

Web 2.0 and Human Resource Management

'Groundswell' or hype?

Graeme Martin

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Foreword

Undoubtedly most HR managers prefer operating in areas they know well rather than in dealing with the unknown. Although such a statement could be used about any profession – and we are as receptive to change as most – we are not good at understanding the implications of new technology. We don't panic, nor do we hope it goes away. A more justifiable criticism is that we stand back to see what happens and leave the early running to the IT department.

The term Web 2.0 and its companion label, social networking, have recently entered business vocabulary. Their arrival has been accompanied by a very considerable amount of hype. At its crudest we are witnessing an argument that a younger generation will, because they have grown up with technology, communicate differently at work. Beware the organisation that does not adapt rapidly by its recruitment, training and communication practices.

The shallow nature of the claims for Web 2.0 and social networking should not blind us to an underlying reality. As broadband increases and people become more comfortable and confident with the Internet, so practices will change. We are now facing a situation in the UK where half of the working population regard a personal computer as an essential tool for their job. Whereas the first applications of the Internet were about top-down information, the more promising applications are about collaboration and communication between peers and from below to above. Huge opportunities are emerging for us to manage and develop people more effectively in our organisations.

But it is early days, and the question 'What should I do in my organisation now?' is a difficult one to answer. It is particularly challenging for HR professionals who work in an isolated role in a fragmented organisation. We therefore thought it essential that, at an early stage in the development of Web 2.0, the CIPD offered some guidance. We were delighted that Graeme Martin, Martin Reddington and Mary Beth Kneasley were willing to undertake this demanding challenge.

The aim in this report is not only to inform HR professionals about some of the latest thinking in the field as it applies to people management and HR, but also to help them develop appropriate strategies for Web 2.0 and the so-called V(irtual) Generation.

We hope that you will agree that they have both produced a sound theoretical framework and offer sound, excellent case study examples. Here we are particularly grateful to the case study organisations for permitting what are often tentative explorations to be taken into the public domain.

Whether you are an early adopter or a thoughtful observer, we hope you will find this report of value.

Martyn Sloman and Vanessa Robinson

Executive summary

This report addresses the relationship between a family of emergent social media technologies – sometimes collectively labelled Web 2.0 – and the management of people. In doing so it deals with the potential opportunities and challenges presented by these technologies and how human resource management (HRM) can play an important role in guiding their adoption to improve business performance.

This report was commissioned by the CIPD in the spring of 2008 to help promote debate among members and to provide some signposts for possible future directions in this emerging field.

The report summarises:

- the key debates over the relationships between these new social media technologies and people management
- how these new technologies can help the HR profession transform its 'business model' to make a greater contribution to strategic and reputational aims
- five characteristics of Web 2.0: participation and collaboration; openness; user control; decentralisation and democratisation; standards and modularity
- a Web 2.0 systems model to explain how employees and HR staff can use social media technologies to produce a range of important people management and HR outputs
- how Web 2.0 is being brought behind organisational firewalls to reap the benefits of participation and collaboration but minimise the risks of openness and user control – so-called Enterprise 2.0 applications
- a series of case studies that illustrate 'promising' rather than best practice Web 2.0 and Enterprise 2.0 deployments in different contexts
- policy guidance for HR professionals seeking to engage in and influence discussions leading to the adoption of these emergent social media technologies.

The key 'takeaways' from this research report are as follows:

- Perhaps more than most managerial functions, HR professionals need to be aware of the opportunities and

challenges presented by Web 2.0 and Enterprise 2.0. They also need to be able to contribute effectively as members of a senior management team so that their organisations benefit and are not left behind in a 'groundswell' of use that is forecast to take root among new generations of employees.

The available evidence in this emergent field suggests that the use of Web 2.0 and Enterprise 2.0 in people management and HRM have not yet reached even the 'early adoption' stage, with only a small number of UK-based organisations experimenting with these social media in a serious fashion.

However, although some researchers and practitioners have become sceptical of the overblown claims made for Web 2.0, most point to the potential for the technologies to have a major impact on transforming organisations and the ways in which people work.

HR professionals can assist transformation at work by helping implement these social media technologies to provide the basis for more effective collaboration and knowledge-sharing, more effective two-way communication with employees, and by giving employees interesting and authentic alternatives to the traditional ways of expressing their opinions and ideas – improved employee voice.

Even if organisations are reluctant to engage with Web 2.0, they may be driven to do so because of the preferred ways in which the so-called 'virtual generation' (V Generation) of employees communicate. Recent research has shown them to have a significantly greater preference for virtual communication than other generations of employees, so organisations seeking to engage this younger and/or more 'net-savvy' generation may have to 'go where the V generation goes'.

However, creative innovation in this field is accompanied by risks. Recent research into the concerns of HR managers has identified a tension between *engagement* and *control*. Engagement is concerned with the ease by which employees in the extended organisation can engage with freely available Internet technologies, which operate outside of organisational firewalls, to collaborate, share knowledge

and express authentic voice in their organisations. Control is concerned with the difficulties organisations experience in coping with how employees sometimes use these freely available technologies to criticise their organisations and potentially damage corporate reputations. This tension is explored in the form of four main scenarios, which are:

traditional face-to-face communications, in which communications are typically channelled through the formal collective bargaining system and where virtual communication plays little or no part of the formal channels of communicating with employees, or is heavily discouraged. In this scenario, the challenge to both managers and union representatives is that employees begin to adopt Web 2.0 technologies as a means of expressing their own voice and to collaborate in naturally occurring communities of practice, both of which remain largely untapped and unmanaged

modern face-to-face communications, in which communications are largely face to face through working parties and joint consultation, though regular attempts are made to tap into employee voice through online attitude surveys. The challenges for both managers and representatives are similar to *traditional face-to-face communications*. HR knowledge management continues to be formalised through traditional non-participative software systems that are relatively inaccessible to employees

laissez-faire Web 2.0 communications, which represents a relatively anarchic situation in which some organisations may find themselves in the not-too-distant future.

Communications are increasingly virtual, in which knowledge-sharing and employee voice takes place beyond formal employer-controlled media and company firewalls, often in locations geographically and functionally distant from head office among remote workers. It is the lack of control over Web 2.0 and the ease with which employees can engage with various applications that causes organisations and HR professionals to worry about these social media

Enterprise 2.0 communications, which make extensive use of virtual communications and are driven by V Generation employees, the needs of organisations to secure collaboration and to tap into the voice of geographically dispersed workers who work from home or who rarely visit head office locations. Organisations attempt to regain control by developing the technologies of Web 2.0 inside their firewalls and encouraging or facilitating employees to make use of these technologies.

Innovative organisations seeking a 'creative risk' solution to communications with the V Generation, knowledge-sharing and improved employee voice are increasingly moving towards an Enterprise 2.0 mode, as the majority of our case studies show. These organisations typically seek to maximise the creative and innovative benefits of virtual communications but also wish to minimise the risks of doing so by bringing Web 2.0 behind their firewalls.

HR also needs to facilitate and regulate the use of Web 2.0 and Enterprise 2.0 through a sensible policy framework, examples of which have been made readily available by government departments and leading technology companies.

INTRODUCTION

The term Web 2.0 is freely bandied around in the popular press and has been the subject of recent articles in publications such as *People Management*. However, the available evidence on the use of these social media technologies in HRM and people management (for example Birkinshaw and Pass 2008) suggests that HR professionals have little understanding of the nature and potential of these technologies, though they are aware of the risks of allowing employees access to social networking sites at work and of employee ‘misbehaviour’ on blogs and social networking. So, in this chapter, we provide some insights into Web 2.0. We begin with a definition for HR professionals and then describe the key characteristics and drivers of Web 2.0. According to experts in the field, these media have enormous potential to change the way people collaborate, communicate, organise their work, and give voice to their opinions and expectations, especially when they are physically dispersed across time and space. Equally important, they help organisations communicate with and learn from a new generation of employees who have grown up with such technologies – the so-called V(irtual) Generation. Because of these features, Web 2.0 offers HR professionals an opportunity to transform HR’s ‘business model’ – new ways of adding value to internal stakeholders and a more contemporary organisational architecture – to make a greater contribution to their organisations’ strategic and reputational aims (Martin and Hetrick 2006; Martin, Reddington and Alexander 2008).

In summary, in this chapter we discuss the following:

- ❖ a working definition of Web 2.0 and five characteristics of the new social media technologies
- ❖ how Web 2.0 affects human resource management – the opportunities and challenges
- ❖ the drivers of Web 2.0 – the V Generation, knowledge-sharing and tapping into employee voice.

What do we mean by Web 2.0?

Although at an early stage, a family of powerful web-based technologies are being adopted by some organisations to:

- ❖ encourage greater collaboration among employees, customers, suppliers and partners
- ❖ give customers, business partners and employees greater opportunity for more authentic forms of ‘voice’ on issues that matter to them
- ❖ help organisations, employees and potential employees learn about each other, and share their knowledge and experiences to create organisational learning.

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 blogs, social networking sites such as Facebook, MySpace and LinkedIn, and virtual worlds such as Second Life.

During the course of our research, it has become evident that there is little understanding of Web 2.0 among HR professionals. We have reached this conclusion on the basis of our impressions from engaging with HR practitioners during seminars to promote this research project, lower-than-hoped-for response rates to surveys, a poll we have conducted on the topic, and the results of a recent survey for the CIPD by Birkinshaw and Pass (2008) on Generation Y and Web 2.0. Therefore it is perhaps even more important than normal to be clear on our use of terms and our understanding of the key features of Web 2.0, why it is different from earlier, web-based applications and what its potential is forecast to be. So we begin by setting out a working definition in Box 1 below, which we have culled from a number of sources (readers might also wish to go to the Glossary of Terms in Appendix 2).

BOX 1: WEB 2.0 – A WORKING DEFINITION FOR HR PROFESSIONALS

Web 2.0 is different from the earlier Web 1.0, which focused on the one-way generation and publication of online content. Web 2.0 is a 'read-write' web providing a democratic *architecture for participation*, encouraging people to *share ideas*, promoting *discussion* and fostering a greater *sense of community*. In this sense it is a 'people-focused' web, embracing core elements of the philosophy and practice of modern HR and people management – conversations, interpersonal networking, personalisation, authentic voice and individualism.

The important points to take away from this definition are the differences with earlier non-interactive web-based technologies and the people-centred, rather than organisation-centred, nature of these new technologies. To

elaborate a little, experts in the field have identified five characteristics of Web 2.0 that have enormous import for HR. These are described in Box 2.

BOX 2: THE CHARACTERISTICS OF WEB 2.0

Participation and collaboration

Web 2.0 is driven by increased participation and collaboration among users, most obviously apparent in social networking, social bookmarking, blogging, wikis and multimedia online gaming. Indeed, it is these so-called 'network effects' that define Web 2.0 and make it so valuable. Tapscott and Williams (2008) have argued that collaboration is vital in modern economies but collaboration has significant investment costs. Web 2.0 has the capacity to reduce these costs dramatically through 'positive network effects' (Shuen 2008) resulting from the value created by more and more people using social media (see Chapter 2). Social networking sites such as Facebook and blogging (see the T-Mobile and BBC cases in Chapter 3) are good examples of this phenomenon.

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, online encyclopaedias such as Wikipedia and web browsers such as Firefox and Google's 'Chrome'. For some writers, it is this open-source element that is the most important feature of Web 2.0, differentiating it from in-company attempts to deploy social media behind their firewalls – so called Enterprise 2.0 (see Chapter 4).

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 YouTube of dirty toilets in NHS hospitals), create virtual identities or present their real selves, as Gordon Brown has done on YouTube with his Prime Minister's broadcast.

Decentralisation and democratisation

Web 2.0 is also a decentralised 'architecture', relying on distributed content, applications and computers rather than a centralised system controlled by managers or IT departments. While decentralisation is necessary for wider participation, openness and positive network effects, it is also the most worrying aspect of Web 2.0 among many HR professionals – because of the potentially damaging effects to brands through the organisational misbehaviour of 'ranting' bloggers (Richards 2007) and because they are not able to control corporate messaging. For example, the CIPD's *Web 2.0 and HR* (2008b) report 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*, 17 April 2008, p11). The case of Virgin, illustrated in Box 3, provides a graphic example of this point.

Standards

Universal standards provide the basis for Web 2.0. Common interfaces and creating and accessing content are the things that allow 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 top down, which gives it 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 remixed to create flexible outcomes that suit user needs. Personalised Google homepages are good illustrations of this characteristic.

How does this affect HR?

There are undoubtedly challenges and degrees of risk associated with the adoption, diffusion and exploitation of Web 2.0. So despite most of the evidence on Web 2.0 diffusion showing a rapid take-up among Internet users (McKinsey 2008; Madden and Jones 2008 – see Appendix 1), recent

reports have noted some dissatisfaction among existing users of Web 2.0 and conventional networking tools. And from the early survey evidence, it seems that HR continues to be reluctant innovators and to be more worried about employee misbehaviour, their lack of control over these technologies and the uses to which they are sometimes put (see Box 3 below).

BOX 3: EMPLOYEE MISBEHAVIOUR ON FACEBOOK

The BBC website on 31 October 2008 reported that 13 cabin crew staff had been dismissed by Virgin Atlantic, a UK-based airline, for gross misconduct in misusing a social networking website.

