
Influences of Technology-Related Playful Activity and Thought on Moral Development



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Many early developmental theorists such as Freud, Erikson, Piaget, and Vygotsky suggested that play—which the authors of this article define as both playful activity and playful thought—had the power to influence the moral emotions, behaviors, and reasoning of children. More recent researchers have also found evidence of moral development in their observations of children’s play. But, the authors claim, there have been many changes in the culture of childhood and adolescence in the past twenty years, and these have affected both the amount of time spent in play and the types of play that prevail. This article describes potential changes in the nature of play related to three new technologies—technology-augmented toys, video games, and virtual communities—and reviews the research and theory about their impact on play and on moral development. The authors look at research (including their own), discuss the positive and negative influences of these new technologies, and describe the need for further investigation. **Key words:** cheating; play and moral development; technology-augmented toys; video games; violence in video games; virtual communities

AS THE SCHOLARSHIP OF PLAY—and by play we mean, throughout this article, both playful activity and playful thought—continues its evolution and maturation, new questions and perspectives surface that must be reconciled with existing theory and practice. Especially, the pervasiveness of technology-based play urges a reexamination of core constructs of play, eliciting both exhilaration and worry about its extensiveness and variety. According to Kerrie Lewis Graham, technology’s unique lens may help clarify or expand fundamental play constructs and illuminate our understanding of other constructs.¹ Earlier theorists related play to moral development, so we find it relevant and timely to ask how technology-related play may change the development of moral emotions, behaviors, and reasoning. In our attempt to parse the relationships among technology, play, and moral development, we first consider the theoretical basis for viewing play as a venue for moral development and then examine the evolution of both technology and play.

Theoretical Views of Play as a Vehicle for Moral Development

Many early developmental theorists such as Sigmund Freud, Erik Erikson, Jean Piaget, and Lev Vygotsky suggested that children's play has the power to influence their moral emotions (guilt, empathy), behaviors (sharing, self-regulation), and reasoning (distributive justice). Moreover, these thinkers hypothesized that play had an impact on moral development throughout life. For example, concerning the development of moral emotions, Erikson discussed how children's pretense and block play had moral-emotional meanings, and he asserted that this play influenced their adult rituals and moral behavior.² Erikson stated that play-based rituals continue throughout life and remain closely linked to many aspects of moral development. He made these ideas explicit in *Toys and Reason*, where he discussed how childhood play became a dynamic force that lay behind the principled actions and creative achievements of adults.³

Freud saw play as a powerful force in the development of moral emotions, and he used imaginative techniques to help adults understand the early sources of their guilt and shame and the consequent inappropriate deeds and thoughts.⁴ His therapeutic methods involved helping patients play in order to relive such guilt and shame in the healing process. He asserted: "So when the human being grows up and ceases to play he only gives up the connections with real objects, instead of playing he then begins to create fantasy."⁵ Freud saw joking—which he regarded as "play with words"—as a means of expressing both tendacious (hurtful) and nontendacious (thoughtful) emotions in a socially acceptable manner.⁶ His daughter Anna made play a major therapeutic resource for children affected by the trauma of war. She found that a therapeutic play environment elicited children's emotions regarding traumatic stress and helped them manage such emotions.⁷ Other psychoanalytically oriented theorists, among them Melanie Klein and Donald W. Winnicott, supported the view that play offered insights into certain aspects of moral development. Specifically, Klein considered play a means for mastering emotional experiences, and she also advocated constant interpretation of the symbolism that appeared in play. And Winnicott discussed the deep emotional meaning of the "transitional objects" children used in play.⁸

Piaget and Vygotsky saw play as influencing the development of moral reasoning and self-control. In one of his earliest books, Piaget discussed how the game play of boys influenced their ideas of justice and cooperation.⁹ In his

interviews with children concerning their reasoning about imaginary moral dilemmas, he concluded that children progress in moral reasoning from seeing moral rules as fixed and related to consequences to realizing that the rules are modifiable and related to intentions and social justice. Piaget reasoned that peer play in games such as marbles fostered children's progress to higher moral stages because in their children play must resolve the cognitive disequilibrium related to issues of fairness and equity. Piaget's disciple Lawrence Kohlberg expanded the discussion on the use of moral dilemmas, a form of playful thought, to further the development of higher levels of moral reasoning.¹⁰

