eTEENS: Teens and Technology: The perfect storm?

By Carla Seal-Wanner

Today’s teen, who has grown up in the Digital Age when planned obsolescence might as well be a brand name, is specially conditioned to expect powerful and creative technological tools for work, play, and to define themselves and their personal space. Let’s face it; this is the first generation of youths that say they prefer computers to TV if they’re forced to choose. Growing up literally surrounded by media, these kids entered early adolescence heavily dependent on their 24/7 access to all that cyberspace has to offer. Consequently they are among the reigning experts in the digital universe. There is nothing passive or passionless about their use of media; it is an extension of them. If the medium is the message, they’ve got it.

As I was working on this article my high-school daughter was curled up on the living-room couch studying for her SATII subject test in Literature. As she perused The College Board website to refresh her knowledge of the difference between a Shakespearean and Petrarchan sonnet she listened to stories from NPR’s This American Life that downloads weekly podcasts to her laptop; “Mom, listen to this Halloween story about rabid raccoons … it’s hilarious. Ira Glass is a genius!” After completing another online prep test to her satisfaction she took a study break to reserve an e-ticket on the Amtrak site for an upcoming visit to her boyfriend in Albany, downloaded new Belle and Sebastian songs from itunes, checked out on-demand digital cable movie choices for that night, while IMing pals in their first year of college whom she can no longer see on a daily basis. Study, entertainment, socializing and commerce all without leaving the couch! All she needed from me was a shared sigh over Ira Glass’s brilliance, some discussion about our evening movie options and my credit-card number.

Most notable in this flurry of interactivity was the fact that she conducted it with the ease of an expert who no longer is aware that what they are doing is complex. I will admit that the cognitive parallel processing involved in these tech-savvy skills raise my parental eyebrows as I wonder: Does the media multitasking distract her from the task at hand—namely, studying? Is her capacity
to concentrate diminished by the constant interruptions of dialog boxes popping up as temptations to engage in anything but the work that demands her focused attention? Knowing that neuroscientists have only recently started to study these questions I put these legitimate parental worries aside for the moment as I silently reflect on how incomparably rich and proficient her media life is than mine was when I was an adolescent.

As I considered the knowledge necessary to access what she needed to get her tasks done, the choices she made about how to manage the necessary resources, as well as the independent technical mastery she exhibited, I realized something profoundly obvious. The new technologies can be tools for training to be a pro-active, self-sufficient, creative and productive young adult. These tools allow for a level of independence and self-management that adolescents have always wanted to demonstrate to their peers, parents, teachers and themselves that until recently, they have been hard-pressed to pull off. This fact alone can be enormously threatening to parents; tools that legitimately give them reason to tell us they really can manage on their own. Hello, Brave New World!

This observation clarified for me that the virtual love fest between teens and the new personal technologies derives from the exact match between their needs and the capacity of these tools to satisfy them. Through technology they have access to many of the same resources that adults have; giving teens something they don't feel they have in many other contexts: control. Bingo…the perfect storm.

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If a teenager were writing this article she might consult the online encyclopedia Wikipedia to explain the relevance of this phrase-du-jour to my argument. The phrase “perfect storm” refers to the simultaneous occurrence of events which, taken individually, would be far less powerful than the result of their chance combination.

Teens have always been the vanguard of new-technology adoption. Embracing what’s new and slightly threatening to the rest of society establishes the requisite distance from the status quo and of course the dreaded grownups that have created it. For decades research on young peoples’ media usage has shown that just as children are making the transition to their teenage years their media use hits its zenith. In the past, their voracious appetite for consuming edgy pop culture that set them apart from adults explained this phenomenon. Coming of age today, as technology has transformed the way we access information and each other, teens also realize the potential this powerful connectivity has for delivering the independence they desperately covet on their way to adulthood. These tools fit directly into the desire to demonstrate self-reliance in conducting their education, entertainment, social networking, life planning and organizational management. Though it’s hard to envision a more empowering environment in which to explore virtual adulthood, many observers decry teens seemingly whirling-dervish ultra-plugged-in lifestyles.

