the ubiquitous nature of social media presents an ethical dilemma about professional boundaries between social workers and clients (Reamer, 2015). Another ethical dilemma faced by social workers is manifested in the

tension between agency expectations about use of technology and “good practice.” For instance, the use of certain types of technology (e.g., email or text messaging) may hinder information gathering and interfere with rapport-building during the assessment phase. Yet, social workers are increasingly expected to incorporate ICT tools to complete assessments.

Electronically-mediated communication also offers opportunities to enhance the worker-client relationship (e.g., Dienger, 2019). The use of ICT can strengthen the relationship (Mishna et al., 2012) by serving as a vehicle for connection in new and different ways (e.g., text messaging) and providing opportunities for more frequent interactions (Mishna et al., 2014). Some electronic tools (e.g., text messaging) may provide more efficient and effective ways to communicate by increasing the availability, timing, and extent of worker-client interactions (Berzin et al., 2015; Nesmith, 2018). Further, the impact of ICT use on relationship boundaries can prompt a re-conceptualization of the role of the social worker as “builder” or “facilitator” of multifaceted service structures in a virtual environment, thus expanding networks of support for clients who are often isolated (Berzin et al., 2015). Finally, because ICT has become so ubiquitous in society, social workers have a professional obligation to build their ICT skills in order to work successfully within this dimension of the client’s environment (Hitchcock et al., 2019). What impact is the pandemic having on these opportunities?

In this paper, we propose a conceptual framework for conducting theoretically-informed investigations that ICT presents to the social worker-client relationship within a generalist practice context. Our inquiry includes a review of emerging knowledge about ICT interactions between social workers and clients during the pandemic. While others have examined the therapist-client relationship via e-therapy (e.g., Markowitz et al., 2021), our interest is on foundational communication skills in the relationship between social workers and clients via ICT. First, we present theoretical support for relationship development in an online environment via Social Information Processing (SIP) Theory (Walther, 1992). We then examine research on the benefits and challenges of electronically-mediated communication on social worker-client relationships, including studies conducted during the pandemic. Third, we consider five keys factors—communication medium, mutual directionality, privacy and confidentiality, formality, and information complexity—to guide a critical evaluation and selection of particular tools for particular purposes. The paper concludes with a presentation of the implications for social work practice, education, and research.

### **The Social Work Relationship in the Digital Age**

Without question, particularly during the pandemic, electronically-mediated communication has fundamentally altered the interactional aspects of relationships in social work. This transformation presents challenges and benefits to the worker-client relationship. To more fully understand its implications, examining the theoretical foundation of relationship development in an online environment is useful. In this section, we review theory that supports electronically-mediated relationship development, identify the basic features of the social worker-client relationship at the generalist level, and then

examine current knowledge about the challenges and benefits of ICT use on the social work relationship.

### **Electronically-Mediated Relationships: A Social Information Processing Perspective**

There is theoretical support for relationship development in an online environment. One of the most well-known theories in this regard is the Social Information Processing (SIP) Theory. This theory was developed by Walther in 1992 to explain how relationships develop via computer-mediated communication (CMC). At the time, the prevailing belief was that CMC impedes the development of relationships, as posited by cues-filtered-out theories (e.g., Media Richness Theory [Daft & Lengel, 1984]; Social Presence Theory [Short et al., 1976]). This idea was based on the premise that the lack of access to nonverbal cues in CMC served as a barrier to relationship development.

Walther (1992) refuted this premise and posited that people can develop relationships in an online environment. His argument was based on two factors. First, conclusions about cues-filtered-out theories were based on cross-sectional studies that did not account for the development of social presence, social context, and relational qualities over time. Also, cues-filtered-out research did not recognize the adaptation processes engaged in by CMC users to make up for the lack of non-verbal cues in online communication.

Social Information Processing Theory is based on two major assumptions. First, while CMC lacks the nonverbal cues that accompany in-person interactions, the notion that this impedes relationship development is rejected. Walther (1992) posits that CMC users are motivated to develop online relationships, just as they are in in-person interactions. As a result, CMC users adapt to and use tools that are available in the online environment—language and interaction frequency and timing—to create relationships. The second assumption is that, due to the lack of nonverbal cues in an online environment, it takes longer to develop relationships that are similar to in-person relationships. In essence, CMC users get less information than what is available in in-person interactions and thus find ways to compensate for this difference.

