International Journal of Applied Psychoanalytic Studies
Int. J. Appl. Psychoanal. Studies (2016)
Published online in Wiley Online Library
(wileyonlinelibrary.com) **DOI:** 10.1002/aps.1487

Contemporary Media Forum

Psychoanalytic Cyberpsychology

In my chapter for the *Textbook of Applied Psychoanalysis* (Akhtar & Twemlow, in press) and in *Psychology of the Digital Age: Humans Become Electric* (Suler, 2016), I highlight the need for a psychoanalytic cyberpsychology. It is an approach that helps reveal how we experience digital environments and what we can do to improve our well-being as the forces of technology loom large in all our lives. In those publications, I discuss the Eight Dimensions of Cyberpsychology Architecture as a conceptual framework for understanding the psychological impact of any digital environment, for designing online therapeutic interventions, and for working with individuals to assess and improve their digital lifestyles.

The basic premise of Cyberpsychology Architecture is that cyberspace is psychological space, a projection of the individual and collective human mind. Both consciously and unconsciously we perceive this realm on the other side of our screen portals as an extension of our psyches. Early psychoanalytic studies identified how this online world entails a blurring of the boundary between mind space and machine space (Suler, 1996; Turkle, 1995). Mediated by computers, we experience ourselves as existing within an intermediate zone between self and other. From the perspective of psychoanalytic theory, this space can be conceptualized as an intersubjective or interpersonal field, a transitional or transformational space, a territory that is part me, part other, and that provides a venue for self expression, interpersonal discovery, play, creativity, and, unfortunately, the acting out of psychopathology. The design of different computer-generated spaces shapes the projected manifestation and interaction between self and other, hence determining the psychological impact of those relationships.

Psychoanalytic cyberpsychology examines the psychological architecture of digital spaces according to eight different dimensions. Each one reflects computer-generated aspects of how a particular online environment operates, as well as how the human mind itself works. Different environments – such as email, social media, video-conferencing, games, and avatar worlds – combine the different dimensions with varying emphasis. The essential question concerning any particular environment is what dimensions it minimizes or

maximizes, and in what specific ways. By drawing on its rich heritage of elucidating the interaction between conscious and unconscious processes, psychoanalytic cyberpsychology can help us understand how these eight dimensions intersect to form different types of online habitats, each with its own unique architecture and psychological experience.

THE IDENTITY DIMENSION: WHO AM I?

Identity, the sense of self, constitutes the first dimension of cyberpsychology architecture, just as it is the fundamental substrate for the psychoanalytic theory of personality. All of the other dimensions act as tributaries that feed into it. Cyberspace allows people to express who they are, something less than who they are, something more, or something entirely different. It offers the possibility of negating the self by adopting an anonymous or even invisible presence. Attempting to navigate many different types of online environments can lead to a decentered, dissociated, and multiplied expression of self (Turkle, 1995), while also offering opportunities for the discovery of previously unconscious aspects of one's identity, which can lead to a more individuated, cohesive sense of self. The identity dimension includes all the software vehicles for self presentation that are available in a particular online environment, including how people consciously and unconsciously use or avoid them, as well as the types of healthy and pathological aspects of identity that they manifest in that environment. The desire to maintain a constant, symbiotic connection to others as a way to affirm one's thoughts and feelings might inadvertently backfire: by forgetting how to self reflect when being alone, one loses track of the self boundaries that define an individuated, separated identity (Turkle, 2012).

THE SOCIAL DIMENSION: WHO ARE WE?

The social dimension pertains to the interpersonal aspects of cyberspace. The countless opportunities for selecting particular types of online relationships opens the door to transference affecting the decisions people make. Conflicts in online relationships, especially when communicating only via typed text, are both common and intense due to interpersonal misperceptions. One example involves twinship transferences in which people with shared interests join forces online as they grow convinced of their deeply meaningful bond, only later to witness their relationships explode when they discover their supposed alter-egos have needs that are incompatible with their own. Online romances are another example of how relationships in cyberspace can be enriching or simply an outlet for such unproductive transference reactions as "playing at love" (Whitty & Carr, 2006). The social dimension also includes the relationship between the clinician and client in online psychotherapy (Carlino, 2011; Lemma & Caparrotta, 2013; Scharff, 2013).

THE INTERACTIVE DIMENSION: HOW DO I DO THIS?

The interactive dimension entails how well a person can understand, navigate, and control an online environment, which is the field of human–computer interaction (HCI) – the psychology of designing a computer interface that is user friendly because it parallels how humans intuitively perceive, think, and behave. The more readily people can immerse themselves into an online domain, the more quickly it becomes a transitional space, an extension of their mind. As the interactive power of a device increases, so does its intrapsychic power as a self-object. The exasperation, depression, and even primitive rage people experience in reaction to technical failures, all point to the self-object power of the machine in gratifying then frustrating needs for omnipotence and symbiotic attachments. An unexplained lack of response from the machine – what Suler (2016) described as the "black hole experience" – opens the door for projecting onto the machine or the people with whom one expects to communicate, but cannot. The interactive power of an environment increases when it steers people towards higher, more enjoyable, and more easily controlled participation, either because it gave them an uncomplicated opportunity to tell it what they like, or due to its ability to effectively analyze their past behaviors with the best of intentions for their well-being. As devices become more interactive and human-like, people tend to anthropomorphize them by consciously or unconsciously projecting onto them, which is an important issue in artificial intelligence.

THE TEXT DIMENSION: WHAT IS THE WORD?

