Big Data Tips from the World's Fastest CIO

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Technology is going to change health care, and Quintiles CIO Richard Thomas wants to be there when it does—after he takes a lap around the racetrack.

By Matt Alderton

Richard Thomas is the James Dean of information technology. Never mind that he wears a sport coat to work instead of a leather jacket. Like the '50s film star, he has a history of breaking rules, molds and speed limits.

"I refuse to be told what to do," says Thomas, Chief Information Officer at Durham, N.C.-based Quintiles, a pharmaceutical services firm that has helped develop or commercialize all 50 of the world's 50 best-selling drugs. "I've always been like that. I follow my own path."

'Necessity is the Mother of Invention'

The path Thomas follows originates in the small Welsh village where he was born and raised. A remote, working-class community rooted in heavy industry, it's the kind of place where the only practical way to access technology is to invent it—which is exactly what Thomas did at age 14, when he began developing software for early home computers.

"We didn't have a lot of access to technology as we know it today; we didn't even have a phone," says Thomas, whose father was an auto mechanic and mother a produce clerk at the village grocery store. "They say that necessity is the mother of invention. For me, that was certainly the case. Without access to technology, you have to reinvent things yourself through accidental discoveries. You learn a lot when you're forced to do that."

Because he'd always wanted to build and design things, Thomas originally wanted to be an architect. When the Computer Age dawned in the 1980s, however, his appetite for technology was immediate and insatiable. "I spent an inordinate amount of time and money developing software," he says, recalling Malcolm Gladwell's 10,000-hours rule, which states that any task can be mastered if it's practiced for 10,000 hours. "If you spend long enough doing something, inevitably you get a bit of a knack for it."

In fact, Thomas had such a knack for developing software that he entered and won a government-sponsored IT competition at the age of 16. That led to an internship, which in turn led to a full-time job with a commercial software company that paid for his undergraduate degree in computer science, which he received from the University of Glamorgan in 1989.

"From humble beginnings, I ended up in the right place at the right time, and that launched me into a career in IT from a very young age," he says.

Au Revoir, IT?

Because he started his IT career early, Thomas was ready to end it early, too. Already an expert in his field by the time he entered it, he advanced quickly and spent the next 10 years working for a number of different companies in a number of different industries.

"By 1998, I really thought I'd come to the end of my career in IT," he says. "I figured I'd done everything I wanted to do; there was nowhere left for me to go."

Thomas likes to think about life in chapters; his IT chapter, he'd concluded, was over. Although he didn't know *what* the next chapter would be, he'd decided *where*: New Zealand, with which he felt a unique kinship.

"A lot of inventions have come out of New Zealand simply because it's so remote," Thomas explains. "It's so far away from everywhere that in a non-connected world they had to find their own solutions to problems."

Clearly, Thomas could relate. "I was working in London and took off on a plane to New Zealand," he says. "I thought, 'I'll come up with something new when I get there.'"

Thomas, who'd competed in the British cycling championships in 1993, spent his first few weeks in New Zealand on a bike, "getting his legs back." When he got bored on the ground, however, he took to the air. "I'd always wanted to fly," he says, "So I got my pilot's license and spent a couple of months just flying around New Zealand."

Given his newfound love for aviation, Thomas' new plan was commissioning heavy-lift helicopters to extract valuable kauri wood from New Zealand rainforests. When his mother suffered a fatal stroke in 1999, however, he found himself back in Wales—and, months later, back in IT.

Big Data, Big Opportunities

In 2000, Thomas accepted a position as vice president of global e-business systems at information supercompany Nielsen. There, he discovered a new breed of IT that was based not solely on networks and nodes, but also on the data that travels through them.

"Before 'big data' was a term, I spent four or five years working with really big data at Nielsen," says Thomas, who left Nielsen in 2004 to become executive vice president and Chief Information Officer for Telephia, a San Francisco-based startup that produced customer and network data for cellular service providers.

When Nielsen acquired Telephia in 2005, Thomas found himself at the close of yet another chapter. Or rather, at the start: He joined Quintiles in 2005—first as Chief Technology Officer, then as Chief Information Officer—and has been there ever since.

"I've never worked anywhere this long; usually I'm bored by now," admits Thomas, who typically organizes his life into three-year chunks. "At the end of a three-year block, I like to come up for air and decide whether it's worth investing another three years in what I'm doing."

He spent his first three-year block at Quintiles overhauling the company's internal IT organization. He spent his second three-year block developing fresh business models that would allow the company to utilize new data capabilities. Finally, he spent his most recent three-year block extending the company's internal data solutions externally to its pharmaceutical and healthcare customers, creating a new revenue stream focused on data capture and exploitation.

Data, Thomas discovered, is a key. The doors it can unlock are what keep him engaged—and therefore employed—at Quintiles.

"Consider the changes coming our way in the United States with healthcare reform, as well as changes taking place in other countries around the world," he says. "Healthcare is becoming more challenging not only because it's increasing in cost, but also—as populations become more elderly—because the burden of care is so much higher than it's been before. That's the world we're living in, and it's all based on data."

Customers vs. Computers

As for his next three-year block, Thomas says the theme is "change." In 2012, Quintile's first and only CEO—founder Dennis Gillings, who started the company in 1982—retired. His successor, Tom Pike, took the company public in 2013. And in 2014, most major provisions of the Patient Protection and Affordable Care Act will be implemented and enforced.

"It's a fabulous time to be in healthcare," Thomas says. "I believe change is a good thing, and I want to be a part of it."

In fact, it's not just healthcare that's changing. It's IT in general, which across industries is evolving from a business service into a business strategy.

"The IT organization of the future isn't aligned with the business; it *is* the business," says Thomas, who advises business leaders to exploit the transition by deploying IT not only in the back office, with computers, but also on the front lines with customers. "IT professionals are uniquely equipped and qualified to understand some of the opportunities ahead with the convergence of many different types of data. Forward-thinking organizations are those that are bringing IT forward inside the company to not just process data, but to solve problems for their customers."

Thomas already has redefined IT at Quintiles, which in 2011 launched Quintiles Infosario, a web-based solution that helps drug companies make data-based decisions in areas as diverse as research, testing, sales and marketing. "Instead of just providing data internally, we're now in the business of providing it to our customers to help them run their business," he says. "It's a really nice business transformation where the technology group not only becomes a very real generator of new revenues, but also creates a very collaborative, tightly coupled relationship with our customers."

High-Speed Success

James Dean was a rebel without a cause. Thomas, however, is a rebel with two of them—perpetual movement and constant improvement, as evidenced not only by his career trajectory and philosophies, but also by his favorite hobby: motorsports.

"When I get a day or two for me I go to the track and get in my racecar," says Thomas, whose car is equipped with sensors that record myriad data that he uses to enhance his performance on the track in precisely the same way his company uses it to improve its performance in the marketplace. "I'm exhausted at the end of it—mentally and physically—but it's a lot of fun to pore through the information. It's truly staggering big data at play."

Matt Alderton is a Free Lance writer for Forefront Magazine. Richard Thomas is the CIO of Quintiles.