

## Social Networking and Opportunities in the Public Sector Driving Constituency Involvement and Satisfaction

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*Social Networking tools have proliferated in the recent past, and many individuals are now utilising such tools as a core part of their day-to-day lives. If these tools can be harnessed as a means of interaction by the public sector, constituency involvement will rise, while costs can be minimised.*

- **Social Networking can be utilised to approach the public**  
From a position as a pure consumer-led phenomenon, we can now look to social networking tools as being capable of playing a part within a controlled, public sector/citizen communication and collaboration environment
- **Social Networking is not new**  
After being talked about for years, usability, standardisation and availability have all improved. Proprietary interfaces are breaking down, and back end standards are enabling consumer tools to interoperate with more commercial systems
- **Existing collaborative tools have a place to play alongside social networking**  
Email, instant messaging, and texting are all regarded as mainstream tools, with different socio-demographic groups making greater use of some tools than others. There is a strong need to make public sector social networking approaches inclusive of both existing and emerging communication and collaboration tools
- **Many Social Networking tools are difficult to control**  
“Immersive” sites, mass publication sites and many other social networking concepts are not suited to being controlled as easily as a directly hosted public sector department’s existing web site. Processes and controls need to be in place for content issued via such sites
- **Consumer-focused tools have limitations**  
Consumer tools do not have the enterprise capabilities required for full usage within the public sector. However, capabilities such as recording, filtering and audit capabilities can be gained through the use of enterprise back ends that can accept consumer clients at the front end. Also, such back end solutions can provide scalability, integration capabilities, security and flexibility that would be missing from a pure-play consumer tooling approach
- **Many tools may have short lifetimes, and successful technologies will have to survive through multiple versions**  
Social Networking is a highly dynamic environment and as such, many tools may not survive in the medium to long term. For example, blogs in a pure sense are not a suitable mainstream tool for public sector usage due to their lack of content control, but may have to be regarded in a “hybrid” fashion of a mediated and reviewed outbound information feed until different solutions come through. Successful tools will have to co-exist with previous versions – choice of a fully supported system will be key
- **Emerging tools are far more functional**  
Tooling aimed at larger organisations tends to have the capabilities that the public sector is looking for. Increasingly such tools also provide a highly integrated approach to social networking, with policies as to which tool should be used when being a strong point. Here, the use of social networking solutions becomes part of the overall process, rather than something that is regarded as being an exception to it, and as such can be easily audited and reported as necessary.

### REPORT NOTE:

This report has been written independently by Quocirca Ltd to provide an overview of the issues facing the public sector in engaging with their constituents. The report draws on Quocirca’s extensive knowledge of the technology, business and public sector arenas, and provides advice on the approach that organisations in the public sector should take to create a more effective and efficient environment for supporting their multiple constituencies.

### Conclusions

Social networking can help public sector bodies interact to a far greater extent with citizens as well as with internal and external resources. Full policies are required to be put in place to mediate social networking, and back-end technology needs to be chosen carefully to include support for the majority of clients likely to be found within a consumer-focused end-user environment, as well as kiosks and other systems aimed at the non-computer owning citizen

## 1. Introduction

Social Networking seems to have been a phenomenon that has swept the consumer and professional space rapidly over the past year or so, with millions of people blogging, setting up wikis, participating in social web sites and deep immersion environments, such as 'Second Life'. Some of the sites involved have become famous (or infamous in some cases), with much money exchanging hands with more established brands wanting to gain control of the massive user bases sometimes involved. As an example, Google paid \$1.65b (£800m, €1.24b) to acquire YouTube in 2006, with NewsCorp paying \$580m (£290m, €436m) for MySpace.

Social networking builds on existing communication and collaboration technologies, but brings in an aspect of serendipity. Whereas archetypal collaboration and communication systems are directed solutions, aimed at connecting with people who are already known to the information sender, much of social networking is aimed at bringing in new resources unknown to the initiator at the beginning of the process. The basic process behind social networking is to publish content to a large group for possible comment, building on the promise that within that group will be skills and knowledge beyond that which is directly available to the publisher through their normal contacts.

The interest in social networking continues to grow, and new tools are appearing on a daily basis. Many of these will not survive in the notoriously fickle consumer market, but some have already taken deep root.

For many commercial organisations, this explosion in usage of social networking technologies has led to a degree of introversion, looking to how such tools can be proscribed within the organisation. Proscription has been shown not to work time and time again, with the consumer mentality of employees being at least one step ahead of the capabilities of corporate policies to stop the usage of new technologies. Others have tried to embrace the technologies, attempting to use them to create better decision making environments. Embracing the new can have its downsides – will the new technology create security headaches for the organisation, will legal compliance standards be broken, how will the profile of the organisation be impacted through usage or misuse of such technologies?

