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The Need to Teach our Children Digital Citizenship

Technology today is ubiquitous and inescapable. Everyone is expected to be proficient in email and web navigation, there are social pressures to engage in social media and workplace requirements frequently deem participation in the digital realm a necessity. Beyond work and social obligations, the web is used in many daily routines, such as bill payment, medical transactions, travel plans and school-related communications. Much of day-to-day life is simply more productive when utilizing a digital medium.

As our relationship with technology becomes more enmeshed, it is increasingly important to be able to assess the healthy or unhealthy nature of this relationship.

The challenges of technology are particularly acute for children and teenagers.

While adults are capable of identifying the changes and impact that new technology has brought about, children, who have never lived in the pre-hi tech era, are less likely to be able to do so. They never were limited to connecting with family and friends overseas only with a pre-set date and time, and they do not recall unfolding and studying a map when planning a family trip. Many youngsters never even visited a library when researching a school paper. Like many adults, teenagers increasingly rely on social media to establish and maintain relationships, but unlike adults, many have never developed relationships otherwise. Responsible adults can use social media as an "add on" tool. But in the absence of other relationship- building skills, many youngsters rely on social media as their exclusive tool for relationship development.

The increased role of new technologies in children's lives, such as social media, texting, smartphone apps and gaming, and the increased attendant dangers,

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impose a parental obligation to understand these technologies well enough to step in and set healthy boundaries and guidelines for their children. The goal of such boundaries and guidelines, of course, is to maximize the benefits of technology while minimizing its potential consequences.

Parental involvement in children's use of technology, however, is far from satisfactory. A recent, unpublished survey (Shapiro, 2015) of 164 middle school students in Modern Orthodox and Conservative Jewish Day Schools found that 70% of respondents own smartphones, 59% own computer tablets and 70% belong to at least one social networking site. Only 15% of the respondents, however, reported having any filters or parental control settings activated on their personal devices.

In addition to technology's impact on children's social skills, exposure to inappropriate content is particularly profound for both younger children and teenagers.

Communal dialogue has long focused on the graphic and disturbing nature of much of the content of the Internet. These concerns are well taken. Suggested parental interventions have ranged from the absolute prohibition of web-access to various forms of filtration and software. Perhaps, however, a broader spectrum of review is necessary, with particular attention to technology's daily impact on children.

SOCIAL DYNAMICS

As noted above, technology has a subtle yet very significant impact on the individual's social development and experience. Innocuous implications include children failing to develop various social skills, such as making eye contact, active listening and asking follow-up questions. More profound, however, is the compromising of children's ability to focus on, and develop meaningful connections with others. The risk is an overall diminished quality of interpersonal relationships.

A May 2013 article in the Wall Street Journal (Shellenbarger, 2013) reported a decline in the frequency and length of eye contact in face-to-face interactions, even among adults. The reduction in eye contact is primarily attributed to the distraction of checking texts and emails and is expected to lead to a decline in interpersonal emotional connections. Texas-based Quantified Impressions (Zandan, 2013) found that adults make eye contact in a typical conversation only thirty to sixty percent of the time, while the creation of an

emotional connection requires eye contact during sixty to seventy percent of a conversation.

A subsequent study out of UCLA (Uhls, et al., 2014) finds a similar trend among middle-school-aged children. In only five days of participating in an outdoor education camp without devices, pre-teens significantly improved their social skills and their ability to read social cues. FaceTime, Skype, Vine, etc. are simply no replacement for good old fashioned face-to-face conversations and social engagement. While the UCLA study indicates that technology is having a negative impact on socialization, it also indicates that technology's negative social impact on children can be repaired through a process of disconnecting.

Perhaps more alarming than the struggle for healthy social development, the online realm tends to promote social disinhibition that causes many people to engage in behaviors incongruous with their ordinary-course, baseline behavior. The two behaviors most significantly triggered are sexually explicit behavior and online aggression.

A study by the University of Texas published in Archives of Pediatrics and Adolescent Medicine (Temple, 2012), found that nearly 30% of teens are engaging in sexually explicit messaging via text or e-mail, including the sending and receiving of immodest or explicit personal photos, behaviors they were not known to engage in otherwise. A survey conducted by The National Campaign to Prevent Teen and Unplanned Pregnancy found similar results, with 20% of teens having shared immodest or explicit images or videos of themselves, and 39% having sent or posted sexually suggestive messages.

On the online aggression front, a 2011 Pew Institute study (Lenhart, et al. found that 88% of teen social media users report witnessing online cruelty or cyber bullying. The issues of cyber bullying and online aggression came into focus for the education and mental health community after the 2010 suicide of Tyler Clemente, a Rutgers University undergraduate student who took his life by jumping off the George Washington Bridge after a secretly-taken video of him in private was made public. A study out of Dalhousie University in Halifax (LeBlanc, 2013) identified 23 cases of cyber bullying-related suicides taking place between 2003 and 2010, and they continue to be reported in the news on an all-too-frequent basis. In 2011 and through the first four months of 2012, there were 18 cases on record of adolescent suicides related to cyber bullying. While suicide represents the most extreme result of cyber bullying, there are many serious consequences that can be felt by children and parents alike.

