Women in IT: Success and Struggle

By Ellen Messmer , NetworkWorld   Aug 20, 2009 6:01 AM

Though IT remains largely a male-dominated realm in the United States, women are now believed to constitute 15% to 25% of technical professionals -- though women's ranks in management are about only 8%.

Slideshow: A closer look at nine women in IT

A rare few, Eva Chen among them, have made it to the top.

"I was always interested in writing programs, I wrote Fortran and Cobol," says Chen, CEO of Trend Micro, who recalls she was a typical code-writing "geek" when she founded Trend with her sister and brother-in-law in 1988 after coming from Taipei for graduate study at the University of Texas.

Chen, studying international business management, was involved in projects at the university's computer lab using an IBM 4381, and "I wanted to be the teaching assistant." But the lab teacher said she had to focus on getting a degree in information systems to do that. So she did, and that helped put her on a path to found Trend Micro, becoming its chief technical officer, which eventually involved managing 1,200 engineers.

"I remember saying I couldn't handle more than 10," Chen says, "then it grew." In 2004, Chen became CEO of publicly traded Trend Micro, today one of the larger antimalware security vendors with a global presence.

When it comes to sources of inspiration, Chen says she's thankful for a family that voiced belief in what women could do, including a grandfather in Taiwan, a legislator who helped overturn archaic laws there that prohibited women from owning inherited property.

But for women IT professionals, it's not always an upbeat story.

There's troubling evidence that some high-tech firms are pushing highly educated female workers to the brink of burn-out in a business atmosphere that expects round-the-clock hours, is brutally dismissive of family life and marginalizes them in a sea of highly educated men.

"In high-tech companies, 'flexibility' often means staying until midnight coupled with the expectation of increased productivity and constant availability," concluded a recent report entitled "Climbing the Technical Ladder: Obstacles and Solutions of Mid-Level Women in Technology."

The extensive report, which took a year to complete, was done by researchers from Stanford University and the Anita Borg Institute for Women and Technology, supported by HP and others. The researchers surveyed 1,795 mid-level technical professionals in seven high-tech firms in Silicon Valley and the San Francisco Bay Area, not disclosing the names of the firms which allowed them access.

Survey participants were both mid-level men and women about a decade into their careers and making salaries topping $125,000. But the study found the go-go life of the Silicon Valley/Bay Area was hitting women harder than men for a number of reasons.

One was simply that the mid-level technical men who participated in the study were far more likely to have a spouse or partner who didn't work full-time and accepted the main responsibility for the household, including children. In contrast, the technical women

usually were married or partnered with professionals like themselves - but the women were the household managers.

"They call it the second shift," said Jerri Barrett, director of marketing at Anita Borg Institute for Women and Technology, who notes these women might be doing their business job at home into the night but their lack of visibility at the office made it look like they aren't involved.

The researchers found a third of the women interviewed had decided to delay having children in order to achieve their career goals, while 18% of men indicated the same. And for the sake of their jobs, 9% of the surveyed women decided to forego children completely, compared with 3.5% of men.

Men and women alike largely agreed the Silicon Valley/Bay Area high-tech work experience was decidedly anti-family. And for women, this also meant a sense their careers were stalling. In fact, women were stereotyped as "family focused" and "unwilling to travel, and are more likely than men to be passed over for promotions," concluded the report.

"The high-tech work pace is so extreme that academic researchers refer to it as a work-family 'conflict' rather than work-family balance," the report noted. "Work-family conflict hits women at the mid-level especially hard. When the demands of family life are irreconcilable with work responsibilities, women are often forced to choose between work and family life in this 'all or nothing' proposition. … When it comes to providing opportunities for technical women, high-tech firms lag sharply behind those in other sectors."

The Stanford/Anita Borg Institute report offered few answers besides "flextime" and "mentoring" to keep women from deserting Silicon Valley high-tech jobs; the report notes other research indicates women are jumping ship at rates far higher than men.

But women who have managed to conduct tech-oriented careers across industry, academia and venture-capital firms tend to be enthusiastic advocates for it because their chosen fields are often exciting, sometimes lucrative and encourage innovation.

"I'm part of the advanced technology group and we do the software development," says Grace Egan

, vice president of engineering product management at Time Warner Cable in Broomfield, Colo. The goal for Egan is managing the in-house engineering team, sometimes working in parallel with outside vendors, to work with business management to come up with new digital services, such as networked DVR. "It's cool," she says.

It doesn't particularly bother Egan that most of her career, which includes stints at Prodigy Services and MCI, she has been one of the few women in a male-dominated field - just as the handful of women engineers on her staff of 50 are today.

"I had four brothers and played a lot of sports," says Egan, a mother of two. "You build confidence in yourself. Sometimes you do look around the room and say, 'I'm the only lady here.' But you just become one of the players."

