

Hello, and welcome to our webinar series on technology enhanced teaching and learning for health professionals. My name is Dr. Daksha Patel, and I'm the assistant professor here at the International Center for Eye Health, and the Academic League for Open Education in Eye Health. So we have planned three webinars in this series, and the first one today is on why digital skills are important for professional health education.

And joining us today are Miss Sally Parsley, who's our technical lead for open education here at the International Center for Eye Health, and she will be looking closely at what we mean by digital capabilities in teaching, and learning, and what has been the research, and the thinking behind it.

And additionally, we're also joined by two of our masters students, who are here to do the public health for eye care, and they will be sharing their experiences on using technology for their own personal development, and training. And this is Dr. Juan Lopez from Mexico, and Matthew Mbwogge from Cameroon. So it's a great pleasure to have them with us.

So I think I've got control-- Sally's got the control on one side, and we're all in different places doing this particular webinar. So to start us off, if we can go to the-- yes, so the first industrial revolution, we could say, used water and steam power to mechanize production, and the second revolution used electric power to create mass production.

And certainly, by the third revolution, it looked to using electronics, and even information technology to automate production. Now they say we're in our fourth industrial revolution. It's really building on that third revolution. It's called looking at the digital revolution, or the information age is taking place.

And you can trace back that this all started back in the 1990s. And unlike that industrial ages of the first and second revolution, where capital and labor, and resources were the main assets, in our information age, it seems skills, and knowledge, and innovation form this main asset base.

And when you look at what is happening at our organizational structure, we're also changing by adopting decentralized coordination, establishing networks, and partnerships, and they all take form of production in different ways. So it's digital, you get customization, you get economies of flexibility, and speed. So I guess what we're now saying is what does all this really mean for us in health care?

And I recently came across a publication from 2016 of the global observatory for eye health, which is from the WHO. And this reported that steps already being taken by countries towards making universal health coverage achievable, and mostly particularly towards the target eight, which is so that all people receive high quality health services without suffering financial hardship.

And they compile this report by surveying 125 member countries, and the progress that they report on that has been made since 1992 to about 2016 is very impressive, and almost 90% of these countries are saying that they've already established an e-health strategy. And this includes e-learning, mHealth, telehealth, having establishing of electronic health records systems, and backing them up with legal frameworks for data protection, and this has already started to happen in about 58% of the countries.

And certainly, starting to look at conducting health surveys, and surveillances, and using big data for local evidence in decision making has already started to be implemented in about 17% of these countries using e-health. Almost 80% of these countries are now reporting using communications through social media, particularly for health promotions.

So if we look at the next slide. So what does this all mean when we talk about digital capabilities? For each one of us that is within our health system, what does it mean for us, and how can we engage in using, creating, and communicating within the ICT arena? So in this webinar, as we discuss things, we'd like you to reflect on you as the individual health provider, you, perhaps, as a team leader, or provider within your setting, and what are the needs of your team.

But most particularly focusing on your role as an educator, or a learner within the health care system, and this is going to be, perhaps, the key focus of our webinar. So with this introduction, I'm going to hand over to Sally, who is our technical lead, and she is going to talk about what we know about digital capabilities. Over to you, Sally.

Thank you so much, Daksha, and thank you everyone for coming to webinar. It's great to have this opportunity to talk more about this. So my role is I work very closely with Daksha developing free online courses in public health eye care at the London School, part of a larger program of open online courses here, and my role is all about supporting educators, and learners to fully participate in these courses. And so the digital capabilities you need to take part in these courses, and to thrive as educators and learners are an essential component.

So that's why I'm so interested in the subject. So I'm going to talk a bit about the definition and components of digital capabilities for teaching and learning. And in particular, in teaching and learning, we tend to call these digital literacies in the context of health care professionals, and as they're understood in the higher education sector, particularly in the UK.

And I hope you'll get an opportunity, as Daksha said earlier, to reflect on your own digital capabilities, and maybe those of the students you're responsible for, if you're an educator, and maybe consider what you might like to develop in your own digital literacy. It's a life-long, and ongoing journey for us all.

So the simplest definition as being digitally literate is having the confidence, and competence, the skills to use

technologies to achieve our teaching and learning goals, and this enables us to thrive, live, learn, and work in these increasingly digital societies [INAUDIBLE] outlined by health care. It enables us to fully participate in technology enhanced educational opportunities, and update our knowledge, and skills in a world where health practice is ever more fast changing.

