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Facebook, YouTube, MySpace: can Web 2.0 social networking sites nudge the boardroom – the evolution of CRN 2.0 research agenda?

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Abstract

The lessons learned from the social networking sites and the related research have produced a number of reasons for the adoption of Web 2.0 technologies in the corporate environment. The users of Web 2.0 technologies such as FaceBook, YouTube and MySpace are at the same time clients and employees of organisations; therefore their expectations on the use of technology in the corporate world are changing. The evolution of technology in organisations is rapidly highlighting the potential benefits of Web 2.0 to the corporate environments. The customers are empowered to voice their opinions and help organisations to develop products and services. The communication between business could be improved by breaking the barriers of formal interactions, yet again highlighting the need for Customer Relationship Networking 2.0 (CRN 2.0) technologies. This positioning paper suggests the need for the information systems research agenda to include CRN 2.0. In particular, to discuss whether there is a place for social media in the workplace?

Keywords: FaceBook, YouTube, Web 2.0, Enterprise 2.0, CRN 2.0

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Abstract

The lessons learned from the social networking sites and the related research have produced a number of reasons for the adoption of Web 2.0 technologies in the corporate environment. The users of Web 2.0 technologies such as FaceBook, YouTube and MySpace are at the same time clients and employees of organisations; therefore their expectations on the use of technology in the corporate world are changing. The evolution of technology in organisations is rapidly highlighting the potential benefits of Web 2.0 to the corporate environments. The customers are empowered to voice their opinions and help organisations to develop products and services. The communication between business could be improved by breaking the barriers of formal interactions, yet again highlighting the need for Customer Relationship Networking 2.0 (CRN 2.0) technologies. This positioning paper suggests the need for the information systems research agenda to include CRN 2.0. In particular, to discuss whether there is a place for social media in the workplace?

Introduction

We are living in exponential times: technology is ubiquitous, the boundaries of on-line off-line are becoming undistinguishable, and geographical distances no longer constrict our activities. On the threshold of a new decade 2010, Internet users surpassing a billion global users (Gavin, 2009b) and comScore also report that (in the USA) the number of mobile phone users accessing the Internet increased 107% from 10.8M in January 2008 to 22.4M in January 2009. These are irreversible trends in how society communicates, learns, plays, and works; trends that industry must recognise, appreciate and adapt to. To contextualise this study we consider Web 2.0's ancestry. Web 1.0 communication and collaboration software tools such as email offer a number of benefits compared to the paper based systems (O'Reilly, 2005). For example, the use of email is much quicker and more productive when compared to paper based systems. An email can be instantly received around the world by millions of recipients. However, therein also lies a problem – email is often perceived to be overused, making people overwhelmed and in some cases less productive because of it (Davenport, 2005).

Several authors attempted to categorise the various communication tools. One way to differentiate the communication technology tools is to use the “Push” and “Pull” technologies concepts. Arguably, the Push applies to channels – the email arrives in your inbox not because you wanted to see it but because someone sent it to you (pushed into your inbox). Further examples of Push technology include radio, television and newspapers (Franklin and Zdonik, 1998) and some of the early research work on the push technologies dates back to the 1980’s such as the Boston Community Information Systems at Massachusetts Institute of Technology (Gifford, 1990). The Pull applies to the ‘traditional’ platforms centred tools such as web pages – you have to consciously navigate to a certain source and point your web browser to a certain web address so that these can be downloaded (or pulled) to your computer. Although the technical process of upload and download is similar (Franklin and Zdonik, 1998), there remains a conceptual difference between the two and it is the perceived activity of information recipient. The use of the Internet and the increasing use of Push technology has been forecasted predicting the demise of the web browser (Franklin and Zdonik, 1998). This is a significant development that we want to highlight in this paper and the excitement surrounding the current passion for Web 2.0 technologies research which produce some similarities to that in the 1990’s when discussing Push and Pull technologies.