Support for the SIP Theory is strong and wide-ranging (e.g., Sumner & Ramirez, 2017). In fact, in one study, researchers found that people shared more personal information in an on-line environment compared to face-to-face interactions (Tidwell & Walther, 2002). Thus, as Helton (2003) suggests, given the evidence presented by Walther and others about the ability to develop online relationships that are similar to in-person relationships, a reasonable conclusion is that a worker-client bond is entirely possible in the virtual environment.

### **Basic Features of the Social Worker-Client Relationship at the Generalist Practice Level**

The relationship between social workers and their clients is professional and exists solely to attain client-based outcomes. Thus, some features vary depending on the needs of particular clients at any given point during the helping process (Proctor, 1982).

Nonetheless, Davidson (2005) identifies the following as basic features that are generally present in most social worker-client relationships at the generalist practice level:

- The relationship is based on the client’s needs, not those of the social worker. Its purpose is to promote positive change in the client.
- The relationship is based on a power imbalance due to the social worker’s authority, knowledge, influence, and access to privileged information about the client. Also, the social worker is remunerated to provide services.
- Because the focus is on achieving client outcomes, the relationship is time-limited (p. 529)
- The social worker is responsible for establishing and maintaining professional boundaries, regardless of the client’s boundaries.

**Challenges to the Relationship**

Information communication technology brings with it many challenges to the worker-client relationship. Four major challenges are presented in Table 1 and are described in detail below.

Table 1. *ICT and the Social Worker-Client Relationship: Challenges, Benefits, and Selection Factors*

<b>Challenges</b>	<b>Benefits</b>	<b>Selection Factors</b>
Worker-client boundaries	<ul style="list-style-type: none"> <li>• Increased methods of communication</li> </ul>	<ul style="list-style-type: none"> <li>• Communication medium bandwidth</li> </ul>
Technological competence and digital literacy	<ul style="list-style-type: none"> <li>• Ease and efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Mutual directionality</li> </ul>
Use of ICT for surveillance	<ul style="list-style-type: none"> <li>• Increased opportunities for social presence</li> </ul>	<ul style="list-style-type: none"> <li>• Confidentiality and privacy</li> </ul>
Communication misunderstandings in messaging	<ul style="list-style-type: none"> <li>• Fixed record of communication</li> <li>• Responsiveness to client preferences</li> </ul>	<ul style="list-style-type: none"> <li>• Formality of the interchange</li> <li>• Complexity of the message content</li> </ul>

**Boundaries**

One of the most pressing challenges in CMC is the impact of ICT use on the professional boundaries of the worker-client relationship concerning how workers can navigate this in a way that sustains the relationship. The relationship between the social worker and the client is defined by boundaries. Establishing and managing clear professional boundaries with clients is a basic social work skill (Trevithick, 2012). Professional boundaries are the limits or parameters within which the worker and the client interact with one another. The intention is to establish and maintain roles and interactional patterns within the relationship that will meet the client’s needs. These boundaries are often key to successful client outcomes.

Boundary issues occur when the worker-client relationship expands beyond its purpose of facilitating client change, resulting in dual or multiple relationships between the worker

and client (e.g., friend, teacher; Reamer, 2003). Dual or multiple relationships become a conflict of interest for the social worker. Regardless of the type of relationship that evolves, the power differential between the worker and the client remains. Interactions outside of the professional relationship can compromise the client's interests (Kagle & Giebelhausen, 1994).

The online environment can present challenges to worker-client boundaries beyond what has been traditionally understood. Lines of communication are more permeable in an online environment, and clear expectations about availability, timing, and intensity of professional interactions in this virtual world have not been settled. These permeable boundaries can lead to what Davidson (2005) calls "professional boundary grey zones" in which "boundaries with clients can be difficult to identify, yet easy to cross" (p. 511). Reamer (2015) identifies several dilemmas that social workers may confront related to boundaries in an online environment. Communication via email, text messaging, or other venues outside of normal business hours may reduce the perception of the professional nature of the relationship and become confusing for the client. Requests from clients to be social network "friends" can also lead to boundary blur about the professional nature of the relationship. Finally, for those social workers who maintain a personal social networking site, clients can learn personal information about the social worker which may complicate professional interactions.

