# Chapter 109
# Empires of the Future:
## Libraries, Technology, and the Academic Environment

**Denise A. Garofalo**
*Mount Saint Mary College, USA*

## ABSTRACT

*Exploring technology and academic libraries concerns more than just machines, functions or processes; the human factor is as important as the equipment. Implementing successful technology changes requires attention to the people involved, and academia is no exception. Technology can be divided into either disruptive or sustaining technologies, and these technological changes impact students, faculty, and staff. In higher education, technology changes are shifting knowledge transfer to a more participatory environment and a more synergistic experience. The academic library is in a transitive state of change, evolving from a warehouse of things to a collaborative learning destination for resources. Both the library and the academic environment must adapt to survive. Overcoming the challenge of changes to the delivery of instruction may lead to extensive restructuring of courses and curriculum. The academic library can serve as a collaborative partner with faculty, leading by example to incorporate technological changes.*

## INTRODUCTION

*The empires of the future are the empires of the mind.*

—*Winston Churchill, September 5, 1943, Harvard University, Cambridge, Massachusetts*

Technology is more than just machines or functions or processes; the human factor is as important as the equipment (Rizzuto & Reeves, 2007).The prevalence of technology in teaching and learning and the changes brought through technological innovations in education may seem at odds with any observation about reluctance to embrace technology, but as Clark (1983) observed, although academia has been a source of social change it continues to remain entrenched in tradition, and reactions to technology and change can fall into this traditional perception. Comfort with technology is not universal, and technology is impacted by "an organization's culture and people [that] can significantly impact the success or failure of technology implementation" (Averett, 2001, p. 34).

## Academic Environment Changing

The college and university environment is in the midst of changing from the comfortable standard of the preceding decades to a brave new world of learning. The paradigm shift is here--the model of the lecturer sitting at a desk or standing in front of the blackboard, imparting his knowledge to the quiet, listening students, is changing into a more synergistic experience (Adelsberger, Collis, & Pawlowski, 2008, p. 253), where the instructor may be in a classroom with interactive whiteboards and response systems, or in a room all alone with students "attending" from around the world, or a mix of both. These technological changes in the higher education environment have the promise to disrupt as well as to transform the learning milieu, impacting the delivery, location, and form of learning and requiring the development of new literacies.

These changes in learning are not always embraced by all (Bower, 2001; McBride, 2010), and human barriers to technology and the resulting resistance to change can have significant, detrimental impact on efforts to integrate new technologies in learning. Knowledge about learning technology innovation is not extending across academia as fast as expected (Hannafin & Kim, 2003), resulting in a failure of teaching practices keeping up with student expectations (Oblinger, 2005). Resourceful use of technology in the classroom occurs only after any resistance to change from faculty, staff, administrators, and students is surmounted and technology is integrated and incorporated effectively into the delivery of learning, and can support "the philosophy of integrative learning, a view that encompasses student integration of the various disciplines into a way of understanding the world and ideas rather than simply acquiring pieces of knowledge through a college education" (Hinchliffe & Wong, 2010, p. 215).

## Academic Library and Response to Technology Change

The academic library, too, can be seen as being in a transitive state of change. The traditional but outmoded service model, where the library serves solely as the solitary gateway to knowledge and information for scholars, students, and faculty, is no longer applicable today. "Library space has moved from an emphasis on storage to an emphasis on creating learning environments" (Stoffle & Cuillier, 2011, p. 147). Just as technology plays a role in changes to access in information and knowledge, the library is transforming, assisting in the effort to "prepare students for a society in which information took center stage" (Owusu-Ansah, 2004, p. 4). Library users no longer are required to visit the library to access information and resources; they can bypass the library and access databases of journal articles and e-books and streaming videos from any location where they can connect to the Internet.

One means to remain relevant and viable is for libraries to redefine how they advance learning and scholarly activities and promote how they are still essential and support their institutions' missions and visions. Stoffle and Cuillier note, "To thrive, libraries will need to use sound business-management practices, align themselves with campus learning and research goals, [and] nimbly apply new technologies" (2011, p. 130). Technology will certainly remain a constant force for change in libraries as they grapple with how to adapt to survive and then thrive. Online services continue to proliferate, as libraries constantly identify the needs of our users and revise how these needs can be met. Rethinking the role of the library as a service provider can assist in processing these revisions. "Library as service focuses on the customer. It results in everywhere-you-are access—pushing the library into the research and

## Related Content

### Influence of Career Adaptability on Career Satisfaction and Turnover Intention of IT Professionals

Vikram Singh Chouhan (2022). *International Journal of Human Capital and Information Technology Professionals (pp. 1-15).*

[www.irma-international.org/article/influence-of-career-adaptability-on-career-satisfaction-and-turnover-intention-of-it-professionals/303953](www.irma-international.org/article/influence-of-career-adaptability-on-career-satisfaction-and-turnover-intention-of-it-professionals/303953)

### Metrics for the Management of IT Personnel: A Systematic Literature Review

Olaf Radantand Vladimir Stantchev (2018). *International Journal of Human Capital and Information Technology Professionals (pp. 32-51).*

[www.irma-international.org/article/metrics-for-the-management-of-it-personnel/201170](www.irma-international.org/article/metrics-for-the-management-of-it-personnel/201170)

### Managing the Virtual Team: Critical Skills and Knowledge for Successful Performance

Richard G. Plattand Diana Page (2001). *Telecommuting and Virtual Offices: Issues and Opportunities (pp. 130-147).*

[www.irma-international.org/chapter/managing-virtual-team/30253](www.irma-international.org/chapter/managing-virtual-team/30253)

### Authentic Leadership, Entrepreneurial Self-Efficacy, and Family Values

Isaac Idowu Abeand Ethel Ndidiamaka Abe (2024). *Cases on the Interplay Between Family, Society, and Entrepreneurship (pp. 182-209).*

[www.irma-international.org/chapter/authentic-leadership-entrepreneurial-self-efficacy-and-family-values/334614](www.irma-international.org/chapter/authentic-leadership-entrepreneurial-self-efficacy-and-family-values/334614)

### Managing Retention as a Stratagem for Employee Job Satisfaction and Organizational Competitiveness in the ITeS Sector

Chandra Sekhar Patro (2022). *International Journal of Human Capital and Information Technology Professionals (pp. 1-20).*

[www.irma-international.org/article/managing-retention-as-a-stratagem-for-employee-job-satisfaction-and-organizational-competitiveness-in-the-ites-sector/305232](www.irma-international.org/article/managing-retention-as-a-stratagem-for-employee-job-satisfaction-and-organizational-competitiveness-in-the-ites-sector/305232)