Chapter 1

Technological Innovations in Clinical Supervision: Promises and Challenges

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In the past decade, the number of technological innovations for use in clinical supervision has virtually exploded. A bewildering range of new technologies are being used to deliver and enhance supervision, such as videoconferencing, webcams, the iPad, virtual reality, the Internet cloud, and software for tracking counseling outcomes and coding counseling session videos. Technology is currently being used to enhance supervision in most or all major domains of counseling (e.g., school counseling, rehabilitation counseling, addictions counseling), for counselors in every stage of development (from beginning trainees to seasoned experts), and in all major formats of supervision (individual, triadic, group, and live one-way-mirror supervision). Technology is being used for supervision in every major therapeutic modality: A Google search for "psychotherapy Skype supervision" reveals hundreds of supervisors offering online supervision in acceptance and commitment therapy, cognitive behavior therapy, couples therapy, dialectical behavior therapy, emotion-focused therapy, eye-movement desensitization and reprocessing, drama therapy, equine-assisted therapy, gestalt therapy, intensive short-term dynamic psychotherapy, music therapy, psychoanalysis, sandtray therapy, and sensorimotor therapy. Research on technology-assisted supervision and training has been similarly accelerating: A recent literature review found 63 publications on Internet-based supervision, 31 of which were original research studies (the list of these publications is available in Appendix A).

The first wave of technology in supervision, roughly defined as occurring prior to the year 2000, focused on mechanical devices: video cameras, audio gear for live one-way-mirror supervision, and so on. The emerging second wave of

supervision technology largely focuses on Internet-based tools, such as e-mail, videoconferences, wikis, and virtual learning environments.

Supervisors around the world are quickly discovering that technology can dramatically improve the breadth and depth of services offered to supervisees and clients. Note that this rapid inclusion of technology in supervision has grown from the ground up—developed by supervisors for supervisors—rather than being mandated by managed care. These supervisors saw an opportunity to improve the quality of their services and took the leap. In this sense, the international movement toward integrating technology into clinical supervision is truly grassroots: It consists of hundreds (or thousands) of supervisors around the world independently experimenting with using technology to enhance their supervision.

However, many clinical supervisors, including those who did not grow up with the Internet, may find these technological advances to be confusing or intimidating. Even for those who understand the technology, sorting through applicable regulations can be a challenging affair. For example, only a handful of states have clear regulations on the use of technology in supervision. Common questions and concerns raised by supervisors include the following:

- What are the legal risks that supervisors take by using these new technologies?
- What level of technological expertise are supervisors expected to have in order to use these technologies?
- What are the effects of technology on the major domains of supervision (e.g., the supervisory working alliance)?
- What are the impacts on client care (e.g., counseling outcomes)?
- What are the implications for informed consent (by client and supervisee) if the client, supervisee, or supervisor does not fully understand the technologies being used, or if these technologies change frequently?

The purpose of this book is to provide clinical supervisors with a knowledge base for purposefully integrating technology into their supervision. We have endeavored to make this book accessible and helpful to all supervisors, including both those who are new to technology and those who already feel comfortable with it. Regardless of your technological ability, we hope that you find the information in this book useful and are able to utilize it to create stronger supervision relationships, increase counselor effectiveness, and enhance the quality of care provided to clients.

How to Use This Book

The goals of this book are (a) to provide supervisors with an informed, accessible, and usable assessment of technologies that are currently available, including how to use them, when to use them, and when not to use them; and (b) to provide guidance on best practices in using technology in clinical supervision (including contraindications and limitations). This book features 16 chapters by more than 30 authors. Each author is an expert supervisor with published work in his or her respective field. Because of their lengthy practice in experimenting with technology in supervision, the authors are experienced in both its potentials and challenges. Their work represents the diverse scope with which technology is presently being used in clinical supervision. The chapters in this book

provide information to inform and enhance your work regardless of your particular area of practice or approach to supervision.