Another way of differentiation of technologies currently used by the knowledge workers is based on Channels and Platforms (McAfee, 2006). The channels examples include email and person-to-person instant messaging tools, which allow communication distribution of information by anyone. The drawback of this is that the information is only visible by the designated recipients. Typical platform examples are portals and intranets and these have the characteristic of their content to being controlled by a small number of people, although it will be visible by many. The channels and platforms are the opposite of each other in a way that the control and the content production process is structured. The end user satisfactions with platform and the channel communication is not all positive; for example, Forrester research highlighted that only 40% of people were able to find the information they were looking for on the intranets (McAfee, 2006). Secondly, the problems with knowledge management highlight that so far knowledge management (which tend to be based around the channel and platform tools) have not materialised. The majority of

activities undertaken by an organisation are not visible since the limitations of the platform communication only allows a selected few to control what is published.

Several authors believe that the issue of content control could be addressed with Web 2.0 inspired technology. The term “Web 2.0” refers to a technological midst that is represented by a collection of tools such as Wikis and Blogs that allow any web page visitor to read, write and delete its content (O'Reilly, 2005). The democratic nature of such contribution-oriented tools sparked the popularity of websites such as Wikipedia and moved users from resources such as Britannica Online Encyclopedia. It is observed that because of the multitude of volunteer authors/moderators on Wikipedia the overall content is very accurate due to the ongoing peer review process (Mihalcea, 2007; Nakayama et al., 2007). The empowerment of any computer user in the world has contributed to the Wikipedia's growth in both quantity and quality of content (Mihalcea, 2007). However, the integration of such tools in workplace is still very limited and there are few academic studies in the area of information systems research that discuss this issue.

In particular, this short paper focuses on Enterprise 2.0 technologies that allow Web 2.0 inspired collaboration and communication processes which were not previously possible with conventional enterprise systems (McAfee, 2006; Robinson, 2010). The paper first illustrates existing literature in the area of Web 2.0, then a brief case study overview is given and the work to be done outlined.

Recreational Social Networking Sites pursuits will they prepare for occupational CRN pursuits?

We are currently experiencing a dramatic societal shift in communication practices as we no longer just talk or send e-mails but we message, we block, we request, we invite, we poke, we nudge, we hug, we Google wave, we even send virtual gifts such as this recent one currently being exchanged on Facebook, “shite gifts for academics” (Facebook, 2010). What has triggered these transformations is currently under debate. Livingstone (2008) suggests that young people are at the vanguard in their endless consumption of technological fuelled pursuits. It is not surprising that these changes in communication practices are reflected by growing trends in the social network

market. ComScore Video Metrix reported that the worldwide social networking audience grew by 25% from July 2007 to July 2008 (Lipsman, 2008), with sites such as Facebook now leading in western European countries (Gavin, 2009a). Additionally, this is fuelled by the increased bandwidth with approximately 90% of UK online users now having broadband internet connection (National Statistics Omnibus Survey, 2009). Indeed, Gennaro et al. (2007) argue that the Internet has played a critical role on reconfiguring social networks both online and offline. However, we turn to Wellman's (1996) reading of social networks per se to attempt an explanation of, that they are relationships with others that are deemed to be important and significant in some way. We also refer to Garton et al's (1997) notions of networks, they argue (before wireless technology) that a computer network is machines connected by cables, so therefore a social network is groups of individuals connected by a set of relationships that maybe be friendship, co-workers or information exchange. So, when a computer network connects people or organizations, it is a social network (Garton et al., 1997). Given that some Social Networking Sites (SNS) are branded as "friending" sites, which is even suggested by such sites as Friendster, HI5 and even Facebook, we acknowledge that some individuals forge friendships/associations with strangers or inanimate objects (such as Freddie Staur the frog) for a range of reasons under the guise of friendship. Furthermore, it would be naïve to assume that social networks exist only to arrange the next party, keep up with family news or to simply chat and gossip. If we return to Garton et al's perception of ICT enabled social networking that, connects not only friends but also organisations and the potential to exchange information.