Following claims by passengers that staff had used a Facebook site to criticise safety standards in the airline and to call passengers 'chavs', which is a disparaging British middle-class demonisation of certain working class groups as 'tasteless, pallid, Burberry-wearing, jewellery-encrusted' people (Maconie 2007, p47). The disciplinary hearing concluded that the crew's misbehaviour had brought the airline into disrepute and that passengers who paid the salaries of staff had been insulted. The safety standards comments related to claims that 'the planes were full of cockroaches' and allegations that 'the airline's jet engines were replaced four times in one year'.

The BBC reported the following statement from a senior Virgin representative:

'It is impossible for these cabin crew members to uphold [our] high standards of customer service . . . if they hold these views . . . [There] is a time and a place for Facebook . . . There is no justification for it to be used as a sounding board for staff of any company to criticise the very passengers who ultimately pay their salaries . . . We have numerous internal channels for our staff to feed back legitimate and appropriate issues relating to the company.'

A few days after this case appeared in the press, British Airways began an investigation into Facebook postings by employees describing passengers as 'smelly' and 'annoying'. *The Economist* article in which this appeared said that this 'public relations disaster' occurred despite British Airways having a policy that 'forbids employees posting online information about the firm without specific authorisation' ('Losing face', *The Economist*, 8 November 2008, p82).

These cases provide an important, if negative, justification for HR professionals to understand the challenges presented by Web 2.0 and to develop realistic HRM policies and programmes of education to prevent problems like this recurring. While problems like this continue to dominate media headlines and, to a lesser degree, discussions among CIPD members themselves (see the discussion on social networking in the Communities area of the CIPD website – www.cipd.co.uk/communities), our core argument is that HR professionals also need to take advantage of the genuine opportunities created by Web 2.0 to enhance collaboration, learning, employer branding and employee voice. If they fail to do so, they are likely to be left behind in a 'groundswell' that is forecast to take root among new generations of employees (Li and Bernoff 2008; Shuen 2008).

In some of our recent work on the application of information and communications technologies (ICT) to people management, we have suggested that the HR function and its potential to add strategic value might be radically changed by employing potentially disruptive web-based applications (for example Martin 2005; Martin, Reddington and Alexander 2008). Leaving aside for the moment the genuine problems posed by the Virgin case for HRM and organisations, support for our more optimistic and strategic view comes from evidence produced by academics, consultants and application providers. The weight of this evidence is that Web 2.0 is emerging as a major force in altering how organisations function and in the business models they employ. One such example comes from John Chambers, CEO of Cisco, who recently claimed that Web 2.0 is the 'future', causing him to change the direction of his company. As he pointed out, 'We

are moving our company as fast as we can to collaboration and Web 2.0 because of its potential for significant impacts on productivity and product design.' Don Tapscott and Anthony Williams (2008), authors of the best-selling book *Wikinomics*

made even more extravagant claims that Web 2.0 social media are 'the biggest change in the organization of the corporation in a century'.

BOX 4: EVEN PRIME MINISTERS ARE GETTING IN ON THE ACT

Gordon Brown, the British Prime Minister, claimed that more than 100 million people were using popular online communities such as MySpace and YouTube, 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 19 May 2008, he became the first British Prime Minister to use YouTube to broadcast his ideas.

So, if HR professionals are to be judged by these prophecies and the sheer volume of current articles, books, blogs and discussion in media and technology publications, they could be forgiven for thinking they are in danger of being left behind in the race to become virtually connected to everyone and anyone in their social and work-related networks.

'Playing catch-up' has certainly been evident among many of the HR professionals we have spoken to during the course of our research. It is also evident in a recent survey of HR professionals on beliefs about the younger generations being different from previous generations in their modes of communication and expectations from work (Birkinshaw and Pass 2008). Moreover, it seems that these worries are justified. Recent evidence (see Appendix 1) has shown high penetration of social networking and blogging among the young in particular. For example, social networking among US college students has reached staggering levels after only a few years of operation, with claims having been made for the adoption of Facebook, a popular social networking site, reaching 96% of the American students by 2007 from an uncertain beginning in March 2004.

Moreover, many of us in our day-to-day roles participate in other social media, including blogs, media-sharing sites such as Flickr and YouTube, and reading and responding to reviews of products on Amazon. Thus, consumer survey data in 2007 from Forrester Research (Li and Bernoff 2008), a US-based technology and marketing company, showed that 10% of UK respondents read a blog once a month, 3% write one, 17% watch user-generated video on sites such as YouTube, 21% visit social networking sites such as Facebook, 12% participate in online discussion forums, 20% read rating reviews, while 5% post ratings (Li and Bernoff 2008). The Forester research is also interesting because it showed the UK to be behind many other countries in the adoption of these technologies; comparative figures were significantly higher for samples of US, Japanese, South Korean and European consumers, sometimes of the order of two to three times higher. These data suggest that there is unfulfilled potential for Web 2.0 in the UK as the numbers of younger and older 'networked' workers increase (Madden and Jones 2008). Appendix 1 provides a brief discussion of the evidence from recent surveys in this field for interested readers.

Many HR professionals will also be forgiven for thinking they have been here before with e-learning, another technology-hyped application (Sloman 2008). Arguably they

would be correct: HR is seen by many commentators and practitioners as a key participant in the business and management 'fashion and fads' industry. Survey data from McKinsey (2007, 2008), Forester (2008) and others show that organisational adoption of Web 2.0 is at an early stage in most industries worldwide. And all of our efforts to gain hard evidence from HR professionals and CIPD members for this report suggest that the use of Web 2.0 in people management has not yet reached even the 'early adoption' stage, with only a small number of British organisations experimenting with these social media in a serious fashion. For example, a poll of more than 1,000 CIPD members conducted on our behalf in September 2008 on Web 2.0 generated only 61 responses from organisations using social media technologies in HR. While we have no reason to believe that this small number is the sum total of organisations using Web 2.0 among members, the response rate is indicative of low adoption. Moreover, the dramatic claims and data often produced by consultants and vendors with a vested interest in talking up the penetration of Web 2.0 have to be balanced by less evangelistic research. For example, a recent survey published in the online technology magazine, *Mashable*, indicated that 58% of 18–65-year-olds worldwide had no idea about social networking. Furthermore, to quote from the article:

'The survey of more than 13,000 people in 17 developed nations also asked if users were losing interest in social networks. According to the report, 36% said "yes", with interest fading fastest in Japan, Slovakia, and Canada, and with 45% of US users supposedly losing their appetite for social networking.'

Yet, despite our natural academic scepticism over hyperventilation from technology gurus, our difficulties in collecting 'hard' data from HR and useful correctives from survey evidence, we believe that these social media do indeed offer significant value-adding opportunities to organisations and to the HR function. Our confidence is premised on two related arguments. The first of these is the *generational driver*, to which we have already referred. This is evidenced by various claims made for a distinctive V Generation of 'digital natives' or 'networked employees' (Madden and Jones 2008; Prensky 2001; Sarner, Drakos and Prentice 2008), which has grown up working, learning and communicating with social media, more prosaically illustrated by the rapid growth of social and professional networking sites such as Facebook, MySpace, Bebo and Xing (*The Economist*, 27 September 2008).

BOX 5: THE V(IRTUAL) GENERATION

Among the most recent attempts to set out a new group of online users is one by Gartner, a leading firm of technology consultants, which coined the term Generation V. This term encapsulates multiple age groups that make social connections online. As Adam Sarner, one of Gartner's principal consultants, writes:

'Unlike previous generations, Generation Virtual (also known as Generation V) is not defined by age – or gender, social demographic or geography – but is based on demonstrated achievement, accomplishments and an increasing preference for the use of digital media channels to discover information, build knowledge and share insights. Generation V is the recognition that general behaviour, attitudes and interests are starting to blend together in an online environment' (Sarner, Drakos and Prentice 2008).

Sarner identified four levels of engagement with the technology-related behaviours of Generation V, which include online creators, contributors, opportunists and lurkers. As such, it is a sociological term, based in part on self-selection and self-definition of behaviours, rather than a strictly demographic, age-related term such as Generation Y. This Generation V argument has sparked off an interesting debate in the blogosphere, especially among other consulting firms who use similar psycho and sociographic categories.

The second driver is the need for organisations to *collaborate* to add value in modern economies. Collaboration is essential for knowledge-creation and innovation among organisations; however, collaboration costs money, especially in large-scale, geographically distributed organisations. One of the promises of Web 2.0, however, is that it can substantially reduce the costs of such collaboration, especially when these forms of virtual communication become standard in organisations. These so-called *economic networking effects* not only rely on cost reduction claims but also on better quality decision-making and knowledge-creation. The 'wisdom of crowds' thesis, which underpins applications such as Wikipedia (Tapscott and Williams 2008), states that collective intelligence by groups often results in better decision-making than could be made by any individual.

So, by using these social media technologies with customers, business partners and employees, they help organisations substantially improve their business performance in five important ways (Li and Bernoff 2008):

- ❖ by more effective 'talking' to employees and other stakeholders
- ❖ by more effective 'listening' to employees and other stakeholders by giving them more effective forms of voice
- ❖ by 'energising' key employees and stakeholders to spread key messages
- ❖ by 'helping' employees and stakeholders to support each other
- ❖ by 'engaging' employees and other stakeholders as collaborators in value-adding activities.

Chapter summary

The impact of Web 2.0 social media technologies has been trumpeted over the last few years by consultants and the media, arguably with good reason. It is claimed that Web 2.0 provides a new architecture for online participation by customers, suppliers and, most importantly from the perspective of this report, employees. Web 2.0, a collective name for technologies such as social networking, blogs, wikis, media-sharing sites, podcasts and virtual worlds, provides employees with new tools for collaboration, knowledge-sharing and giving voice to their thoughts and opinions.

But because it is a democratic and open architecture, in which employees have free access to technologies, it is often beyond the control of organisations. This lack of control and the incidences of potentially damaging misbehaviour in cases like Virgin have caused many HR professionals to focus on the negative side of Web 2.0. However, there is evidence that HRM is beginning to sense what others are sensing: that Web 2.0 is here to stay and is gaining a head of steam through networking effects, largely because it has become identified with communication among the so-called V Generation.

Thus we argue that HR needs to be at the forefront of Web 2.0 developments in their organisations to take advantage of the undoubted benefits it can bring to organisations but also to help minimise the risks. If they do not, they are in real danger of playing 'catch-up' as a profession and in failing to advance the interests of their organisations.

INTRODUCTION

This chapter elaborates on key points made in Chapter 1, particularly in respect of how the different Web 2.0 technologies can be used effectively to deliver more effective HRM and people management. To do so, we have created a Web 2.0 systems model to explain how user inputs interact with social media technologies to produce a range of HR and people management outputs. As managers and HR professionals, we are probably most interested in what Web 2.0 can do for us and for our organisations, so we focus on these outputs. However, we believe that the systems approach can also assist HR professionals to engage with their information and communications technology (ICT) colleagues in a more informed manner when evaluating Web 2.0 policies.

In summary, this chapter outlines:

- ❖ a model linking web-based user inputs with HR outputs
- ❖ an examination of the different Web 2.0 technologies
- ❖ the impacts of Web 2.0 on HRM and people management.

A MODEL LINKING WEB-USER INPUTS WITH HR OUTPUTS

A useful way to understand the impact of any forms of technology in business is to see it as a simple open system comprising a series of inputs, outputs, technologies (hardware and software) for translating inputs into outputs and feedback loops, which imply that HR and people management outputs can change the nature of inputs and the technologies themselves. We have applied this basic systems thinking to Web 2.0 and HRM (see Figure 1).

Web-based user inputs

Some web-based user inputs will be familiar to readers, such as online text, images, video and instant messaging; other inputs may be less familiar, for example podcasting, video, online

voting, social bookmarking, tagging and subscribing to RSS feeds (see Appendix 2 for a full glossary of terms). The important point to understand about these user inputs is that collectively they create value for organisations through network effects. Network effects describe how early-adopter individuals and organisations rely on other users to build up online 'traffic' and turn them into a standard form of communication. The more people are drawn into using these technologies, or are compelled to use them, the more viable the system becomes for all. This is how email and the Internet developed into a standard system of communicating among two-thirds of the total American workforce, which have been labelled 'networked workers' (Madden and Jones 2008). It is also what is behind the thinking in some of the case study companies in Chapter 3, which seek to build on the power of online discussion forums, wikis and blogs.

Social media technologies

Inputs such as those described above are transferred into a range of valuable outputs by an ever-expanding range of social media or Web 2.0 technologies and tools, including blogs, wikis, social networking sites, media-sharing and virtual reality sites (see Box 6 below for some illustrations of these in operation) and information aggregation (or 'mash-ups'), RSS feed readers, reputation management systems, instant messaging and virtual meetings.

One excellent example of the potential for changing the ways in which people work are the presentations to be found on the Internet sharing site, Slideshare, on 'Meet Charlie and Meet Jessica' (www.slideshare.net/bengardner135/meet-jessica).

Like the original Meet Charlie, Jessica is a pastiche of a modern-day professional member of the V Generation, who works at home and at her office but manages to stay permanently connected with her global project team across time zones, working collaboratively with people she has never met in real life. She does so using a range of social media, including blogs, wikis, online collaboration and learning environments, social bookmarking, RSS feeds, podcasts and videos, and social networking sites. You can see a further example of these V Generation workers in the Pfizerpedia case study in Chapter 3.

