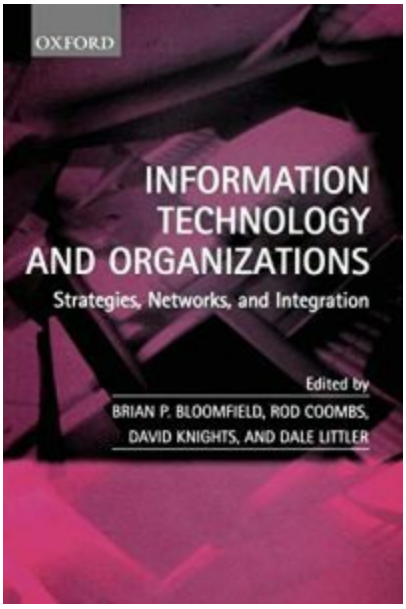

Book Information Technology And Organizations

Strategies, Networks and Integration

Brian P. Bloomfield, Rod Coombs, David Knights and Dale Littler
Oxford UP, 2000

Recommendation

Why does technology often fail to deliver promised benefits? The editors of this book propose a novel answer: More often than not, technology failings are not failures in technology at all, but are instead the result of botched interactions among individuals within organizations. Therefore, why not recruit social scientists to analyze information technology problems? That's exactly what the editors did, to our simultaneous benefit and great distress. The benefit: The book whittles down more than 150 published reports into the eight sections presented here. Each section provides an innovative look at the complex relationship between the technological and the social. And now the distress: This is a heavy read, thickly and academically written. We can't recall ever reading a business primer that requires you to have some familiarity with the likes of Foucault and Derrida plus a vague grasp of the Deconstructionist movement. *BooksInShort* recommends this book to a selective audience that is curious about groundbreaking academic research in technology, and is up for a serious challenge of comprehension.

Take-Aways

- International competition is forcing companies to invest in information technology.
- Technology cannot be separated from the people who use it.
- Current literature on IT implementation is an idealized prescription for failure.
- Most literature fails to take organizational politics into account.
- IT integration must encompass people and management.
- IT integration can be undone by the pressure of competing internal agendas
- Transforming networks means re-working an organization's political systems
- The social sciences can help explain these relationships between business and IT.
- IT increases communication, but doesn't change hierarchical business structure.
- Future research in IT should focus on how networks serve as vehicles for power relations.

Summary

Introduction

According to recent studies, technology is considered an integral part of social life. But the reverse is also true, and perhaps more important - social relationships are an integral part of information technology development, implementation and usage.

The construction of machines doesn't take place in a vacuum (That's a figurative phrase; some tech development might well take place in a vacuum, literally.) But in the end, machines are built in large part as a result of interactions between people. Therefore the best way to analyze what goes wrong in the technology development and deployment is to look closely at the intermediaries in the creation and stabilization of systems networks. Technology relationships are anything but asocial.

> "Big business, especially companies that derive growth and profits from an expansion in the use of ICTs (information and computer technologies) have a vested interest in promoting their development and encouraging consumers to believe in the reality of the information society."

Networks do not magically self-stabilize. In a case study of IT implementation at a National Health Service facility, researchers discovered that designing information systems is much more than specifying particular technology "texts." It also concerns designing and reconfiguring the users of that technology. The study, which involved doctors as managers, showed that technology cannot be separated from the people who use it.

> "The history of organizational IT use is a story about the gradual harnessing and refocusing of IT for business ends, sometimes sloganistically represented as a change from a technology-driven use of IT to a market or user-driven use of IT."

"The task of transforming the vision of networking into a reality is a practical one. Its realization requires not just a change of style or even a change of heart, but, more fundamentally, a radical change of the politico-economic system."

Our Goals

The aim of this volume is to analyze information technology's social impact on organizations. The major themes of British-government funded research on the National Health Service are represented in this compilation, which is not intended to be only a work of theoretical synthesis. Each chapter is meant to comment on the nature of relationships between organizations and technology.

> "The more societies and organizations depend upon ICTs (information and computer technologies), the more vulnerable they become to those willing and able to exploit the power of ICTs for subversive ends or who may marshal them to develop new forms of citizenship and democratic accountability."

This set of eight essays also presents a review of the academic literature on IT strategy and examines the development of marketing strategies in areas of uncertain markets and rapid technological change, using case studies from the computer industry. The essays also explore the meaning of strategy and its context within managerial practice. Also included is separate analysis exploring how conditions, political issues and rhetoric affect networking. Finally, the writers interpret the role of technology within the framework of new organizational forms. The work is presented in separate sections on strategies and markets, integrating technology and organizations, and networks.

Flexible Network Integration

Prophecies of radical change within business organizations are hardly new. In the past, experts have issued breathless predictions of people-less and paperless offices. However, people are still here and the paperwork - which may have been routed around thanks to the Net and email - still mounts up. But networks within corporations are real.

> "Employees' knowledge of their disposability means that, for many, commitment to the organization is likely to remain partial and conditional, if not narrowly instrumental."

Three conditions allow networked change to occur rapidly:

1. Multinational Localization - Market globalization is a key concept in changing strategic thinking. Trade liberalization has allowed foreign companies free access to western markets. The creation of the European Union means that companies increasingly have to compete across a broad range of national markets. Competition has been multi-nationalized.
2. Changing Basis for Competition - The competitive pressures within inter-linked and open multi-national and national markets are growing dramatically. Survival depends upon continuous product innovation, where the crucial element is the time that it takes to get a new product to market. Time to market has become a key factor in competitive advantage.
3. ICT Product/Process Innovation - ICT (information and computer technology) has fueled the rise of networks. The major factor of that rise is the price-to-power ratio involved with mini and personal computers. The ever-escalating power of computing has led to the creation of both wide and local area networks. This massive escalation of computing power has also given modern corporations the tools to create mass customization and increased product variety at almost little or no additional cost.

