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ELECTRONIC COMMERCE: THE FLIP SIDE OF A BUZZWORD

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Abstract

Electronic Commerce has suffered the typical fate of a buzzword and fashion: after the hype, the downturn has been particularly painful. However, the sobering effect of the downturn has opened a unique opportunity to ask more fundamental questions. This paper addresses limitations in our understanding of Electronic Commerce as a phenomenon which is inextricably linked to the new economy and discusses implications for Electronic Commerce research within IS as well as in an interdisciplinary context.

ELECTRONIC COMMERCE AND THE BUZZWORD EFFECT

Buzzwords typically are exposed to fairly brief life cycles of attention and popularity before they become diluted or replaced by the next buzzword. Electronic commerce (EC) has already achieved the level of dilution: the appropriation of EC by consultants, journalists, politicians, managers and academics has made it a pervasive and versatile concept, however without a clear definition and scope. Subsequent buzzwords such as electronic business (doing business electronically) or mobile commerce (electronic commerce with mobile devices) drive the process of dilution even further.

For the purpose of this paper, I will use electronic commerce in the sense of “online-enabled business transactions”, which typically take place in hybrid environments of traditional business with additional EC activities, especially online sales channels or e-procurement, and dot.com companies, whose business success depends to a large degree on traditional business functions, e.g. logistics.

If we look for the substance in or behind the buzzword from an academic point of view, a number of questions come up, which have been highlighted by the recent downturn of the new economy.

Firstly, there are questions related to the area of concern:

(1) How can we explain the high level of volatility in the new economy?

(2) What are issues for management and IS research in a networked economy?

Secondly, questions arise about the disciplinary response to the development of EC:

(3) How can IS as a discipline deal with the challenges of EC?

(4) What are implications for interdisciplinary research?

(1) HOW CAN WE EXPLAIN THE HIGH LEVEL OF VOLATILITY IN THE NEW ECONOMY?

Over the past months we have experienced how the rush for EC enabled by a global information and communication infrastructure has increased the volatility in the economy. Many entrepreneurs, venture capitalists and private investors followed the EC gold rush, hoping for quick gains and expecting almost endless growth. In fact, they established a close link between innovations, productivity gains and the financial markets. People wanted to believe that information and communication technology (ICT) has led us close to utopia (Tomkins 2000). Since the beginning of 2000, the unrealistic hopes and expectations have been replaced by a deep, at least partly unwarranted disappointment and skepticism. And it is striking that despite unprecedented access to and immediacy of information, most experts were surprised by the fact and the severity of the downturn.

The surprisingly extreme moves of the pendulum suggest that our understanding of the ongoing and imminent changes in the economy is still fairly limited. The rise and subsequent decline and fall of EC has highlighted how little we actually know about the diffusion, impact and appropriation of information and communication technology (ICT) in business, the economy and eventually on all levels of society. In particular the interdependencies between

- technological innovation, diffusion, subsequent organizational change,
- the media and its impact on the public opinion,

- and the role of the capital markets are not adequately understood.

Hence, in addition to technological and managerial research, more socio-economic research and anticipatory technology assessment are needed. Only if we first develop hypothesis about technologies' impact can we confirm or falsify them and expand our knowledge. Otherwise, we will suffer from social amnesia: our memories of the past will be "crowded out by our adaptations to the demands of changing times" (Zuboff 1988, XI).

(2) WHAT ARE ISSUES FOR MANAGEMENT AND IS RESEARCH IN A NETWORKED ECONOMY?

"e-Everything: e-Commerce, e-Government, e-Household, e-Democracy" has been the title of the 14th Bled Electronic Commerce Conference (<http://ecom.fov.uni-mb.si/bled2001>). It highlights the fact that the networked economy penetrates almost every aspect of our societies: infrastructure, government, healthcare, education and learning to name just a few prominent examples. And yet, for the time being we will be living and working in hybrid environments: click & mortar business will be the norm, rules of the old and the new economy coexist, policy makers and regulators are striving to find adequate responses to the coexistence of Cyberspace and physical world. Core issues of research in EC which run across the various application domains are e.g.

- understanding the (creeping) transformation of society and economy as ICT becomes more and more pervasive and people adapt their behavior as well as their worldview,
- managing in an environment where network effects and interorganizational relations become more important and
- designing systems architectures and infrastructures that provide cross functional support and multi-

channel integration in a world which is dominated by IP.

Even though there is huge demand for further research and subsequently teaching in EC, the research areas will become broader, interdisciplinary and more specialized at the same time.

(3) HOW CAN IS AS A DISCIPLINE DEAL WITH THE CHALLENGES OF EC?

EC has profoundly affected and changed the IS field. Given the changes the Web has brought about, almost any aspect of IS has to be reconsidered: EC is posing considerable challenges in terms of ICT support, such as smart interfaces for the universal user, round-the-clock availability in an open environment, mobile access, multi-agent environments etc. At the same time, EC research should - in contrast to the changing trends and waves of business - try to put the current issues into a historical context of research and knowledge in order to avoid to reinvent the wheel or repeat the mistakes of the past. An examples might illustrate this: research into obstacles for electronic markets in logistics has highlighted the impact of industry structures and power relations for the success of electronic market initiatives. The recent hype about e-marketplaces was, however, mainly driven by an economic rationale and overlooked the network relations of the actors.

Within the IS discipline, EC can be considered as an integral part of a broad range of IS areas, such as information management, software engineering, knowledge based systems, DBMS, interorganizational systems etc. As EC has a core business focus, there is a new opportunity to reconcile the frictions between the more technical, computer science oriented parts of the discipline (and community) and those with a stronger social sciences background. At the same time, fundamental questions, like "What is the underlying purpose and guiding vision for technology development?", "What are potential side effects of technology?", become more pressing and need to be discussed within the discipline. It is a lasting challenge for IS researchers to improve their understanding of

potential impacts of technology and the causality of its impacts.

(4) WHAT ARE IMPLICATIONS FOR INTERDISCIPLINARY RESEARCH?

The EC hype has yielded an unprecedented recognition of the importance of ICT in the general public, the media, and the political class. Within academia, ICT has had a profound impact on research topics and methodology for almost any discipline in the social science (including management and economics). Consequently, the specific role and boundaries of IS as a discipline that addresses EC issues have become blurred. Research topic run across disciplinary boundaries and it is no longer clear who is or should be in charge.

No doubt, only interdisciplinary research can adequately deal with the challenges of business and technology in the hybrid environment of old and new economy. Existing theories and proven methods have to be applied (and challenged) to the various levels and phenomena of a networked economy, such as changing customer roles, company strategies, cooperative arrangements among companies, changing industry structures up to macro economic effects and regulatory requirements. Only then we will better understand where the old is still a reliable guide and where we need to reach out for modified, expanded, or entirely new approaches to study EC.

CONCLUSIONS

EC is not a good label or brand name any more. As a result of hype and decline, it has taken bruises. Even more importantly: one label can not effectively communicate the breadth and depth of the issues at hand. EC is a differentiated, chameleon-like phenomenon. And yet, EC has made a big difference for the IS discipline and its public recognition, it has raised numerous challenges for research and teaching alike and will change the landscape of the IS field. The (claimed) innovations and changes of the new economy pose a unique

opportunity to reconsider our theoretical inventory and better understand what lasts and what needs to be adapted. EC is reinforcing the need for interdisciplinary research (and teaching), even though we are still seeing more disciplinary claims to whatever constitutes EC. By escalating real and potential changes and related concerns, e.g. about privacy, the questions what makes sense and what we really want, become more pressing and hence more likely to be addressed.

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