

IT iconoclasts

Experts offer dissent on policy issues, technology implementation

Each month, more hospitals and office-based physicians buy and use electronic medical records and other health information technologies as the U.S. presses on toward achieving the goal first articulated by President George W. Bush in 2004: providing most Americans with access to an electronic medical record within a decade.

According to the latest data from the CMS, more than 190,000 providers have been paid a total of \$10.7 billion to purchase and meaningfully use electronic health-record systems under the federal incentive payment program created by President Barack Obama's 2009 stimulus package.

But health IT has long had its critics, even among its pioneers and proponents, as

these four prominent health IT iconoclasts will attest.

All four consider themselves to be proponents of health IT, but they rail against a tide of health IT boosterism. Their targets: misplaced priorities, failing to promote EHR usability and interoperability, inadequate concern for patient safety and privacy, overemphasizing EHR adoption, understating IT costs and overestimating the return on public IT investments.

When it comes to the criticism, "the one thing we can't do with this information is to ignore it," says physician informaticist Dr. William Bria, longtime president of the Association of Medical Directors of Information Systems and a three-time selection as one of Modern Healthcare's

Top 25 Clinical Informaticists.

"Obviously, the maelstrom of change within healthcare, including meaningful use, results in a weariness that could cause physicians and other clinicians to become exhausted and no longer vigilant," Bria says. "Many, many technologies have come and gone in the history of medicine over the centuries, and it often has been a maverick physician that has called a timeout on ineffective medications or treatments.

"There is little question that, going forward, medicine will be using information tools," Bria says. "However, I believe it's becoming also very apparent that we need a modulation and a proper regulation of information technologies used in day-to-day care." <<

Raising questions

Researcher Ross Koppel started an uproar in 2005 when he and a colleague coauthored an article in the *Journal of the American Medical Association* that found a first-generation computerized physician order entry system (CPOE) at the Hospital of the University of Pennsylvania was simultaneously creating new errors even as it reduced others.

Just three years earlier, the Leapfrog Group, a healthcare initiative of the Business Roundtable, had provided a major boost for CPOE, launching a promotional campaign to encourage its high-powered corporate leaders to lean on local hospitals to adopt the then-rare CPOE systems as a way of improving their employees' healthcare quality and controlling their company's healthcare costs.

Koppel's bombshell—he's now an adjunct professor of sociology at the University of Pennsylvania—brought down the wrath of information technology boosters. The Healthcare Information and Management Systems Society, a health IT trade group, challenged the study's "methodology and its subsequent outcomes," and criticized its authors for their "limited view" and not "looking at the big picture."

Undeterred, Koppel, who holds a doctorate in sociology from Temple University and serves as Penn's principal investigator in the school of medicine on the study of hospital workplace culture and medication error, kept stirring the pot.

In 2009, he revealed in another *JAMA* article that health IT vendors'

contracts included "hold harmless" clauses that shielded software developers from legal liability for medical errors their systems caused, even if the developers had been warned about the defects.

"That got me major upheaval," the worst of his career, Koppel recalls. "The vendors tried to say it was untrue. And they tried to show that by saying, 'Show us examples where we settle (lawsuits) on a problem.'"

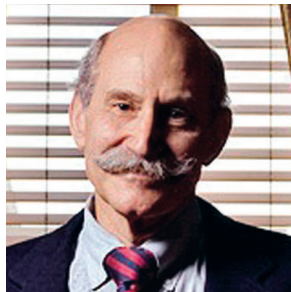
There are no open trials, Koppel says, because when there is a settlement on suits alleging wrongful death, the surviving spouse or family member signs a release, "the hospital doesn't want to talk about it (and) the vendor doesn't want to talk about it. All of these things are settled hush-hush. There are no public settlements available."

In 2011, Koppel testified before a federal IT policy subcommittee that "usability" of EHRs had been "largely ignored" and that a program to test them for ease of use is needed—just as the Office of the National Coordinator for Health Information Technology at HHS has EHRs tested for functionality.

Last fall, in a scathing co-authored critique in the *Wall Street Journal*, Koppel and a colleague described today's clinical software as "generally clunky, frustrating, user-unfriendly and inefficient." They added, it is "already common knowledge in the healthcare industry that a central component of the proposed health IT system—the ability to share patients' health records among doctors, hospitals and labs—has largely failed."