Nonetheless, women in IT acknowledge they find a kind of refuge in women-only conferences, such as next month's Women's Executive Forum, run by Joyce Brocaglia, CEO of recruiting firm AltaAssociates   , which specializes in IT security recruitment on the executive level.

"I look forward to it because it's one of the best networking events," says Maria Cirino

, managing director of Boston-based venture capital firm .406 Ventures (.406 being a reference to the batting average of legendary Boston Red Sox player Ted Williams). Williams "wouldn't swing at just anything that came at him in the strike zone," says Cirino, who says she and her two business partners, Larry Begley and Liam Donahue, strive to keep that philosophy.

The firm .406 Ventures has closed $170 million for its investment

fund. "We did it the old-fashioned way," Cirino says. "We had 800 phone calls, 343 meetings and got 20 yes" answers to drum up money from investors. The firm has invested in more than two dozen start-ups, including Veracode and Bit9.

Cirino, also founder and former CEO of Guardent, which was acquired by VeriSign, says the vast majority of the firm's investments are doing well, even in the current dismal economic environment. One investment, Health Dialog, recently sold for $780 million to a British consortium.

In addition to the Women's Executive Forum, Cirino will also attend another women-only event, the <u>Women's Private Equity Summit</u>

-- and is taking a ribbing from her male colleagues about "chick boondoggles."

Though some may object to the idea of retreats based on gender, many women insist that female-only gatherings are where they feel there's a level of candidness and camaraderie, a kind of re-energizing, that's hard to find in the usual conferences that are mainly men.

Cirino says sexism may exist in some areas of IT but she hasn't experienced any. But she adds, "IT is a demanding industry, and for a lot of women, it is about choices. But it's not fair to say you can't have a family."

In some parts of the world, the idea of women in traditional male job roles is simply rejected in business - by men at least. This means when women IT professionals walk into such situations, they find themselves treading gingerly - often using male associates as cover, making them the main presenters of ideas they would otherwise be the first to express.

<u>Rhonda MacLean</u>

, who now heads up her own consulting firm MacLean Risk Partners after a long career that saw her become head of IT security at Boeing, Bank of America and Barclay's, has been in different countries where it was obvious that businessmen who arrived for a meeting simply had no cultural basis for interacting with women equally in positions of authority.

"I knew it was tough for them culturally," MacLean says. "I also felt it was more important to respect others' cultures." So, in these circumstances, she would prep "a couple of my guys to lead the discussion, and I piped in when need be."

Many women professionals cite these kinds of experiences abroad. But such instances are not the norm today, and MacLean says she encourages young women - as well as racial minorities not yet largely visible in the world of IT - to consider high-tech a great field to enter.

"I achieved more than I ever dreamed," says MacLean, whose career began at Lanier Business Products selling office automation equipment when Boeing asked her to set up its first office automation program.

At the time, she was a single mother with two children in the aftermath of a divorce. Her mentor was Texas lawyer Joe Roady, for whom she worked as a legal secretary, who told her she could be whatever she wanted to be.

"I loved solving business problems," MacLean says, adding the secret is to surround yourself with smart, hard-working people … and listen to what they have to say.

<u>Patricia Titus</u>

, CISO at Unisys, found her enthusiasm for high-tech was ignited while in the Air Force assisting in intercepting Russian Morse Code communications during the Cold War. Living with her two children later in the Washington, D.C. area, she ended up at a company called Auspex Systems, learning to be a systems administrator mainly through on-the-job training.

Later she joined the Treasury Department as a technical adviser to the CIO Jim Flysik, eventually taking on a security role, all the while spending time listening to engineers at work and in conferences who loved to share their knowledge.

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"I enjoyed their intellect and dialog," says Titus, noting, yes, it was usually a room full of men and a few women. "The men wanted you to be successful, too."

She credits John Stewart

, now CSO at Cisco, for providing encouragement back in those early days.

After the Sept. 11 terrorist attacks, she joined the Transportation Security Administration (TSA) and got involved in IT security deployments there as CISO.

Now CISO at Unisys, where her job is coordinating with dozens of people for the Unisys network strategy and services, she's glad things have turned out as well as they have. Married last year to the acting CIO of the Department of Labor, Tom Wiesner, with a grown daughter now working in IT in government, high-tech has become a family affair.

Some women say they found themselves stepping up the ladder for ironic reasons.

Emma McGrattan

, who manages the engineering team at open-source database firm Ingres, said back when Ingres was owned by CA, she was working for the then head of engineering, who gave her all his work to do.

"He got all the glory, and I got the hard work," she says. But when he left, it seemed natural to just make her head of engineering, and she didn't even have to lobby for it. About 25% of the Ingres IT engineers today are women.