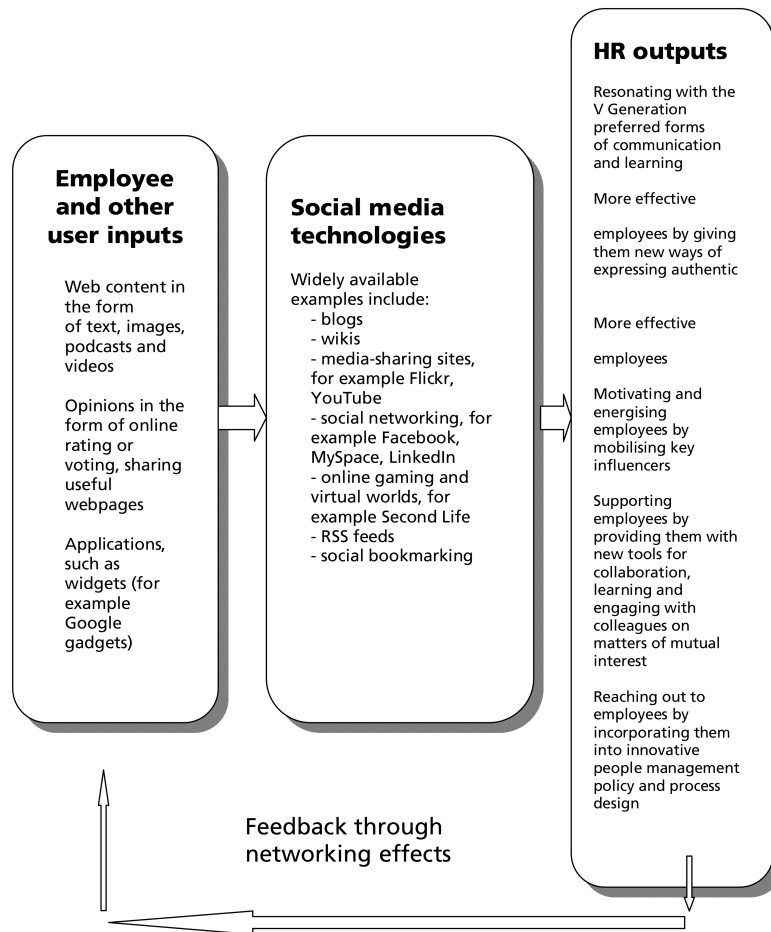


Figure 1 ❖ The Web 2.0 system and people management

BOX 6: ILLUSTRATIONS OF SOME WELL-KNOWN SOCIAL MEDIA TECHNOLOGIES

Blogs

Blogs are a form of personal online publishing, which are also seen as creating enormous potential for successful marketing and communications. They offer individuals and organisations easy access to online publishing of opinions and information, which can also act as a basis for discussion through readers' comments. Blogs are also an instant means of communication that are relatively permanent and searchable by users. They thrive on links to other websites, so providing a form of viral marketing of ideas, promoting views and developing networks. There are a number of HR blogs worth examining, though they are mainly US-oriented (see www.hrworld.com/features/top-25-blogs-121907). However, blogs have come in for some criticism because of their potential to allow employees the opportunity to rant, whistleblow or give an alternative view of reality (Richards 2007; Walker Rettberg 2008).

Wikis

A wiki is a collaborative type of web application allowing end-users to create and update content on a range of issues, 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', so are best suited to develop and edit content – social networking and online communities of practice at their best. Most Internet users may have used Wikipedia, which is an excellent example open-source collaboration to create knowledge. However, it is inside of organisations that wikis can really pay, by having often remote users create organisational knowledge that is permanent and searchable. Internal wikis are expanding quite

rapidly and, for many organisations, are one of the most obviously useful applications of Web 2.0 for HR and organisational learning. We have included examples from Pfizer, KPMG and the NHS in the cases studies at the end of this report.

Podcasts, streaming media and media-sharing sites

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, 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. One good example is the podcast on this topic in the CIPD's series of regular podcasts, available for download from the CIPD website.

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 YouTube, Business Week and MIT's Sloan School site.

Even better known are the media-sharing sites such as YouTube, from which CIPD members can find some interesting learning material, including lectures and excerpts of lectures from some of the academic gurus on management and HRM. They will also find some excellent examples of firms doing innovative recruitment using this site. One such example is the Royal Opera House, one of our cases in the report.

Social bookmarking

This is a method for users to store, organise, search and manage bookmarks of important webpages 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. These allow, for example, subscribers to HR sites to constantly tap into new sources of HR cases, data and information as they become available, to rate their quality for the benefit of colleagues, and export these bookmarks to other users.

Social networking sites

Facebook is an increasingly widely used social media that claims to be the fastest growing social networking site in the world; it 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 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 are typically for the younger, Net Generation, while Facebook attracts a more heterogeneous, older audience. Aside from the misbehaviour demonstrated in the Virgin case in Box 5 (page xx), 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 organisations 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 a case illustration in Chapter 3 of how T-Mobile, a large UK mobile communications company, recruit graduates using Facebook.

LinkedIn is another social networking site, though this time typically aimed at the business user market, aged between 35 and 55, with more than 1 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, 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. According to *The Economist* (27 September 2008), LinkedIn is fast becoming the 'network site of choice' for English-speaking businesspeople, an interesting forecast for HR professionals seeking to use social networking for recruitment purposes.

There are also a number of specialist social networking sites appearing, including one for HR academics, consultants and practitioners, linked to publications such as the *US HRM Journal* (www.hrmthejournal.com/).

Virtual reality worlds

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 than 2 million users, though only about a quarter are active. 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. 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. We have provided illustrations of the use of Second Life in our case study chapter.

The outputs of Web 2.0 for HRM

Writers and researchers have set out a number of emergent outputs, which are the source of value for new organisational business models (McAfee 2006; Tredinnick 2006). The term 'business model' is a consultancy-based concept used to describe a 'theory of the business', which is a strategic framework for creating value for customers and other key stakeholders, and the organisational architecture it develops to do so. The types of business model organisations use are often influenced by technology, the most obvious ones being those of the e-businesses formed during the dot-com boom of the last years of the 1990s, including Amazon, Google and eBay. These organisations have been at the forefront of using and developing Web 2.0 applications and web services for others.

As we have previously discussed, one of the main benefits of Web 2.0 is in providing the opportunity for organisations to change their business models because it helps improve and extend knowledge-sharing and collaboration among employees, suppliers, contractors, and new and existing customers. It can also involve existing and potential customers in product design and rating of existing offerings, and to increase their reach to new generations of customers (see

McKinsey 2008). To re-emphasise our point on collective value, Tredinnick (2006) explained that the best-known advantage of Web 2.0 is not in its novel technologies, but in the participatory nature of knowledge-creation. He uses the example of a wiki to show how information is created by users from their needs to use that information, which is one of the key messages of our Pfizerpedia and NHS case studies.

Extending this argument to HRM, just as organisations are using Web 2.0 to create new business models, we believe that this family of social media can help HR professionals create value for employees, potential employees and other stakeholders in the extended organisation in developing new or at least complementary architectures for collaboration, participation and facilitating employee voice. Perhaps a good way of elaborating this message is to draw on the ideas of Li and Bernoff (2008), who discuss five strategies for tapping into the 'groundswell', a term they use to describe stakeholder participation and collaboration that is driving the adoption of Web 2.0. The focus of their book is on customer and supplier groundswell with only one chapter devoted specifically to employees. However, all five of the strategies are relevant to creating internal groundswell (see Table 1 below).

Table 1: ❖ **Adding strategic value: applications to HR and people management (based on Li and Bernoff 2008)**

Strategies for adding value through Web 2.0 to HRM and people management

More effective listening to understand employees and other internal stakeholders through richer social media research

Applications to key functions in HR and people management

Employee engagement

Promoting the use of employee blogs and online discussion forums to raise issues that are important to employees, so surfacing authentic employee voice rather than responses to attitude surveys. Good examples are the use of employee blogging in Microsoft (Walker Rettberg 2008), in some of the research on the positive application of employee blogs by James Richards (2007) and the use of discussion forums (see Box 7 below) and employee blogging in the BBC case study in this report.

Talking to employees and others by increasing the reach and richness of messages and learning using Web 2.0

Learning

Using corporate blogs and RSS feeds to help people learn about important and up-to-date knowledge of matters that are relevant to them. Again, IBM is a good example, but unions too are beginning to use blogs in interesting ways to open communications with members (see Richards 2007).

Employee communications

Using corporate blogs and social networking sites to keep employees and partner organisations up to date with key areas of company business.

Motivating and energising employees and others by building on the enthusiasm of key influencers and using the power of word of mouth to spread the message/medium

Employee motivation and managing psychological contracts

Tapping into and engaging with enthusiastic employee bloggers and contributors to media-sharing sites about your organisations to demonstrate you are listening to and acting on what is being discussed on the 'street' about the organisation.

Recruitment

Use the power of these online opinion-formers to 'virally' market positive messages about the organisation for recruitment purposes. Research shows that the opinions of users of products and services in the consumer field are the most trusted source of knowledge among potential consumers. Bloggers and comments on blogs are also trusted as a source of information. Social networking has become an important media for both of these activities. One of our case studies shows how T-Mobile uses Facebook to recruit graduates.

Impacting on employer brands

Participate in and encourage online communities that discuss your employer brand.

Supporting employees and others by using Web 2.0 tools to help them support each other

Knowledge-creation and knowledge-sharing

Knowledge-creation and learning are two of the most important ways in which social media can be used, especially where employees and partner organisations are geographically dispersed. The use of wikis, which draws on the wisdom of crowds, is an extremely important example where social media can be used to great effect to create collective knowledge and help contributors and readers learn at the same time. Pfizerpedia and the NHS cases are excellent examples; another is the Open University's use of Second Life.

Promoting work-life balance

Just as some organisations have set up online self-help to support users through technical problems, such as Dell, others are beginning to use discussion forums to help support employees in managing their careers and work-life balance. One of our cases, Allen & Overy, shows this online support function in action.

Reaching out to employees and other stakeholders to participate in innovation in people management and HR policy and process design

Employer branding and value-creation

One of the key issues in developing corporate values and employer brands is authenticity. Currently most organisations take a top-down approach to this, sometimes consulting employees about decisions that have already been taken but often lack authenticity with employees, particularly those remote from head office locations. Some organisations have begun to use discussion forums to surface the values, attitudes and opinions that 'really matter to staff' before taking such decisions. One good example is IBM's use of a two-day interactive online 'Jam' on company values, which resulted in widespread discussion among 50,000 employees about what really mattered to them.

Designing rewards systems and benefits

Increasingly organisations are incorporating customers into the design of new products using Web 2.0 tools. One example where online rating has been put to good use was in the design of new uniforms for cabin crew of EasyJet, many of whom are unable to participate in conventional meetings but were able to see various proposals for new uniforms online and vote on them.

It is clear that HR professionals need to keep abreast of these developments and gain the knowledge and confidence to help shape the approach to Web 2.0 adoption.

BOX 7: DISCUSSIONS FORUMS, 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 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 HM Revenue & Customs' (HMRC) 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 100 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.

HMRC's 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 HMRC employees had registered by October 2007, 8,000 had contributed to online discussions on specific themes, and 500 innovative business ideas had been logged. The online discussion forum had not required propriety software but had been developed using open-source tools.

CHAPTER SUMMARY

In this chapter we have developed a systems framework to help HR professionals think about how web-based content in the form of text, images, videos, opinions and other applications can be transferred through new Web 2.0 social media technologies into important HR outputs. These outputs include:

- ❖ reaching out to the V Generation for recruitment
- ❖ learning and knowledge-sharing purposes
- ❖ more effective listening to employees
- ❖ more effective talking to employees
- ❖ negotiating with and motivating employees

- ❖ supporting employees with new collaboration tools, including them in the innovation process and in key decisions.

We provided some short descriptions and illustrations of how these Web 2.0 technologies have been used and pointers to how they are used in our case studies in Chapter 3.

Perhaps most importantly, we have shown how these technologies can and might be used to add strategic value to

organisations. If HR professionals are able to develop their thinking along these lines, they are likely to help their organisations achieve their strategic goals through more effective people management in a contemporary way that will connect with new and older generations of employees alike. As our case studies show in Chapter 3, some organisations are currently doing so in novel and effective ways.

EVIDENCE OF THE IMPACT OF WEB 2.0 ON HR AND PEOPLE MANAGEMENT: CASES OF PROMISING PRACTICES

Drawing on the models discussed in Chapter 2, this chapter brings together a series of abbreviated case studies to show how a range of social media technologies are currently being used by innovative organisations to produce benefits and challenges for HRM and people management. These practical illustrations also help to inform our attempts to develop some scenarios and strategies for the adoption of Web 2.0 and Enterprise 2.0 in Chapter 4. For readers seeking a more detailed account of these cases, and some other examples of Web 2.0 applications, they can be found at www.cipd.co.uk/helpingpeoplelearn/_wbhr.htm

In summary, this chapter is intended to help readers:

- ❖ appreciate practical ways in which a number of organisations have deployed social media technologies to address a range of business issues
- ❖ identify the HR outputs associated with those deployments, expressed as benefits and challenges
- ❖ recognise basic themes that characterise the adoption of these tools.

