Competency-Based Career Ladders for IT Professionals

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with

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Among the major challenges for today’s higher education information technology (IT) organizations are to increase agility and effectiveness. Not too long ago, technology operations were considered a “black box” dominated by specialists who operated data processing centers, built campus networks, installed PCs on desktops, and implemented complex enterprise resource planning systems (ERPs). As technology has become more accessible, however, thinking about the ways end users see the world and helping them use technology to solve problems are now the key issues. Recognizing this need, EDUCAUSE observes, “It’s not about information. Or technology. It’s what we do with IT that counts.” Responding effectively to this challenge will require chief information officers (CIOs) to reconsider the ways in which IT professionals are hired, developed, and retained.

In colleges and universities, central computing service organizations formerly were largely transactional in nature, providing services on demand when requested by departments or administrative units. As administrative systems, portals, collaboration and learning technologies, and technology in support of research have become more important and strategic—and as technologies such as identity management, information security practices, web content management systems, and emergency notification systems have become more closely linked to institutional mission—leaders of technology organizations have been promoted to roles of CIOs and/or vice presidents in university administrations. This change in title, status, and prestige acknowledges the increasing importance of IT. CIO portfolios continue to broaden, and CIOs are held to increasingly higher standards of accountability. Presidents, provosts, and chief financial officers now expect more from IT. In addition to operational excellence, CIOs and their organizations are asked to provide leadership on the best ways to leverage technology to solve problems, create value, and effect change in a proactive way. CIOs are charged with taking ownership of the effective use of IT across the entire institution, including highly decentralized, research-extensive environments.

Faced with increasing expectations, many CIOs staff their organizations with both generalists and technical specialists. This approach is expensive, and it frequently creates confusion for faculty, students, and staff who may ask, “Whom do I contact for help?” CIOs can expect that the IT organizations of the future will be smaller than they are presently. One way to offset this challenge is to leverage the productivity gains that result from having an organization staffed with versatile professionals who can deliver technology and then engage faculty, students, and staff on the best ways to leverage it.

Asked to serve as trusted advisors and consultants who work hand-in-hand with business and academic units to use technology effectively to solve problems, gain efficiencies, improve teaching and learning, and support research efforts, IT professionals have begun adapting to a new reality. College and university human resource (HR) organizations have begun looking at the competencies required for this new role for the IT professional, which has been labeled the IT versatilist.¹
Versatile IT professionals combine deep technical skills (the ability to deliver technology) with competencies such as accountability, communication for results, change advocacy, and business process knowledge. They are trusted advisors and consultants who not only deliver technology services but also leverage their understanding of business and academic processes and disciplines to propose initiatives in a strategic, forward-looking way. Versatilists differ from IT generalists in that they possess deep technical skills. They differ from IT technical specialists in that they also possess the local knowledge and competencies necessary to exercise leadership vis-à-vis the effective use of technology.

From a professional development perspective, the adoption of the versatilist model is an important step for IT professionals. Although these professionals have long enjoyed successful careers based on their technical skills and years of experience, these strengths alone will provide only a limited margin for continued career success. The difficulty will be more acute for technical specialists, who will increasingly be replaced by automation or by on-demand technology available through the cloud, and for those who find their positions outsourced to large, integrated service providers.

In this research bulletin, I discuss how CIOs can adopt the versatilist model for their organizations. The current challenge is not so much to find versatile IT professionals to hire, but rather to reform internal HR practices to develop existing staff into versatilists. In 2007, Pepperdine University embarked on a project to deliver a competency-based set of career ladders for all IT professionals across the institution. Through this exercise, Pepperdine has reorganized its IT practices to emphasize versatility. The results have been very positive: the organization has gained more credibility with faculty, students, and staff, and escalating salary costs have become manageable by aggressively developing our staff and promoting from within.

Highlights of Competency-Based Career Ladders

My arrival as the new CIO at Pepperdine University in February 2007 provided an opportunity to review and assess the effectiveness of HR practices as they related to IT professionals. A key challenge I faced was to move the entire organization beyond the traditional “on-demand” computing service center model. The enterprise demanded more—it required leadership that would close the gap between individuals who deliver technology and those who use it to solve problems and influence change in university-wide processes. IT was expected to assume ownership over the effective use of technology across the institution. Leveraging IT division-wide human resource practices was a key to bringing about the desired change in the philosophy and orientation of the IT organization.