So just to take a step back from those capabilities, and just to think a little bit about what I mean by this jargon, technology enhanced teaching and learning, there are lots of examples, and I think you can think of it as happening within a classroom-- the use of technology within the classroom, and also the use of technology outside the classroom. So as a health professional in your practice.

So here, for example, this is a great picture from the University of Cape Town taken by Veronica Mitchell, where the educator has set up a Google document here, and as he teaches the class, the class are feeding comments, and thoughts, collaboratively, into the document. So it's a very active way of using technology in the classroom to learn together. But there are lots, and lots of ways to use technology in the classroom for maybe watching videos, or power points.

If you're a student, you're maybe using Word to write your essays, and submit them on the institutional BLE. Or you might be asked to use technology outside the classroom. You might be asked to read a paper before you come to class where you engage in a discussion thread. If you're an educator, you might be sharing your digital education resources maybe through social media, or USBs, or WhatsApp in groups. And you might-- yes. I got my order wrong here.

As I'm giving these examples, I'd like you to take a moment to think about your own practice. So as an educator or learner, can you think about a recent educational experience that used technology, and if you can think about the digital skills, and competencies that you, or your students needed to take part in. So was it extra confidence, motivation, did you know how to-- learn how to use software to take part? If you just think about that whilst I talk, and we'll come back to this in a bit later on in the talk.

So other examples of technology enhanced teaching and learning might take part more fully online, and in fact, I have Matthew here, who's the man in the photograph here, and [INAUDIBLE] this photograph. So this is him taking part in our global blindness course, our online global blindness course. But you might also be using Google Scholar, or PubMed, or YouTube to find information just to inform your practice, or as part as formal training.

And finally, I just want to mention the role of peer learned opportunities through communities of practice where you might just send e-mails to groups of colleagues around the world, and ask them questions, or maybe using WhatsApp, or telegram to do the same thing.

So there's a lot of opportunities, and also issues around engaging with technology for teaching and learning. So obviously, having access to technology, and devices, and also the skills to use that technology is fundamental to taking part in technology enhanced teaching and learning, but there are wide other factors, which are critical influences on our ability to participate. So you can think of these as personal factors.

So I've shared a picture of a puppy here because I'm a terrible person for being distracted by cute pictures of animals when I'm supposed to be studying. So we have to stay focused, and motivated to take part. It's easy to be distracted. And there are wider social, economic, social, and cultural issues that affect how we part.

So for example, where we work, is our organization supportive of developing our skills? Do they have training courses? Do they maybe support or access to the internet? And also are the educational spaces we take part in designed to include, and empower us to participate? So for example, there's been a lot of talk recently about how Twitter can be a very aggressive space to participate in where people get shouted down, or harassed by thousands of other people if they post an unpopular opinion.

So these are the social, and cultural economic structures that surround how we take part, how we use technologies. And lastly, so these two literacies-- functional, and socio-cultural-- need to be in place in order for us to fully engage with tools to change how we see, and think about the world as we use them to learn, and teach, and that is not as transformational literacy. And then you'll see also that the aspects of time, and context-- so these factors all change depending on what position we're in. So are we an educator? Are we a learner? Are we younger, or older, and so on.

So there's a number of frameworks-- so that's the big picture, and then there's a number of frameworks that been developed by educational researchers, and academics to help us to reflect on, and examine the different elements of all those skills, and competencies, and capabilities we need for digital teaching, and learning. And this one is from the UK by the Information Services Committee, I think it's called.

And it breaks it down into six elements, and you can see that having access, and be good at using technology is at the heart of everything, but then you also need a number of other literacies to fully participate. And if I just summarize those briefly because I don't want to eat into Matthew and Juan's time too much. So you need to be able to manage information data and media, up here on the top left.

So you need to be able to find, evaluate, manage, curate, and share digital information. So you need to know, for instance, when you've searched PubMed, that the paper you're reading is a good paper. Increasingly, you need to be able to create, and design new digital artifacts, and materials such as your essay for your course. You need to be able to communicate down here on the left. Collaborate, and participate, as we saw in the classroom earlier.

Or perhaps, if you're using Skype for a group talk, or something that day. You need to be able to work in digital team, and groups that are separated, and you need to be able to participate, and facilitate, and build digital networks. Here, we see digital learning and development separated out. So that's about being an effective digital learner. That not being distracted by pictures of puppies, like I am, and being able to use, and plan, and organize your time to take part in learning.