Most articles about teens and the new personal digital technologies that connect youth to the all-media-all-the-time world we live in focus on the statistics describing their intensified media use. The data from these studies tend to reinforce the stereotypical concern that teens could be too wired for their own good. As a canvas for describing adolescent media usage these statistics are informative, but they do not paint the entire picture. Yet, the outline they sketch is a useful starting point for describing teens’ relationship to media and technology.

Recent estimates put the average teen (12-17-year-olds) spending some 44 hours per week—or the equivalent of a half-day more than a full-time workweek—immersed in media. With a quarter to a third of teens reporting using another media “most of the time” while watching TV the extent of “media multi-tasking” makes it difficult to know which media is used for what amount of time. Data from various recent studies provide a confusing picture about how this breaks down by media. Some studies indicate that the average teen watches about 23 hours of TV per week, that they spend two to three hours daily on internet activities, and listen to the radio 12 hours per week. Other recent national surveys show that in an average week, teens spent 16.7 hours online versus 13.6 hours watching TV teens suggesting that they now spend
more time on the Internet than with any other form of media. Whatever the precise breakdown of media use is, the approximately 11 million or 87% of teens online appear to be adept at creating their own media environments.

Of those nine in ten teen Internet users, one out of every two use the Internet in a home with a broadband connection where they spend time doing homework-related and other information searches, instant messaging (or IMing) and emailing, downloading music and video files, and creating digital media of their own. These media habits are facilitated by the fact that many teens who can afford it (or more likely whose parents can afford to buy it for them) own much of this technology, making it available to them 24 hours per day: 65% of teens have a cell phone, 80 percent own or have regularly access to a computer, 83 percent have access to DVD players, and 52 percent have video-game consoles.

Adding an interesting observation to the above statistics, a study just released by the Kaiser Family Foundation suggests that the computer promotes media multitasking by creating the technological capacity to integrate media. Further, these findings demonstrate that teens who have the greatest opportunity, as defined by availability, access time, the motivation to conduct multiple activities, and tasks that are most conducive to parallel processing, are the heaviest media multitaskers. This suggests the fascinating possibility that teens who are heavy computer users may be adapting the way they accomplish tasks due to the capacities fostered by the very nature of a fully wired media environment. Development psychologists and neuroscientists are just beginning to unpack the potential positive or negative significance of these findings for information processing and learning.

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Despite the fact that the jury is out on this question it is no surprise that these statistics and observations stand many parents’ and educators’ hair on end. They worry that the seductive aspects of interactive media and technology distract teens from their studies, may contribute to social isolation, result in overexposure to inappropriate adult content, encourage risk-taking behavior, and condition them to be hyperactive parallel processors who can not settle down long enough to do the focused work demanded in high school to prepare them for entrance to college or the work force. Hard to imagine an upside to this?

While I agree that teens are enveloped by a wired world they do not seem to be trapped by it. To the contrary, it appears that their lives can be facilitated by it. Without careful consideration of the confluence of factors that draw young digerati to find solutions to the characteristic issues that consume them during the adolescent years with technology, they can appear to some as megamedia consumers without a cause. However, it is far more informative to consider what the archetypical needs of adolescence are and how they are assuaged by the new technology (i.e. the need for personal space, the desire to develop communication skills, the need to develop and display competence,
mastery and creative expression, the need for companionship and feeling connected, the need for sexual exploration and the need to take risks). These are some of the ways technology can facilitate the psychological, socio-emotional and intellectual needs of adolescents. This is not a comprehensive list, but it identifies essential benefits technology can provide during these years.

**The need for personal space**

Typically teenagers want to be left alone much of the time. And, though their behavior can seem antisocial, they need this time to themselves and its generally better for the rest of us if they get it. Technology allows them to have their cake and eat it too: they have access to the outside world while holding up in their own private spaces. Most importantly it allows them to control the use of these tools without the infantilizing barrier of asking a grown up for access. Do you recall having to wait for your turn to use the family telephone and trying to drag it into a closet so your younger sibs and parents could not hear your conversations? Could you ever imagine a world in which you could have company during all those lonely homework hours by doing your homework with your IM window open to chat with your pals, all out of range of parental eyes and ears? Think about how liberating it would have been to be able to read about or view a video on your own computer on a private topic, i.e. menstruation or contraception, out of view of your parents?

