

"I have seen the future and it works."

Lincoln Steffens (1866-1936), an American journalist and social activist, wrote in a letter to Marie Howe, dated April 3, 1919, about his visit to Russia after the Communist Revolution: "I have seen the future and it works." Even though he turned out to be wrong about Communism, I can't help but use this famous quotation to catch the reader's attention. It perfectly describes this writer's recent visit to Phase I of The University of Toledo-ProMedica Interprofessional Immersive Simulation Center, located on the lower level of the Howard L. Collier Building on the Health Science Campus of the University of Toledo. Anyone with an interest in education and training, not only in the health sciences but in general, is strongly urged to visit this facility now, and should absolutely visit Phase II when construction is complete and it is fully operational. (See article, p. 10)

What are some of the forces coming together to make this a concept whose time has come? First and foremost, the technology is now here to make simulation eerily realistic. Computing power, processor speed, digital memory, digital storage capacity, transmission speed, imaging techniques (both taking and projecting) and many technological aspects that go into such a center have become bigger, better, faster, and cheaper. Very importantly, each new generation is ever more comfortable and adept in the digital world. The IISC features both 3-D Virtual Reality and very lifelike robotic simulation experiences. Another force at play is the movement for patient safety, always a goal but now becoming ever more systematized. Most of us are aware that aircraft simulation has long been an important part of pilot training and many of us are aware of a recent push in medicine to adopt some of the techniques used in the flight industry to improve patient safety and physician and hospital performance, not only simulation techniques, but also universalization of best practices. John

J. Nance, the author of *Why Hospitals Should Fly: The Ultimate Flight Plan to Patient Safety and Quality Care*, visited the UT Medical Center last year at the invitation of Dr. Jeffrey P. Gold, Chancellor, Executive Vice president for Biosciences and Health Affairs, and Dean of the College of Medicine and Life Sciences, who has been a driving force behind the creation of this amazing facility at the Health Science Campus. Enormous changes in the milieu in which medical education takes place have left teaching programs at all levels struggling to adapt to the new conditions. Among other issues, shorter hospital stays, more outpatient procedures and care, limitations on work/didactic hours for learners, stricter insurance requirements regarding attending physician face to face patient time, and documentation requirements on all levels have wreaked havoc with the traditional Osler/Halstead apprentice-like model of medical education that has endured for more than a century. Many of us, myself included, have wondered how newly minted physicians will gain enough depth and breadth of experience during their residencies under the ever increasing time restrictions now imposed. The answer, not just for physicians but for all health care professionals, is amazingly life-like simulation. (The military and NASA have already proven that sophisticated simulation does successfully translate into real world performance.)

This facility represents a stunning achievement for The University of Toledo and its education and research partner ProMedica. It "catches the wave" produced by a "perfect storm" of a confluence of forces in society and medical education and will create a "sea change" in health sciences education (and other disciplines), these marine metaphorical references being apt for the immersive experience one has at the IISC. Even the word marine has a double meaning here as military-academic partnerships are part of the plans for the development and utilization of the Center. Combat casualty care and other issues important to the military overlap with civilian trauma and other clinical situations.

As simulation techniques are refined, they will be adapted for both military and civilian use. As is pointed out in literature the University has produced about the Center, "This technology will bring a 'whole new way' of learning that almost defies description in the written word." (Again, visit and see for yourself.) When the Phase II building is up and running, The University of Toledo will have leapt to the forefront of this education modality of the future. While it is anticipated that the Interprofessional Immersive Simulation Center will be "A National and Global Destination for Education of Health Professionals", as a significant number of local health care professionals will receive some or all of their education and training locally, it will have an important impact on the health and well-being of the population of northwest Ohio and southeast Michigan.

—Allen L. Markowicz, MD, MBA, FACP