Vygotsky saw play as a facilitator of moral behaviors such as self-regulation.¹¹ He described how play that involved imaginary situations, defined roles, implicit rules, and language scripts fosters children's ability to control their behaviors, negotiate and renegotiate roles and rules of the "script," and engage in fantasy worlds that require "as-if" actions. He believed these elements led to self-regulation and promoted self-reflection.¹² Vygotsky asserted that play in its imaginary forms always contains rules—that play arises from ideas and that the ideas then determine the rules. As language becomes internalized private speech, children mastered behavior "with the assistance of symbolic stimuli."¹³ When children played alone with miniature objects, in what Vygotsky called "director's play"—developing scripts, building settings, and giving characters voice—they also practiced self-regulation skills and other moral behaviors.¹⁴ According to Vygotsky, such play was closely tied to mental and socially approved control—that is, to moral behaviors.

Although these earlier theorists established that play serves as a venue for moral development, recent researchers have also found evidence of moral development in their observations of children's play. Nancy Eisenberg and colleagues have discussed the relationship between moral emotions such as empathy and sympathy and the sharing in which young children engage during peer play. She has demonstrated that this relationship lasts into adulthood.¹⁵ Eliot Turiel has observed that, on the playground, even quite young children distinguish between moral imperatives, such as not cheating at games, and social conventions, such as being quiet or noisy when taking a turn.¹⁶ He indicated that children's reactions to violations of moral imperatives during play are much stronger than their reactions to violations of social conventions. We have discussed this "Paidia" theoretical view—that play facilitates moral development—more extensively elsewhere.¹⁷

Although the hypothesis that play addresses moral reasoning, promotes moral behavior, and enhances moral emotions has been supported by various

theories and research, it has depended primarily on examples from children's play with traditional materials and in face-to-face social groups. With the advent of technologically enhanced toys for young children and the plethora of virtual play materials available to older children, adolescents, and adults through the Internet and other technologically enhanced devices, the morally facilitative nature of these types of play and their effects on the ways that play and moral development are related need to be reexamined.

Play as a Medium for Moral Development

A good starting point in this reexamination is to clarify the similarities between typical forms of play—by which, again, we mean both playful activity and playful thought—and technology-enhanced play. Only after doing so can we assess the influences of technology-enhanced play on moral development.

Doris Fromberg characterized play as an activity this way: Its motivation is embedded in the activity itself; Its particular goal is secondary to the activity itself; The players primarily control the activity; The players primarily decide the meanings of the activity; And the activity is nonliteral and dynamic.¹⁸ Peter Gray also saw play as self-chosen and self-directed, intrinsically motivated, guided by mental rules, and imaginative, and play involving “an active, alert, but non-stressed frame of mind.”¹⁹ Qualities associated with playful thinking are similar to those associated with playful activity except that the motivations and the actions are observable only if they are deliberately performed and if they are not constrained by the physical limitations of the environment. Jerome Singer and Dorothy Singer referred to the elements of playful thought as “fantasy” or “imagination,” and they asserted that these elements are the “most powerful components of human experience.”²⁰ Playful activity often generates playful thought, and playful thought often accompanies playful activity.

One of us, Doris Bergen, has discussed several inherent qualities of play that make it a medium for development.²¹ We favor the term “medium” because it embodies the fundamental explanation of why play provides a fecund environment for the development of moral emotions, behavior, and reasoning. The *Merriam-Webster Online Dictionary* defines “medium” as an environment in which an organism can function and flourish (play provides an environment where moral qualities may flourish); as a means of transmitting a force or producing an effect (play provides an environment where moral behavior can be

safely performed and the results observed); as a channel or system of communication, information, or entertainment (play provides the opportunity and structure for dialogue on moral reasoning and also the cultivation and enjoyment of moral emotion); and a surrounding or enveloping substance (play provides a safe and secure environment that affords risk-taking and the testing of moral hypotheses).²²

Thus, we would make the case that play provides a medium in which individuals can test roles, boundaries, and possibilities, can take risks, and can speculate about the effects of imagined behaviors—all without the real-world consequences associated with their activities. The imagined world supported by the medium affords individuals experiences that can subsequently influence their moral emotions, moral behaviors, and moral reasoning.