Chapter authors were instructed to provide specific guidance regarding best-practice models for the use of supervision technology. However, the field of supervision technology is still quite nascent, and many important areas (e.g., videoconference technology, state regulations) are experiencing rapid change. Thus, some models for best practices are still in development. Furthermore, the appropriate application of technology changes according to variables within supervision, including the supervisor, supervisee, client, clinical setting, and jurisdiction. Thus, for situations in which clear guidelines are not available, we have instructed authors to describe the critical issues that should be considered, so each supervisor can decide the best application of technology for his or her particular situation and jurisdiction. If you find this at times to be less than ideal, we understand and empathize. Everyone who has integrated technology into supervision has on occasion felt confused or frustrated by the lack of simple and clear guidelines. However, we think that supervisors are uniquely suited to dealing with this level of complexity, because they encounter the same complex variance in their trainees and trainees' clinical cases. We encourage supervisors to see that the same diagnostic and problem-solving skills that let them be flexible and adaptable in an ever-changing clinical environment may be extended to the use of technology.

If you are a novice technology user or are just beginning to integrate technology into your supervision practice, we recommend picking just one or two technologies that appeal to you most and starting with those chapters. Although some technologies are simple to learn, others have a sharp learning curve and may be difficult to integrate simultaneously while coordinating supervision. Starting with just one or two technologies can help you gain competency and mastery without becoming overwhelmed.

This book is composed of two parts, described next.

Part I: Technology in Clinical Supervision: The Elements of Effective Practice

The chapters in this section provide a thorough review of the technological, legal, ethical, cultural, accessibility, and security competencies that form the foundation for effectively integrating technology into clinical supervision. It is recommended that you review all of these chapters before integrating technology into your practice.

Many supervisors considering online supervision have concerns about the legal implications of providing online services. In their chapter "Regulatory and Legal Issues Related to the Use of Technology in Clinical Supervision," Tony Rousmaniere, Edina Renfro-Michel, and Roy Huggins review the regulatory and legal issues involved in online supervision, including the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

In conjunction with understanding legal issues, teaching and modeling professional ethics is one of supervisors' most important responsibilities. In their chapter "Ethical Issues Related to the Use of Technology in Clinical Supervision," Harriet L. Glosoff, Edina Renfro-Michel, and Sudha Nagarajan discuss how technology innovation changes the ethical implications of supervision and provide case examples to help supervisors determine optimal ethically competent practice.

Technological innovations permit supervisors to provide supervision across the world, greatly expanding the reach of counselor training. However, the expanded international reach of online supervision poses new challenges regarding cultural competencies. In "Technology-Assisted Supervision and Cultural Competencies," Eric R. Baltrinic, Caroline O'Hara, and Marty Jencius review the literature on this topic and provide recommendations for supervisors engaging in cross-cultural technology-based supervision.

Technology promises to greatly expand the accessibility of counselor training to communities that have previously had limited access (e.g., because of visual or hearing impairments). In their chapter "Technology and Accessibility in Clinical Supervision: Challenges and Solutions," Jane M. Webber and Melissa D. Deroche provide practical solutions for providing individualized and accessible technology-based clinical supervision.

Clinical supervision is first and foremost based on the working relationship between the supervisor and supervisee, and questions have been raised about how technology may affect the supervisory relationship (Rousmaniere, 2014). In "Establishing and Navigating Relationships in Online Supervision," Shane Haberstroh and Thelma Duffey explore how the different environment and inherent restrictions of online communication affect the connections and disconnections in supervisory relationships. Drs. Haberstroh and Duffey offer advice for building and maintaining the supervisory working alliance based on a critical review of the research, their own experiences, and case transcripts.

As supervision moves online, Internet security becomes increasingly important. In their chapter "Internet Security for Clinical Supervisors," Tony Rousmaniere and Nat Kuhn describe the state of the art in Internet security best practices, including common attack vectors used by hackers, and the most accessible and effective defenses to ensure privacy and confidentiality.

Part II: Applications of Modern Technology in Clinical Supervision

The chapters in this section review the most prominent and innovative uses of technology in clinical supervision across many of the major domains in counseling.

Although e-mail is simple to use, it is challenging to master. Communication via e-mail can easily be misinterpreted or misunderstood. In "Clinical Supervision via E-Mail: A Review of the Literature and Suggestions for Practice," Melissa Luke and Cynthia Gordon critically review the research on the use of e-mail for supervision. Based on findings from discourse analysis and other methods of textual analysis, Drs. Luke and Gordon provide practical advice for supervisors to most effectively use e-mail for supervision.

