

## INTERACTIVE SESSION: ORGANIZATIONS

### WASTING TIME: THE NEW DIGITAL DIVIDE

In the early days of personal computers and the Internet, some technology analysts and sociologists worried about a "digital divide," where wealthier and more educated people were far more likely to take advantage of newer technologies than people from less-fortunate socioeconomic groups. This divide between the "haves" and "have-nots" has decreased over time as Internet access, personal computers, and smartphones have become cheaper than ever before. However, emerging technology usage patterns among different social groups suggest that there is a new divide: technology users from poorer and less-educated backgrounds are using technology to reinforce rather than eliminate socioeconomic disparities.

Improvements to technology have allowed computer and smartphone users to access media all day, every day. The amount of time that young people spend with entertainment media has risen dramatically across the board, but the largest increases are among minority youth. A Kaiser Foundation study performed in 2010 found that, on average, 8- to 18-year-olds devote seven hours and 38 minutes per day to entertainment media. Much of that time is spent multitasking, which allows users to cram three extra hours of media content into those seven and one-half hours. These figures represent increases of one hour and 17 minutes for time spent on media per day and of two hours for total media content consumed.

This increase in media consumption has been driven by the proliferation and improved functionality of mobile phones and smartphones. In the past five years, cell phones and iPods have become ubiquitous, as 66 percent of 8- to 18-year-olds now own cell phones and 76 percent own MP3 players. During that same period, the mobile phone has become the primary multimedia device. In fact, young people now spend more time consuming media on their phones than they do talking on them.

As access to these devices has spread, the children of poor families are spending a great deal more time than children from more well-off families using computers, phones, and television to consume media, play games, and use social networking sites like Facebook. The concern about the "digital divide" turns out to have been misplaced—more important than access to technology is parental guidance and oversight of the usage of the technology. The Kaiser Foundation study determined that the vast majority of young people

have no rules about how much time they can spend using electronic devices. However, children whose parents do have rules about technology usage spend far less time consuming media each day.

Minority children were found to spend much more time with media than white children. Black and Hispanic children consume approximately 13 hours of media per day, compared to eight hours and 36 minutes for white children. The majority of the difference comes from television viewership. The racial disparity in media usage, and television viewership in particular, has grown drastically from 2005 to 2010. The gap was two hours and 12 minutes then, and is four hours and 23 minutes today. All other forms of media consumption have also increased, except for movies and print media. Music, TV, computers, video games, and social networking have all markedly increased across all socioeconomic groups, but again, most markedly among minority youth.

In response to these alarming trends, the Federal Communications Commission (FCC) has launched an effort to instruct parents, students, and job seekers how to use these technologies productively and how parents can monitor technology usage of children. Also, the FCC plans to send digital literacy trainers to organizations like the Boys and Girls Club, The League of United Latin American Citizens, and the National Association for the Advancement of Colored People. These efforts, in tandem with private and state efforts, are intended to give parents and students the skills to use technology responsibly. Still, the FCC will also continue its efforts to improve the availability of computing devices for all Americans. The gap between whites and minorities in technology ownership is still significant. Sixty-five percent of all Americans have broadband access, but the numbers are much lower for Hispanics and African Americans.

The Kaiser study did not establish a cause-and-effect relationship between media consumption and academic performance, but there are significant differences between the grades of heavy and light media users. Half of heavy media users say they get fair or poor grades, compared to only a quarter of light media users. "Heavy" media use was considered to be more than 16 hours of media consumed per day, taking into account multitasking; light users, on the other hand, consume less than 3 hours of media per day.

Not only is it difficult for parents to monitor and control the technology usage patterns of their children, but research also suggests that these technologies are fundamentally changing the way we think. Some studies have suggested that digital technology has damaged our ability to think clearly and focus. The Internet, smartphones, and other modern technologies feature the ability to multitask, and involve interruptions and constant updates with up-to-the-minute information. These factors, along with the increased emphasis on visual processing ability rather than critical thinking and information retention are affecting our cognitive patterns. The constant distractions inherent in online life prevent us from creating the neural connections that constitute full understanding of a topic. Traditional print media, on the contrary, is easier to engage with fully and with complete concentration.

Studies conducted at Stanford found that multitaskers are more easily distracted as well

as less productive than normal task performers. The scientists postulated that the Internet, smartphones, television, video games, and other media are providing distractions that are "massively remodeling" our brains. Another study showed that TV viewers retain more information about shows without a news crawl at the bottom than shows with one. And many companies report that their efforts to go social have offered employees new ways to waste time at work rather than to improve efficiency. Few people would argue that advances in various forms of technology have been a bad thing, but technology companies, state and federal government, and parents and children will need to be more vigilant than ever about the risks of too much technology.

*Sources:* Matt Richtel "Wasting Time is New Divide In Digital Era", *The New York Times*, May 29, 2012; and Kaiser and Family Foundation, "Daily Media Use Among Children and Teens Up Dramatically from Five Years," January 20, 2010.

## CASE STUDY QUESTIONS

1. How does information technology affect socioeconomic disparities? Explain your answer.
2. Why is access to technology insufficient to eliminate the digital divide?
3. How serious a problem is the "new" digital divide? Explain your answer.
4. Why is the digital divide problem an ethical dilemma?

often with high-impact loads (such as tennis) or tens of thousands of repetitions under low-impact loads (such as working at a computer keyboard).

The single largest source of RSI is computer keyboards. The most common kind of computer-related RSI is **carpal tunnel syndrome (CTS)**, in which pressure on the median nerve through the wrist's bony structure, called a carpal tunnel, produces pain. The pressure is caused by constant repetition of keystrokes: in a single shift, a word processor may perform 23,000 keystrokes. Symptoms of carpal tunnel syndrome include numbness, shooting pain, inability to grasp objects, and tingling. Millions of workers have been diagnosed with carpal tunnel syndrome.

RSI is avoidable. Designing workstations for a neutral wrist position (using a wrist rest to support the wrist), proper monitor stands, and footrests all contribute to proper posture and reduced RSI. Ergonomically correct keyboards are also an option. These measures should be supported by frequent rest breaks and rotation of employees to different jobs.

RSI is not the only occupational illness computers cause. Back and neck pain, leg stress, and foot pain also result from poor ergonomic designs of workstations. **Computer vision syndrome (CVS)** refers to any eyestrain condition related to display screen use in desktop computers, laptops, e-readers, smartphones, and handheld video games. CVS affects about 90 percent of people who spend three