Shaping the Future of the IT Profession

Throughout this twentieth anniversary year, we’ve had many opportunities to look back and appreciate the transformation that technology has made possible at colleges and universities, as well as to look forward and glimpse into the future. In this issue of *EDUCAUSE Review*, we are focused more specifically on the future of the IT profession and the workforce. The last few years have seen not only considerable changes with technologies themselves but also emerging trends that will change the higher education IT profession in subtle and profound ways.

**Artificial Intelligence and Machine Learning**

Artificial intelligence in higher education is still very much in development as institutions are experimenting with various AI-powered technologies. In her article “Smart Machines and Human Expertise: Challenges for Higher Education,” EDUCAUSE President Emerita Diana Oblinger writes about the new developments and maps out the challenges and opportunities ahead. In the process, she asks some of the most crucial questions that technology developments will provoke (e.g., What does this mean for people?). Oblinger moves beyond simplistic views and highlights the coming dance between AI and the workforce. The question is not what smart machines will “do to” the future workforce but, rather, how the interaction will unfold. As she observes, “Rather than replacing people, smart machines augment human capabilities, meaning that we need to learn to work with machines as partners.”

Importantly, colleges and universities are considering not just the technologies but the broader role of higher education to help students and communities master the dance moves for the future. For example, Northeastern University President Joseph Aoun offers an approach to educating students in a way that realizes the partnership Oblinger contemplates, again without surrendering human agency. Aoun insists that higher education institutions can and must build on their unique strengths to prepare students for smart machines—using active and experiential learning, for example, to make their workforce experience “robot-proof.”

**Beyond the Cloud**

One of the most consistently talked about changes in our profession for many years has been the workforce consequences of the steady migration of data, services, and applications, as well as entire platforms, to cloud-based hosting. Three years ago, an EDUCAUSE survey found that 85 percent of respondents’ institutions were moving at least one service to the cloud. While current overall IT staffing levels have stabilized in recent years, the mix of positions has begun to shift in predictable ways, including job growth in workforce roles related to cloud computing, security and privacy, data integration, and contract negotiators. The EDUCAUSE 2018 Trend Watch and Top 10 Strategic Technologies report showed critical mass in cloud technology adoption and deployment (e.g., about half of institutions planning to deploy and maintain public-cloud storage and half to two-thirds piloting or deploying from among APIs, blended data centers, and cloud-based security services).

Beyond one-off migrations, the most comprehensive changes will be experienced on those campuses embracing broader digital transformation initiatives that bring together student success programs, data analytics, business intelligence, and a host of developments related to enhancing the student experience. (continued on page 6)
Recognizing digital transformation as a cultural, technological, and workforce shift that will require new approaches and structures at many levels, EDUCAUSE has launched a task force to help IT leaders prepare their institutions as they move into this new world.

In his article “Scenarios, Pathways, and the Future-Ready Workforce,” Jim Phelps also captures the idea of digital transformation. He acknowledges that this inevitable shift “will be extremely difficult to navigate gracefully.” What we need, Phelps argues, is an approach to strategic workforce development. Phelps suggests two tools—scenario planning and job pathways mapping—to build a common vision for transforming technological and cultural disruption in higher education into a positive digital transformation.

**Diversity, Equity, and Inclusion**

A third important change under way in the higher education IT profession is the advancement of diversity, equity, and inclusion (DEI). Research shows that the more diverse a workforce is, the smarter and more focused, innovative, and effective it is. Unfortunately, higher education information technology lags behind national trends in employment for underrepresented groups.

As an association, EDUCAUSE recognizes that DEI is both a current and a future priority. We believe that inclusive and equitable organizations will be best positioned to attract the caliber of talent required to better achieve institutional objectives. With this in mind, we are working to assist our member institutions expand the capabilities they need to engender DEI in their organizations and institutions. Early this year, we created a DEI task force charged with refining EDUCAUSE’s DEI statement, recommending specific strategies to advance diversity in the EDUCAUSE community and within the leadership pipeline, and providing feedback and advice on a variety of 2018 EDUCAUSE activities related to DEI. The task force has finished its report, and I look forward to sharing more details soon.

In the face of these changes and more that will influence the future of the IT profession (e.g., internet of things, blockchain), in this issue the insights of Paige Francis, PB Garrett, Cindy Mitchell, Sharon P. Pitt, and Theresa Rowe are illuminating. The five panelists address an engaging set of questions that were first presented in the augural issue of *EDUCAUSE Review* nearly twenty years ago—with topics involving the biggest challenges ahead, preparation for the future, tomorrow’s leaders, the value added by IT leaders, and the support needed from nontechnical institutional leaders. What has changed over the two decades?

As you reflect on these questions, I encourage you to think about Jisc Chief Executive Paul Feldman’s reminder in his Leadership column in this issue: technology professionals and leaders are not merely along for the ride. Rather, they are the “technology tamers” and the “idea wranglers” who can play a key role in shaping the IT profession of the future in a positive and productive way.

---

**Notes**