Session-by-session client feedback can improve the effectiveness of supervision (e.g., Reese et al., 2009). However, some supervisors balk at the paperwork involved in using paper-and-pencil outcome measures. In their chapter "Using PCOMS Technology to Improve Outcomes and Accelerate Counselor Development," Barry L. Duncan and Robert J. Reese describe innovative software that enables supervisors to easily integrate outcome and alliance feedback into supervision, without the use of paper-and-pencil measures.

Live one-way-mirror supervision has been used by supervisors for decades (Bernard & Goodyear, 2014) but has always been limited to supervisory dyads in the same location. In "Remote Live Supervision: Videoconference for One-

Way-Mirror Supervision," Tony Rousmaniere and Jon Frederickson describe a model for using videoconference to provide live supervision at any geographic distance. The chapter includes an annotated transcript of an actual live supervision session and a detailed first-person account of the process by the supervisor.

Group supervision is a ubiquitous component of counselor training. A range of new technologies promise to expand the reach of group supervision, including text chat, virtual avatars, and videoconference. In their chapter "Clinical Supervision in an Online Group Format," Carl J. Sheperis, Rachael Ammons Whitaker, and Belinda J. Lopez review the literature on online group supervision and provide practical recommendations for supervisors who want to use the Internet to help train a new generation of counselors.

Videoconference promises to greatly expand the reach of advanced, postgraduate supervision. In "International Group Supervision Using Videoconference Technology," Jasen Elliott, Allan Abbass, and Joseph Cooper describe their method for using videoconference to bring an international group of postgraduate supervisees together to learn from a specialist supervisor. Based on case examples and supervision transcripts, the authors discuss the promise and challenges in their model for supervision and provide recommendations for supervisors considering videoconference supervision.

Whereas videoconference supervision is a newer technology, videotape has been recognized as a critically valuable component of counseling supervision for decades (Bernard & Goodyear, 2014). Two chapters in this book bring the power of videotape to supervision by presenting innovative, research-based methods for using videotape to enhance clinical supervision. In their chapter "Online Supervision in Affect Phobia Therapy," Kristin Osborn and Maneet Bhatia describe their model for using videotape to study master psychotherapists and to enhance individual supervision. A similar model that focuses on supervising couple and family therapy is described by Valentín Escudero and Myrna L. Friedlander in their chapter "e-SOFTA: A Video-Based Software for Observing the Working Alliance in Clinical Training and Supervision." Note that both models are free and easy for supervisees and supervisors to learn.

Some supervisors are experimenting with using technology to facilitate new mental health treatment models. In "Web-Based Supervision in Internet-Delivered Affect-Focused Psychodynamic Therapy," Robert Johansson, Ronald J. Frederick, and Gerhard Andersson describe their model for online supervision of a particularly innovative treatment that is delivered entirely online.

There has been a recent movement toward providing formal training in supervision to trainees (Bernard & Goodyear, 2014). Given that many trainees currently in graduate school will, in the future, provide supervision via the Internet, it may be valuable to provide specific training for Internet-based supervision. In their chapter "Training Counselors to Provide Online Supervision," Marty Jencius and Eric R. Baltrinic describe their recommended process for training practitioners to provide supervision via the Internet, including an outline for a course on the topic.

Terminology Used in This Book

A range of terminology has been used to describe various uses of technology in clinical supervision and training, including *cybersupervision* (Coker, Jones, Staples,

& Harbach, 2002), *Web-based training* (Weingardt, Villafranca, & Levin, 2006), *telemedicine* and *telehealth* (Stamm & Perednia, 2000), *computer-based learning* and *computer-assisted learning* (Berger, 2004), *technology-assisted distance supervision and consultation* (Coker & Schooley, 2009; McAdams & Wyatt, 2010), *e-learning* (Weingardt, Cucciare, Bellotti, & Lai, 2009), *computer-mediated training* (Janoff & Schoenholtz-Read, 1999), and *technology-assisted supervision and training* (Rousmaniere, 2014). Given the nascent state of this area, we have taken a hands-off approach in this book and let chapter authors use whichever terms they find most appropriate.

