Digital Productivity
Special Interest Group
Productivity in an Information Age

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Labor Productivity (Output Per Hour), Nonfarm Business

Index 1992 = 100

Q1 1973- Q4 1995
Trend = 1.47% per year

Q1 1996-Q3 2004
Trend = 3.06% per year

Source: BLS and Institute for International Economics
Information Technology Share of private nonresidential fixed investments

- Information processing equipment and software
- Computers and peripheral equipment
- Software
- Computers and Software
IT and Productivity: The Data Speak

Productivity (relative to industry average)

IT Stock (relative to industry average)
eBusiness > Technology

Information Technology Capital (10%)

Technological Complements (15%)

Organizational Assets (75%)
Including Human Capital, Business Processes, Culture

Intangible Assets are more important in the Information Economy

Image by Ralph Clevenger
Overview

• **Key Question:** How can business processes, organizational structures and corporate culture can be reshaped using information and communications technologies to measurably increase business performance?

• **Sponsors:** Amazon, British Telecom, Cisco Systems, CSK, France Telecom, Intel, PricewaterhouseCoopers, SAP
  – In addition, over a million dollars in funding has been provided by the **U.S. National Science Foundation**.

• **Disciplines:** Economics, Coordination Science, Finance, Information Systems, Organizational Science, Computer Science
Current Initiatives

• **How Do IT and Information Flows Affect Productivity?**
  – A study individual and group information worker productivity at executive recruiting firms. (Marshall van Alstyne, project leader)

• **Measuring the Digital Organization.**
  – A toolkit for evaluating and diagnosing the adoption of digital practices at the enterprise, division or workgroup level (Erik Brynjolfsson and Shinkyu Yang, Project Leaders)

• **The eBusiness "Process Handbook"**
  – Documents several thousand interesting IT-enabled business models, processes and technologies. (Thomas Malone and Robert Laubacher, Project Leaders)