

Newbies: How to Break

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The road map to a successful career in information technology is as varied as the people and job roles in the industry. From technicians to CIOs to professors, the path to an IT career includes twists, turns, redirections and fresh starts.

Daniel Stevans, senior computer service technician for BancTec in northern New Jersey, started tinkering with computers when he was 12.

"I always had access to second-hand computers," he said. "I enjoyed the troubleshooting, and I was very, very good at it. It's second nature to me."

For Wade Johnson, IT came after more than a decade working in the construction industry.

"I started doing some PC assembly and repair as a part-time thing to help out a nonprofit and found that the aspects of helping and working in IT to be rewarding," he said. "It was at that time I realized, through IT, I could make a tremendous difference for many people in bigger ways than I ever thought possible and still manage to earn a living at it."

Today, Johnson owns his own company, Couri Technology, in Westminster, Md.

Sandra Daniels, associate professor of IT at New River Community College in Dublin, Va., made several stops before reaching her career destination.

"I had been an elementary teacher, an insurance adjuster, an employment company manager and a few other things," Daniels said. "I ended up where I am because I took advantage of each opportunity as I found it. Every job contributed to my understanding of business and technology. Each job helped me develop my people skills."

Although there's clearly no single path that every newbie looking to break into IT needs to follow, there are some characteristics and traits the IT professional will encounter on the career path. If education has its Three R's, students interested in technology careers must master the Four P's: passion, preparation, patience and, for the IT worker of the 21st century, people skills.

Computer, Tech Jobs in High Demand

In today's high schools, colleges and training centers, there's another "P" that instructors must overcome:

perception. Many people incorrectly assume technology is a dead-end career. But in reality, technology is the most important factor driving the global economy, and its importance will continue to grow.

Overall, IT employment in the United States climbed a little more than 4 percent in 2006. More than 3.6 million people work in IT. Technology is at the forefront of several job categories projected to see significant growth in the next seven to 10 years. In fact, computer-related occupations account for five of the 20 fastest-growing occupations in the U.S. economy, according to the U.S. Department of Labor's Bureau of Labor Statistics. Only health care, with 12 occupations, holds more spots in the top 20 list. The most in-demand computer jobs are:

- Network systems and data communications analysts (ranked No. 2).
- Computer software engineers/applications (No. 5).
- Computer software engineers/systems software (No. 8).
- Network and computer systems administrators (No. 11).
- Database administrators (No. 12).

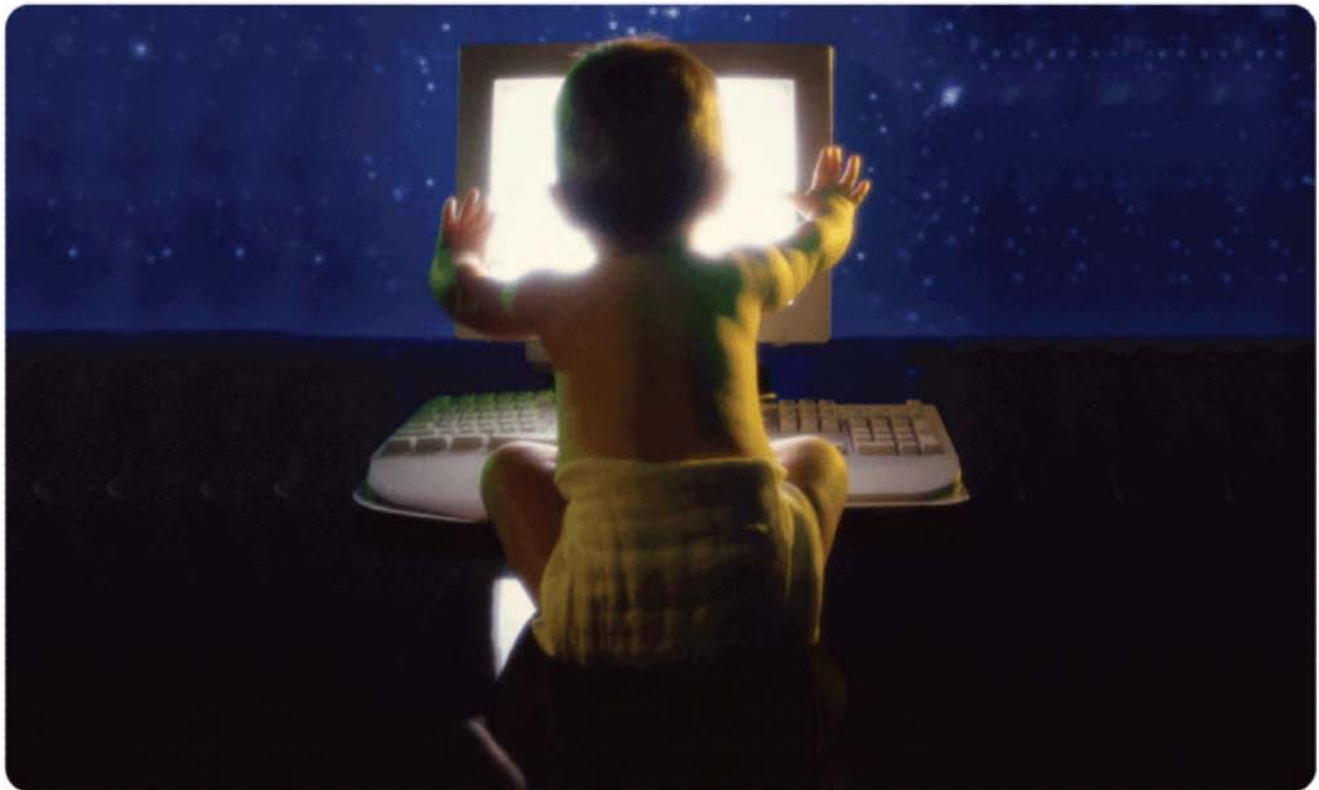
There's more good news on the horizon for the next generation of technology workers. Jobs in the information sector also are among the fastest-growing, including software publishers; Internet publishing and broadcasting; and Internet service providers, Web search portals and data-processing services. Employment in these industries is expected to grow by 67.6 percent, 43.5 percent and 27.8 percent, respectively.