Supervision and Consultation

Supervision refers to a formal relationship in which a senior, licensed counselor is responsible for (a) monitoring and enhancing the welfare of an unlicensed supervisee's clients and (b) facilitating the supervisee's professional development (American Counseling Association, 2014). In contrast, *consultation* refers to a training relationship in which both parties are licensed. However, the term *supervision* has historically been used to refer to all training relationships (regardless of whether the supervisee is licensed), so for the sake of continuity, authors have been permitted to use the two terms interchangeably in this book. Throughout the book, authors specify whether they are referring to supervisees who do or do not have licenses to practice independently.

Distance Supervision

Distance supervision refers to supervision that occurs when the supervisor and supervisee(s) are not in the same location. Distance supervision offers a range of promising benefits, including

- increased accessibility of psychotherapy training, especially for clinicians in rural or remote areas;
- reduced cost for travel and improved flexibility of scheduling;
- increased access for peer consultation (in small groups via teleconference or large groups via electronic mailing lists and Web forums);
- potentially enhanced diversity in trainees due to improved accessibility of training; and
- increased ease in recording and documenting supervision and training (Rousmaniere, 2014).

Online Supervision

Online supervision is conducted over the Internet. Online supervision may be utilized when meeting for supervision in person would be difficult or impossible, often because of the distance between the supervisor and supervisee. For example, online supervision can be used by individuals and organizations located in different countries (e.g., Fishkin, Fishkin, Leli, Katz, & Snyder, 2011; Rousmaniere, Abbass, Frederickson, Henning, & Taubner, 2014). Alternatively, supervisors may use online supervision for irregular or emergency events, such as an illness or inclement weather.

Hybrid/Blended Supervision

Traditional supervision is conducted in person. Supervision that is conducted both in person and over a long distance is considered to be *hybrid* or *blended* (Rous-

maniere, 2014). Hybrid supervision is often used when the supervisor and supervisee live further than an hour away from each other but not so far as to make some in-person supervision impossible. For example, one of us practiced a hybrid model of supervision in which she met with supervisees each week for 1 hour in person and 1 hour online. This allowed counselors-in-training to spend less time traveling to group supervision, increasing their time at their internship site. When supervisees lived 2 hours away or more, in-person supervision was conducted every other week. There is some evidence that supervisees receiving hybrid supervision are more satisfied with their overall supervision experience than students in traditional face-to-face supervision (Conn, Roberts, & Powell, 2009). As yet, there is no clear-cut minimum number of online meetings required to constitute hybrid supervision. For example, is supervision conducted online only in the case of emergencies considered to be hybrid supervision?

Synchronous/Asynchronous Supervision

Supervisors and supervisees often benefit from technologies that they do not have to use at the exact same time. Termed *asynchronous technology,* these include e-mail, discussion groups, cloud-based storage systems, and social media websites—any technology with which supervisors and supervisees are not communicating in real time. For example, a supervisee participating in group supervision might watch a video of a peer working with a client then provide written feedback for the counselor to review later. Asynchronous technologies provide a more flexible learning environment.

Technologies that permit students and supervisors to interact at the same time are called *synchronous technologies.* These include videoconferencing, interactive television, chat rooms, and instant messaging. In the previous example of students participating in group supervision, after the students have provided written feedback for their peers, a supervisee and the supervisor might meet over a videoconference for a live (synchronous) discussion about the feedback.

Technology Reluctance

Sometimes the thought of using technology—whether it is e-mail, a new computer program, or a digital video recorder—can cause a fear response. As yet, there is no literature on supervisor or supervisee reluctance to use technology in supervision. Our anecdotal experiences with supervisees and other supervisors suggest that a reluctance to use new technologies might stem from a fear of doing something wrong or messing something up—a valid fear, to be sure. Generally, however, the majority of technologies cannot be deleted or irrevocably harmed when being used, even by novice users.

