What’s in a name? Simulation and technology enhanced learning uses and opportunities in the era of COVID-19

John T Paige

‘What's in a name? That which we call a rose / By Any Other Name would smell as sweet.' - Romeo and Juliet, Act-II, Scene-II, Lines 45-46.¹

It is an understatement to say that the COVID-19 pandemic has disrupted life’s normal routine. Worldwide, economies have shut down, leaving millions out of work, governments have ordered their citizens to stay at home and an invisible micro-organism brings death and disease by hopping from one locale to the next in a manner reminiscent of the Black Plague and Spanish Flu. The lay population has learnt and used terms heretofore solely employed by infectious disease and public health specialists. We now practise social distancing trying to flatten the curve through mitigation. Hygiene has taken on a new prominence with soap and sanitisers the weapons of choice in the war to combat the new scourge. Personal protective equipment serve as the defences, and masks are now the focus of fashion trends. The handshake is banned, and social interaction is now limited to teleconferences via software platforms. Going out to eat has become impossible, festivals and concerts no longer receive patrons and the world of sports has taken a hiatus. Without such entertainment, people have turned to online and streaming platforms to watch movies and series, or they have tuned into daily press briefings in which speakers refer to models forecasting dire predictions based on the latest inputted data.

These models, whether determining the extent to which earlier Chinese Communist Party intervention during the initial outbreak in Wuhan might have limited the spread of COVID-19 internationally or the number of deaths due to the virus in the USA without attempting mitigation, are, in reality, just another name for simulations. In fact, using simulation for modelling, be it disease outbreaks or systems function, is a powerful tool in healthcare, allowing providers and administrators to see the potential outcomes to What if... questions and to adjust their plans accordingly. It is not the sole use of simulation and technology enhanced learning, however, currently employed in the fight against COVID-19. At BMJ STEL, we have received over 20 submissions related to the use of simulation and technology enhanced learning in response to the COVID-19 pandemic. They come from all over the world, address a broad range of topics and demonstrate the innovative, adaptive nature of the simulation and technology enhanced learning community in addressing pressing needs in real time.

To date, BMJ STEL has accepted six of these articles for publication after undergoing peer review. They are representative of the international character of the simulation and technology enhanced learning community’s response to the challenges presented by COVID-19, the wide range of applications for which simulation and technology enhanced learning has utility, and the community’s ingenuity and resilience in the face of unprecedented events. Two articles focus on team function and adaptability during the pandemic. In Virtual protective equipment: pediatric resuscitation in the COVID-19 era, Keilman et al² address the challenge of coping with limited resources arising from the pandemic. Welch-Horan et al³ propose a new guide for debriefing to enhance team response to COVID-19 clinical episodes in Feedback, reflection, and team learning for COVID-19: development of a novel clinical event debriefing tool. One article addresses systems-level thinking and responses related to COVID-19. Lababidi et al⁴ focus on integrating a simulation-based training programme into an organisation with Simulation based training program and preparedness testing for COVID-19 utilizing system integration methodology. This article pairs well with Wyres and Taylor’s editorial,⁵ COVID-19: using simulation and technology enhanced learning to negotiate and adapt to ongoing challenges in United Kingdom healthcare education. Two articles tackle the obstacles that COVID-19 has created related to how to teach students and trainees in the era of social distancing. In COVID-19 pandemic prompts the development of a Web-OSCE using Zoom teleconferencing to resume medical students’ clinical skills training at Weill Cornell Medicine-Qatar, Major et al⁶ take on the issue from the prelicensure perspective; Ahmed et al⁷ address the postgraduate concerns in Anaesthesia simulation training during coronavirus pandemic: an experience to share. Finally, Christodoulides et al⁸ approach the pandemic from an entirely different point of view in COVID-SIM: building testing capacity through community-healthcare simulation, in which they describe simulation-based training for volunteers to help administer COVID-19 tests to increase capacity for more COVID-19 screening.

These articles demonstrate that, even in this altered reality, opportunities to develop simulation and technology enhanced learning’s scope in healthcare manifest themselves. They also show how unusual circumstances engage dedicated individuals to think differently about issues, problems and approaches by asking provocative questions. Examples abound. How can we teach health professional students clinical skills without physical access to patients or clinics? How can machine learning and artificial intelligence help us know, to paraphrase Dr Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases in the USA, where the puck (ie, COVID-19) will be next? How can we foster resilience in teams to prepare them for unforeseen challenges like the COVID-19 pandemic? How can organisations create a seamless learning and communication system using technology enhanced platforms?

COVID-19 has made us rethink our relationship to our world; it can also help us reimagine how simulation and technology enhanced learning might benefit healthcare during these ever-changing times. We, as experts in the use of simulation and technology enhanced learning, should actively look for innovative opportunities to help expand their use to improve health professional education as well as the quality of patient care. Our imaginations should be the sole limit to such novel solutions. In doing so, we should remember that simulation and technology enhanced learning, no matter what name used to describe it, remains a potent tool in healthcare’s armamentarium!

Surgery, LSU Health Sciences Center New Orleans, New Orleans, Louisiana, USA

Correspondence to Dr John T Paige, Surgery, LSU Health Sciences Center New Orleans, New Orleans, LA 70112, USA; JPaige@lsuhsc.edu

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ORCID iD
John T Paige http://orcid.org/0000-0002-7309-6520

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