Constructing the Future of Social Work Tech Habits of Mind With the Ethical OS

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Abstract: *Technological innovation has long been seen as a hallmark of progress in the modern world. While these advances may facilitate advantages to individual and social well-being, they have the potential for creating new areas of risk and for exacerbating those that already exist. In addition, a global pandemic has reshaped how we interact with one another, as more people connect online. Social work's ongoing relationship with technology necessitates that we evaluate and re-envision how tech ethics create, shape, and transform social work practice. This paper has three goals. First, we argue that technologies have long been a hidden driver of social work practice and provide an initial mapping of their current influence. Second, we introduce the Ethical OS as a tool for conceptualizing ethical issues that may arise in social work practice, education, and policy. We ask if this tool could promote seeing around corners regarding how developing technologies might be advantageous or disadvantageous for reference or consumer groups. For example, how do they reify historical injustices such as structural racism and how do they offer remediation? Third, we discuss the importance of building coherent, social work tech habits of mind, in practice now and for the future. We provide recommendations for how social workers and clients alike can be adequately informed and empowered in an ever-evolving technological world.*

Keywords: *Ethical OS, social work tech, social work futures, structural racism, habits of mind*

The past several years have included monumental events that will forever shape our world. The COVID-19 pandemic and a summer of racial reckoning were two events that greatly impacted the United States and that were closely tied to the use of technology. During the initial months of the pandemic, technology served as the primary medium to track and receive information about the virus, and quickly became a way for many people to remain engaged in their jobs and education. Technology was also how many people publicized and learned about hate crimes and murders of Black people, and, consequently, organized nation-wide rallies protesting police brutality.

In addition to personal and collective impact, these events, and the subsequent role of technology affect both the present and future of the social work profession. The fact that

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technology has become a pervasive and indispensable tool in everyday life suggests that this is also a reality for social work. Thus, social work should examine how technology use may influence the profession's Code of Ethics (National Association of Social Workers [NASW], 2021). For example, a social worker's commitment to their client's well-being may now involve educating a client about resources identified via technology, informing them of best practices for technology use, or the integration and use of artificial intelligence for a variety of reasons. Yet, problem-solving for the present and preparing for the future of social work is no easy endeavor, especially as the profession must consider the needs and safety of the respective clients and communities, and the capacity of its own members (NASW, 2021). Hence, social work requires the assistance of conceptual frameworks, particularly from private industry, to inform the less-defined intersection of technology and professional social work conduct.

This paper represents the analysis of the Social Work Health Futures Lab, a collaborative of social work scholars, researchers, and practitioners studying the future of the field, sponsored by the Robert Wood Johnson Foundation. As a collaborative group of students, professionals, educators, and researchers with different practice backgrounds who are invested in exploring future issues in social work, the Ethical Operating System (Ethical OS, 2021) stood out as a potentially valuable tool for consideration when working with technology in the social work discipline. It is important to note that the authors do not view the tool as exclusively or singularly adequate to meet all of the needs of the profession. Rather, social work now requires a tool to understand and grapple with the ways in which technology may intersect with and create opportunities and challenges of current and future practice.

The purpose of this conceptual paper is to explore if a tool such as the Ethical OS that can be a steppingstone to increased imagination, understanding and fluency in some of the ethical issues that are likely to appear in the social work practice landscape, and/or if social workers themselves seek to develop or amplify use of technology in a specific way. A further aim of this paper is to map out a conceptual, as well as practical, "tour" of the tool which would be an unlikely part of contemporary social work ethics discourse as evidenced by our very preliminary social work tech ethics "frame" at this moment in history. This tour is guided by and built upon social work values and ethics – and the authors approach the effort with curiosity. This analysis builds on the work of important researchers (Benjamin, 2019; Eubanks, 2018; Noble, 2018; O'Neil, 2017) who collectively performed essential scholarship regarding the current and future dynamics of racism and structural disadvantage during a time of technology proliferation. Advancing social work's ability to understand and participate in ethical practice with regard to the seminal and central issue of racism in our increasingly technologically infused practice landscape is informed by their contributions.

