The Rise of the HTM-MD?

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The rate at which medical technology is changing the healthcare paradigm is staggering and disruptive. A coalescing of technology, information, and analytics is underway on a global scale; the momentum of this metamorphosis is inescapable, and the potential for better care is unlimited.

Picture this: You are a student enrolled in the healthcare technology management (HTM) graduating class of 2022 and have just gone through a rigorous three- or four-year program. (HTM programs may lengthen.) Your program of study includes classes in programming, machine learning, simulation, augmented reality, artificial reality (AR), robotic surgery, nanotechnology, point-of-care analytical tools, wearables, gene-editing technologies, tele-everything—and all of this in addition to core courses in life sciences, electronics, and standards, which are taught in current HTM programs. The virtual reality global classroom is ubiquitous. Professors are using the latest information and communications technologies (ICTs) to reach their global learners and, coincidentally, a variation of these same ICTs are embedded in a wide variety of medical technologies.

Now picture this: You are a global learner enrolled in the HTM graduating class of 2032, who has just gone through a rigorous four-year program. Classes are fully immersive in AR and delivered using the latest technologies to match your individual learning competencies and style. You are given a project to mull over and decide to download the latest application in artificial intelligence (AI). Data streams into an AI app from a global repository consisting of both historical data and real-time data straight from point-of-care devices to your personal device. Data are mined for both clinical content and relationships to medical technology and health outcomes (among other things). The success of your project is determined by your capacity to understand contemporary medical technology, how to apply the appropriate AI, your access to a certain data set, and, of course, how you deal with security. The final report answers the project’s question(s) with unprecedented accuracy founded in impeccable sources.

Given that you, the HTM professional, are healthcare’s interdisciplinary technology expert and technology implementer, it takes little imagination to visualize a new program of study (i.e., university curriculum) where both you and aspiring primary care physicians enter the same program only to choose between specializing in HTM or becoming an HTM–medical doctor (MD) later in the syllabus. Your interests in the provision of healthcare are fundamentally shared; however, the principal differences for the HTM-MD stream are additional life science courses and an emphasis on personal patient interaction.

Not long from now, primary care may be delivered by professionals whose interdisciplinary skills are more heavily weighted in all things technology rather than the life sciences. This is not to suggest that the primary care physician will disappear, but rather that the analytical skills and practice of medicine will be altered forever because of technology, coordinated global resources, and AI. The attributes of the HTM-MD will likely include a dedication to lifelong learning, a mindset that embraces innovation and change, and integrated, global medical knowledge. Most importantly, the HTM-MD’s focus will remain the same as always: providing quality healthcare, one patient at a time.