EPIC FAIL

Digitizing America's medical records was supposed to help patients and save money. Why hasn't that happened?

BY PATRICK CALDWELL

November/December 2015 Issue

**NESTLED IN THE** gently rolling hills of Verona, Wisconsin, a small Madison suburb, is the 1,000-acre "Intergalactic Headquarters" of Epic Systems, the multibillion-dollar company that claims its software manages medical records for 179 million Americans—or 56 percent of the country. Epic's HQ features a conference room tucked in a tree house. There's a Dungeons & Dragons-themed building with a moat and a replica drawbridge. One corridor is modeled to resemble a New York City subway car, complete with a statue of a homeless guy asleep on a bench. A group of Harry Potter-inspired office buildings dubbed the "Wizards Academy" is currently under construction.

Judith Faulkner, Epic's 72-year-old founder and one of just 18 women on *Forbes*' list of self-made billionaires (http://www.forbes.com/profile/judy-faulkner /?list=self-made-women) , often dresses in costume (Lucille Ball, a Hogwarts wizard) at the company's annual meeting, which draws thousands of hospital executives and IT officers to the company's 11,400-seat Deep Space Auditorium (http://www.thorntontomasetti.com/projects/epic_deep_space_auditorium/) . Her motto: "Do good. Have fun. Make money."
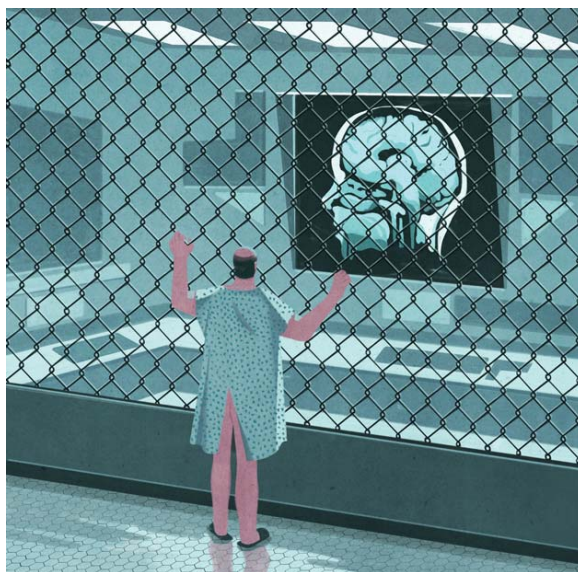
Emiliano Ponzi

She's solid on the second two points. Thanks to the White House's stimulus-era initiative to bring the health care industry into the digital age, her company has grown into the country's leading vendor of software in the $9.3 billion electronic health records (EHR) sector (https://newsroom.accenture.com /subjects/research-surveys/global-market-for-electronic-health-records-expected-to-reach- 22-3-billion-by-the-end-of-2015-according-to-accenture.htm) . Epic pulled in $1.8 billion in 2014 and is expanding at a rate of about 1,000 new employees a year. Kaiser Permanente, CVS's Minute Clinics, Johns Hopkins, and Mount Sinai all use Epic.

But instead of ushering in a new age of secure and easily accessible medical

files, Epic has helped create a fragmented system that leaves doctors unable to trade information across practices or hospitals. That hurts patients who can't be assured that their records—drug allergies, test results, X-rays—will be available to the doctors who need to see them. This is especially important for patients with lengthy and complicated health histories. But it also means we're all missing out on the kind of system-wide savings that President Barack Obama predicted nearly seven years ago, when the federal government poured billions of dollars into digitizing the country's medical records.

"Within five years, all of America's medical records are computerized," he announced in January 2009 (http://www.presidency.ucsb.edu/ws/index.php?pid=85361), when visiting Virginia's George Mason University to unveil his stimulus plan. "This will cut waste, eliminate red tape, and reduce the need to repeat expensive medical tests."

Unfortunately, in some ways, our medical records aren't in any better shape today than they were before.

THIS IS A personal issue for me—I'm one of those Americans with a dizzyingly complex medical history. In April 1997, two months shy of my 11th birthday, I was diagnosed with acute lymphoblastic leukemia. Over three years of chemotherapy—and the seizures, spinal compression fractures, sepsis infections, and debilitating nerve pain that came with it—I amassed a thick file of prescriptions filled, body parts scanned, and blood sampled.