Prior to diving into the use of the Ethical OS tool in social work practice, this conceptual paper will offer a brief exploration of the history of technology in social work practice and the impact that power and privilege have on technology and social work. Subsequent sections build upon this concept by examining the Ethical OS tool, how the Ethical OS could inform the development of social work tech habits of mind, and the implications of an ethical OS tool in social work practices.

History of Technology in Social Work Practice

The history of technology in social work is long and complex. In 1982, Dick Schoech wrote one of the first published books to examine how technology could improve social work practice (Goldkind et al., 2019). As technology continued to innovate and expand across society, social work responded slowly and with trepidation (Krueger & Stretch, 2000; Parrott & Madoc-Jones, 2008; Schoech, 2013; York, 2008). More recently, digital technologies permeate the fabric of social work in nearly every aspect of the profession.

The influence of digital technologies and connected devices is evident in direct clinical practice (Mishna et al., 2012), child welfare (Sage et al., 2017), community practice (Sitter & Curnew, 2016), as well as in advocacy and activism (Brady et al., 2015; McNutt & Menon, 2008). Organizations are using digital technologies to make data-driven decisions that impact community-centered service provision (Kline & Dolamore, 2020; Schoech et al., 2002). Likewise, virtual reality technology plays a critical role in both the treatment of post-traumatic stress disorder (Nason et al., 2020) and the enhancement of student knowledge through virtual training simulations (Lee et al., 2020). Social media, such as Twitter and Pinterest, are also used in social work education to engage students in the classroom and support the implicit curriculum (Baker & Hitchcock, 2017; Hitchcock & Young, 2016).

This diffusion of digital technologies throughout social work has generated needed discussions about policy and the use of these technologies across research, education, and practice arenas (Young & Glennon, 2021). Proponents cited the benefit of "creat[ing] massive change and radical transformation in who is served and how" (Berzin, et al., 2015, p. 4), capitalizing on the intersection of social work professional presence as the largest provider of mental health services in the U.S., combined with the growing presence of personal technology in the field. Proponents further suggested that technology could improve perceptions of safety, client disclosure, geographical access, and cost options (LaMendola, 2010; Reamer, 2021).

Current literature points to possible risks in using technology in social work practice. Chief among them are the loss of human connection, potential fraud, and privacy violations (Reamer, 2021). Social work scholars Boddy and Dominelli (2017) describe social media as a new ethical space. The authors present a series of social media case studies then analyze the implications for social work practice. The following implications were highlighted:

- Technology's compression of time, such that relationships developed at a rapid pace.
- The distribution of the social worker and client's self across virtual space without considering the in-person implications.
- The potential for anonymity to embolden persons to broadcast hateful speech.

The authors urge deep engagement with critical social work and critical theory to raise questions about risk and identify opportunities for liberation (Boddy & Dominelli, 2017). Boddy and Dominelli's findings are yet another indication that the sheer ubiquity of

technology in the modern world is compelling the social work profession to evolve faster and with intention on this issue.

Power and Privilege in Social Work Technology

Social work's commitment to social justice goes beyond these general ethical concerns of technology use. Gangadharan and Niklas (2019) examine inequities in social work technology use through Nancy Fraser's model of abnormal injustice, which examines ways in which social and political institutions operate to create and maintain inequality. From the perspective of this model, technology use in social work has the potential to reinforce current systems of oppression and discrimination, rather than serving as a starting point for new forms of injustice (Gangadharan & Niklas, 2019). Helsper (2021) calls upon us to recognize that the digital inequality debates have moved from digital divides to gradations of exclusions through our skills and use, motivation, access to technology, engagements with technology, participation levels, and outcomes.

Designers could develop technology that accelerates surveillance of government benefit recipients, and such practices in the United States have been presented by Eubanks (2018) in their book *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*. Some technologies make Black people hypervisible and expose them to systems of racial surveillance while other technologies fail to see Blackness at all (Benjamin, 2019). Social workers may use technology intended to aid practice that also targets certain communities or racial groups for increased policing. When designers infuse their implicit biases into design, the potential for technology to accelerate discrimination and oppression underscores the need for thoughtful ethical guidance (Gangadharan & Niklas, 2019).

