

Education

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Scientist sees tech as a way of living

BY ROY WENZL

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Jaime Oppenheimer/The Wichita Eagle

Ravi Pendse, Ph. D. sits in front of routers and switches - the tools that make the Internet work. He is the Chief Information Officer and Associate Vice President of Academic Affairs and Research at Wichita State University.

There's a guy in town who is helping to reinvent the world.

He says the PC is your past and that mobile computing is your future. He says that soon everything we do with a PC and a phone and an iPhone and a TV and a video camera and a laptop and a GPS and an iPod and a movie theater will be fantastically more magical and will all be contained in one dinky computer as small as an ink pen.

And with that tiny magic wand you will turn any flat surface into your keyboard, turn any blank wall into your viewing screen.

Scientists and university honchos say he's a genius; he says he's merely a good engineer with common sense. Last year he turned down a \$120,000 raise so he could stay in Wichita.

His name is Ravi Pendse. He works at Wichita State University.

He's 49, a native of India (naturalized 10 years ago) who thinks that Wichitans are the nicest and most decent people on Earth.

That's why he turned down that fat raise.

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Not everyone at WSU loves Ravi, or Dr. Pendse as he is also called.

He's the WSU Chief Information Officer, and he jokes that the initials for that title, CIO, can also stand for "Career Is Over."

His career is not over. Networking specialists around the world know his name. He turned down a job offer from North Carolina State last year that would have added \$120,000 to his income; part of what led to his decision to stay was that over the past five years he's drawn \$10 million to WSU from networking giant Cisco. Pendse didn't want to leave his Cisco research center or his students.

He made the whole WSU campus go wireless, something that bothered some faculty. Some faculty like students to work on Internet-connected laptops in classrooms; other teachers told him they worried whether students working on the Internet during class would fail to pay attention to lectures.

"Maybe this means you should study the interest level of your lectures and try to make them more interesting," he suggested.

He said this with a smile. He smiles a lot.

As of last week, WSU also made him the interim dean of its library system.

In spite of that, he refused to stop teaching classes. He said this the week classes began:

"On Tuesday night I could not sleep," he said. "Why? Because I knew what was going to happen the next day. One hundred and forty students, one hundred and forty minds that were doing to help me improve my mind.

"I was so excited."

He says his father, an engineer in India, told him that every generation has always thought the next generation was full of slackers who did not understand how the world works. And then, his father told him, every new generation goes on to make big advances in science and other endeavors.

His father thought this was funny. So does Ravi Pendse. He said the reason he did not give up teaching is that those fantastic, curious kids in his classes teach him so much.

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He gets some of his best ideas from watching Sachin and Sachin's friends. Sachin is Pendse's son, a freshman in the International Baccalaureate program at East High.

Pendse likes to watch Sachin and his friends work with their Internet-connected tools and toys. Children, he says, are people who have refused (so far) to let go of their curiosity. If you want to be a truly curious scientist improving the world, watch your children play with their toys and gadgets, and ask yourself questions.

"What do they search for?" he asks himself. "What do they care about, how do they solve problems, how are they networking with each other, what ideas do they have?"

He's read and heard the talk about how the education system produces all these slackers, yet every time he encounters young people he sees them performing all sorts of wizardry with techie tools.

"We can't just keep cutting education in this country, or China and India really are going to kick our ass," he said. "They are investing heavily in education, while we are cutting.

"But I am more optimistic than some people; I think that no matter how badly we mess up education, the young people in this country are just going to run right over us or around us and do amazing things with technology."

The world he's helping invent brings with it the baggage of fear.

He knows what scares people about it. He asks those same questions of himself:

Can I keep my job when the job specs explode like pixels on a screen? How do I keep myself relevant? Can I keep hackers from burgling my life in ways that no one can yet imagine? If I'm allowed to use Wi-Fi on an airplane, does that mean terrorist hackers can use Wi-Fi to tap in and tell the plane to fall into a building?

This new world can be "really scary for businesses right now," Pendse said. Anybody with an iPhone or a flash drive could tap into your company's storehouse of products and ideas and steal the works. Which is why many of the research projects he and his students work on involve security.

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Supporting your cool technology tools is a huge, rapidly growing worldwide storage and delivery system.