USING WIKIS TO COLLABORATE AND SHARE KNOWLEDGE

Wikis are a collaborative type of web application allowing end-users to create and update content on a range of issues, so generating an online community responsible for improving the quality and accuracy of content over time. These two examples from Pfizer and the NHS show how they generate different outcomes.

Table 2: Index of case illustrations

Key HRM and people management strategies	Case illustration
Collaboration and knowledge-sharing	Case 1 Pfizer Case 2 NHS
Communicating, learning and listening	Case 3 BBC
Sharing knowledge and learning	Case 4 CEGA
Supporting employees with new tools for collaboration	Case 5 KPMG Case 6 Allen & Overy Case 7 Duke Corporate Education
Reaching out to employees	Case 8 Westminster City Council
Resonating with the V Generation	Case 9 T-Mobile
More effective talking with prospective employees	Case 10 Royal Opera House

Case study 1: Pfizer

Background

Pfizer is the world's largest research-based biomedical and pharmaceutical company. It has a corporate headquarters located in New York, with several major research and development sites around the world, including one in Sandwich, Kent, UK, which employs approximately 4,000 staff. About three years ago, a small number of research scientists developed an internal shared knowledge repository using wiki technology, to help them work more effectively on their

project. From those early origins, a companywide application called 'Pfizerpedia' has been developed. The following outcomes can be observed:

Benefits

- ❖ supports the creation and nurturing of an innovative culture
- ❖ enables Pfizer employees to share and access more knowledge more quickly than before, for example learning updates are published on a regular basis, with a hit rate of approximately 1,500 hits every month
- ❖ the ability to publish freely attributed information online can help overcome any tendencies that may exist towards 'silo protectionism' or a bureaucratic approval process
- ❖ a 'quick win' for enhancing communication with internal audiences
- ❖ appeals to Generation Y and therefore helps with talent acquisition and integration

Challenges

- ❖ Dealing with the change ramifications of promoting organisationwide access to the new 'bottom-up' collaboration tools such as Pfizerpedia – the enthusiasm of early adopters alone is rarely enough to achieve a tipping point for organisationwide uptake. Hence, the expertise within HR to guide culture change programmes should not be overlooked.

Case study 2: NHS

Background

Since its launch 60 years ago, the NHS has grown to become the world's largest publicly funded health service. Nationwide, the NHS employs more than 1.3 million people, including some 90,000 hospital doctors, 35,000 general practitioners (GPs), 400,000 nurses and 16,000 ambulance staff.

The wiki was developed by the NHS Faculty of Health Informatics – a UK-wide community of practice formed in 2005 comprising 505 members, the majority of whom come from information management, ICT and clinical backgrounds within the NHS. Responding to requests from their members, the faculty held a master class in May 2008 on 'The Power and Perils of Social Networking in the NHS', designed to elevate awareness of the challenges and opportunities afforded by Web 2.0 technologies. Rather than issuing the standard feedback sheets at the conclusion of the master class, the faculty decided to evaluate the event's success using a wiki that allowed delegates to post and edit content via the web.

Benefits

- ❖ The departure from the traditional methods of capturing post-event feedback and ideas solely via standard forms

seemed to unlock a level of enthusiasm and engagement rarely seen before.

- ❖ In addition to the production of an excellent report, it is likely that contributors to the wiki have since set up their own communities of practice, thereby creating extended social capital as a direct result of their shared experiences.
- ❖ From an HR perspective, this holds out the prospect of improving knowledge-sharing and achieving workable solutions to real business issues.
- ❖ The wiki was deployed as a closed site, enabling the NHS to control access through a membership approval process, conferring greater security.
- ❖ The wiki was intuitively easy to use, allowing the viewer to navigate content and edit as appropriate.
- ❖ The quality and quantity of the contributions to the wiki was pleasing.
- ❖ The wiki allowed the user to request proactive updates to keep abreast of any changes.

Challenges

- ❖ One consideration is being mindful of the policy implications as the scale of adoption of wiki-based practices increases – for example data ownership and protection.
- ❖ Another consideration is how best to integrate these practices within the organisation in such a way that they actively improved service quality and efficiency in a sustainable way.
- ❖ It would be unwise to think that the enthusiasm displayed by the participants in the wiki-generated report would necessarily be indicative of organisationwide uptake. Hence, the expertise within HR to guide culture change programmes has to be an important part of any plans going forward.
- ❖ One of the concerns about using wiki-based editing is the perceived risk of users destabilising the editorial process by posting highly argumentative or malicious views, capable of causing offence or creating an impasse in achieving agreement on particular aspects of the content.

USING BLOGS TO COMMUNICATE, LEARN AND LISTEN

Blogs are a form of personal online publishing that offer individuals and organisations easy access to online publishing of opinions and information that can also act as a basis for discussion through readers' comments. This example from the BBC shows how blogging has been used in support of organisational learning.

Case study 3: BBC

Background

The BBC is a UK public corporation that employs some 24,000 people in 43 countries. Its reputation for the integrity and

impartiality of its coverage has made it the world's most respected broadcaster. Traditionally best known for its television and radio programmes, the BBC was an early and successful adopter of new Internet-based media and has an innovative and well-established website. In 2007–08 the website attracted an average of more than 33 million weekly users globally.

This case study illustrates how blogs are used in the learning and development of the BBC's employees, particularly those employed in delivering and supporting broadcast journalism.

Benefits

- ❖ Vast numbers of BBC staff produce a blog and internal surveys suggest that one-third of all intranet users read at least one of the internal blogs on a regular basis.
- ❖ These blogs are diverse in nature. Their development has been encouraged and the 'traditional' or 'orthodox' blogs tend to offer readers insight on issues of editorial broadcasting, technical issues or organisational change issues.
- ❖ A particularly popular blog is the one produced by Richard Sambrook, Director of Global News at the BBC. His blog attracts about 2,500 unique users a month (these figures were higher when the blog was first introduced and it had some novelty value). It also attracts a small and knowledgeable cohort of regular contributors to discussions, and he frequently receives positive informal feedback from junior colleagues. He has found it a valuable delivery channel for ideas.
- ❖ A more recent development is the Creativity Network. This is the most sophisticated blog technically, is multi-author and contains facilities in which contributors can draw others' attention to interesting developments, offer links to relevant sites and – most importantly – upload their own clips or contributions.

Challenges

- ❖ There are occasions when the needs of confidentiality and discretion must prevail: 'As a senior manager you only put up what you feel you should put up on the web.'
- ❖ Difficulties in assessing the value of blogs in the learning process – traditional evaluation practice is based on top-down interventions, not the bottom-up or the peer-to-peer networks that are emerging.

DATA AGGREGATION TO SHARE KNOWLEDGE AND LEARNING

Data aggregation is concerned with collecting information from various sources and displaying it together in customisable formats, such as a desktop, 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. This example from CEGA illustrates how the use of knowledge repositories enhances individual and group learning.

Case study 4: CEGA

Background

The CEGA Group is a UK-based organisation that was founded some 30 years ago by two brothers, Graham and Clive Ponsford, who shared a passion for flying. CEGA has over 400 employees – the figure varies according to the seasonal nature of the business – and provides the specialist back-up and support for services that are delivered before, during and after travel, on behalf of branded travel insurance products.

There are a number of specialist professionals employed at CEGA, including pilots, doctors and nurses; however, the company's business model is based on the ability of all employees to offer accurate and relevant information across a wide and growing range of travel-related issues. One of the problems has been the inevitable tendency of customer advisers to hold information in a way that suits them and for the specialist teams to operate as specialist silos. The establishment of a quick and easy way to make this information readily available – the Assistance Knowledge Bank – has been the key to success.

Benefits

- ❖ The Knowledge Bank is popular with staff because they now have a 'one stop' place for all the information and documents they need to carry out their tasks quickly and efficiently, even while customers are on the phone. It has given managers an element of version control, ensuring that the latest changes are incorporated and used straight away.
- ❖ Knowledge from across the organisation is shared in an accessible way, adding to efficiency savings, and there is a high degree of ownership among front-line staff. This is because everyone is encouraged to add to the Knowledge Bank. Although this is moderated, everyone feels they can contribute 'Wikipedia' style.

Challenges

- ❖ The main challenge lies in increasing the awareness and hence use of the Knowledge Bank. New starters are made aware of the facility and encouraged to use the directories at the outset, but inevitably some longstanding agents still rely on their own tacit knowledge.

SUPPORTING EMPLOYEES WITH NEW TOOLS FOR COLLABORATION

These examples illustrate a range of social media technologies, including wikis, blogs, virtual worlds and knowledge repositories, which are sometimes used in combination to support collaboration among employees.

Case study 5: KPMG

Background

KPMG is a UK limited liability partnership and a subsidiary of KPMG Europe LLP. It is a leading provider of audit, tax and advisory services. KPMG in the UK has over 10,000 partners and staff in over 22 office locations and recently merged with the German, Spanish and Swiss member firms.

Due to the scale, complexity and geographical spread of KPMG's business operations, collaboration and knowledge-sharing among KPMG's primary asset – its people – is vital to its success. Underpinning the drive to constantly improve this aspect of its business, Enterprise 2.0 applications, such as wikis, blogs and data aggregation, are being adopted, to varying degrees, with the key aim of delivering better services to the firms' clients.

Benefits

- ❖ Facilitates convenient and effective ways of stimulating and maintaining knowledge-sharing and group-working among teams separated by geography, time zones and office locations.
- ❖ Tools are as simple and intuitive as possible with straightforward, single point of access via the KPMG portal.
- ❖ Underpinning the critical 'pillars' of easy access and intuitive operation, KPMG has a network of knowledge managers, confident in using the different tools and understanding their most appropriate application. These knowledge managers support the client-facing teams by raising awareness of the tools and providing direct support if required.
- ❖ Supplementing the knowledge managers, a variety of online support such as short video clips of relevant case studies, encourage teams to use the tools.
- ❖ The tools appeal to Generation Y employees and are seen to enhance KPMG's employer proposition to this audience.

Challenges

- ❖ One challenge is encouraging some individuals and groups, who are perhaps more sceptical at first about the potential benefits, to use the new tools.
- ❖ Developing more meaningful measures of potential benefits – for example, if a wiki has been maintained over time, effectively sustained by a community of interest, what features contribute to its success and longevity?

Case study 6: Allen & Overy

Background

Allen & Overy LLP is an international legal practice with 29 offices in major cities worldwide. It has almost 5,000 staff and 500 partners who advise governments, banks, major corporations and institutions throughout the world.

Like all large law firms, Allen & Overy is a knowledge-centric organisation where, it claims, the greatest knowledge asset is its people. The idea of using new technology for knowledge development and sharing is therefore attractive. Two features of Allen & Overy suggest that it would become an early adopter of social networking. First, it has a very collegiate culture and knowledge-sharing is part of that culture. Second, Allen & Overy has always prided itself on an innovative mind-set and a willingness to be ahead of the curve in adopting new approaches and processes.

Set against that, lawyers can be risk-averse and formal in their attitude. The introduction of social business networking tools and practices needed to be well planned and implemented to secure understanding and support across the practice. Accordingly, a variety of applications were introduced combining group blogs, wikis, email alerts, shared bookmarks and news feeds. Two of those applications, 'The HR Exchange' launched in 2007, and 'Parents@A&O', gave rise to the following benefits and challenges.

Benefits

- ❖ As well as a repository of information on HR procedures and standard letter templates, the HR Exchange has active discussion spaces in which HR colleagues both in and outside London participate. These cover current HR projects as well as advice and knowledge-sharing on HR practices. This social networking technology represents a move away from update and enquiry through individual or group email.
- ❖ Parents@A&O is a source of all sorts of useful information for parents with children of all ages. The online social networking technology provides email alerts for any new content. It incorporates an interactive discussion forum where items of concern can be shared and also an 'ask the expert' feature, where parents can receive advice on things such as 'cyber bullying'.
- ❖ The tools represent a practical manifestation of Allen & Overy's commitment to family-friendly policies and practices and a modern expression of HR's role as an employee champion, based on facilitation not through representation.

Challenges

- ❖ Making sure that unfamiliar jargon does not become a barrier – the important thing is to emphasise what the different Web 2.0 tools actually do and the benefits they

bring to the workplace. For example, when starting out, Allen & Overy used the term 'Group Space' to describe their wiki tool.

- ❖ Guiding the development of Web 2.0 applications that capture the imagination of the intended participants and serve the needs of the business – for instance, management blogs need to be authentic and regular and it is vital to address if readers will be able to make comments and any associated arrangements for their moderation.

Case study 7: Duke Corporate Education

This case illustrates the use of Second Life (www.secondlife.com), which is the best known of a number of virtual worlds. To quote from Wikipedia (http://en.wikipedia.org/wiki/Main_Page), 'A downloadable client program called the Second Life viewer enables its users, called "Residents", to interact with each other through motivational avatars, providing an advance level of social network service . . . Residents can explore, meet other Residents, socialize, participate in individual and group activities, create and trade items (virtual property) and services from one another.' An avatar is a three-dimensional representation of your presence in Second Life.

