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Article

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New Frontiers in e-Business and e-Government: Emerging opportunities and Challenges

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Abstract

This paper is intended to provide an overview of the key issues that emerged from the presentations and discussion of a successful workshop organised by the British Academy of Management (BAM) e-Business & e-Government Special Interest Group at Newcastle University Business School on 9-10 November 2006. In addition to introducing the three main papers and the research note, which are based on the keynote presentations but have been revised in light of the discussions and questions as well as reviewers' comments on early drafts of the papers, we also highlight some of the key questions the participants raised and debated as well as issues that emerged from the open discussions.

Keywords: e-business, e-government, e-public services, new technologies

INTRODUCTION

Professor Feng Li, Convener of the e-Business and e-Government Special Interest Group, opened the workshop by outlining the key aims, which were primarily to identify the main issues at the forefront of this exciting and dynamic area of research. Many people are currently researching the e-business and e-government phenomenon from a range of different fields, such as strategy, information systems and marketing, but often e-Business and e-Government are on the fringe of their research. In order to gain a more coherent understanding of e-Business in general, it is important that the field is examined in a more systematic and all-embracing manner. Key issues surrounding e-Business that require further investigation include the most significant technical and non-technical developments, current and future applications, emerging opportunities and potential implications. Many developments and opportunities are arising which are turning industries upside down and enabling them to be transformed e.g. newspapers, music. Moreover, it is essential that once the most important issues are identified, existing frameworks are examined to determine their appropriateness for analysing the resulting business, political, social and economic issues.

Throughout the workshop, participants presented, discussed and debated a wide range of emerging issues in the broad area of e-Business and e-Government, ranging from the uncharted territories of MMORPGs and their profound business, social and policy implications, to the very sophisticated conceptual, methodological, theoretical and practical issues in the e-Government and e-Public services.

The keynote presentations and subsequently the three main papers and the research note were delivered by:-

- Professor Tony Manninen, University of Oulu, Finland – “MMORPG: Is it a product or is it a service - challenges and implications of online games”
- James Cornford, AIM Public Services Fellow – “Focusing on Customer Focus in E-government”
- Professor Mike Martin, Newcastle University – “Identity and Relationship Management: The new challenges in public and commercial services”
- Professor Paul Beynon-Davis, University of Cardiff – “e-Business maturity and regional development”

Further discussions took place on ‘New Media Industries’ and ‘Emerging Technologies and Applications’.

“MMORPG: Is it a product or is it a service - challenges and implications of online games”

The first keynote presentation, by Professor Tony Manninen, focused on perhaps one of the most profound technological developments – Massively multiplayer online role play games (MMORPGS). MMORPGS emerged in the 1990s and are virtual games involving virtual characters, levels, tools (e.g. weapons, islands), buying and selling resources and gaining social status. Drivers such as rewards and puzzles motivate and challenge people.

Recent MMORPGS have become far more than just computer games and indeed many of them have developed into goldmines for economic activities and social interactions. Millions of players are spending as much as 40 hours per week playing them, interacting with virtual characters of other players and building up networks of relationships and bonds. There are business opportunities for product and service based models. Current business models are evident in a variety of forms: subscription-based; one time fee; free basic services and charges for additional services; free games and advertisement revenue. Future Business Models could potentially place more focus on the secondary markets emerging and may involve trading virtual assets outside the MMORPG e.g. e-Bay. This will of course have a range of political and legal implications. Business models also need to focus on the significance of the total business value that may be attained through product and service- based models and the potential level of sustainable competitiveness advantage.

Opportunities also abound for developing business applications e.g. moving away from mainstream entertainment to using game-like features in business applications e.g. teaching, marketing, training, process modelling. In process modelling the game could be used to get people interacting, for gathering process data and analysing data. For example, it could be used for process modelling an area such as hospital management. However, the question needs to be raised as to whether or not it is rationally viable to connect the virtual fantasy worlds of MMORPGs to real world business applications and would practitioners be able to connect, synthesise and draw meaningful business value from both worlds? This is an area of research that requires future investigation.

Focusing on Customer Focus in E-government

The second keynote presentation, by James Cornford, examined the online interaction between government and citizens (customers) within the UK. Most of this level of interaction takes place with local government e.g. local authorities, schools, local health services.