Aligning Information Technology and Strategy

The established body of knowledge on IT strategy alignment is idealized. The core literature simply doesn't take sufficient account of organizational politics and processes. As a consequence, the prescriptions and remedies it offers to solve problems are destined to fail.

> "All of the chapters can be read as different approaches or answers to one central question - namely, the nature of the relationship between technology and organizations."

In-depth study of one company, Salesco, proves how these solutions can go astray. In this case study, IT strategy works better if it's incorporated as a political process - that is, if a discourse in what is meaningful becomes a part of the company's internal self-discipline of subjects, provides an aura of confidence and security, and shows managerial competence internally and externally. Even then, IT integration is still difficult and can be undone by the pressure of competing internal agendas and the people who are attached to them.

Have a Little SISP

The problems of Strategic Information Systems Planning (SISP) are tied to organizational context. There are four generic types of SISPs:

- Using technology-based systems to link the organization to its customers and suppliers.
- The added and improved integration of internal value-added services.
- Allowing the organization to develop new products based on information.
- The creation of external databases.

> "Concomitantly, many observers and commentators have proclaimed the dawning of a new age - known variously as the information society, the information economy or post-industrial society, and so on - in which society itself is on the verge of transformation through the use of information technology."

The rational model of IT implementation is problematic from the outset, particularly because an orderly and visible IT process may not mix well with any corporate strategy that is diffuse, covert and obscure. Some potential problems include:

- Inadequate management involvement and commitment.
- Inadequate current abilities such as available skills, problems in measurement and review, and overall difficulty in tying SISP to the company's business planning.
- Constraints on resources and implementation.
- Top management's lack of acceptance.
- Amount of time involved.
- Simplistic business planning.
- The exclusion of the IT department from the highest levels of business planning.

Markets, Managers and Messages

The effort to create a theoretical link between tech innovation and organizational change as a complex historical process suggests that markets are unpredictable and precarious. It further cautions that markets are determined, in the end, by the perception of the manager who interprets them.

> "At the heart of this vision, we have suggested, is a contradiction between requiring a form of work organization that relies upon trust and involvement and retaining a structure of ownership and control that, when push comes to shove, treats employees as disposable commodities."

Markets often operate in ways that undermine the managerial attempts at control they engender. Perceptions of those markets are also intricately linked to managers' attempts to maintain their own security and positions. The contradictory role of the managers themselves also can sabotage efforts to implement IT.

> "Questions regarding the proper place of technology in relation to society and social relationships, social order, control versus freedom, responsibility and autonomy, and so on, are to be found in programmatic statements for, as well as reactions to, IT."

The problem is that the role of the common businessman is, in theory, both competitive and cooperative. This creates a reality where the manager must weight the implementation of new technology against his or her own best interests. For example, a manager must ask if developing a new technology will help the competition as much as it will help his or her own company. Should implementation be slowed for that reason? Case study analysis suggests that the role of IT in organizational change is neither pre-ordained nor predictable. The clash of differing managerial objectives means that most IT roll-outs become a continuous source of tension for corporate decision-makers.

Paradigm Thinking

Companies in markets that are developing quickly have to deal with change differently. Effective organizations tend to use a more collaborative approach in their marketing strategies, which beneficially forces them to be more cooperative in their overall strategy. In fact, "relationship marketing" is the best tactic for companies facing rapid change.

Networking as Knowledge Work

The contemporary popularity of networking as a practice and as a topic of research has to be understood as an example of the innovative way that capitalist countries revolutionize their means of production.

Information technology has facilitated this revolution and the impact has coincided with and been compounded by the lessons drawn by Japanese management. In particular, the Japanese idea of "total quality management" has proved its effectiveness in avoiding or minimizing major sources of cost and wastage.

Using the Switchco insurance company in a case study, researchers identified the emergence of a contested, but stable "problematization of electronic trading in the insurance industry." This network's novel emergence provides an instructive example of networking as knowledge work.

This process, which is informed by the sociology of translation, has proven to be non-linear and complex. It consists of a broad range of actors and intermediaries. At Switchco, processes of accident, contingent circumstance and multiple translation brought conventional notions of knowledge work and networking into question. Instead of simply seeking to describe, elaborate or refine common sense knowledge of networks, students of information technology theory should focus on how networks serve as vehicles for power relations. Future study also should focus on the idea of how networks are sustained by power relationships that are also supported by particular truths.

Conclusion: Change the Overall System

The framework that these essays provide is intended to stimulate debate and thought about the nature of change. Through various

observations of businesses, these researchers determined that not enough attention has been given to the social relations of business. The task of transforming networking into reality is a political problem not a technological one. Its realization requires not just a change of style or even a change of heart, but more fundamentally, a radical change of the politico-economic system.

About the Authors

Brian Bloomfield is a professor of information in management at the Management School of Lancaster University. **Rod Coombs** is a professor of technology management at the Manchester School of Management, UMIST, where **Dale Littler** is a professor of marketing. **David Knights** is a professor of organizational analysis in the Department of Management at Keele University.