The medium metaphor can be extended directly to technology-related play and the various definitions of medium precisely can be mapped to technology-enhanced venues. While not all technology-related activity constitutes play, the medium has qualities that enable playful activity and thought to occur. For example, technology provides an environment where play can flourish; where it can be safely performed and its results observed; where opportunities, structures, and channels for diverse communication about play can be provided; and where there exists a safe environment for play that encourages risks and testing hypotheses. Moreover, the qualities of play in general described by Fromberg (e.g., intrinsically motivated, nonliteral, dynamic) and by Gray (e.g., having mental rules, nonstressed, imaginative) are also evident in technology play. Thus, we propose that technology provides the opportunities for and the environment in which individuals can engage in a wide variety of play. In essence, technology provides a medium for play; and because play provides a medium for moral development, technology-based play may also provide a medium for moral development.

The Nature of Technology-Based Playful Activity and Thought

Although the literature remains cautious about the influence of technology, some of the early discourse that took a more negative view of technology has given way to scholarship that advocates a more nuanced approach.²³ We need more research on how technology-based play may affect the expression of moral

emotions, behavior, and reasoning to know whether technology-based play will have effects on moral development similar to those claimed by earlier theorists who studied play and moral issues. Does technology-based play have positive or negative consequences for empathy development, good behaviors, and high levels of reasoning about moral issues? In addition to extending our knowledge about play and morality, research on this new kind of play may lead to the reexamination of our core assumptions about play. Play scholars find technology-augmented toys, video games, and online virtual communities of special interest for their possible role in moral development.

Augmented Toys, Play, and Moral Development

Technology-augmented toys contain computer chips that enable the toy to exhibit a variety of actions, languages, and sounds during play. They range from relatively simple toys—such as a bear that laughs when its ear is pulled—to more complex robots designed to offer numerous actions or sounds that guide play. Elaborately designed, technology-augmented toys possess tremendous potential for changing children’s play behaviors, as evidenced by such toys as SONY’s AIBO (Artificial Intelligence Robotic pet), used by Peter Kahn and colleagues in their studies of children and moral development, or the gesture-activity recognition system (GARD) created by Tracy Westeyn and colleagues.²⁴ Because these toys may elicit new or different behaviors or understandings, they may significantly change the way children play and consequently affect many areas of development, including moral development. Although they encourage play based on some of the five characterizations of play we mentioned earlier (it is self-motivating, not goal oriented, nonliteral, dynamic, and risk free), the play differs from play with most nonaugmented toys because the player is not completely in control of the action and the meaning of the play involved is in part provided by the toy. In short, the toy may become the “actor” and the child the “reactor.”²⁵ Play with such toys may not promote the self-regulation and empathetic behaviors that child-directed play promotes. Kahn and colleagues comment that play with the AIBO fostered relationships that “may impede young children’s social and moral development.”²⁶

Although these toys may lead to less morally desirable behaviors, they may also be excellent for facilitating positive imaginative play. The link between technology and play is not entirely clear; the question of moral development simply adds another layer of uncertainty to the implications of such play for empathy development, sharing behaviors, and reasoning about moral actions.

Although moral behavior was not the focus, one study of children's play with "helper" toy figures found that both "talking" and "nontalking" figures elicited more caring than aggressive behaviors.²⁷ Another study of parent-infant play interactions with an augmented toy suggested that while social, physical, and language interactions were facilitated by the toy's prompts, sustained and elaborate forms of play were rare.²⁸ Peter Kahn and colleagues compared play with a robotic toy to play with a typical toy and found few differences in the statements the children made relating to the impact of the two toys on the children's physical being, mental states, social rapport, or moral sense. But, the researchers concluded, the interactions with the robotic toy resulted in "impoverished" relationships.²⁹

Gail Melson, Peter Kahn, and colleagues have begun to study the moral components of technology-augmented toys and have reported that personified technologies may elicit emotional bonds in both children and adults similar to those between humans and pets.³⁰

