Quick Takes
A PODCAST BY PHYSICIANS FOR PHYSICIANS
HOSTED BY DR. DAVID GRATZER

September 25, 2019

Episode #6 – What all physicians need to know about technology and education

> **Peter Selby:** Technology has helped us really make education much more accessible to providers, especially busy providers at the frontline. And so I think it's a great advance that people don't have to come into a geographic classroom to learn and gain knowledge.

That was Dr. Peter Selby, chief of medicine in the psychiatry division, and a clinical scientist, at CAMH. In this episode of Quick Takes, Dr. Gratzer interviews leaders at CAMH who have worked on a variety of medical education projects as technology has changed over the last 20 years. Join us as we look at best practices and technology trends for the next generation of mental health experts. You can access all four of these complete interviews as part of our bonus episode, Double Take.

David Gratzer: We're joined now by Dr. Ivan Silver, who's a professor at the University of Toronto in the Department of Psychiatry, somebody who's had a lifelong interest in professional development, and a former vice president of education here at CAMH. Welcome, Dr. Silver.

Ivan Silver: Thank you for inviting me.

David Gratzer: Dr. Silver, we're talking about how education, particularly medical education, has been reshaped by technology. What was the first big change you think you noticed in education and in terms of use of technology?

Ivan Silver: Well, I noticed in my first year at McGill as a science student. I'd come from a little town in New Brunswick where everything might have been five to 10 years behind. But even so, I'd never seen video-based lectures before. When it began it was the era of the theory of 'education as transmission.' All you had to do is turn on a video, leave the room, and of course good things would happen. Information would be transmitted into your brain and it would be just as good as being there, and being there to answer questions, which, of course, were absent. When video was first introduced in the university…¶.

David Gratzer: Education happened to people.

Ivan Silver: That's right! (laughs)

David Gratzer: They weren't active in any way, shape or form. What are some things that you see as really improving with better use of technology in terms of medical education?

Ivan Silver: "Just in time learning" so that 24/7 you're this determiner of your learning: what you learn, how you learn. Whether people take advantage of it is another matter. Just the simple fact that in practice, when you're in a clinic, that your questions can be answered immediately if you're going to the right site. That's a pretty amazing thing compared to when I first went into practice.

David Gratzer: When you went to the library, perhaps, to ask the librarian for help?.

Many, many hours in the library. And I still use the library, but now I've created my own digital library of evidence-based practice. I have, maybe, three hundred folders that this new information goes into. I actually read all the articles before I file them. I also have this wonderful digital file for access by the residents who train with me. In the olden days, I had five file cabinets full of these articles and many depressing days of trying to keep those up to date and throwing papers out, adding papers in, and then having to cart them around with me from job to job. And now it's all digital. It's all in folders. I can access it anywhere in the world. It's a wonderful feeling. So if you don't know the answer to something, you know it's pretty close to you, if you know where to look. I'm not sure we're there yet, in psychiatry, in having that kind of useful information to make it really "just for me learning." I think "just in time" is here, but "just for me" I don't think has arrived yet.

David Gratzer: We're now speaking with Dr. Peter Selby, who's a physician here at the Centre for Addiction and Mental Health in Toronto, and he's also Chief of Medicine in psychiatry. Welcome, Dr. Selby.

Peter Selby: Thank you.

David Gratzer: What is something that we might worry about in the current state of using technology in education?

Peter Selby: The biggest risk is self study without actual demonstration of performance. And I think that's the challenge. The bulk of things I see online do not actually test the person for performance.

David Gratzer: You've been involved in many education projects over the years and have had education leadership positions as well. What's an education project you're particularly proud of?

Peter Selby: So the TEACH project was essentially started to create capacity for different healthcare providers to deal with the number one addiction in Canada, which is tobacco addiction. There was a gap, so we identified the gap. We identified the need and we created this course that had core course that lasted 18 hours, so to speak. And then we added additional hours to create a certificate for 40 hours.

David Gratzer: How many people have gone through the course?

Peter Selby: Fifty-five hundred.

David Gratzer: Fifty-five hundred. Right across the province?

Peter Selby: Across the province. And because it's now online, it's an online course, we're getting people from different parts of the country. So this ecosystem that has developed around the course has been a really interesting way to move the needle forward.

David Gratzer: Can you give a story about how TEACH has been successful?

Peter Selby: When the Syrian refugees arrived in Toronto nobody realized that they smoked. Much of their money was going towards cigarettes and there was no assistance to help them quit smoking. The problem was they mostly spoke Arabic and there wasn't a lot of support. So through this community of practice we created an Arabic resource that was then enabled and now can be used anywhere in the province when anybody is doing smoking cessation with Arabic-speaking refugees, even if they are not native Arabic speakers. Because with this mechanism, we were able to engage an Arabic-speaking physician to create the content and the technology has allowed us to move. That's the impact of this. It is really an important way for us to look at, that our education is speaking to the issues of disparity of how this tobacco addiction epidemic has affected our populations. And part of this is, you design for the most vulnerable, you'll end up designing for everybody.