This paper looks at the promise and the pitfalls in the deployment of social networking tools within the public sector, and how the technologies involved can be utilised to positively impact Transformational Government through usage in the areas of Citizen Centric Services and Shared Services.

## 2. What is Social Networking?

### Main Findings:

- Social networking is not a single technology – nor is a set of static technologies
- Many social networking tools will not last, becoming absorbed by other collaboration and communication toolsets

Social networking is the use of technology to allow disparate individuals to interact directly with other individuals or

groups. Often, these individuals and groups are unknown to each other at the outset of the process, with the item under discussion being the catalyst for bringing the people together. Outputs from this kind of interaction may include a greater circle of physical contacts, a faster and/or better informed decision based upon multiple inputs to a problem, or more rapid resolution of an issue.

Social networking is an extension of existing communication and collaboration technologies that have been around for some time, and which are unlikely to go away. Examples here are: face to face meetings, telephone calls, email, paper mail and instant messaging; that is, tools that we are all used to and are utilising on a constant basis. The interaction between existing communication and collaboration tools and new social networking tools provides opportunities within the public sector that far outstrip those from using any single approach. Specific communication and collaboration technologies are covered in more depth in Appendix A.

There are many different forms of emerging social networking, the main ones of which are detailed below:

- **Blogging**

The Web Log, or blog, as it is commonly known, started off as a means of an individual publishing their thoughts directly to the web in an easy manner. A blog can take the form of being simply a web-based diary, just passing on the thoughts of the author, or more like a discussion board, with the main entries all being by the same author, with multiple people creating responses.

- **Wikis**

Taken from the Hawaiian word for "fast", a wiki provides a shared environment where a basic idea can be collectively worked on by different people to move towards a more complete solution mediated by the many, rather than by any one single person.

- **Publish and Subscribe**

Really Simple Syndication (RSS) and the Atom standards allow users to subscribe to output from sites. Information feeds can therefore be published once, with those subscribing to the feeds gaining immediate access to the information through feed readers, now built in to the majority of modern web browsers.

- **"Statement – Response"**

Here, an individual can make a comment and wait for others to provide feedback with their thoughts. This approach builds on older technologies, such as the bulletin boards that proliferated within technical groups during the 1980s, and more commercial tools such as Lotus Notes/Domino. Unlike a blog, anyone can initiate a thread, and these sites tend to need more active administration by a moderator.

- **People database sites**

Users provide details about themselves in order to match up against, for example, people they have lost touch with (e.g. Friends Reunited), those who they know in a business context who may know others of use to the person (e.g. LinkedIn), those looking to extend

their circle of friends and acquaintances (e.g. MySpace), and so on. With sites such as MySpace and YouTube, we are also looking at the sharing of multimedia information, to a far greater extent than the basic textual information shared on other sites.

- **On-line surveying**

The use of on-line surveying can provide insights into the general feelings of groups of people. Unfortunately, such systems tend to be self-selecting, with only those who have a strong feeling on the subject taking part. However, for testing messages or for gaining an insight into a specific part of the market, such tools have a part to play.

The above services provide the basis for many different approaches, some of which include:

- **Referential sites**

Increasingly, users who find something interesting on the internet are just providing pointers to this via aggregation sites. These sites do not store the actual content themselves, but provide the first few lines of the text and a referential URL. Also known as social bookmarking sites, this is a form of data tagging, not to be confused with meta-data tagging as detailed below.

- **Mashups**

Mashups provide the means of bringing various different types of function together in a single functional entity, in a manner easy for an average computer user to understand. A mashup should require no extra coding or technical knowledge, depending on drag and drop of various components provided by others. These components are often sourced from outside providers, such as Google Earth, and are being used increasingly to bring together aspects of social networking.

- **Immersive sites**

Immersive sites create a different environment for users to go to for social interactions. The best known of these sites is Second Life, a fully virtualised environment where people can create their own alternative identity (as an avatar) and can move through the environment, meeting others in a general or specific area.

Underpinning much of social networking is the requirement for other value-add services which enable better search capabilities and contextual linking of information to other information and people, such as:

- **Meta-data Tagging**

Historically, companies “tagged” information to provide better ways of identifying content within enterprise content management systems. This tended to require a high degree of pre-work, agreeing the basic taxonomies for the tags, and the provision of thesauri (providing look ups to match topics such as petrol and gasoline) and soundexes (to correct issues such as Mississippi and Misissippi). These informational tags are carried as additional attributes to the main data itself, and are collectively known as meta-data. However, users today are creating ever widening, uncontrolled tag “clouds”, but through social networks, these clouds tend to converge towards a useful tagging environment as time goes on. Such an approach to tagging through an open,

convergent cloud of agreed tags is also known as social classification, or a ‘folksonomy’.