Technology anxiety, reluctance, or phobia may lead a supervisor to reduce the amount of technology used in clinical supervision. One concern voiced frequently by supervisors is that their lack of experience with a new technology (e.g., videoconference) will make them unable to answer supervisees' questions about that technology. We have found, however, that when we are honest with our supervisees about using a new tool (after receiving training), they are consequently very understanding when we run into glitches. When supervisors model the process of learning a new technology, supervisees are often appreciative of their struggle, as it can mirror their own struggle with training to become counselors. Our recommendation for supervisors is to experiment with new tech-

nologies by following the steps listed at the end of this chapter for integrating technology into your work. Even if you do not believe you have learned enough to be an expert, it can be freeing to take that next step and integrate a new technology into your supervision. A good sense of humor and some flexibility go a long way when dealing with any type of technology.

Financial Concerns

It is important to note that some supervisors are reluctant to integrate technology into their work because of anticipated financial expenditures. This is a legitimate concern, one we share as well. Depending on the type of supervision conducted, supervisors are often able to reduce the cost of equipment by making some small changes. In terms of purchasing computers, we have found that refurbished warrantied computers work very well at a much lower cost than a new machine. However, noting the specifications needed for applications is significant, because you might not need the newest supercomputer for supervision that is, for example, primarily e-mail focused. In addition, if a computer is lacking cameras or external microphones, cameras and headphones with a microphone can be bought to use with it for as little as $10 each.

The cost of specific technologies varies from free to several hundred dollars depending on the type of technology used, the length of time it is needed, and the amount of storage that is needed. Some HIPAA-compliant technologies require a paid subscription. Often these providers offer monthly subscriptions, which might be a viable option if you only need the service for a few months. Other technologies might already be HIPAA compliant or can be converted to meet HIPAA compliance. For example, Gmail Business (which started at $5 a month in 2015) and Microsoft Office HIPAA can be used to sign business associate agreements (see Chapter 2 for more information on HIPAA). When determining affordability, always ask about discounts, as many businesses offer nonprofit and educational discounts that provide significant savings. These discounts might be difficult to find on a product's webpage, but a call to customer service is usually effective. It never hurts to ask!

Research on Internet-Based Supervision and Training

A growing body of research suggests that the use of technology in supervision can benefit clients, supervisees, and supervisors (Rousmaniere, 2014). A recent literature review revealed 63 publications with a significant focus on Internet-based supervision or training published between 2000 and 2015. Of these studies, 33 were original research studies and 30 were discussions of new technologies, case examples, or reviews of current literature. Of the research studies, 19 used quantitative methods, 11 used qualitative methods, and three used mixed methods. Of the studies, 27 took place in the United States, three in Australia, one in Germany, one in Norway, and one in the United Kingdom. A wide range of topics was studied, including substance abuse counseling, rural supervision, school counseling, rehabilitation counseling, youth counseling, and peer group supervision. The studies covered a broad range of counseling modalities (e.g., cognitive behavior therapy, motivational interviewing, psychodynamic psychotherapy). The number of participants in each study ranged from three to 373. Ten studies had licensed practitioners as participants, 30 studies had prelicensure participants (e.g.,

trainees, interns), and three studies had a mix of both. The quantitative studies assessed a wide range of outcomes, including supervision process (e.g., measures of supervisory working alliance), skill acquisition (e.g., measures of adherence after training), and supervisee satisfaction (e.g., questionnaires). At least six of the studies focused on the application of Internet-based supervision in rural areas (see Sidebar 1.1). Note that most of the studies were conducted by researchers who, like us, were pioneers, or early adopters, in the use of their studied technologies. Therefore, allegiance effects must be considered a significant threat to validity. It is important for future research on this subject to be conducted by investigators who are not personally biased pro-technology. For a more detailed literature review, see Rousmaniere (2014).

How to Integrate Technology Into Clinical Supervision

Although many supervisors have integrated technology into their supervision, some continue to remain on the sidelines. For example, supervisors may use e-

Sidebar 1.1 Research on Technology-Assisted Supervision and Training

Potential Benefits

- There are reported high levels of trainee satisfaction (e.g., Xavier, Shepherd, & Goldstein, 2007).
- Research shows that it is effective for increasing supervisee self-efficacy (e.g., Weingardt et al., 2009).
- There is a highlighted effectiveness for the transfer of knowledge (e.g., Rees, Krabbe, & Monaghan, 2009).
- Technology-based supervision increases supervisee self-disclosure and reduces inhibition (e.g., Cummings, 2002).
- Internet-based training programs are highly efficient due to scalability (e.g., Weingardt et al., 2009).
- Videoconference supervision encourages some supervisory dyads to prepare more thoroughly for supervision (e.g., Sørlie, Gammon, Bergvik, & Sexton, 1999).
- Technology-based supervision is effective for international and cross-cultural supervision (e.g., Panos, 2005).
- The supervisory working alliance and collaboration can be maintained in videoconference (e.g., Reese et al., 2009).
- Videoconference can be effective for live one-way-mirror supervision (e.g., Jakob, Weck, & Bohus, 2013).