As reported by Misha and colleagues (2020), the pandemic exacerbated the worker-client boundary issues in the online environment. For instance, with the inability to see clients in person due to lockdowns, workers were immediately confronted with two competing ethical issues on how to continue providing services (Barsky, 2020). On the one hand, social workers are to maintain professional boundaries; on the other hand, social workers are not to abandon clients in need. Further complicating this tension is the NASW core value of service. Workers reported increased difficulties in retaining pre-COVID boundaries with clients (Mishna et al., 2020). Examples include the use of electronic communication with clients via email or text messaging outside of traditional work hours and/or providing personal cell numbers to clients. Workers also reported that, in response, some clients had difficulty understanding workers' not responding 24/7.

### ***Technological Competence and Digital Literacy***

Professional competence is a core value of the social work profession. In this context, it is examined across two dimensions—technological competence and digital literacy. Technological competence involves developing and maintaining skills in the use of various electronic tools (Perron et al., 2010). The types of electronic tools entering the market are growing rapidly. A concerted effort is needed to stay informed about new tools that become available. Workers are obligated to develop and maintain the knowledge and skills required to claim technological competence as it interfaces with the social work relationship.

With the pandemic came challenges in meeting the ethical standard of professional competence related to ICT use (Barsky, 2020). Due to the inability to see clients in person, workers were immediately confronted with the need to figure out different ways to maintain contact so as not to abandon clients and adhere to the professional value of

service. Online communication tools became the obvious choice. However, some workers were not trained in the use of tools such as video conferencing. This created an ethical dilemma that had to be resolved quickly. At the agency level, the availability of online tools became a resource issue for managers to ensure that these tools were available to workers. Also, managers were faced with developing policies on the acceptable use of these tools. Finally, workers had to ensure that clients had access to these tools (Funk, 2021).

Beyond simply knowing how to use electronic tools, Perron and colleagues (2010) recommend that social workers become digitally literate. The American Library Association Digital Literacy Task Force's (as cited by Heitin, 2016) defines digital literacy as "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both *cognitive* [emphasis added] and technical skills" (para. 4). Social workers must not only know how to use electronic tools, but also be able to critically assess which tools to use under what circumstances in order to communicate most effectively, particularly as it affects the worker-client relationship.

Digital literacy has implications at the macro level in terms of worker cultural competence. Given that ICT has become a central part of the culture, worker cultural competence must include adapting to changes in cultural norms brought about in response to the digital age (Smyth, 2010). As such, the call to cultural competence in the digital age goes beyond just knowing how to use the tools. As Hitchcock and colleagues (2019) observe:

One cannot be considered culturally competent without understanding the digital environment. Social workers must become digitally literate to stay culturally competent; it is vital that social workers understand digital technologies so that clients' environments can also be understood. And digital technologies need to be understood deeply enough that social workers can help clients navigate the challenges in their worlds. (p. 33)

### ***Surveillance***

A third challenge related to the use of ICT on the social worker-client relationship is the increased surveillance capabilities that social media-related technology offers. Tools such as Facebook can be used by social workers to search for clients and vice versa. In this case, transparency is critical in terms of disclosure to clients about both the use of social media for information gathering and how this information will be used. Further, the use of social media for surveillance highlights the tension between care and control as a dimension of the power imbalance in the worker-client relationship (Byrne et al., 2019).

### ***Message Misunderstanding***

A final challenge of ICT use in relation to the worker-client relationship is the potential damage that message misunderstandings can cause. As Reder and Duncan (2003) observe, "Monitoring of mutual understanding is more readily accomplished during direct conversations. Indirect and non-face-to-face communications [e.g., text messaging] introduce additional complexities" (p. 88). Electronic communication, particularly with

asynchronous tools, may result in lack of clarity about the message's intent and misinterpretation of the intended meaning (Byrne & Kirwan, 2019). This can harm the relationship, especially early on. However, as ICT-based exchanges increase over time, misinterpretation challenges are likely to diminish due to knowledge-building experiences between the communication partners (Carlson & Zmud, 1999).

