Should Medical Students Acquire Artificial Intelligence Skills?

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Medical schools are busy training more future doctors than ever. But are we teaching aspiring doctors the right skills?

Medical school teaching faculty strain to keep pace with biomedical facts that now DOUBLE every 3 years! Despite these educational demands, medical students want more than “just the facts.” A recent survey of LinkedIn physician members indicated that to succeed in medical practice, there’s a need for additional financial and practice management skills. While a few students combine M.D. + M.B.A. degrees to fulfill their entrepreneurial bent, all medical students deserve exposure to some business fundamentals.

Reflecting this, many medical schools connect to their university’s business and management colleagues to offer medical students value-added training in this area of concentration, outside the jam-packed M.D. curriculum. Students who typically would do clinical or research electives can now pursue internships at bio-pharmaceutical companies or in multispecialty medical homes.

But are business skills germane to young doctors hoping to shape the future of healthcare?

My generation of healthcare managers was raised in the “no margin, no mission” era. A more modern management mantra is “no value, no margin.” Big data collection, warehousing and purposeful use are key to healthcare value creation. And if design thinking is the path forward to healthcare solutions, then showing students how to create use cases could be as valuable as teaching clinical-pathological correlations.

How can medical students learn to apply big data concepts to better patient care? One existing systemic advantage is the co-location of progressive medical schools with internet-of-things teaching hospitals. But while medical students and trainees are often early adopters of ‘real world’ digital technology, their access to digital health platforms is often limited by lack of seniority and arcane data security concerns. This, of course, is nonsense!

Understanding that the surveyed LinkedIn physicians are medical school graduates, it might be wise for us ‘elders’ to consult our most junior colleagues when selecting their desirable added skills. If the past decade of healthcare was informed by patients and families, the next decade must offer learners better opportunities to lead the way into a future of cognitive healthcare.

Artificial intelligence (AI) is already exerting huge impact on social media, finance and fundamental science; its healthcare and medical practice applications are rapidly emerging. Some of our own medical students are working as interns at IBM Watson Research, while others have formed an AI in Medicine student interest group. We are working closely with IBM Watson and a consortium of medical schools to develop an AI Health Curriculum that will eventually serve as the basis for training other healthcare professionals in this space. Just as today’s practitioners need digital health literacy, the future demands cognitive practice skills.

By all means, let’s teach medical students “just the facts,” so that they’ll become good doctors. But let’s give them more. Let’s also foster augmented intelligence skills that are fast becoming relevant to the cognitive future of medical practice.