The information sector also includes telecommunications and broadcasting. Increased demand for residential and business land-line and wireless services, cable service, high-speed Internet connections and software will fuel job growth among these industries.

Yet, despite these positive trends, many IT instructors say they still must convince many students that technology offers opportunities for a rewarding career.

"We're still faced with the obstacle that many students think these jobs have gone overseas," said Clyde Cox, professor of computers and internetworking technologies at the College of DuPage in Glen Ellyn, Ill. "We're overcoming that by telling them that

Into the IT Industry



the jobs we are preparing them for are not the jobs that are being outsourced. We're preparing them for the jobs that businesses of all sizes need."

Scott Horan, resource teacher and IT internship coordinator for Jefferson County Schools in Louisville, Ky., agrees.

"We just had a 550-seat repair center open up for BestBuy in Louisville," Horan said. "If you're looking for hands-on stuff on-site, you can't do that from India."

One way the College of DuPage turns around misperceptions about IT as a career is through an introductory class on how to build and repair a personal computer.

"I ask them why anyone would want to fix a PC when you can buy a new one for a few hundred dollars," Cox said. "They finally realize that the invest-

ment is not in the physical PC but in all the applications and data the PC allows you to create. What business or industry doesn't use computers? This is everyday, mainstream stuff that's needed by every business and industry. The next step is getting them to understand how computers communicate in a network, and from there, why security of computers and networks is so important. When they leave the class, they realize there is a need and a demand for these skills."

Charles Willard, career cluster manager for IT in the Department of Education to Careers for the Chicago Public Schools system, said his students respond to the visual aspects of technology.

"They see technology as a viable career choice when it relates to things they can touch and feel," Willard said. "They know that technology touches music, video, Disney-like graphics and gaming. It

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whets their appetite and gets them to the table. Kids today are very visual-oriented. The Flash gets them."

Another challenge IT instructors have is getting their students to realize that a career in technology doesn't necessarily mean they'll be working for a tech-product manufacturer or solution product. In fact, more often than not, they'll be holding a technology job in another industry.

"Everything has technology — the local hospital, the bank, the advertising agency," said Salvador Contes Jr., director of instructional technology, professional development at Brooklyn Technical High School. "We try to show that to the teachers and the students, but it's a challenging issue for us."

Seize Opportunities

Once you're convinced an IT career is right for you, what's the best way to prepare? The consensus among IT professionals now in the business is to combine education and a foundation-level professional certification, with a broad array of experiences mixed in.

Contes said students need to constantly strive for more education.

"That's the biggest part to get across but also the hardest part to get across to students: Students need to seize opportunities when they come around," he said. "If you want to be a game designer, don't spend all your time playing games. Find a niche that may be related, for example, as a graphics designer for the school newspaper, yearbook or Web site."

Patrick Brown, network analyst for the Department of Criminal Justice Training in Richmond, Ky., agrees.

