



Preparing Young People Who Have Disabilities for Careers in Technology

By Carrie Smoot

Preparing for technology careers starts with the students,” says Neil Costello, an employment and transition representative at McLean High School in Va. “We look at their career goals, their Individual Education Plans (IEPs), reasonable accommodations and class schedules to make sure that their course load is preparing them for a technology career. We also have them work with the Integrated Technology Services Office about any assistive technologies that they need, such as voice recognition software and onscreen or touch keyboards.

There are virtually no barriers to a student with a disability succeeding in this field,” Costello adds, noting that students will attend Northern Virginia Community College’s technology programs, a four-year college, ECPI® College of Technology, a local technical school, and other training options, which include programs within Virginia’s Department of Rehabilitative Services.

According to Costello, all Fairfax County Public Schools offer Web development, programming, beginning and advanced information systems, and graphic arts; many teachers sponsor after-school physics, rocketry and Web design clubs; the County offers Academy classes in technology for juniors and seniors; and yearlong academies offer professional classes in A+, Cisco Systems, Oracle, graphic design, web page development and more.

Become an Effective Self-Advocate

Costello coaches students about interviewing and marketing themselves and being good self-advocates. McLean High School students have had IT internships, job shadowing, volunteer experiences or part-time jobs at such places as Booz Allen Hamilton, database work at Cherry Engineering Support Services, Inc. (CESSI), programming opportunities within the school system and at Baker Botts and Mayer Brown, two Washington D.C. law firms, and opportunities at Richards Computer Repair.

“Start career exploration early,” Costello advises. “Transition planning is a process. You don’t just snap your fingers and have everything magically fall into place.”

“Parents can help teens by teaching them self-advocacy skills and fostering understanding and acceptance of their disabilities. Also,

parents can assist with identifying a student’s strengths, skills and potential career interests. Parents can encourage extracurricular activities that expand student experiences and provide opportunities to validate interests. When the student accesses vocational rehabilitation services, the counselors can assist with issues like disclosing a disability, using assistive technology, preparing for interviews and fine tuning job search skills,” says Lori W. Briel, M.Ed., coordinator of postsecondary initiatives with the Rehabilitation Research and Training Center on Workplace Supports at Virginia Commonwealth University in Richmond, Va.

Briel says Worksupport.com gives young people with disabilities and their families resources and information to begin planning and preparing for employment. Through webcasts, fact sheets and research articles, families and students with disabilities can become familiar with how to address specific employment challenges and to be successful in their careers.

Take Advantage of Programs and Resources

“If your child has an interest in technology, have the student talk with the local high school guidance counselor to find out about potential careers and educational requirements. It is also recommended that students visit work sites or talk with individuals in the technology profession to find out more about those types of jobs,” she says. “By accessing hands-on experiences, students are better able to make career decisions and find a field that matches their skills and interests.”

Briel says teens should take advantage of all technology programs and resources, both local and out-of-state. “It is important that students take the necessary classes in high school that will prepare them for the college application process and that students have access to all information in the math and sciences. Make sure you are taking the right courses in high school so you will meet college entrance requirements. It’s best to choose a school offering internships, co-ops and other work experiences.”

Find an Employer with the Right “Fit”

Melanie Porter has worked as an associate in IT strategy at the McLean, Va., headquarters of the consulting firm Booz Allen Hamilton for four years. She loves her job, and it builds on her performance management and psychology background. “In consulting, you are working with so many different people and industries, and

that is very exciting," she says. Porter chose Booz Allen because of its commitment to diversity, including understanding of disability issues. Porter encourages students with disabilities to be as active as they can in clubs and organizations in high school and college, which prepares them for leadership roles later.

"The more comfortable you are with your disability, other people will be, too," Porter says. "During a meeting, I sometimes tell people that not only is it difficult for me to take notes, but it also interferes with careful listening. Other members of my team help out with note taking."

Porter has Stargardt's, a degenerative eye disease. Since college and grad school, she has used a closed-circuit television to read printed material. ZoomText, the magnification software made by Ai Squared, has also helped a great deal.