The new personal, wireless, customizable, micro-portable, securable, telecommunication and entertainment devises that teens are wired to are **privacy by design**. It is no surprise that the password-protected devices that teens have become dependent on for local and global access would be a threat to parents. They perform that function which parents want to prolong as long as possible: the separation of them from us. These tools secure the firewall that goes up in early adolescence that increasingly allows for the management of their cultural and social life by them not us. Through mastering the many features of these tools that allow them to protect their privacy, download music and programming selected by them alone, and use creative text messaging codes that are indecipherable by most parents, they are in control of these domains.

If there is one aspect of adolescence over which conflicts between parents and teens have arisen from time immemorial it is the teens’ need for privacy and the parents’ difficulty letting them have it. Of course parents have the (usually legitimate) worry for their academic success or safety as a motive, while our kids have the abject need to demonstrate their maturity in making their own decisions in these spheres. Of course the goal should be the responsible use of these tools. If parents decide that their kids are not living up to these expectations they can always stop paying for the service or deny access. Most teens use these tools appropriately, well, at least as responsibly as adults do.

There are also useful hard lessons learned through having the ability to express yourself freely online. As many adults have learned through misjudgments while online, digital communication can lead to breaches in personal privacy. Teens have to learn to be self-protective about what they communicate online because information they might not want shared can spread faster than a wildfire. Unfortunately, though we can warn them
about possible missteps, taking the steps is up to them.

The desire to develop communication skills

Teenagers seem to have harnessed technology to learn to communicate adeptly and more due largely to the sheer volume of different kinds of writing they do on the computer. Apart from the school assignments that are aided by online resources, they write and post their own personal profiles and contribute to the social networking world of blogs, as well as produce a bulk of email and IM messages daily. About a quarter of all teens keep a blog and 38% read them. Then there are the serious gamers. For both the casual and hardcore gamers who participate in such obsessions as “Massively Multiplayer Online Games” or high-end simulations, writing is the primary mode of communication. Trying out your writing skills and voice in these dynamic contexts has two clear benefits; practice and feedback, both essential for writers. Sharing your work as a writer is often the biggest hurdle to get over. These enticing opportunities allow for a kind of free expression that seems to take some of the intimidation out of experimenting with writing styles.

The copious amount of social networking done by teens is an engaging way to participate in society through both authoritative and peer-driven networks. Add to this exposure the heady fact that their entries have a global reach. At a time in life when many adolescents’ natural tendency would be to hide under a rock until it’s over, technology provokes them to be participating citizens of the world, traversing the globe with their finger tips and leaving their mark with their brain. Not a bad way to get them to crawl out of their self-protective shell.

Anything that gets teens writing with such enthusiasm and bulk can’t be bad for them in the long run. While the content may not initially be of high caliber it’s a foray into adult activity that previously had a more difficult entry point. Testing these waters no longer has an age barrier.

Some argue that the rapidity of writing and the abbreviations teens use for chatting online and emailing will lead to diminished spelling and writing skills. This would be something to worry about if teens did not know that this is a distinct mode of communication—one
in which perfection and eloquence is traded for speed of delivery and clever coding. Teens are well aware that they are using different language skills than those they would employ in an analytic paper, a short story submitted for school or publication, their college essay, or a letter to their grandmother.

Beware: adults may get what they wish for; we could be the ones who seem illiterate if we don’t learn some of these new language “skills.” Not to worry, parents; since it is no secret that teens favor texting over talking on their cell phone, Cingular (currently the largest cell phone service in the United States), recently announced that they will hold a series of “texting bees” to teach parents to be more adept at communicating in this mode with their teens (A Parent’s Guide to Teenspeak by Text Message, NYT, November 26, 2006). This promotion, in reality a shameless marketing ploy to increase sales and services, will probably be a huge success as too many parents don’t quite get that the reason teens favor texting is largely because it is the cryptology of their peers and not ours. I’m afraid this is yet another one of those parental conundrums that should leave us sighing damned if you do, damned if you don’t rather than anxiously trying to decipher letters and iconography not intended for our failing vision.