Koppel says the entire focus to date has been getting doctors and hospitals to buy the software. Interoperability is added only "very slowly and very incrementally," he says. The main federal push is to boost EHR adoption "like that big thermometer outside the United Way. It's a false measure of success. The result is we've created innumerable Towers of Babel. We've invested hundreds of billions of dollars in technology that can't communicate across the hallway."

Had the IT systems first been made interoperable and easy to use, he says, physicians would have flocked to them without incentives. <<



Ross Koppel

Questions of privacy

Some agencies of the federal government earn praise from patient privacy advocate Dr. Deborah Peel; for others, it's reproach.

Peel, a psychiatrist, puts great store in patient control over the sharing of their personal information, considering it the *sine qua non* of privacy rights. Not surprisingly, the chief healthcare information technology rulemaker, HHS, comes up short in her view.

In 2002, HHS redrafted the privacy rule of the Health Insurance Portability and Accountability Act, replacing its patient consent requirement for the sharing of most patient records with a new provision. The rewrite afforded "regulatory permission," according to the rule, for hospitals, physicians, insurance companies, pharmacies, claims clearinghouses and other HIPAA-covered entities to use and disclose patient data for treatment, payment and a long list of other healthcare operations without patient consent.

"Let's face it," Peel says, "HHS is the agency that eliminated patient control over electronic medical records and has remained hostile to patients' rights ever since."

Days before the 2002 revision went into effect, a group of patients calling themselves Citizens for Health, and more than dozen other plaintiffs, including Peel, sued HHS Secretary Tommy Thompson in federal court, alleging the revisions violated patients' constitutional rights to privacy. They lost at both the trial and appeals-court levels and were denied a hearing on appeal to the U.S. Supreme Court in 2006.

Peel launched the not-for-profit Patient Privacy Rights Foundation in 2003.

She and her fledgling organization lobbied in 2006 against legislation offered by then-Rep. Nancy Johnson (R-Conn.) that the health IT industry strongly supported. Johnson's bill would have pre-empted "barriers" to health information technology in state privacy laws, which are often more stringent than those in HIPAA.

Federal pre-emption was stripped from the bill in committee and it died. Soon after, Johnson lost her seat.

"Where I'm coming from is, I've spent all this time in a profession with people being hurt," Peel says. "Starting in the 1970s, when I first let out my shingle, people came to me and said, if I paid you in cash, would you keep my records private. Now, we've got a situation where you don't even know where all your records are. We don't have a chain of custody for our data, or have a data map" to track its location.

In 2010, Peel pushed for a hearing by the privacy and security subcommittee of the federally chartered Health IT Policy Committee to showcase the wares of developers of cutting-edge consent management software such as the Veterans Affairs Department and the National Data Infrastructure Improvement Consortium. The aim was to trump privacy opponents who had argued privacy-protecting technology didn't exist or wasn't feasible.

In a new effort, Peel's foundation is co-hosting with the O'Neill Institute for National and Global Health Law at Georgetown University the 3rd International Summit on the Future of Health Privacy set for June 5-6.

"I think I am an iconoclast and a critic, but I'm very, very interested in solutions, too," Peel says. "I'm promoting meaningful solutions and the kind of open and honest debate that will lead to them." <<



Dr. Deborah Peel

The good, the bad

The title of Dr. Scot Silverstein's teaching website at Drexel University, "Contemporary Issues in Medical Informatics: Good Health IT, Bad Health IT, and Common Examples of Healthcare IT Difficulties," summarizes the veteran physician informaticist's general outlook on the current state of affairs in health information technology.

It tells you nothing, however, of the passion with which Silverstein speaks or writes about the subject.

Also a frequent contributor to the popular reformist "Healthcare Renewal" blog, Silverstein writes with the fire you might expect coming from a self-described computer geek who says he has witnessed a faulty electronic health-record system mysteriously drop a single medication from a patient's medication list. That missing drug led to a medical error that resulted in a year of suffering and, eventually, that patient's death, he says. Silverstein's passion is even more understandable when he tells you that patient was the doctor's own mother.

"The med, somehow, just disappeared," Silverstein says. "It was confirmed at triage, and then the system just lost it. She didn't get her heart medication, which led to cardiac arrhythmia. And that led to a cerebral hemorrhage from the anti-coagulation medicine to deal with her heart arrhythmia."

