

## 15.567 Reading Guide and Assignment

# Session 17: Experimentation, Replication and Innovation

The mission of the MIT Sloan School is to develop principled, innovative leaders. How can you use the most important business technology of our era to lead innovation?

### Readings

#### **Required:**

The 4 Ways IT is Driving Innovation: An Interview with Erik Brynjolfsson  
*MIT Sloan Management Review*, Spring, 2010.

Ron Kohavi, Roger Longbotham, and Toby Walker," Online Experiments: Practical Lessons" *IEEE Computer* 2010 (in press)

Brynjolfsson, Erik and Schrage, Michael "The New, Faster Face of Innovation: Thanks to Technology, Change Has Never Been So Easy-or So Cheap" *Wall Street Journal and Sloan Management Review* (August 17, 2009)

#### **Optional:**

Ron Kohavi, Roger Longbotham, Dan Sommerfield, and Randal M. Henne, Controlled Experiments on the Web: Survey and Practical Guide, *Data Mining and Knowledge Discovery journal*, Vol 18(1), p. 140-181, 2009. DOI.

### **Study Questions**

Please think about the following questions as you do the readings.

- 1) What are some of the ways that IT is now being used to support innovation, or increase the pace of innovation?
- 2) How does careful measurement foster innovation? What are the advantages and disadvantages of controlled experiments as opposed to simply analyzing data generated through the normal course of business?
- 3) Did any of the organizations where you have worked in the past run formal business experiments? How well did they work?
- 4) Did any of the organizations where you worked use IT to systematically replicate innovations in other locations?
- 5) Where do you see the biggest opportunities for IT-enabled innovation in the next 3-5 years? How, if at all, will this change the nature of business and competition?

## **Required Assignment “One Pager” on Experimentation**

Please post a one page memo (max 300 words) analysis) by 9pm the day before Session 17.  
Please submit either a PDF or MS Word file, with your name, date and assignment title at the top.

**Question:** Based on the readings for the class and your one personal experience at an organization where you worked or would like to work, describe a practical business experiment that would provide valuable business insight. Be specific about the hypotheses tested, the methods used, the data gathered and the potential results.

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15.567 The Economics of Information: Strategy, Structure and Pricing  
Fall 2010

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