Background

Duke Corporate Education (Duke CE) was founded in July 2000 as a not-for-profit organisation to deliver custom corporate education to clients throughout the world. It emphasises an ability to 'help clients address real-world, real-time business challenges' and, since its inception, has been at the leading edge in the use of technology in learning. Duke CE has 140 staff with offices in New York (where the current chief executive is based), London, California, North Carolina, South Africa and India.

In 2007 Duke CE was ranked number one in custom executive education by the *Financial Times* for the fifth year in succession and number one in *Business Week* for the third time in a row. They note that in rankings and other surveys the firm receives consistently high scores in value for money, providing high value at every price point by manipulating the mix of: learning methods; faculty eminence; programme length, location, and complexity; modalities; and number of participants per delivery.

The recurrent themes addressed by Duke CE relate to the implications for organisations becoming more global and sustainability: this extends far beyond business survival in a world of changing markets, a war for talent, and dwindling natural resources, and addresses an organisation's environmental and social responsibilities.

This case study concerns Duke CE's approach to using the virtual world of Second Life as a way of creating enhanced learning experiences for participants on corporate programmes.

Benefits

- ❖ Second Life can bring users together from different locations and create the feel of physical proximity where other technologies can't. It also allows for a unique level of shared experience from the richness of the visual environment and the ability avatars have to build and share objects, and create and join affinity groups.
- ❖ A variety of learning experiences can be designed, from 'scripted' to 'open access', determined by the extent to which the virtual environment is controlled and learners are guided by the faculty or facilitators. For example, team exercises can be created for a wide range of situations. What is typically delivered today as an outdoor teaming experience on site (in the real world) can, with appropriate care in design, be created in Second Life: teams of avatars meet with a coach, work together to apply positive teaming behaviours in addressing a challenge, and participate in debriefing of their experience with the coaches.

Challenges

- ❖ The Second Life environment has presented educators with new opportunities for the design and delivery of educational experiences but the challenge appears to be recognising and exploiting those opportunities.

REACHING OUT TO EMPLOYEES

Case study 8: Westminster City Council

This case study illustrates the use of discussion forums – an application that allows users to post original messages and replies on a website. Forums are often divided into topics and conversational 'threads' that allow users to follow conversations on certain topics.

Introduction

Westminster City Council is a unitary authority providing local government services to 232,000 people and 47,000 businesses in London. Rated 'excellent – four stars' by the Audit Commission, Westminster is a pioneer in the provision of leading-edge solutions for local government. The council's 60 elected members serve a community that is highly diverse with complex needs and that generates 2% of the UK's gross domestic product. The HR function has invested in the use of online discussion forums as part of a multifaceted staff engagement programme.

Benefits

- ❖ Allows employees more opportunities to voice their opinions online, to help them better engage with key organisational issues, such as reward strategy and cycling-to-work initiatives. This fits in with other aspects of the staff engagement strategy, such as staff development, talent-spotting and building real values.

- ❖ Staff engagement can be tracked easily by HR by evaluating the number of 'viewing hits' a particular topic receives and also the number of responses. The comments posted by staff can help to refine the thinking of the senior management team on a particular topic and also open up new avenues for discussion.
- ❖ As Westminster seeks to downsize the number of employees physically located in its buildings and encourages more flexible working methods, the online discussion forum is a way of creating social interaction.
- ❖ There is potential scope for further enhancements to give employees a greater sense of voice in shaping the council's activities.
- ❖ There are potential opportunities to apply lessons learned to Westminster's customers, strengthening and extending the organisation's value proposition to new audiences.

Challenges

- ❖ Policing the discussion forums in recognition that reputational damage could occur if they become a source of malicious or abusive intent – one of the rules operated by Westminster is that all comments posted must be attributable and they are carefully monitored for any signs of misuse. Employees know that such action will not be tolerated.
- ❖ Ensuring employees can see evidence that their comments count – the discussion forums do place an extra responsibility on Westminster to show it is prepared to act on good suggestions, where practicable.

RESONATING WITH V GENERATION'S PREFERRED FORMS OF COMMUNICATION AND LEARNING

This case illustrates the use of Facebook – an increasingly widely used social media that claims to be the fastest growing social networking site in the world – to create a shared community of prospective graduate recruits.

Case study 9: T-Mobile

Background

T-Mobile UK is one of the world's leading companies in mobile communications. Pursuing quality and innovation, investments were made in new HR systems and e-HR applications, which spurred new ways of delivering HR services and practices. Against this background, T-Mobile UK took a decision to use Web 2.0 applications in the form of social networking as a means to reach the company's 2007 pool of potential graduate recruits. The fundamental thinking behind the development of a social networking presence was the need to find an innovative way to retain a diverse pool of around 300 technically aware graduates, who were competing for 42 positions. The Facebook site was created for this purpose.

Benefits

- ❖ The Facebook site allowed the recruits to share knowledge about their experiences and in the process get closer to each other and the company, consistent with one of T-Mobile's brand messages, 'simply closer'.
- ❖ As the graduate assessment process unfolded, it was evident that the community became stronger collectively at each stage, with each member of the community wanting to progress at an individual level but also showing real intent to assist others by sharing their personal perspectives.
- ❖ By the end of the process, when the individuals who would be offered positions in T-Mobile had been identified, the level of social cohesion within the community was extremely high. Perhaps the most striking observation to emerge was that the new graduates felt part of T-Mobile before they joined and this helped them to settle in much more quickly.
- ❖ Given that HR has a central role in talent acquisition and integration, the experience with social networking has revealed clear opportunities to extend the use of Web 2.0 tools to include wikis, blogs and discussion threads, all in support of facilitating an environment where new recruits, through sharing knowledge and experiences, can become productive more quickly in the business and contribute to its future growth.

Challenges

- ❖ If a social networking tool is being used to aid retention, it must be accepted at the outset that the principles underlying this approach – the spontaneous, conversational dynamic that develops within the community – cannot be abandoned when the going gets tough. Failure to do so runs the risk of diminishing or destroying the social capital that has been created over time.

MORE EFFECTIVE TALKING TO PROSPECTIVE EMPLOYEES

Case study 10: Royal Opera House

This case illustrates the use of YouTube, the online video-sharing website, to provide an important strand to a recruitment campaign.

Background

The Royal Opera House (ROH) is one of the most prestigious venues for opera and ballet in the world and its Covent Garden location is a very well-known London landmark. Almost 300 main stage performances take place each year during the September–July season, with more than 600,000 people attending.

Around 900 staff are employed, most at the Covent Garden site, with some at a scenic construction workshop in East

London and others at their 17,000 square foot scenery store in Wales. Interestingly, fewer than a third of the staff are performers (orchestral musicians, dancers or singers). The staff who are not involved in performance cover a whole range of essential activities: some 200 are involved in customer services, 200 in technical/backstage roles (lighting, sound, stage management and so on) and 60 in backstage crafts (making scenery, equipment, costumes or wigs). The remainder are involved in a variety of management and administrative roles, including fundraising.

Although the name and prestige of the Royal Opera House attracts a lot of candidates, it was of concern to the HR team that for a large number of jobs the diversity of the applicants and appointees did not reflect the diversity of the community in which the Opera House operates. Second, there were issues about the common perceptions of the attractiveness of the jobs that did not involve stage performance.

This case study concerns the way that the new Internet technology, particularly YouTube, has been used to provide a new dimension to the recruitment of staff for non-performing roles.

Benefits

- ❖ YouTube was used as a supplementary strand of advertising to synergise with a themed campaign called 'Find Yourself' to promote and encourage applications for backstage careers, and consisted of posters and other promotional literature.
- ❖ The YouTube campaign consisted of a series of six short videos featuring actual members of staff and linked to the vacancy section on the ROH website. In 2008 they won a Recruitment Advertising Award (RAD), and a CIPD award. The judging panel for the RAD awards commented that the short videos promoted the human face of the Royal Opera House and conveyed accessibility in a way that does full justice to the medium.
- ❖ The recruitment campaign, in particular the YouTube videos, generated some impressive statistics. Since the start of the campaign in October 2007, there have been more than 100 registrations per month on the Find Yourself site and overall more than 7,000 hits on the YouTube videos. There has been a 22% increase in the number of job applicants and more than 25% of job applications are now sourced directly via the Find Yourself site. Most impressively, in the two years prior to the campaign, fewer than 10% of new hires were from a black or multi-ethnic background. This has increased to more than 15% in the six months following the campaign launch.

CHAPTER SUMMARY

In this chapter we have summarised ten cases that illustrate the framework we developed in Chapter 2, which describes the key outcomes for HRM and people management arising from the adoption of Web 2.0 social media technologies. These case illustrations highlight the benefits and the remaining challenges for these organisations in their attempts to innovate in this area.

Readers should note, however, that these cases illustrate 'promising' rather than best practice, since, to some extent at least, practices are always context-bound and are not always transferable from one organisation to another with the same impact. Also, most of the projects undertaken in these cases are at an early stage of implementation, with little systematic evaluation of outcomes.

However, one of the most important points to note from a number of these cases is the extent to which the organisations have developed social media behind their firewalls to maximise the benefits and minimise the risks – so-called Enterprise 2.0 solutions. We take up this point in the next chapter.

The cases and discussion so far highlight two related sets of questions for the future of Web 2.0 social media technologies concerning *engagement* and *control*. Engagement by employees with these technologies and control over their use are critical issues for organisations, which will determine the speed of adoption of social media technologies and the value they create in enhancing communications, employee voice and collaboration.

So in this chapter we:

- ❖ describe the importance of engagement and control in contributing to HR policies on Web 2.0 adoption
- ❖ outline four scenarios that reflect current and future uses of technologies of communication, employee voice and collaboration
- ❖ discuss the emergence of Enterprise 2.0 as the preferred choice for most organisations, as illustrated by the case studies in Chapter 3.

THE IMPACT OF ENGAGEMENT AND CONTROL ON HR POLICY

Technologies and engagement

A technological system comprises not only hardware and software but also embraces the knowledge needed to use the technologies and the work organisation to implement it (Martin 2005). As an example, mass production is a technology based on the hardware of a moving assembly line, software such as manufacturing resource planning systems, work organisation based on a detailed division of labour, and relatively low levels of employee knowledge and skills to work on an assembly line.

To a great extent, the development of work organisation and management has been dominated by choices over technological systems, which is no less true nowadays with

modern forms of information and communication technologies. One of the most important influences on choices of these technologies of communication, voice and collaboration has been the extent to which employees and managers are engaged by and with them. By engagement we mean whether employees:

- ❖ *identify* with a particular technology (does it help employees express their personal and organisational identity?)
- ❖ *internalise* the technology's built in values (does the technology embrace the values they hold?)
- ❖ feel a degree of *psychological ownership* over it (to what extent is the technology 'theirs'?)

So, in respect of Web 2.0 social media technologies, the key question we have to answer is:

- ❖ How easy is it for employees to engage with a particular technology (or combination of technologies) to collaborate, share knowledge, communicate and express authentic voice in their organisations?

By easy, we mean not just ease of use and access, but also these aspects of identification, internalisation and psychological ownership. Indeed, identification with technological change by employees has been shown to be one of the key factors in its acceptance (Tripas 2008). V Generation employees, as we have discussed and illustrated in some of the cases, are much more likely to identify and engage with these social media technologies than other generations. This point has been forcibly made by Don Tapscott (Tapscott and Williams 2008), a renowned Canadian academic expert in this field, in his study of the 'net generation'.

Control

Control is another widely discussed and contested idea in management and employee relations, especially in relation to the distribution of power between employers and employees.

In the context of Web 2.0, control seems to be expressed in the answer to an important question:

- ❖ How easy or difficult is it for organisations to cope with the power employees enjoy from easy access to decentralised and open forms of communication and collaboration?

Some of the discussions on the CIPD forum on social networking (www.cipd.co.uk/communities) seems to imply that the answer to this question is a 'zero-sum' game – the more control and power employees have, typically to misuse these social media at work for personal reasons, the less control organisations have. Thus, the solution seems to be to proscribe the use of social networking and blogging, often resulting – as one member's post described – in a time-consuming battle of blocking and unblocking sites from view. This control focus is also evident in emerging legal cases and advice by lawyers on the use by employees of social media technologies. As a result of the recent cases illustrated by Virgin and British Airways (see Box 3 on page xx), there is a real danger that lawyers will begin to advise employees not to post any comments online that could remotely be connected with their employer's business.

However, it doesn't always need to be a win-lose scenario: employees and employers can both gain if they agree to a 'win-win' solution, as evidenced by some of our cases. CIPD members also referred to this more 'positive-sum' game, whereby organisations and employees both gain from 'better morale', not being seen to ban 'freedom of speech' and in encouraging the kind of experimentation with these technologies that may lead to transformational innovation. This last reason underlies the perspective of companies such as IBM (see Box 9 at the end of this chapter).

FOUR SCENARIOS OF COMMUNICATION AND COLLABORATION IN ORGANISATIONS

Bringing these two ideas together – engagement and control – we can envisage four scenarios that describe modes of communication and collaboration in organisations (see Figure 2 below). These scenarios might help us think about the challenges that HRM faces and possible strategic choices over communication and collaboration.

