IRTP INTERNATIONAL REVIEW OF THEORETICAL PSYCHOLOGIES

• Vol. 1, No. 2 • 2021 • (pp. 243-257) •
www.istp-irtp.com

DOI: http://dx.doi.org/

Changing self in the digital age: The impact of digital technology on the self and person

Randal G. Tonks

Camosun College

Victoria, Canada

Abstract

This article integrates William James' (1890) theoretical model of Self with contemporary theoretical discourse and recent research on the impact of digital technology upon the Self. An overview of James' self-theory is presented and followed by a detailed review of contemporary publications on self in our increasingly digital world; organized around the Spiritual, Social and Material realms of James' "Me". This is followed by this author's extension of James' concept of "I" into contemporary discourse on the person in terms of authenticity, agency and power. It is shown that the "Spiritual Self" is reflected in technology as fragmented, decentred and dislocated while the "Social Self" has expanded into virtual communities; continuing to seek recognition from others, but in a magnified and accelerated fashion. A cultural shift has been identified towards one of simulation and surveillance. Transformations of the "Material Self" in terms of physical bodies, interaction with the material world, and with material others, are presently observed. This author's conceptual and theoretical exploration has also shown a corresponding loss of control and fracturing of the status of the person through the rise of surveillance and loss of personal rights that challenges the theoretical construct and everyday experience of persons.

Keywords: Self, Person, Digital, Technology, James

This article examines the impact of computers and digital technology on the contemporary self. It begins with an overview of William James' (1890/1950) self-theory and examines the Spiritual, Social, and Materials selves along with the "I", or ego. This is followed by a more detailed examination recent publications on self and digital technology as they apply to James' theoretical model of self. It begins with changes to the Spiritual or psychological self, followed by a discussion of impacts on the Social self along with the growth of virtual cultural communities. Next is a presentation of the ways in which digital technology has impacted the Material self through its influence on our bodies, our relationships to the material world and material "others" in that world. This article finishes with this author's analysis of the impact of

digital technology on the "I" as person by examining the ontology of persons and issues of ethics, authenticity, agency and control.

The Construct of Self

Self-understanding and self-theory have been around since the dawn of civilization, something that has been well documented since 1500 BC in India (Paranjpe, 1998) and over the centuries in western philosophy (Taylor, 1989). Paranjpe (1998) provides a comparative history of both affirmations and denials of self in Indian and European philosophy and psychology, while also identifying the distinction between self and personhood. In modern times, the model of self according to William James (1890/1950) offers a foundation from which contemporary development in self theory can be examined (Hermans & Hermans-Konopka, 2010).

James' (1890/1950) model has two primary components, the subjective "I", or stream of consciousness, and the objective "Me", which in turn, has three principal components that are experienced by the "I" through self-feelings (emotions) and attachments to various components of "Me". The "Me" is comprised of the Material, the Social, and the Spiritual selves, where James states:

> *a man's Self is the sum total of all that he CAN call his*, not only his body and his psychic powers, but his clothes and his house, his wife and children, his ancestors and friends, his reputation and works, his lands and horses, and yacht and bank account (1890/1950, p. 291, italics original).

The *Material Self* is made of one's body and one's sense of being physically embodied and attached to material possessions like one's clothes, house, lands, animals, tools and technology. The *Spiritual Self* entails one's thoughts and "inner subjective being …. a reflective process" (p. 296) that exists dialectically with the "I", as a "felt" acquaintance of ownership of one's thoughts, ideas, and imaginations.

Arguably the most complex constituent of the self for James, the *Social Self* is not merely grounded in one's conscious experience, but also is manifest in the surrounding social communities with whom one participates. He states that: "[a] *man's Social Self* is the recognition which he gets from his mates" (p. 293, italics original) where we have "an innate propensity to get ourselves noticed, and noticed favorably, by our kind." (p. 293). The Social Self is also multifaceted, where: "[p]roperly speaking, *a man has as many social selves as there are individuals who recognize him* and carry an image of him in their mind. To wound any one of these his images is to wound him" (p. 294, italics original). Additionally, James states that "we may practically say that he has as many different social selves as there are distinct *groups* of persons about whose opinion he cares" (p. 294, italics original). Thus, the Social Self is in the recognitions one receives from others as well as the perspectives, attitudes, and 'common sense' that are shared with others in communities and social life. Moral evaluation of the person is also part of the Social Self for James where he states that "[a] man's *fame*, good or bad, and his *honor* or dishonor, are names for one of his social selves." p. 294, italics original). This is where the self and "person" merge, where the person is part of a socio-moral tradition recognized to have rights and responsibilities (Paranjpe, 1998; Taylor, 1989).

While James fashioned this modernist model of self against the historical tradition of self in western philosophy highlighted by Locke, Kant, and Hume (Paranjpe, 1998), one can easily find

it relevant to contemporary, post-modern times (Hermans & Hermans-Konopka, 2010; Tonks & Bhatt, 2016). With this in mind, a more detailed examination of the application of James' model of self follows, centering on the contemporary influences on the self by digital technologies.

