



Research insight

# WEB 2.0 and human resources

# WEB 2.0 and human resources: a discussion paper

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# Introduction

This discussion document has been written to encourage personal reflection and debate among the HR community about the way newer web-based technologies are influencing HR and people management. Although at an early stage, a family of powerful web-based technologies are being adopted by organisations to

- encourage greater collaboration
- give customers and employees greater voice
- help them learn about each other and, in an HR context, potential employees
- share their knowledge and experiences.

These 'social and sociable' media technologies have come to be known as Web 2.0, following the introduction of the term in 2004 by Tim O'Reilly, a media guru. The most highly publicised of these technologies among HR professionals are Facebook, My Space and Second Life, subjects of recent articles in People Management and online discussions on the CIPD website. They are forecast to have enormous potential to change the way people interact and work, so offering HR a new way of making a significant contribution to their organisation's strategic and operational goals. Like every form of technology, however, there are unresolved issues, challenges and degrees of risk associated with each stage of the innovation process, which includes the adoption, diffusion and exploitation of Web 2.0 for both commercial and non-commercial ends. Perhaps more than any other managerial function, HR professionals need to be aware of these opportunities and challenges and be able to contribute effectively as members of a senior management team to policies on Web 2.0.

In this initial discussion paper, we provide a basic introduction to Web 2.0, a glossary of terms, illustrate some ways in which organisations have been using Web 2.0 for HR and people management, and raise some of the opportunities and issues involved in getting the most from these technologies.

Following a short scoping exercise, this paper was prepared by Graeme Martin, Martin Reddington and Mary Beth Kneafsey of the University of Glasgow Business School and Martyn Sloman of the CIPD Research and Policy team. The project has involved an extensive review of the existing practitioner and academic literature, websites and blogs, and preliminary discussions with HR managers, some consulting companies and public sector bodies.

# Background to Web 2.0 and human resources

## What is Web 2.0 and what are its key features?

Most of us understand the impact of the internet on our working and non-working lives, especially given that more than 60% of UK households now have some form of connection to it, mainly through broadband. One of the fastest growing phenomena associated with high-band width internet penetration is the use of social media: for example, more than 30% of the population have read a blog, 10% have created one and nearly 7% subscribe to an RSS feed . Even more startling has been the growth of social networking: Facebook, a site serving most generations of users, has 42 million users worldwide in October 2007, many of these in the UK, while Bebo, another site currently aimed at teenagers has 11.6 million unique users in the UK, who spend an average of 33 minutes per usage day on the site.

In recent publications, we have offered a view that the nature of the HR function and the services it provides might be radically changed by these potentially disruptive technologies . In the field of management and business practice, we are not alone in this prediction , with evidence from a range of consulting, business and public sector cases, surveys and application providers, all suggesting that Web 2.0 (see definition in Box 1) is about to become a major force in altering how organizations work .

*Gordon Brown, the British Prime Minister, claimed that more than one hundred million people were using popular online communities such as My Space and You Tube, with new blogs being developed every second, so creating a new interdependent and connected world 'that we talk now, not just as Adam Smith did, of a wealth of nations but a wealth of networks' (Speech made by Gordon Brown to the Government Leaders' Forum Europe in January, 2007). On May 19th 2008, he became the first British Prime Minister to use You Tube to broadcast his ideas*

Though hard evidence is more difficult to find , the HR function in the UK is at a very early stage in the adoption of Web 2.0. The CIPD 2008 Recruitment, Retention and Turnover Survey – [LINK] has suggested that a minority of organisations are using Web 2.0 technologies to attract and recruit employees, which is the focus of that particular study. From a survey of almost 800 UK organisations, only 20% of those responding reported using such technologies for recruitment, with a small number planning to use it in the next year. Yet, we believe that specialists in people management, learning and development, work design and change management functions of organizations are likely to find themselves under increasing pressure to adopt Web 2.0 applications . This is all the more likely because of the stereotypical, and perhaps self-fulfilling, perceptions of 'Babyboomers' (those of us born between 1943 and 1960) and 'Generation X' (born between 1961 and 1981) about the new ways in which younger generations of employees (the so-called Generation Y, Virtual or Net-generations, born after 1982) are believed to communicate, learn, purchase and play. It may also have come about because organisations are experiencing problems either in engaging with the parts they cannot reach or which don't want to be reached by the traditional mechanisms of giving voice to employees through representative consultation, focus groups, surveys and the like. So, in every respect, the CIPD's call for scoping research is timely and may move the debate beyond discussions (and the hype) over the use of popular social networking sites at work.

*'Just over half of CIPD members believed that social networking sites are useful for engaging potential job seekers, with a similar number suggesting that Web 2.0 offers organisations the ability to learn about how they are perceived in the labour market. However, from an employer branding perspective, 62% of respondents are concerned about damaging comments being posted on social networking sites and blogs'. (CIPD 2008 Recruitment, Retention and Turnover Survey, June 2008)*

We deliberately focus our discussion on Web 2.0 (and its newer incarnation, Enterprise 2.0) since this family of social and 'sociable' technologies are, arguably, at the take off point for how we work as HR professionals and as employees in an increasingly global and connected world. But to begin with, we need to get some clarity around terminology, especially vital for HR professionals new to this phenomenon. Just as important, we also need to understand the key features of Web 2.0, why it is different from earlier, web-based applications and just what its potential is forecast to be. So we begin by setting out a working definition in the box below (with a Glossary of Terms in Appendix 1).

#### **Web 2.0, a Working Definition for HR Professionals**

Web 2.0 is contrasted with the earlier Web 1.0, which focused on the one-way generation and publication of online content. Web 2.0 is different because it is a 'read-write' web providing a democratic architecture for participation, encouraging people to share ideas, promoting discussion and fosters a greater sense of community. In summary, it has been described as a 'People-centric Web' that stimulates conversations, interpersonal networking, personalisation and individualism, all of which are (or should be) at the heart of the philosophy and practice of sophisticated human resources and people management.

