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An Interview With The Most Powerful Woman In Health Care

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[Judy Faulkner](#) might not be a household name yet, but in the health care industry, she's simply known as Judy. She is the founder and chief executive officer of Epic Systems, a privately-held $1.5 billion (2012 revenue) company that sells electronic health records—a position that makes her one of the few self-made women on the *Forbes* billionaires list. Her customers are top medical centers, such as Cleveland Clinic, Geisinger Health System, and Johns Hopkins. She wields enormous influence. Almost half of the U.S. population will have its medical information stored in Epic digital records when hospitals finish installing them.

Faulkner, rarely, if ever, grants interviews. A year ago when I [profiled](#) her, she refused to speak. Because Epic shuns publicity and press releases, it is perceived as aloof; and criticism leveled at Epic regarding its business strategy is rarely challenged by the company. In a phone interview from Epic's seat in Verona, Wisconsin, Faulkner acknowledged that.

Faulkner: "People would tell us, 'How come you guys haven't solved health care yet?'"

Forbes: A year ago, you declined to be interviewed, what made you decide to talk now?

Faulkner: I'm recognizing that when we were small, we could stay under the radar, but now it's harder. I get so many requests for interviews. If I talk to everyone, we can't do our job with our customers and work on our software. It would be hard to stay focused.

I was an undergrad math major, and a grad student in computer science. I'm hugely introverted, not atypical of math majors. It's not something I love [being in the public eye]; it's a personality thing. I like to go around, and people not knowing who I am. I like to keep some privacy, be a normal person.

Forbes: With success comes visibility, plus you're a woman who's a computer scientist, who coded the original software for Epic. It makes for a good story.

Faulkner: If you line up the CEOs of major [electronic health record] companies, the CHEESI

group–I came up with that to remember them all: [Cerner](#) , HBOC (now [McKesson](#)), Eclipsys (now Allscripts), Epic, [Siemens](#) , IDX (now part of [General Electric](#)), what's the primary difference? It's funny, visually I'm the one woman, but I'm the only one with a technical background. That's the main difference.

Forbes: Many things are said about Epic by competitors, but also by customers. One of them is that Epic is a closed system: it's difficult to exchange patient information with other electronic health records; it's hard for third-party vendors to integrate with Epic, and the technology is old. Is this totally wrong?

Faulkner: Totally wrong. You have to understand that Epic was originally written as a database management system. One of the things that made Epic strong when I wrote the original code was that it never occurred to me to do anything other than put the patient at the center. I developed a clinical system at a time when the health care world had pretty much only billing and lab systems available. We put in exit after exit (openings in the source code) so that people wouldn't find the system closed. We give the source code to our customers so they can use these programming exits to write their own code. For example, one customer put something in there that asks the check-in person to smile if it's a new patient. They have the source code and we train them to make those changes. It's not easy, because it's complex software, but it's probably easier than many other systems because of all the exits.

Forbes: Do you still use MUMPS? (A programming language developed at Massachusetts General Hospital in the late 1960s).

Faulkner: The language is not MUMPS, it's Caché, which is the modern, up-to-date successor (see this [story](#)). Caché has won many contests for best database performance. It needs to run fast so clinicians can work quickly. We are the most open system I know because we're built as a database management system, and database management systems need to allow their users to mold it to what they need. We interface with speech recognition, imaging, medical devices, lab, patient education content, user authentication, and hundreds of different vendor systems. If you ask them, many will say that Epic is one of the easiest systems to interface with because we do a very good job of utilizing standards. In 2007, KLAS (a health IT research firm) told us that Epic had the highest score for doing interfacing well.

Forbes: So, it's easy for technology companies to integrate with your system?

Faulkner: We get hundreds of requests a month, we can't work with everybody.

Forbes: What's your policy?

Faulkner: Because we get so many requests, our policy is that we work with the vendors that our customers tell us they want to work with.

Let's talk about safety. Cars are not a mishmash of pieces from different manufacturers. For the safety of the passengers, the manufacturer has figured out that you can't put random components together because if you do, you won't produce a safe vehicle. It's the same situation in our industry. Health care organizations don't ask us to interface to every type of module because they understand that it could cause safety problems.

