Special Topics Courses

IPM 755
Responsible Technology: Implications for Design and Business and Public Policy
M. Lynne Markus, Instructor

The purpose of this course is to learn what can and should be done to enhance the benefits of information technology while reducing negative side effects. The course is intended not only for people who expect to concentrate in an IT-related field but also for managers and for specialists in accounting and finance who are likely to make decisions about major organizational investments in IT.

Information technology has brought profound benefits to individuals and organizations. But it has also brought many harmful effects, such as systemic unemployment, addictions, invasion of privacy, identity theft, and loss of intellectual property; IT may even have contributed to the financial crisis*. This course will explore types of IT uses and consequences that likely to be highly relevant in the future careers of Bentley students, including:

- Online games and other forms of entertainment—and their contributions both to corporate revenues and to a variety of social ills including addiction, pornography, and intellectual property loss
- Social networking and tracking/surveillance systems—and their benefits for marketing, innovation, and security along with their opportunities for invasion of privacy
- Computer-based health care equipment and services—and their health benefits and safety threats
- Automation and outsourcing—and their contributions to both productivity and unemployment
- Financial securities trading technology—and its potential both to improve financial performance and to create widespread economic instability

The course will employ a wide range of materials and formats, including video documentaries and debates. A key focus of class discussions will be to identify: 1) the potential benefits and *unintended negative consequences* of IT for various stakeholders, 2) the *ethical responsibilities* of various actors (technology designers and vendors, corporate executives, government regulatory agencies) for protecting stakeholders, and 3) key *management design decisions* that can lead to improved benefits and reduced risks of information technology.

An organizational meeting will be held in early December.

M. Lynne Markus is The John W. Poduska, Sr. Professor of Information and Process Management at Bentley University and a Research Affiliate at MIT Sloan's Center for Information Systems Research. She does practice-oriented research for businesses, associations and non-profits, and governments. Her research specialties include: the effective design, implementation and use of information systems within and across organizations; the risks and unintended consequences of information technology use; and innovations in the governance and management of information technology. She has received several research grants from the US National Science Foundation, and she was recently invited to summarize her research* on the role of IT in the mortgage crisis at a Securities and Exchange Commission roundtable. She was named a Fellow of the Association for Information Systems in 2004 and, in 2008, she won the AIS Leo Award for Exceptional Lifetime Achievement in Information Systems. In 2012, she won Bentley's Mee Family Prize for excellence in scholarship. For more information: https://faculty.bentley.edu/details.asp?uname=mlmarkus

HF 755
Informatics and Electronic Records in Healthcare
Jan Horsky, instructor

Health Information Technology (HIT) has been for over two decades transforming the way medical care is managed, monitored and documented by allowing clinicians to share patient information in electronic format rather than maintaining traditional handwritten charts and records. This course will provide an overview of biomedical informatics research and focus specifically on the design of human interfaces for clinical information and decision-support systems that are routinely used in daily care by thousands of healthcare providers. HCI and human factors are crucial in HIT design as clinical systems are complex, process and display large amounts of textual and visual information and require fast and efficient interaction in highly dynamic, time-constrained and safety-critical environment in which much of patient care is delivered. The close relationship of high-quality interface design, the quality of care and patient safety will be explored in detail.