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# Renewing the Debate: Digital Technology in Art Therapy and the Creative Process

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## Abstract

*This viewpoint reviews several historical positions on the relationship between technology and creativity, and their implications for the practice of art therapy in the techno-digital age. The author posits that the question remains unanswered as to whether the profession will accept and become fully proficient in the use of the computer as a true creative and therapeutic medium. Because art therapists work with fantasy, projection, symbol, and metaphor, they are well positioned to contribute a unique perspective on the impact of technology on the creative process and on emotional life.*

## The Sorcerer's Apprentice

A scene from Walt Disney's (1940) animated film *Fantasia* offers a cautionary tale about our relationship to the machines we set in motion. "The Sorcerer's Apprentice" begins with a weary Mickey Mouse, exhausted from carrying buckets of water. He pauses, wiping his sweaty brow, to watch as his master skillfully conjures a beautiful butterfly. Donning the sorcerer's magic cap after his master departs, Mickey bids an ordinary broom to do his labors. Free of his chores, Mickey is lulled to sleep by the repetitive actions of the broom. Dreaming that he controls the heavens as well as the oceans, a wonderful water dance ensues with Mickey as nature's conductor. Rising water eventually knocks sleeping Mickey off his chair. To his horror the unstoppable broom, emptying bucket after bucket of water, has flooded the entire room. Exasperated, Mickey takes an ax to the broom in an attempt to stop it. Each splinter of broom now comes to life, and hundreds of bucket-carrying brooms march mechanically onward with bucket after bucket pouring forth water. A nearly drowning Mickey searches the sorcerer's secret charm book in vain for instructions on how to stop the brooms. The master finally returns to disperse the dark waters and a defeated Mickey resumes his manual labor.

With the inanimate object come to life as a labor saving machine, Mickey has the leisure to let his unconscious reign. He has a dream that is wonderfully reflective of both the wish to control nature and of the relationship dreams have to reality. The water in the dream increases its flow as the literal water is rising. While Mickey is dreaming he stops paying attention to the object he had set in motion. He nearly drowns in rushing water, the kind of imagery Jung (1990) must have had in mind when he referred to water as "a living symbol of the dark psyche" (p. 17).

To view this scene as a reminder to remain attentive to the power of machines is no mere academic exercise. The current global financial crisis has been scrutinized in light of our over-reliance on the ultimate machine, the computer. A recent *New York Times* editorial framed the current economic meltdown as the result of relegating complex financial calculations to computer programs, which "like mad sorcerers' apprentices" (Dooling, 2008, p. 2) have run amok. In uncanny closeness to Mickey's dilemma, another article referred to the human managers of these machines as having been "asleep at the switch" and "lulled into a complacent lack of attention" (Kurzweil, as cited in Edsall, 2008, ¶ 34). These reports echo the animated scene's warning that what we set in motion may well overwhelm us.

The *Fantasia* scene offers many threads to follow: from technology's mesmerizing repetitive motions that dull our senses and lull us to sleep, to its unprecedented capacity to splinter off into limitless, identical copies. The current moment presents an opportunity to reevaluate the relationship between technology and creativity. With nearly all youth in the U. S. using electronic media (Lenhart, 2008), the need for mastery and/or clinical use of technology is a pressing issue for the field of art therapy (Kapitan, 2007).

## Machine Versus Magic

Lewis Mumford (1952), a prominent American historian of science and technology, saw technology use as distinct from creative pursuits. He theorized that the invention of the tool saved humans from centuries of blind reliance on symbols and magic as methods for controlling nature. Were it not for our capacity to control fire, Mumford argued, people would still be trying to get a pot of water to boil using spells and incantations. He wrote:

> Without the counterbalancing interests and methods of [tools], man might easily have gone mad, in that his symbols might have progressively displaced realities and in the end have produced a blind confusion that might have robbed him of his capacity for physical survival. (p. 51)

We control the forces of nature, enabling our very survival, not by magic and dreams, nor by words and images, but via the effective use of technology. Mumford (1952) feared that machines were over-determining people's lives, with

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external progress coming at the cost of internal regression—a position that art therapists may agree with. Yet he cautioned that over-attachment to the symbolic realm would hinder human development as much as absolute externalism. If no amount of symbols or words can make a pot of water boil, neither can expertise in controlling fire nourish one's creative life. The cure for the imbalance, as Mumford saw it, was a return to pre-machine sources of creativity. Every artist must constantly leave the machine to be refreshed "at those sources in life from which the symbol, in its purest forms, comes forth" (p. 66).

