Web 2.0 and business – a pointer to the intranets of the future: From 2006 to 2011 – an interview with Luke Tredinnick

Introduction

In 2006, *Business Information Review (BIR)* published an article by Luke Tredinnick which explored the application of Web 2.0 technologies to business intranets and their potential use in managing and developing information and knowledge assets. Tredinnick argued that Web 2.0 should be regarded not as a technological innovation but as one that is changing the understanding of the status of information and knowledge and the role of the user in information applications. As information proliferated, control would be handed to users with the prospect of a more democratic and evaluative phase in the exploitation of information in organizations. Between 2008 and the end of 2010, the article has been downloaded 2,800 times – a *BIR* record. This signals such a strong and continuing

interest in the topic that the *BIR* editors decided to request an interview with Luke Tredinnick in order to explore whether, from his perspective, Web 2.0 has delivered his anticipated changes in the ways we view the relationship between users, information and knowledge.

First, we asked Luke where his research interests have taken him since 2006.

Since 2006 I have done less work on business information systems and more work on the culture of the web, and the cultural values associated with digital artefacts of various kinds. This has focused in particular on the uses of writing in the digital age, on the function of history and the historical past in the digital age, and on the epistemologies of digital culture. Some of this probably sounds a little esoteric and academic, but these subjects have a direct impact on many areas of digital culture, including the use of technology in the workplace. For example, the ways in which writing is changing has a direct bearing on corporate communication, and the emergence of social networking, of course, has fundamental importance for the ways in which we do business in the 21st century. My interest has been less in documenting what is happening, and more in attempting to understand the challenges and opportunities posed by technology that arise from the structural qualities of digital information itself in its various forms.

Your article suggested that 'Web 2.0 seems poised to revolutionize the way we interact with information – but other technologies have promised much and come to nothing'. Has Web 2.0 delivered?

Yes I think Web 2.0 is slowly transforming the ways in which information artefacts are created, disseminated and consumed. This is naturally an ongoing process – a long revolution. Of course, in 2006, Web 2.0 was subject to a great deal of hype, and some of that has not been realized. Furthermore, some of the technologies associated with Web 2.0 seem perhaps less revolutionary in retrospect.

However, I think it is important to recognize a couple of issues in relationship to this. In my article I wrote 'Web 2.0

is not characterized by technological innovation *per se*, but by a shifting understanding of the status of information, knowledge and the role of the user in respect of information applications'.

This point is still worth iterating. Web 2.0 is not merely a bundle of applications and services, but also a way of conceptualizing the relationship between content, platform and user that in a sense opens up the web as a site of collaboration rather than a site of publishing. The second point to stress is that this particular understanding of the relationship between content, platform and user represents both an explicitly political outlook and one that has quite a long history in the computing subculture.

Indeed, the point about Web 2.0 is that it is really only a re-articulation of the original ideals of the web itself, and a realization of some of those ideals. Therefore you can trace back many of the preoccupations of O'Reilly's article (O'Reilly: 205, Web link) through the work of Berners-Lee, through various movements such as Open Source, Open Journals, the bulletin board movement, or shareware and freeware libraries, and right the way back to the hobbyist beginnings of mass computing. 'Web 2.0' is merely the most recent label that is associated with those ideals, and it will undoubtedly be superseded by something else.

Nevertheless there is a general sense of paradigm shift as a new generation of technology leaders, developers and users has incorporated the basic assumption of openness and collaboration into their general outlook.

How has Web 2.0 influenced the way we manage information and knowledge assets?

I think this is a more open question. The ways in which information resources have traditionally been managed have, on the whole, assumed relatively stable and unchanging information assets. Stable information artefacts have the huge advantage of not changing over time, such that we can use various surrogates in our management of them, from the catalogue record to the index. The problem with the dynamic information resources of the last decade or so is that they are not very responsive to these traditional ways of managing information. Information and its surrogates can and do diverge, and because modern information and communications technology has more or less limitless functional capacity, with the capability to access the entire long tail, the traditional surrogates become rather redundant. We either do without them, or find new kinds of surrogates that are less about describing particular information and knowledge artefacts, and more about building relationships between diverse resources. That requires us to think about information and knowledge not as qualities embedded in various material things which can be described, but as processes that arise out of our social experience.

The emerging view is to see social relationships, not information, as at the heart of the process and to manage the multiplicity of information, communications and

knowledge assets by associating them with our existing social relationships. The assumption is of course that we are probably interested in the kinds of things that our friends and acquaintances are also interested in, which may be unrealistic. But nevertheless this shifts the focus of information management away from thinking about the content or meaning of information, towards thinking about the contexts of its dissemination and use.

