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# Crisis in American Information Systems Education: Innovations to Address the Threat of Offshoring

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# CRISIS IN AMERICAN INFORMATION SYSTEMS EDUCATION: INNOVATIONS TO ADDRESS THE THREAT OF OFFSHORING

**Chair:** Kate M. Kaiser, Marquette University ([kate.kaiser@mu.edu](mailto:kate.kaiser@mu.edu))

**Panelists:** Erran Carmel, American University ([carmel@american.edu](mailto:carmel@american.edu))  
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## Key Issues

Our classrooms are nearly empty. The job prospects for our graduates are bleak. Offshoring is reconfiguring the American information technology industry. What are we to do?

After years of unprecedented growth, demand, and skill shortages, IT faculty find themselves in a new environment. As a short-term solution, some faculty are scrambling to develop and redesign courses. This is not enough and will not sustain the fundamental shifts needed in a global economy. How can individual faculty, Information Systems departments, and schools respond to survive the rapidly changing landscape?

The situation calls for innovations in academic delivery. Academics must serve as examples of agility to students by rethinking and revising curricula. We have responded when faced with other changes such as DBMS, end-user computing, networking, and e-commerce when it was in our favor. Can we do it again?

How do we instill in students how they can become innovators and not merely problem solvers?

What new organizational forms can academic programs take to help students bridge global teams?

The panel will discuss innovations to address the crisis of low enrollments and dated skill sets. The format lists panelists in order of presentation along with their relevant expertise.

## Panel Format

**Kate M. Kaiser** will state objectives and facilitate discussion to engage audience participation.

## *The Issues*

**Erran Carmel** will present the overall offshoring landscape and then set up the framework for addressing needs. First, he will review the data on job migration, wage, and employment trends in the United States and Europe followed by data on the education pipeline in math, science, and technology, and IT specifically. With this backdrop he will present a framework for the structural changes taking place due to offshoring that universities need to address.

### ***Program Change***

**Mike Gallivan** will describe “re-visioning” and innovation underway at Georgia State University. Committee members proposed a radical redesign of curriculum, driven by declining enrollments, consideration of Association for Computing Machinery (ACM) accreditation, and the recognition of offshoring as an important societal “mega-trend.” Faculty acknowledged these three “tectonic shifts” as shaking the roots of the IS discipline. After debate on what to do and how quickly to try to do it, they decided that graduate students were better positioned than undergraduates to respond to radical curriculum changes. Mike will describe proposed changes and the processes used to evaluate and approve them.

### ***Cultural Interaction***

**Monica Adya** will discuss using videoconferencing and Internet2 for cross-border undergraduate team teaching as part of a 3M grant to set up a cross-training program between U.S. and Asian students. She will discuss visions of curriculum challenges and successes encountered in the development, implementation, and conduct of such programs.

### ***Internships Revised***

**Arkulgud Ramprasad** will present how to market the IT major to students and practitioners more attractively by refining the internship model. Ram hosted an online discussion of the Chicago Society for Information Management (SIM) chapter to develop a deeper understanding of the shifting responsibilities of entry-level technology talent. IT leaders discussed how technology work is shifting in function, form, and focus, and how we must change our technical educational and guidance. He will propose a redesign of the internship model toward a systematic method similar to medicine.

### ***Lessons Learned***

**Amar Gupta** offered one of the first MBA classes on offshoring in the spring of 2004 at Massachusetts Institute of Technology. The class considered the notion of 24-hour knowledge factories by taking an example involving design and development of a complicated product using workers at different locations and in different time zones. His experience at refining that course will offer insight for those designing similar courses. Another MIT course he will discuss involved a 10-day trip to India where students visited domestic and multinational companies and met with policy makers.

## **Participants’ Relevant Biographies**

**Kate M. Kaiser** has written an offshoring book chapter, chairs the SIM e-community on IT outsourcing, and has written a case study on cosourcing in *MIS Quarterly Executive*. She received a 3M Foundation grant to make interdisciplinary curriculum changes and an Alfred P. Sloan Foundation grant to travel to Russia and India to research offshore career development practices.

**Erran Carmel** has been studying offshoring for almost a decade. His book, *Global Software Teams: Collaborating Across Borders and Time Zones* (Prentice Hall, 1998), is the seminal work in the area and he is presently writing his second book on offshoring. He speaks at offshore outsourcing conferences around the world. Erran cofounded the program in Management of Global Information Technology at American University in Washington, DC.

**Mike Gallivan** conducts research on strategies for managing IT human resources, in particular the changing skill requirements for IT professionals. He also conducts research on managing IT outsourcing alliances and recently turned his attention to studying offshore outsourcing in China.

**Monica Adya**’s research interests include IT education and human resource issues, knowledge management, and decision support systems. She has received a grant from the 3M Foundation for studying the impact of offshore outsourcing on IT curricula.

**Arkulgud Ramprasad** is the Director of the Center for Research in Information Management (CRIM) at the University of Illinois at Chicago. He held a forum on Enterprise IT Sourcing Strategies which has an accompanying white paper and has spoken on offshoring at SIM events.

**Amar Gupta** is Professor of Entrepreneurship and MIS in the Eller College MIS Department at the University of Arizona. He codeveloped and taught MIT’s Outsourcing of Professional Activities focusing on strategic, organizational, economic, and technical aspects of outsourcing.