Several opportunities were discovered during the review of HR practices. Career ladders reflected the old computing service model and did not include new functions that had been added over the previous five years—business analysis, information security, ERP development, and program management—and this needed to be addressed. There was
also a need to establish career ladders for leadership, and standards for classifying managers, associate directors, and directors had to be made consistent across the IT division. Position descriptions for many employees required updating. Salary standards had been set using the best judgment of hiring supervisors, usually based on anecdotal evidence instead of actual data, so these standards had to be revisited. Increasing the retention rate was another key objective; when departing employees were replaced, it was typically at a higher cost to the institution—resulting in salary equity issues across some departments.

Based on these needs, I commissioned a project to design and implement new job families and career ladders for all university IT employees. A key element of the project was to include competencies such as accountability, building relationships, communication for results, process orientation, change advocacy, and business systems thinking as a way to address the challenges necessary to evolve the IT organization beyond transactional service delivery. It is mastery of these competencies that distinguishes high performers from low performers. Competencies differ from technical skills in that they emphasize the behaviors and traits that allow IT professionals to effectively and proactively engage others in designing, implementing, and supporting technology services. A key goal for this project was to develop IT professionals who bridge the perceived gap between those who implement technology and those in the university who use technology to solve problems. Developing the competencies necessary to engage the end-user community effectively was judged to be crucial to the IT organization’s ability to meet the increasing demands of the university.

**Competency Dictionary**

A competency dictionary delineates definitions of interrelated competencies that are determined to be key traits or behaviors associated with high performers. For each competency, there are progressive expectations or levels that demonstrate mastery of the competency. Below is an example, from the “communications for results” competency.³

*Communications for Results: Expresses technical and business concepts, ideas, feelings, opinions, and conclusions orally and in writing. Listens attentively and reinforces words through empathetic body language and tone.*

- **Being Developed:** Speaks and writes to peers in ways that support transactional activities. Shares information and asks questions prior to taking action.

- **Basic:** Converses with and writes to peers in ways that support transactional and administrative activities. Seeks and shares information and opinions. Explains the immediate context of the situation, asks questions with follow-ups, and solicits advice prior to taking action.

- **Intermediate:** Conducts discussions with and writes memoranda to all levels of colleagues and peer groups in ways that support troubleshooting and problem solving. Seeks and shares relevant information, opinions, and judgments. Handles conflict empathetically. Explains the context of interrelated situations,
asks probing questions, and solicits multiple sources of advice prior to taking action.

- **Advanced:** Converses with, writes reports for, and creates/delivers presentations to all levels of colleagues and peer groups in ways that support problem solving and planning. Seeks a consensus with business partners. Debates opinions, tests understanding, and clarifies judgments. Brings conflict into the open empathetically. Explains the context of multiple interrelated situations, asks searching, probing questions, and solicits expert advice prior to taking action and making recommendations.

- **Expert:** Converses with, writes strategic documents for, and creates/delivers presentations to internal business leaders as well as external groups. Leads discussions with senior leaders and external partners in ways that support strategic planning and decision making. Seeks a consensus with business leaders. Debates opinions, tests understanding, and clarifies judgments. Identifies underlying differences and resolves conflict openly and empathetically. Explains the context of multiple, complex interrelated situations. Asks searching, probing questions, plays devil’s advocate, and solicits authoritative perspectives and advice prior to approving plans and recommendations.

While it is possible to build such a dictionary through analysis, focus groups, and research, there are many competency dictionaries available that can be licensed and adopted for your IT organization.4 Adopting a third-party competency dictionary eliminates what might prove to be a very time-consuming process and allows you to focus your efforts on adapting an existing dictionary to suit your organization’s career ladders—this is the part of the process that yields the most value. When considering which dictionary to adopt, it is important to select a dictionary that includes competencies beyond those typically associated with IT professionals (e.g., technical skills). Endnote 4 contains suggestions for competency dictionaries compatible with the concept of the IT versatilist.