Our yeshiva community is not immune from this form of aggressive behavior. In a recent study on cyber bullying in Modern Orthodox Jewish middle schools, students reported engaging in cyber bullying at rates of roughly between 9 and 12 percent, similar to the rates reported in published studies in the secular population (Novick & Shapiro, 2012).

In his article "The Online Disinhibition Effect," psychologist John Suler identifies "invisibility" as a key factor in individuals behaving online in a markedly more uninhibited manner than in their usual offline behavior. The invisibility and anonymity allowed by the Internet gives people the courage and confidence to act in a way that they are unlikely to replicate in the non-cyber world.

The triggering of disinhibition and cruelty via anonymity is not a new, nor is it exclusively manifest in the use of technology. Various studies (Rogers & Ketchen, 1979; Solomon, Neigher & Solomon, 1978; Zimbardo, 1969) find a positive correlation between anonymity and aggression. In Zimbardo's 1969 study anonymous students administered longer and more severe shocks on helpless test subjects than their non-anonymous counterparts. Perhaps this behavior is best be explained by Aronson (2008), who posits "that anonymity induces "deindividuation," a state of lessened self awareness, reduced concern over social evaluation and weakened restraints against prohibitive forms of behavior" (Aronson, 2008 p. 278).

Further evidence of the differences in individual behavior between non-anonymous face-to-face interactions and anonymous or semi-anonymous online behavior, was noted by the adolescent responders in the focus groups of the Pew study (Lenhart et al., 2011). The teens reported "that the people they see online often act very different on social media from how they act in person and at school" (p. 29). One middle school girl stated "they won't say it to your face but they will write in online" (p. 30). One middle school boy stated "I know people who, in person, refuse to swear. And online, it's every other word" (p. 29).

This behavioral combination of impulsiveness and disinhibition can have profound effects on our children's present and future opportunities since the online realm is both public and permanent.

PSYCHOLOGICAL

In addition to the impact technology has on social dynamics, technology also affects individuals' psychological functioning in a variety of ways. Online activities are found to contribute to addictive and compulsive tendencies, such as online pornography and shopping. Technology has also been tied to an increased tendency to disconnect from the realities of existence, as well as to anxiety, depression and isolation.

For the developing emotional stability of school-aged children, the risks of negative psychological impact from internet technology are greater. For example, exposure to graphic content puts them in an even higher risk category than adults. A study by the University of New Hampshire (Sabina, Wolak, & Finkelhor, 2008) found that nearly 93% of boys and 62% of girls had been exposed to online pornography before the age of eighteen, with most exposure occurring between the ages of fourteen and seventeen. Such early exposure is correlated with a variety of emotional distress issues as well as potential long-term impact on intimacy and marital relationships. In the study of Jewish day school students (Shapiro, 2015), nearly fifty percent of respondents report having accidentally viewed a web site of which their parents would disapprove and over 14% in total, and 27% of eighth graders, reported intentionally seeking such web sites. More than 50% in total and nearly 69% of eighth graders replied "yes" when asked, "Have you ever seen an image or video clip that disturbed you?"

In addition to the potentially traumatic impact of technology, there is evidence of a correlation between avid technology use and increased anxiety and depression. Numerous studies suggest that the stronger and more enmeshed our relationship is with our technology, the more negative psychological impact we tend to experience (Pierce, 2009).

One area of technology's impact that has not yet been adequately studied and discussed is the degree to which negative tweets, texts, emails, comments or posts decrease people's subjective well being. In a study conducted by psychologists Christopher Peterson and Martin Seligman (2005), "participants were asked to write down three things that went well each day and why every night for one week." A parallel control group had no such tasks. Upon conclusion of the week-long study period, not only did the experimental group reflect higher levels of subjective well being (happiness) than the control group, but those in the experimental group also displayed "increased happiness and decreased depressive symptoms for six months"

following the study.

Just as positive journaling results in a more positive attitude, the litany of negativity that individuals write in blogs, texts, status updates, and tweets could have similar but negative results on their attitudes and perspectives. In a 2011 study regarding twitter sentiment, Kouloumpis, Wilson and Moore, found that negative hashtags (i.e.. #fail, #ihate, #worst) appeared at twice the rate of positive ones (#success, #thingsilove, #bestfeeling). Other studies find similar behaviors where individuals use the digital realm as a medium to express negativity, anger and discontent, often impulsively and without inhibition.

DAY-TO-DAY

The ever-present role of technology in the lives of children, and the public and permanent nature of the online realm, creates potential challenges in the day-to-day functioning of our children. For example, while it might be hoped that technology would allow for improved academics, absent proper adult oversight, technology may actually lower academic achievement.

A Harvard University study (Chang, et al., 2014) compared sleep that immediately followed reading a traditional book to sleep that immediately followed reading from a screen, such as an iPad. The study found that users of an electronic device had more difficulty falling sleep, had a less restful sleep and were more likely to be sleepy and less alert the following morning. The impact on student functioning is immense. Nearly 60% of Jewish Day School students report sleeping with their cellphone within reach, and that online activity delays their going to bed. Additionally, 44% of students report "often" playing games or staying online longer than they intended (Shapiro, 2015). The oversaturation of technology interferes with homework tasks, and results in inadequate sleep and the attendant consequences to academic alertness and concentration, as reported in studies by Kent State University, Centers for Behavioral and Preventative Medicine and The National Institute for Educational Policy.