It is not surprising that the corporate environments are becoming increasingly aware of SNS and other Web 2.0 tools to engage with their prospects. Long gone are the days of productivity paradox or Dot.com bubble burst, where IT was no longer perceived as a competitive advantage. The use of these tools internally can include knowledge management, development Products and services, training, increased collaboration across organisations and externally: increased interaction with organisation, marketing research and public relations (McKinsey Global Survey Results, 2008). The high profile engagements of Web 2.0 tools have been illustrated by the USA presidential election of 2008. Democratic party in particular harnessed the power of social media with both Hillary Clinton and Barack Obama campaigning via

a number of networking sites such as YouTube, Facebook, MySpace and Twitter resulting in \$55bn being raised in February 2009 without a single attendance of an event (Green, 2008). Whilst external engagement with social media for organisations is being studied under social media marketing where organisational profiles are established and prospects are asked to engage, it is more complicated for organisations who want to use existing databases and records to connect to these platforms. In addition to the technical issues, a number of systemic problems occur – What are the risks associated with the use of SNS in organisations? How should these be integrated? How do employees react to the merge of private and work identity on the Internet – or should there be several of these?

Case study overview

The current case study is based on Cetus-Solutions Limited, an Small to Medium Enterprise (SME), located in North-West of England, UK; who specialise in IT Infrastructure management and implementation. All company employees are IT literate and several have access and use social networking for social purposes. The company prides itself as being a leader in technology adoption and also places high value on customer relationship management. This attitude allows the organisation to grow in the “credit crunch” times and expand its business. However, the management recognised that the current IT systems used for internal communication and operational management were not following the Web 2.0 trend since they were based on classic Web 1.0 databases of customer relationship management (CRM). Moreover, customers and suppliers had no opportunities to update their status or information and communicate with IT Solutions Ltd, which was perceived, as a major need to allow social networking and hence empowering the customer and supplier relationships development. It was decided to develop a custom Customer Relationship Networking 2.0 (CRN 2.0) system, which will replace the functionality of current CRM. The following are some challenges that were identified in the project so far.

The case study data collection was undertaken prior to the project development in the summer of 2009. Employee interviews were undertaken focusing on their experiences of the enterprise Web 1.0 systems and their attitude towards Web 2.0 tools and

technology. Management focus groups as well as document reviews also influenced the data collection to reflect the strategic direction of the organisation.

Discussion:

The development of the custom CRN 2.0 system has raised a number of issues, some of which are preliminary discussed here and offer a conceptual framework for future studies:

Application security

When developing an enterprise application the company has to comply with legislation that governs security and integrity of data. Therefore developing an application that resides on existing SNS servers such as Facebook application means that data control will be lost. Additionally, there are thousands of third party integrated applications that feed into Facebook and could potentially be dangerous and contain malicious code. Hence development of a custom based Enterprise 2.0 system is one step in mitigating this security risk.

Data integrity

The second problem presented by any Enterprise 2.0 application is that the users have the power to change and delete information, which yet again could be malicious. This is different to those systems that are purely used for marketing purposes such as Twitter and Facebook as illustrated in the presidential election campaign, since users are not necessarily getting something informal but they are part of commercial contracts in Enterprise 2.0. To counteract this mechanisms are necessary to track all changes and be able to follow trace all steps individuals took on their accounts.

Employee willingness

By allowing all internal staff to communicate and develop Enterprise networks with individuals in partner companies who could essentially be customers and both suppliers the company makes itself more exposed in the way it operates. Whilst transparency is welcome by many it is making organisations vulnerable to leakage of commercially sensitive material and information. For example the supplier might decide to contact Cetus Solutions Limited customers direct since they have the

information. Whilst the benefit of this is also visible in a sense the customers can get support directly from vendors and if this support is offered openly it can be viewed by others who won't need to ask the same questions. Will the employees be willing to contribute to such open discussions where all issues where potentially a service call is logged and resolved openly.

Commercial benefit

Most importantly, learning from the productivity paradox and the dot.com bubble the commercial benefits of a CRN 2.0 system are paramount to any business. Whether commercial benefits of such enterprise 2.0 application will be realised or not remains to be seen. How can these benefits be measured? How can an organisation justify the move to such CRN 2.0?