Potential Risks

- Challenges in understanding nonverbal communication could be heightened by electronic communication (e.g., Vaccaro & Lambie, 2007).
- Supervisors may be unable to provide help from a distance or may be unfamiliar with local laws and regulations (e.g., Abbass et al., 2011).
- Risks of cultural misunderstandings may be increased by geographic distance between the supervisor and supervisee (e.g., Powell & Migdole, 2012).
- Videoconference supervision may cause heightened anxiety in some supervisees (e.g., Sørlie et al., 1999).
- Training via videoconference may not be as effective as in-person training (e.g., Sholomskas et al., 2005) or mixed in-person and distance supervision (blended learning).

mail or smartphones in their personal lives on a regular basis but may be at a loss when it comes to determining how to integrate technology into their work. Indeed, integrating technology into supervision can be a daunting process. With some planning, however, technology anxiety can be reduced for both supervisors and supervisees. If approached conscientiously, integrating technology into supervision can be a smooth process. Here, we provide some suggestions for approaching this process. We recommend approaching new technology in a stepwise manner: Experiment with one new type of technology at a time, so you can gain comfort or mastery of it before adding additional new technologies.

Step 1: Focus on the Supervision Process

We recommend that supervisors begin by focusing on the supervision process rather than the technology. The concept is to use technology to support and enhance the effectiveness of supervision rather than to bring in technology for the sake of using technology. Start by creating a list of supervision goals. You may choose to use the following questions to inform your goals:

1. What type of supervision are you performing? Is your supervision going to be primarily face to face, online, or hybrid? Individual, triadic, group, or live one-way-mirror supervision?
2. What would you like to accomplish during the supervision process?
3. Which supervision theory are you using?
4. What is your philosophy on how change occurs during the supervision process?
5. What are your thoughts on the supervisor–supervisee relationship?

Step 2: Think About Technology

Taking time to think about the types of technology you currently use can help clarify your and your supervisees' comfort level with technology. This may help you select technologies that will best enhance your supervision. Technology-assisted supervision can be accomplished on a budget, but if new equipment or online services are needed (e.g., HIPAA-compliant cloud storage), keep in mind the cost—for both you and your supervisee. We recommend taking the following steps to guide this process:

1. Make a list of the types of technology you use often and a list of the technologies you choose to avoid. This information can help you determine the best types of technologies to integrate and can reduce technology anxiety and frustration.
2. Make a list of the types of computers and equipment that you have access to. Do you have a camera on your computer? Headphones with a microphone for clear communication? Is your computer relatively new? Computers that are more than 5 years old may be too slow to use reliably with some types of technologies used in supervision (e.g., videoconference). Also, find out what types of computers and equipment your supervisee has access to so you don't require a technology that would cause your supervisee to buy expensive equipment.
3. Assess the speed and reliability of your and your supervisees' Internet access. You can test your Internet speed at www.speedtest.net. Videocon-

ferencing and video streaming applications require high-speed Internet connections (e.g., 1.5 Mbps for one-on-one videoconference, 2–8 Mbps for group videoconference). Other applications, such as wikis, instant messaging, and e-mail, are good options for slower Internet connections (e.g., slower than 0.5 Mbps) or older computers.

4. Assess whether your and your supervisees' work environment is conducive to the use of technology. Videoconference supervision requires a quiet, well-lit space that is private and free from interruptions. Locations that are public, noisy, or distracting (e.g., cafés, public libraries, home when children are around) are contraindicated and may create a situation in which client confidentiality is breached.