And even as a health professional, maybe going on with your professional-- managing things like your LinkedIn profile, for example to maintain a professional, and appropriate identity on the internet. And surrounding all of these issues, which is something Daksha raised at the very start, is this ability to manage your well-being online. So being able to project, and keep a positive digital identity, and manage your reputation, look after your personal health, safety, and relationships, and use your personal digital data for your own benefits.

So just to take another moment, and I'm aware this was a very quick skip through quite a complicated subject. If you think back to your technology enhanced experience that I brought up a few minutes ago, and then you think about it using these elements, and you think about the challenges you experience, or maybe where you could improve, which elements do you feel are your strongest digital literacies, and which areas do you think you would like to improve?

So for me, time management is also an issue. And I also think it's very hard to know how to manage your data and identity online. So my LinkedIn profile, for instance, is quite out of date. I think it's OK, but it sits in the back of my mind as something I should fix. OK, so in summary-- and just to let you know, this has been a very quick talk. So this PowerPoint, and also a transcript of the talk will be available in about three or four days time from our website, and we will email you a link so you don't have to get a hold of this image.

So in summary, digital literacies are a set of educational skills, and competencies, which are supported by a diverse, and changing range of technologies, which enable us to thrive as educators and learners in increasingly digital societies. And being digitally literate is an ongoing, and developmental process, which changes over time, and across different contexts.

And I've included a couple of links. So if you're interested, as a learner or an educator to think about this further, the digital capabilities framework is incredibly interesting. OK, thank you very much for listening to me, and I hope that was reasonably interesting. I'm now going to escape from the PowerPoint, and we're going to turn on our camera. I'm going to hand back to-- sorry. If I just share my webcam. Can you see us now, Daksha?

Yes, I can, but only a small image.

All right, let me see if I can-- here we go. Is that better?

No. Oh, OK. It might have to remain as a small image. I'm very sorry.

No worries. Then leave the slide on. So excellent, Sally, for taking us through what is a very important subject area. So it's not about stumbling into different types of digital tools, and dabbling in it, but what we're saying here is that there has to be a concerted active effort to ensure that you master the different digital capabilities that are required in order to perform within our new information age, and particularly, to deliver on the e-health component of our health services.

So with that as a background, I'm going to start with Juan as a case. Would you like to please share with us, where did your digital journey begin, and how did you grow up using these digital tools?

Sure thing. I'm guessing I did grow up using digital tools. I can remember back from high school. Back in high school, we would have a Blackboard service very much like the Blackboard service in LSHTM. I remember that since high school, it would work as a group, collaboratively with different assignments. Our schedule, and our calendar was shared through this Blackboard service.

It was also very important to mask the names so our work could be evaluated in an anonymous way. It was used through a Blackboard service as well. And it was very handy to be able to collaborate on certain documents like in the picture that Sally showed us of Cape Town. Also as I moved out of high school, I moved into a, perhaps, a little bit more backward system that was med school. Across the board, med school was more hierarchical, and maybe a little old school.

So I remember that back in that school, it was a little bit less technological than high school, but still, the skills that I had learned from high school, and how to use all this technology for the learning process, I applied them to med school myself, even if the school didn't ask me to. So I would normally use electronic resources to try and have a more updated version of whatever subject that we used to study about, and at the same time, we would use this technology resources to work together in different presentations.

And I think one of the most showing ways of the use of technology for education was during the time I was preparing myself for the US MLE test, the United States Medical Licensing Examination. So I had no lectures, and I had no previous experience in the US way of teaching medicine, and everything I did was downloaded from the internet. And I could have actual lectures from actual professors in the US, and I would just learn from them. And I would also download their material, and I would download tests, and simulations. And it was a distance learning, but it felt very much like being there.

So who've grown up very much having a digital identity. And using this now in your day to day learning at present here in the London School, how are you using that to support your learning?

Well, I think that the most obvious way of it is through the Blackboard service of Moodle, the LSHTM Moodle, which helps us with the assignments, with the schedules, calendars, and whatnot. At the same time, Moodle gives us access to the present lectures, but also very importantly, it also allows us access to previous lectures. So not only the technological service will allow us to share no matter the distance, but it also allows us to share no matter the time.

So a lecture that was given three years ago, I have access to it, and I think that's quite important. Also every day I go through different databases, PubMed, EMBASE, WebAssign, whatnot, and something that's rather important is the collaboration aspect to it. So we have all of the social media platforms.

Two of the most used, at least on a professional level, would be WhatsApp, which helps us to an immediate communication with other people, and at the same time, things like LinkedIn, which allowed us to reach out to others. And this reaching out actually has an integral part of my education. Not only am I learning skills or knowledge, but I'm also learning how to collaborate with others.