The presenter argues that despite customers being supposedly placed at the centre of e-government within the UK, it has probably been one of the most underperforming aspects of e-government in the UK. This had led to the rising phenomenon of 'customer focus without customers'. A number of potential reasons are offered for this, including customers being resistant to change, poor online design and a lack of marketing.

However, the presenter offered a more fundamental reason for the lack of customer participation, which relates to the way in which customers have been represented within e-government CRM systems. Customers have been represented as one set of individuals that are rational, coherent, self knowing, self-interested, time pressured, demanding and as having rising expectations of the standards of public sector services. Moreover, the CRM systems are programmed to respond to these particular types of individuals and in certain types of ways. The CRM systems are expecting customers to act in certain ways and say certain things and are unable to handle a deviation away from this. Therefore, unfortunately, for a large proportion of customers who have been misrepresented within the systems, this creates an 'I'm not listening effect'!

Rather than involving customers in the way in which they are represented within e-government CRM systems, customers have been represented in a way which is meaningless to the majority of customers. Representation within CRM systems is not necessarily a bad thing but only if customers are engaged and take a role in deciding how they are represented. Consideration needs to be given to whether or not it would be useful for a coherent framework to be developed that provided guidance on representing customers more accurately in CRM systems. Furthermore, is it just down to one fundamental issue or a range of issues and do these vary in different environments and sectors?

Identity and Relationship Management: The new challenges in public and commercial service

The third keynote presentation, by Professor Mike Martin, concerned the nature of identity and relationship management in the public and private sector, and the related challenges. In particular, he suggested that despite the, stereotypically, outdated nature of systems in the public sector - the private sector could learn from the public sector on how it deals with identity and relationships. Professor Martin's presentation dovetailed very well with James Cornford's talk the previous afternoon regarding 'customer focus' in e-Government.

The first part of Professor Martin's presentation gave a detailed description of the case of 'Mary' and her relationships with the national charity Barnardo's through SureStart (a drop-in family support Centre) and MOSAIC (a counselling service). The father of her child was also attending MOSAIC (in a relatively close but different geographical area) creating further issues relating to the need to keep Mary's data/identity separate and secure within different parts of the system. The complexity of Mary's case set the scene for discussion of identity and relationships, particularly within an information system (IS). Professor Martin noted that the typical private sector model, focusing on accountability and integration of the data, may not be helpful where separation of the various interactions Mary had with Barnardo's was paramount - a system is not the real world.

Drawing on the work of Charles Sanders Pierce, Professor Martin argued that relationship and identity management is frequently seen as a dyadic relationship between an individual and the system where data about the individual is stored (an 'object' and its 'attributes'). In this situation, the relationship and the access/control mechanisms are separate, and issues regarding identity/relationship are frequently resolved, simply, by putting in place more access and control mechanisms. He argues, however, that this dyadic model has limited value and that a more interesting, important and significant way of looking at relationships is to view them as *triadic*: with interactions between the individual, the system and, importantly, the owner of the system who determines the purpose of the system and its use.

Explicit governance and governance structures were seen as the key to these triadic relationships – not technology. Identity and relationship were seen as separate responsibilities and services, but in terms of operation were inextricably linked. Information systems are inherently reductionist in an attempt to 'keep it simple'. However, real life is more complex and individuals may have multiple identities and relationships, with information flowing from one encounter to another. In Professor Martin's view any system must be, at least, expressive enough to capture and keep separate (as appropriate) the complexity of Mary's relationships (for example) with the drop-in centre, her

counsellor, and her appearance in the records of the father of her child. Professor Martin concluded that the bottom line was to devise and enhance systems which “improve the quality of the mistakes we are making”. Although perfection is unlikely, avoiding making the same mistakes was vital.

e-Business maturity and regional development

The fourth and final keynote presentation was given by Professor Paul Benyon-Davis based around the work of the E-Commerce Innovation Centre (eCIC) (Cardiff Business School, Cardiff University), where he is currently Director. His talk reflected on what he has learned about the nature of e-commerce/e-business as it affects the 99.5% of United Kingdom (UK) businesses who are small and medium-sized enterprises (SMEs).

