

15.567 Reading Guide

Session 18: Digital Advantage

The increased power of IT has led to complementary changes in business processes, organizational capital and other types of intangible assets. To a growing extent, understanding these changes is the key to gaining competitive advantage. For instance, in the first class this semester, we discussed how digital information could be replicated and the economic implications of that fact. However, technology has recently been used to help replicate not only information, but also business processes. The implications may be profound, for productivity, competition, structure and strategy.

Readings

Required:

Brynjolfsson and Hitt, “Beyond Computation” *J. of Economic Perspectives*, Fall, 2000.

Optional:

Brynjolfsson and Saunders, *Wired for Innovation*, Ch 3 and 4.

Brynjolfsson, McAfee, Sorell and Zhu “Scale without Mass: Business Process Replication and Industry Dynamics”, Center for Digital Business Working Paper, 2006.

McAfee and Brynjolfsson “Investing in the IT that Makes a Competitive Difference”, *Harvard Business Review*, July-August 2008.

Study Questions

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

- 1) For most firms, how valuable are business processes and other intangibles compared to physical assets? How should management and financial accounting treat such assets?
- 2) Identify one or more examples from your experience in which technology facilitated the replication of business processes. How did that affect the organization of work? What were the measurable results?
- 3) What are the limits to technology-enabled business process replication? (That phrase just rolls off the tongue, doesn't it?) Where will it have the greatest effects?
- 4) If process replication becomes more widespread, what business and management strategies would you recommend?

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

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