The impact of computers on self

This section integrates a review of early 21st century scholarly publications on the self in our digital age with James' self-theory and other contemporary theory on: self, community, culture and materiality. While the author presents many of the positive benefits of digital technologies on the Jamesian self, many negative effects are also presented.

"New technologies shape our identities by providing us with a different perception of the world" (McLuhan, 1964/1994; quoted by Rosenfeld, 2015, p. 69). In her book on the *Virtual Self*, Nora Young (2012) describes how, for centuries, technology in many forms of measurement and accounting (i.e. diaries, calendars, clocks, and computers) has fostered a transformation of self. Effectively, these technologies enable the development of a "mirror" of self, one that provides opportunities for change and alteration (Turkle,1984, 1995, 2011, 2015).

Various psychologists and sociologists have recognized the effect of "mirrors" or representations on our self-development. Charles Cooley (1902/1964) was a leader in the field where he described the "looking-glass self" that is developed in relation to how we are *reflected through the eyes of others* and what other people think about us (Paranjpe, 1998). Essential to this process are: imagining our appearance to others; imagining their judgment of that appearance; and a self-feeling (i.e. pride or mortification) about each (Rosenfeld, 2015). The impact of computers as a looking-glass has transformed many facets of the self and its social relations in communities (Turkle, 1995, 2011, 2015), as well as its relationship with the material and virtual worlds (Young; 2012; Rosenfeld, 2015).

The spiritual / psychological self

Clearly the most prolific scholar on the impact of computers on our sense of self over the past 40 years has been Sherry Turkle (1984), who began in the 1970s to analyze human computer interactions and the emergence of a "Second Self". She offers a developmental model of the impact of computers on self and identity beginning with gaming and programming. Her developmental analysis is built on the stages of metaphysics, mastery, and identity formation in describing how children and adolescents respond to computers. Young children, she contends, interact with computers in a metaphysical manner, acting as though the machines are alive. Older children come to take mastery over computers through learning to program and interact with them, eventually to come to develop their identity (Erikson, 1968), by "thinking through" the machines and gaining self-understanding by having their identity objectified or "mirrored" in the machines.

Turkle (1995) describes how people create new personae in their online games and multi-user domains, being able to alter one's attributes, including their gender. Resulting from this, she contends that "the self is multiple, fluid, and constituted in *interaction* with machine connections" (Turkle, 1995, p. 17, italics added). This interaction gives rise to a *heterotopia,* which is "a mix or joint experience" (Rosenfeld, 2015, p. 76) that arises through looking into a mirror. Based upon Foucault's example, this experience is both existentially real in the moment

of embodied looking into the mirror, and unreal requiring one to travel to some other virtual point in the mirror. Such heterotopias lead to a fracturing of perspective of self and are accelerated by the use of computers to digitally construct idealized images of self and others through social media (Rosenfeld, 2015).

Turkle (1995) argues that computers provide a grounding of the "post-modern aesthetic" in everyday life, giving rise to a "protean self" that is non-linear, opaque, multiple, fractured, and shifting from context to context (Lifton, 1993). She raises the possibility that this state could fall to the extreme of Multiple Personality Disorder (MPD) but may be recentralized as in Jung's model of self as a complex of archetypes. Here, in describing this multiplicity of self, Turkle (1995) suggests that a core identity is still possible; something like having a "home page" with hyper-links to other facets of self. This proliferation of selves is also recognized as the fluid "dialogical self" that is de-centered and distributed across a matrix of shifting positions (Hermans & Hermans-Konopka, 2010). Such positions are woven together to produce self-narratives, where self, or identity is built through, and sustained by, narrative story-telling while integrating external events (Rosenfeld, 2015).

The narrative nature of the digital self is seen with "the self as reflexively understood by the person in terms of his or her own biography" (Tredennick, 2008, p.52). The self has continuity despite a constant reconstruction as "a negotiation between our past and our present" (p. 52), where this dialogical self is socially co-constructed through the play of language and communication games (Vitanova, 2010). Traditionally, self and identity were constructed through the interactive *mutuality* of physical and social play in real life (Erikson, 1950, 1968; Tonks, 2019), while today they are socially constructed through texting, social media, interactive online play, and story-telling. With this shift from Real Life (RL) reality to Virtual Reality (VR) identity formation occurs through interaction with an accelerated number of players within a multiplicity of cultural contexts, leading to a proliferation of multiple identities for each self (Turkle, 2011; Rosenfeld, 2015).

The Social Self

Digital technology has had a significant impact on the Social self, ranging from recognitions and reputations that others have of one's self as well as the shared attitudes and opinions of virtual social and cultural communities (Tonks & Bhatt, 2016). Social media and communication have clearly had a positive benefit to millions globally through forming social connections and the development of online communities, as experienced during the COVID-19 pandemic, however, many negative outcomes have also been reported.