David Gratzer: Joining us now on Quick Takes is Sanjeev Sockalingam, who is a psychiatrist, Vice President of Education here at CAMH, and recently he became a full professor at the University of Toronto. Doctor, we're talking about technology in medical education. How are things likely to change moving forward?

Sanjeev Sockalingam: If I recall back, things like CD-ROMs and multimedia, were probably kind of the foray of technology in education and medical education. The we went to e-learning as the Holy Grail for medical education.

David Gratzer: Wait, we're not using CDs anymore?

Sanjeev Sockalingam: Well, some of us may be...

David Gratzer: No names?

Sanjeev Sockalingam: No names! (laughs)

Sanjeev Sockalingam: I do think that what excites me is the possibility of using these technologies in a way that might make it more accessible for individuals. We have many of those traditional kind of methods of teaching where people come to conferences, come to classrooms, they have the sage on the stage who provides that wisdom. You know, we've moved the bar in terms of using more interactive evidence-based longitudinal kinds of programs and seminars. But I do think there's unique opportunities to bring education technology to the forefront across that learner continuum. So some specific examples are things that are currently available, like synchronous types of training where people come together in learning communities or in online videoconferencing. So this allows people in their breaks to dial into those networks and have an opportunity to share best practices, cases, and have that truly workplace-based kind of moment with their community of practice. Echo is one program like that that is being provincially launched here at CAMH. So that's an opportunity. I do think things like virtual reality and online simulations, as they become more cost effective, more accessible, more open source, that there'll be more opportunities to be creative about it and use it in day-to-day education. Probably the other component, to me, is how academic organizations and hospitals use data and information that are collected in electronic health records. Or, dare I say the c-word, which is competency based education. That, as we think about implementation of these programs, there's a large amounts of data being collected about learners in their assessment contexts. With artificial intelligence and machine learning can we use that data to inform future learning? Learning improvements? Insight (give feedback) in a more readily available manner to our practicing clinicians and our trainees?

David Gratzer: We're joined now by Dr. David Goldbloom, who is a senior medical adviser here at CAMH. And he's been very much involved in education and technology through his career, which includes time as Physician in Chief here at CAMH. Dr. Goldbloom, welcome.

David Goldbloom: Thank you. Nice to be here.

David Gratzer: Dr. Goldbloom, we've had an animated discussion talking about the past, present and future of technology and medical education. Let's put you on the spot. You see the field of psychiatry dramatically changing in the coming years. John Torous has a paper recently published looking at patients who use a mental health clinic in the Boston area. Patients 26 and under, something like 100 percent of them, have downloaded a mental health app. It's a different world.

David Goldbloom: Totally. And as Torous has pointed out, there are now about 10,000 mental health apps out there. Doesn't mean they've all passed the smell test of evidence to support their efficacy, but this is mushrooming rapidly.

David Gratzer: Any therapies are interesting. I mean, some of our colleagues are very hesitant on this, and yet, I mean psychotherapy is about trying to form a connection, and that might be in person, but that might be over the Internet as well.

David Goldbloom: And look, I have seen with patients who I have recommended apps to that they rapidly personalize those apps.

David Gratzer: David Clarke makes a point, as you know he's the psychologists at Oxford who's been very involved in expanding psychological services in England, they're now experimenting with online therapies. And they've asked people if they feel more connected with an online therapist than an in-person therapist. And intuitively, you'd say: "Well, how can that be? Your in-person therapist you've shared space with. He passed you a tissue during an unsettling moment in your last session, and the online therapist just pops you an e-mail?" It turns out people feel more connected with the online therapist, at least with the people he's had contact with, on the grounds that the therapist is much more available than once a week.

David Goldbloom: This is about challenging our own norms, values and expectations as clinicians. Because, generally, people are conservative and not in a big hurry to change what they do. They look for evidence that reinforces the value of what they've been doing for a long time. Many years ago, more than two decades ago, we did a study looking at therapeutic alliance for patients seen via televideo versus in-person in the office. And we found that it was no different. But people still say to me, you know, I don't think I would feel comfortable seeing a patient on a television monitor. It's just not the same for me as all the nuance that I observe when they're sitting in my office. Well, frankly, what counts is not your sense of the nuance, but how did the patient like it and did the patient get better? The rest is icing.

David Gratzer: Is that a failure of education? Is that a failure of doctor culture? We're using our phones for everything. You suggest not only do relatively few of Ontario's doctors use this technology, but demographically it tends to be older psychiatrists, not younger psychiatrists. What happened?

David Goldbloom: Are you suggesting I'm an older psychiatrist?

David Gratzer: This isn't about you. (laughs)

David Goldbloom: Oh, OK. Because I'm just prematurely grey (laughs). Yeah. I think it is a failure of education. I think it's a failure to inculcate new models into the curriculum sufficiently aggressively. And I also think we model behaviour as clinicians. So if we're not doing it, the students would say, well, why should I do it?

(Outro): Quick Takes with CAMH Education is a production of the Centre for Addiction and Mental Health. You can find links to the relevant content mentioned in the show and accessible transcripts of all the episodes we produce online at porticonetwork.ca/web/podcasts. If you like what we're doing here, please subscribe.

Until next time.

//END Episode #6 //