## Machine Versus Hand

The work of Richard Sennett (2008), an American sociologist writing half a century after Mumford, also may shed light on art therapy's reluctance to develop a more comfortable relationship with high tech media. Sennett looked at humankind and machines in terms of our bodily relationship to the things we create. He suggested that objects formed via the hand have not vanished so much as the creative process is being complicated by a new distinction between the executive decision maker and the skilled craftsperson in the trenches. In architectural practice, for example, laborers must follow blueprints, which are legally binding documents signed-off on by those with explicit knowledge. But in doing so they are often compelled to go against their own instincts. An experienced bricklayer may be required to run a pathway at a certain angle according to a blueprint, against embodied knowledge that pedestrians will prefer to take a different path.

Sennett (2008) believed that contemporary artists have been seduced by the unprecedented control and precision that technology affords, their sense of human scale dulled by the computer. Such unparalleled accuracy, far beyond human perceptual capacity and necessity, has given rise to "a disembodied design practice" (p. 42). Relying on technology more accurate than an artist's own eyes and hands can lead to objects that do not fit to human scale or register. Most art therapists would agree that authentic craftwork requires a dialogue between hand and material. The hand finds form in an initial sketch. The architect visits the construction site, physically experiences the environment, and then returns to the office to make adjustments once again with the hand. Despite acknowledging a "long-standing debate about whether touch furnishes the brain with a different kind of sensate information than the eye" (p. 152), Sennett's vision for authentic design practice emphasizes that the hand be part of the creative process.

## Machine Versus Creativity

No doubt due to the fact that his era has increasingly sophisticated technology, Sennett's (2008) argument is more nuanced than Mumford's (1952), yet both sound a similar warning cry that art therapists may recognize. Mumford's desire to put machines to work, thereby leaving humankind free to create, is an expression of the prevailing sense found in many disciplines that creativity and machines inhabit different realms; that is, people make art and machines labor. However, Sennett's framing of the computer's capacity to achieve extra-human perfection as "a proposal rather than a command" (p. 101) tacitly acknowledges the role of technology in the creative process. Both authors propose that people work *with* technology rather than reject it. Both caution us to remain attentive, that we may avoid Mickey's fate.

As I reflect on these ideas in relation to my own experience using three-dimensional computer animation as a therapeutic medium, I would argue that they limit the potential of incorporating technology into creative pursuits in general and into the practice of art therapy in particular. After all, a key image from *Fantasia* is the sorcerer adeptly using the very tools that overwhelm the less-skilled apprentice to conjure symbolic content in the image of a butterfly. Without consultation with the expert, the apprentice is nearly undone by his scanty knowledge. Positioning creativity as something found only via non-technological means, as Mumford (1952) suggested, ignores technology's capacity to give form to imagination. Privileging the hand over the machine, a position Sennett (2008) shared with some art therapists (Williams, Kramer, Henley, & Gerity, 1997), risks limiting art therapy's future to the media we already know. The insistence that touch has some privileged hold on creative, mental, and psychological processes confines emerging technologies to mimicking "traditional" media. A computer can be more than merely a machine that draws an ultra-perfect straight line: Although techno-digital media may diminish the role of the hand in their current applications, they have the potential to engage the mind and body in profound and meaningful ways.

## Reality Versus Virtual Reality

> *"In learning trigonometry, you could become the triangle"* (Lanier, as cited in Blakeslee & Blakeslee, 2007, p. 161)

Clark (2008), a writer specializing in artificial intelligence and robotics, explored technology's potential to extend the human mind in extraordinary directions. Rather than conceptualizing the mind as a fixed entity trapped in a biological body, Clark wrote that "human minds and bodies are essentially open to episodes of deep and transformative restructuring in which new equipment…can become quite literally incorporated into the thinking and acting systems we identify as our minds and bodies" (pp. 30–31). His contribution to current thinking on the body–mind has important implications for art therapy with respect to the technological tool as an extension of the creative mind.