According to Turkle (1984; 1995; 2011) the transition from gaming and bulletin boards to chat rooms, and then social media, has provided a means through which people can judge others and be judged by others. People are judged by their electronic selves in terms of what they post to their profiles showing what they think, how they look, what they are doing, and at what locations they are visiting. With the development of social media, people have come to "friend" or accept others as followers; evaluate and be evaluated through "likes" or "loves", or by being trolled, blocked, or de-friended. James states that "[n]o more fiendish punishment could be devised, … than that one should be turned loose in society and remain absolutely unnoticed by all the members thereof. …[where they] 'cut us dead'" (1890/1950, p. 293).

Lyon (2018) describes a further transition from gaming to surveillance that is built upon this "scophillia" or "love of being seen" (p. 122). People have developed a performative and confessional self that is "both the triumph and betrayal of privacy" (Lyon, 2018, p.130), by blurring boundaries in the shift from private to public life. Social media accelerates and magnifies the performative, presentational, and confessional self where everyone has become an online actor and voyeur, subject and object on display that is subject to admiration and praise as well as criticism and trolling (Turkle, 2011; Rosenfeld, 2015). Engaging in social media pushes people towards transparency and openness of self-presentation (Rosenfeld, 2015), where there is growing pressure to disclose and become a fully transparent self, as seen in contemporary narratives such as the book *The Circle* and the Netflix program *Black Mirror* (Lyon, 2018).

The rise of virtual cultures

Virtual communities and cultures can be understood through the ontological categories of knowledge, space & time, and embodiment that are foundational to real life communities (Willson, 2006). They are built upon social norms, values, and attitudes that form the basis of bonding, commonality, and reciprocity central to natural communities. Communities can also be understood in terms of the historical periods of the Traditional, the Modern and the Post-Modern (Willson, 2006). The *Traditional* is grounded in place and history; identity is unchosen and embodied and developed through face-to-face relations (Willson, 2006). The *Modern* shows a shift to increased choice where one can have a multiplicity of community identities that are grounded in a stable sense of time and space. Identities are mediated through institutional forms and are organized around more extended communicative relations. The *Post-Modern* involves extended choice and flexibility of identity, free from the embodied or geographic location. Further, identity is mediated through technology and abstract integrative practices, making it primarily disembodied and dislocated. Willson states that "[t]ime becomes experienced as immediate and compressed, multiple and fragmented, yet easily accessible and traversable" (2006, p. 39). She also cites Marshall McLuhan, who identified the technological shift from acoustical space (which is intimate and subjective) to "visual space [which] enables detachment and objectivity" (2006, p. 72). This is also echoed by Young (2012), who describes the technological creation of a hyper-connected and remote social world as one that dislocates time and space. "New technologies enable not only speed but *acceleration*, which in makes mobility a basic feature of life changing the relationship between space and time" (Lyon, 2018, p. 167, italics added).

These shifts in space and time are features of the emergence of digitally abstracted realities. Rosenfeld (2015) provides a detailed analysis of a spectrum of ontological realities ranging from *Real-Life reality* to *Hyper-Reality*. In between these extremes are the increasingly abstracted worlds of Simulated-Reality, Augmented-Reality, and Virtual-Reality.

Simulated reality has been around for centuries in the forms of art, literature, and other representations of human life and lived experience. Turkle (1995) identifies the growth of a *culture of simulation* that begins with television media and consumer culture as observed in visiting shopping malls and Disneyland; while now interactive computers provide a simulation of life and the possibility for re-writing one's self and identity in myriad ways. Based upon ethnographic interviews, Turkle (2011) reports that people have come to prefer intimacy at a distance through simulated experiences and relationships, even though this gives rise to feelings of isolation and abandonment, and disruptions to traditional social relations (Waters, 2019).

Rosenfeld (2015) identifies the further emergence of a*ugmented-reality* which is more common today, as seen in using one's phone to view online reviews to find a good restaurant or to virtually "try on clothes". *Virtual-reality* involves a more abstracted and immersed experience of not only seeing abstracted information blended with real life, but the opportunity for individuals to interact with and manipulate the virtual world they are experiencing. Such technology can be used to help amputees to relieve their phantom limb pain as well as to train people in overt motor skills. *Hyper-reality* takes human consciousness and identity into full immersion in computer generated realities, experiencing them as realty, as in the films The Matrix and Avatar.

Human lived experience transcends and navigates through these realities, with people living "virtually" online and creating virtual communities and cultures. Resulting from these virtual worlds is the emergence of digital online cultures as well as virtual cultures that exist in parallel with real life cultures.

Contemporary digital information cultures are built upon textuality, as seen through websites, blogs, email, and messaging. These formats give rise to shared narratives of the values and norms of both real and virtual cultures (Tredennick, 2008). Self and identity are influenced by digital communities and cultural industries that give rise to the development of mythologies and narratives of personal experience. These narratives reveal our human values and normative expectations of action online and in everyday life. Such historically shared narratives of self and society can be described as mythemes that guide social action and self-development (Boesch, 1991). *Mythemes* are central to cultural life and offer narratives of folk stories and social action in the form of myths, counter-myths and trans-myths (Valsiner, 2014). Self and identity are shaped by myths and counter-myths where participation in such mythemes provides a person with a field of meaning, including meaning of one's identity. Such mythemes are found in cultural dramas where a "person cannot escape from the field of dramatized events" (Valsiner, 2014, p. 102), and have their identities inevitably shaped by those dramas. The role of trans-myths is to transform society; trans-myths around computers and technology abound, commonly around how computers transform the self, transform society, and transform life itself in both utopic and dystopic visions.

