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An *anti*-crash course for college students: Digital Media Addiction 101

By Alan Blum, MD, and Tomasz Gruchala

Across college campuses, students are being oriented to academic honor codes, residence hall community living standards, healthy relationships and interpersonal violence, and the dangers of alcohol and other drugs. Yet one of the most worrisome and rapidly growing problems of college students is not being addressed: digital media addiction.

The day-and-night dependence on cellphones and laptop computers is leading to an increasing number of adverse physical, mental, and emotional consequences. University leaders need to take an active role in seeking solutions.

To be sure, digital devices offer a variety of benefits, such as online education, entertainment, ready access to information, emergency notifications, and instant messaging. But researchers in public health, medicine, and psychology are finding that the excessive use of these devices and reliance on social media is related to diminished school performance, depression, sleep disturbance, and problems with relationships.

Laptops provide college students with the ability to organize notes, read textbooks, collaborate on group projects, and communicate with professors. However, the use of these devices in class, even to take notes, has been shown to inhibit learning by decreasing both short-term and long-term retention of information and concepts. Those who rely on digital devices in the classroom are more likely to have lower grade point averages than their less-technologically-inclined peers. Taking notes with pencil and paper is the smarter strategy.

The highest rate of major depression is in the 18-25 year old age group (10.9%), compared to 7.4% in 25-49 year olds and 5.8% in those over 50. Some researchers believe that the unprecedented high level of depression among college students is directly related to the non-stop use of social media, the tendency of individuals to suffer from a fear of missing out, and the constant judgment by others on these media platforms.

Incessant use of digital devices, particularly cellphones to check social media and the Internet, distracts students from focusing on their work. As Dr. Theo Compernelle, a psychiatrist and business school lecturer reveals in his book *Brainchains*, effective multitasking is a myth. Constant shifting between tasks inhibits quality and efficiency. The author points out that 30 minutes of uninterrupted work is three times more efficient than three 10-minute work periods and 10 times more efficient than 10 stints of three minutes.

Diminished attention can also lead to safety risks. Cellphone use is now the largest cause of distracted driving and is implicated in one in four motor vehicle accidents. Cellphone use while driving leads to 1,600,000 crashes and 390,000 injuries each year. In 2016, 3,450 Americans were killed in distracted driving incidents. Texting or otherwise distracted by cellphones while crossing the street has also become a significant issue. Upwards of 1500 injured “ped-extrians” are treated in emergency rooms each year.

At college, constant digital device users are less likely to look up and interact with others around them. Checking the phone during conversations makes a poor first impression and diminishes relationships. Misunderstanding and incivility increase when looking at digital devices take precedence over making eye contact.

Spending upwards of 8 to 10 hours a day on digital media devices, as many college students now do, can also impair physical health. Text neck may sound amusing, but this painful condition of the neck and shoulders can result in permanent curvature of the spine due to constant looking down at a digital device. Bending the neck at a forward angle increases pressure on cervical spinal discs, which can permanently shift. Similarly, poor posture and back pain can result from spending hours on end slouching over a laptop. Reducing the chances of developing these problems is simply a matter of reducing the use of digital devices.

Computer vision syndrome--eye strain, headaches, blurred vision, and dryness or redness of the eyes—is caused by looking at a bright screen for an extended period of time. Most symptoms are short-term, but prolonged digital device use has been associated with the development of nearsightedness, the prevalence of which has risen from 25% in the 1970s to 41% today.

Sleep quality and quantity are also affected by digital device use. Prolonged exposure to the blue light from screens disrupts melatonin production, which regulates circadian rhythm and the sleep cycle. Digital device use immediately before going to bed can disrupt normal sleep. Excessive video gaming goes hand-in-hand with poor sleep patterns...and poor grades. Upwards of a third of male college freshmen admit to having played online games more than 16 hours a week as high school students. The rise of collegiate e-sports portends an increase in gaming time among college students.

Anorexia nervosa, a life-threatening psychiatric condition of impaired body image that occurs mostly among adolescent and college-age women, is believed to have increased because of peer pressure in “thinspiration” online forums to lose unhealthy amounts of weight. For the majority of users, though, the more time they spend on digital devices, the less physical activity they do and the more likely they are to gain weight.

Universities have done little to educate students about the problems of dependence on social media and digital media devices. One exception is Liberty University, which has created a WiFi-free center where students can meet, converse, and study together without any distractions from electronic media. The center's founder, Dr. Sylvia Frejd, notes that "many students are immersed in their technology and are almost uncomfortable in real-life situations. The center plays a role in awareness, education, and prevention of technology overuse."

Professor John Stilgoe of Harvard University offers another great idea. Stilgoe began teaching a course in "the art of exploration" three decades before smartphones were introduced in 2008. His premise is that college students need to slow down, disconnect from devices, take walks, and look around. He believes that today's students, who are evaluated largely on their ability to memorize and to perform well on multiple choice tests of verbal and mathematical skills, have lost the art of observation and are "visually illiterate." To remedy this, he urges students to boost their "visual discovery rate" and not just their heart rate by looking more closely for "the millions of things in a hidden world—the unconscious, unseen things that are right in front of our eyes."

Here's hoping that the solution to digital media addiction on college campuses will come in the form of more such looking up and looking around, along with more spontaneous smalltalk and discussions of ideas outside of one's social media circle.

Alan Blum, MD is Gerald Leon Wallace MD Endowed Chair in Family Medicine at the University of Alabama, Tuscaloosa, where he also directs the Center for the Study of Tobacco and Society.

Tomasz Gruchala is a senior at the University of Alabama and a student in the Catherine J. Randall Research Scholars Program.