

DAILY COVER | Apr 8, 2021, 06:00am EDT | 36,159 views

# The Billionaire Who Controls Your Medical Records



Cookie Preferences



**Katie Jennings** Forbes Staff

Healthcare

*I am a staff writer covering healthcare. Email me at [kjennings@forbes.com](mailto:kjennings@forbes.com).*

JAMEL TOPPIN FOR FORBES

This story appears in the May 31, 2021 issue of Forbes Magazine. [Subscribe](#)

**Epic Systems founder Judy Faulkner built an empire pioneering—and later dominating—electronic medical records. For decades, she's kept them walled off from competitors, but now the pandemic is fueling a digital health care race that might finally topple her from the throne.**

Cookie Preferences

**A** victorious swell of brass instruments reverberates across the 1,100-acre Epic Systems campus in Verona, Wisconsin, a sleepy suburb just outside Madison. It's February 2020, and except for China and a couple of ill-fated cruise ships, there are few signs of the coronavirus pandemic that's about to envelop the world. It's certainly business as usual at Epic: The

familiar strains of a baroque wedding march fill the hallways, stopping the health care software company's 10,700 employees in their tracks. On cue, a new customer announcement follows: Florida-based AdventHealth plans to deploy Epic's electronic health record system across 37 of its hospitals. The full installation will take over three years and cost around \$650 million, not counting ongoing maintenance, which will cost millions more annually. "It's a very long relationship for many of our customers," Epic's founder and CEO, Judy Faulkner, says in a rare interview. She got the idea for the wedding theme from a visit to the Mayo Clinic several decades earlier, where she heard lullabies play whenever a new baby was born. A new customer "didn't feel like a new baby," she says. "It felt more like a wedding."

Indeed, hospital executives are often more committed to Epic than most Americans are to their marriages. Epic's average customer has been using its software for ten years, and Faulkner claims the company has never lost an in-patient hospital client, except in the case of an acquisition. Partly that's because it's so hard to leave. Epic's software helps manage a patient's entire journey, starting with scheduling an appointment, moving into the clinic or operating room as the doctor records allergies or X-rays and then to the back office for billing and follow-ups. It's a proprietary system that infamously doesn't

play nicely with others. The company's product is generally referred to as an electronic health record, but its reach is far broader, including revenue cycle management, customer retention tools and data analytics.

Epic's suite of offerings has proven particularly popular among large academic medical centers and children's hospitals, such as the Cleveland Clinic, Johns Hopkins and Boston Children's Hospital. The company's 564 customers represent nearly 2,400 hospitals worldwide and 225 million patients in the U.S., or about two thirds of the country's population. This translated into more than \$3.3 billion in revenue in 2020, despite what Faulkner estimates to be around \$500 million in foregone revenue for Covid-related software it provided free of charge, including infection management tools and extensions for pop-up hospitals. "It never seemed right to me to make money off Covid," she says.

Her success has been decades in the making. Since Epic's founding in 1979, the 77-year-old Faulkner has steadfastly rejected outside investors, Wall Street financing and acquisitions. Epic was still just a \$500 million (sales) company in 2007. Ten years ago, it hit \$1 billion in revenue, and growth has compounded at an annual rate of 15% every year since. It's highly profitable: Estimated cash flow as measured by Ebidta is north of 30%, and the company has no debt. *Forbes* estimates Faulkner's 47% stake in Epic to

be worth \$6 billion, which makes her the second-richest self-made woman in America. Employees and around a dozen other cofounders and initial investors own the other 53%.

In 2019, Epic had a 39% share of the more than 880,000 hospital beds in the U.S., the health care IT firm KLAS Research estimates. The rest of the market is fragmented among publicly traded Cerner, the Massachusetts-based Meditech and a few other firms, including Allscripts and CPSI. Epic's dominance has made it an industry target, with critics and competitors accusing the company of being a closed network that makes it difficult to exchange data with other systems. Faulkner contends Epic does share data but puts patient privacy above all.

Epic's biggest strength, this build-it-alone mentality, could become its biggest liability in the post-Covid world. The pandemic is forcing fast change in the U.S. health care system. Doctors and other providers have rapidly adopted new technology over the last year as patients suddenly took a strong interest in staying as far away from the hospital as possible.

Venture capitalists were already gunning for Epic before the pandemic struck. After all, the company's big-system mindset and hundred-million-dollar installations seem out of step in the era of cloud computing and cheap, ubiquitous mobile apps. Then, shortly before lockdown, the U.S. government finalized new federal data-sharing rules empowering patients to have ownership over their own digital medical records —potentially further eroding what has historically

been a health-data oligopoly dominated by Epic and Cerner.