Ross Dawson, an Australian expert in this field and a commentator on this subject, has described the key features of Web 2.0, contrasting it with the earlier Web 1.0 system of information and communications technologies (ICT). We have developed his arguments in Figure 1 on the following page, which we elaborate on in later sections of this paper because they provide the basis for our discussion of opportunities and challenges for HR professionals.

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#### **Discussion questions**

- Do you make significant use of any Web 2.0 or social media technologies? If so, which ones? Why do you use them and how long do you spend per week using them?
- Have you noticed employees at work making increasing use of these technologies? If so, which types of employees, which technologies are they using and what are they using them for?
- Does your organisation use any Web 2.0 technologies for engaging and communicating with or learning from customers/ clients, suppliers? How effective are they? And how much have they become a standard way of interacting with these groups?

*[You can use this link to respond to these questions](#)*

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Figure1. The features of Web 2.0 (based on Dawson, 2008)

Areas of work	All
Participation and Collaboration	Web 2.0 is driven by participation and collaboration among users, most obviously apparent in social networking, social bookmarking, blogging, wikis and multi-media online gaming
Openness	Web 2.0 has come about because of a spirit of openness as developers and companies increasingly provide open access to their content and applications. Good examples include the emergence of open source course material and management texts (see case illustration), encyclopedias such as Wikipedia and web browsers such as Firefox
User-control	Web 2.0 users control the content they create, the data captured about their web activities, and even their identities (they can choose to be anonymous, as is the case with one good HR blog or videos on You Tube of dirty toilets in NHS hospitals, create virtual identities or present their real selves, as Gordon Brown is doing on You Tube with his Prime Ministers broadcast)
Identity	Many users of Web 2.0 technologies create virtual identities that may be different to their real life ones. Virtual identities are evident in virtual worlds such as Second Life and in social networking (see, for example, 'Out of this World', People Management, 17th April, 2008, pps. 20-24). High profile users of Second Life include David Milliband, a UK Government Minister, whose avatar was recently interviewed on Second Life.
De-centralisation	Web 2.0 is a decentralised 'architecture', relying on distributed content, applications and computers rather than a centralised system that is controlled by managers or IT departments. This makes internal control and policing difficult and a problem for organisations. For example, the CIPD's 2008 Recruitment, Retention and Turnover survey found the posting of damaging comments to be the number one issue they face, over and above the positive features of these technologies (see also 'Sharp Rise in Firms Banning Facebook', People Management, 17th April, 2008, p.11).
Standards	Universal standards provide the basis for Web 2.0. Common interfaces and creating and accessing content are what allows the decentralised system to be created. This includes technologies such as XML, Java and media streaming to MP3 players and mobile phones to help create content available to everyone, as is the case with e-learning
Modularity	Web 2.0 is built from many components from the bottom-up rather than the top down, which gives is greater flexibility. For example, traditional programmes of learning through university degrees are built top down, with a 'programme, course and module' structure designed in that hierarchical order. However, it is equally possible and desirable to build from the bottom up, creating highly flexible e-learning courses from standard 'chunks' of learning (so-called learning objects) to create modules and then courses, according to the individual needs of learners; in the same way, different Web 2.0 applications and mechanisms can be aggregated and re-mixed to create flexible outcomes that suit user needs. Personalised Google home pages are good illustrations of this characteristic, as is the award-winning Canadian e-learning programme for managers, 'New Mindsets'.

## What technologies are associated with Web 2.0?

Rather than merely listing and illustrating a range of technologies and applications, probably the best way to think about Web 2.0 and its potential for change is to see it as a system (see Figure 2) comprising

- web-based user inputs,
- transfer mechanisms and tools, and
- emergent outputs.

Web-based user inputs include ones with which you may be familiar, such as wikis, blogs, podcasting, streaming media and social book-marking (see Figure 3 overleaf for some illustrations), defined in the Glossary of Terms in Appendix 1. These inputs are transferred into outputs by a series of mechanisms and tools, including social networking sites and virtual reality sites and information aggregation (or mash-ups), RSS feeds, reputation management systems, instant messaging and virtual meetings (see also the Glossary of Terms in Appendix 1 for a brief definition of these technologies). Few of these technologies are new in themselves but, when combined systematically, promise a new way of working, learning and giving voice to mainstream and previously marginalised groups. Just as importantly, from the perspective of HR professionals, they have the potential to provide a further basis for the HR function to transform its contribution to the business, so enabling it to attain greater credibility among

senior managers. One good example lies in employee engagement. Evidence suggests that employees are progressively becoming less engaged and feel they have less voice in decisions, even as more firms are using surveys to help them express their opinions. This may be because these surveys are 'owned' and constructed by the organisation rather than staff, so limiting their expression of what they want to say. Just as the Web 2.0-based 'Patient Opinion' and 'NHS Choice' in the NHS are intended to democratise public opinion about healthcare in the UK and make it easy for users to engage in dialogue about what's important to them, these technologies are beginning to be used by organisations to achieve similar goals with employees. Excellent examples include the use of discussion fora in UK government organisations, as illustrated in the case study section of this document.

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### Discussion questions

- Is your organisation currently using or planning to use any of these inputs or transfer technologies in a significant way?
- Of the categories of emergent outputs listed in the right-hand box in Figure 2, which would be of most help in helping HR and people management contribute to strategic or operational goals?