Current literature discusses varying perspectives on the issues of discrimination and social injustice related to the integration of technology into social work practice. Reamer (2018, 2021) suggests the use of technology as a method of expanding services to cover those living in rural or underserved geographical areas. Additional benefits include the opportunities for flexible scheduling or limited commute time for those with unpredictable work schedules (Reamer, 2018). Similarly, Parrott and Madoc-Jones (2008) underscore the ability of technology to promote practical, social, economic, and political empowerment among traditionally disenfranchised populations through community building, service accessibility, and prevalence of information.

Reamer (2014) also noted that benefits of technology in practice are limited to only those who are able to access particular services. Yet traditionally disenfranchised populations, who generally comprise the majority of service users, disproportionately lack access to technologies that are most prominently used in social work, such as computing devices or video chat applications (Perron et al., 2010). Gangadharan and Niklas (2019) discuss methods of high-tech discrimination, including misrepresentation, over-targeting, and maldistribution of services to disenfranchised populations. For example, Gangadharan and Niklas (2019) highlight the misuse of sensitive or personal data in Poland, where local government officials created a database of houseless individuals meant to be used by social service organizations but became widely available to the Polish judicial and police system.

Therefore, social work's commitment to combatting suffering and structural oppression mandates an ethical approach beyond the standards of private industry and government.

The Progression of Technology Standards in Social Work Practice

In response to this mandate, the National Association of Social Workers (NASW) developed specific "Standards for Technology in Social Work Practice" in 2005, with revisions in 2017 (NASW et al., 2017). Prior to the development of these standards, social workers had to navigate the use of technology in practice through experiential learning, scholarly publications that provided a few recommendations, and "word of mouth" wisdom. Due to a general lack of guidance on the use of social media in social work education, many educators crowdsourced a document to provide specialized knowledge of teaching and supervision with technology (Hitchcock et al., 2018). This academic literature provided suggestions that range from taking a very cautious and restrictive approach to refocusing the ethics discussion on improving the technological competence or digital literacies of social workers (Young et al., 2018).

Prior to the Standards for Technology revisions, the American Academy of Social Work and Social Welfare (AASWSW) launched the 13 Grand Challenges for Social Work. Unlike the other Grand Challenges, the Grand Challenge to *Harness Technology for Social Good* sought to fundamentally transform social work with respect to its relationship to technology rather than address a specific issue or problem (AASWSW, 2021). This Grand Challenge placed an emphasis on harnessing big data and deploying information and communication technologies (ICTs; AASWSW, 2021), but did not offer social workers a framework for anticipating the future impact of technology on social work practice.

In 2018, the CSWE Futures Task Force provided an additional call for action, contrasting high-tech versus low-tech future scenarios with critical questions for social work educators, practitioners, researchers, and students (Wilkerson et al., 2020). They provided several scenarios for the future of social work that describe alternative contexts in which social workers will be operating (CSWE, 2018). However, the report lacked an ethical framework to guide social workers in future planning for the field and its development, implementation, and evaluation of technology in practice.

Scholars have suggested that social workers consider their professional identities, what information they share online, and how various state, federal, or other institutional policies govern their practice (Kimball & Kim, 2013; Reamer, 2021; Walter-McCabe, 2020; Young & Ronquillo, 2022). In addition, the COVID-19 pandemic created an influx of telebehavioral health policy, services, and technology changes (Walter-McCabe, 2020; Wilkerson et al., 2020), leading to additional evaluations and considerations of these standards and calls to "harness technology for social good" (AASWSW, 2021, p. 24).

Although the Technology Standards, Grand Challenges, and CSWE Futures Task Force provide some foundational ethical guidance toward achieving this good, they lack a practical set of heuristics that social workers can enact as they engage in everyday practice. Furthermore, they require a more direct and robust set of statements and guidelines addressing issues of racism and structural oppression. The next section introduces the *habit*

of mind concept to move toward the development of initial guidelines. Subsequent sections build upon this concept by considering how a new tool – the Ethical OS – could inform the development of *social work tech habits of mind*.