"Not everything that you learn about computers or networking is going to come from a book or sitting in a classroom," he said. "Try to get as much hands-on experience as you can. See if your school offers a co-op program where you can get some experience."

Daniels recommends students try to get a feel for multiple types of IT career opportunities.

"Sample as many facets of IT as you can through college study, interviewing IT workers and reading trade journals," she said. "And get experience through volunteering, job shadowing, service learning, internships and part-time jobs while you are in college."

It's never too early to start building a network of personal and professional contacts and acquaintances.

"You never stop learning," said Brian Gibbs, Websense Inc. senior technical support specialist. "To stay ahead of the curve, you need to spend time with other people in the field. Join a local computer society or club to meet other people in IT."

Students should stay in touch with teachers and counselors after graduation because they can be a useful information source on career opportunities and options, Contes said.

Willard advises his students to take a job in an area where the technology in which they are interested exists, even if it isn't the ideal job.

"The sooner you make a choice, the sooner you can start to focus on the areas that will lead you to a successful career," he said. "Being inside is a much better way to hit your target than being outside. Once you get inside, let it be known that you are eager to learn all you can."

Even with a looming shortfall of IT workers, employers are more demanding and selective in their search for technology workers. Individuals who secure jobs in today's tech workplace are equipped with greater versatility and a broader skill set than what used to be required. People who want to be in IT need an edge, a means of proving they can do the tasks assigned, and professional certifications are a step toward that proof.

The building blocks of an IT career should start with CompTIA A+ certification, said Christopher Zolinski, IT professional at Hurley Medical Center, a 461-bed teaching medical center in Flint, Mich.

"It builds a good base of hardware and software technology," Zolinski said. "Couple that with an internship. There are many opportunities in the job market."

In the Chicago Public Schools program, which has more than 7,500 students, the focus is on preparing to sit for CompTIA A+ and Network+ certifications.

"They are very foundational and give the kids a real flavor for the entire industry," Willard said. "Those two courses will put them in good standing. If you get certified, it gives you a chance to have a better quality of life. You can pursue secondary education or better career options."

The right certification makes an individual more marketable. Unless employers are familiar with job candidates' schools or their previous employers, they have no independent means of assessing the rigor of a program or experience. When job candidates come to an employer with a degree and recognized,

accepted professional certifications, it gives the employer more to go on.

"Imagine you're certified with a degree — you've made yourself even more marketable," Contes said. "Companies are looking for people with both credentials."

For individuals new to the employment market without a great deal of experience, the combination of an academic degree and an industry-recognized certification puts them in a stronger position when job searching.

"We've come back to a time when the craftsman is supreme once again, and the certifications are one way to ensure that you are getting a craftsman," Willard said. "Upper-management can't keep pace with the pace of change in technology."

Geeks with Soft Skills

The role of the IT professional is more strategic for organizations, and technical skills alone are no longer enough for most IT jobs.

"Employers tell us, 'We don't need more geeks. We want somebody that we can put in front of a customer,'" Cox said.

He also said some companies are willing to pay up to 40 percent more for workers with the abilities to interact with customers.

"A lot of companies are frustrated with getting technical support from individuals who have difficulty in communicating, in being able to articulate anything to them," Contes said. "The explanation piece is vital. Soft skills must be part of the curriculum — not only are these skills important in the workplace, but it lends itself to getting internships and scholarships."

To maintain their relevance, IT certifications must be continually evaluated and updated to keep pace with the changing requirements of the workplace. Employers want IT certifications that cover both technology essentials and the specialized skills required in different job roles.

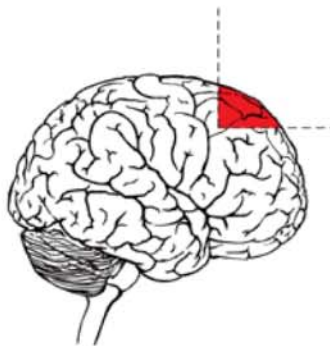
For example, including some element of soft skills in the certification process demonstrates the need for IT workers to be able to interact and communicate — both verbally and in writing — in a clear and professional manner with co-workers, customers, partners and others.

"We're requiring students to become more active in making presentations," Cox said. "We have class requirements on professional development: putting together a resume, making presentations. The communications and presentation skills are a scary thing for a lot of them."

More than ever, companies value employees who can think strategically and communicate effectively, as well as those who possess strong business fundamentals.

IT workers who understand how to use technology to meet business goals, and who can articulate this understanding, are golden in the eyes of employers. 🧠

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