Conclusions and recommendations

The current short paper contributes to the Enterprise 2.0 literature by highlighting the current research stand in the CRN 2.0 emerging research area. The preliminary findings of pre-implementation offer a conceptual framework, which we suggest could be used by any future studies as a point of reference. However, we do not suggest that this is the only way to conceptualise the emerging research problem, and due to the work in progress there are obvious limitations and recommendations for future research direction.

References

- Davenport, T. H. (2005). *Thinking for a Living: How to get better performance and results from knowledge workers* Boston: Harvard Business School Press.
- Dutton, W. H., Gennaro, C. d., & Hargrave, A. M. (2007). *The Internet in Britain* [Electronic Version]. The Oxford Internet Survey,
- Facebook. (2010). *Shite Gifts for Academics* [Electronic Version]. Retrieved 1 February 2010, from <http://www.facebook.com/apps/application.php?id=31678459829>
- Franklin, M., & Zdonik, S. (1998). "Data In Your Face": Push Technology in Perspective. *Communications of the ACM*, 27(2), 516 - 519.
- Garton, L., Haythornthwaite, C., & Wellman, B. (1997). Studying Online Social Networks. *Journal of Computer-Mediated Communication*, 3(1).
- Gavin, J. (2009a). *Facebook Ranks as Top Social Networking Site in the Majority of European Countries* [Electronic Version]. Retrieved 1 February 2010, from http://www.comscore.com/Press_Events/Press_Releases/2009/4/Facebook_Top_Social_Network_in_Spain

- Gavin, J. (2009b). Global Internet Audience Surpasses 1 Billion Visitors, According to comScore [Electronic Version]. Retrieved 01 February 2010, from http://www.comscore.com/Press_Events/Press_Releases/2009/1/Global_Internet_Audience_1_Billion
- Gifford, D. K. (1990). Polychannel Systems for Mass Digital Communication. *Communications of the ACM*, 33(2), 141 - 151.
- Green, J. (2008). How Silicon Valley made Barack Obama this year's hottest start-up [Electronic Version]. *Atlantic*. Retrieved 1 November 2009, from <http://www.theatlantic.com/doc/200806/obama-finance>
- Lipsman, A. (2008). Social Networking Explodes Worldwide as Sites Increase their Focus on Cultural Relevance [Electronic Version]. Retrieved 1 February 2010, from http://www.comscore.com/Press_Events/Press_Releases/2008/08/Social_Networking_World_Wide
- Livingstone, S. (2008). Taking risky opportunities in youthful content creation: teenagers' use of social networking sites for intimacy, privacy and self-expression. *New Media & Society*, 10(3), 393-411.
- McAfee, A. P. (2006). Enterprise 2.0: The Dawn of Emergent Collaboration MIT Sloan Management Review, 47(3), 21 - 28.
- McKinsey Global Survey Results. (2008). Building the Web 2.0 Enterprise: McKinsey.
- Mihalcea, R. (2007). Using Wikipedia for Automatic Word Sense Disambiguation. Paper presented at the NAACL HLT, Rochester, NY,.
- Nakayama, K., Hara, T., & Nishio, S. (2007). Wikipedia Mining for an Association Web Thesaurus Construction. In *Web Information Systems Engineering – WISE 2007* (pp. 322-334). Berlin / Heidelberg: Springer
- National Statistics Omnibus Survey. (2009). Internet Access: 70% of households had access in 2009 [Electronic Version]. Retrieved 10 January 2010, from <http://www.statistics.gov.uk/CCI/nugget.asp?ID=8&Pos=1&ColRank=1&Rank=192>
- O'Reilly, T. (2005). What Is Web 2.0: Design Patterns and Business Models for the Next Generation of Software [Electronic Version]. Retrieved 28/11/2008, from <http://www.elisanet.fi/aariset/Multimedia/Web2.0/What%20Is%20Web%202.doc>
- Robinson, A. (2010). Move with the times. *ITnow*, January 2010(Social Networking: Why businesses need to embrace the latest web 2.0 applications), 10-11.