Scenario 1 – traditional face-to-face communication and collaboration

This scenario represents the typical, existing face-to-face system of collaboration and communication, the latter of which is typically conducted through the formal collective bargaining system. Union representation provides the main medium for employee voice, and knowledge management and collaboration continues to be viewed as a 'contested terrain'. Knowledge and skills are seen as issues to be bargained over since knowledge is power and not something to be readily given up by employees, who seek to capitalise on their often tacit knowledge and skills.

In this scenario, the challenges to both managers and union representatives are that:

- ❖ new generations of employees begin to use Web 2.0 technologies as a means of expressing their own, often negative, voice, as unions are seen by an increasing number of workers to be less relevant in expressing their interests (Willman, Bryson and Gomez 2006)
- ❖ employees don't engage in much formal or informal collaboration and knowledge-sharing with one another since their tacit knowledge and skills are their main source of power to enhance their careers at work.

Managers view employees' use of these technologies in a largely negative light, often attempting to proscribe their use at work, or else ignore them as a means of finding out what employees think and want to discuss.

Such a scenario may be typical of many organisations in traditional manufacturing and service industries, and in certain parts of the public sector with high levels of manual and basic administrative grades.

Scenario 2 – modern face-to-face communication and collaboration

This represents a modern, consultative system in which communication takes place through working parties, joint consultation and regular attempts to tap into employee voice through attitude surveys and the like. Collaboration and knowledge management are typically based on face-to-face teamworking, project teams and traditional employer-centred knowledge management systems, which attempt to capture knowledge, store it and disseminate it in a top-down fashion.

Again, in this scenario the challenge to managers and representatives is that new generations of employees begin to adopt Web 2.0 technologies as a means of expressing their own voice and to collaborate in naturally occurring communities of practice. Both of these employee initiatives remain largely untapped and unmanaged as in Scenario 1. HR continues to rely (a) on top-down means of assessing what really matters to employees, such as attitude surveys, and (b) on representative forms of workplace democracy/participation to allow employees to express concerns and take part in decision-making. Knowledge management continues to be formalised through traditional non-participative software systems that are relatively inaccessible to employees.

Such a scenario is probably typical of most organisations in the UK in many of the knowledge-intensive and creative sectors of the economy, including 'professional bureaucracies' such as healthcare, education and professional services, in defence, the prison and police services, and in industries such as financial services and others (Birkinshaw and Pass 2008). As the CIPD discussion site showed, data protection in these organisations is a sensitive issue, as are concerns over protecting brand identities and the desire to exercise a duty of care.

HR's role in this scenario remains focused on policing, rather than encouraging, the innovative and experimental use of Web 2.0 social media. Thus, it is no surprise that Richards (2007) found the majority of his blogger respondents coming from these sectors.

Scenario 3 – Laissez-faire Web 2.0

This represents a relatively anarchic situation in which some organisations may find themselves in the

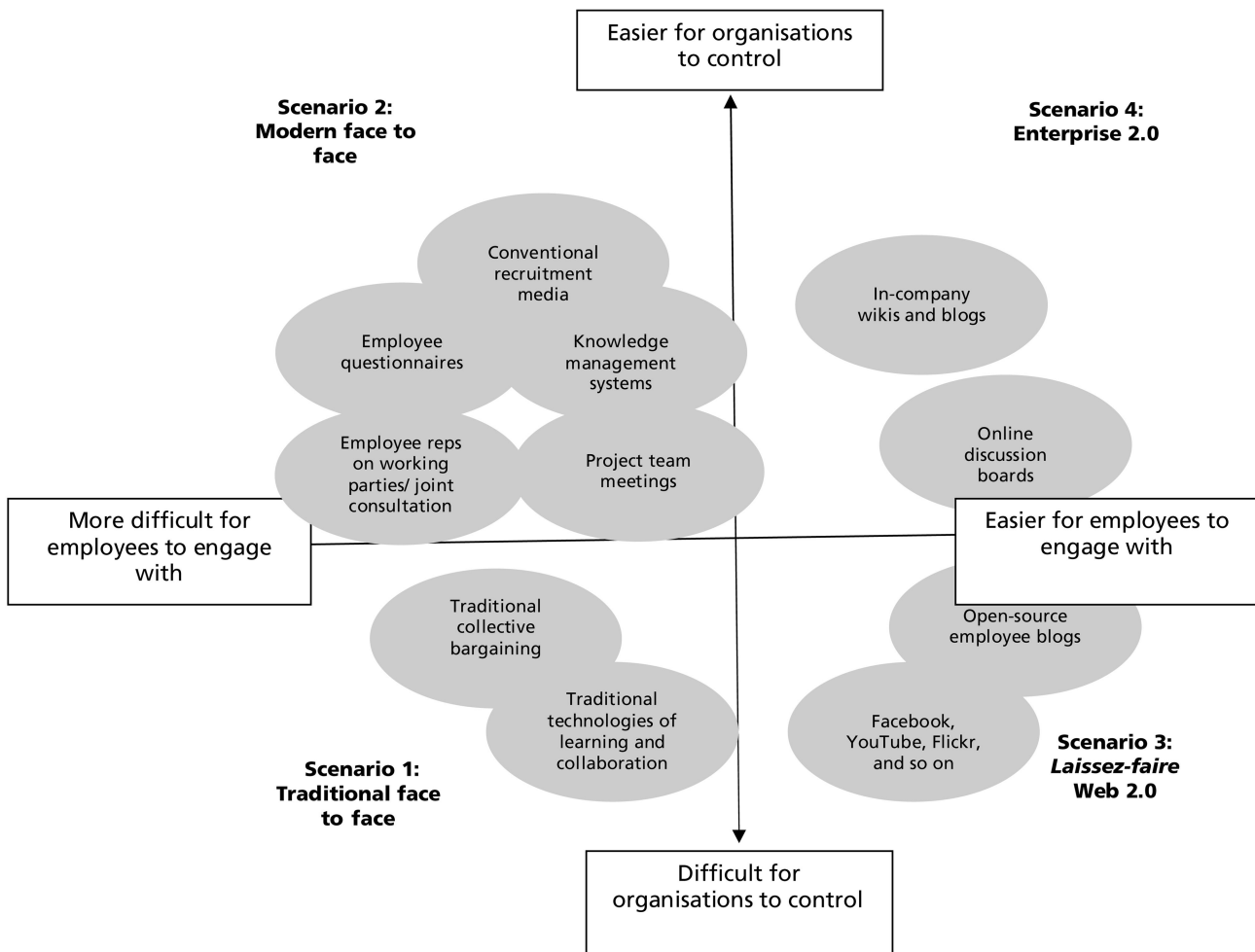


Figure 2 ❖ Scenarios for Web 2.0

not-too-distant future. Organisations may begin in scenarios 1 and 2 but come to resemble a more decentralised system of informal bottom-up communications and knowledge-sharing as more and more people, especially members of the V Generation, become employees. Much communication becomes virtual, in which knowledge-sharing and employees voicing their concerns take place *outside of formal employer-controlled media*, especially in locations geographically and functionally distant from head office among remote workers (CIPD 2008a) and among higher educated and paid networked workers (Li and Bernoff 2008; Madden and Jones 2008; Sarner, Drakos and Prentice 2008).

It is this scenario that seems to worry a number of HR professionals in those organisations represented by scenario 2. As we have noted, it is the lack of organisational control over Web 2.0 and the ease with which employees can engage with various applications that causes many organisations and HR professionals to worry about these social media, with some organisations placing outright bans on their use at work or substantially restricting the ability of employees to access them at work. Time-wasting at work and the potential for

organisational misbehaviour by disenchanted employees has dominated the HR agenda over Web 2.0, the CIPD discussion forum on social networking, and surveys of HR professionals. For example, a recent questionnaire sent out by a law firm in the UK to 1,765 employers, claimed that 79% of respondents had disciplined one or more of their employees for using social networking sites during working time, and many had banned the use of such sites.

The Government Communications Network's (2007) review of social media is particularly relevant here. Drawing on questionnaires to government departments and interviews with specialists in the field, it 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
- ❖ the risk of public exposure, damage to customer and employer brands, and general loss of control
- ❖ the limitations placed on Web 2.0 by IT departments that didn't want to damage the integrity of their systems.

Underlying such 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. It is just such features that have encouraged companies like T-Mobile, Duke and others to use open access tools such as Facebook and Second Life to engage with potential employees and participants in programmes, though acknowledging the problems of doing so.

Scenario 4 – Enterprise 2.0

This scenario is the one best represented by our case study companies, with some such as KPMG using the terminology of

Enterprise 2.0 to explain their strategy. Enterprise 2.0 is recognition that social media technologies are fast becoming a fact of life among the higher educated and paid networked workers and new generations of employees. This scenario is one where organisations are driven by the V Generation or by the need to secure collaboration and voice of increasingly geographically dispersed workers, often in other countries, working from home or who rarely visit head office locations. Organisations attempt to regain control by developing the technologies of Web 2.0 inside of their firewalls and encouraging or facilitating employees to make use of these technologies.

According to Andrew McAfee from Harvard University, who is usually credited with coining the term 'Enterprise 2.0' in 2006, this route is probably the most promising way forward for organisations seeking the benefits of Web 2.0 but wishing to minimise the downside (see Figure 3).

BOX 8: 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 are widely available to individuals, (b) corporate internets because they are not emergent, and (c) traditional email and SMS because they aren't persistent.

Figure 3 shows a potential trend away from the very open Web 2.0 towards Enterprise 2.0. 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. 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 long tail of profitable customers comprising only 20% of its total sales (Anderson 2008), so organisations can now reach out to the 'long tail' employees. These comprise previously marginalised or disengaged groups who weren't economically possible to reach or who rejected the normal consultation process through union representation and organisationally determined (and often meaningless to them) questionnaires. This last point is important in explaining the overall lack of interest shown by medical staff in completing surveys and in taking part in focus groups in ongoing studies we are conducting for the NHS in Scotland.

POLICY GUIDANCE FOR ADOPTION OF WEB 2.0 AND ENTERPRISE 2.0

Our data and cases seem to point to Enterprise 2.0 as the scenario most appropriate to organisations in the future – which is not to say that all communication and collaboration will be virtual; interpersonal communication over many issues will remain a preference even for the V Generation, as research by the Pew organisation has shown (Madden and Jones 2008).

So there is a need for organisations to develop coherent and innovative policies on Web 2.0. Whether these are light touch, as is the case with companies like Microsoft ('don't write anything on blogs that would get you into trouble'), or more formal is a matter of taste and circumstance. We conclude this chapter with two sets of advice from organisations that are relatively advanced in their use of Web 2.0. The first is from the UK Government Communications Network's Review of Social Media. They recommended seven actions that could usefully provide a benchmark for many organisations.

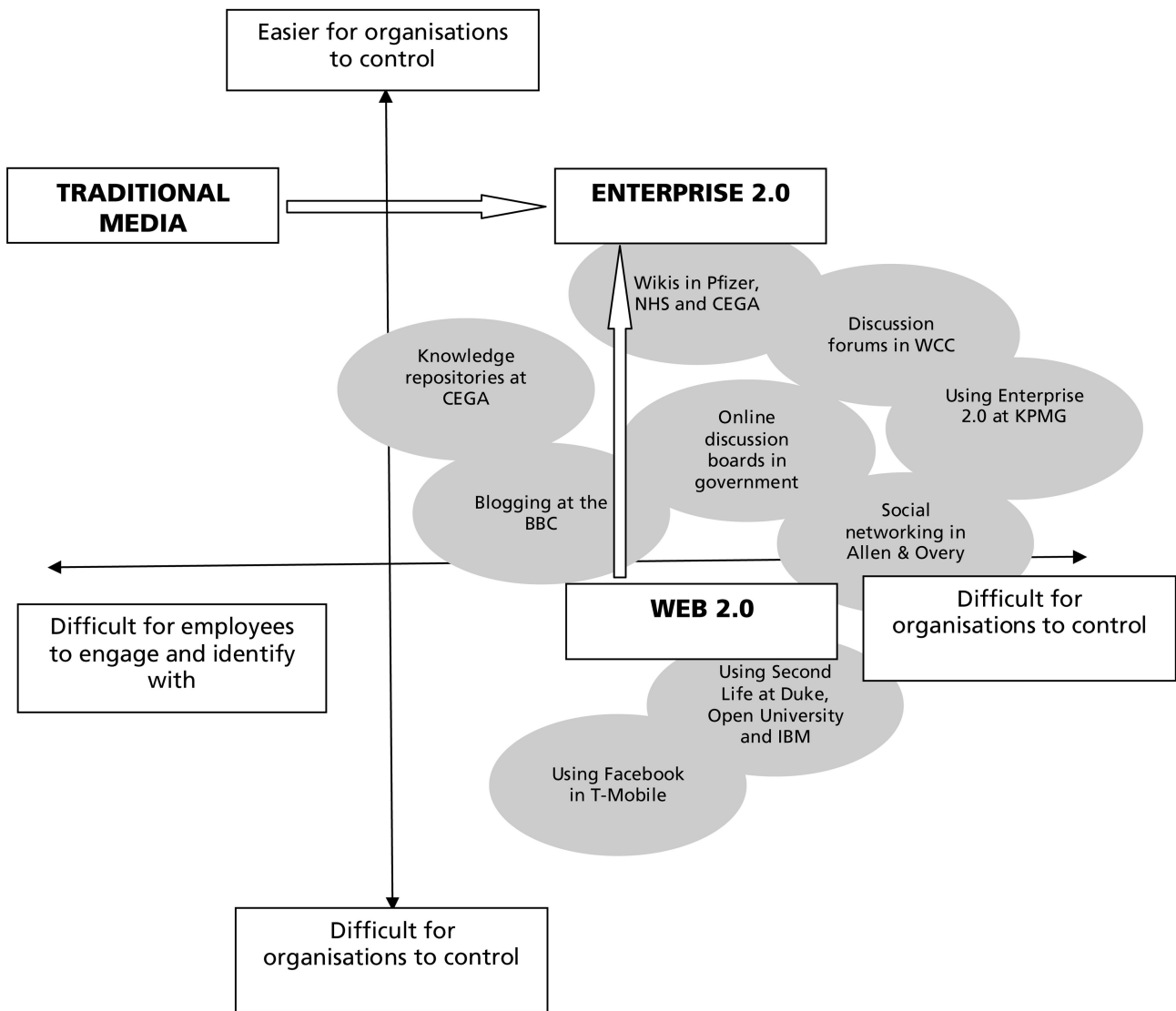


Figure 3 ❖ Strategies for Enterprise 2.0

BOX 9: UK GOVERNMENT COMMUNICATIONS NETWORK'S REVIEW OF SOCIAL MEDIA

- ❖ 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.