*[You can use this link to respond to these questions](#)*

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Figure 2: The Web 2.0 System and HR

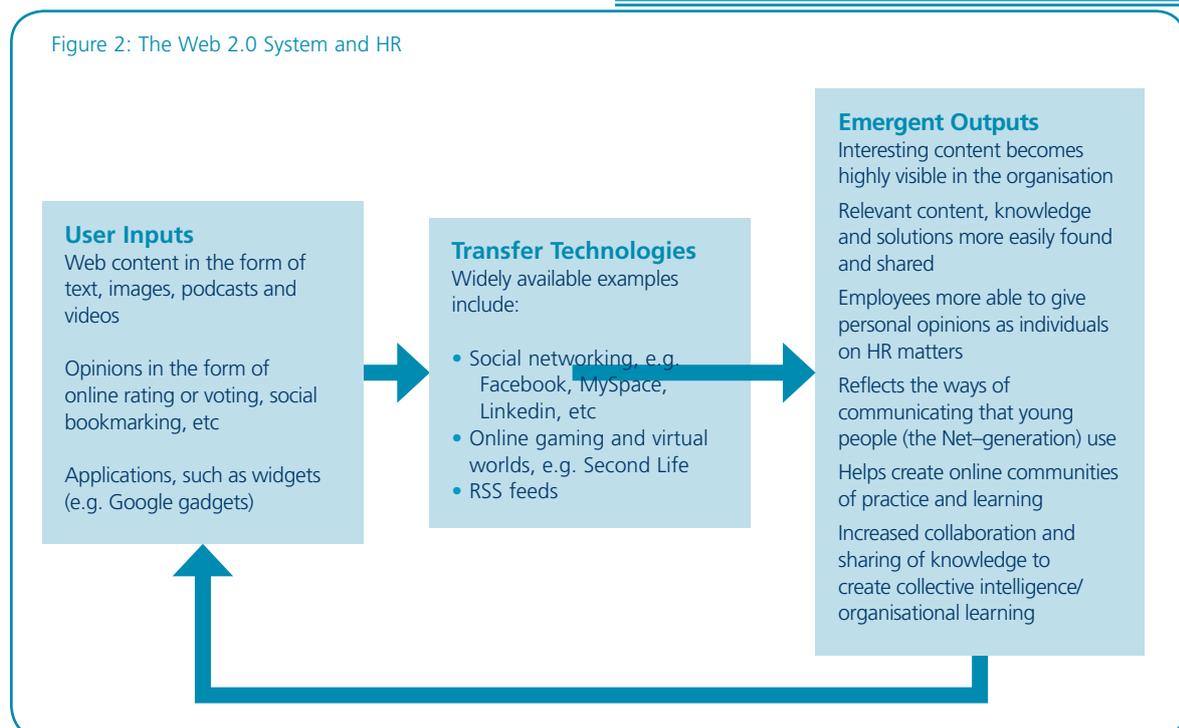


Figure 3: Illustrations of some well known Web 2.0 inputs and transfer technologies

## Web-based Inputs

### Blogs

Blogs –a shortened form for weblogs - are a personal online publishing system, allowing individuals to quickly and simply write, publish and distribute their own opinions via the internet on any subject that took their fancy. These appear in chronological order, hence giving the appearance of a simple diary. However, they are seen to have enormous potential for business, having been converted into successful marketing and communications tools. They offer the authors, including businesses, easy access to online publishing of opinions and information as no technical knowledge is required, which can then act as a basis for discussion as readers can leave comments. They are also an instant means of communication that is permanent and searchable by users. Blogs thrive on links to other websites, which can act as a form of viral marketing of ideas, promoting views and developing networks. There are a number of *HR blogs* worth looking at, though they are mainly US-oriented. Probably their most relevant use in HR is for recruitment and internal communications; exemplar cases include Cadbury Schweppes, Microsoft and a number of UK Government internal blogs, for example, the Department of Culture, Media and Sport's Management Board Blog .

### Wikis

A Wiki is a collaborative type of web application allowing end users to create and update content, so generating an online community responsible for improving the quality and accuracy of content over time. The added value is that the end users are the ones in the know, and they are best suited to develop and edit content – social networking and online communities of practice at their best. Most internet users would know and have used *Wikipedia*, which is an excellent example open source collaboration to create knowledge. However, it is within organizations that wikis can really pay-off, by having often remote users create organizational knowledge that is permanent and searchable. This is a relatively fast growing and most obviously useful application of Web 2.0 for HR and organizational learning, and has genuine advantages over face-to-face communication in making ideas often lost in the ether during group meetings, etc, explicit. We have included an example from Pfizer of one such application in the case studies section of this document.

### Podcasts and Streaming Media

Regular visitors to the CIPD website will know about podcasts, which are digital media files distributed over the internet for playback on portable media players, such as phones and MP3 players, and computers. A podcast is really just a broadcast made more accessible by its delivery and storage mechanisms. The CIPD produces regular podcasts relevant to HR and people management, as do a number of the business school and media sites, including Working Knowledge from Harvard and Knowledge at Wharton. These podcasters give you access to high quality research and discussion that you can listen to almost anywhere, anytime, making it one of the most useful learning tools.

### Streaming media

Streaming media is multimedia, usually video, that is constantly received by end-users while being delivered by providers. The name really refers to the delivery mechanism rather than the medium: while television and radio are inherently streaming content and books are inherently non-streaming, going to the BBC website and watching the Money Programme requires you to download a media player to watch a streamed digital programme. Again, there are many examples of streaming that are useful to HR people, including excellent management programmes on You Tube, Business Week and MIT's Sloan School site. Often you might pay lots of money to listen to a guru, who is freely available on the internet. Streaming media has many applications inside companies, including corporate communications and training sessions.

### Social Bookmarking

This is a method for users to store, organise, search and manage bookmarks of important web pages that they might want to retrieve or share with others. You typically save a webpage that you want to remember or share, tag it (given a short name) using your own language, and save it in a social bookmarking service such as *del.icio.us*, or *Furl*. Social bookmarking is usually public, but can be shared privately. Many social bookmarking services provide *web feeds* for their lists of bookmarks, including lists organized by tags. This allows subscribers, for example to HR sites, to constantly tap into new sources of HR cases, data and information as they become available. Of course, one of the problems of the internet is that we get information overload and can't always trust the quality of web pages, so bookmarking services have begun to provide ratings and comments on bookmarks, giving a degree of quality assurance (though what is popular isn't always right). They also provide users with the ability to export bookmarks and email them to other users.