Rosenfeld (2015) identifies the role of such mythologies in identity, education and society. Media portrayals of identity and moral action demonstrate shared values and expectations of normative action. Lyon (2018) describes how digital technology has given rise to a *culture of surveillance* through the processes of performance, compliance and normalization. Building upon Charles Taylor's (2004; 2007) notion of "social imaginaries" or "moral orders", Lyon shows how we have come to develop *surveillance imaginaries*, or expectations about surveillance and how and why we live with it. Beginning with the fun and play of gaming, and later through an introduction of fear from "911", there has been a proliferation of surveillance where today it is all too familiar in the forms of everyday and ordinary surveillance (i.e., loyalty cards, security cameras & social media). Lyon states that "to engage with surveillance culture is to ask about hearts and minds, everyday attitudes and actions, as well as to analyse technologies, profits or policies" (2018, p.173).

Rosenfeld (2015) echoes this concern over "America's general acceptance of surveillance" (p. 106) where what was once thought to be extraordinary is today ordinary and routine. The push for transparency through surveillance is tied in with the neoliberal consumerist narrative. It guides people to become more open in their self-transformation; documented through technology and shared with others to become a happier and better person. Agger (2004) offers neo-Marxist

critique of the impact of computers on self and society, largely against the role of capitalism where the internet has become a cultural industry that promotes consumerism and "self-production" through the creation and promotion of consumer "needs" for commercial and political manipulation. Edward Snowden (2019) further warns us about the wrongful use of *surveillance* where corporations and governments are collecting "*big data"* and engaging in data analytics to control consumers, to control voters, and to control citizens. Rosenfeld (2015) shows that surveillance culture is also accompanied by counter surveillance cultures as with the case of first-generation hackers and more recently cyber-activists like Anonymous. This will be considered in more detail in the final section of this article.

The Material Self

While, as indicated above, the impact of computers on the self has led to a "disembodiment" and dislocation of self, it is also apparent that our material selves have been altered in three principal manners. First, digital technology has had an impact on our physical bodies including health benefits and liabilities. Second, we have begun to physically merge with digital technology, or engage in "hybridization", through wearable technologies and bionics. Third, we have changed our relationship with real life material others through our relationships with devices, robots, and the internet of things.

Reflecting on the disembodiment of our materials selves, Turkle (2011; 2015) reports that people want to avoid talking on the phone, which is seen as revealing too much information or being too intrusive; rather, people prefer the more distant and controlled "social" interaction of *texting* or using social media. Young (2012) says that people need to use digital technology critically and consciously otherwise "surrendering ourselves to a disembodied distracted self" (p. 5). Miller (2012) refers to this digital disembodiment as a *crisis of presence* based upon a metaphysical stance of being-in-the-world promoted by on-line living, something that Dreyfus (2001) identifies as a threat to our primordial embodied "grip on the world" (p. 55).

Impact on our bodies

Human bodies have been impacted by digital technology in many ways, including our activity levels, body weight, sleep, and emotional reactions. Turkle (2011) describes a rise in anxiety due to be being "always on" or connected to digital technology and from being under scrutiny or surveillance. Marshall McLuhan stated that "[w]e have to numb our central nervous system when it is extended and exposed, or we will die. Thus the age of anxiety and electric media is also the age of the unconscious and of apathy" (quoted, in Young, 2012, p. 84). Others have shown various impacts on our bodies, mental and physical health, such as a rise in anxiety and depression due to social media use (Elhai, Hall & Erwin, 2018). Young (2012) refers to Linda Stone's description of "Email Apnea" where engagement with digital technology affects our breathing, while others describe the impact on sleep interruption (Twenge & Campbell, 2019). It has further been identified that night time use of cell phones gives rise to excess body weight, poorer diet quality, and lower physical activity (Chahal, Fung, Kuhle & Veugelers, 2012), and an increase in stress and attentional deficits (Waters, 2019). Recently, during the COVID-19 pandemic many people report *Zoom fatigue* from too much time in online streaming meetings. We have yet to observe the impact on health from binge watching, although it has been studied as an addictive behavior (Alter, 2017; Riddle, Peebles, Davis, Xu & Schroeder, 2018). Alter (2017) reveals key behavioral techniques for developing addiction to digital devices and their

content. Aside from these negative impacts of technology on our bodies and health, many positive benefits from technology have been established such as heart and fall monitoring among cardiac patients and seniors. These technologies have also been used to monitor diabetes (Katz, Mesfin & Barr, 2012) and have been used for clinical diagnosis and gamified treatment of depression and anxiety (Arean & Cuijpers, 2018).