The "Intergalactic Headquarters" of Epic Systems in Verona, Wisconsin E. Nekervis (https://www.flickr.com/photos /gas_station_sushi/7261830974/in/photolist-5h1E3F-7be3NE-k1p4Fc-5h1EAK-5h1SNk-5h6dC9-5h5ZHU-5h5ZRN-5h1E9v-5h1Tf2-5h6e4Q-5h1THc-5h1C6t-5h5YbL-5h5WVN-5h1BTn-5h1BJz-5h5YNy-5h1CJH-5h1Bz6-5h5X6h-5h1ANF-o71ejx-5h1DaV-5h1Dja-5h1Tya-5h6db9-5h1Brn-5h61nL-atvw7u-5h1T6P-5h6dk7-wvbNRG-5h61fm-5h5ZoQ-5h5YmQ-5h1DCr-bC2NV5-5h1BiX-5h5YwE-5h1AnR-5h1AF6-ddz8vf-7jAo3P-c4GMmj-c4Hcwh-dN2pKd-dN2pQ1-c3YX3h-u4EzKv) /Flickr

Before each visit to a new specialist, my mom and I trekked down to the basement records department of Children's Hospital Minneapolis and waited for someone to photocopy reams of paper and films. Then we schlepped to the appointment with folders of X-rays, blood tests, and scribbled doctors' notes of varying intelligibility. More often than not, they'd order yet another round of tests—an extra round of being poked and jabbed for me personally, and a small part of the testing redundancies that add an estimated $25 billion to the nation's health care costs.

The expensive (and potentially life-threatening) problems associated with the country's antiquated, hodgepodge health records system were exactly what the Obama administration set out to solve in early 2009. At the time, only 17 percent of doctors stored information digitally, and studies suggested that while Obama's proposal could cost up to $100 billion to implement, it could ultimately save $80 billion in health costs each year. When Congress passed

the $840 billion stimulus package, it allotted $30 billion (http://www.recovery.gov /arra/Transparency/fundingoverview/Pages/fundingbreakdown.aspx) for hospitals and medical providers to digitize their records via the Health Information Technology for Economic and Clinical Health (HITECH) Act. So far, the government has forked over $28 billion to doctors and hospitals to install EHR systems.

Epic is like the Microsoft Office of health care software—more comprehensive than its competitors, even if its individual parts are kind of meh.


Despite the acronym, the HITECH Act wasn't particularly tech-forward. When it took effect, storing files in the cloud seemed like uncharted territory for most physicians, who worried about privacy breaches. Hospitals and doctors defaulted to hosting their own files on local servers.

Epic was shovel ready for this stimulus windfall. Faulkner's company was one of the few software vendors back then offering an all-in-one package covering a hospital's recordkeeping needs. There's Cadence, a scheduling application. Haiku syncs with mobile devices. ASAP plans ER visits. Stork takes care of deliveries and prenatal care. MyChart is a web interface for patients to view their own records. All together, it's like the Microsoft Office of health care software—more comprehensive than any of its competitors, even if its individual components are kind of meh.

"What you hear is that, if you were to buy the best of breed—the best cardiology system, or the best chemotherapy system—no one would ever choose Epic," says Julia Adler-Milstein (https://www.si.umich.edu/people/julia-adler-milstein) , a University of Michigan researcher who studies health care IT. As it stands, she says, using Epic is easier than trying to piece together better options from various software vendors. On top of that, Epic will tailor each installation on-site to a customer's specific needs. What it doesn't have—and ditto systems created by competitors Cerner and Meditech, the other bigwigs in EHR—is a framework to connect to other facilities using competing EHR systems.