E-business was seen as a socio-technical discipline spanning both technology and organisations, with the broad aim of improving the performance of organisations. Hence e-business is a practical and applied discipline. Professor Benyon-Davis noted that although, currently, Third Mission work (innovation, engagement with industry and knowledge transfer activities) is perhaps perceived by Universities as less of a priority than teaching and research - this is changing. The balance between the rigour and relevance of research may also be changing: rigorous research takes time, and in an evolving and dynamic field such as e-business greater time taken may erode the relevance. As the balance shifts towards relevance, the concept of what constitutes rigour may have to adapt.

According to Professor Benyon-Davis, the conventional wisdom is that greater adoption of information and communications technologies (ICTs) and electronic business (EB) yields increased business benefits in terms of, for example, competitiveness and the ability to be ‘locationally independent’ and compete in a global marketplace. However, he argued, the aggregate regional benefits of adopting ICTs/EB are hard to measure, as most businesses (SMEs and larger organisations) tend not to evaluate their ICT/EB investments.

The work of the eCIC could be characterised as relating to the information society, with the ‘e’ of e-business referring to technology’s embeddedness in everyday life. In counterpoint to this, Professor Benyon-Davis reminded the audience of the Digital Divide, whereby not everyone has access to online technologies, or the skills to use them. This impacts business strategy as e-business may not be appropriate for a particular demographic, if access and skills are limited.

A significant part of Professor Benyon-Davis’ presentation focused on the work of eCIC, which has provided e-business related support to SMEs in Wales. Results of the eCIC ‘State of the Nation’ annual survey(s) were presented, based on an e-commerce adoption ladder which SMEs ‘climb’ as their engagement with e-business and related technologies increases. Strengths and weaknesses of such ‘stages of growth’ models were identified, and the speaker gave the audience an insight into his current thinking on how theories of e-business, and the work of eCIC, could be enhanced in the future. Key themes included: the use of value networks for understanding, explaining and engaging with SMEs; conceptualising e-business as having both an internal and external focus, with the technology providing not only a vehicle for competition, but also cooperation and collaboration (Partner-to-Partner networks); and replacing the adoption ladder with a maturity assessment form/index. Professor Benyon-Davis concluded his presentation by describing a number of the issues facing the SME e-business area. For example, the tension between the need to support businesses at the *lower end* of the e-business adoption ladder, and funding bodies focusing their support on activity engaging with *advanced uses* of e-business technologies. Encouragement of strategic thinking and the related managerial skills could be crucial, and there is the ongoing challenge of encouraging organisations of all sizes to justify and evaluate more clearly their investments in ICTs/e-business.

This presentation raised a number of issues that need to be challenged e.g. is more mature adoption and investment in ICTs and E-Business always more beneficial to SMEs. If not, how should SMEs strategically evaluate which advances, technologies and applications would be most beneficial for them to embrace and which stage of the maturity assessment index they should strive to achieve.

The New Media Industries

Joanna Berry led an interesting and wide ranging discussion based around the question: What are ‘new media industries’? The response to this question depended on how you framed the question itself. Social networking phenomena such as YouTube and MySpace could be considered ‘new media’ industries ie new media providing a break from the traditional industries of, for example, print and television. On the other hand, perhaps they are ‘new’ media industries, in other words simply the latest incarnation of existing media industries. Joanna guided the audience through the discussion, bringing to bear both her academic expertise, and a wealth of industry experience from her work as Communications Director for a London based record label.

A wide range of examples was discussed: the well known and popular YouTube and MySpace; Yahoo Answers, where questions posed can be answered by interested, and sometimes highly knowledgeable, members of the public; to less well known websites such as iStockPhoto (where the public can buy or sell their photographs online for a modest flat fee). Key examples were social networking/bookmarking sites such as digg and del.icio.us, where users can tag/vote on the material they find interesting.