Figure 3: Illustrations of some well known Web 2.0 inputs and transfer technologies (continued)

## Transfer mechanisms

### Facebook and other social networking sites

**Facebook** is an increasingly widely used social media that claims to be the fastest growing social networking site in the world that connects people with friends and others who work, study and live around them. People use Facebook to create online profiles or 'personalities' so that they can to keep up with friends, meet new friends (or ones they have lost touch with), upload and share photos, blog and share links, and learn more about the people they meet. It also has a number of more advanced applications, including sharing of videos, integrating RSS feeds (information from other websites), spaces for group discussions and the facility to create online events.

Facebook claims to be different from its biggest social networking rivals, MySpace and Bebo, because of the user profile. MySpace and Bebo is typically for the younger, Net Generation, while Facebook attracts a more heterogeneous, older audience, including well-known celebrities such as Jonathan Ross and some older politicians such as Menzies Campbell. Facebook has become interesting in HR circles because recruiters have started to search the site for potential applicants. According to an independent Facebook guide, one fifth of companies admit to searching Facebook profiles for prospective employees. This makes social networking a powerful medium for organizations to search for 'passive' candidates who are not actively seeking a job but could be persuaded to move – often the best source of candidates. It also allows people to advertise themselves. However, of the companies that did admit to using Facebook to search profiles, half of them claimed what they found affected their decision to employ – a double-edged sword. We have provided an illustration of how T-Mobile, a large UK mobile communications company, use Facebook in their recruitment in Part 6.

LinkedIn is another social networking site, though this time, typically aimed at the business user market, aged between 35-55, with more than a million users in the UK in May, 2008. It can name among its users Barack Obama and all of the Fortune 500 CEOs. It is a much more 'gated-access' site, governed by strict rules of etiquette and screening out unwanted mails from people seeking work, recruitment consultants and unwanted photographs that can damage user reputations. Instead it focuses on making business-like introductions among relatively closed networks of like minded associates who are interested in work rather than play.

### Virtual Reality

Second Life is probably the most widely known such site, attracting lots of interest among some HR professionals and the subject of a recent People Management article. Second Life has been around since 2003 and has more the 2 million users, though most only about a quarter are active as it is a demanding application. Users are represented by 'avatars', 3-D characters created to reflect an identity they want to portray, in a video-game type virtual world where people can meet others, join groups and 'hang out'. It has been used to host conferences (the 2007 UK budget was broadcast on it), recruit people for companies such as IBM, Cisco and Manpower, and educate managers at Edinburgh University among others (they have built a sophisticated operations management game in Second Life). Gartner, a technology research company, sees virtual worlds as a big growth area, especially among the V-generation; so it is worth keeping an eye on this application.

### Web 2.0, balancing opportunities and threats

A number of technology gurus, including Donald Tapscott from Canada, Andrew MacAfee, John Seely Brown and Dion Hinchcliffe from the USA, and Ross Dawson from Australia, have begun to elaborate a theory of Web 2.0 (see their websites and blogs in Appendix 2). One of its most important characteristics is openness for organisations and their employees, making it easy for employees to engage with, but, as we have noted, the one characteristic with which many organisations and HR professionals find most difficulty in coping. In Figure 4 we have adapted Tapscott's list of meanings of openness

Tapscott's work is among the most insightful on the dual nature of openness. According to Tapscott, openness is infused with a variety of meanings, so presenting significant opportunities for more effective HR, people management, organisational design and development. Nevertheless, they also flag some significant challenges and potential dangers.

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#### Discussion questions

- Does the analysis of openness set out in figure 4 correspond to your perspective and your experience in your organisation?

*[You can use this link to respond to these questions](#)*

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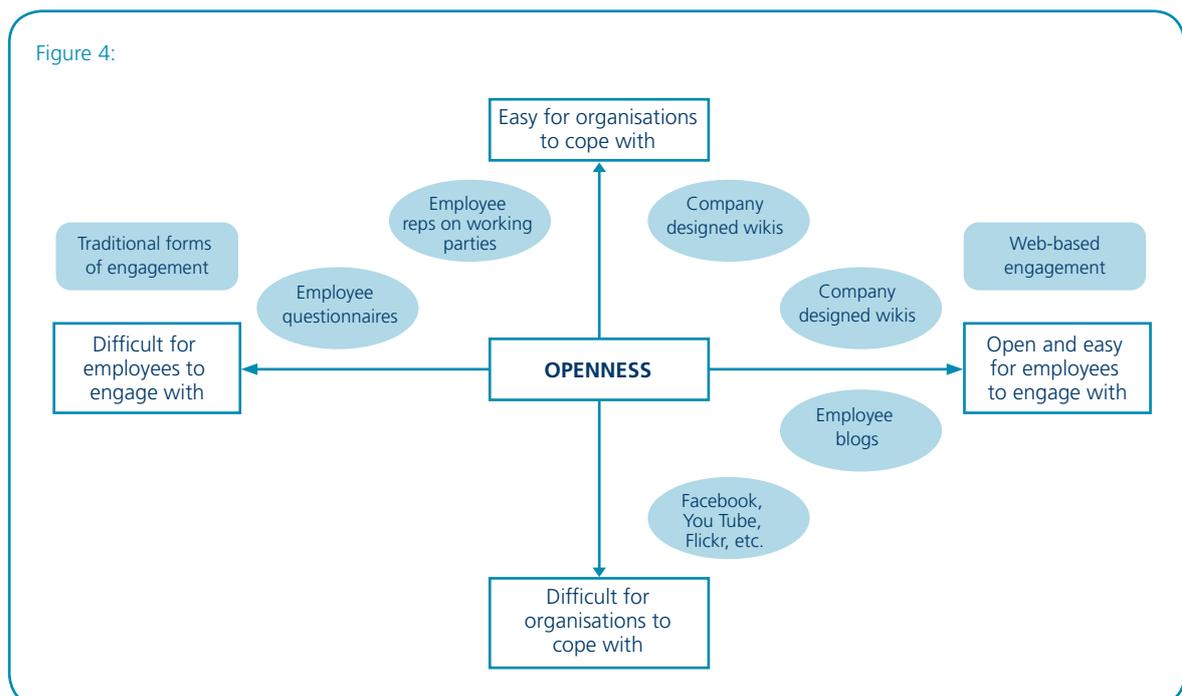
### Addressing the concerns of HR over Web 2.0

In a recent survey by a law firm in the UK of 1765 employers, 79% of respondents had disciplined one of more of their employees for using social networking sites during working time, and many had banned the use of such sites. This topic was the main issue raised in recent online CIPD web-discussions on social networking. It has also been a subject of a recent UK Government report referred to earlier and recent conferences with titles such as the 'Power and Perils of Social Networking Tools in the NHS'.