In terms of bringing digital records to practices across the country, the HITECH Act has unquestionably succeeded: The percentage of US hospitals using digital records skyrocketed from 9.4 to 75.5 percent (http://www.healthit.gov /sites/default/files/data-brief/2014HospitalAdoptionDataBrief.pdf) between 2008 and 2014. But the HITECH Act didn't prioritize "interoperability"—the ability to transfer a medical file from one hospital to another. Unless programmers ensure that their system properly integrates with another, a doctor's computer might spit out something akin to emoticons when queried for key test results.
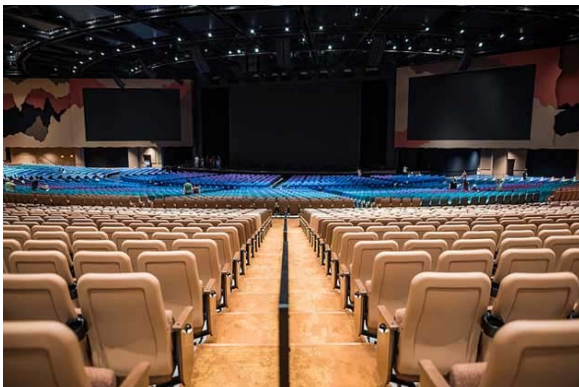
Epic's 11,400 seat "Deep Space" Auditorium is buried five stories underground. Katie Wheeler (https://www.flickr.com/photos /almostsummersky/20209016675/in/photolist-oqfJA6-qUfTU5-o7lejx-ddz8vf-uJ46eV-eChRlv-vQMc9s-u4EzKv-wvbPhG-deJziy-e57Tqq-e52etx-wvj7SB-vQMbMf-dTja9N-dTjb55-wvbNRG-wMNuzZ-vQMbVb-vQVRe8-wNiRjc/) /Flickr

A 2014 RAND report singled out Epic as a roadblock to interoperability. With the company's rise, researchers wrote, came an increasingly walled-off system. "By subsidizing 'where the industry is' rather than where it needed to go," the report said, the government propped up an EHR market "that did not have the level of connectivity envisioned by the authors of the HITECH Act."

The year before, Epic's rivals had banded together to create the CommonWell Health Alliance Partnership (http://www.commonwellalliance.org/news/cerner-mckesson-allscripts-athenahealth-greenway-relayhealth-announce-ground-breaking-alliance-enable-integrated-health-care/) , a nonprofit trade association devoted to setting standards for the exchange of information. Today, the group boasts 28 members and some of the biggest players in the market—except Epic, which has instead prioritized making it easier for hospitals using its software to share information with each other. (The company says it facilitates the exchange of almost 20 million patient records each month.) Epic does work with hospitals and practices to link its system with competing ones, but it usually charges top dollar to do so.

Doctors are investing the time to input data, but their offices are still having to fax and mail records like they did a decade ago.

Meanwhile, Faulkner—Epic's CEO and a major Democratic donor—landed a spot in 2009 on the Obama administration's Health IT Policy Committee, which helped shape the regulations guiding health care software and pushed to rapidly implement EHR in hospitals without first figuring out how to trade records between different systems. And since last year, Epic has paid lobbyist Bradford Card (http://www.modernhealthcare.com/article/20140910/NEWS/309109945) , the brother of George W. Bush's former chief of staff, more than $130,000 to convince members of Congress that the company plays well with others. Card has said Epic has been the "subject of misinformation" suggesting "they're not interoperable, when in fact they are."

Epic is not the only barrier to a seamless medical records system. Thanks to legislative maneuvering by former Rep. Ron Paul (R-Texas) in 1999, the federal government can't fund any sort of system with unique health care identification numbers. (Paul saw individual medical IDs as further creep of Big Brother.) Social Security numbers aren't a good fill-in; they're not on insurance cards, and in April Obama signed a bill (http://oig.ssa.gov/newsroom /blog/apr29-medicare-card-SSN) that will strike them from Medicare cards in order to reduce identity theft.

The upshot is that according to a government report released in August, only 56 percent of hospitals had received electronic records from other practices in the past year—and just 40 percent of those had successfully merged the information into their own databases. A recent study by the American Medical Association and the online network AmericanEHR Partners found that 43 percent of physicians (http://www.americanehr.com/research/reports/Physicians-Use-of-EHR-Systems-2014.aspx) thought their software actually made their jobs *more* difficult. Doctors are investing the time to input data, but their offices are still having to fax and mail records like they did a decade ago. Less than 10 percent of hospitals say they've been able to trade records entirely through their digital systems.