**Pepperdine Competency Model**

Whereas a competency dictionary includes concepts, definitions, and progressive expectations, a competency model maps those concepts and expectations against an organization’s career ladders. Competencies and career ladders go hand-in-hand. As employees continue their professional development, advancement is based on mastery of the required competency—for IT versatilists, competence mastery is more important than technical skills and years of experience. For example, let us examine the Application Developer career ladder. The competency model for this career ladder at Pepperdine is shown in Table 1.
Table 1. Pepperdine University Application Developer Career Ladder Competencies

<table>
<thead>
<tr>
<th>Competency</th>
<th>Job Title</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Application Developer</td>
</tr>
<tr>
<td>Accountability</td>
<td>Basic</td>
</tr>
<tr>
<td>Analytical Thinking</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Communications for Results</td>
<td>Basic</td>
</tr>
<tr>
<td>Information Systems Knowledge</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Initiative</td>
<td>Being Developed</td>
</tr>
<tr>
<td>Openness to Learning</td>
<td>Basic</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>Basic</td>
</tr>
<tr>
<td>Process Orientation</td>
<td>Being Developed</td>
</tr>
<tr>
<td>Teamwork</td>
<td>Intermediate</td>
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</tbody>
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The transformation of IT HR practices comes from the establishment and application of competency standards for each position with defined career tracks. These competency standards establish progressive expectations for career advancement consistent with progressions for core duties, required technical skills, and minimum standards for experience and education.

In order to develop versatile IT professionals, the competency expectations should be weighted significantly more heavily than technical skills or minimum education and experience. Too many organizations hold their most promising employees back (or fail to hire promising individuals) because the requisite minimums for technical skills, education, and experience have not been met. I submit that competencies, such as those described above, are more important and should form the most important baseline for each position in a career ladder. Other minimums should be applied with flexibility. Our philosophy at Pepperdine is to hire and promote individuals who are smart and creative, communicate well, possess strong problem-solving skills, and can see the world from the point of view of end users. By focusing on hiring at the lower rungs of our career ladders and aggressively promoting from within to fill senior positions, we minimize the need to fill senior positions based on technical skills alone. Developing from within and using competency models as a yardstick are the cornerstones of our reformed HR practices.

It is with this philosophy that the competency-based, career ladder project for Pepperdine was commissioned. Engagement with HR professionals at the university...
was a key ingredient for the success of the project. While the concept of competencies, IT career ladders, and progressive expectations was conceived from within the IT division, the HR professionals at Pepperdine provided invaluable guidance on local, state, and federal laws, as well as the processes necessary to implement this new paradigm within the university. Key deliverables for this project included the following:

- Development of established career ladders that fit the organization and its future needs. Ten career ladders were proposed, each with five positions. Each position included progressively higher expectations in terms of core duties, technical skills, and required experience and education.

- A well-defined competency model for each career ladder, consistent with the concept of the IT versatilist, was created. Each career ladder included eight to ten unique competencies specific to the functions undertaken by individuals working in the career ladder.

- Standardized salary ranges were formulated for each position in each career ladder based on industry, state, and local salary conditions.

A secondary goal for the project was to proceed expeditiously. Pepperdine had budgeted extra funds for resolving equity issues across the entire institution. Those funds, available on a competitive basis, would be available six months after the project began. In order to complete the process during this short window, I decided to bring in Gartner to assist with the process. Together, the following process was established.

- First, a series of workshops for IT employees was conducted. Facilitated by Gartner, these workshops were designed to allow the IT staff to own the process and steer the creation of the new job families and articulate the career ladders, required skills, experience, and education for each position. Additionally, IT worked with Gartner to identify the most important competencies for each career ladder and position. Employees were asked to identify those traits that distinguished both high and low performers. Through this process, the Gartner competency dictionary was used to create the competency model for Pepperdine IT positions. These workshops were vital because they provided the necessary transparency, shared governance, and ownership necessary to ensure a smooth implementation of this new approach to HR practices.

- Second, after the creation of the new job families, career ladders, and competency models, Gartner performed the necessary research analysis to prepare new salary ranges for each new position established during the workshops. Salary ranges were based on both national and local salary conditions, including salaries at institutions of higher education within the State of California.