A particular strand of the discussion was that it is no longer enough for content to be provided to consumers as passive recipients of 'the message'. Consumers are becoming more demanding and want to be involved in the co-creation of consumer content, where the act of creation is linked to the act of consumption, for example: viewing material on digg (consumption) and voting on what you have seen, thereby informing others who may hold similar interests (co-creation of 'best' content). To what extent, then, are these new media messages more, or less, or equal, in value to traditional media messages? And what are the implications for businesses - empowered consumers are happy consumers; happy consumers spend money. Do we require new theories to support our investigations and understanding of these phenomena? A range of views was expressed, and it is clear that there are significant, and exciting, research and business opportunities available through this blurring of boundaries between old and new media.

Emerging Technologies and Applications

The theme of this discussion session was 'Emerging Technologies and Applications'. More generally, it provided the audience with a final chance for discussion, reflection and comment on the presentations and discussions across the two days of the event. To set the scene and prompt discussion the facilitator, Peter Duncan, asked the audience to consider three questions:

Firstly, what are the currently emerging technologies and applications (ie those currently 'arriving' or at least 'on the horizon')? Secondly, a more speculative view about what will be the emerging technologies and applications (ie those which are beyond/over the horizon at the moment)? Finally, the audience was asked to challenge any pro e-business or e-government bias they might have - are there any areas where e-business or e-government will not be relevant, or at best be a 'slow burner' in terms of development?

The example was given of the Funeral Services Sector in the United Kingdom, where some small scale research had found that for, in particular, sociological reasons - e-business may not, currently at least, be appropriate. This prompted some lively discussion relating to funeral planning, cardboard coffins, procurement within the industry as well as consumers, and the global sourcing of stone for monuments. More generally, points were made regarding cultural presuppositions assuming 'one size fits all' regarding e-business. For example 'Linn', who make top of the range sound systems, rely on potential customers hearing the actual system itself, rather than having the sound adulterated through, for example, a computer's soundcard. The pervasiveness of information and communications technologies in everyday business and life may be such that 'opting out' may be extremely difficult even if we were to try to.

A number of emerging technologies and applications were identified. Nano technology may lead to scanners and data being embedded in our bodies. Location was a theme. However, the transparency of Who does what where potentially brought about by technologies such as Radio Frequency Identification (RFID) or Global Positioning Systems (GPS) was seen to be a double-edged sword raising threats of 'big brother', and intrusion into our private lives. Tom Tom uses GPS as a navigation aid, whereas TravelEyes2 is designed to, potentially, be concealed to monitor the travel patterns of others, such as a "teenager's late night activity". Another example related to Smart Cards at one University Library, where the card could be used to plot your location within the library - bringing to mind the Marauder's Map in the Harry Potter books where Harry could 'see' Professor Dumbledore pacing in his study. In the non-magical 'Muggle' world, RFID could provide the backbone of a system whereby as a student left the library, any books taken out would (via an RFID tag/scanner) be logged against the student's account (determined via the Smart Card).

It may be that the 'E' in e-business and e-government could be electronic, but also stand for embedded, entrepreneur or even expectations (as in raising the expectations of consumers or citizens).

Summary & Conclusions

Professor Li closed by highlighting how the workshop had clearly demonstrated that e-Business and e-Government is an exciting and rapidly evolving area. The field of e-business and e-government provides researchers and practitioners with many opportunities relating to both theory and practice. However, such a rapidly evolving field also presents serious challenges, relating to conducting research which is both rigorous and relevant and also in understanding what is actually going on in the world.

The workshop covered considerable ground, from the uncharted, emerging territories of MMORPGs and the potential business opportunities and social and ethical problems, to the extremely sophisticated conceptual, methodological and practical challenges in e-Government. The rapid development and proliferation of the Internet and related technologies in our society and economy has brought about radical changes in the way we work, play, communicate and learn, but we have probably barely scratched the surface of the phenomenon and more radical changes are yet to come.

Fundamental challenges remain and it is more relevant than ever to ask: what is e-Business or e-Government? More importantly, what can we do about it to ensure the benefits accrue to the generic public in a fair, transparent, and equal fashion between individuals, different segments of our society, as well as between cities, regions and nations; and emerging problems from privacy to online risks are adequately addressed. It is the mission of this SIG to promote focused research in this area and contribute to the development of theory, practice and policy in the increasingly networked, knowledge based economy.

Some video clips of the event are available at http://www.ebusiness-newcastle.com/news/events/06_11_ebusiness.php.