

Web 2.0 and learning

by Donald Clark



Web 2.0: the rising tide



What is surprising is the dominance of Web and Web 2.0 brands. The verb 'to google' is now in most major English dictionaries and Google is easily the most popular access point for Web 2.0 services. It also displays all the characteristics of a Web 2.0 company by, for example, buying blogger.com, one of the largest blog services companies in the world. User-driven blogging is one of the primary examples of Web 2.0 services. Google also supports a raft of easy to use Web 2.0 tools such as Google Earth, Google Calendar, Google Sketch, Writely and so on.

Apple has transformed itself into a Web 2.0 company by changing focus away from computers to iPods, iTunes and iPhones. It fuelled podcasting, a major feature of Web 2.0 user-driven content, with the astoundingly popular iPod and iTunes. Podcasting is typical of a bottom-up Web 2.0 phenomenon. The distribution of simple audio files has proved to be an enduring feature of easy to create content. It has also transformed the music industry turning its traditional offline media model on its head.

YouTube is as Web 2.0 as it gets. Users upload and share videos in their millions. Each video has a discussion forum and content can be used in blogs and other contexts. Started in 2005 and bought by our brand leader Google for \$1.65 billion in 2006. To see a short 5 minute video defining and describing Web 2.0, see this YouTube video:

<http://www.youtube.com/watch?v=nsa5ZTRJQ5w>

Wikipedia isn't even a private company, yet has a powerful brand and published product with over 2 million articles. This is often seen as the archetypical Web 2.0 phenomenon, an encyclopedia created, improved and shared by users. It's big, it's dynamic (changes by the minute), it's useful and it's free.

In a way Starbucks isn't out of place in this group with its free wireless access and laptop coffee drinkers. It characterises the global, social network.

Rising tide

What are the implications for the learning world? Two years ago the Web 2.0 tide started to rise. We're now up to our knees in Web 2.0 content and tools and its rising still.

This phenomenon is now shaping the learning landscape. We see knowledge, not as something that has to be learnt, but managed. We now have a causal nexus of networks, human and electronic, which regards knowledge as an accessible extension of our brains.

They are, in effect, replacing a lot of what used to pass for training. It is no longer about committing huge amounts of facts and knowledge to memory. It is about knowing how to access and use knowledge to best effect.

This rising tide has no ebb. It will not recede. It is only a matter of how high it rises. Web 2.0 is important because it has already washed out some traditional training and knowledge management practices. This is sure to continue.



So the outward face of the services seems to have fully embraced the need for web 2.0 user-generated content to attract new personnel.

Why? Because they understand that two-way communication is expected with this generation.

Web 2.0 – military recruitment sites

All three services recognise the demographic issue facing them; a declining pool of appropriate recruits, combined with changing needs of the modern military. They have thus produced Web 2.0 rich recruitment websites.

Recruitment website (www.armyonline.mod.uk) starts with a 60 degree panorama of army employees. Click on one and you get a video clip of that person describing their job. The next website, due this year will use real blogs, microsites with content generated by users and live chat to army careers advisors. The Web 2.0 influences of YouTube, blogs and messenger are obvious.

Royal Navy recruitment website (www.careers.royalnavy.mod.uk/) has a similar panorama with video blogs of personnel, written blogs, downloadable ring tones, wallpaper downloads and some excellent short games. The Web 2.0 influences YouTube, blogs, messenger and mobiles are again on show.

Recruitment website (www.raf.mod.uk/careers/) has the richest set of Web 2.0 resources. There's videoblogs of personnel, audioblogs, textblogs, TV ads, a personality quiz, practice aptitude tests, interactive job roles live web chats and SMS reminders. In addition to blogs we also see the importance of mobiles.

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fully embraced the need for Web 2.0 user-generated content to attract new personnel. Why? Because they understand that two-way communication is expected with this generation. They are also less receptive to advertising that lacks realism. They want to hear from real people doing real jobs in their own words.

Web 2.0 – sharing inside?

One of the commonest examples of Web 2.0 technology for sharing is blogs. Milblogs, which can be seen at

www.military.com/blogs

www.milblogging.com

www.CompanyCommand.com

There's even a Milblog conference in Washington in May 2007. David Emery, chief engineer for the US Army's Future Combat Systems project, said instant messaging and whiteboard sharing were the "killer apps" the Army needed in the field.