Step 3: Choose a New Technology

The next step is to determine what types of technologies would work best for your supervision. Table 1.1 lists the technologies most commonly used for clinical supervision. Use this chart to help select a technology that will best meet your supervision goals. We suggest integrating one new type of technology at a time. Before making a final decision, determine the computer and Internet needs of each technology by searching the website of the technology provider. Technologies like

Table 1.1
Technologies for Clinical Supervision

Supervision Goal	Basic Technologies	Advanced Technologies
Increase communication *between one supervisee and the supervisor*	E-mail Instant messaging Phone Texting	Online document editing Online file sharing Videoconference Virtual worlds
Increase communication *between more than one supervisee and the supervisor*	E-mail Group instant messaging Phone conference	Online document editing Online file sharing Videoconference Virtual worlds
Increase communication *between supervisees*	E-mail Phone conference Texting	Wiki Online document editing Online file sharing Videoconference Virtual worlds Wikis
Provide asynchronous viewing/hearing of counseling sessions	Mail an encrypted CD or USB drive	HIPAA-compliant online file sharing
Provide asynchronous feedback of audio or video counseling sessions	E-mail	Online document editing Wiki
Provide synchronous feedback of counseling sessions	Phone conference	Online document editing Videoconference
Increase supervisee knowledge base through sharing content	E-mail Diigo Texting	Blog Wiki Online file sharing

wikis, online document editing, and e-mail can be used with a slower Internet connection and an older computer; videoconference and virtual worlds require a faster Internet connection and a computer with stronger processing capability.

Case Example

A supervisor runs a supervision group for trainee counselors and wants to increase communication among the group members between supervision sessions. The supervisor and supervisees have access to computers, but many of the supervisees have older computers and slow Internet connections. The supervisor does not want to require his supervisees to purchase expensive additional equipment. Referring to the chart in Table 1.1, the supervisor sees that older computers and slow Internet connections rule out videoconference and video streaming. However, wikis are suitable for those conditions. A wiki is an online electronic document useful in collaboration because each member of the invited group can edit or create material. A wiki can be used for online conversations regarding specific topics of interest initiated during supervision sessions. For example, in one supervision session, a conversation arises regarding the use of counseling techniques for adults living with autism. Rather than wait until the next supervision session, the supervisor uses a wiki to provide supervisees with documents on this topic. In addition, the supervisor invites supervisees to post links to information and peer-reviewed journal articles and facilitates an online discussion based on these materials. The wiki enhances the supervisees' knowledge, allowing them to have a more thoughtful and informed discussion at the next supervision session.

Step 4: Learn the New Technology

Start by reviewing the training manuals that are available for the type of technology that you are about to utilize. Another resource for training is video tutorials that offer step-by-step instructions for using specific technologies. The best way to find video tutorials is to use a search engine (i.e., Google or Yahoo!). For example, to find video tutorials for wikis, enter "wiki video tutorial" into a search engine.

It is recommended that you experiment with the new technology yourself, or with colleagues, before using it in supervision. This can help increase your comfort and proficiency in a stepwise manner. For example, the hypothetical supervisor creating a wiki could experiment by first creating a private wiki before letting supervisees see her work. The supervisor could use the wiki as an online journal, including to-do lists and links to books or journal articles. When the supervisor feels comfortable with this process, she could invite colleagues to try to use the wiki for an online discussion. This process will gradually increase the supervisor's comfort with the technology, until she is ready to include her supervisees. Having fun and experimenting without risk can help supervisors explore both the benefits and limits of new technologies.

The American Telemedicine Association (2013) has published *Practice Guidelines for Video-Based Online Mental Health Services,* which provides suggestions for using videoconference. Supervisors may find information in those guidelines to be useful.

Step 5: Prepare a Backup Plan

All technologies can fail. For example, one of us used a range of different videoconference software weekly for more than 5 years both at a university coun-

seling center and in private practice; about 20% of calls had minor to major connectivity problems. Group videoconference often has worse reliability than one-on-one videoconference. Unfortunately, most of the reliability issues with videoconference are due to connectivity problems in the international Internet network, which is outside users' control. These network problems affect all videoconference software companies, so no particular videoconference software has yet been demonstrated to be more reliable than any others.