Yeah. I guess as it is developing, you're also thinking, and being aware of your own digital security, and safety within those environments.

Yes.

So Matthew, going onto you, how would you describe your digital journey, and where did it began, and how have you gone about developing it?

Yeah, thank you Daksha. Actually, on the contrary, I would say I didn't grow up to using digital tools. Basically, I relied on the physical from the secondary, I would say, up to university, and basically, I relied on what the teacher would give. And so I would say that after my university, we're talking about say, 12 years ago, then when I saw the need to get a job, then the quest for social media, visiting some websites, and all of that, I would say began.

So actually, I had to maybe develop a LinkedIn profile because I saw the need because now I saw that at least it was a professional website. So I started getting used to maybe actually mobile tools like the laptop. Well, in the past, we had mobile phones, but it was really actually limited to calling. So text messages and all of that. Basically, we were using that, which I would say maybe for learning, or for visiting some online communities, I would say.

So after that, it really gained momentum from the time I joined the eye care. So when I got onto eye care, it became that serious, and that is when actually I came across this famous actually FutureLearn because I needed to improve my skills in eye care. So I would say that is when I actually gained momentum. Say we're talking about five years past. So it's not actually been long. So I would say that from 10 to five years past, that is when actually,

my digital tools awareness started actually gaining momentum.

Excellent. So you've clearly gained the confidence and the value. You now value the importance of having digital literacy within your work setting. How are you using that at present in your day to day learning to support you're learning here at the London School?

So coming here to school, actually, I would say that we have a wide circle of-- I'm doing public health for eye care, and we have a wide circle just for that team. So we get to share a lot of resources within this group, and we are quite confident with that, and it's quite fast. So the response rate is really quite high and fast. So most of the time, you get people who maybe gets to talk, and actually know the whole, and they just send a quick WhatsApp message, and they get instant response, and I see that the rapidity is quite high, and the convenience also very, very high.

So we also very much appreciate the LSHTM Moodle page, where we actually will get our courses fostering, so we are able to actually consult our courses. Also materials that the lecturer wants us to go through before, actually, we come to a class. So it actually helps in time management because we are able to go through a lot of materials before actually to come to class, and also it helps us maybe get prepared for some questions that we'll later might have for the lecturer.

And then also we're talking about some research databases like maybe a research gate like PubMed, like MedLine, and then we also talk of Mendeley on how to manage the research library, which has been quite useful as now things are getting more serious as we prepare for our summer projects.

And so Mendeley, obviously, is very key to us. And then not forgetting about networking. We talked of LinkedIn. I have a LinkedIn profile. I find myself now maybe visiting the LinkedIn website on a daily basis because I want to develop with peers, alumni, and all of that.

And it's actually interesting to know, of late, I was involved in the LSHTM telephone campaign, which was also very enthusiastic. So actually, we get to communicate with the alumni, and maybe the way it was structured, it was basically an online system because it had to do with fund raising. So it was an online system. [INAUDIBLE] we'll get to filling in the [INAUDIBLE] a lot of that.

And actually, at the same time, on the same screen, I have a page of LinkedIn open where I can easily visit the profile of the person I'm talking to. I have updated information, and the person is quite confident. I could sense that they're confident that they're actually talking to somebody who is from LSHTM. So I think it's quite useful, Daksha.

Yeah, so you both highlight two very different journeys. One having grown up within the digital environment, and

another one who's embracing digital environment, growing along with it. And within this, I guess, what our purpose behind this webinar is for you to use this, and go and reflect, and say, within both your environments, how are you functioning where your digital capabilities are concerned? And what you need to be aware of as you develop your identity within this digital environment.

So thank you both for sharing your journey so far. And I think we're coming to the end of our webinar. But before we leave today, I think there's one more slide if that could be-- and that's just to highlight that we want to keep this conversation going about what it means to be digitally aware in the health care education sector.

And with this in mind, on the 15th of March, we had our second webinar. We will have external collaborators presenting on this, and that's Dr. Eduardo Mayorga from Argentina, who will be talking about the importance of digital capabilities in medical CPD and lifelong learning, and also Dr. Judith McKenzie, who will be sharing her experiences with MOOCs aimed at teachers, and at parents of children with disabilities in low, and middle income countries.

So it's really to extend what we've now started understanding how big a role digital arena plays in health care education. So thank you very much to everyone who participated in presenting, and also for everybody who's come in, and joined us in this webinar. So thank you.

Thank you.

Thank you very much.

Goodbye, everybody.