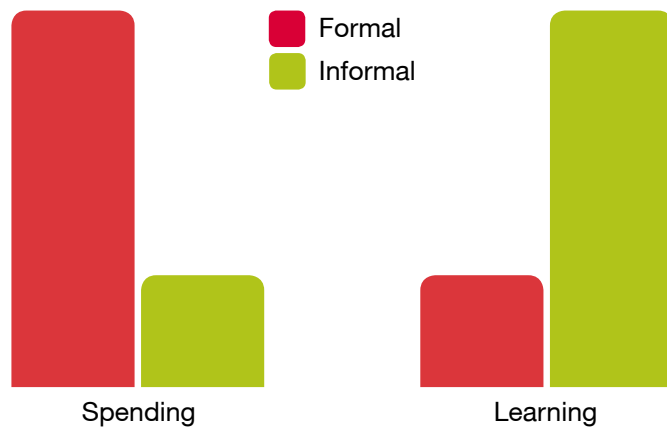
With the recent shift on thought away from the simple 'warrior' model towards 'war among the people' a whole range of information gathering, monitoring and sharing issues have come to the fore. The military needs to consider how to create, disseminate and share learning in a dynamic way that is sensitive to these new needs.

Web 2.0 and learning

Web 2.0 has also been given legitimacy through recent redefinitions of knowledge and how knowledge is used. “Knowing Knowledge” by George Siemens sees connections as being more important than our current state of knowing. It is these connections that fuel learning. ‘Knowing where’ and ‘knowing who’ are seen as more important than knowing when and how. The internet becomes an extension of the brain which can offload knowledge onto networks of trusted nodes. This is part of the general debate on formal and informal learning.

Informal learning and spending paradox

This is the spending paradox.



Jay Cross – see <http://informl.com>

We spend most of our money on only 20% of the learning problem – that is the paradox.

The bottom line, and this is literally a bottom line issue, is that we learn most of what we learn informally, outside of the influence of education and training.

(See study from Education Development Center (EDC) in 1997, a comprehensive 2-year study, funded by the US Department of Labor, showed that for every 1 hour of formal training there’s 4 hours of informal learning, a finding repeated many times with similar results.)

So, to understand the role of Web 2.0 in learning, one must understand this distinction between ‘formal’ and ‘informal’ learning. We must then look at the Web 2.0 applications that can be used to support both formal and informal learning. It’s a matter of widening out our expectations in terms of what we see as learning and

the online tools we use to deliver learning services.

Blogs and learning

A Business Week title, referring to blogging, said ‘Catch up...or catch you later’. With Fortune ‘Why you can’t ignore bloggers’. Google owns Blogger, Microsoft has MSN, Yahoo has Flickr. Murdoch bought Myspace. In other words, business is already using this technology.

There are several species of blogs that can be used in knowledge sharing and learning:

- Manager blogs
- Expert blogs
- Employee blogs
- Trainer blogs
- Learner blogs
- Project blogs

A blog takes literally a few minutes to set up. It is easy to use and, with other links becomes a network of blogs across the organisation.

Wikis and learning

Knowledge management, as it evolved, became a top-down effort to control content rather than create content. By concentrating on storage and retrieval it missed the real motivational factors that lie behind the creation and sharing of knowledge. A CMS manages content, it does little to help create and share such content. This is because content has a context – the creators and users of that knowledge.

Wikis (and blogs) have filled this vacuum and allowed the owners of knowledge to create content. Others, enthused by this, help, edit, police and build on that content. It milks the wisdom of crowds and gives anyone who feels they have something to contribute, the ability to create content.

The cultural barriers to emergent or bottom-up knowledge creation are enormous. The whole ethos of training and knowledge management to date has been top-down. It literally means going into reverse gear. This is as true in journalism, marketing and other forms of publishing as it is in learning. We must learn to see knowledge as a dynamic force in an organisation, not a fossilised, expert-only domain.

Wikis play to newer concepts of knowledge, where knowledge is dislocated from the credentials of the creator, peer reviewed by many, not seen as absolute and where more recent knowledge has more capital because it's new, giving the acquirer competitive advantage.

Knowledge is a moving feast where the next course is eagerly consumed and fed directly to users who know what they want. Syndication through RSS and similar feeds does precisely this – it feeds new knowledge to the right people at the right time.

Podcasting

Podcasting is one of the internet's amazing 'bottom-up' successes. It continues to add a different dimension to the media landscape, largely through its timeshift appeal.

It's also been fortunate in riding on the back of some of the best designed technology ever, from Apple – iPods. This consumer appeal makes it that much easier to get it adopted. MP3 players are practical, portable and personal. It's a technology that's so easy to use it's almost invisible. People love them and tens of millions have bought them.

However, it also has some cognitive and learning appeal. Podcasting differentiates itself from text and most e-learning content in appealing to those who see text as difficult, namely the large numbers of people with low literacy levels or dyslexia. We don't have to learn how to listen. It comes naturally.