### **Benefits to the Relationship**

Clearly, the use of ICT presents challenges to the social worker-client relationship. However, there are also benefits (see Table 1). Research on the impact of technology in interpersonal relationships suggests that the use of ICT can enhance interactions (Tidwell & Walther, 2002) through different methods of interchange (Tregeagle & Darcy, 2008). While more needs to be done to strengthen this evidence, several benefits to the worker-client relationship can be experienced.

#### ***Methods of Communication***

One major benefit of electronic communication as it relates to the worker-client relationship is simply the number of additional ways to communicate beyond in-person and telephone methods. With electronic tools comes the opportunity for increased communication in new ways. In their study about client views on relationship-based social work, Simpson (2017) reported that participant clients believed that social workers need to use a variety of communication methods, including ICT.

During the pandemic, ICT options were expanded and new ICT practices (e.g., use of personal cellphones for phone calls or texting; video-conferencing; formal use of email) were quickly adopted so that workers could stay in contact with clients (Markowitz et al., 2021; Mishna et al., 2020). For instance, in one study, workers reported replacing in-person contact with conferencing, phone work, email, and text messaging as mechanisms for service provision (Mishna et al., 2020). Having more methods of communication aligns with the core social work value of maintaining the best interests of clients as a priority and not abandoning them in their time of need.

#### ***Ease and Efficiency***

Some social workers report increased ease and efficiency in communicating electronically (Byrne & Kirwan, 2019). Using one's mobile phone to send a text message or email, or to make a call while out of the office is easier and more time-efficient (Rettie, 2008). In particular, the use of text messaging may result in more immediate responses compared to email or phone messages (Berzin et al., 2015). This sentiment was recently echoed by social workers who adopted ICTs during the pandemic (Cook & Zschomler, 2020). Quicker response times, especially from workers to clients, may help to build a sense of availability and trust in the relationship.



### ***Social Presence***

Building on the benefits of quicker response times, other features of some ICT tools (particularly text messaging) can result in (1) increased availability of both worker and client to one another (Mishna et al., 2014), (2) increased frequency of communication (Berzin et al., 2015), and (3) increased flow of interactions (Byrne & Kirwan, 2019). These features can serve to strengthen the sense of connection, referred to as “social presence” in online interactions (e.g., LaMendola, 2010). Social presence is defined as “the degree to which a person is perceived to be a ‘real person’ in their computer-mediated communication or virtual environments” (Bickle et al., 2019, p. 383; Gunawardena, 1995, p. 151). Social presence as a theory was developed before the Internet, based on communication methods available at the time (Short et al., 1976). Scholars have since used this theory to untangle the nuances of interpersonal relationships in an online environment (e.g., Rettie, 2008). Evidence suggests that social presence, or the sense of connection in electronically-mediated communication, can strengthen relationships (Rettie, 2008), including the worker-client relationship (Simpson, 2017).

The sense of connection, or social presence, via ICT has been reported during the pandemic. Cook and Zschomler (2020, p. 403) found that workers engaged in what they referred to as the “little and often” approach—frequent electronic contact of short duration. The workers reported that families were amenable to this approach. In fact, workers noted an enhanced closeness in relationships with families due to workers’ increased knowledge of families’ day-to-day lives. According to Mishna et al. (2020), the use of video conferencing in particular enhanced feelings of intimacy due to being able to see each other’s homes. Mitchell (2020) reported similar findings and suggested that this may reflect a shift in the power balance between workers and clients due to workers being in their own homes rather than in an office.

### ***Fixed Format***

Another benefit of some forms of ICT (e.g., email, text messaging) is that they provide a fixed record of communication between workers and clients in a way that can be easily accessed and reviewed after the exchange. Fixed formats allow both clients and workers to revisit the text and more fully reflect upon the messages rather than rely on the memory of a verbal interaction. This can reinforce and enhance feelings of support and social presence for the client. Further, some evidence indicates that fixed format messages may result in increased client openness to address issues that are difficult to discuss in person. Clients seem to have an easier time sharing difficult information via text or instant messaging, rather than in person (Cook & Zschomler, 2020).

