15.564 Spring 2007:
CourseFest Intro to the Course

- **IT Essentials II: Advanced Technologies for Digital Business in the Knowledge Economy**
  - Spring, 9 units, MW 1-2:30

- **Instructor: Prof. Benjamin Grosof**
  - [http://ebusiness.mit.edu/bgrosof](http://ebusiness.mit.edu/bgrosof)
  - SEE THAT WEBPAGE FOR MORE INFO
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The most advanced Technology-centric course in IT taught at MIT Sloan.
- MIT Sloan IT #1-rated by US News, Business Week B-school

The Web is entering an entire new generation!
- Fundamental Technologies for Knowledge Management are Progressing Explosively
  - XML, Semantic Web, Web Services
- What are the Implications for E-Business Applications?
Class format: Roughly half lecture, half discussion.
- Major portion of grade is participation in class discussion
- Discussion includes micro-cases, application examples, etc.

Class Philosophy: learn from each other, students have expertise in various areas

Innovators Perspective as major portion

Teaches how to innovate – skills in exploration and analysis, IT project management.
Topics in this class

- Core Technologies for the Knowledge Economy
  - Advanced Information Technologies
    - Automated Knowledge Management, incl. Web
  - Including Underlying Concepts
  - Project Management when developing systems

- Implications for Digital Business
  - Functional Applications; Concepts and Techniques
    - Services; Business Processes
  - Strategy; Industry Standards
  - Prospective Market Evolution; Entrepreneurial Opportunities

- How To Think about all this.
  - Prepare for lifelong learning
  - What’s important enduringly
Topics: Core Technologies

- Knowledge Bases
  - Databases
  - Rules and Ontologies
  - Data Mining, Probabilistic Decision Support, …

- Web
  - XML
  - Web Services
  - Semantic Web

- Mobile

- Project Management when developing systems
Topics: Applications

- E-Commerce, Collaborative Business
  - Esp. B2B
  - .. But also: B2C, C2C, government
  - E.g., Mobile, P2P

- Enterprise Information Systems, Enterprise Application Integration
  - ERP, client-server

- Emphasis on: Business Processes, Services

- Multiple Functional Areas:
  - Supply chain
  - Financial reporting
  - Trust Management, Security, and Privacy
  - Healthcare and Biomed
  - Marketing
  - Customer/partner relationships
Sequence of Topics

- More on Core early on in course
- More on Business Implications late in course
- Two sessions near end of course on team project presentations.
Special Guests

- We will have some special guests
- E.g., in past, one was Tim Berners-Lee
  - He’s Inventor of the Web, head of World Wide Web Consortium
  - Discussion on semantic web, web services, their business implications
Teaching Materials

- **Lecture Slides**
  - on Sloanspace sloanspace.mit.edu

- **Readings**
  - Course Pack (articles) – get at Graphic Arts, E52 basement
  - Web-available documents and useful source sites
    - (e.g., about standards, applications, technologies, consortia)
  - Handouts (occasional, in hard copy)
  - Textbook (portions required)
    - E. Turban et al., Electronic Commerce: A Managerial Perspective

- **Class Web Page**
  - on Sloanspace sloanspace.mit.edu
  - Includes student-contributed links, notes from class discussions, assignments, recommendations on additional optional readings, and more.
Assignments and Grading

Grading

- **Assignments (incl. team project):** 45%
  - A major team term project due end of April:
    - 10-page paper (end April), 15-min presentation in class (early May), plus progress milestones earlier
    - ~4 Short assignments: ~ biweekly in Feb. and March, e.g. “think pieces”

- **Class Participation (incl. attendance):** 25%
  - Be willing to think out loud
  - Bring interesting articles you’ve read

- **Midterm exam:** 15%

- **Final exam:** 15%
  - In-class on last day of classes *before* exam period
IT is not only about computers

- Successful IT solutions are a combination of
  - strategy
  - technology
  - organization
  - people

- This course emphasizes the technology piece.
Why learn the tech end of IT?

- I want to make myself *extraordinarily* valuable.

Understanding of **technology** side:
  - possibilities, costs,
  - benefits, risks, skills,
  - evolution, …

Understanding of **business** side:
  - strategy, model, evolution, …

+ = ordinary good

!!! = extraordinary

The anti-hype.
Identify opportunities & dangers.
Motivation II

- Prepare for my future management challenges: Sift...

  - reality from hype / fantasy / exaggeration
  - opportunity from mess
  - dangers from excitement
The BIG Picture

- the 2nd Industrial Revolution.
  - It’s just begun.
  - IT is the basis and cutting edge.

- understand technology → choose/innovate biz strategy/model.
  - IT knowledge = keys to the kingdom.