Lift, Inc., Trains and Places Professionals Who Have Significant Physical Disabilities in IT Jobs

Since 1975, Lift, Inc., in Warren, N.J., has hired, trained and placed professionals who have significant physical disabilities in information technology jobs. This national nonprofit corporation recruits in Virginia and metropolitan Washington, DC. Lift is known for telecommuting, if the worker wants to try that option, with the requirement of going to the office at least one day a week. Lift is unique in that it employs individuals in yearlong contract positions at corporate client sites, leading to direct placement, and Lift staff help smooth the transition for assistive technology, reasonable accommodations and ensuring the best fit.

Jacqueline Yee, 24, works for Lift as a trainee programmer-analyst assigned to the New York Life Insurance Company. At the end of her contract employment, she expects to be hired full time at New York Life. She has spinal muscular atrophy and uses a wheelchair. She completed a B.A. in mathematics and a minor in chemistry. She also has a master's in math.

"As a child, I had a stronger interest in the fine arts, but as science became more challenging and complex, I became more interested in this field. My interests in problem solving and logic are well suited for working in programming. Wonderful precalculus and calculus teachers in high school challenged and excited me. My high school chemistry teacher showed me how science can be creative and entertaining. In college, amazing professors showed me that math and computer science are both an art and a science."

For students who hate math, Yee advises, "Stick with it and put in the time necessary to master the concepts. One of my college math professors told his students that math is not a spectator sport. Practice is of the utmost importance. Math is powerful and really not that hard. Break things down. Brainteasers, fun facts, and math jokes (yes, math people have a sense of humor too!) can be a lot of fun."

A few adjustments in class and at her workstation make Yee very

productive. "I am enjoying learning about the insurance industry and the technology implemented to support the company," she says. "The first three months spent at New York Life, I participated in a COBOL (COmmon BUiness ORiented LAnguage) class. In the training room, I was given a larger monitor, raised on monitor risers. I have an onscreen keyboard, which I use to do all of my typing. I was also given a wireless optical mouse, which I need due to my limited mobility and strength. A copyholder was also provided so that I could look at handouts and books during class. I have the same setup in my cubicle. I also have another onscreen keyboard that allows me to log on to Windows. It is an image of a keyboard that is on the screen. I use the mouse to press on the key that I wish to type. I have a wireless headset to use with my telephone. To create more room in my cubicle, the office layout was changed," she says.

"In COBOL training, my entire day was spent in class. The only day I had off from class was Friday, when I worked on class projects. Now that class is over, the first thing I do when I arrive in the morning is check my e-mail to see if I have received any new assignments, and to check the status of those on which I am currently working. I spend the day writing and modifying programs and JCL (Job Control Language, the code used to execute programs), running tests, and creating reports. I frequently consult with my manager and teammates," she says.

Kevin Cheung is another Lift employee. He works under assignment to IBM in San Jose, CA. Cheung, who has a spinal cord injury, loved attending the University of California at Berkeley, and describes Berkeley as very welcoming to people with disabilities. Cheung majored in cognitive science, with a computational modeling concentration. He

describes the required neuroscience, philosophy, and especially linguistics classes, as "fun," but knew he'd end up working in the IT field.

"My dad bought me an IBM XT when I was about six, thinking I might take it to college with me, but computers seemed kind of scary and delicate until I learned to use them as toys. I thought I'd go into technology as a career once I was 12 or so, when my neighbors introduced me to computer games and programming. Ever since then, computers have been a hobby of mine, and, I assumed, would eventually pay my bills. The job title 'technical writer' sounded appropriate to me before I knew exactly what one did. I met with a technical writer to learn more about the field, but never pursued it further until Ron Kozberg at Lift mentioned there was a writing position open," he says.

Cheung says his injury only kept him away from computers for four months. "The only specialized equipment that I use at work are my hand splints. Otherwise, I use off-the-shelf equipment like

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