As technology-augmented toys become even more common, there is definitely a need for more research into their effects on the moral development of young children. A recent article entitled "High-Tech Toys Let Children Play Like Grown-Ups" describes a variety of technology-augmented toys that "mimic adult gadgets like iPads, Kindles, and mobile phones."³¹ They are designed primarily for children aged one to five and include apps, radio-frequency identification tagging, e-books, learning games, music games, motion-activated digital cameras, and remote-controlled toys disguised as plush animals. According to Carly Shuler, 35 percent of cell-phone apps are games for young children. If parents provide this technology, their children will likely be highly engaged in this type of game play.³²

Some technology-enhanced materials might provide opportunities for children to extend their imagination and become more mentally active. Jeffrey Johnson suggests that play with technologies such as KidPix to create stories and animate characters enhances children's creativity.³³ Marina Bers and Michael Horn indicate that the use of CHERP (Creative Hybrid Environment for Robotic Programming) by older preschoolers to make robotic animals move can expand their creative world.³⁴ Thus, some of these technology-enhanced toys and computer programs for children may promote the sense of emotional power that Erikson claimed was a feature of pretense; they may foster behaviors that create the social-regulation skills Vygotsky posited were facilitated by director's play; and they may enhance the reasoning about issues of fairness and justice that

Piaget suggested games with rules promote. Or they may not. In fact, although the research is promising, we just do not yet know enough to state definitively whether technology-augmented toys enhance moral development in children (or impede it).

Video Game Play

Video games have gained widespread popularity, especially in industrialized nations where individuals have good access to technology. In the United States, video games are almost synonymous with being young, and this has helped to create a billion-dollar video game industry. Much of the controversy surrounding video games stems from their being classified and categorized in many different ways. Video game experiences range from simple reflex-based systems to fully immersive virtual worlds with complex rules and realistic environment physics. Differences in platform and purpose make the task of defining video games even more challenging. Although play scholars debate the definition of video games, several common features have emerged from the literature. Erik Champion and Jesper Juul suggest that features associated with the games include interactivity, rules, the computer environment, and a lack of real-world consequences.³⁵

It is difficult to apply the defining characteristics of play we mentioned earlier to video games in general without a clear definition from the video game literature. Thus, our discussion considers only video games that present the player with a complex, virtual world within which all its actions occur. So even if these games have different technology platforms, game interfaces, and goals, they all present an immersive experience for players that has many of the qualities of play. Even within this narrow classification, there are differences among the gaming experiences. Most of them, especially single-player action games like *Call of Duty*, have specific goals for the player to achieve. Others, such as *The Endless Forest*, have no rules or goals at all but offer an immersive experience for the player.

Immersive video games present low-risk opportunities for play based on some of the characteristics we listed earlier. Playing video games can be motivating in and of itself. Such play is not necessarily goal oriented, the player controls the action, and the play can be nonliteral and dynamic. Games can have features similar to those of director's play, but in many instances, the player does not create the meanings involved in the experience. The level of playfulness differs, depending on the nature of the games, and these differences make it more difficult to determine what effects the games have on players. However, the effects

of such games, particularly their effects on moral development, have attracted much interest from both the public and academia.

Much of the research on video games focuses on the more violent video games. Jeanne B. Funk and colleagues discuss the desensitizing potential of violent video games, and Nicholas Carnagey and colleagues also focus on the theme of desensitization. They demonstrate that exposure to violent video games can result in desensitization to real-world violence as measured by physical effects.³⁶ The results are important because they show that video games can affect the moral attitudes of players. Consider, too, that a cross-temporal meta-analysis conducted by Sara Konrath and colleagues revealed declining levels of empathy in college students who played video games.³⁷ As Tilo Hartmann and Peter Vorderer argue, the “cues implemented in contemporary violent video games effectively help players to disengage from moral concern.”³⁸ Video games, they argue, may undermine moral emotions such as guilt. Each of these studies make the moral implications of video gaming clear and its effects evident.