Hybridization: Quantifying and interfacing the self

Prostheses and other medical devices attached to the body have been around for centuries, however, digital technology devices have led to an accelerated change in our sense of self, embodiment, and materiality. Turkle (1995) examines the proliferation of "mind altering" biofeedback devices such as goggles, headphones, and helmets, that have since become commonplace in the form of "wearables". This has led to the development of a *virtual self* that has expanded and flourished through the use of wearables and the self-tracking (*quantified self*) movement (Young, 2012). Recent development of portable, ready-to-hand, mobile technologies, with smaller sensors has enabled people to record and share their experiences for self-enhancement or recognition on social media. As such, a growing number of people are having a 'data-driven' life in contemporary augmented reality where people can easily track their behaviour and bodily attributes, athletic performances, mood and mind states, health and wellness (Young, 2012).

Aside from these many new health benefits, the online sharing of one's performances or recorded achievements, such as the number of steps they have taken in a day has also increased. Self-tracking has led to the creation of "digital doppelgangers", online doubles about which some people have become obsessed. This is the case of the online publication of the *Felton Annual Report*, a complete digital record of all everyday events in the life of Nicolas Felton (Young, 2012). Such personal data banks also give rise to aggregate data from a variety of people that is used to create data maps to track disease-spread, crime-rates, and consumer habits (Young, 2012). This will be examined in more detail in a later section.

People have also come to reap the benefits of devises that allow augmented experiences such as using google maps to navigate a city in real life or making notes to enhance one's memories; dividing attention on two or three parallel activities (Rosenfeld, 2015). The accelerated use of *external* digital technology has been accompanied by a proliferation of *internal* or bionic implant devices that many people rely upon to maintain or enhance their lives. Rosenfeld (2015) refers to all of these as the formation of a t*echnomensch,* a computer-human coevolution where "our sense of self is mediated through cyberspace, presentational media, … smart phones, …. where hyperreality is reality and we no longer live on the other side of the mirror as Foucault argues but rather the other side of the mirror no longer exists" (p. 88). This merging of what has been parallel living of the self and the mirrored self gives rise to the possibility of the emergence of *transhumanism*, human-body-electronic melding or even *posthumanism* with the emergence of new cyborg species.

Material others in real life

How we interact with the material world has also been impacted. In North America, there has been an explosion of the use of technology to acquire goods and services, such as food from *Skip The Dishes,* flights and hotels with *Expedia* or *Air BnB*, getting home with *Uber,* or shopping at

Amazon. As we find ourselves in the midst of the COVID-19 outbreak and isolation protocols have been invoked, many of these services have vastly expanded and it seems that nearly every other shop or service has gone online, many with free home delivery.

Over the last decade there has been a marked shift in people's relationships with material objects where, for example, many people no longer collect physical CDs but rather download music from *iTunes* or listen to it streaming through *Spotify* which makes up 80% of the music market today. Turkle (1984) alternatively shows how through early home computer kits, and the development of programming and hacking, individuals came to "make the computer their own", stylized and tailored to their own needs. She further discusses the attachment or feelings people have for the electronic devices as part of the "holding power" of interactive devices to grab our attention and direct our actions (Turkle, 1995). The strength of attachment that people have to their cell phones has been described as "nomophobia", the fear of being without mobile phone contact (Alter, 2017). Not only is there a growth of attachment to such material possessions, the neo-liberal consumerist culture of today promotes disposal and acquisition of the latest devices with newest features and capabilities.

Adam Alter (2017) identifies the intentional development of addiction to technology through the behavioural principles of: compelling goals just beyond reach, unpredictable positive feedback, incremental progress, unresolved tensions, and strong social connections. This often makes use of gamification combined with portable technologies, making them "irresistible". He notes that Steve Jobs helped to develop such technology while prohibiting his own children from using it. Social media provides endless feeds and notifications on what one might be missing out on, while Netflix also incorporates these principles with episodes ending in unresolved conflicts along with "post-play" that automatically loads the next episode of a series, bringing temporary resolve.

Some material objects have risen to the status of material "others" with which arise sophisticated and complex human-machine relationships. Turkle (2011) further describes the intimacy that we seek with and through our devices as involving some *projection* and *transference* of our needs and wishes onto them. She shows this through reports of people's experience with robotic pets, robotic assistants, robotic nurses and even robotic sexual partners. She provides many cases of when robotic pets become non-functional, their owners would refuse to reset them to "start over" but would rather leave them for dead, often having robot funerals.

Turkle (2011) identifies the "creation of a thou" in robots that raises the question of authenticity of human relationships with robots. She also raises the question of consciousness in robots which blurs the boundaries between creator and created, programmer and programed. Similarly, Lyon (2018) draws from Levinas in examining *alterity* in dealing with the internet of things, including smart phones, smart televisions, smart streets and smart cities. What is missing from most of these encounters, however, is the crucial exchange of "faces". Robot makers in Japan are now working on those features to provide facial feedback from robotic others (Okada, 2017). Willson (2006) also examines the "I-thou" of inter-subjectivity within virtual communities along with identity and authenticity. Through such authentic exchanges between persons, responsibility by and for each other emerges (Lyon, 2018).