These activities required three months for completion. Each of the deliverables was completed during this timeframe. Now the real work—implementation—began. This was a collaborative effort between the Office of the CIO, the IT HR manager, staff from the General Counsel’s office, and the University Center for Human Resources. Ten career
ladders, each consisting of five positions, had been proposed. The task was to use this content to prepare HR documents (position descriptions, classification questionnaires, performance review forms, competency evaluation worksheets, and so forth) consistent with university policies and federal, state, and local laws. Coordination with the HR office was crucial. When we began reclassifying employees (in the case of Pepperdine, there were over 100 staff members), each reclassification had to be analyzed and approved by HR. This process can require significant lead time.

Because additional funds for equity adjustments would be available three months after this first phase was complete, our implementation strategy consisted of multiple phases and was executed over a 12-to-16-month period.

- To begin with, all employees were assigned positions on the career ladders based on their technical skills, years of experience, and education. This provided a baseline for an evaluation of the employees’ competency performances. Each supervisor was then asked to complete a competency evaluation based on the initial position assignment for each of his or her employees. Subsequent to the competency evaluation, an employee’s position on the career ladder was adjusted up or down according to his or her competency performance alone.

- Following the new position assignments, a salary equity analysis was performed for each employee. Using the results of this analysis, I was able to obtain an additional 0.67% of base salaries for equity adjustments. Approximately one-third of the IT organization received some sort of equity adjustment based on their competency evaluations.

Equity adjustments were included along with merit raises at the beginning of the new budget year. The next phase of the project then began—reclassifying employees into the competency-based career ladders. Several principles guided this work:

- Where possible, individuals were given some choice about the career ladder (but not the position) to which they were assigned. For example, managers were given a choice whether they would be assigned to the leadership career ladder or the career ladder associated with their core job duties. A case in point was an application development manager who was given the choice of Sr. IT Manager in the leadership career ladder or Lead Application Developer in the application development career ladder. By providing some degree of choice, the implementation process ensured that the resulting reclassifications were consistent with the employees’ preferred career paths.

- Supervisors were reclassified into their new positions first. Through this process, the IT leadership team was able to ensure that the employees fully understood the nature of the process, why it was beneficial to both the organization and the staff, and how this fit with the overall strategy and vision for IT at the university. Along with the deputy CIO and the IT HR manager, I visited with each employee, discussed the reclassification, changes in expectations (the competencies), and the basis for career advancement. By beginning with
supervisors, the leadership team prepared each supervisor to have a similar discussion with his or her employees as the process unfolded.

- Changes in the performance review expectations, with the addition of the relevant competencies, were included in each employee’s position description. However, they were not included in the formal employee review process until the following budget year. This allowed employees time to begin adjusting to the new model.

As mentioned above, this portion of the implementation unfolded over a 12-to-16-month period and culminated in the use of the competency model in the mid-year performance reviews for each employee conducted in February 2009. Subsequently, the evaluations formed the basis for promotions, merit raises, and bonus decisions that are made at the beginning of each new budget year.

What It Means to Higher Education

Adopting the IT versatilists model is important for technology organizations in higher education. Expectations are increasing while resources are diminishing. One way to confront these challenges is to leverage the productivity gains that come from having staff with deep transactional skills as well as the competencies necessary to engage faculty, students, and staff on the effective use of technology.

At Pepperdine, the completion of this project has been associated with the following positive outcomes:

- The retention rate for IT professionals has improved as the number of employees who have left the university for other opportunities has declined over time.

- Salary costs have become more manageable. When a position becomes vacant, we carefully consider whether this presents a promotion opportunity for an existing staff person. Based on the required competencies, we have developed informal succession lists of current employees who are ready for new opportunities as they become available. By promoting one individual into a higher position, while replacing that individual with someone in a lower career ladder position, we have created a win-win situation—a high performer has been recognized while not requiring an increase in the salary budget. Through this approach, more employees have been promoted into supervisory positions than before. This implies a commitment to employee development that has assisted with retention.

- The use of competencies has provided stronger guidance for hiring decisions. Subsequent to the completion of the project, we have been able to develop lists of interview questions that look for demonstrated success with the competencies associated with a vacancy. Stronger new hires have been identified who have produced tangible work results much faster than before.
Two important, strategic hires over the past years have demonstrated the importance and success of this approach. First, when hiring a new functional lead for our PeopleSoft Student implementation project, we focused on the need to hire someone who had demonstrated success with competencies such as relationship building, accountability, communication for results, business process knowledge, and analytical ability instead of someone who had significant experience with PeopleSoft Campus Solutions applications. We were able to hire an individual who used these competencies to lead the successful completion of the PeopleSoft Student implementation—someone who was able to learn the internals of the PeopleSoft applications on the job, under the tutelage of our implementation consulting partner. Today, she is recognized as one of the most successful employees within the IT division, largely because of her ability to engage end users effectively regarding the use of our administrative systems.