Douglas Gentile and colleagues highlight the conflict between the moral-development goals of schools and the values promoted by video games. They conclude that the values of video games, such as “competition, aggression, acquisitiveness, lust, gender bias, pride, and winning at all costs through whatever means are often vividly portrayed and celebrated,” directly compete with such teaching goals as sharing and tolerance.³⁹ Erin Hastings and colleagues also examine the effects of violent video games and suggest that the “amount of time playing video games and exposure to violence in video games are associated with lower school performance, increased aggression, attention problems, and externalizing behavior.”⁴⁰ These results, by themselves a concern, paint a particularly troubling picture when combined with other research that highlights the long-term negative effects and the cross-cultural implications of violent video game play.⁴¹

Cheating has also been linked to video games. However, the conversation surrounding cheating in video games is morally subtle and not always considered wrong. The definition of cheating—and its consequences—Mia Consalvo has argued, may ultimately depend on the context and the nature of the play.⁴² Some single-player video games are designed with cheats that enable rapid progression or offer immunity from in-game consequences. Other online games discourage cheating and actively punish cheaters because there may be real-world consequences like financial loss or emotional distress for those affected by cheating. Clearly, the topic is complex, but we might at least argue that video games and

their culture create a morally ambiguous environment when it comes to cheating. Video game players, especially children, might interpret this lack of clarity as implicit permission to engage in cheating. More research is needed to determine whether or not players, especially young ones, can discriminate between acceptable and unacceptable moral behavior within such games and whether they can reconcile potential conflicts between in-game and real-world behaviors.

Not all research on video games calls for caution. Christopher Ferguson argues that the literature has exaggerated the negative effects of violent video games at the expense of their positive ones and to the detriment of the field. He finds the current “moral panic” he has observed consistent with the controversy surrounding any new media.⁴³ Similarly, Marcus Schulzke defends the moral status of violent video games and cautions against any stance that restricts free expression.⁴⁴ In the same vein, Cheryl Olson and colleagues conclude that violent video games can be a viable means to relieve stress and address anger.⁴⁵

Others focus on the broader possibilities offered by video games. For example, Douglas Gentile and J. Ronald Gentile argue that video games have tremendous teaching potential even with their virtual-world violence because of their educational content.⁴⁶ Yasmin Kafai views video games as a new playground that “offers children an engagement that challenges them at various levels, including the cognitive, motivational, and social,” and she suggests empowering them as game designers.⁴⁷ David Williamson Shaffer and colleagues claim video games can be powerful contexts for learning because they promote the development of “situated understanding.”⁴⁸ All these authors conclude that video games are positioned to transform the landscape of education in a positive way and that some of these connections may help develop moral emotions, behaviors, and reasoning.

The positive aspects of video games may extend beyond the realm of education, according to Miguel Sicart, who suggests that even a violent video game can force adults to engage in constructive moral reflection. Highlighting the positive outcomes that may be possible with well-designed video games, he writes, “I felt that a computer game was challenging me as a moral being, showing me new ways of understanding games as well as my presence and actions as a player.”⁴⁹ Similarly, Jose P. Zagal focuses on the moral aspects of violent video games and concludes that such games can make moral demands on the players through the presentation of moral dilemmas.⁵⁰

Moral dilemmas have become major components of video games, especially role-playing games (RPG) like *Baldur’s Gate*, *Neverwinter Nights*, and *Dragon*

Age. These games allow the player to create characters ranging from good to evil. Within these worlds, actions have consequences, and each decision affects the flow of the game and the eventual outcome. Moral dilemmas are common, and players must often weigh the cost of certain actions against their perceived benefit. In *Neverwinter Nights 2*, for example, the player must decide whether or not to kill the children of evil cannibals knowing fully what the children will become. The decision is further complicated by the fact that the player's computer-controlled companions will react negatively to the deed.

Artificial-life games, similar to RPGs, have significant moral dimensions. Simulations such as *The Sims* series allow the player to create a virtual character and interact with the virtual world. The choices made in the course of the game are reflections of the moral compass used during the game. The moral compass becomes even more evident in games like *Black and White*, a member of the "god-game" subgenre. In these games, the player assumes the role of a god who can only indirectly affect virtual citizens. Within these god games, players constantly face overt moral dilemmas, and their own malevolence or benevolence has great impact on the life and behavior of the virtual citizens.