Codes of conduct, as evidenced by the CIPD discussion forum on social networking, are an important step forward. However, some of these codes emphasise limiting the use of these at work, as does certain advice from lawyers whose role is to protect organisations and employees from expensive litigation. From our review of extant policies on social networking, perhaps the most helpful and most progressive, which

balances innovation against risk, is the one highlighted in Box 10 on IBM's social computing guidelines. IBM provides strong encouragement, support and tools to engage and experiment with Web 2.0 and Enterprise 2.0, but they also seek to protect their brand and employees, a position that most organisations could benefit from.

BOX 10: IBM'S SOCIAL COMPUTING GUIDELINES: EXECUTIVE SUMMARY (AVAILABLE ONLINE AT WWW.IBM.COM/BLOGS/ZZ/EN/GUIDELINES.HTML)

Know and follow IBM's Business Conduct Guidelines.

- 1 'IBMers' are personally responsible for the content they publish on blogs, wikis or any other form of user-generated media. Be mindful that what you publish will be public for a long time — protect your privacy.
- 2 Identify yourself — name and, when relevant, role at IBM — when you discuss IBM or IBM-related matters. And write in the first person. You must make it clear that you are speaking for yourself and not on behalf of IBM.
- 3 If you publish content to any website outside of IBM and it has something to do with work you do or subjects associated with IBM, use a disclaimer such as this: 'The postings on this site are my own and don't necessarily represent IBM's positions, strategies or opinions.'
- 4 Respect copyright, fair use and financial disclosure laws.
- 5 Don't provide IBM's or another's confidential or other proprietary information. Ask permission to publish or report on conversations that are meant to be private or internal to IBM.
- 6 Don't cite or reference clients, partners or suppliers without their approval. When you do make a reference, where possible link back to the source.
- 7 Respect your audience. Don't use ethnic slurs, personal insults, obscenity, or engage in any conduct that would not be acceptable in IBM's workplace. You should also show proper consideration for others' privacy and for topics that may be considered objectionable or inflammatory — such as politics and religion.
- 8 Find out who else is blogging or publishing on the topic, and cite them.
- 9 Be aware of your association with IBM in online social networks. If you identify yourself as an 'IBMer', ensure your profile and related content is consistent with how you wish to present yourself with colleagues and clients.
- 10 Don't pick fights, be the first to correct your own mistakes, and don't alter previous posts without indicating that you have done so.
- 11 Try to add value. Provide worthwhile information and perspective. IBM's brand is best represented by its people and what you publish may reflect on IBM's brand.

CHAPTER SUMMARY

In this chapter we have discussed the importance of engagement and control as factors influencing the future direction of Web 2.0 in HRM and people management. Engagement is important because employees are likely to find particular technologies of communication and collaboration not only easy to use and access, but also to identify with, to reflect their values, and to claim a degree of psychological ownership over. Evidence suggests that this is one of the prime drivers for the rise of the V Generation. And because of the open access to these new forms of social media, employees are increasingly using these technologies to learn, play, communicate, share ideas and network outside and inside of their organisations. So, in one very important sense, these technologies represent a challenge to the control aspirations of

organisations, which seek to protect their communications, brands and integrity, as well as prevent people from wasting time at work.

Using these dimensions of engagement and control, we have mapped out four scenarios for the future of Web 2.0 and HR. Two of these, the traditional and modern face-to-face scenarios, appear to represent much of existing practice in organisational and employee communication and collaboration, while the others represent a not-too-distant future, which has already arrived for some organisations. The Web 2.0 scenario is one that is evident in some of the CIPD discussion forums and is a worry for some HR professionals who wish to privilege control over innovation. The future, however, seems to lie in the Enterprise 2.0 scenario, which

attempts to balance innovation, engagement and control. This is the message of most of our case studies and of experts in the field.

Regardless of which scenario, organisations will be increasingly faced with employees seeking to use Web 2.0 social media technologies at work, so rather than ignore or ban them outright, they will need to adopt sensible policies that fit their

particular context. There are no one-size-fits-all policies because contexts differ, which is evident from our research, cases and the discussion among CIPD members. However, a good starting point might be to consider the sentiments expressed in the two sets of policy advice from the Government Communications Network Review of Social Media and from IBM's social computing guidelines.

The conventions of good communication demand that we ‘tell you what we have already told you’ to bring our evidence on Web 2.0 and HRM together, and to reinforce some key messages. Given the executive summary and chapter summaries, however, we can be relatively brief in our conclusions.

Our review of the literature and practice in this field suggests a number of important findings for HR professionals, which can be grouped under three headings:

- ❖ understanding Web 2.0 and why it is important to HRM and people management
- ❖ understanding how Web 2.0 will become more important
- ❖ future scenarios for Web 2.0, HRM and people management.

UNDERSTANDING WEB 2.0 AND WHY IT IS IMPORTANT TO HR AND PEOPLE MANAGEMENT

We need to understand what Web 2.0 is and what its essential characteristics are because these social media technologies are beginning to reach a tipping point among mainly younger employees and potential employees of Generation Y, and those older networked groups of employees, which together make up the V Generation.

As HR professionals, we also need to understand Web 2.0 because of the opportunities it presents to organisations for innovative collaboration, knowledge-sharing, learning and two-way, authentic communications with employees and potential employees.

However, we also need to be aware of the risks associated with Web 2.0, especially those posed to brands and productivity at work. These concerns seem to dominate much of the discussion over Web 2.0 among HR professionals and so risk reducing the innovative potential of these social media technologies. This is especially likely if legal decisions and

lawyers’ advice begin to point in the direction of risk avoidance behaviour by organisations and employees.

Web 2.0 has been described as a democratic architecture for participation, community, discussion and ideas sharing. Moreover, it is readily accessible and people-centric rather than organisation-centric. These features are likely to drive its continued adoption by new and older generations alike. The available evidence suggests that the take-up of social networking, participation in social media such as blogging, media-sharing sites, wikis and other forms of social media are increasing rapidly. This trend is especially true of younger groups and workers in knowledge-intensive organisations and industries, which form increasing elements of modern economies.

However, judging by the numbers of organisations and HR professionals responding to surveys and to the nature of responses to online discussions over the likes of social networking, it seems that many CIPD members are reluctant innovators and are worried about the potential damage to brands, time-wasting and lack of organisational control over communications posed by employees’ access to social media technologies.

UNDERSTANDING HOW WEB 2.0 WILL BECOME MORE IMPORTANT

Our review has also shown that the literature and practice of Web 2.0 has a great deal of potential to radically transform HRM and people management. Web 2.0 can add strategic value to organisations by having an impact on key HRM and people management functions in at least five ways. These are:

- ❖ creating more effective two-way channels for listening and communication between manager, employees and other internal stakeholders such as contractors, consultants and prospective employees, using employee blogs and online discussion forums
- ❖ more effective talking to employees and prospective employees through corporate leadership blogs, RSS feeds and internal and external social networking sites

- ❖ motivating and energising employees by building on key influencers and by using the power of word of mouth to spread important messages, drawing on employee blogs, media-sharing sites and social networking
- ❖ supporting employees using Web 2.0, such as wikis, employee discussion forums and virtual reality sites, tools to help them learn and share knowledge and experiences
- ❖ reaching out to employees to allow them to participate in decision-making and HR policies, using interactive discussion forums and other social media.

Our case studies have demonstrated some of these value-adding contributions:

- ❖ The Westminster City Council and KPMG cases demonstrate how organisations have created more effective channels of two-way communication through discussion forums and other social media.
- ❖ The Royal Opera House and T-Mobile cases demonstrate innovative ways of using widely available Web 2.0 tools such as YouTube and Facebook.
- ❖ The Pfizer, NHS, CEGA and Allen & Overy cases demonstrate how knowledge-sharing has been substantially assisted by the development of internal wikis, social networking and other collaboration tools.
- ❖ The Pfizer, NHS, CEGA and Allen & Overy cases, along with the BBC's use of blogs, also demonstrate support for employees' learning.
- ❖ The Westminster City Council and Allen & Overy cases also demonstrate organisations reaching out to employees to allow them to participate in decision-making on HR issues.

THE FUTURE OF WEB 2.0

We have constructed four scenarios to help HR professionals think about the present and not-too-distant future of Web 2.0. To repeat our summary message in Chapter 4, the traditional and modern face-to-face scenarios describe existing practice in organisational and employee communications and collaboration, while the two others represent a future that has already arrived in some organisations. The Web 2.0 scenario is evident from some of the CIPD discussion forums and is a worry for some HR professionals, who are more concerned with control rather than the innovative use of these social media. The future, however, seems to lie in the Enterprise 2.0 scenario, which attempts to balance innovation, engagement and control. This is the message of most of our case studies and of experts in the field.

We subscribe to the view of those innovators in our case studies who have pointed to 'tipping points' (or, in our language, networking effects) as a cause of increased participation in these media. We also believe that forecasts by the likes of Gartner that the effects of social computing by 2012 will be more based on volunteered data through blogs, discussion forums, wikis and the like than mandatory knowledge management and employee opinion techniques.

Thus, we suggest that more organisations and HR teams should be willing to experiment with combinations of Web 2.0 and Enterprise 2.0. These are not 'either-or' solutions, 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 the development of dynamic capabilities to address rapidly changing environments – so necessary in the 'unknowable' modern world.

APPENDIX 1: EVIDENCE OF THE IMPACT OF WEB 2.0 ON HR AND PEOPLE MANAGEMENT: A REVIEW OF SECONDARY DATA

THE USE OF WEB 2.0 IN BUSINESS AND PEOPLE MANAGEMENT

Our review of the academic literature has revealed little systematic academic evidence on Web 2.0 in business and management, with only the survey for the CIPD by Birkinshaw and Pass (2008) providing some data on this topic. However, consulting firms have begun to produce indicative surveys that are an excellent starting point for addressing the question of impact. Three such large-scale surveys point the way: two by McKinsey (2007, 2008), a management consulting firm, another by Forrester Research, a technology and marketing consulting firm (Li and Bernoff 2008) and a third by Pew Research, a US charitable trust (Madden and Jones 2008).

THE IMPACT OF WEB 2.0 ON ORGANISATIONS

McKinsey's 2007 and 2008 surveys show that approximately 20–25% of respondent organisations globally are making use of some commonly used Web 2.0 technologies or tools, with a growing interest in organisations using blogs, wikis, podcasting and RSS.

The McKinsey data also show that organisations use Web 2.0 more for internal than external use, with Web 2.0 technologies mainly being applied to managing knowledge and fostering collaboration, but also to engagement and training, and to developing new products and internal recruiting.

Table 3: Internal use of Web 2.0 technologies (adapted from McKinsey (2008), p3)

Use to which the web technology is mainly put	% of companies report using Web 2.0 technologies for a particular use (n=1,446)
Managing knowledge	83
Fostering collaboration across company	78
Enhancing company culture/engagement	74
Training	71
Developing new products	67
Internal recruiting	54
Other	12

THE IMPACT OF WEB 2.0 ON INDIVIDUALS

The existence of a V Generation

One of the key drivers of interest in Web 2.0 is the existence of a V Generation. For example, the survey by Birkinshaw and Pass showed that 50% of respondent HR and other managers felt that Generation Y were significantly different to earlier generations on a number of important dimensions of attitudes and behaviour at work. These differences were connected with beliefs about Generation Y being more likely to take jobs that

accommodated family and personal needs with work demands, and in demanding more engagement from managers in their career and professional development.

The research by Li and Bernoff (2008) for Forrester and Madden and Jones (2008) for Pew note marked generational differences among users of particular technologies. For example, Li and Bernoff found that 41% of US males aged between 18 and 27 publish either a blog, webpage or upload video to media-sharing sites, compared with 18% of adults of all ages. They also found that 59% of 18–27-year-old US males participated in or maintained a social networking site, compared with 25% of US adults of all ages. The Madden and Jones research also noted that people in the highest income group and the highest educated groups are more likely to participate in online activities at work, especially in contributing content to employers' blogs and other websites.