Another ordinary-course challenge is the frequency of teens posting impulsive and disinhibited or other ill-considered content to their social media accounts. College admissions offices and employers increasingly research online postings of candidates. Posted photographs, articles, group affiliations and other comments often play a significant role in a selection process. An individual's digital footprint may eventually be more influential

on one's career opportunities than actual academic performance. Youngsters, however, do not appreciate that a casual post may come back to haunt them many years down the road.

In addition to the effects of personal devices, concerns arise from the blended, computer-based learning that is being introduced in many schools. Inevitably, a correlation develops between the extent of scholastic online use and a student's extracurricular preoccupation with technology. In the Jewish Day school study referenced earlier, students reported using the Internet for school related activities daily or multiple times a day at rate of 50%. However, they also reported using the Internet for non-school related activities at a rate of 76%,

This data, combined with the findings of Ravizza, Hamrick and Fenn (2014) which suggests that "non-academic Internet use negatively predicted exam scores," and "those with higher intellectual ability reported using the internet more over time," should become an increasingly influential factor in decisions regarding in-school use of technology.

WHAT ARE WE TO DO?

As is true regarding many challenges, the most effective response may be empowerment through education. We need to teach our children how to be healthy and responsible with technology and we need to empower parents to effectively manage their children's technology. As writer Allison Slater Tate identifies in her 2014 Washington Post article "We are the first generation of parents in the age of iEverything," we "had the last of the truly low-tech childhoods, and now are among the first of the truly high-tech parents," and it is our obligation to learn how to be parents of this new generation.

The emerging term for healthy and responsible use of technology in the literature and in the field of technology education is "digital citizenship." Digital citizenship is more than Internet safety. It recognizes our role as citizens of the digital realm and how our behaviors and interactions can have a positive and negative effect on others as well as on ourselves. As the issue of digital citizenship education is a relatively new area of exploration, only a limited number of good resources exist.

Common Sense Media is an organization that helps kids thrive in a world of media and technology. Their approach is to empower parents, teachers and policymakers by providing unbiased information, trusted advice and innovative tools to assist in harnessing the power of media and technology as a positive force in children's lives. Among various resources, the Common Sense Media web site provides assessment toolkits, interactive and downloadable curricula and educational videos. The standards of Common Sense Media may often differ from the standards of the Orthodox community, but it is a start.

I have been involved with the development of The Digital Citizenship Project (DCP), which seeks to provide common language for addressing the challenges of technology and its solutions in a sophisticated manner, beyond the traditional rhetoric.

Working with individual schools, the DCP conducts a formative assessment of technology ownership, attitudes and behaviors of the student population. A survey is conducted that allows for benchmarking against both the general secular population as well as the populations of other Jewish day schools that have completed the survey. The data produced is then used to assess the specific needs of the particular school population, which is then shared with the school's students and parents, to be accompanied by faculty workshops conducted by the DCP. Borrowing from Dr. Rona Novick's BRAVE bully intervention program, the DCP seeks to shift school and community cultures by educating and empowering all parties. The goal is to educate communities about the clear evidence of technology's impact on the social, psychological and behavioral domains, as well as on day-to-day functioning, and then provide practical and implementable tools to address these challenges in a meaningful and lasting way.

Recent communal efforts to promote filters and monitoring software have served as a double edge sword. Organized campaigns to promote the utilization of filters and monitoring software have created a tremendous awareness of the benefits of this important tool, but it has also given us the false sense of security that these are "the" tools to minimize the negative impact of technology. (Despite this widespread awareness, as reported above, only 15% of Jewish middle school respondents reported having any filters or parental control settings activated on their personal devices.)

In addition to filters and monitoring software, there is a primary need for families to set clear policies and expectations (perhaps some form of "terms of use" agreement) for the use of technology in the home.

Technology education expert Mrs. Temima Feldman highlights some

recommended policies in her article "Practical tips for Parenting your iTeen" (2015), where she suggests the following rules:

• Have a set time when devices (cellphone, iPad, tablets, and the like) must be off and out of reach.

• Have a central charging station where teens have to leave their phones and iPads to charge overnight. This is one of the best ways to combat both sleep deprivation and late-night texting.

• Set a tone in your house that technology use is a public activity – this includes a policy that requires doors to bedrooms to be open while technology is being used. This creates an environment of open communication.

• Model the behaviors you want to instill in your child.

• Above all, have the dialogue with your child about both your and their technology habits.

Other practical suggestions include promoting non-digital recreational activities that will promote genuine social connectivity with their family members and peers.

Digital citizenship teaches what it means to be a responsible citizen in the digital realm. Whether utilizing online resources or participating in a formal program, it is our responsibility to educate and be educated about how technology impacts our lives both positively and negatively, and to provide our children and community with the necessary tools to succeed in maximizing the benefits of technology while minimizing its potential negative impacts.