Habits of Mind

Education researchers Costa and Kallick (2008) introduced the habits of mind concept to describe effective patterns of intellectual behavior. They asserted that these processes and strategies were particularly useful when a person encountered dichotomies, dilemmas, or uncertainty. In this instance, the habits of mind provide a cognitive frame in which a thinker can comprehend, analyze, and eventually integrate novel material into their existing understanding. Costa and Kallick's initial framework contain 16 discrete habits of mind, each with a pathway to behaving intelligently when confronted with problems. For example, thinking flexibly invites a learner to use a novel approach when solving a problem. A learner draws strong conclusions by considering disparate perspectives and comparing multiple sources yet remains open to change. Educational theorist John Campbell enhanced Costa and Kallick's model by outlining the theoretical influences supporting the habits of mind (Campbell, 2006). According to Campbell (2006), the habits of mind framework is supported by what we know about constructivist learning theory, emotional knowledge and understanding, and the malleability of brain architecture. In the case of flexible thinking, the ability to discern how context influences diverse ethical conclusions illustrates the cultural construction of knowledge. Reflecting on how one's own experiences affect their conclusion draws on emotional understanding. Both activities are enabled by the brain's ability to reorganize in response to new experiences (Armstrong, 2020).

This paper builds upon the habits of mind concept by initiating a conversation about how social workers can reimagine the use of technology in their social work practice. The essence of ethical decision-making is the ability to make decisions based on evidence in conditions of uncertainty. Namely, the authors ask, "what habits of mind are relevant to the encounter among ethics, social work and technology?" Social workers will need rigorous cognitive frameworks to guide our deliberations regarding the effective and liberatory uses of technology in everyday practice. Therefore, this paper culminates with an initial proposal for social work tech habits of mind. In the next section we provide a summary of the "Ethical OS" tool in order to detail the technology categories of concern that the social work tech habits of mind will address.

Background of Ethical OS

Key experts at the *Institute for the Future* developed the Ethical OS (Omidyar Network, 2018) through investments from the Omidyar Network – a silicon-valley based venture capital and philanthropic organization. Jane McGonigal, an expert in foresight and game design, Samuel Wooley, an expert in disinformation, and Raina Kumra, an entrepreneur in tech and society, designed the tool to be exceptionally user-friendly. It includes 14 "risky futures" related to existing emerging technologies, as well as eight risk zones in the real world, and seven future-proofing strategies. It is a tool to imagine, name,

and explore unintended consequences of ever-proliferating technologies – especially at the start up stage. It has been utilized in tech start-ups, foresight training settings, and in a variety of organizational and government settings over the last few years (J. McGonigal, personal communication, January 15, 2021).

The types of questions considered include:

- "If the technology you're building right now will someday be used in unexpected ways, how can you hope to be prepared?"
- "What new categories of risk should you pay special attention to right now?"
- "Which design, team, or business model choices can actively safeguard users, communities, society, and your company from future risk?" (Institute for the Future, Omidyar Network, 2018, p. 3).

Early reviews of the Ethical OS from media and academia were positive (Pardes, 2018). They highlighted it as a practical tool that enables users to assess ethical issues in real-world applications. Another review delivered a dose of skepticism (Watson, 2019), reminding users that tools developed from within the tech sector were not going to disrupt larger industry-related ethical concerns (Benjamin, 2019; Hao, 2021). One research investigation explored the use of the tool in emerging user-experience practices. Their findings spoke to the strengths of using the Ethical OS in the early stages of tech development, as well as including it in educational settings for those learning to build technologies (Lilley et al., 2020). Overall, the Ethical OS appears to have practical application but may be constrained by the tech insider view of its authors.

Figure 1. *Ethical OS* (Institute for the Future and Omidyar Network, 2018, p. 6)

This paper integrates the Ethical OS as one emerging model that can benefit a social work profession that is both lagging behind and grappling with its understanding of technology use. However, we also recognize the contribution that social work values make to the Ethical OS. As a field committed to social justice, social work has an opportunity to broaden and deepen the tool's ability to respond to critical societal concerns. Figure 1 illustrates the Ethical OS architecture. It is followed by a brief description of each of the eight risk zones.