- **Skills and content linking**

When looking at the large amounts of information that have to be dealt with across the whole of a process, the capability to identify who within a network has specific skills, to identify content created or referenced by a person and to identify similar information on the subject is increasingly important. By having links between human resources and electronic content, it is possible to rapidly build a better view of a subject, and to better utilise physical resources in reaching a correct decision.

It also has to be borne in mind that with each of the services and technologies above, we are not looking at each replacing what has gone before – each new service and technology will exist, at least for a period of time, alongside everything else that we already have. As an example, paper mail did not disappear as we brought in email, and the telephone did not stop ringing when instant messaging was introduced. In the same way, it is necessary that we regard each new technology as an incremental alternative that will require managing in concert (and in context) to the other tools and technologies that are available across the organisation’s portfolio.

Also, the market is highly dynamic. Whereas as little as two years ago, the majority of social networking tools were only available as discrete consumer tools that had little capability for interaction with each other, we now see aggregation of tools into bigger systems. Indeed, at the enterprise level, solution suites are now becoming available where commercial levels of audit and security are built in, and each tool is capable of interacting at a contextual level with other tools in the same suite, as well as with other existing solutions.

### 3. The history behind Social Networking

#### Main Findings:

- Social networking is not new – but older systems were proprietary and tended to be used by technical experts only
- The explosion of consumer-based usage of social networking tools is not all to the good – the “hijacking” of many tools has led to many social networking sites becoming self-centred and specific to vested interests

Robert Metcalf, while working for Xerox, invented Ethernet, today’s primary means of networking computer systems. At the same time, he came up with Metcalf’s Law, which simply states that the value of a (telecommunications) network is proportional to the square of its users. Although there has been much research that shows that this is not a “law”, but is just a concept, the idea that the more people involved in a network the better has continued to be received wisdom.

Early bulletin board and threaded discussion database systems were created to build upon this, but were hamstrung by their dependence on available technologies of the day. Bulletin boards were highly proprietary, and required a high degree of knowledge on the part of the user – they needed to know the number to dial to access the bulletin board via slow

and expensive modems, and also to then learn the idiosyncrasies of each individual board. Threaded discussion databases were very successful within many environments, but the lack of control often led to overuse and to information being lost in the general discussions going on. Unsurprisingly, these boards were for the relative few, not the many, but as the few that did get together were guaranteed to share an interest in the topic, the quality of the output from the collaborative capabilities was generally high.

Newsgroups then evolved out of bulletin boards and provided a means of publishing information to a known group of people who could reply to these postings in a publish and respond mode.

Email soon became the mass means of collaboration, with users firing out messages to controlled and less controlled 'aliases' or groups (which soon became spam – and tools were developed to sort out such unfocused email content). Again, the problems here were in aggregating responses in any meaningful manner, and in tracking what was happening within such collaborations. Bringing instant messaging (which in itself had emerged from internet relay chat (IRC)) into the mix meant that not only did we have the masses of emails to deal with, but we also had unrecorded and contextually meaningless discussions going on through a different medium.

What changed everything was the advent of the internet and the adoption of wide-ranging technical standards that mean that small client-side applications can leverage enterprise class back-end services in a clear manner. Web-based collaborative systems such as blogs and wikis are relatively simple to find, either on purpose or accidentally, by many more users than was possible with earlier bulletin board systems, particularly now that search engines can be tuned to search specific social networking environments.

Improved standardisation around areas such as the HyperText Markup Language (HTML) and the eXtensible Markup Language (XML), as well as the emergence of dynamic client side technologies such as Asynchronous JavaScript And XML (AJAX) are making social networking solutions not only easy to use from a consumption point of view, but also easy for end users to utilise from a provision level.

Overall, the status of social networking within the markets is one of near chaos and of disconnected technologies providing services that address a part of the solution – rather than well connected services providing a complete solution.

Below, we look at the common issues that have been found by consumers and organisations with social networking. We then look at how the public sector can look to provide solutions that include social networking components within them – in a way that is fully secure, capable of being fully audited, and is inclusive of the constituents that the public sector has to be able to reach.

## 4. Common Issues with Social Networking Tools

### Main Findings:

- Consumer-based tools lack the capabilities to be safely utilised as enterprise tools
- Information control, monitoring, audit and security are key aspects for concern

The growth in the usage of consumer-focused social networking tools has led to a range of problems that the majority of organisations are not used to dealing with from their experiences of more enterprise oriented solutions.

The main problems that Quocirca encounters include the following:

### • Social Networking Tools Proscription

Quocirca has found that there have been attempts to stop users from utilising advanced collaboration and communication and social networking tools within the commercial and public sector environments, under the impression that all such tooling is aimed only at consumers, with little to no value in the business and public sector worlds.