The Government Communications Network's review of social media, which drew on questionnaires to Government departments and interviews with specialists in the field, found a number of barriers to a more widespread adoption of Web 2.0 among various departments, even though as we have noted, Government ministers have begun using these techniques to communicate and engage users in dialogue. These barriers were:

- A lack of understanding and expertise among civil servants, especially higher level ones
- Following on from this lack of understanding, a lack of high level support for wider use
- Lack of data and uncertainties about the costs and benefits of various media

Figure 4:



- The risk of public exposure, damage to customer and employer brands, and general loss of control, and
- The limitations placed on Web 2.0 by IT departments that didn't want to damage the integrity of their systems

Underlying these concerns were the very features that make Web 2.0 attractive to organisations and employees. These were its openness, the ease of use for employees and users to engage with Web 2.0 technologies (spontaneity, conversational and democratic), its new rules of engagement and the different behaviours required by civil servants, and its newness and experimental nature.

Regardless of these concerns, employers are beginning to recognise that these technologies are here to stay, especially as a generation reared on these communication tools become a dominant element of the workforce. For example, in the survey referred to above, '12% of managers (also) admitted to checking their Facebook accounts on a regular basis on company time'. So, whether or not they are being dragged 'kicking and screaming' or have the foresight to see significant competitive advantage in early adoption, some organisations have begun to re-think how they use the internet to create Web 2.0 platforms. Broadly speaking there are two routes for organisations to travel, neither mutually exclusive. The first is to develop a policy on using Web 2.0 along the lines recommended by the Government Communications Network's review; the second is to develop Enterprise 2.0 applications inside an organisation's firewalls and those of partner organisations.

Turning to the first of these, Government Communications Network's Review of Social Media recommended seven actions. These were to:

- Develop a strategic, evidence-based approach, integrating existing activities and communications strategies
- Educate managers by raising awareness of what Web 2.0 technologies are available, the opportunities they offer and the risks they raise
- Develop a code of conduct and toolkit for the use of Web 2.0, providing a clear steer to employees and managers on the use of social media for work and

personal use

- Learn to listen by adopting focused and sustained efforts to understand, map and track the use of relevant Web 2.0 technologies
- Set out a business case for using Web 2.0 technologies, including a phased implementation of access to social media tools
- Avoid replication by engaging with existing technologies before developing in-house ones
- Regularly evaluate the use and effectiveness of Web 2.0 technologies in the organisation.

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### Discussion questions

- Have you faced issues on the abuse of Web 2.0 in your organisation?
- Have you introduced new policies or procedures?

*[You can use this link to respond to these questions](#)*

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Turning to the second solution, organisations are increasingly developing applications inside their firewalls and those of partner organisations such as suppliers, customers and contractors. According to Andrew McAfee from Harvard University, who is usually credited with coining the term 'Enterprise 2.0' in 2006, this is probably the most promising way forward for organisations seeking the benefits of Web 2.0 but wishing to minimise the downside by making it easy for them to protect themselves (see Figure 6).

Figure 6 shows a potential trend from away from the very 'open and potentially difficult for organisations to cope with' Web 2.0 to Enterprise 2.0. This trend is illustrated by two of the three cases in Part six of this document. The diagram also hints at the potential trend away from traditional media used to give employees a say in decisions, such as face-to-face representation in consultative committees, focus groups and online surveys towards Enterprise 2.0 read-write media. Such developments may come about because of a variation on the long tail effect made possible by web-based technologies in e-business more generally. Just as the web has allowed the so-called power law to operate in firms such as Amazon by allowing them to cater for the 80% of sales from 20% of blockbuster products and profitably service the remaining 20% of its sales for relatively obscure items from the remaining

### Defining enterprise 2.0

McAfee defines Enterprise 2.0 'as the use of emergent social software platforms within companies and their partners or customers'. He uses the term 'social software' to describe how 'people meet, connect and collaborate through computer mediated communication and form online communities'. Platforms are defined as 'digital environments in which contributions and interactions are widely visible and persistent over time'. Emergent means the software is freeform, in the sense that people can choose to use it or not, is egalitarian and can accept different forms of data. He rules out (a) open web-based platforms, such as Wikipedia, YouTube, Flickr and MySpace, because they widely available to individuals, (b) corporate internets because they are not emergent, and (c) traditional email and SMS because they aren't persistent.

80% of customers, so organisations can now reach out to previously marginalised groups who weren't economically possible to reach because of remoteness or disengaged groups who didn't want to be 'serviced' because consultation through representatives and organisationally-determined (and often meaningless) questionnaires weren't for them .

The answer to the problems of engaging future employees by giving them greater voice no doubt lies in a combination of all three approaches – traditional communications, Web 2.0 and Enterprise 2.0 alike. There is not an 'either-or' solution, nor is there a one-best-way. In an increasingly unknowable world, organisations are always likely to be experimenting and changing their engagement media mix according to the contingencies they face at the time. This should not be surprising nor should it be discouraged; instead it should be embraced because experimentation provides a basis