Text communication surfaces in a wide variety of long and short forms: email, chat, text messaging, blogs, websites, and social media posts. Drawing on different cognitive abilities than talking and listening, typing one's thoughts and reading those of another is a unique way to present one's identity, perceive the identity of others, and establish relationships. As an internalized, self-reflective dialogue, writing enables self-insight, while the understanding of one's reading experience leads to insights into the other writer as well as oneself as reader (Coen, 1994). The verbal systems of the mind tend to involve thinking that is more conceptual, logical, factual, linear, and consciously controlled. For this reason, "putting it into words" during online text talk gives people the opportunity to identify, shape, and master otherwise intangible experiences, just as it does in the verbal discourse of traditional psychoanalytic therapies. Text communication does pose problems because the lack of non-verbal cues increases tendencies for distorted interpersonal perceptions due to transference. The absence of face-to-face cues also increases the anonymity, invisibility and "solipsistic introjection" leading to acting out and regression, a phenomenon known as the "online disinhibition effect" (Suler, 2004).

THE SENSORY DIMENSION: HOW AM I AWARE?

The sensory dimension of an online environment entails how much it activates the five senses. Researchers pioneering the development of virtual realities are attempting to create environments that come as close as possible in mimicking the robust sensory experiences of the physical world. More full sensory experiences can generate a heightened sense of presence, stimulate more emotions, enhance the impact of self-objects, and encourage a stronger psychological commitment to the situation. The power to create a specific experience through complex sensory stimulation might prove to be a drawback when we want to encourage an individual's subjective interpretation of a situation, when we hope people will project their expectations to create an experience rather than provide all of it prepackaged for them. As one reader said about a book without illustrations, "I'm glad there were no pictures. I wanted to see it for myself." Even if highly realistic virtual realities are someday possible, we should not overlook the power of cyberspace to isolate the five senses to create different sensory-specific experiences, a technological capability that can help us better understand repression and dissociation. To understand how online photosharing might promote psychological growth, as opposed to simply reinforcing narcissism as in "selfies," we can draw on insights into the transformative role of images in psychoanalytic therapies, therapeutic photography, and phototherapy (Weiser, 1993).

THE TEMPORAL DIMENSION: WHAT TIME IS IT?

The use and experience of time in cyberspace is its temporal dimension. The many online possibilities for altering this dimension reflects what psychoanalysts have long known about temporality: that while the conscious, rational mind entertains a fixed forward march of seconds, the unconscious blends past, present, and future, suspends time, and even transcends it (Fiorini & Canestri, 2009). The distinction between synchronous and asynchronous communication plays a particularly important role. Spontaneity tends to be enhanced in the "live" encounter of synchronous communication, resulting in more uncensored, *ad hoc*, quickly paced, and revealing dialogues. By contrast, people tend to be more careful about composing what they say to each other during asynchronous contacts, with the interaction feeling more structured or even studied. Presence also tends to be enhanced during synchronous meetings, in part due to the increased feeling of spontaneity, but also because people sense their mutual coexistence in the moment. The absence of temporal cues in asynchronous communication can prove to be a disadvantage because pauses in the conversation, coming late to a meeting, and no-shows often convey important unconscious meanings. However, asynchronous dialogues provide the advantage of slowing down, or even freezing, the pace of interaction, which provides a zone for reflection in which people can contemplate and carefully compose what they

say. The ability to record anything that happens in the digital world seems to freeze and transcend time, just as the unconscious experiences temporality.

THE REALITY DIMENSION: IS THIS FOR REAL?

When assessing the reality dimension of an online environment, we ask how much it creates experiences based on fantasy and how much it is grounded in the everyday world. Many games in cyberspace involve highly imaginative make-believe, while social media encourage people to represent themselves as they actually are, without deception. However, in all contemporary media the distinction between reality and fantasy has progressively blurred, as evident in reality shows, supposedly real-life videos on YouTube that turned out to be contrived, and people's tendency to create an idealized version of themselves in social media. We might even think of cyberspace as a dream world. Depending on their developmental history of object relations along with their capacity for reality testing, some people fare better than others in distinguishing what online is real and what is not, including transference-based versus realistic perceptions of others. In some cases virtual reality might override the ego to activate unconscious fears. The "virtual pit" research has shown that when subjects in virtual reality are asked to walk a plank stretched across a dark hole, the instinctual part of their mind responds with fear even though their rational mind knows there is no danger.

THE PHYSICAL DIMENSION: HOW IS THIS TANGIBLE?

The dissociation of the body from the mind-in-cyberspace is a byproduct of the Descartian mind/body duality, a questionable concept that plays out in the many science fiction tales of a human's consciousness being uploaded into cyberspace, and even among those computer scientists who believe that the human mind can be recreated via artificial intelligence. Here psychoanalytic cyberpsychology must intervene with the evolutionary fact that we are embodied beings, with its insights into how mental and physical experiences are inseparable, as evident in psychosomatic disorders as well as the infinite variety of ways that bodily functions reveal intrapsychic processes. These insights can take into consideration the distinction between the *dissociated and integrated physicality* of online environments (Suler, 2016). The dissociated type, which includes bodily activity that has nothing to do with the online activity, can pose significant problems, as evident when people attempt to cross the road while staring into their phones. In integrated physicality one's bodily movements and sensations correlate with the activity in cyberspace. Games that involve the physical mimicry of real world movements would be examples of integrated physicality, as would any virtual environment that changes in response to head and body motion, including virtual reality psychotherapies. The physical dimension takes into consideration the psychological impact of where and how cyberspace

portals enter into our physical world. As suggested by the concept of the "Internet of Things," all types of appliances and sensory devices in our physical world will become arms of cyberspace. We are just beginning to understand how cyberspace might manifest itself in the physical environment and on our physical bodies, with psychoanalytic cyberpsychology exploring how this machine/human symbiosis will affect both conscious and unconscious mental functioning.

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