**The need to develop and display competence, mastery and creative expression**

Related to the above-mentioned desire to hone their ability to articulate and express themselves in writing, being recognized for your successes is perhaps the number one desire (albeit often unspoken) of teens. Just like the rest of us they enjoy getting noticed for their interests, talent, and skills. To satisfy this itch they adopt technological solutions to their work and social needs. They are highly motivated to master the cutting-edge technological tools they need to create and display their own work and self-expressive creations. Adolescents, notorious risk-takers, plunge in and are plugged in if not with ease with more determination than most of the rest of the population to put something out there in cyberspace to get reactions. Teens are leaders when it comes to harnessing new media literacy for personal creative expression.

That’s a lot different from previous generations who were passive recipients of what the media industry had to offer. More than half of online teens are digital content creators, meaning that they write, create art, produce videos, compose music, build websites and design games that use all forms of multimedia. Teen bloggers may be the most tech-savvy and heaviest Internet users, with older girls leading blogging activity among teens. On blogs and personal profile sites they post regular multimedia presentations, expressing themselves through words, moving and still images and soundtracks.

Many teenagers get involved in producing digital content through MySpace.com, a social-networking website that lets people link to friends and create profiles with images and music. With roughly 90 million members, reaching 51% of 13-17-year-olds online (which is 85% of all 13-17 year olds), approximately 18 million visitors per month, and almost equal popularity among males and females (50.2% male, 49.8% female regular members), MySpace is the place to be online. Other hot destinations are Facebook, LiveJournal, Xanga, Deviant Art, Flickr, YouTube—all
representative of the new generation of sites where teens can write journals and create their profiles and blogs.

Building a profile on these sites is the perfect example of personal expression, as no one else dictates the content or creative choices teens make. The various customization tools available allow teens to create buddy icons or other distinct IM communication features that give users unique online identities. Using every tool that allows for instant messaging, posting personal profiles, and writing the “away” messages that keep them connected to their IM network while they are away from the computer (or need some uninterrupted study time?) teens are the masters of these online multimedia studios. These profiles and journals are part of their identity—that is, the identity that they present to their primary target audience, their peers.

Also sprinkled through these websites’ millions of pages of discourse and comments are topics that range from such typical teen interests as TV and film, music, fashion, high school and college searches to earnest discussions about politics, local and global concerns, community service and protests. For many, this thirst for knowledge is driven by a desire to make the world a better place. For others there is no altruistic intent whatsoever. But, the common theme is that being in-the-know gives teens the coveted position of ascendancy over others (their favorite place to be, especially with their peers).

Learning how to satisfy the desire to demonstrate knowledge and sophistication in mature ways will stand them in good stead for most challenges that are thrown at them in adulthood.

**The need for companionship and feeling connected**

Email and instant messages, along with the ability to be in 24-hour contact via cell phone and/or text messaging relieves some of unquenchable thirst for social interaction during the adolescent years. These forms of communication
that allow for constant accessibility are a sure antidote to loneliness when you want company. And no one knows better than the parent who gets to the voice mail more often than his or her child that they have to want the company to use it. The favorite feature of these devices seems to be that teens can selectively communicate on their own terms and schedule. An apparent match made in heaven.

In addition, being able to communicate in text seems to break down barriers for teens who may feel insecure about their spontaneous spoken skills and more confident with the hip cryptography of texting. Having a private channel where secrets can be delivered even more cautiously than with a whisper can be an obvious advantage. Moreover, for shy teens making perilous forays into this social world can be aided by this mode of communication, where you can pause long enough to reply without the unease that usually ends in embarrassment. Though texting can be a tricky skill to master with the speed required, its appeal is enhanced by these factors.

Another component of this need for self-directed social contact is the desire for immediate gratification. The so-called “sticky technologies” (read: addictive), such as email, IMing, cell and PDA text messaging embrace teenagers’ need to have an instant response to their queries. Typically impatient and often impulsive, teens rely on these devices for quick reactions to thoughts, ideas and plans. It is the perfect reciprocal system because those replying to messages have the same expectations for immediate feedback. With a direct line to the recipient plans can be updated up to the moment you ultimately meet.