The person in the stream

This paper has examined the objective self or "Me", as it has been impacted by computers and digital technology. It will now consider the manner in which the subjective self, the "I", the ego, or the person has been impacted. James' (1890/1950) subjective self, or "I" as stream of consciousness, is comprised of the characteristics of: being *personal*, constantly *changing*, and having a *continuity* of experience with *intentionality* and *choice*. When examining the relationship of James' self as "I" with electronic devices and digital technology, we can consider the issues of: personhood, authenticity and ethics, control and power over persons. Here, this author enhances James' theory with contemporary theoretical analysis of persons and personhood.

Paranjpe (1998) identifies the basis of personhood as the *trilogy of mind* which involves cognition, conation and affect. Here, like with James, personhood is tied to an embodied consciousness that has the capacity to *think clearly*, to have appropriate *emotional responses*, and to make *volitional choices*. The conception of a person has also been recognized as an *identifiable, embodied being* with *self-understanding* and *agency capability* (Martin, Sugarman & Hickinbottom, 2010). These essential components indicate that a person must be a living individual agent who is historically and culturally influenced, one who possesses an understanding "that discloses and extends a person's being and activity in the world" (Martin et al., 2020, p. 2). These characteristics are considered when judging the legal status of persons and the granting of rights and responsibilities (Paranjpe, 1998).

As described above, Turkle (1984) states that a decentering revolution has occurred in terms of the impact of computers on how we think of ourselves, similar to the revolution in psychoanalysis. She states, however, that neo-Freudians rescued the ego back from Freud's decentering and that it remains unclear what will happen with the computer's enduring attack on "I". Turkle (1995) further looks to Robert Jay Lifton (1993) for solutions, where one could: (1) return to traditional dogmatic unity, (2) turn to religious fundamentalism, or (3) embrace the fragmented self. This is the route for Hermans and Hermans-Konopka (2010) who posit that the post-modern self is no longer the unitary self of William James, but rather a dialogical self-represented by multiple "I"-positions. In *Dialogical Self Theory*, each person takes on multiple "I-positions" or stances through which one interacts with others (Hermans & Hermans-Konopka, 2010). With the fracturing and multiplication of the "I" from computers, there is a blow to personhood where the ascription and recognition of rights and responsibilities to the person is obfuscated with no singular agent to be held ethically and legally responsible (Lyon, 2018).

Vittanova (2010) identifies the social construction and interpretation of multiple narratives of the dialogical self as: "I-for-myself", "I-for-the-other", and "the-other-for-me". Self-awareness is developed in part through "the eyes of the other" as one creates narratives of self through interaction with others. Lyon (2018) identifies *visibility* as the basis of recognition for formation of personhood, "looking into the eyes of the other" (p. 178), something that has been altered by digital technology, particularly by social media. According to Miller (2012) online life diminishes face-to-face *presence* which is central to the recognition of, and ethical responsibility towards, others. This loss of presence reflects the shift from being subjective beings exchanging glances to becoming objects viewed from a distance. This too marks a loss of personhood devoid of subjective exchange and mutual recognition.

Turkle (2011) provides numerous examples of where consciousness is perceived to exist within digital technology. With the development of robots and artificial intelligence, she contends that we are forced to contemplate not only our own personhood, but also that of our devices. She identifies the question of aliveness and the prospect of "the *singularity*" unfolding. Should forms of *artificial intelligence* or robots acquire the capacities of cognition, conation, and affect, they may be considered persons. Likewise, with the development of digital doppelgangers, what is their place in the world of ethics and personhood? This raises the issue of the authenticity and identifiability of which is the real person, the one to be recognized, given rights, and held morally and ethically responsible.

Willson (2006) identifies Charles Taylor's (1991a) "*ethics of authenticity"* along with the ideology of autonomy as being central to the moral orders of many contemporary communities. While the contemporary social order commonly views authenticity with an emphasis on "individual and particularistic needs, desires, and rights – self-fulfillment" (Willson, 2006, p. 121), Taylor argues that there needs to be a greater recognition of "authentic communities." Here, authenticity of the person is in part understood through one's participation in a community and how one is recognized and acts reciprocally. Lyon (2018) identifies recognition and responsibility as central to the management of persons in the emerging surveillance imaginaries. These are essential for recognizing specific persons and applying or withdrawing their rights (Lyon, 2018; Taylor, 1994).

While acknowledging the traditional forms of surveillance by governments and police forces for establishing control over persons, Lyon (2018) states that we are now in a time of *liquid surveillance* that is "beyond big brother" where ordinary people are involved in surveillance on themselves and the people around them. Foucault's (1977) work on Jeremy Bentham's *Panopticon* prison is cited by many of these scholars as a description of the present state of people engaging in surveillance on themselves and each other (Zuboff, 1984; Turkle, 2011; Young, 2012; Lyon, 2018). This occurs through three types of real time data: (1) active self-tracking; (2) passive self-tracking through devices; and (3) data capture through the internet of things. *Active self-tracking* may take the form of user generated data through social media or wearable technology. *Passive self-tracking* occurs through "digital exhaust" or "breadcrumbs" left through the use of "leaky apps", loyalty cards and browser histories. *Data capture* from the internet of things may involve tracking through smart televisions, smart electricity meters, smart appliances or smart cars and smart cities that read the movements and activity of persons. Lyon (2018) draws attention to the "the Big Five" corporations of Facebook, Apple, Google, Microsoft, and Amazon as being the largest sources of surveillance. These corporations are engaged in *social sorting* for the purpose of profits and control. With the growth and development of "Big Data" and data analytics, corporations and governments are taking control and manipulating consumers and citizens. Rosenfeld identifies part of this process as *friction* which refers to "the commodification of identities through the movement of personal data over the web" (2015, p. 93). Here friction and the development of a false consciousness through advertising and propaganda mount attacks on human agency, and on the person.