McGrattan says she always liked computers and programming, and back in a private high school in Dublin, Ireland, her place of birth, an extracurricular computer class on Saturday helped her discover early on what she wanted to do as an occupation.

With it being a majority-male high-tech world, McGrattan says there's a sense of a role model when women like Linda Sanford, IBM's senior vice president of enterprise transformation, climb the ladder to success over the span of their career.

Living now just outside New York City, she says she likes the fact the "job is very portable" and that she manages a team of employees in Europe and America, which makes it fairly convenient to let her pop over and see her family in Ireland.

Sherita Ceasar

, vice president of cross-platform applications and engineering services at Comcast in Philadelphia, is in charge of about 60 employees, mostly engineers, to develop digital services that increasingly blend elements of the telephone, TV and PC.

A graduate of Illinois Institute of Technology with a master's degree in mechanical engineering, Ceasar relishes leading a development team responsible for defining road map services at Comcast. As an African-American woman, she is a statistical anomaly in the broader ranks of high-tech upper management.

As to the early factors that contributed to her ability to excel academically, Ceasar credits the Illinois Institute of Technology (IIT) program of 30 years ago which had an "early identification program" that went into high schools to encourage students with the top grades to go into engineering. It was a successful program, she says, that attracted a significant number of African-American students, in addition to all manner of young adults, to enter engineering through work-study programs and stipends. That IIT program has unfortunately not been kept vibrant, but there are efforts to revive it, and the country as a whole would probably benefit from similar efforts, she says.

"The journey for women is not paved so smooth that we can be complacent," Ceasar says. "But I think that times are truly evolving in a positive direction."

Tyelisha Shields, a young African-American woman who hails from Concord, N.C., can testify to the power of mentoring that helped her pursue her goal of a master's in

testify to the power of mentoring that helped her pursue her goal of a master's in computer science and information security at Carnegie-Mellon University's Information Networking Institute. Shields, who has a B.S. in computer science, has received a scholarship to study at the graduate level at CMU, thanks to funding provided by the Executive Women's Forum (EWF) scholarship program.

Grateful to <u>Dena Haritos Tsamitis</u>

, director of the CMU program, and Joyce Brocaglia, who heads EWF, Shields says she's determined to make it, despite being brought up in a single-parent home, noting graduate work is important to be competitive in today's job market.

But Shields also notes the irony that she is the only American in her current study program, with most of her classmates from India and elsewhere.

"The majority of my classmates are foreigners," she says. "And my Southern accent is hard for them to understand, and their accents are hard for me to understand." That has the impact of isolating people.

When the 1950's musical "My Fair Lady" had the fictional British Professor Henry Higgins singing "Why Can't a Woman be More Like a Man?" there was nobody on stage to sing back an answer. But Haritos Tsamitis observes that young men and women don't necessarily find the same things appealing.

When male students want to take a break, she notes, "they tend to do paintballing or touch football or go drinking at the local pub or smoke cigars," activities that female students seldom chose.

To give female engineering students alternatives that allow them to "just be themselves," says Haritos Tsamitis, there are separate activities for them, "like chocolate tasting or watching a chick flick."

The male students are invited to attend special events hosted by the women's group, though some male students may complain about why there's a separate group for women at all and not one for men. It's a debate she knows will probably always be there, but Haritos Tsamitis says this women-only group "creates an opportunity for women to connect and create professional development through mentoring."

Some women in the IT field say mentoring is something they say they benefit from well into their careers.

Women in Cable Telecommunications (WICT) is a 30-year-old Chantilly, Va., organization dedicated to women's participation in that industry, pay equity and women's advancement. It fosters leadership training in which small numbers of professional women join retreats in their vicinity for management-style confabs with their female peers.

"It was a godsend," says Egan, noting her company Comcast has backed the effort. The WICT estimates that 15% of all technology jobs in the cable telecommunications industry are held by women - which includes designing or deploying software and hardware - based on information provided by the industry.

"Having more women gives a balance of perspective, it's a diverse set of experiences," says <u>Vicki Hamilton</u>

, senior vice president for enterprise performance at Turner Broadcasting System's operations and strategy group, who leads a team of 10 that takes responsibility for high-tech projects across Turner to align with business goals.

Women are major purchasers of high-tech software and services, and having them there contributing to their development just makes sense, say many women professionals.

One analyst who has watched the world of high-tech and executive management for a long time say women professionals do tend to bring a certain "sensibility," especially in communications skills often defined as "'female traits" that men should be more inclined to emulate, not disparage.

Men too often try to lead through directives, says David Foote, CEO and chief research officer at consultancy Foote Partners.

"Look, I've said to male executives, taking them aside when I was sure none of their employees were listening, and told them that the military-style command and control isn't working, you need patience, listening is an intuitive approach to effect change," Foote says. "I've said, seriously, if there's a lot of 'female' in you, that's a good thing, not a bad thing."