Descriptions of Ethical OS Risk Zones

Zone 1: Truth, Disinformation, and Propaganda

Risk Zone One requires tech designers and users to identify how shared information may be under attack while examining the truth in the information, properties, and technologies being used, presented, or represented.

Zone 2: Addiction and the Dopamine Economy

Risk Zone Two requires tech designers and users to think critically about the implications of technology tools on human interactions. By identifying the potential for tech addiction and increased distraction, this zone addresses the physiological and psychological effects tech can have on well-being.

Zone 3: Economic and Asset Inequalities

Risk Zone Three requires tech designers and users to assess how new and emerging technologies could affect global economic and asset inequality. The authors outline three areas of ethical decision-making that could influence societal risk – access to technology, the ability to monetize and profit from technology, and potential job displacement.

Zone 4: Machine Ethics and Algorithmic Biases

Risk Zone Four requires tech designers and users to examine the human bias in algorithms and deep data sets. It acknowledges that persons bring their biases with them when they construct technology. This zone also suggests accountability for algorithms that misidentify or unfairly assess someone.

Zone 5: Surveillance State

Risk Zone Five requires tech designers and users to examine how technology can be co-opted by governments and militias for use in attacking the opposition. It also considers the long-term effects of data sets on people's opportunities and privacy.

Zone 6: Data Control and Monetization

Risk Zone Six requires tech designers and users to address the private and public sector's vast collection of personal and institutional data. The authors outline four domains of ethical decision-making related to data control and monetization – data collection, selling data, user rights, and safeguarding of data. An ethical public or private entity would need to provide an ethical rationale and transparent process for collecting data, a set of

rights for persons represented in the data set, a declaration of monetization as well as a plan for profit sharing, and a reliable means for safeguarding privacy.

Zone 7: Implicit Trust and User Understanding

Risk Zone Seven requires tech designers and users to consider the implicit trust and general understanding users have about their technology. It requires them to develop a universally applied code of user rights.

Zone 8: Hateful and Criminal Actors

Risk Zone Eight requires tech designers and users to anticipate how their technology could be used for anti-social purposes. They must consider how hateful actors can push their agenda in tech spaces, as well as use it to further disenfranchise marginalized communities and further structures of systemic oppression. Furthermore, designers and users must question their obligation to prevent or mitigate these potential effects.

Table 1. *Risk Zones and Social Work Practice: How ethical OS risk zones inform questions of social work practice and technology use.*

Risk Zone	Questions Practitioners May Ask
One: Truth, Disinformation, Propaganda	Does this technology spread disinformation and propaganda that could lead to confusion, fear, and harm among the clients and communities served? How can social workers educate colleagues, clients, and communities on how to vet information shared via technology?
Two: Addiction & the Dopamine Economy	How may the use of this technology enhance or hinder the client/community's quality of life? How can social workers provide recommendations for when to adopt or pause technology use?
Three: Economic & Asset Inequalities	Does the community have reliable access to this technology? If not, how can access be increased? How will access and use of the technology provide new economic opportunities and resources to the communities?
Four: Machine Ethics: Algorithmic Biases	Who developed the products/software in use? How were algorithms trained? When is it appropriate to use algorithmic tools as a supplement to practice wisdom?
Five: Surveillance State	Is the client/community aware of how the data are audited, used in reporting, and decision making? Do the pros of using the technology outweigh the cons?
Six: Data Control & Monetization	Who controls the data that is collected? How do funders use data from the technological tool/platform used? How do these processes impact the personal agency and privacy of the client/community?
Seven: Implicit Trust & User Understanding	How can social workers create more transparent systems that allow clients to see every aspect of their data? How can a client have control over their data?
Eight: Hateful & Criminal Actors	How can social workers collaborate with colleagues, clients, and communities to help prevent and/ resolve bullying, harassment, and criminal/fraudulent activities that include technology or online platforms?

Table 1 summarizes how these risk zones could inform critical social work practice questions. It applies the Ethical OS to social work practice scenarios and considers if the

tool can be a steppingstone to increased social work tech imagination, understanding, and fluency.