“We are right in the middle of this phenomenal transformational swirl,” says John Glaser, a former Cerner executive who currently lectures at Harvard Medical School. It’s not that electronic health records will go away, he says, but more nimble and agile startups will enter the market. Just as the Web and smartphones crushed Microsoft’s seemingly unassailable 1990s-era desktop monopoly, this new era may pose the same challenges for Faulkner. But there’s one huge difference. The move-fast-and-break-things ethos of Silicon Valley doesn’t work in health care. “You can’t tell a doctor it’s okay to fail,” Glaser says. “It’s not okay to fail. That’s death.”

---

**F**aulkner has loved tackling tough problems since she was a kid growing up near Haddonfield, New Jersey, in the 1950s. In seventh grade, her math teacher put riddles on the blackboard, and she’s been hooked on math and logic ever since. She majored in math at Dickinson College in Carlisle, Pennsylvania, and had a summer job in particle physics at the University of Rochester, where she was introduced to computer programming and Fortran (the ancient coding language invented by IBM). “I always liked making things out of clay,”

Faulkner says. “And the computer was clay of the mind. Instead of physical, it was mental.”

Faulkner says she didn't have a grand plan for growth. “It's always been, like, you climb a mountain. And you just see the hill ahead of you. You don't see the whole mountain.” JAMEL TOPPIN FOR FORBES

In 1965, she started a doctorate in the University of Wisconsin's nascent computer science program. In Madison, she met psychiatrist and professor Warner Slack, who was teaching one of the first-ever courses on computers in medicine. A few years later, Slack introduced Faulkner to John Greist, then chief resident in medicine and now professor emeritus at the University of Wisconsin, who was looking for a better way to schedule on-call doctors. In 1969, Faulkner developed a system in which a secretary could punch data cards to generate the schedule for an entire year in 18 seconds at a cost of \$5.

Cookie Preferences

Faulkner graduated without completing a dissertation (“I never could figure out what to write a thesis on,” she says) and in the early 1970s started working for a physicians group at the University of Wisconsin, developing a database to keep track of patient information over time. It would take a few more years (and lots of convincing from colleagues) before Faulkner was ready to start her own software company. “It almost seemed like a joke to start a company,” she recalls. “How do you do that?”

In 1979, Faulkner and Greist borrowed from friends and family—and against their homes—to scrape together the capital to launch Human Services Computing (later renamed Epic), which was originally valued at \$70,000 (about \$270,000 in today’s money). Faulkner had six or seven other collaborators, but from the beginning it was the Judy show; the company was her idea, and she served as its first president. At first, it operated after-hours from a Madison basement. Faulkner wrote all the original code on a Data General Eclipse 16-bit minicomputer the size of a refrigerator.

After a few years, Greist had a disagreement with Faulkner over the company’s direction. Greist says he stepped down from Epic’s board in 1983 but still holds on to some shares. “Part of my difficulty with her was me saying, ‘Gosh, why don’t we get some venture capital and we can build it faster?’ ” Greist says. “And she said, ‘No,

we're not going to do that. Because we'll lose control.' And certainly that's been her policy. And she has lived it out and proven it. I was wrong. She was right."

Epic saw slow but steady growth in its first two decades, gaining a handful of new customers every year as it expanded its offerings. In the late 1980s, the company added billing software; in the early 1990s, it adopted a graphic user interface for outpatient clinics. Aside from Faulkner's obsessive focus on its customers, Epic had another advantage: computer code that worked. "It's not perfect, but it's quite reliable," Faulkner says.

In 2004 the company landed its biggest deal yet: a three-year project with Kaiser Permanente that would cost the health giant \$4 billion. Epic's cut would be around \$400 million. "[Epic] brought that safety factor that if you chose them, they were actually going to deliver on implementation and they were going to do it on time," says George Halvorson, who was the CEO of Kaiser Permanente at the time. "That's huge."

The year after Epic inked the Kaiser deal, it moved to a new corporate campus, which is often

compared to an adult Disney World.

Headquarters features one of the world's largest underground auditoriums, a Hogwarts-inspired Great Hall, an elevator to Hell, an enormous tree house and myriad other strange and fantastical buildings and sculptures amid the rolling hills of southern Wisconsin. At Epic's annual customer meeting, Faulkner is known for dressing up in costumes, ranging from Lucille Ball to the Mad Hatter from *Alice in Wonderland*. It all seems somewhat at odds with the self-proclaimed nerd who shies away from the public eye. "Introverts can act like extroverts," she offers by way of explanation. "What they say is extroverts can't act like introverts."