### ***Responsiveness to Client Preferences***

One of the most important practice tenets in social work is to start where the client is. As such, some clients may prefer or require electronically-mediated communication as opposed to more traditional methods (Mishna et al., 2012); thus, workers need to respond accordingly. For instance, as early adopters in the use of technology, many young people

prefer communication by electronic methods (Mishna et al., 2012). They may be less likely to respond to more traditional methods such as telephone and even email (Schelbe et al., 2018). Tregeagle and Darcy (2008) expand on the notion of client preference by speculating that replacing “paper-based technology” with “an interactive web page” may increase client engagement (pp. 1487-1488). Such approaches could enhance the worker-client relationship.

Evidence generated during the pandemic supports this premise. In one study, workers observed that many clients, particularly adolescents, preferred to interact virtually (Cook & Zschomler, 2020). In this same study, workers also noted improved participation among young people during virtual family meetings and case reviews. Cook and Zschomler (2020) speculate that, because of their technological expertise, this “altered the power dynamics within meetings” for young people, perhaps leading to increased self-confidence and engagement (p. 4). One of the major themes of the study conducted by Mishna and colleagues (2020) was that workers took a client-driven approach in selecting particular ICTs. ICTs were selected based on the unique needs and preferences of clients. To support this approach, agency leaders became more flexible toward worker ICT selection and encouraged them to honor client preferences.

### **Key Factors in Selecting Communication Tools**

Effective electronically-based communication requires digital literacy—knowing which ICT tools to use under what circumstances (Cook & Zschomler, 2020; Mishna et al., 2020). As such, social workers must understand the nuances or key features of the various tools, critically evaluate the type of communication that is needed to best get the message across to the client, and then select the tool or set of tools that help accomplish this. In making these decisions, at least five factors should be considered—1) the “bandwidth” of particular communication mediums, 2) the need for interchange (i.e., mutual directionality) with the client, 3) the confidential nature of the message such that privacy is paramount, 4) the level of formality of the interchange, and 5) the complexity of the message content. These factors are supported in part by research guided by Electronic Proximity Theory (EPT; Korzenny, 1978; Walter & Bazarova, 2008). A key concept of the EPT is propinquity, or psychological closeness between the sender and the receiver. EPT is based on the premise that it is possible to experience psychological closeness in an online environment, similar in nature to physical closeness via proximity of in-person interactions.

#### **Communication Medium Bandwidth**

A communication medium is the means by which information is exchanged between the parties engaged in the communication process. In this context, a communication medium’s bandwidth is the number of cue systems (e.g., verbal, non-verbal, fixed format [i.e., text or images]) that it supports. Communication mediums vary in their bandwidth, differentially affecting the exchange. Generally, the greater the bandwidth, the stronger the propinquity between the sender and receiver (Walter & Bazarova, 2008). In making decisions about which ICT to use based on a medium’s bandwidth, the extent to which the

communication exchange would benefit from opportunities for propinquity should be considered. For instance, at the point when the worker-client relationship is just starting to develop, the use of a communication medium with high bandwidth and thus greater opportunities for propinquity is called for (Cook & Zschomler, 2020; Mitchell, 2020).

### **Mutual Directionality**

Another feature to consider in ICT tool selection is whether a tool allows for mutual directionality, or synchronous exchanges between the worker and the client. Mutual directionality has been shown to increase propinquity (Walter & Bazarova, 2008). Synchronous ICTs (e.g., video conferencing) offer exchanges that are simultaneous, occurring in real-time, and provide opportunities for immediate feedback. Asynchronous tools such as email do not provide opportunities for mutual directionality. In determining the need for mutual directionality in the communication process, workers should evaluate whether simultaneous interaction and feedback with the client is important. For instance, if the intent of the communication is to simply inform a client of an appointment, this does not require mutual directionality. Using an electronic written communication tool such as a text message can suffice.