Social Work Technology Habits of Mind

The questions in Table 1 illustrate the potential application of the Risk Zones to technology use in social work practice. This section conceptualizes these questions and advances six social work tech habits of mind. These habits of mind provide a cognitive starting point for social workers when they encounter tech-related ethical dilemmas.

1. **Think about the intention of the technology and its potential ripple effects.**
   Consider how the designer intended for the technology to be used. Ask how the purchasers intend to use the technology in social work practice. Brainstorm about possible effects outside of designer or user's intentions.
2. **Listen deeply and to multiple sources.**
   Devote mental and emotional energy to understanding the experience of all users.
3. **Consider multiple effects and outcomes.**
   Stay open to the possibility that though a given technology might be unethical in one situation, it might be ethical in another.
4. **Ask if the technology promotes or inhibits liberation, harm, and unnecessary risk.**
   Remain vigilant about the ongoing effects of technology on social work values. Identify ways in which the technology extends pre-existing marginalization. Analyze the degree to which it benefits persons versus the potential harm and risk.
5. **Respond as a student of technology.**
   Always acknowledge the rapid pace of technological change and assume that you need to stay up-to-date on how a given technology may have changed. Engage experts outside of the field in order to understand how a given technology works and is being used in other places.
6. **Be temporally flexible.**
   Learn from the past. Use the best knowledge available to act ethically in the present. Anticipate how technology will affect social work's future.

Practice Implications

Ethical tools and habits of mind are only useful to the extent that they provide a bridge between a practice dilemma and the ethical use of tech. A cursory and superficial nod to ethical deliberation amounts to a rubberstamping described as "ethics washing". This term refers to superficial efforts to organize, position, and empower specific agents within a sector to "work on" ethics but simultaneously somehow not really change the way things happen (Metcalf et al., 2019). Social work could say that it has met its ethical obligation while client populations suffer.

There are at least four social work practice considerations crucial to engaging in ethical technology use. First, social work governing bodies, social service agencies, and other sites

of social work practice will need to develop procedures and processes that encourage practitioners to engage in ethical technical behavior. For example, a committee formed of administrators, tech specialists, social work practitioners and members of a client population could convene to assess tech use, future tech needs, and the impact such tech has or might have on the client populations being served.

Second, social workers will need to be able to state their ethical concerns without fear of consequences. When agencies or governments have invested a great deal of material resources into tech adoption, they are more likely to dismiss or punish detractors. Therefore, it is important to embark on a pilot of new tech prior to adopting it. Third, social work users of technology will need to engage in continuous and rapid ethical monitoring. As this paper has shown, a beneficial technology can easily become weaponized against clients without proper monitoring. Responsible users are duty bound to proactively consider unintended consequences. Data from on-the-ground social workers should be collected to engage in this process. Finally, social work will need to continue to develop transparent methods for informing practitioners and client populations about the technology they are using (NASW, 2021). Client populations will need opportunities to opt-out without consequences to their service use.

Conclusion

Collectively, the authors find the Ethical OS potentially useful with additional study and exploration in the intersectionality of the field of social work and technology. That said, the authors recognize that there are emerging additional frames and models that also merit attention and consideration for the social work profession (Gasser et al., 2020) – and that each of these frames and models have potential to enrich and strengthen ethical tech practices across the profession if used in a way that is guided by ethical social work or informed by the code of ethics (NASW, 2021). This exploration is preliminary and offers an orientation, not an endorsement, of the Ethical OS tool.

Accountability at all levels of practice is essential to social workers and their clients' lives. As technology rapidly advances and expands its presence in social workers' lives, the profession, and their practices, social workers need to be aware of how the technology was developed and the ethical considerations when using technology (Belluomini, 2013; Reamer, 2021; Young et al., 2018). Social workers can learn to exercise old but newly applied ethical muscles in this territory to avoid being co-opted into tech industry standards and/or committing ethics washing (Bietti, 2020). As technology is further integrated into our services, accountability to clients through transparent processes at micro, mezzo and macro levels is one step toward maintaining current ethical standards (NASW, 2021), all while considering the ways in which our profession can reimagine ways to remain as a guiding standard.

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