This becomes possible not only because of the social networks that are central to Web 2.0, but also because of the data mining techniques developed in Web 2.0 applications. Digital technologies have the side effect of creating innumerable networks that link people, rather than information, from the network of email addresses created by any email app, to what are recognized as social networking platforms such as Facebook or LinkedIn. The trick is to piggy-back on these networks. So in that sense Web 2.0 is beginning to make a significant influence on the management of information and knowledge.

More interesting perhaps is the way in which this shift alters the kinds of tools we use to organize our personal information and communications spaces. Mobile computing, particularly mediated through the new generation of smart phones and tablet devices, is shifting the hub of individuals' information spaces away from the desktop and onto the handheld device. This introduces some more powerful and more interesting possibilities, because mobile devices follow us into social environments that the desktop or laptop could never really penetrate.

Has Web 2.0 helped realize 'a more democratic phase in the exploitation of information in organizations'?

No, and I think this statement was probably more polemical than anything. The factor which I think is often not accounted for in discussion of the democratizing potential of the web is that opportunities for participation are not equally distributed. In *Digital Information Culture* I suggested that 'Digital culture does not reflect the seeds of a new democratic organization of society and social participation, but simply a re-sorting of existing lines of power and influence'.

This is perhaps as true within the organization as outside of the organization.

But this emphasizes something quite important in the use of technology in corporate and organizational settings. Technology by itself will not change the culture of an organization. Technology by itself will not transform a top-down management culture into a participatory culture in which the creativity of all employees is realized. Some years ago, you would find that open internal discussion forums on corporate intranets often remained chronically underused for the kinds of business orientated collaboration they were meant to encourage. That was often because the personal risks to an individual of contributing were too great. The same applies with the current generation of collaboration tools. You have to have in place a culture of participating and

collaboration in order for collaborative tools to be successfully exploited, and for many organizations that culture is a step too far. Trusting your users applies within the organization as well, and this is why, incidentally, Web 2.0 should be understood not principally in technological terms.

However those companies that do genuinely foster collaboration – and the technology industry leads the way here – do demonstrate the enormous advantages from doing so.

Has Web 2.0 changed our view of knowledge?

Yes, although I think this is a gradual process. The ability to rapidly verify or falsify any of the various claims that we encounter on a daily basis necessarily changes somewhat the trust that we place in traditional sources of knowledge and traditional sites of authority. It is also fairly obvious that with information saturation, the value of knowing anything declines somewhat. Far more important is the ability to do something creative or original with available information. I think it is quite difficult to be genuinely critically engaged in contemporary culture without problemetizing notions that a generation ago would have been predominantly understood to be unproblematic, such as truth and fact. We are simply more exposed, and more frequently exposed to the basic problem that any dataset will support innumerable claims, and that does encourage a certain cultural scepticism and individualism.

But I think it is important to recognize that this does not result in a situation where all claims are assumed to be equally valid – clearly nobody believes this. We do continue to validate claims, but not perhaps on the basis of their agreement with some putative external reality, but rather in terms of their self-consistency. For example, the reason why climate scepticism is unpersuasive is precisely because it purports to be a particular kind of claim about the world – a scientific argument – while not meeting the basic criteria for claims of that kind. This emphasizes that 'knowledge' becomes less important to an information saturated world than understanding the processes by which particular forms of knowledge are created and validated.

Blogs, wikis and RSS feeds – have these had the impact you expected? What has happened that you didn't expect?

I think that specific technologies come and go, and each tends to have its moment. Blogging in particular is well past the peak of the hyper cycle, but nevertheless continues to be popular. You also find that new technologies become rapidly incorporated and remediated by traditional media. Therefore to some extent the appeal of the blog or RSS has declined. But the particular technologies are not really important. What are important are the values that they embody.

The unexpected development since 2006 has been the continued rise of microblogging in general and Twitter in particular. What is interesting about Twitter is that in the increasingly functionally unlimited information space of the Internet, it imposes entirely artificial and arbitrary boundaries on communication, and that these are not only attractive to a diverse range of users with very different needs, but offer their own potentials. I think it is unclear whether microblogging will remain so high profile, but it is clear that Twitter has in some cases replaced some other, older technologies in corporate communication, such as RSS.

The other unexpected development has been the rise of the mobile phone app. It is not so much the idea of the app itself which is novel, but the relatively small entry barriers to app development, which has unleashed really quite unexpected degrees of innovation and creativity in the app marketplace. I think apps demonstrate that the future of software development is perhaps smaller scale than it has been in the past.