Through active and passive tracking of "data exhaust" or digital traces of online and real-life activity, governments control their citizens and corporations exploit their marketable and surveillance potential for the control of consumers (Rosenfeld, 2015). Rosenfeld further states that "corporations are using big data to move toward their utopian marketing ideal of sales predictability. Through this, a guaranteed consumer would be created, *a captive citizen stripped*

of individual agency" (2015, p. 103, italics added). In light of this grab for power through surveillance, Lyon states that "[p]ersonhood is crucially important and needs to be asserted and struggled for at every level" (2018, p. 179).

Calling on Charles Taylor's (1991b) malaises of modernity, Willson (2006) identifies the rise of individualism, the primacy of instrumental reason, and diminished community political participation as being fostered by contemporary digital living. Rosenfeld (2015) is also critical of this neo-liberal influence on culture, education and identity and raises concerns against surveillance along with a call for counter surveillance. Jonathan Zittrain (2008) has become a leading data activist, one who calls on everyone to become data activists. In particular, he calls on everyone to stand up *against proprietary interests* and *for net neutrality* in order to enhance *a generative and open internet*. Likewise, Young (2012) raises issues over data ownership and calls for data portability, where data is owner-controlled, much like what occurs with ethical standards for scientific research. Lyon (2018) additionally calls for data activism in the pursuit of fairness and justice for persons to become digital citizens, taking responsibility and making claims for their rights of control over their digital data. He suggests four possible ways forward: (1) for individuals to develop their own Privacy Enhancing Technologies (PETs), (2) for enhanced governmental regulation, (3) for the mobilization of action groups (i.e., civil liberties), and (4) engagement in open discussion of surveillance imaginaries and practices along with an ethical seriousness to examine the use of data exhaust. In doing so, we need to notice the wider contexts of small scale experiences of surveillance and how emerging surveillance imaginaries and practices relate to *actual* ethical and political responsibilities; remaining cognizant that the attitudes and actions of users *can make a difference* (Lyon, 2018).

Rosenfeld (2015) reminds us that the internet has promoted both hegemonic and anti-hegemonic forces and that *education* must play a crucial role in teaching critical understanding and best uses of technology. While corporations and governments strive to control, cyber-activists work to emancipate persons from the false consciousness and 'imprisonment' of persons by hegemonic powers. The internet and digital technology can be used to enslave and control, but they can also be used to emancipate and become a medium of personal and collective action.

In closing, digital technology has been shown to foster many changes and developments of the self and person in contemporary times, however, James' theoretical framework of the self is still very recognizable and relevant today.

References

Agger, B. (2004). *The virtual self: A contemporary sociology*. Blackwell.

Alter, A. (2017). *Irresistible: The rise of addictive technology and the business of keeping us hooked.* Penguin Books.

Arean, P., & Cuijper, P. (2017). Technology and mental health. *Depression & Anxiety, 34*, 479-480. DOI: 10.1002/da.22636

Boesch, E.E. (1991). *Symbolic action theory and cultural psychology*. Springer.

Chahal, H., Fung, C., Kuhle, S., & Veugelers, P.J. (2012). Availability and nighttime use of electronic entertainment and communication devices are associated with short sleep duration

and obesity among Canadian children. *Pediatric obesity, 8*, 42-51. DOI: 10.1111/j.2047-6310.2012.00085.x

Cooley, C. H. (1902/1964). *Human nature and the social order*. Hard Press Publishing.

Dreyfus, H. L. (2001). *On the internet: Thinking in action*. Routledge.

Elhai, J. D., Hall, B.J., & Erwin, M. (2018). Emotion regulation's relationships with depression, anxiety and stress due to imagined smartphone and social media loss. *Psychiatry Research, 261*, 28-34. DOI 10.1016/j.psychres.2017.12.045

Erikson, E. H. (1950). *Childhood and Society*. Norton.

Erikson, E. H. (1968). *Identity youth and crisis*. Norton.

Foucault, M. (1977) *Discipline and punish: The birth of the prison*. (A. Sheridan, Trans.). Allen Lane Penguin Books.

Goffman, E. (2059). *The presentation of self in everyday life*. Doubleday.

Hermans, H. & Hermans-Konopka, A. (2010). *Dialogical self theory: positioning and counter-positioning in a globalizing society*. Cambridge University Press.

James, W. (1890/1950). *Principles of psychology*. Dover.