The health IT world, Silverstein says, parts neatly between "good IT" and "bad IT." There are those who push hard for the good and complain about the bad, physicians and other clinicians he calls "pragmatic," and for whom he has sympathy and respect. And then there are those who stay silent, ignoring or acquiescing to the bad, the "hyper-enthusiasts" for whom he holds only unmitigated scorn.

"The doctors who don't speak up about health IT, who work around it, which can cause its own bad results, those are traitors to the oath they took to first do no harm," he says.

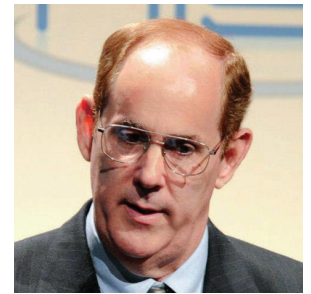
"Physicians are still being accused of being Luddites for not adopting this stuff," Silverstein says. "Physicians are not Luddites. When it's good IT, it's used. I see the tension now between hyper-enthusiasts, who turn a blind eye to the negatives, and pragmatic physicians and nurses who have work to do."

From 2000 to the end of 2003, Silverstein ran a library at a research facility of the pharmaceutical giant Merck, learning lessons there, he says, that could and should be applied to clinical IT on the provider side of the healthcare system.

"I look at health IT and see it needing the same rigor applied to it as pharma IT and medical devices, which are regulated," he says. He says health IT needs regulation and will have it, whether self-imposed or federally mandated, as medical devices are.

Silverstein is an adjunct professor in healthcare informatics at Drexel who has built health IT systems from scratch as well as used and helped implement systems others have built. For all his years of criticism—and he's been at it long before his mother's death—he remains a fan of healthcare IT.

"I got into this field 20 years ago to help improve care for patients," Silverstein says. "That's still my goal." <<



Dr. Scot Silverstein

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A flawed system

“It’s a rotten system,” declares Dr. Lawrence Weed, who at age 89 is the dean of healthcare information technology iconoclasts.

Weed isn’t disparaging any particular brand of electronic health-record system. A dismissive “they’re inadequate” would fairly well cover a Weed-guided tour of today’s EHR systems.

“People don’t get the general picture,” he says. “It’s broken. It’s basically an unsound system.”

By that he means the entire healthcare system, but not because its providers are using faulty information technology, but because they’re using IT the wrong way, at least in part.

Weed says the medical education system is at the root of the problem.

“I’ve taught in five different medical schools,” Weed says. “And over and over again, they kept defending the idea of clinical judgment,” even though, Weed says, the unending and accelerating expansion of clinical knowledge makes it impossible for human minds to keep up—even the high-powered and best-trained minds of physicians.

Still, he says, “In medicine, it’s what does the doctor think? It’s pathetic.”

“In the 1950s,” he explains, “when computers came along, the engineers and the physicists, they caught on right away. You use the computer to do what the human mind can’t do. If you want to go to the moon, you can’t have humans doing the calculations.” Computers could

do the math, though, allowing us to put men on the moon.

“Whereas the doctors, they didn’t say, ‘Oh, my God, all these volumes. We can keep track of it now,’” Weed says. “They didn’t do that in the ‘50s, and I’ll tell you why. Clinical judgment had been made sacred.”

“Oscar Wilde said, ‘To be intelligible is to be found out,’” Weed says, hence physicians’ many guises. “They knew they couldn’t do it so that’s why they became specialists. They divided it up.”

To this day, medical schools perpetuate a myth—that the physician brain is up to the task, is able to keep up with the ever-increasing knowledge burden placed upon it—by medical schools and then by the profession, Weed says. “When are they going to wake up and stop moving knowledge through heads and start moving knowledge through tools?”

That would be another Weed solution. In the 1960s, he invented the SOAP (subjective, objective, assessment, plan) format to help physicians think as they kept organized patient records on paper.

In 1984, to help physicians cope, Weed developed a computer-based, diagnostic support system he called the problem-knowledge coupler. The software company he founded, but is no longer with, PKC, now part of Sharecare, still sells the system. Weed still proselytizes with fervor, calling for the use of computers to store, retrieve and apply medical knowledge.

In 2011, Weed and his son, Lincoln, a lawyer, published a book, “Medicine in Denial,” addressing the profession’s problems but also providing solutions.

Weed says he started standing up against the system decades ago, “once I saw the root of the problem,” because “we were destroying a lot of very bright young people,” setting them up for frustration as medicine demanded of them things they simply could not do. <<



Dr. Lawrence Weed

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