The moral consequences of in-game decisions are even more significant in multiplayer online games where other characters are controlled by humans. In these games, the decision to be good or evil will have real-world as well as virtual consequences. Virtual qualities such as game balance and economy are affected when players steal, cheat, or gain unfair advantages. This consequently affects real-world qualities such as pleasure and enjoyment. Although many of these games include quests that have moral dimensions, most players focus on how they actually play the game or interact with other characters in the game. For example, a player might need to decide if it is morally defensible to use real money to purchase in-game items, knowing that it is against the rules and it undermines the in-game economy. For individual players, the increased power may lead to increased enjoyment, thus justifying the original act.

Whether these moral dilemmas are of the same type as those recommended by Lawrence Kohlberg, who saw such dilemmas as vehicles of playful thought that would lead to higher levels of moral reasoning, is an open question. Most research in the field of video game play provides evidence about the importance and potential of video games to affect human behavior, but the predictions are mixed about the moral effects of such games, especially of violent video games. Thus, the possibility of these games serving as a venue for moral development remains unclear. While there are certainly opportunities for players to consider

moral issues, there may be fewer immediate consequences from moral injustice for them than for the marble players in Piaget's famous study. If the consequences of unjust acts are not immediately clear, moral reasoning about them proves more difficult.

Virtual Communities as Play Venues

Virtual communities, first described by Howard Rheingold, have gained prominence over the past few years and are now an integral part of the technology and communication discourse.⁵¹ Constance Elise Porter defined virtual communities as "an aggregation of individuals or business partners who interact around a shared interest, where the interaction is at least partially supported and/or mediated by technology and guided by some protocols or norms."⁵² The definition does not limit the technology involved or the mode of interaction, and it provides a useful starting point for an examination of the potential of virtual communities for play and its effect on moral development.

Virtual communities have some features similar to traditional communities. But as Daniel Memmi noted, "When examined as objectively as possible, it appears that computer-mediated communities may differ markedly from traditional communities."⁵³ The potential difference is important because traditional communities have structures that both support play and maintain morality. The question remains whether virtual communities both accommodate play and influence moral development. Like augmented toys, virtual communities can foster play based on our previously described characteristics of play. Feature-rich social-networking services such as Facebook, Myspace, and Twitter engage members in play for its own sake—play that is not goal driven, that is freely chosen, that is defined by its players, that is considered low-risk, and that is nonliteral and dynamic. These characteristics extend to electronic communities—chat rooms, blogs, and virtual worlds. In the case of virtual worlds, members can play using manufactured personas, thus creating an alternate reality. By accommodating play, virtual communities can become a medium for moral development.

Virtual communities offer play opportunities that may have both positive and negative effects on the development of moral emotions, behavior, and reasoning. The culture within any community is greatly affected by its members, and this can be worrisome for virtual communities because of the ease with which members can create inauthentic personas. Members with inauthentic personas are free to create and transmit messages without the personal consequences that may be attached to such messages. Add that virtual communities

can be very large and disperse, and it becomes clear that messages generated from inauthentic sources have the potential to shape the moral atmosphere of the entire community. And even when the virtual personas are authentic, they can shape the community in negative ways. Mitch Parsell noted that, for unhealthy individuals, “[this] can lead to some very destructive outcomes. It can lead to the construction of communities where people revel in their illness, constructing identities around diagnostic labels or promoting unhealthy behaviour as a positive life choice.”⁵⁴ He indicates that there is also a moral component to a virtual persona. Jessica Wolfendale examines the moral dimension of avatars created in virtual worlds and concludes that “If we accept . . . suffering as the normal human condition and as the price we pay for the joy that attachment can bring us, then there is no reason not to accord avatar attachment the same moral standing.”⁵⁵ Thus, the virtual persona, whether authentic or inauthentic, may create moral consequences for both its creator and its community.

Virtual communities, similar to video games, may afford special meaning to moral behaviors such as cheating, and the consequences of the cheating may extend beyond the online world. Some individuals consider inauthentic virtual personas a form of deception or cheating, regardless of the motivations or intentions of the creator. Authors such as Alexandre Ardichvili and Catherine Ridings and colleagues note that this type of cheating erodes trust, often identified as a key component in the survival of some virtual communities.⁵⁶ In the absence of trust and consequences, both of which moderate online behaviors, virtual communities may become low-risk playgrounds where members are free to experiment with personas and to test boundaries. These behaviors possibly blunt human interaction, and members feel fewer obligations to consider the feelings of others or the consequences of their actions.