### **Privacy and Confidentiality**

A third feature in tool selection is the sensitivity or the level of privacy of the information to be shared. Ensuring a client's right to privacy and confidentiality is part of the NASW Code of Ethics. If the information is sensitive such that it should be private, then workers should select a tool that offers privacy and confidentiality. For instance, if the content is sensitive, then communication through social media such as Facebook is contraindicated. As an example, a major concern that has emerged among social workers during the pandemic is being able to protect clients' confidentiality and privacy during video conference meetings in their own homes since others in the home may be able to hear the exchange (Cook & Zschomler, 2020; Mishna et al., 2020).

### **Level of Formality**

The level of formality of the message is a fourth factor to consider in selecting the most appropriate tool. Questions to ask are, "How official is the communication?" and "Does this exchange need to be part of a client's permanent record?" If the content to be shared is formal and/or part of a client's permanent record, then a fixed format electronic communication tool is the most appropriate choice here. For instance, if the purpose of the exchange is to share the results of a psychological examination (which is a formal report that is part of the client's permanent record), an email message sent via a secure server would serve this purpose.

### **Information Complexity**

Finally, the complexity of the information to be shared is an important consideration in ICT tool section. Sharing complex information is negatively related to propinquity such that the exchange of less complex information increases propinquity (Walter & Bazarova, 2008). Thus, this should be considered when the exchange of complex information is intended. If the information to be shared is complex, it might be useful to select a communication medium with greater bandwidth (e.g., video conferencing).

### **Discussion**

The availability of electronic technology, especially during the pandemic, has transformed how social workers and clients communicate with one another. Not surprisingly, this comes with many challenges in building and maintaining the social worker-client relationship. However, the use of ICTs can also benefit the relationship. Factors such as increased communication methods, ease and efficiency in communication, and social presence can have a positive impact on the relationship. Further, the availability of documented exchanges via fixed format and responsiveness to client preferences can positively impact the relationship. As emerging pandemic-related evidence suggests (Cook & Zschomler, 2020; Mishna et al., 2020), thoughtful and strategic selection of ICTs as it affects the worker-client relationship is paramount. As such, five factors should be considered—a communication medium's bandwidth, allowable mutual directionality, the level of privacy afforded by a tool, the level of formality, and the complexity of the information being exchanged.

### **Implications for Social Work Practice**

***Social Presence.*** Information communication technology has significant implications for social work practice—the use of ICT can clearly enhance the worker-client relationship. For instance, the use of ICT has been shown to increase the worker's social presence in the client's world as a result of increased opportunities for interaction through both synchronous and asynchronous methods of communication (e.g., Cook & Zschomler, 2020; Mishna et al., 2020; Mitchell, 2020). Importantly, Barsky (2020) notes that use of ICT during the pandemic aligns ethically with not abandoning clients. Some interactions call for synchronous communication methods (e.g., when presence is needed); asynchronous ICT methods (e.g., text messaging) can be used to enhance other aspects of social presence (e.g., being available and accessible). Hill and Shaw (2011) advocate for a practice-led technology approach that is client-friendly. Further, Beresford and colleagues (2008) found that clients seek relationships with workers who are perceived as reliable, available, and accessible, and that they preferred workers to use both traditional and virtual communication methods. Asynchronous ICT methods (e.g., text messaging) can be used to enhance these client perceptions. Finally, the use of an electronic case management software system to manage paperwork can have an indirect positive impact on social presence by reducing time spent on paperwork, freeing up time for worker-client interactions (Dienger, 2019).

**Boundaries.** Increased social presence has implications for worker-client boundaries because these new methods of communication are easily available any time of day. Thus, providing services via electronic communication methods calls for a realignment of worker-client boundaries. Setting boundaries with clients early on in the relationship is still of the utmost importance. Boundaries serve to avoid conflicts of interest and possible exploitation (Reamer, 2003). Further, as Misha et al. (2014) observe, workers need to protect their time away from work and to practice self-care. However, O’Leary et al., (2013) note that worker-client boundaries have been traditionally defined using a separation lens—separating the worker from the client. They propose conceptualizing the worker-client boundaries in a way that embraces electronic technology. They argue for more open and flexible boundaries that promote worker-client connection “rather than separation and professional distance” (p. 143). This idea aligns with clients’ desire for workers to have more flexible professional boundaries (Beresford et al., 2008). Emerging lessons from the pandemic include: 1) the use of risk reduction strategies if it becomes necessary to use personal devices to communicate with clients (Barsky, 2020), 2) establishing electronic communication protocol at the beginning of the relationship, and 3) not compromising on self-care (e.g., turning phones off) as needed (Mishna et al., 2020).