Blakeslee and Blakeslee (2007) applied Clark's thesis to what they called "body maps" or the "inherent sense of your body's position and motion in space" (p. 9)—as if your brain has a map of your body. The interesting thing about these maps is that they change in relation to the tools a person is using. For example, normally the body map of your arm ends at your fingertips. Yet if you are playing golf, your body map expands to include the golf club. This is one explanation for why an experienced golfer forgets about the club and instead focuses on hitting the ball; the

golf club, as far as the brain is concerned, is part of the golfer's body and as such it requires little conscious effort to control. Conversely, inexperienced golfers are apt to be more conscious of their clubs. In their case, practice has not progressed to the point where the golf club becomes an integrated part of the golfer's mind. Expertise with a tool renders the tool invisible to the mind of the user.

Blakeslee and Blakeslee (2007) posited that future virtual reality and video game programming that take body maps into account will transform how people experience their bodies in space and in relation to one another. Most video game avatars take the natural body as their form; with them you participate "in the virtual world on the terms of your natural body schema" (p. 161). For example, players may (and often do) hold a weapon but they rarely have three arms or, for that matter, take the form of an isosceles triangle. Nintendo Wii™ (a hand-held wand that translates hand movement into movement on the video game screen) is but a first-generation version of future video gaming potential. The player is physically engaged but is not yet "an active agent genuinely located *inside* the virtual world" (Clark, 2008, p. 10). Blakeslee and Blakeslee (2007) believed that just as television extends one's natural sight and hearing, video games and virtual reality systems in the near future will enable a technological expansion of the participant's body into new environments. Tools and perception influence what the brain believes the body is doing. To the motor cortex, imagined and executed movements are nearly identical. When one's virtual body (given a seamless interface) moves ten times as fast as one's actual body, the brain experiences virtual movement as real.

Clark (2008) accepted that tools that are coupled in the right way to the brain actually become a part of the mind. However, the computer interface is still too clumsy for it to become incorporated into our body maps. Inevitable advances in interface design (along with increased processing power) hold the promise of a computer becoming integrated with a person's mind, thereby restructuring perception, thought, and feeling. Extending the mind's capacity by venturing into virtual realms that the brain experiences as real will cause people to have experiences where they will not know the difference between the image on the screen and the room they are sitting in.

## Conclusion

We already have access to personal computers that allow fantasy, projection, symbol, metaphor, and unconscious content to merge. Imagine the day when these remarkable yet cumbersome, ergonomically awkward keyboard and mouse-driven devices become seamlessly interfaced with our minds and bodies, like a golf club in the hands of a pro. Once we enter the realm where the imagery we see or create on a computer screen is fully integrated with our minds and bodies, we are well beyond anyone's concerns about the hand's role in creativity. Precisely because art therapists deal in these realms of fantasy, projection, symbol, metaphor, and unconscious content (irrespective of medium and of touch), we are well positioned to contribute something of value to societal debates about the relationship between machines and creativity. Although historically the profession has not been particularly tech-savvy, we art therapists have a unique perspective on the impact of technology on the creative process and on emotional life. By virtue of critical distance, we may see the coming storm of psychological and emotional issues that many of our younger clients bring, with respect to their interactions with technology.

Art therapy's full potential to play a role in these age-old and ever-relevant issues depends on more than a willingness to remain conversant with and actively engaged in these debates. The question remains as to whether the profession will accept and become fully proficient in the use of the computer as a true creative and therapeutic medium. Will we limit ourselves to our valuable yet circumscribed role as critical observers in clinical settings, or will we actively contribute to exciting technological innovation that is altering the creative landscape? Will our profession succumb to the fate of the sorcerer's apprentice—unschooled in and overwhelmed by the latest technological tools, and left to suffer from delusions of grandeur and flooding? Or will art therapists become technologically knowledgeable experts who embody the role of the sorcerer—where knowledge of media allows for the expression of rich symbolic content while also facilitating a therapeutic capacity to disperse the dark waters of our flooded clients?

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