Having grown up with these telecommunication tools, it is no surprise teens tend to take the convenience they provide for granted. They have no clue what it used to be like when you would sit waiting for the phone to ring, hoping no one in your family would get a call first, potentially blowing your chances for a date that night!

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**The need for sexual exploration**

The adolescents’ need to try out sexual roles, to test the waters for their attraction to others, and experiment with new found knowledge about sexuality finds a welcome home online. In chat rooms, social-networking blogs and on personal profiles, or simply through “talking” online teens can interact as themselves, anonymously or even as fictional characters to explore sexually explicit topics for their edification and/or titillation without risk of embarrassment. They also regularly use these resources to find out important information as well about safe sex and sexual health.

That said, having a virtual context in which to learn about and try out your sexual identity doesn’t mean nerve-wracking mistakes are avoided. Given the natural preoccupation with sex and sexuality during adolescence, having real-time sex education a mere click away can be a Pandora’s Box. Add to the enticement the fact that they can even do this anonymously through secret identities, and you are playing with fire.
The seductive and addictive qualities of cyber communication are well documented for any age group that uses email or chat rooms to share and gather intimate information. You don't have to be a shrink to know that the immediate gratification of electronic communication heightens desire exponentially. It doesn't even have to be of an intimate nature to be addictive for many of us. It's not hard to figure out why intimacy online easily turns into a feeding frenzy for many teens. Don't you remember getting your first love notes from potential suitors? Well, now teens don't have to wait for the next day at school to check their lockers for that hidden note, or a postal delivery that could take an unbearable several days to reach you.

Whether we like it or not, this is the dominant way our teenagers communicate with each other and the world. They have to learn how to do it with a comfort level that allows them to explore who they are without rendering themselves vulnerable. We have to give them to freedom to do so. A sure way to destroy our partnership with teens is to blame hormones alone for their online forays into experimenting with their sexual identities.

Certainly our worst fears are confirmed by the sexual crimes against minors that are perpetuated by digital communication. Though hormones are involved here, blaming the Internet for fanning the flames of adolescent sexual needs as the perpetrator of those relatively few online predatory crimes against minors is akin to blaming adult email love affairs for adultery. Obviously other factors are at play. Teens have to learn to protect themselves from predators they confront anywhere in their lives. Teaching our kids to be smart, cautious, self-assured and willing to get help when needed will insure that the benefits of these tools outweigh the risks.

On the bright side, looking back on some of the dating faux pas of my own teen years (that can still make me blush even when I am alone), having a non face-to-face mode of communication to try out my sexual identity would have been a very cool thing!

**The need to take risks**

Part of being a teenager is walking that fine line that allows you to have the thrill of risk-taking without paying any life-altering price for your (often brain-dead) actions. This may be one of the greatest virtues of having access to powerful communication tools and the Internet. It is so much better to try out lame pranks or dubious behavior in cyberspace. No doubt teens figure out this is the safest self-defense training ground available. It is abundantly clear that the only way to protect youth from possible dangers online is to equip them with the skills for protecting themselves. Teaching them about online seductions or predation, how to protect their privacy online and ask for help when they need it are the key lessons of Internet safety. At the end of the day, no amount of control will teach them these essential lessons, only advice that respects them, their interests and needs as media consumers will. Adults have to be mindful that media is much more pervasive in their lives then it was in ours; it is certainly not ever going to become less so. Striving to keep lines of communication open with adults is essential, but when cyber push comes to cyber slug it is our teens who have to be able to defuse situations and protect themselves.

You can't teach your teenager to drive a car without putting her in the driver's
A parental decision to cut a teenager off Internet access, on the basis of fear, is the equivalent of the proverbial finger in the dike. The Internet is here to stay. Along with the infamous preadolescent “birds n’ bees” talk, discussing rules for Internet safety has become a “rite of passage”. It should be part of every school curriculum starting as early as kids begin to go online, and be part of every family’s “house rules”. This is why every Internet service or site with a teen audience has a Safety Tips section with links to other online security resources (i.e. OnGuard Online/FTC, BlogSafety. Com, Netsmartz.org, SafeTeens.com, Common Sense Media, SafeFamilies. org). Parents and educators should insist that Internet- active teens know how to use these resources, but be careful not to assume the worst about what they are doing online.

