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VIEWPOINTS

The Challenge of Educating in a Highly-Connected and Multitasking World

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Often the current generation of pharmacy students is described as the digital generation. Today's students are more connected and more integrated with their world than any past generation. They have seemingly developed the skill to multitask successfully given the pervasiveness of cell phones, text messaging, e-mailing, blogging, social network sites, videos, and tweets. Information is readily available today from a multitude of sources. Information that once took many, many hours in the library to acquire can now be gathered in a fraction of the time on the Internet via a wifi connection while sipping a mocha latte at Starbucks. Yet, to what extent have these advances improved our students' ability to become learned pharmacy professionals who are informed not only of the current world and its events but the profession itself? Additionally, phones and computers in the classroom are potential distractions that interfere with our ability to concentrate and stay focused on teaching and learning. Are we and our students really accomplished multitaskers?

While one of the authors (GAB) enjoys the opportunity to connect via social networks and other newer communication technologies, the other (DAB) prefers a more restricted approach to humanity. However, we are both concerned that all this connectedness and multitasking, while offering profound opportunities, requires diligence on the part of educators and students to ensure that all this activity is not misdirected. On average, students spend more than 6 hours per day with media.¹ In such a media rich world, how much of that time is spent productively? It seems that too many individuals will only know of news and world events when they are shared (or editorialized or parodied) in social networks, blogs, videos, and tweets. While we recommend textbooks for our courses, how many students actually see the incentive for reading them (not to mention *purchasing* them?) when all the notes for classes are provided in the handouts? Thus, students' reading often extends no further than the bullet points in the handouts. And how many faculty members still evaluate students' learning by including elements from the course textbook (not just from the handouts) on quizzes and examinations?

Critical reading skills are and will always be the hallmark of well-educated professionals, whether they are

clinicians, scientists, businessmen or women, educators, or (dare we say it?) politicians. In the sea of information now available, it is often difficult to know fact from fiction. Critical and thoughtful reading, as well as learning, requires time and attention to the task. Although multitasking has become a *perceived* skill in today's environment, with many data streams continually vying for our attention, a recent study published in the *Proceedings of the National Academy of Sciences* suggested that individuals who pride themselves at being proficient multitaskers in fact perform worse cognitively at the main task at hand when switching back and forth between various tasks compared with individuals who multitask much less frequently.² Perhaps we do our students a disservice by encouraging them to bring computers into the classroom given that they are almost certainly bringing (and using) another media source at the same time: their cell phones. This is not to say that computers and newer technologies in our classrooms and other settings do not enhance the learning process, but ultimately it comes down to the individual being able to stay focused for deep and lasting learning to occur in any setting.

Some institutions, including health science programs, have or are considering blocking cell phone signals in the classrooms and other instructional settings to help students stay focused on their reading and learning. This has certainly met with great resistance (and outrage) by some students who feel their cellular rights have been infringed upon, and those who feel they have legitimate needs for cell phone access during class, such as the ability to be contacted by family members or campus authorities in the event of an emergency. While converting our classrooms into digital dead zones may not be the best solution, we believe there is a need to control the flow of information in our classrooms. Building student excitement and interest and fostering a collaborative, critical-learning environment is challenging enough without having to compete with so many other avenues of information and entertainment.

Sir Richard Steele, an Irish writer and politician, stated that "reading is to the mind what exercise is to the body." As an educator, administrator, preceptor, clinician, and/or

scientist, where do you stand with respect to balancing your instantaneous connection with the world with reading and learning? To what extent do you ask and encourage your students, residents, and fellows to read, both professionally and personally? What requirements do you have for pharmacy and graduate students to read in your course(s)? And finally, what was the last book you read or last book you discussed with a colleague, friend, or even a student, resident, or fellow? As a start, why not turn off the computer and/or television, put away the phone, and stop the iPod, thereby minimizing the distractions around you while you take some time to

read and learn. Who knows what great things can happen for us and our students when we focus more and multitask less?

References

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