Think of giant storage units, growing in capacity every hour of the day; and think of the giant, sophisticated pipelines leading from those storage units to factories, stores, offices and homes. They are fantastically complex networks.

That's much of what Pendse works with: Routers. Storage. The big stuff.

Pendse, according to WSU officials and also Internet-savvy people here, is one of the more important inventive minds in the new Information Age.

There is proof of this.

Cisco, the world's leading information technology company, fell in love with Pendse and his students years ago.

Cisco is huge: Pendse himself said about 80 percent of all the information technology that flows in the world on any given day flows through Cisco technology.

Cisco has given \$10 million to WSU to create a Cisco research center, in which Pendse and his undergraduate and graduate students do research projects and solve problems for banks or libraries or governments or the military or companies from around the world.

When the Royal Canadian Mounted Police provide security to the 2010 Olympic games in Vancouver, they will be able — thanks in part to Pendse and his research center and his students — to track where every one of their weapons or armored vests are located at any time of the day.

Cisco's interest in Pendse began a little over a decade ago when top company officers including Joe Pinto began noticing that some of the bright young workers they were hiring came from electrical engineering classrooms at a university in a place some people knew little about: Wichita, Kansas.

One day, as Pendse tells it, Pinto — now a senior Cisco vice president — talked to Pendse on the phone, praised the quality of his students, and told him, like any polite person would, to drop in on Cisco sometime if Pendse was ever in town.

Pendse said this was years ago when he was a young teacher, a native of India not entirely familiar with American politeness or culture.

"I thought the guy from Cisco actually meant it," he said. "So I bought a plane ticket and went out there and showed up in Joe Pinto's lobby. And his secretary asked if I had an appointment. I said I didn't know I needed one, that Joe Pinto asked me to come see him.

"We've been close friends ever since," he said.

That friendship and the respect Cisco developed for WSU has meant millions of dollars; and it could mean more.

Provost Gary Miller says WSU is already a force in the networking world and will become much bigger. He said Pendse's Cisco research center will become to the information world what WSU's National Institute for Aviation Research has become for global aviation.

This comparison delights Pendse, in part because NIAR's executive director, John Tomblin, is one of Pendse's closest friends. Tomblin, like Pendse, is a scientist/administrator who gets wildly talkative when talking about ideas, arms waving.

"You should see the two of us when we get together," Pendse said. "A total nerd-fest."

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Pendse is vaguely aware but intensely dismissive of the inferiority complex that many Wichitans so openly show about their hometown.

He thinks the inferiority complex is way off base. There are brilliant scientists here, he says. Brilliant thinkers.

But that's not what he likes most about Wichita.

He thinks Wichita is the greatest place to live on the planet. And though he's a self-confessed nerd, and though much of the reason he stayed here is because WSU has brainy students and brainy scientist administrators like Miller, most of the reasons Pendse stayed here to help reinvent the world had nothing to do with brains and everything to do with human connections.

He was in the audience in April 2008 when WSU president Don Beggs surprised a few people and picked a 43-year-old hometown guy from Wichita named Eric Sexton to be WSU's new athletic director. Sexton, from a Wichita family with long ties to WSU, talked about how much he loved WSU. Sexton spoke eloquently about his love for this place, and he started to choke up.

And Ravi Pendse, a native of India, an electrical engineering nerd with none of Sexton's deep ties to Wichita, felt tears running down his own cheeks.

He had come to WSU because his father feared much of America but trusted the engineers at WSU to watch over his son.

"You want to know what this place is like?" he said the other day.

This summer, he decided one day to walk to the campus on a hot day from his home in Bel Aire. Exercise is good for you, he thought.

He took a water bottle and headed south on Oliver, past 37th North, past Chisholm Creek Park.

He hadn't checked the weather, so the brilliant scientist didn't realize it was 104 outside. But other Wichitans did.

Along about 29th Street, somebody stopped and asked him if he needed a ride. It was a WSU employee. Exercise is good, Pendse thought, so he said no and kept going.

"But by the time I got to 21st and Oliver I'd been stopped six times," he said. Some were WSU people; some were not. All of them just wanted to help.

He finally conceded to the generosity and crawled in beside a WSU student.

He says Wichita is a place where it does not matter what you're doing, somebody always interrupts you to do something nice for you.

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