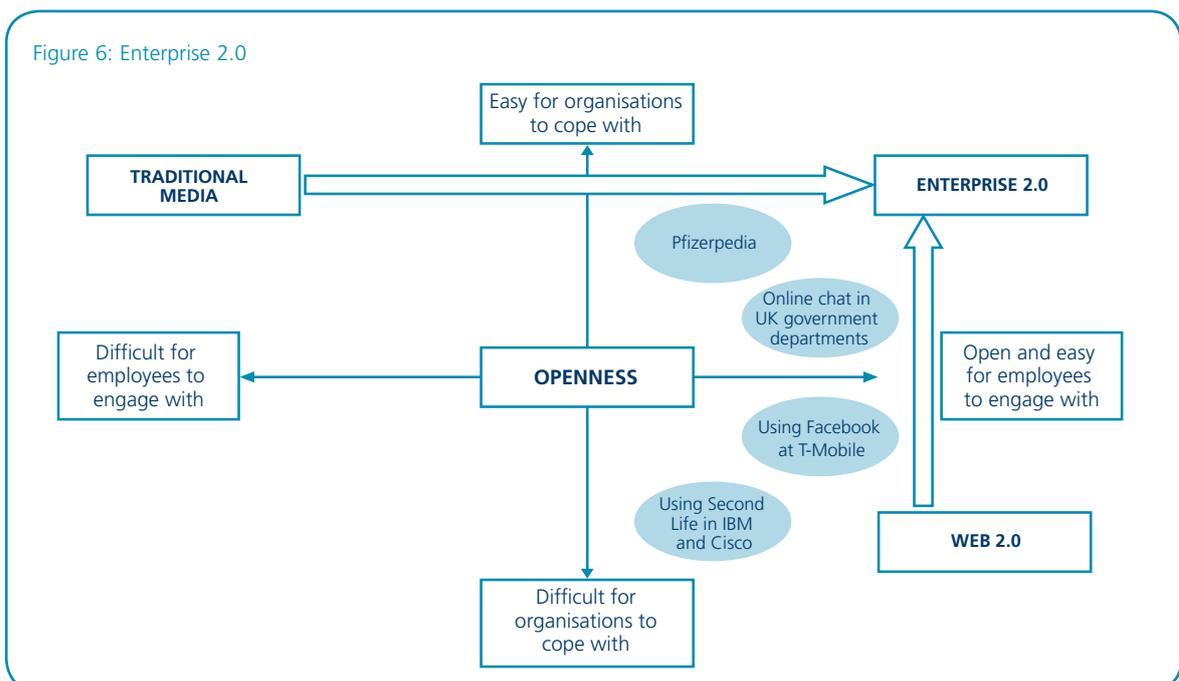
for dynamic capabilities, which is the ability to integrate, build, and reconfigure internal and external competencies to address rapidly-changing environments – so necessary in a modern world.

### Discussion questions

- How successful are your current attempts to engage with your employees, especially those difficult to reach either because of geography or because they typically don't engage in traditional forms of communication (e.g. consultation, staff surveys, etc)?
- To what extent, if any, would these new web-based forms of engagement provide you with a basis for building new dynamic capabilities in your organisations?

*[You can use this link to respond to these questions](#)*

Figure 6: Enterprise 2.0



# Case studies

## Three case illustrations

In the three cases below, we illustrate how UK organisations are using Web 2.0 and Enterprise 2.0 to

deliver value. The first two are in-house Enterprise 2.0 applications, while the third makes use of Facebook, a Web 2.0 application.

### Pfizer

Pfizer, the world's largest research-based biomedical and pharmaceutical company, has been using Enterprise 2.0 technologies for two years. Building upon an internal, shared knowledge repository used by a small group of research scientists, the company now has an internal 'Pfizerpedia' application (similar to Wikipedia) available to all employees. Its popularity has grown and it is fast becoming an on-line resource of first preference for R&D employees, seeking knowledge pertinent to their job role. This internal wiki, visible to all, has over 4500 pages, of which 3300 pages have received at least 1000 hits each. There have been a total of 10,956,000 page views, and 79,400 page edits since Pfizerpedia was established.

John Castledine, the Director of Learning and Development for Pfizer's Global Research and Development Division, reflected on Pfizerpedia's growing prominence as a learning tool:

"For organizations that need to create and nurture an innovative culture, the development of an internal 'wiki' site can be an important element. It is certainly the case at Pfizer, where increasing evidence points towards the usefulness of Pfizerpedia in enabling our employees to share and access knowledge more quickly than before. The ability to publish freely attributed information on line can help overcome any tendencies that may exist towards 'silo protectionism' or a bureaucratic approval process."

There are, however, important challenges, not least of which is dealing with the ramifications of allowing organisation-wide access to new 'bottom-up' collaboration tools such as Pfizerpedia, which maybe viewed as an opportunity for HR/OD professionals to make an important contribution to organisational learning in the company.

John Castledine suggested:

*"There can be little doubt that for an organisation to encourage the adoption of enterprise 2.0 there must be a perceived overall benefit in doing so. To achieve sustainable change, it is vital that these benefits are presented from the frame-of-reference of the key stakeholders. We can partner closely with IT colleagues to help achieve this goal. For example: information overload is a major concern for most colleagues. Hence without understanding RSS feeds, blogs become yet more websites to add to your favourites list. Similarly, wikis and social bookmarking (tags) offer welcomed options to reduce email traffic within teams.*

## Online chat and message boards in three UK government departments

UK Government departments have a number of Web 2.0 and Enterprise 2.0 applications, the most widely used of which are chat for a and message boards, online conversations, management blogs and podcasts. Given their relative success, other departments are planning to use these technologies. Three good examples are the Department of Communities and Local Government's Director General and Ministers Monthly Staff Webchat, the Department for Work and Pensions Online 'Staffroom' Forum and Display Space, and HR Revenue and Customs (HRMC) Suggestions Scheme and Online Discussion Forum .

The Department of Communities and Local Government's Director General and Ministers Monthly Staff Webchat is chaired by a Director General. Staff can ask questions directly to Board Executive members in an asynchronous chatroom. The online chatroom has a formal agenda, and transcripts and action points are fed back to Board members. The webchat is marketed internally through various channels of communication and usually attracts over a hundred discussion postings a month.

The Department for Work and Pensions Online 'Staffroom' Forum and Display Space is slightly different in providing feedback to senior civil servants on a range of issues in which employees can 'Have a Say' on any issue they wish to bring up. It also has a 'Hall of Fame' for celebrating success in the Department.