Tools

Web 2.0 tools cover everything from to do lists, project management, social networking, calendars, translation services, book sharing, LMS (Moodle).

To give but one of hundreds of examples: Tray Shelfari. How often has someone recommended a book they've read or you've chatted about a book and promised to read it one day. Within organisations these shared experiences and recommendations are invaluable. You can build your own virtual bookshelf, add opinions, share with friends, embed in blogs and so on.

<http://www.shelfari.com/>

Many are now customising their desktop, easily done in Google, to include tools and services that are held online, bypassing the IT department and the high costs that IT demand.

Web 2.0 issues

A recent Royal Navy blog showed that its audience, from 16 upwards, had difficulties in self-moderation. On occasions, abuse was reported. This seems to have been a feature of the age group as blogs seem to self-moderate quite successfully. Nevertheless, it brings up issues around:

- Standards
- Self-moderation
- Security



Standards around blogging can be dealt with in the corporate world through a simple blog policy. Bob Schwartz at Sun wrote a simple blogging policy. This is all that is needed. I have appended the Sun blogging policy as an appendix.

There are worries about the quality of information and content on user-generated sites such as blogs, wikis and social networks. However, it is important not to see these as tools that wholly replace validated, structured learning experiences. They are much more suitable for leading edge, knowledge dissemination and sharing. They are about the 'now' in learning.

By and large, self-moderation works. Even if one does have some wayward behaviour, like any other area of communication such as email, this can be managed.

Security is, of course, an issue, but many blog services offer private blogs and security should be seen as a problem to be solved, not a block on progress.

☐☐☐ Conclusion

We have seen how some of the world's most famous and loved brands - Google, Apple, YouTube, Wikipedia - are deeply immersed in Web 2.0 services and technology. Learning is not immune from this paradigm shift.

Google has become the primary and most frequently used means of accessing knowledge and learning for many people. Blogs, wikis, podcasting, videocasting, syndication, filesharing, online games, online simulations, instant messaging - these are fast becoming the tools of knowledge sharing and learning.

Interestingly, these bottom-up learning tools have emerged from the technology, not the education and training world. They are shaping learning from below, not above.

It is here at this interface between bottom-up and top-down learning that things are starting to blur. In fact, both have their strengths and must recognise each other's roles in learning. There is a need for structured learning as there is a need of informal learning.

The real action is the massive growth of the blogosphere, where interested, motivated individuals continue to contribute to the democratisation of knowledge by sharing their thoughts with whomever wants to listen and engaging others in debate. Blogs are at their best when they come from individuals, not necessarily

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organisations, companies and educational institutions. Rather than contributing to formal learning they sharpen the contrast between informal and formal learning. They are the informal voices of informed individuals.

Blogs are time sensitive. They deliver and amplify dynamic and leading-edge knowledge. Innovation and fresh ideas come not from the centre but from the periphery. This is where blogs belong. Education and training largely deliver past knowledge that has been codified and packaged for safe consumption. Far from being at the frontline of knowledge sharing, education and training is usually at the rear, far from the action.

What is clear is that the paradigmatic shift will result in the shrinking of formal learning in the face of increasingly innovative informal learning. The difficult part is not the innovation and technology, it's the ability of people to change. As the cover of Business Week said, 'Catch up...or catch you later'.

Appendix 1 Blog Policy

Advice

By speaking directly to the world, without benefit of management approval, we are accepting higher risks in the interest of higher rewards. We don't want to micro-manage, but here is some advice.

It's a Two-Way Street

The real goal isn't to get everyone at Sun blogging, it's to become part of the industry conversation. So, whether or not you're going to write, and especially if you are, look around and do some reading, so you learn where the conversation is and what people are saying.

If you start writing, remember the Web is all about links; when you see something interesting and relevant, link to it; you'll be doing your readers a service, and you'll also generate links back to you; a win-win.

Don't Tell Secrets

Common sense at work here; it's perfectly OK to talk about your work and have a dialog with the community, but it's not OK to publish the recipe for one of our secret sauces. There's an official policy on protecting Sun's proprietary and confidential information, but there are still going to be judgment calls.

If the judgment call is tough—on secrets or one of the other issues discussed here—it's never a bad idea to get management sign-off before you publish.

Be Interesting

Writing is hard work. There's no point doing it if people

don't read it. Fortunately, if you're writing about a product that a lot of people are using, or are waiting for, and you know what you're talking about, you're probably going to be interesting. And because of the magic of hyperlinking and the Web, if you're interesting, you're going to be popular, at least among the people who understand your specialty.