LAST SPRING, five Republican senators wrote a letter to federal regulators

(http://healthaffairs.org/blog/2015/03/04/where-is-hitechs-35-billion-dollar-investment-going/) asking, "What have the American people gotten for their $35 billion investment?" Digitization of records was supposed to "save the Medicaid and Medicare programs $12.5 billion through 2019," they wrote, but those savings have yet to materialize, and "the cost of sharing data among different vendors" has prevented doctors at competing practices from swapping patient information.

Epic's new cafeteria, modeled after King's Cross Station in London Katie Wheeler (https://www.flickr.com/photos/almostsummersky/19586355614/) /Flickr

Two weeks later, Peter DeVault, Epic's director of interoperability, appeared before the Senate (http://www.help.senate.gov/hearings/americas-health-it-transformation-translating-the-promise-of-electronic-health-records-into-better-care) to explain how hospitals and doctors with competing software could view information stored by Epic. First, DeVault said, Epic would have to link each system that a hospital wanted to access—a labor-intensive process for which it charged an hourly fee. Once linked, hospitals could trade information, but only by paying an additional fee: "We charge on a per-patient, per-year basis—so it's not per transaction—and it's the same whether that patient is sent to 100 different places or one other place. And that charge is $2.35," DeVault said. Rather than building a nationwide system to make its software connect to different vendors, Epic, like its competitors, charged hospitals for every patient who wanted to access information outside of its software. (Shortly after the hearing, the company, along with other major EHR firms, announced it would suspend the fees (http://www.modernhealthcare.com/article/20150415/NEWS/150419944) .)

A few weeks later, Dr. Karen DeSalvo (http://www.healthit.gov/newsroom/dr-karen-desalvo-md) , head of the Office of the National Coordinator for Health Information Technology, submitted a 39-page report (https://www.documentcloud.org/documents/2461137-onc-report-to-congress-on-health-information.html) to the Senate detailing concerns that, along with charging the fees, EHR companies were engaging in "information blocking" "to control referrals and enhance their market dominance." DeSalvo admitted that her office had been unable to determine the extent of information blocking or company specifics because hospitals and doctors had been made to sign contracts with gag orders prohibiting the discussion of contract terms, "as well as any opinions or conclusions about the performance or any other aspects of the developer's health IT." The ONC may not like the gag orders, but it has no power to police them. In September, it launched a website where hospitals and doctors can lodge complaints against specific EHR firms.

There have been other signs that the government has had enough with Epic. A massive contract to overhaul and modernize the Department of Defense's health records, worth up to $9 billion over the next 18 years, had long been expected to go to the company. But in July, the Pentagon announced it had instead chosen Cerner (http://www.defense.gov/News-Article-View/Article/612714) to

provide the software to serve 9.5 million DOD beneficiaries. Jonathan Woodson, the assistant secretary of defense for health affairs, stressed that the Pentagon believed it was "very important to have a highly integrated system that is portable. The private sector has to position itself to be more interoperable."

The criticism has Epic retrenching. A spokesman told *Mother Jones* that the company has long supported "sharing patient records wherever the patient goes." At the same time, Epic declined interview requests. "We've become a little uncharacteristically media exposed in recent months," the spokesman said, "and I sense that the pendulum is headed back to a quieter spell."

But Epic is probably here to stay, especially given the incredible investments hospitals have made to implement its system—Duke University, for example, reportedly spent $700 million on its Epic installation. That doesn't mean Americans have to accept the status quo. According to Adler-Milstein, the University of Michigan researcher, "What we can do is force them to open up

(https://www.documentcloud.org/documents /2461137-onc-report-to-congress-on-health- information.html)

View the 2015 ONC report to Congress on health information blocking. (https://www.documentcloud.org /documents/2461137-onc-report-to-congress-on-health- information.html)

t

Thanks to the ecosystem set up by Epic and others, I don't have peace of mind that my medical history would be available in a pinch.

heir system a little more, so that it plays better with others." She hopes increased scrutiny pushes the company to publish its API—the code that lets others access information in its system—to allow other firms to build more user-friendly software.