Katz, R. Mesfin, T., & Barr, K. (2012). Lessons from a community-based health diabetes self-management program: "It's not just about the cell phone. *Journal of Health Communication, 17*, 67-72. DOI: 10.1080/10810730.2012.650613

Lifton, S.J. (1993) *The protean self: Human resilience in an age of fragmentation*. Basic Books.

Lyon, D. (2018). *The culture of surveillance: Watching as a way of life*. Polity Press.

Martin, J., Sugarman, J., & Hickinbottom, S. (2010). *Persons: Understanding Psychological selfhood and agency*. Springer Science+Business Media. DOI: 10.1007/978-4419-1065-3_2

Miller, V. (2012). A crisis of presence: On-line culture and being in the world. *Space and Polity, 16*(3), 265-285. DOI: 10.1080/13562576.2012.733568

Okada, M. (2017). Weak robots: Human-dependent robots and social embeddedness. Keynote address to the International Society for Theoretical Psychology 17th Biennial Conference, Tokyo, Japan.

Paranjpe, A. C. (1998). *Self and identity in modern psychology and Indian thought*. Plenum.

Riddle, K., Peebles, A., Davis, C., Xu, F., & Schroeder, E. (2018). The addictive potential of television binge watching: Comparing intentional and unintentional binges. *Psychology of Popular Media Culture, 7*(4), 589-604. DOI: /10.1037/ppm0000167

Rosenfeld, K. N. (2015). *Digital online culture, identity, and schooling in the twenty-first century*. Palgrave.

Snowden, E. (2019). Edward Snowden on 'Snowden angels' and his waring for Canada. https://www.cbc.ca/news/thenational/edward-snowden-on-snowden-angels-and-his-warning-for-canada-1.5083932.

Taylor, C. (1989). *Sources of the self: The making of the modern identity*. Harvard University Press.

Taylor, C. (1991a). *Ethics of authenticity*. Harvard University Press.

Taylor, C. (1991b). *The Malaise of modernity*. House of Anansi Press.

Taylor, C. (1994). *The politics of recognition*. In A. Gutmann (Ed.) Multiculturalism: Examining the politics of recognition. Princeton University Press.

Taylor, C. (2004). *Modern social imaginaries*. Duke University Press.

Taylor, C. (2007). *A secular age*. Harvard University Press.

Tonks, R. G., & Bhatt, G.S. (2016). The e-self: Revisiting James' model of the self in the age of the selfie. Paper presentation to the Canadian Psychological Association annual conference, June 11, 2016.

Tonks, R.G. (2019). Ethos and self in the I Ching and Erikson's Psychology. In K. Murakami, J. Cresswell, T. Kono & T. Zittoun (Eds.) *The ethos of theorizing*. Captus Press.

Tredinnick, V. (2008). *Digital information culture: The individual and society in the digital age*. Chandos.

Turkle, S. (1984). *The second self: Computers and the human spirit*. Simon & Schuster.

Turkle, S. (1995). *Life on the screen: Identity in the age of the internet*. Simon & Schuster.

Turkle, S. (2011). *Alone together: Why we expect more from technology and less from each other*. Basic Books.

Turkle, S. (2015). *Reclaiming conversation: The power of talk in a digital age*. Penguin.

Twenge, J.M. & Campbell, W.K. (2018). Associations between screen time and lower psychological well-being among children and adolescents: Evidence from a population-based study. *Preventative Medicine Reports, 12,* 271-283. DOI: /10.1016/j.pmedr.2018.10.003

Valsiner, J. (2014). *An invitation to cultural psychology*. Sage.

Vitanova, G. (2010). *Authoring the dialogical self: Gender, agency and language practices*. John Benjamins Publishing.

Waters, J.A. (2019). Teaching & learning in the smartphone era: The myth of multitasking. Presentation to the British Columbia Psychology Articulation meeting, May 3, 2019.

Willson, M.A. (2006). *Technically together: Rethinking community within techno-society*. Peter Lang.

Young, N. (2012). *The virtual self: How our digital lives are altering the world around us*. McClelland & Stewart.

Zittrain, J. (2008). *The future of the internet: And how to stop it*. Yale University Press.

Zuboff, S. (1984). *In the age of the smart machine: The future of work and power*. Basic Books.

Acknowledgement

Thanks to Dr. Gira Bhatt for her contributions to earlier developments of this conceptual scheme and to Dr. Anand Paranjpe for his careful review this manuscript in preparation.

About the author

Randal Tonks is currently based at Camosun College and the University of Victoria in Canada. He is former chair of the History and Philosophy of psychology section and current chair of the International / Cross-cultural psychology section of the Canadian Psychological Association. He has published in the areas of *Identity and the I Ching* (Tonks, 2019) *Hermeneutics of Identity* (Tonks, 2004) and the *History of Culture in Canadian Psychology* (Bhatt, Tonks & Berry, 2013) as well as *Cross-cultural Psychology in the Encyclopedia of Critical Psychology* (Tonks, 2014).

Contact: Department of Psychology Camosun College, 3100 Foul Bay Rd. Victoria, BC, Canada. V8P 5J2. Email: Tonks@camosun.bc.ca

ORCID: https://orcid.org/0000-0002-5925-6962