Thus, supervisors should develop a backup plan for each technology they use in supervision. For example, supervisors who use videoconferencing should be prepared to use teleconference as a backup technology. The hypothetical supervisor who is using a wiki to facilitate discussions between supervision sessions could designate e-mail or a cloud file-sharing system as a backup technology. Supervisors should inform their supervisees about backup plans.

Technology Integrated Into Supervision and Training: A Case Example

The following is a case example of how technology can be fully integrated into a counselor training program. This example is from the practicum for clinical psychology doctoral students at the University of Alaska Fairbanks Student Health and Counseling Center.

Electronic Medical Records

All client charts at the clinic are 100% electronic using the Point n' Click secure e-chart software package. Paper documents, such as release of information requests or consents for treatment, are scanned into the electronic charts and then shredded.

Outcome Monitoring

Starting with their first session, all counseling intakes complete the Outcome Questionnaire, an overall assessment of mental health (Lambert, Harmon, Slade, Whipple, & Hawkins, 2005), using an online software package called OQAnalyst. This software allows both the trainee and supervisor to easily monitor client progress and provides alerts for risk factors, including suicidality and substance abuse. The software features an algorithm that provides alerts for cases with higher chances of clinical deterioration (Whipple et al., 2003). At the end of the training year, supervisors and trainees can review their overall aggregate outcomes to see a big-picture view of their clinical work from a quantitative perspective (Swift et al., 2015). Please note that the University of Alaska Fairbanks purchased OQAnalyst, as it is more costly than other technologies covered in this book.

Videotaping Counseling

Trainees videotape their counseling sessions using two webcams connected to a desktop computer. One webcam records the client and the other records the trainee. A software program called Wirecast combines the two video streams into one side-by-side video (also called *picture in picture*) that is automatically saved directly to a secure network drive without the need for tapes, CDs, or DVDs. Videos can be viewed from any counseling office with access to the secure network drive, making it easy to review the videos in individual or group

supervision. After being used in supervision, videos are deleted from the secure network.

Training via Videoconference

Expert psychotherapy trainers from around the country provide live trainings via videoconference software. Because the software's security features are HIPAA compliant, trainers can present demonstration videos of real psychotherapy sessions and trainees can present real cases for consultation. These trainings can be saved on a secure drive for future use.

Remote Live One-Way-Mirror Supervision

HIPAA-compliant Web-based videoconference software and webcams are used for live one-way-mirror supervision. This allows the supervisor to provide live supervision between any two offices in the counseling center without the need for expensive one-way mirrors to be built into the walls. The software also permits trainees to get live supervision from any psychotherapy expert in the world who has a good Internet connection. Recordings of these sessions can be saved and used for training purposes. Similarly, Angelita Yu has developed an iPad app to facilitate live group supervision (www.isupelive.com).

Posttreatment Feedback

After terminating treatment (or dropping out), clients are offered the opportunity to take a secure online survey about their experiences in counseling. This feedback is used for training, quality assurance, and research purposes (Rousmaniere, 2014).

Conclusion

As supervisors experiment with integrating new technologies into supervision, questions are naturally raised about whether the development is actually beneficial for supervision. New technologies are inevitably greeted with comparison to legacy methods of supervision (e.g., "Can online supervision be as personal as in-person supervision?"). These questions generally boil down to one common concern: By adopting technology, are supervisors sacrificing the quality of their supervision?

A closer look, however, reveals that technology promises to increase both the breadth and depth of supervision. An example of the added breadth offered by technology is videoconference supervision, which allows supervisors to offer their services to trainees around the world, including hard-to-reach populations that previously were excluded from the field (see Chapter 5 on accessibility) and practitioners located in geographically remote areas (see Chapter 12 on international group supervision). An example of the depth offered by technology is software that allows supervisors to analyze moment-to-moment counselor interactions with clients at a level of microprocess that was never previously available (see Chapters 13 and 14 on videotape coding software for supervision).

Taken together, the rapidly growing body of empirical research and the anecdotal experiences of hundreds of supervisory dyads all suggest that technology can benefit clients, supervisees, and supervisors. We hope this book

will provide you with sufficient inspiration and guidance to feel confident in taking the next steps toward expanding your supervision practice and joining the next generation of supervisors—pioneers, explorers, and inventors—on the digital frontier.

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