There may be a moral cost to this reduction in empathy that manifests itself, for example, in the rising rates of cyberbullying. Peter K. Smith and colleagues discuss the impact of cyberbullying on secondary students, and Carol Walker and her coauthors have noted its rise among university students.⁵⁷ The metaphorical playgrounds of online communities may also have a direct effect on moral behavior in school. Virtual communities and the Internet in general promote a sense of unrestricted access, unlimited freedom, and limited consequences, which can undermine the respect for the feelings, ideas, and property of others taught in school. Lori Power suggests that, consequently, issues such as plagiarism are complicated by the difference in moral perspectives between students exposed to the values of the virtual world and teachers trying to reinforce moral values.⁵⁸

Although many virtual communities offer innocuous or mildly positive play experiences, at times these are transformed into movements with significant social value. Deb Levine outlines how technologies including online social networks are being used to promote important sexual and reproductive health messages, and Jan-Willem van't Klooster and colleagues describe a mobile virtual community platform focused on caring for the elderly.⁵⁹ The transformative potential of virtual communities became evident during the social unrest in Tunisia, Egypt, and Libya in spring 2011. Although text messaging and communities such as Twitter and Reddit cannot claim to be the source of inspiration, they played a part in the organization of local groups and in maintaining the necessary energy for the cause. The very fact that virtual world playfulness has a low-risk quality may contribute to the willingness of participants to get involved.

Deb Sledgianowski and Sonapo Kulviwat suggest that “perceived playfulness was the strongest indicator of intent to use SNS [social-networking services].”⁶⁰ At least initially, users are motivated to use the technology simply because the technology—in this case, social-networking services—is fun. The resulting community, although playful in the beginning, can be transformed into agents for other activities. This not only affects the recipients of the community’s service, but individual community members may experience changes in moral emotions, behaviors, and reasoning. The members collectively determine the community’s action, and the community, in turn, reinforces its members.⁶¹

Culture, Play, and Moral Development

The exact nature of the relationship among moral development, play, and technology is unclear, especially when we consider the surrounding culture. Helen Haste and Sallie Abraham view moral development as occurring within a socio-cultural context mediated by language and customs.⁶² In terms of play, the importance of culture cannot be overstated.⁶³ Suzanne Gaskins and colleagues see play as a “culturally structured activity that varies widely across cultures (as well as within them) as a result of differences in childrearing beliefs, values, and practices.”⁶⁴ The literature continues to grow, but as Artin Goncu and colleagues confirm, the evidence for the notion that culture influences play is mounting. Similar to moral development and play, technology is influenced by cultural realities.⁶⁵ The literature in this area has matured, and many scholars

now look at the technology-culture dynamic through specific technology or cultural lenses.

Future Research

The idea that both technology and traditional venues provide a medium for play suggests two distinct perspectives on technology's potential influence on play and thus on moral development. The first perspective is play focused and maintains that the inherent qualities of play provide all the structure necessary to create its imagined world. Consequently, play will continue to influence moral development in the positive ways that earlier theorists suggest. The second perspective is technology focused, and it maintains that technology selects the structures that form play's imagined world. Consequently, these structures influence moral development, perhaps in ways that differ from those posited by earlier theorists.

At present, there are indications that technology-related play promotes empathy, caring, honesty, and higher-order moral reasoning. There are also indications that technology-related play does the opposite. We need a standard to facilitate a fair and critical examination of these competing schools of thought. Researchers who focus on play acknowledge the presence of technology but consider it more as an empty vessel for play, which has its own inherent qualities. For them, much Internet play seems just that—play on the Internet.

Researchers who focus on technology acknowledge the contributions of play but assert that the parameters, limitations, and innovations of technology control the nature of the play. For them, technology determines what types of play are possible, and only these types of play, they argue, will have an influence on moral development. Thus, technology may enhance the "corporatizing" of play, shaping the play preferences of children through technology in order to make profit. This may reduce time for creativity and hurt the quality of human play. Theorists who lived before technology-based play existed often saw play as a venue with a major role in promoting moral emotions, behavior, and reasoning. We believe it is important to reexamine their hypotheses in this digital age, to determine if present-day play will affect the moral development of players in those same positive ways.

NOTES

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