For example, there can be safety problems if an inpatient (hospital) pharmacy module from a different vendor interfaces with the software that supplies the physician ordering or medication administration record systems. It can harm the patient (by introducing errors) if these aren't all the same system. But, many interfaces are fine and won't harm patients, like interfacing inpatient

clinical to lab and getting back results, or to billing and getting a bill produced.

To back up her assertion, Faulkner later sent an email pointing to a 2010 [Gartner study](#) which says that "truly integrated" applications are built by a common engineering team using a common application infrastructure, and based on a common database structure. They almost always work together better than interfaced applications.

Forbes: What about allowing outside developers to build applications on your platform? For example, for scheduling patient appointments or automating prescription refills? Allscripts and athenahealth are doing that.

Faulkner: Our customers already do that. Cleveland Clinic has really neat apps. They did that on their own. Developers have to work through a customer. We don't let anyone write on top of our platform, come read our code and study our software. I worry about intellectual property at that point. With our customers, we make sure we have signed agreements. They know they have to respect our software. Customers can do it in a controlled environment, but not the whole world. You'll see us do more and more of that.

Forbes: I've heard customers say that your technology is bad, it's difficult to use, and it's expensive. Do you worry that Epic might, years from now, meet the fate of mainframe computer companies?

Faulkner: I look at the last KLAS study (2012), and 86.4% of physicians approve of our system. The next closest vendor has an approval rate of 75%. There will always be some physicians who don't like our system. I don't know any way around it. In this industry, there will always be more to do, which is really a wonderful thing, because we'll always be finding new ways to improve health care. We are not close to perfect, we're in the middle–somewhere between perfect and abysmal. We try to listen to our users and develop products they need. What's difficult is when they tell us they need software improved, and we do it, and they don't have the time to install it. Programmers who are new to an application visit six to eight customers the first year to learn how the users do their jobs. After that, they visit four customers each year.

Forbes: Would it be fair to say that interoperability with other electronic health records was not a priority for Epic?

Faulkner: It's unfair. We did interoperability before it was required by the government. People were worried about legalities: 'Are we sure the government is going to let us do this?' It took several years to write the rules of the road. And there's a Mount Sinai that will share with a St. Mary, but won't share with a Mercy. (Those hospitals are fictitious). We said 'wherever the patient goes, that's where the information goes.'

Forbes: You're saying that hospitals are the ones that want to lock patients and their data for competitive reasons.

Faulkner: It took a while for customers to feel comfortable. As of March 2013, our customers exchanged 760,000 patient records per month; about one-third were with non-Epic systems. Based on the historical trajectory, we expect that we're closer to exchanging approximately one million records per month. We are currently exchanging data with Allscripts, Cerner, Department of Defense, Veteran Affairs Administration, Social Security Administration, eHealth Exchange (formerly Nationwide Health Information Network), Greenway, MEDITECH, NextGen and others. We expect to be exchanging data soon with eClinicalWorks, General Electric, Surescripts, and others.

Forbes: How does the CommonWell Health Alliance (a group of Epic competitors that wants to set

standards for exchanging patient medical records) change the situation for Epic, since you don't intend to become a member?

Faulkner: Hopefully it won't change things much, and that they will focus on open standards, and not on being a toll gate, where they're charging customers for going through CommonWell. I don't know whether it's a business or open standards. I don't know enough. I don't know if CommonWell will charge a fee.

Forbes: Digital health start-ups talk of disrupting an inefficient health care system, and established companies such as Epic. Do you think they're naïve, or is it putting you on notice?

Faulkner: Both. People would tell us: 'How come you guys haven't solved health care yet?" We have watched time after time people who want to fix it, and who come from other industries, and they are surprised by the complexity of health care. Chief information officers will come in from outside of health care, and realize how much harder it was than anticipated. But, there are all sorts of creative things that you can do in health care, like genomics, that's the fun part of health care, as medicine becomes more creative. I don't think in the enterprise (hospital) space, it's easy to get in.

Forbes: So, when you started out, was your mission to change health care?

Faulkner: I was a programmer, I thought it was fun. I'm not sure in the beginning I felt that I'm here to save lives. Why do you come to work?

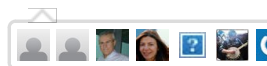For the paycheck?

For something interesting to do?

For customers?

For the competition?

For the mission?

If I had to circle one reason, it's for my customers.

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