The sooner the better for people like me. When I moved to Washington, DC, five years ago, I entered a cancer survivorship clinic at George Washington University. In addition to running annual tests to make sure chemo hasn't left lingering damage to my heart or liver, the clinic is designed to offer survivors a single repository for our vast health records.

But thanks to the ecosystem set up by Epic and others, I don't have peace of mind that my medical history would be available in a pinch. I live closer to two other hospitals. Should an emergency happen, an ambulance would probably take me to one of them. Neither uses the same EHR firm as George Washington, which means my records could remain frustratingly out of reach, just when I need them most.

***Following the publication of this story, Epic's vice president of interoperability, Peter DeVault, wrote in to respond. Here's his full response** (http://www.motherjones.com/politics/2015/10/epic-systems-judith- faulkner-hitech-ehr-interoperability#comment-2364966253) .*

f Share on Facebook   (http://facebook.com/sharer.php?u=http://www.motherjones.com/politics/2015/10/epic-systems-judith-faulkner-hitech-ehr-interoperability)

Share on Twitter   (http://twitter.com/home?status=We've spent billions to fix our medical records, and they're still a mess. Here's why. http://www.motherjones.com/politics/2015/10/epic-systems-jud

PATRICK CALDWELL (/authors/patrick-caldwell)   *Reporter*

Patrick Caldwell is a reporter in Mother Jones' DC bureau. E-mail any and all tips to pcaldwell [at] motherjones [dot] com. RSS (/RSS/AUTHORS/2374461) |
TWITTER (HTTP://TWITTER.COM/PATCALDWELL)
(/authors
/patrick-
caldwell)

IF YOU LIKED THIS, YOU MIGHT ALSO LIKE...

High-Deductible Health Plans Don't Seem to Encourage Price Shopping (/kevin-drum/2015/10/high-deductible-health-plans-dont-seem-encourage-price-shopping)

Why Do Americans Love Tech Startups More Than Europeans? (/kevin-drum/2015/07/why-do-americans-love-tech-startups-more-europeans)

Three Studies Confirm: Obamacare Isn't a Job Killer (/kevin-drum/2015/08/three-studies-confirm-obamacare-isnt-job-killer)

Chart of the Day: The Affordable Care Act and Women (/mojo/2012/03/chart-day-affordable-care-act-and-women)
How much more will women pay for health care before and after health care reform?

Insurance Companies Say No One Should Get Between You and Your Doctor. Seriously. (/kevin-drum/2014/10/insurance-companies-say-no-one-should-get-between-you-and-your-doctor-seriously)
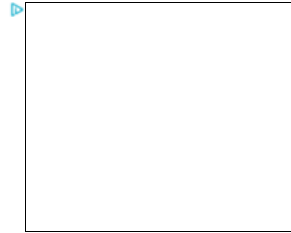
Mother Jones encourages readers to sign in with Facebook, Twitter, Google, Yahoo, Disqus, or OpenID to comment. Please read our comment policy (/about/interact-engage/comment-policy) before posting.

Featured Comment

MoJoStaff MoJo Moderator · 4 months ago
Following the publication of the story, Peter DeVault, EPIC's vice president of interoperability, wrote in to Mother Jones to respond. Here's his response in full.—Mother Jones

To the editors of Mother Jones,
I'm a long-time reader of Mother Jones and have always respected the publication for its research and insight. The recent article by Patrick Caldwell, "Epic Fail," however, is based almost entirely on misinformation. The story took on a difficult and important topic related to electronic health record (EHR) systems and their ability to interoperate. Unfortunately, it was based on discredited and unsubstantiated claims against Epic. A closer look at the facts paints a very different picture.

First, every Epic customer owns its data, and there are several easy-to-use tools to access and share it at the customer's discretion. Epic customers can access their EHR almost anywhere, at any time, and our customers connect to and share patient records with thousands of organizations using other vendor's products, including those used by the Department of Defense and the Veterans Health Administration. According to the eHealth Exchange, Epic shares more records with these government agencies than any other vendor. Epic remains a leader in the improvement of standards designed to facilitate more sharing of patient records.