It should be noted, however, that none of these data from either the Pew survey or, indeed, any others, should be taken as an indication that face-to-face communication is disappearing. Madden and Jones point out that there are significant segments of people who prefer personal communication to arrange meetings and edit and review documents. Moreover, more than two-thirds of their employed respondents still rated in-person communication as the most

effective way of asking questions about work issues (65%), dealing with sensitive issues (88%) and bringing up a problem with their supervisor (79%).

International variations and HR in multinational enterprises

It is important for organisations operating in international environments to know if the take-up of Web 2.0 is different among different countries, so indicating the culture-bound nature of these technologies and the problems of creating one-size-fits-all policies.

Unfortunately, most of the data from various studies tends to be based on US samples. However, the Forrester research provides not only comparable UK data but also data from other countries. Table 4, which is adapted from the Forrester research, shows quite marked variations among online consumers, which cannot be explained by international variations in 'network readiness' (a measure used by the World Economic Forum for online penetration and ease of Internet access). From these data, British consumers can be seen as 'laggards' in their overall use of most Web 2.0 social media technologies, apart from the much discussed social networking.

Table 4: International variations in online consumer use of certain Web 2.0 technologies mapped against 'network readiness' (adapted from Forrester Research (2007) and The Global Information Technology Report (2007-2008))

	USA	UK	France	Germany	Japan	South Korea
Network Readiness Index	5.44	5.30	5.11	5.14	5.24	5.43
Read blogs	25%	10%	21%	10%	52%	31%
Comment on blogs	14%	4%	10%	4%	20%	21%
Write a blog	11%	3%	7%	2%	12%	18%
Watch user-generated video	29%	17%	15%	16%	20%	5%
Upload user-generated video	8%	4%	2%	2%	3%	4%
Listen to podcasts	11%	7%	6%	7%	4%	0
Visit social networking sites	25%	21%	3%	10%	20%	35%
Participate in discussion forums	18%	12%	11%	15%	22%	7%
Read ratings and reviews	25%	20%	12%	28%	38%	16%
Use RSS	8%	3%	5%	4%	0	1%

The percentage figures in this table refer to percentage of online consumers who use blogs and other user-generated content at least once a month.

CONCLUSIONS

From these surveys we begin to get a picture of who is using Web 2.0 and how they are using it, especially among American workers: typically those who are better educated, have higher incomes and who are networked at home and at work. These

data also indicate that British workers are relative 'laggards' when it comes to using Web 2.0 (apart from social networking), even though British managers seem to believe that younger generations are significantly different in their attitudes and behaviours regarding Web 2.0. Finally, the Birkinshaw and Pass (2008) study confirms our impressions of British organisations and HR to be at a very early stage of understanding and adoption of Web 2.0, even though they see both generational differences and the characteristics of Web 2.0 to be important for innovation.

APPENDIX 2: A GLOSSARY OF TERMS

Aggregation	Collecting information from various sources and displaying it together in customisable formats, such as on a website (for example pulling news data in from a source and displaying it on your own website) or a desktop or browser-based aggregator that 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.
Avatar	3-D characters created to represent themselves and/or reflect an identity they want to portray, in a video game and virtual worlds, such as Second Life.
Blog	A blog (a <i>web log</i>) is a website, usually maintained by an individual, with regular entries that 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, webpages, and other media related to its topic as well as the ability for readers to leave comments. http://en.wikipedia.org/wiki/Blog
Browser	A browser is an application that allows users to display webpages and files on the web through an Internet connection. There are a number of widely used browsers such as Internet Explorer, Firefox, Opera, Safari, Chrome.
del.icio.us	A social bookmarking website that 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. http://del.icio.us/about/ <i>See also 'tagging', 'social bookmarking'.</i>
Digital native	A person raised in a technological environment, who accepts that environment as the norm. This person often has grown up surrounded by digital devices, such as MP3 players and cell phones, and regularly uses these devices to interact with other people and the outside world. http://www.digitalnative.org/wiki/Glossary#Digital_Native
Discussion forum	An application that allows users to post original messages and replies on a website. Forums are often divided into topics and conversational 'threads', which allow users to follow conversations on certain topics.
Disruptive technologies	Disruptive technology 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. http://whatis.techtarget.com/definition/0,,sid9_gci945822,00.html

Enterprise 2.0	Enterprise social software, 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 organise their communication. http://en.wikipedia.org/wiki/Enterprise_social_software
Facebook	Facebook is a free-access social networking website. Users can post messages for their friends to see, and update their personal profile to notify friends about themselves. http://en.wikipedia.org/wiki/Facebook and http://www.facebook.com <i>See also 'social networking'.</i>
Firewall	A system designed to prevent unauthorised access to or from a private network, using either hardware or software, or a combination of both. Firewalls are frequently used to prevent unauthorised Internet users from accessing private networks connected to the Internet, especially intranets. All messages entering or leaving the intranet pass through the firewall, which examines each message and blocks those that do not meet the specified security criteria. http://www.webopedia.com/TERM/f/firewall.html
Flickr	Flickr 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. http://www.flickr.com/ <i>See also 'tagging'.</i>
Hit	The retrieval of any item, like a page or a graphic, from a web server, also called a page hit. Alternatively, any time a piece of data matches criteria you set, for example each of the matches from a Yahoo or any other search engine search is called a hit. http://www.webopedia.com/TERM/H/hit.html
Information aggregation	Information aggregation 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. http://digital.mit.edu/research/papers/106%20Madnick,%20Siegel%20Information%20Aggregation.pdf <i>See also 'mashups'.</i>
Instant messaging	Instant messaging (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. http://en.wikipedia.org/wiki/Instant_messaging
Internet architecture	The Internet is a meta-network, a constantly changing collection of thousands of individual networks 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. http://www.livinginternet.com/i/iw_arch.htm
Mashups	Mashups 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"> ❖ the content provider or source of the data ❖ the mashup site itself – the web application that provides the new service using different data sources that are not owned by it ❖ the client web browser, which is the user interface of the mashup. http://en.wikipedia.org/wiki/Mashup_(web_application_hybrid)
Massively Multiplayer Online Game (MMOG or MMO)	MMOGs are video games that 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. http://en.wikipedia.org/wiki/Massively_multiplayer_online_game

Media-sharing	Media-sharing occurs in online social networks and digital communities where users can aggregate, upload, compress, host and distribute images, text, applications, videos, audio, games and new media. It is the process of sending, posting or linking to media on a website or blog. As media is shared it takes on a variety of different contexts and meanings as it is uploaded to different online 'places', tagged and/or commented upon and shared and possibly changed in various ways. http://en.wikipedia.org/wiki/Media_sharing
Metadata	Metadata is 'data about data'. http://en.wikipedia.org/wiki/Metadata Metadata is structured data that 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 predefined elements representing specific attributes of a resource, and each element can have one or more values. http://www.library.uq.edu.au/iad/ctmeta4.html
MySpace	MySpace 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. www.myspace.com <i>See also 'social networking'.</i>
Net or V(irtual) Generation	The Net or Virtual Generation 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. http://www.pcworld.com/article/id,139748-c,researchreports/article.html Don Tapscott describes the Net Generation as having the following characteristics: <ul style="list-style-type: none"> ❖ They are able to multitask. ❖ They have little tolerance for delays, expecting webpages to load quickly, responses to email immediately, and so on. ❖ They prefer to be interactive – they want to be users, not just viewers or listeners. http://academictech.doit.wisc.edu/resources/products/netgen/index.htm
Network effects	The core description of a network effect is when a good or service has more value the more that other people have it too. Examples include email, instant messaging, the blogosphere, and even the web itself. Various authors have tried to describe the raw potential of network effects in computer networks, including Robert Metcalf, David Reed and Odlyzko and Tilly. Whichever formulation you believe is right, the result is clear: at even an early point, the cumulative value of a large number of connected users goes exponentially off the charts. http://web2.socialcomputingmagazine.com/web_20s_real_secret_sauce_network_effects.htm
Open source	Open source 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. http://www.opensource.org/
Podcasting	Podcasting 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 to whenever they want. http://www.podcastingnews.com/articles/What_is_Podcasting.html

Remixing	<p>Remixing describes the customisation of webpages created by others and/or data provided by others for reuse on another webpage – 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.</p> <p>http://www.rossdawsonblog.com/weblog/archives/2007/05/launching_the_w.html</p> <p>See also 'information aggregation' and 'mashup'.</p>
Reputation management software	<p>Reputation management software 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 affect future interactions.</p> <p>http://www.moyak.com/researcher/resume/papers/reputation.html</p>
RSS feeds	<p>Really Simple Syndication (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.</p> <p>http://www.webreference.com/authoring/languages/xml/rss/intro/</p> <p>See also 'web feed'.</p>
Second life	<p>Second Life 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 marketplace using a virtual unit of currency, the Linden Dollar.</p> <p>http://secondlife.com/</p> <p>See 'virtual worlds'.</p>
SlideShare	<p>SlideShare is an online community for sharing presentations. Users upload presentations to share their ideas, connect with others and generate leads for their businesses. Presentations can be tagged, downloaded or embedded in other websites or blogs. Slides can also be shared privately to facilitate collaboration.</p>
Social bookmarking	<p>Social bookmarking is a method for Internet users to store, organise, search and manage bookmarks of webpages on the Internet with the help of metadata. Most social bookmark services encourage users to organise their bookmarks with informal tags instead of the traditional browser-based system of folders.</p> <p>http://en.wikipedia.org/wiki/Social_bookmarking</p>
Social networking	<p>Social networking is a phenomenon 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, and so on – or may be designed to allow 'new' networks for making new online 'friends' or creating new professional connections.</p> <p>http://www.topicguru.net/?c1=webmaster&c2=glossary</p>
Social software	<p>Social software 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> <p>http://en.wikipedia.org/wiki/Social_network_service</p>
Streaming media or video-streaming	<p>Streaming media 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> <p>http://searchunifiedcommunications.techtarget.com/sDefinition/0,,sid186_gci213055,00.html</p>
Tagging	<p>A tag is a (relevant) keyword or term associated with or assigned to a piece of information (for example a picture, a blog entry, a bookmark), 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> <p>http://en.wikipedia.org/wiki/Tag_(metadata)</p>

Viral marketing	<p>Viral marketing describes any strategy that encourages individuals to pass on a marketing message to others, creating the potential for exponential growth in the message's exposure and influence. Like viruses, such strategies take advantage of rapid multiplication to explode the message to thousands, to millions. Off the Internet, viral marketing has been referred to as 'word of mouth' or 'creating a buzz' but on the Internet it's called 'viral marketing'. Viral marketing is often characterised by giving away some sort of product or service, allowing for effortless transfer to others, exploiting common motivations and behaviours, utilising existing communication networks and others' resources.</p> <p>http://www.wilsonweb.com/wmt5/viral-principles.htm</p>
Virtual learning environment	<p>A virtual learning environment (VLE) is a software system designed to support teaching and learning in an educational setting. A VLE will normally work over the Internet and provide a connection of tools such as those for assessment, communication, uploading of content, return of students' work, peer assessment, administration of student groups, collecting and organising student grades, questionnaires, tracking tools, wikis, blogs, RSS and 3D virtual learning spaces, and so on. While originally created for distance education, VLEs are now often used to supplement the face-to-face classroom as well as to add more flexibility to learning.</p> <p>http://en.wikipedia.org/wiki/Virtual_learning_environment</p>
Virtual worlds	<p>A virtual world 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.</p> <p>http://en.wikipedia.org/wiki/Virtual_world See 'Second Life'.</p>
Web services	<p>Web services are pieces of a software program or website that are exposed for third-party systems to interact with, often providing a question/answer dialogue. For example, web services allow any website to ask an airline if a flight is delayed and receive an answer back that can be displayed in any format.</p> <p>http://www.tocquigny.com/knowledge/the_semantic_web/</p>
Web feed	<p>A web feed (or news feed) is a data format used for providing users with frequently updated content. Content distributors <i>syndicate</i> a web feed, thereby allowing users to <i>subscribe</i> to it.</p> <p>http://en.wikipedia.org/wiki/Web_feed</p>
Widgets	<p>A generic term for the part of a GUI (graphical user interface) that allows the user to interface with the application and operating system. Widgets 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, and so on. http://www.webopedia.com/TERM/w/widget.htm</p>
Wiki	<p>A wiki is a piece of server software that allows users to freely create and edit webpage content using any web browser. Wiki supports hyperlinks and has 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 organisation of contributions to be edited in addition to the content itself.</p> <p>http://www.wiki.org/wiki.cgi?WhatIsWiki</p>
Wikipedia	<p>Wikipedia is a free, multilingual, open content encyclopaedia project operated by the non-profit Wikimedia Foundation. Its name is a blend of the words <i>wiki</i> (a technology for creating collaborative websites) and <i>encyclopaedia</i>. 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.</p> <p>http://en.wikipedia.org/wiki/Wikipedia</p>

XML

Extensible Markup Language (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.

http://www.w3schools.com/XML/xml_what.asp

YouTube

YouTube is an online video-sharing website. YouTube allows people to easily upload and share video clips on www.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.

<http://youtube.com/>

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