Cookie Preferences

The company sees a lot of turnover. Each year, Epic hires around 2,000 employees, who are required to pass a series of aptitude tests measuring things like coding skills and logic. The company motto is: “Do good. Have fun. Make money,” and the culture is fast-paced and hypercompetitive. Former employees talk about burnout from an environment filled with overachievers. But even Epic’s employees can be pushed too far: There was a revolt when the company tried to force all staffers to return to campus amid the pandemic last August. After several stories about the contretemps appeared in the local press, the company reversed course.

Florida’s AdventHealth, which signed its \$650 million contract in a pre-Covid world, will be Epic’s largest fully remote build and installation. In a blow to Cerner and Athenahealth, CEO Terry Shaw decided it would be better for his 5.5 million patients to switch to Epic rather than trying to get its current combination of three electronic health record companies to talk to one another. While it’s expensive up front, he says, the move will lower operating costs in the long term. Epic’s system “has tentacles that go out through amazing networks,” he adds. “You can actually help a person get the care they need, wherever they need to get it.”

---

pic’s tentacles are notorious for reaching only so far, however—and that seems largely by design.

**E** It's supereasy for, say, a hospital to share a cancer patient's records with an outside chemotherapy clinic—as long as both places are running Epic's software. If the chemotherapy clinic is using software from a big competitor, it's still probably going to be able to access the patient's records. But if the clinic wants to experiment with a cheaper third-party app, it may be quite a struggle. Epic works with health care apps only on a case-by-case basis.

Geeks call this “interoperability”—getting different software systems to talk to each other, in essence—and the issue came to a head in January 2020 during a debate over the new federal rules. Sharing medical records with third parties—even at the patient's own request—could pose “serious risks to patient privacy,” Epic said in a statement at the time.

Nearly every other tech company—including Cerner, Apple, Microsoft and Google—disagreed, arguing that Epic's stance is bad for patients and stifles innovation. Even federal officials took veiled digs at Faulkner's business. “The disingenuous efforts by certain private actors to use privacy—vital as it is—as a pretext for holding patient data hostage is an embarrassment to the industry,” former Centers for Medicare and Medicaid director Seema Verma said at a conference. In the end, the feds prohibited health care data blocking by Epic or any other company.

Big Tech has flirted with health care data for more than a decade, with companies like Google trying and failing to launch an internet-based personal health record in the late aughts. Microsoft HealthVault similarly crashed and burned. Apple's attempt to measure heart rhythms with its watch was panned by doctors. And Amazon had a giant flop with Haven, its joint venture with Berkshire Hathaway and JPMorgan Chase, which

was supposed to dramatically reduce employer health care costs.

Where the whales failed, the minnows might win. With the new federal guidelines rolling out over the next couple of years, plenty of venture capitalists are now betting big that one of many tiny upstarts can breach Epic's moat. Health IT venture funding hit an all-time high in 2020 of more than \$3.6 billion, a 51% increase from 2019, according to CB Insights. "I have never in the history of health care in the United States seen this kind of supernova of innovation with a flurry of investment activity into digital health," says Missy Krasner, a former Google Health and Amazon executive who recently joined New York-based venture shop Redesign Health. "Covid has totally made interoperability sexy again."

Faulkner says she's not concerned about all the Silicon Valley players entering the health care space. "I think that what will happen is that a few of them will do very well. And the majority of them won't," she says. "It's not us as much as the health systems who have to respond to the patient saying, 'Send my data here,' or 'Send my data there.'"

The new federal rules concern individual patient records, but the industry is rapidly heading toward aggregating bulk data. It's a space in which many, including Epic, want to play. These large, anonymous medical data sets can be used

for everything from drug discovery to unearthing emerging national health trends and could be worth a lot of money. In 2019, Epic unveiled a big-data initiative called Cosmos, which aims to mine more than 100 million deidentified patient records.

Despite being just 28 months shy of her 80th birthday, Faulkner says she has no plans to retire. She has not named a successor, and none of her three children works at Epic. Faulkner has secured Epic's future only insofar as the company will never be taken public. She has split her stock into voting shares that can't be sold and have gone into a trust controlled by family members and employees. Her nonvoting shares are being left to a foundation she established with her husband called Roots & Wings, which funds her interests in child brain development and criminal justice reform (she signed the Giving Pledge in 2015). "I enjoy what I do and I'd like to do it as long as I am effective and can bring value in the job," she says. She worries about what happens to people when they retire, having read that the average person dies two years after leaving the workforce. "They seem to lose that edge that says, 'Why am I waking up in the morning? What is my day going to be?' I wake up and think, 'How do I get everything done in my day?'"

*Follow me on [Twitter](#) or [LinkedIn](#). Send me a secure [tip](#).*



Katie Jennings



**Katie Jennings**

I am a staff writer at Forbes covering healthcare, with a focus on digital health and new technologies. I was previously a healthcare reporter for POLITICO covering the... **Read More**

[Reprints & Permissions](#)

---

Cookie Preferences