HRMCs online discussion forum is an important channel for employee contributions to the corporate suggestion scheme, 'Angels and Demons'. Suggestions are being sought on how to improve work organisation and processes, and on culture change, along the lines of the BBC's Dragon's Den. According to the website, more than 12,000 HRMC employees had registered by October 2007, 8000 had contributed to online discussions on specific themes, and 500 innovative business ideas had been logged. The online discussion forum had not required proprietary software but had been developed using open source tools.

## Recruitment through social networking at T-Mobile

T-Mobile international is one of the world's leading companies in mobile communications. It is a wholly owned subsidiary of Deutsche Telecom and in 2006 served over 106 million customers in twelve major markets. In the UK T-Mobile is the third biggest supplier, and has some 17 million subscribers. Mobile communications are very much part of the knowledge economy and the mobile world is changing rapidly with new technologies offering innovative voice and data solutions for businesses and individual consumers.

T-Mobile currently employs 5900 people. T-Mobile's head office is in Hatfield, Hertfordshire with other centres in Scotland, the North East and Wales. Head office roles in marketing and finance are all based in Hatfield, for example, but there are 260 retail stores all over the country so it depends on the role. Initially graduates are based at Hatfield. Over 60% of T-Mobile employees are in customer facing roles in retail, customer service or sales. T-Mobile also employs a large number technology people, as well as Finance, HR and Marketing professionals.

Against this background it is important that human resource practices reflect the T-Mobile brand and its value. Graduate recruitment is important as new graduate entrants are sought each year to join the UK workforce. While a diverse pool of graduates is sought it is important that they are all technically aware and are attracted by the innovative approach and new economy values that T-Mobile represents.

To offer a public expression of values a decision was taken to use a social networking dimension in the company's 2007 recruitment round. A Facebook site was created for this purpose. Potential graduate recruits established an individual presence on this invitation-only site. The site was used to provide information on selection procedures and processes for example criteria and timetables and to allow the potential recruits to communicate with each other. As well as T-Mobile's IT Department, an internal 'brand ambassador' was involved in design throughout.

Debbie Cole, T-Mobile Recruitment Manager, acknowledges that the impact of innovative approach was far from certain at the outset. In her words, *'We didn't think it would take off in the way it did'*.

The use of social networking in the recruitment process appealed to the type of graduates that T-Mobile wished to attract. In addition the social networking dimension became just that – an easy way for people to communicate with each other for social purposes. Some successful candidates, for example, used the site to assist each other in searches for shared accommodation.

Debbie Cole emphasises that it is important to use a tailored approach to recruitment and selection which must depend on the target audience. However, providing social networking is seen as one of a range of options and does not narrow the search to the detriment of organisational requirements, Debbie Cole believes that it has an important and growing role to play.

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# Appendix

## Appendix 1: A Glossary of Terms

Aggregation	Collecting information from various sources and displaying it together in customisable formats, such as on a website (e.g. pulling news data in from a source and displaying it on your own website) or a desktop or browser-based aggregator which can manage several 'social networking' or 'social bookmarking' sites, blogs, RSS feeds, various types of media and other content from one location and allow these various types of data to be easily accessed, used or shared.
Blog	A <i>blog</i> (a web log) is a website, usually maintained by an individual, with regular entries which are commonly displayed in reverse chronological order. Many blogs provide commentary or news on a particular subject; others function as more personal online diaries. A typical blog combines text, images, and links to other blogs, web pages, and other media related to its topic as well as the ability for readers to leave comments.
del.icio.us	A <i>social bookmarking website</i> which is designed to allow you to store and share your bookmarks on the web instead of inside your browser. Bookmarks are organised by 'tags' which are searchable keywords assigned by users. See also 'tagging', 'social bookmarking'
Disruptive Technologies	<i>Disruptive technology</i> is a term coined by Harvard Business School professor Clayton M. Christensen to describe a new technology that unexpectedly displaces an established technology. This is contrasted with 'sustaining technology' which relies on incremental improvements to an already established technology.
Enterprise 2.0	<i>Enterprise social software</i> , also known as Enterprise 2.0, is a term describing social software used in "enterprise" (business) contexts. It includes social and networked modifications to company intranets and other classic software platforms used by large companies to organize their communication.
Facebook	<i>Facebook</i> is a free-access <i>social networking website</i> . Users can post messages for their friends to see, and update their personal profile to notify friends about themselves. See also 'social networking'
Flickr	<i>Flickr</i> is an online photo management and sharing website. Users can add comments, notes and 'tags' to photos to create their own ways of viewing, searching for and sharing them. See also 'tagging'
information aggregation	<i>Information aggregation</i> is a service that collects relevant information from multiple sources for easy access and to help users to effectively access the growing amount of information on the Web. See also 'mashups'
Instant Messaging	<i>Instant messaging</i> (IM) and chat are technologies that facilitate near real-time text based communication between two or more participants over a network. Some IM systems allow users to use webcams and microphones so that users can have a real-time conversation.

Appendix 1: A Glossary of Terms (continued)

