Managing the Global Impacts of IT: Standing on Conceptual Quicksand

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As scholars and expert practitioners, we portray globalization and technological innovation as key drivers for a new industrial age. We herald the dawn of an “information revolution,” a new economy revolutionizing the organization of production and distribution, an upheaval of long-steady technical, political, and economic institutions of our society. But as information professionals, how well equipped are we to explain and predict — much less lead — this revolution? On what foundation do we stake our claim as knowledgeable experts? Today I want to discuss with you just this issue.

Changes in the nature of business and new information technologies drive the globalization of business. Increasing global demand for similar products and services, changing needs and capabilities of global customers, the underlying economies of scope and scale in production and distribution, and the ability to capitalize on traditional differentials of labor and raw materials reward the global organization.

IT innovations — that is, innovation in computerization and communication technologies — are integral to globalization in several ways. The unique features and affordances of IT enable organizations to mobilize assets and resources worldwide, cheaply, efficiently, and quickly. The first of these I will mention is the ability of information technologies to compress time and distance.

With emerging information technologies, physical location is becoming increasingly irrelevant. New forms of work organization and cooperative relationships among distant associates are emerging. Physical presence becomes meaningless and virtual presence everything when interacting with global customer markets and geographically distributed trading partners.

The second unique feature of IT is the ability to disintermediate traditional supply chain relationships. Retailers and marketing intermediaries within traditional supply chain networks are becoming disintermediated as producers and service providers use computers and communication technologies to directly access end-chain customers, reducing overall transaction time and eliminating many of the attendant costs. As an example, Web-based discount stock trading is quickly supplanting the brokerage house role as customers have access to directly manage their financial portfolios. These bypass opportunities are real and growing. They close in from each end of the commercial value chain, squeezing the middle and bringing customers closer to producers through the reasoned application of information technologies.

Third, new markets and services are forming, breaking the conventions of mass production with mass customization. Levi-Strauss custom now tailors jeans on a mass-production scale with the aid of IT. Remote villages in China and Africa connect globally through cellular telecommunication technologies. Businesses, corporations, and even individuals can easily create a world-wide, personal presence with electronic storefronts and distanced services.

Finally, IT innovations have led to a proliferation of global information services, including on-line expert services and personal connectivity through telework and distanced communication. A car may be designed in Germany, but is built from parts from Indonesia and an engine from Japan, with the final assembly occurring in Mexico (Bradley et al, 1993).
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