# Information Technology
# Teaching Cases Newsletter

## Official Newsletter of the IGP Information Technology Case Collection

# The Promise of Information Technology:
# Implications for Higher Education

*Lisa A. Petrides, PhD, assistant professor of education in the Department of Organization and Leadership at Teachers College, Columbia University, offers her perspective on IT in higher education.*

**Q: Is information technology the driver behind change in higher education?**

**A:** As in any complex system there are a range of factors that influence change, of which technology is, of course, just one. For example, the Internet has revolutionized the process of collaboration and scholarly discourse. Other influences include the proliferation of personal computers on campuses and the current trend to mobile and ubiquitous platforms. However, technology alone will never be the driver behind change in education. There are certain conditions under which successful strategies can be designed and implemented in higher education in order to increase the chances that transformative processes occur. While technology is a powerful tool that allows administrators to better understand and manage the academic enterprise, we must look at not only planning and management processes, but also the impact on people and culture and the changing environment of teaching and learning. In other words, we are really looking at an ecological model of transformation.

**Q: How are the forces of transformation in higher education affected by information technology?**

**Lisa A. Petrides, PhD**
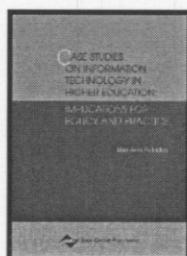
**Case Studies on Information Technology in Higher Education**
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**A:** The examples are as extensive as the changes taking place. There are very few, if any, transformations currently taking place that are not profoundly and dramatically related to technological innovations—information sharing, communications, publishing, and resource management, just to name a few. The very nature of transformation and the rate of change itself has been forever changed.

**Q: What are some of the problems in higher education that can be solved by information technology?**

**A:** Fundamentally technology does not solve problems. Technology, if and when used appropriately, and in the hands of skilled and experienced academics and administrators, can provide the foundation for systems improvement for change. For example, organizations create knowledge systems that are supported and elevated by technology networks, where all members of the educational learning community have expertise not only in managing information and knowledge-based systems, but also in assessing and taking action to promote organizational change in terms of educational management, attitudes, organizational behavior, and policy.

**Q: What role does information technology play in maintaining goals of quality, efficiency and effectiveness in higher education?**

**A:** As we all know we can't manage what we can't measure. Information technologies, especially the new integrated enterprise resource planning and relationship management systems offer educational administrators the

## Petrides

**Q: How can administrators assess the value of information technology in their own institutions?**
**A:** Technology assessment, just as the adoption of technologies is an ongoing process. Today's complex information management systems and the life cycle of today's complex information management systems extend beyond traditional needs assessment technology selection. The successful organization will move to a more ecological or continuous learning model.

**Q: Where do information technology and organizational transformation intersect?**
**A:** Opportunities for the synthesis of these two disciplines abound, yet the challenge is to weave together the needs of both disciplines as they apply to higher education institutions. There is a great deal that practitioners in both these fields can learn from and offer each other. For example, resource management can provide a foundation and mechanism for effective organizational evolution and change. And there is much that technologists can learn from organizational development professionals about how the success of technological ventures are dependent on fundamental theories of organizational dynamics.

**Q: When designing and implementing information technology, how can the focus be kept on teaching and learning?**
**A:** Faculty and other teaching practitioners must be involved in all phases of project design, technology assessment, systems integration, training, implementation, ongoing evaluation, and the dissemination of learning. Institutions would be well served to look beyond the confines of their own institution's experience and to draw from the successes and the failures in academe of those who have attempted to implement management and learning technologies.

**Q: What are some of the biggest changes for students?**
**A:** The promise is that the organization of higher education is further streamlined and made more transparent, therefore being able to better serve the academic needs of the student. It's really using technology that makes learning and the pursuit of knowledge run more smoothly. For example, it's easier to check out books at the library, to schedule classes, to pick up financial aid checks and register in the same afternoon. Information technology can make it easier to use institutional resources by streamlining access to them, such as computing, food, and library services. The theory is that the organization runs more efficiently, and then there are more resources for instruction and services. At the end of the day, students will get the better deal, more value for their educational dollar.

**Q: What are some of the biggest changes for educators?**
**A:** Things could be done that we didn't think could be done. For the first time, the educator is freed from the physical constraints of the classroom and from pre-set times for classroom and office hours. There are expanded opportunities for student-teacher interaction and collaboration, both within the institution as well as beyond the confines of a single institution. Colleagues now write papers together remotely. In fact, entire books are done via the Internet. All submissions, outreach, reviewing, and subsequent drafts, and right down to the final edits are done via the Internet.

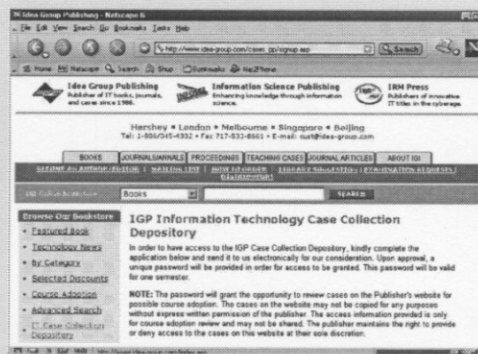**Q: What do you see for the future of information technology in higher education?**
**A:** This is indeed an exciting time to be working in this field. The changes and the challenge, the promises and the problems are at our doorstep. Societies throughout the world are being faced with unprecedented demands for new ways of living, working and learning. As information technologies facilitate new avenues for communication, the lines between formal higher education and lifelong learning process are blurring. The need for access to critical information and resources, and decision support tools is growing. And the promise of information technology is to keep up with the pace of these dramatic and profound transformations.

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**All case studies from Dr. Petrides' book are included in the IGP IT Case Collection Depository.**