

## The Digital Doctor: Hope, Hype, and Harm at the Dawn of Medicine's Computer Age

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**Reviewed by:** Christopher M. Doran “a must read for all healthcare professionals and a highly recommended read for patients and their families.”

*The Digital Doctor* is not a Pollyanna-ish hyperbole about the promise of the digitalization of medicine, “romanticizing how wonderful things were when your doctor was Marcus Welby,” or a dire prediction about how computerization will eliminate the need for a doctor altogether. It is quite simply an excellent book written with intelligence and balance for both the general public and health care practitioners. Many of us in healthcare looked forward with eager anticipation to the positive benefits that computers, the Internet, and other technology would make in the provision of medical care. Having a patient’s electronic chart available simultaneously in multiple places; electronic alerts to warn of potential deadly drug interactions; and helpful guidelines to promote competent care were just some of the benefits of which we all could partake.

Bolstered by the almost incredible advances of modern smart phones and computers, which have already revolutionized areas such as photography, the publishing industry, and interpersonal communication with real-time video would, of course, make healthcare better, cheaper and more efficient. What we failed to take into account, and which Dr. Wachter clearly illuminates, is that computer code and the interpersonal components of quality healthcare are fundamentally different processes that do not easily merge. As we have watched the truly amazing results of various computer applications, there has been a naïve assumption that sophisticated computer code and powerful machines would provide health care practitioners with capabilities that may have only been dreamed about in the past. It seems, however, that these two fields are awkward companions at best. The factors that make for the highest quality medical care, including emotional connection with the patient and the clinical acumen to distinguish significant from insignificant abnormalities, are not easily mechanized, no matter how sophisticated the computer program.

If an inquisitive patient asks his/her practitioner about the benefits of having moved to electronic records, one will hear such terms as “swamped,” “frustrated,” “it actually slows me down,” or “I really hate this stuff.” These comments come not from curmudgeons who may have resisted the computerization of medicine, but from even the most interested and agile healthcare computer user. Dr. Wachter reveals himself to be one of a small number of healthcare practitioners who is competent in his medical skills, interested in the intricacies of technology, and skilled in writing in an easily readable style without jargon or unnecessary complexity. Patients (virtually all of us) will find examples illustrated in this book of scenarios playing out in our own facilities transitioning to electronic medicine:

—physicians, nurse practitioners and physician’s assistants struggling to enter notes into the computer while simultaneously maintaining reasonable eye contact and emotional connection with their patient.

—six months of “switching to electronic records” resulting in front desk electronic check-in, but finding the clinician using the same old bulky paper chart.

—the hospital treatment team making their daily “rounds” without ever coming into the patient’s room, spending their time solely gathered around a portable computer screen.

Although 30 billion federal dollars have been devoted to the electronic changeover, there continue to be multiple obstacles in the construction of a comprehensive yet simple electronic recording of a patient’s diagnosis, treatment and progress notes. Perhaps the most significant issue is the government’s failure to require one standard for the underlying computer code for electronic healthcare programs. Thus, it is common that the computer system in one facility cannot “talk” to a system in another facility—the human equivalent of a Chinese speaker being unable to communicate with an English speaker. Known as a deficit in “interoperability,” the problem now poses more of a problem than 10 years ago, since it will require some facilities to replace their current electronic record system with one that has universal connectivity. Quoting one of the many experts he interviewed, the author says healthcare information technology “is not a technical project, it is a social change project.” One of the “unintended consequences” of the digital revolution in medical practice is that healthcare providers must fundamentally change their working practice behaviors.

Not that such change is negative, but practitioner’s habits are much harder to manipulate than computer code. Many institutions are attempting to simply “electronicize” the classic manner of working with paper records. New work processes however, are needed to accomplish this changeover. The author makes a strong case for many of the promises of technology eventually coming to pass, but the speed with which that happens depends “far less on the technology than on whether the key stakeholders—government officials, technology vendors and innovators, healthcare administrators, healthcare clinicians, training leaders and patients—work together and make wise choices.” Patients will almost certainly always need a human provider to help them make difficult healthcare decisions in times of great stress. Therefore, we are likely to be in the “business of creating collaborative work environments that blend people and technology” for the foreseeable future.

There is little doubt that the portability of records allowing practitioners at any distance to have access to a medical record, the ease of gathering “big data” for research purposes and the upgrade in consistency provided by computer prompting are benefits of technology already present today. Dr Wachter documents that we are in the “adolescence” of this change and there will need to be many evolutions and refinements necessary for the digital revolution to become a practical “adult” reality. My only critique of this book is minor and has nothing to do with the content or the text. It is with the images/illustrations. In the paperback edition, any illustration that contains print, pictures of computer screens or medical records is so small as to be virtually unreadable. Perhaps the hardback version or the electronic version may be more easily viewed.

In summary, *The Digital Doctor* is a must read for all healthcare professionals and a highly recommended read for patients and their families. **Christopher M. Doran, M.D.**, is a psychiatrist, Associate Clinical Professor at University of Colorado Denver School of Medicine, international speaker, and author. His most recent book is *Prescribing Mental Health Medication: The Practitioner's Guide*.