Apps have also helped realize the advantages of embedding metadata in content and genuinely separating content and platform – the benefits of which have often not been as manifest as they should be. Apps have allowed the value of web published data to be realized in other computing contexts.

Web 2.0 and improved organization of information and knowledge – what do you see as the big hitters? Is Intranet 2 the intranet you thought would materialize with as many authors and users?

Generally speaking, I think the monolithic corporate intranet as a way of leveraging business advantage is dead. But, you know, I think the ideal of the corporate intranet has probably been dead for quite a long time. That is certainly what I was trying to hint at in my 2004 book, *Why intranets fail.* That is not to say that there are not successful intranets being used across the world, many of which are increasingly incorporating social software of various kinds. Nor to say that in the future there will not be internal business platforms that perform all the functions of intranets. But the corporate intranet was always a poor solution for many of the problems that it was supposed to address. Intranets often fail to deliver the expected benefits because the needs of different stakeholders are often poorly aligned. The idea of Intranet 2.0 was really to move away from that old idea of the intranet, but that has largely been overtaken by the idea of enterprise 2.0. Whether enterprise 2.0 can ever become more than just a Web 2.0 spin-off is less clear.

That said, there has been quite a widespread adoption of some of the tools of Web 2.0, and often in some surprising quarters. In the original article I suggested that opening up the information systems of an organization to greater collaboration carried with it obvious risks in terms of corporate governance. This is interesting, because either it suggests a little naivety concerning the risks of wikis within the corporate context, or a recognition that the risks are outweighed by the benefits.

Optimizing the value of user intelligence is happening – are you surprised at the momentum being achieved?

No, but I am slightly wary of the rhetoric surrounding the wisdom of crowds and its potential applications. The wisdom of crowds is simply the operation of the marketplace, and we should be aware that the marketplace is not always rational.

Nevertheless, I would separate two kinds of user generated content. On the one hand there are the relatively straightforward reviews and comments services, where the kinds of information exchanged that always took place in social environments is remediated through the web. You can include in this reviews on e-commerce sites, and reviews on comparison sites, as well as the comments pages of traditional media websites. I am not clear these actually add value beyond making what were ephemerally expressed opinions more permanent.

On the other hand are the opportunities for genuine creativity and collaboration, including wikis, open source, and app marketplaces. By reducing barriers to entry to various forms of creative and participatory cultural activity, these services demonstrate the hidden creative potential of 'users' and add genuine value to products and services.

Any other comments on information and knowledge management today – and next year? What should we be watching?

The mobile web is where most of the action is at the moment, and this offers interesting new possibilities. I think the potential of location based services is waiting to be fully realized. At the moment the virtual world and the real world are in spatial terms more or less independent. However, increasingly I think digital information resources will exist in a virtual space that literally overlays the real world, a series of data layers that sit on top of the physical environment. I am not sure that augmented reality applications are more than a gimmick, but the ability to routinely geotag information will I am sure reveal a whole range of creative applications in the coming years. Since late antiquity, spatial visualization has been used as a mnemonic device – projecting images onto familiar spaces in the mind's eye as a way of retaining information. The ubiquity of GPS devices should make it possible to literally overlay reality with layers of information.

The other big shift that is taking place slowly, is the realization that there may sometimes be more benefits to organizations in opening up those data sources over which they have control rather than limiting use of that data and poorly exploiting it themselves. The natural inclination is towards protecting potentially commercially exploitable data. The advantage of opening up data sources is that it allows third-parties to exploit that data in creative ways that could probably not be anticipated, ways which in themselves are probably not commercially viable for the organization itself, but ways which nevertheless add value to the organization and its services. The success of mobile apps on Android and IPhone has been driven by the ability of developers to exploit and incorporate third-party sources of information.

Finally, I think software development is diversifying in a way that may enable even quite modest organizations to bring some development in-house. Developing mobile apps is comparatively straightforward enough for companies to do without investing significant resources and the innovation being seen in apps developed by a range of individuals reinforces this.

References

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Biography

Luke Tredinnick is a Senior Lecturer in Information Management at London Metropolitan University. He specialises in digital culture, theories of the information age, and new media practices. He has written three books published by Chandos Publishing: *Why intranets fail (and how to fix them); Digital information contexts: theoretical approaches to understanding digital information;* and *Digital information culture: the individual and society in the digital age.* He has also published various articles in scholarly and professional journals.