Internet architecture	The Internet is a meta-network, a constantly changing collection of <i>thousands of individual networks</i> intercommunicating with a common protocol, TCP/IP, which is designed to connect any two networks despite any differences in internal hardware, software, and technical design.
Mashups	<i>Mashups</i> are web applications that combine data from more than one source into a single integrated tool, thereby creating a new and distinct web service that was not originally provided by either source. These web applications are always composed of three parts: <ul style="list-style-type: none"><li>• The content provider or source of the data.</li><li>• The Mashup site itself - the web application which provides the new service using different data sources that are not owned by it.</li><li>• The client web browser which is the user interface of the Mashup</li></ul>
Massively Multiplayer Online Game (MMOG or MMO)	<i>MMOGs</i> are video games which are capable of supporting hundreds or thousands of players simultaneously. By necessity, they are played on the Internet, and feature at least one persistent virtual world.
Metadata	<i>Metadata</i> is "data about data".  Metadata is <i>structured data</i> which describes the characteristics of a resource. It shares many similar characteristics to the cataloguing that takes place in libraries, museums and archives. A metadata record consists of a number of pre-defined elements representing specific attributes of a resource, and each element can have one or more values.
My Space	<i>MySpace</i> is an online social networking community that lets you meet your friends' friends and in which you can share photos, journals and interests with your growing network of mutual friends". See also 'social networking'
Net or V(irtual) Generation	The <i>Net or Virtual generation</i> is made up of people from multiple demographic age groups who make social connections online - through virtual worlds, in video games, as bloggers, in social networks or through posting and reading user-generated content at e-commerce sites like Amazon.com.  Don Tapscott describes the <i>Net Generation</i> as having the following characteristics: <ul style="list-style-type: none"><li>• they are able to multitask</li><li>• they have little tolerance for delays, expecting webpages to load quickly, responses to e-mail immediately, etc.</li><li>• they prefer to be interactive - they want to be users, not just viewers or listeners.</li></ul>
Open Source	<i>Open source</i> is a development methodology for software that harnesses the power of distributed peer review and transparency of process. Programming code for open source software is freely available and this code can be redistributed and modified and must adhere to open source principles regarding licensing.
Podcasting	<i>Podcasting</i> is delivering audio content to iPods and other portable media players on demand, so that it can be listened to at the user's convenience. The main benefit of podcasting is that listeners can sync content to their media player and take it with them to listen whenever they want to.

Appendix 1: A Glossary of Terms (continued)

Remixing	<p><i>Remixing</i> describes the customization of web pages created by others and/or data provided by others for re-use on another web page. Extracting and combining samples of content to create a new output. The term was originally used in music but is now also applied to video and other content. See also 'information aggregation' and 'mashup'</p>
Reputation Management Software	<p><i>Reputation management software</i> gathers ratings for people, companies, and information sources. Reputation management software can create a track record for each user that acts as an incentive for them to exhibit good behaviour and make them accountable for their actions. This is important because it adds elements of expectation and possible repercussions that can effect future interactions.</p>
RSS feeds	<p><i>Really Simple Syndication</i> (RSS) is a lightweight XML format designed for sharing headlines and other Web content. It provides a simple way to quickly view rapidly changing content such as news headlines, blog entries or podcasts. See also 'web feed'</p>
Second life	<p><i>Second Life</i> is an Internet-based 3-D virtual world created by its residents. In the online world, residents can explore, socialise and communicate as well as create and trade items in a virtual marketingplace using a virtual unit of currency, the Linden Dollar. See virtual worlds</p>
Social Bookmarking	<p><i>Social bookmarking</i> is a method for Internet users to store, organize, search, and manage bookmarks of web pages on the Internet with the help of metadata. Most social bookmark services encourage users to organize their bookmarks with informal tags instead of the traditional browser-based system of folders.</p>
Social networking	<p><i>Social networking</i> is a phenomena defined by linking people to each other in some way, in this case using the Internet to form communities and build networks. These communities or networks may be based around anything, geographical location, shared schools or employers, shared interests or hobbies, etc.</p>
Social software	<p><i>Social software</i> is used to build online social networks. Most services are primarily web-based and provide a collection of various ways for users to interact, such as chat, messaging, email, video, voice chat, file sharing, blogging, discussion groups, and so on.</p>
Tagging	<p>A <i>tag</i> is a (relevant) keyword or term associated with or assigned to a piece of information (e.g. a picture, a blog entry, a bookmark etc.), describing the item and enabling keyword-based classification and search of information. Tags are usually chosen by item author/creator or by its consumer/viewers/community.</p>
Streaming Media or Video Streaming	<p><i>Streaming media</i> is streaming video with sound. With streaming video or streaming media, a Web user does not have to wait to download a large file before seeing the video or hearing the sound. Instead, the media is sent in a continuous stream and is played as it arrives.</p>
Virtual Worlds	<p>A <i>virtual world</i> is a computer-based simulated environment intended for its users to inhabit and interact via avatars which are usually depicted as textual, two-dimensional, or three-dimensional graphical representations. The computer accesses a computer-simulated world and presents perceptual stimuli to the user, who in turn can manipulate elements of the modelled world. Communication between users has ranged from text, graphical icons, visual gesture, sound, and rarely, forms using touch and balance senses. See second life</p>

Appendix 1: A Glossary of Terms (continued)

Web feed	A <a href="#"><i>web feed</i></a> (or news feed) is a data format used for providing users with frequently updated content. Content distributors syndicate a web feed, thereby allowing users to subscribe to it.
Widgets	A generic term for the part of a GUI (graphical user interface) that allows the user to interface with the application and operating system. <a href="#"><i>Widgets</i></a> display information and invite the user to act in a number of ways. Typical widgets include buttons, dialog boxes, pop-up windows, pull-down menus, icons, scroll bars, forms, etc.
Wiki	A <a href="#"><i>Wiki</i></a> is a piece of server software that allows users to freely create and edit Web page content using any Web browser. Wiki supports hyperlinks and has a simple text syntax for creating new pages and crosslinks between internal pages on the fly. Wiki is unusual among group communication mechanisms in that it allows the organization of contributions to be edited in addition to the content itself.
Wikipedia	<a href="#"><i>Wikipedia</i></a> is a free, multilingual, open content encyclopedia project operated by the non-profit Wikimedia Foundation. Its name is a blend of the words wiki (a technology for creating collaborative websites) and encyclopedia. Launched in 2001 by Jimmy Wales and Larry Sanger, it is the largest, fastest-growing and most popular general reference work currently available on the Internet.
XML	<a href="#"><i>Extensible Markup Language</i></a> (XML) is a markup language like HTML. It was designed to transport and store data, with a focus on what data is. HTML was designed to display data, with a focus on how data looks.
YouTube	<a href="#"><i>YouTube</i></a> is an online video sharing website. YouTube allows people to easily upload and share video clips on YouTube.com and across the Internet through websites, mobile devices, blogs, and email. Videos in YouTube can be commented upon, shared, tagged and turned into playlists.

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