**Surveillance.** Another implication of ICT use on the worker-client relationship is when ICT is used for surveillance. In this context, surveillance typically occurs via online searching activities through social media (e.g., Facebook). Surveillance can be reciprocal with the worker conducting online searches of the client or the client conducting online searches of the worker. If searches are done without prior informed consent, this violates one of the NASW Code to Ethics’ principles (i.e., s.1.03) and can harm trust within the relationship. From the client’s perspective, surveillance may highlight the power imbalance in the relationship (La Rose, 2019). Also, online searching used for assessment may result in erroneous conclusions about the client (e.g., Byrne & Kirwan, 2019), particularly if this information is not verified.

**Social Justice.** Finally, ICT has implications for social justice in social work practice. On the positive side, the use of ICT in worker-client interactions may redistribute power in the relationship by fostering client empowerment through increased mechanisms in which clients can initiate contact with workers (Parrott & Madoc-Jones, 2008; Tregeagle & Darcy, 2008). Further, ICT use among clients in worker-client interactions may reflect clients’ increased engagement in their own well-being (Mishna et al., 2014). However, social workers need to account for social justice issues created by the digital divide, such as equal access to ICT (e.g., mobile phones) and a reliable internet connection, particularly for clients living in rural environments (Conrad & Magsamen-Conrad, 2022; Funk, 2021). In their studies on worker experiences in the pandemic, a major theme reported by both Mishna et al. (2020) and Cook and Zschomler (2020) was increased awareness among workers regarding lack of access to a reliable Internet connection.

### **Implications for Social Work Education**

Information communication technology also has significant implications for social work education in both preparing the next generation of social workers and facilitating ICT

skill development among current practitioners. Social work education in the technological era presents a unique opportunity for training students and others in the use of an expanded repertoire of practice tools, coupling in-person and telephone strategies with virtual strategies to enhance the social worker-client relationship. From an ethical perspective and to ensure cultural competence, both students and practitioners have a professional obligation to not only develop ICT skills, but also remain current on the effective use of new tools as they become available. Recognizing the need to develop technology skills, opportunities have begun to emerge. For example, the Indiana University School of Social Work now offers technology-oriented training geared toward practice with clients in remote areas, as well as a free introductory course entitled, "Telebehavioral Practice Basics for Social Work Educators and Clinicians Responding to COVID-19" (Indiana University School of Social Work, n.d.).

However, this raises issues about learning how to use these new tools effectively to get desired outcomes. As Wolf and Goldkind (2016) state, "The goal of technology-infused pedagogy is to foster professionals who can critically assess ICT tools and strategies and match the necessary tool to the task" (p. S102). The nuances and complexities of electronic tools need to be accounted for. Not only must students know how to use tools, they must also know when to use them. They must know which tools to use under what circumstances. As such, Perron et al. (2010) call for educational strategies that ensure students' digital literacy and technological competence. Digital literacy "equips social workers with the capacity to innovate, adapt, and scrutinize the implications of the technologies they use" (Wolf & Goldkind, 2016, p. S102). Technological competence ensures that students know how to use existing tools.

Beyond the worker-client relationship, training students and practitioners in how to incorporate ICT tools can enhance their virtual membership in the social work profession. As an example, Hitchcock and Sage (2018) propose the use of what they call professional learning networks, in which social workers can connect in an online environment to exchange ideas and resources.