My MO as a parent has always been: the more trust you convey, the more your child wants to be trusted.

Adults may be cynical about freedom being just another thing to loose, but for adolescents it’s their lifeblood. To the extent that technology can facilitate teens’ testing their wings before they jump off any cliffs, parents must learn to embrace it.

Is this an overly optimistic view of why teens are drawn to technology?

Perhaps. Many argue that there is a downside to having the capacity to be hyper stimulated 24 hours per day, inundated with information, habituated to a multi-tasking way of life, and given access to unfiltered adult content all at your finger tips. Could it be that teens dependence on technology causes them to procrastinate, become increasingly antisocial, conditioned to expect fast paced information delivery and immediately gratification, lack the self-control to moderate their use, and may even limit their physical contact with people and curtail physical activity? Possibly. Some of the dangers decried by adults of growing up in this media saturated environment could prove to be legitimate. There is much to discuss and study regarding both short and long-term influences of teen's media habits. However, given how bored, disconnected and anxious many adolescents feel during these tumultuous years, the productive and creative use teens make of technology strikes me as largely a win-win situation. (Call it a libertarian point of view?)

Most importantly, the educational power of multimedia technologies can level the playing fields by opening up opportunities for all kinds of learners to absorb information and express themselves. We know that teenagers learn in a variety of ways: some learn best with words, oral instruction or visualizations. The variety of methods for presenting information allows students to discover their own personal paths of inquiry and preferred styles of knowledge representation. It gives them a wider range of options for expressing this knowledge.
then was previously available. If some teens’ access to these tools is limited so is educational equity.

It is a tragedy that despite the enormous growth in youth technology adoptions 13% of American teenagers—or about three million people—still do not use the Internet. In addition, the entry cost for many of the wireless technology, communication devices and media services is prohibitively high for many families. Those teens who remain offline and have limited access to technology are clearly defined by lower levels of income and are disproportionately likely to be African American. Teens from lower-income households cannot afford the same technological advantages that the majority of young people have today.

When we talk about the digital divide being about the lack of access to technology we must acknowledge how this economic disparity causes an even more insidious type of inequality. This is the divide between children who grow up using technology in discriminating ways through developing the skills to use the powerful tools for communication and creativity in ways that enhance their lives and those who do not. These adolescents do not come of age with this new set of tools in hand, putting them at a significant disadvantage for educational and job success. Removing this chasm is a responsibility worthy of our precious job titles as parents, educators, media producers, industry gatekeepers and our nations government representatives. This is a fundamental concern that must be addressed in our society and around the globe.

All teens should have access to this rich connectivity and the capacity to make your own media. We must insure that the entire generation shares the same expectation: to be both discerning consumers and creators of media. As with every new technological advancement it’s up to the consumers to determine its value to themselves and society. We have heard this wise critique before regarding other pervasive media.

As Edward R. Murrow famously said: “This instrument, television, can entertain, it can inform, yes, and it can even inspire. But it all depends on the will of the humans who operate it. Otherwise it is just lights and wires in a box.”

Teenagers are setting new standards for how to use the leading-edge boxes of wires and light. My bet is on seeing some inspiring digital footprints along the shoreline in the wake of this storm.

The statistics on teen media and technology usage are compiled from recent studies conducted by The Kaiser Family Foundation Media Studies, KFF.org; The Pew Internet & American Life Project, pewinternet.org; Comscore Metrics report cited in BusinessWeek(http://www.businessweek.com/print/technology/content/nov2005/tc20051115_908925.htm), NowPublic (http://www.nowpublic.com/myspace_stats); and Bloomberg/ Los Angeles Times and Harris polls 2005 – 2006.

Dr. Carla Seal-Wanner is the founder and president of @ess4@ll, a public-interest advocacy organization promoting universal access to quality media for all children. A former professor at Columbia University, where she created and directed the Graduate Program in Instructional Technology and Media for a decade, Dr. Seal-Wanner received her doctoral and master’s degrees in developmental psychology from Harvard University and her BA in psychology and visual art from Hampshire College.