Another way to be interesting is to expose your personality; almost all of the successful bloggers write about themselves, about families or movies or books or games; or they post pictures. People like to know what kind of a person is writing what they're reading. Once again, balance is called for; a blog is a public place and you should try to avoid embarrassing your readers or the company.

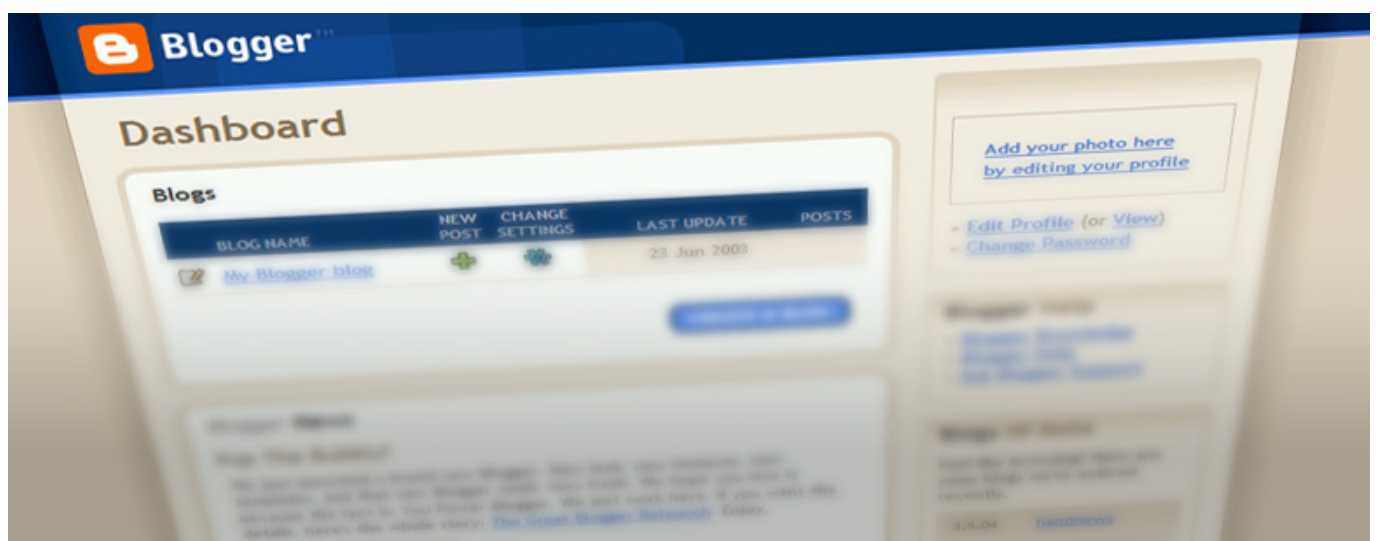
Write What You Know

The best way to be interesting, stay out of trouble, and have fun is to write about what you know. If you have a deep understanding of some chunk of Solaris or a hot JSR, it's hard to get into too much trouble, or be boring, talking about the issues and challenges around that.

On the other hand, a Solaris architect who publishes rants on marketing strategy, or whether Java should be open-sourced, has a good chance of being embarrassed by a real expert, or of being boring.

Financial Rules

There are all sorts of laws about what we can and can't say, business-wise. Talking about revenue, future product ship dates, roadmaps, or our share price is apt to get you, or the company, or both, into legal trouble.



Quality Matters

Use a spell-checker. If you're not design-oriented, ask someone who is whether your blog looks decent, and take their advice on how to improve it.

You don't have to be a great or even a good writer to succeed at this, but you do have to make an effort to be clear, complete, and concise. Of course, "complete" and "concise" are to some degree in conflict; that's just the way life is. There are very few first drafts that can't be shortened, and usually improved in the process.

Think About Consequences

The worst thing that can happen is that a Sun sales pro is in a meeting with a hot prospect, and someone on the customer's side pulls out a print-out of your blog and says "This person at Sun says that product sucks."

In general, "XXX sucks" is not only risky but unsubtle. Saying "Netbeans needs to have an easier learning curve for the first-time user" is fine; saying "Visual Development Environments for Java suck" is just amateurish.

Once again, it's all about judgment: using your weblog to trash or embarrass the company, our customers, or your co-workers, is not only dangerous but stupid.

Disclaimers

Many bloggers put a disclaimer on their front page saying who they work for, but that they're not speaking officially. This is good practice, but don't count it to avoid trouble; it may not have much legal effect.

Tools

We're starting to develop tools to make it easy for anyone to start publishing, but if you feel the urge, don't wait for us; there are lots of decent blogging tools and hosts out there.

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