### **Implications for Research on the Impact of ICT on the Worker-Client Relationship**

Finally, ICT use has implications for social work research. Investigation is needed to build evidence of the impact of ICT use on the worker-client relationship. As such, efforts should be directed at determining the current impact of ICTs from both worker and client perspectives and then using this evidence to establish best practices. For instance, in using ICT during the pandemic, workers have raised concerns about the effectiveness of ICT in building relationships with new clients, conducting initial assessments, and working with high-risk cases (Cook & Zschomler, 2020; Mitchell, 2020). These issues need to be examined further, especially from the clients' perspective.

There is also a need for theoretically-driven inquiry. Our review has shown the usefulness of communication theories in guiding ICT-related studies in social work, summarized in Table 2. In particular, Social Information Processing Theory (Walther, 1992) supports relationship development in an online environment. Further, Social Presence Theory (Short et al., 1976) has emerged as a way to frame and interpret the impact

of connectedness in online relationships (Byrne & Kirwan, 2019; LaMendola, 2010; Rettie, 2008). Finally, Electronic Proximity Theory (Korzenny, 1978; Walter & Bazarova, 2008) can help guide the tool selection process.

Table 2. *Contributions of Communication Theories to the Social Worker-Client Relationship*

<b>Theory</b>	<b>Source</b>	<b>Contribution</b>
Social Information Processing	Walther, 1992	Relationships can be developed in an online environment.
Social Presence	Short et al., 1976	Social presence (i.e., the sense of connection in electronically-mediated communication) can strengthen relationships in an online environment.
Electronic Propensity	Korzenny, 1978	Psychological closeness can be experienced in an online relationship, similar in nature to physical closeness via proximity of in-person interactions.
Channel Expansion	Carlson & Zmud, 1999	Increased knowledge and experience in an online relationship can enhance perceptions of the richness of the relationship.

Going forward, one important next step is to acknowledge and account for the dynamic process of ICT use over time as it impacts the worker-client relationship. One theory shows promise for this line of inquiry—Channel Expansion Theory (CET; Carlson & Zmud, 1999). Channel Expansion Theory recognizes the importance of increased knowledge and experience as these factors affect user perceptions of ICTs. As knowledge and experience increase, so too do perceptions of richness of the interchange. This raises the question of the impact of ICT use on the worker-client relationship over time.

Finally, empirically untangling the impacts of different types of tools based on their features (i.e., communication medium, mutual directionality, level of privacy, level of formality, and information complexity) and determining when it is best to use which type of tool is important. Some circumstances require in-person contact; others do not. For instance, allegations of child or elder abuse and neglect must be done in person to thoroughly evaluate client safety. As another example, synchronous tools such as video conferencing may be accompanied with technology failures, environmental distractions, or physical discomfort depending on the length of the session (Cook & Zschomler, 2020; Markowitz et al., 2021). Understanding the unique features of different types of technology relative to the worker-client relationship is important. Thus, knowledge about which set of tools to use across different client circumstances is vital.

## **Conclusion**

Information communication technology is a relatively new dimension of the person-in-environment perspective embraced by the social work profession. The use of ICT in social work practice, especially during the pandemic, is transforming how we relate to our clients. There is increasing evidence of the positive impacts of ICT on the worker-client

relationship (e.g., Byrne & Kirwan, 2019; Simpson, 2017). New ICTs provide opportunities to understand the “granular texture of interpersonal interactions” (Byrne & Kirwan, 2019, p. 221) and then use this knowledge to enhance worker-client relationships. Yet, many questions are left to be answered.

Moving forward, practice recommendations include: reconceptualizing worker-client boundaries in a way that is compatible with the digital world, resolving ethical issues around client surveillance via social media, and advocating for equal access to ICT. In terms of social work education, we support the recommendation of Perron et al. (2010) to expand ICT teaching strategies to cover the development of both technical competence and digital literacy. Finally, research-based recommendations are to apply existing communication theories to guide research on the impact of ICT on the worker-client relationship, especially in investigations that lead to establishing best practices for ICT use. In conclusion, we reflect upon the struggles encountered by pioneering social workers in navigating the unknown impacts of the basic telephone on the worker-client relationship in the early 20<sup>th</sup> century. As we did back then, the social work profession is embracing ICT and finding ways to harness its opportunities to enhance the worker-client relationship.

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