Next, Mr. Caldwell referenced a RAND report critical of Epic's interoperability record. He failed to mention that the report relied on uncited assertions, anonymous blog posts, and an article from the 1990s. Last month, Epic's interoperability was rated the highest by KLAS, the independent authority in the industry.

see more

4 ∧ | ∨ • Share ›

---

345 Comments   **Mother Jones**   🔴 Login ▾

♥ Recommend 9   ⤴ Share   Sort by Oldest ▾

Join the discussion…

Niko Lotta · 4 months ago
Headline: We spent billions, still broken
Lead-in: Up in Wisconsin...

Do I need to read more?
8 ∧ | ∨ • Reply • Share ›

> **Metalunan** → Niko Lotta · 4 months ago
> You don't. I read it only because I thought it was going to turn out super-intelligent apes from the future were behind it. Boringly enough, there's apparently no evidence of that.
> 1 ∧ | ∨ • Reply • Share ›

DQKennard · 4 months ago
Interoperability should have been a core priority -- a critical requirement -- for these systems.

But, of course, that wouldn't have been in the interests of the existing firms, given (a) the designs of existing systems, and (b) the profit potential for making the necessary changes later.
19 ∧ | ∨ • Reply • Share ›

> **Gray Panther** → DQKennard · 4 months ago
> "Interoperability should have been a core priority..."
>
> Not when making money hand over fist is the focus here instead of patients' welfare.
> 7 ∧ | ∨ • Reply • Share ›

>> **blsdaniel** → Gray Panther · 4 months ago
>> Perhaps for Epic. Much less so for the companies already banding together to make interoperability happen.
>> 3 ∧ | ∨ • Reply • Share ›

>>> **Katie Zelle** → blsdaniel · 4 months ago
>>> Epic is also working with other companies to ensure interoperability. This author seems to have a specific bias against Epic and is either deliberately or unintentionally being misleading.
>>> 6 ∧ | ∨ • Reply • Share ›

>>> **JoAnn Newman Russler** → Katie Zelle · 4 months ago
>>> There's a reason for that. Faulkner has been a bad actor for a long time, more interested in making money than doing the right thing.
>>> 1 ∧ | ∨ • Reply • Share ›

>>> **Katie Zelle** → JoAnn Newman Russler · 4 months ago
>>> To my understanding, this is simply not true.
>>> 1 ∧ | ∨ • Reply • Share ›

>>> **JoAnn Newman Russler** → Katie Zelle · 4 months ago
>>> And your background in medical informatics is?
>>> ∧ | ∨ • Reply • Share ›

>>> **Katie Zelle** → JoAnn Newman Russler · 4 months ago
>>> And yours?
>>> 1 ∧ | ∨ • Reply • Share ›

>>> **runcrissierun** → Katie Zelle · 4 months ago
>>> I have to say - my background IS medical informatics, and I've worked with a number of vendors, Epic included. The pervasive desire in all of these vendors is to improve the lives of the patients and the work of the clinicians. Do they want to make money too? Sure - this is the US and Capitalism is the game. Every business wants to make money, and they can't BE in business if they don't. The fact that Epic is successful doesn't mean they are doing it at the expense of patients - their success drives the ability to integrate and continue to develop solutions. Keep in mind that healthcare is very heavily regulated, and vendors can only move as quickly as the government (hello, clarifications of Meaningful Use standards, ICD-10, HIE, CMS, FDA, etc). If you look at clinical quality outcomes and savings between the paper-based days and EMR days, you'd be floored. Reduction in medication errors, improvements in length of stay, etc. There's a long way to go for sure, but to say this is all a money making scheme is a bit ridiculous to me.
>>> 12 ∧ | ∨ • Reply • Share ›

>>> **JoAnn Newman Russler** → runcrissierun · 4 months ago

PHOTO ESSAYS • SLIDESHOWS

"Why Lose When You Can Win?" Scenes From a Pro-Vietnam War Rally 45 Years Ago
A photographer digs up his images of a April 1970 pro-war protest at the Washington Monument.

These Photos Will Make You Want to Quit Your Job and Ride a Mustang From Mexico to Canada
Or at least live it through these guys.

The Prestigious World Press Photo Finalists Are Out And They Are Breathtaking
Here are some of the winners and finalists.

The Human Cost of Saudi Arabia's Air War in Yemen, in Photos
"Yemen after five months looks like Syria after five years."

SEE ALL