IT Career Development of the Future

Due to the shifts within information technology—shifts such as cloud-sourcing and a renewed focus on academic technologies—IT staff skills need to evolve continually. In recent years, there has been much discussion about the strategic IT competencies that are needed today: “business analysis skills, relationship skills, understanding the value of IT to the organization, navigating internal politics.” As Timothy Chester, Vice Provost for Academic Administration and Chief Information Officer at Pepperdine University, wrote in an earlier EDUCAUSE Review Viewpoints column: “Those of us in information technology must . . . acknowledge that our long-term success will be based on our willingness to accept a new maxim: that technical skills no longer matter.”

I recently had a conversation with a colleague about what services our IT organization provides and what our role is on campus. My colleague described our role as “provisioning technology.” I countered with a different view, seeing our role as “solving problems,” typically with a technology solution. This conversation represents two different perspectives of what the IT organization does and illustrates that not all IT staff see it the same way. I believe that to build a career-development path, we need to focus on solving problems, through the provision of technology.

Doing so introduces several challenges:

- How do we recruit staff with new competencies while we still need specific technical skills for current services?
- How can we identify the potential in staff who have narrow technical skills?
- How can we move staff toward developing the needed new competencies?

As colleges and universities move away from directly supporting services to outsourcing services and as legacy technology skills fade, what new opportunities will emerge? How do we build staff members’ skills to make that transition and encourage self-development?

Shifts in Core Competencies

For an IT organization to provide a strategic role, it needs a team that can collaborate with business units to identify the problem to be solved and a team that can develop a relevant IT strategy. It needs staff who have specific technical skills but are able to develop the new core competencies that are less about the technology and more about being an effective IT partner. IT staff should be able to understand and apply future IT trends, have an awareness of the IT environment, and be able to adapt new technologies to improve business processes. IT staff also must understand business processes and the diverse needs of users to design appropriate and forward-thinking technology solutions.

So, how do we shift the professional-development thinking from building a highly technical workforce to shaping one that is oriented toward processes, services, and problem-solving? This is not a radical idea: the need for these new core competencies has been identified in recent years. However, we have not yet outlined a clear vision for building this shift into an IT career-development path.

Typically, enterprise computing looked for staff that could run systems or program in specific languages. The path to these jobs was highly technical and required specific training. Careers in academic technologies did not even exist years ago; it was not until relatively recently that a career as an instructional designer was something that one could train for or be educated in. In the past, staff in this area often came from varied disciplines and adapted their skills as the technologies emerged. In fact, this evolution could be seen as an illustration of how skills can be used with new situations and technology applications. The ability to think critically and apply solutions can be universally applied to emerging technology challenges.

Early in my career, for example, I was discussing with a mentor how my skills supported a consulting client. The mentor told me that it was not my IT skills the client needed but, rather, how I thought and developed solutions. Since then, this comment has resonated with me over the years as my IT-related roles have changed continually. What was it about my education and IT orientation that was flexible enough to adapt to an ever-changing IT landscape?

In college, I had taken a programming course, in which the faculty member stressed that the first step in learning to program was solving the problem and laying out the logic. Coding the solution was a secondary step. We spent a lot of time writing pseudo-code and developing flowcharts. When a student asked why we did not immediately start coding, the instructor said that the programming language and technology would change over time. The language we were using then was different in the future. She taught us to think and solve problems, not code in a specific programming language.

In thinking about my education and about this article, I asked a colleague to describe her career progression. She noted: “I had a liberal arts education in college, and I was trained in information technology. I was working for a bank and aced the aptitude test for logic.” She said that she started with an aptitude test for logic
for logical thinking and then found an IT area that she liked and in which she could apply her skills.

Technology has had many changes in the last thirty years. We can look to the staff who not only adapted but flourished over time, even as their original technical skills were no longer needed. What are the characteristics that can be identified? More important, to develop the IT workforce of the future, we need to determine how to build those competencies into a career-development program.

**Building a New IT Career Framework**

Higher education is particularly well positioned in this area, since the educational programs at our institutions include many of the identified core IT competencies. We can recruit and hire students with problem-solving and critical-thinking skills to build the next generation of IT staff. In many ways, the benefits of a liberal arts education can also serve as the basis for a flexible IT workforce of the future. Additionally, many colleges and universities include learning objectives for information and digital literacy as part of their curriculum and general-education requirements. Information and digital literacy requirements are similar to the new IT competencies and could be used as a model for developing staff skills.

One of the key steps in developing a new IT career framework is to chart a career path that provides experiences and builds adaptable skills: “For IT staff to be successful, they need to understand not just technology and related business processes, but also which problems IT can solve (and which it can’t) and how to apply appropriate IT solutions to those problems. IT professionals can help drive efficiencies and improve processes by managing changes that are driven by new technology development.”

An IT organization can support a new approach to staff development by focusing on core competencies that cut across many different jobs, either through staff training or through experiences that build new competencies. To increase problem-solving skills, people need to have problems to solve. To be creative, people need to have opportunities to think about and try creative new approaches. A key component of career development is incorporating these approaches into current responsibilities. In some ways, it is simpler for an IT organization to map out the skills and to provide a program for staff to develop the skills. The challenge for an IT organization is that we may not know what the future holds. How can we design a training or development program for a position that has yet to be defined?

One way to think about this is to consider how to build a workforce of staff who can self-develop their skills and who can then apply those skills as they see technologies changing and new opportunities emerging. The staff skills to be encouraged are self-development and a lifelong approach to learning. In developing a career framework, an IT organization should consider including the following as a key component and objective: “Implement a staff development and career development program to encourage and facilitate staff self-development.”

Within this framework, the organization would need to take an inventory of staff skill sets, identifying core IT competencies and personal characteristics for self-development. This inventory can then be used to identify the appropriate staff for future projects and IT staffing needs.

In conclusion, an IT organization can prepare for jobs that do not yet exist and technologies that have not yet been invented and can shift from a technically based to a process-oriented IT workforce by identifying the competencies of the future, providing opportunities for staff to build skills through experience, and charting a path for self-development as a way to produce critical thinkers and creative problem-solvers.

**Notes**

4. Ibid.

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