Second, the opportunity to identify a new director of systems and networking presented a promotion opportunity for an existing staff person. This individual had a long-standing reputation for operational excellence but did not have the years of management experience associated with some candidates. During the interview process, competencies were a key consideration, and this individual was able to demonstrate that he understood and could adapt to the new competency-based expectations. Upon receiving his appointment, he quickly shifted roles and began engaging the university proactively regarding the use of services provided by his team. Through his quick mastery of the required competencies, he has become a trusted advisor and consultant to department heads and executives throughout the institution. Again, because of his reputation as someone who can help others use technology to make a difference, he is regarded as one of the most successful employees within IT.

This type of success is important since it builds credibility for the IT organization throughout the institution. The credibility can bring increased access, authority, and resources, which provide the opportunity to proactively engage the community and serve as a change agent regarding the effective use of technology. Some departments have engaged us and asked us to begin supervising their decentralized IT staff. Additionally, Pepperdine conducts annual service quality assessments, and these benchmarks illustrate that faculty, student, and staff regard for IT has increased considerably over the past two years. IT is sought out proactively at the beginning of new projects, rather than at the end, after decisions have been made and expectations for additional transactional services might be communicated. This results in more effective technology while reducing costs.

IT employees within higher education are a CIO’s most important asset. They are the people on the frontline with faculty, students, and staff; and they are the people who represent the capabilities, potential, and importance of IT each day throughout the institution. By adopting a competency-based approach, CIOs can be assured that they are focusing their organizations in ways to meet their institutions’ increasing needs (for example, to use technology effectively to solve problems) while ensuring that they are preparing their employees for successful, long-term careers. Doing so is one of the most strategic activities for IT leaders in higher education today.
Key Questions to Ask

- How can CIOs begin aligning their organizations to successfully meet the increasing expectations that have been placed upon them?
- By what mechanisms can CIOs ensure that their hiring, promotion, and retention processes reflect the need to provide more than transactional technology services?
- Most importantly, how can CIOs bring about the necessary changes in their organizations without alienating employees or significantly reducing morale? Can these goals be met while managing shrinking budgets?

Where to Learn More

- Pepperdine University, Career Ladders for IT Professionals, Information Technology, http://services.pepperdine.edu/it/careers/.

Endnotes

2. IT organizations at large, research-extensive institutions are not immune from these forces. Increasingly, the need for technical specialists at these institutions will be centered on support for faculty research, while the need for versatility will predominate through the rest of the IT organization. Over time, support for faculty research will likely broaden through shared cyberinfrastructure initiatives to encompass most infrastructure-related development and support within the research-extensive university.
3. Pepperdine adopted the competency dictionary and model from Gartner. Excerpts from the dictionary and model contained within this document reflect materials licensed from Gartner for use by Pepperdine and are reprinted with their permission.
4. Competency dictionaries that provide concepts consistent with the concept of the IT versatilist include the Harvard Competency Dictionary (http://www.hks.harvard.edu/HR/staff/), the Information Technology Association of America (ITAA) Information Technology Competency Model (http://www.careeronestop.org/competencymodel/pyramid.aspx?IT=Y), and the Workitect Competency...
System (http://www.workitect.com/competency_systems.html). Pepperdine licensed the IT Competency model from Gartner.

5. The use of an outside facilitator is crucial during the workshop phase of the project. I would go so far as to suggest that the senior IT leadership not participate in the workshops beyond introducing the project and educating the organization regarding its importance. Having someone who can be deemed as an independent expert leading the workshops helps minimize misconceptions or resistance to the initiative. Transparency, communication, and shared governance are key. Without openness, there is significant risk that the effort will negatively impact morale, which delays the intended, positive transformation. Consultants are not necessarily required; a faculty member with expertise in organizational development could easily facilitate this type of project.

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