Quocirca's research<sup>1</sup> shows that usage of technologies such as instant messaging is far higher than organisations are aware of, and the same problem looms with social networking. As many external social networking sites appear only to be simple web sites, it is very difficult to filter these sites and prevent access for users. If users find that these sites offer better means of interacting with groups of people outside of their standard environment, then usage will grow, and the organisation will find it difficult to audit processes and gain a full picture of interactions and decisions that have been made.

Social networking offers great potential for the public sector, yet the need for enterprise class capabilities is strong. As vendors such as IBM and Microsoft bring enterprise social networking tools to the market, Quocirca recommends that the public sector looks to these as a means of allowing the correct mix between allowable private usage and providing closer interaction with citizens.

### • Information Security

Consumer-focused social networking tools have few, if any, information security capabilities built in to them. With the public sector having media and public focus placed upon them, it is necessary to ensure that enterprise class solutions are chosen to enforce the recording of interactions between individuals and groups. The use of secure connections, utilising secure http (https) will help to maintain information security on the network, and information storage needs to have the same enterprise class security applied as would be utilised in other areas.

<sup>1</sup><http://www.quocirca.com/pages/analysis/reports/view/store250/item3702/>

- **Information Quality**

Social networking creates a need for a more active approach to mediation of content. Information being published from a department may go through all the standard reviews and sign offs, but responses coming from unknown sources will not necessarily have the same vetting, and may be of dubious quality. With many social networking sites, this can be an issue, and it can often be far more difficult to get a person to voluntarily remove information from a site than to add it. Control is required, and where information which is patently wrong or is of dubious quality is identified, the site owner (in this case the public sector department or group) should reserve the right to correct such information or to remove it as necessary.

- **Information focus**

Many discussion databases, blogs and wikis soon become defocused as comments build up. For example, a discussion board thread may be started as the need for new leisure facilities within a town. A response may be that the respondent remembers a particular event at the existing facilities, and the next response may be that that was not a good event, and that they preferred something else. The discussion can rapidly devolve into a completely different focus. Here, human monitoring and mediation is required, to maintain the focus and quality of the information.

- **Information legality**

Even with content filtering, workflows and content mediation, certain information that should not get into an environment is bound to appear. Within this area, the public sector has to look out for content specific to race, gender, religion, age, capability, and so on. The spirit of usage of many social networking tools is such that information once posted should not be changed unless it is provably illegal. However, for the public sector, anything which is *possibly* illegal needs to be flagged and dealt with as fast as possible.

In many cases, this will need human intervention again, with a moderator needing backup from legal teams to pass rapid judgement on whether information should be quarantined or deleted or not.

Quocirca recommends that with all social networking solutions used within the public sector, warnings are provided that any information may be removed without notice, just to make this clear to all users.

- **Information contextuality**

The majority of consumer-focused social networking solutions do not integrate well into an enterprise, being dependent on their own environment and information stores. For the public, however, their expectations of the public sector are for information sources to be integrated, and for one person to be able to deal with all their needs at one time. As this is part of the Gershon and Transformational Government strategies, it has to be taken into account when public sector bodies are looking at utilising social networking solutions. Therefore, any chosen solution must be able to be integrated into an employee's daily work environment, and must be capable of accessing multiple back end stores for information retrieval and handling.

- **Information Lifetime**

As with the majority of information sources, social networking sites have to deal with the issue of timeliness and currency of the information held. Many social networking solutions sadly lack the capabilities typically present in enterprise tools such as information ageing and archiving.

Wikis can help in this area, as new information can be rapidly embraced and promulgated through the wiki base – provided that there are enough active users underpinning the wiki itself, and that the people submitting the information are submitting correct information.

Due to the manner that information tends to be offered via social networking sites, gauging the currency of the content can be difficult. Conversational tones can lead to information that is many months or years old appearing to be current, and even content dated recently could be based on information sourced from elsewhere that is well out of date. Here, we see the need for a degree of mediation again, ensuring that old areas with little input are archived and shut down as appropriate. This mediation can be automated, through the application of lifecycle policies to blogs, discussion databases and other similar areas.

Within the public sector, information currency is key – if information is out-of-date, it is of no use to the citizen, and just causes extra cost for the department in sorting out misperceptions caused. Within the public sector, the term “existing under former control” is often heard – where a document has to be referenced under previous rules than are now in place. Therefore, information versioning, along with enterprise class information archiving systems are required.

- **Tools Reach**

Consumer-focused social networking tools have tended to grow up in a vacuum, and each solution, even within its own category, often adheres to its own look and feel and its own standards. This is not the right approach within the public sector, and the choice of tooling must provide the capability to support internal information standards, while providing the external reach to support the other constituents in the process chain – internally, as well as externally with other public bodies, private third parties and with individual citizens.

- **Wisdom of the Crowd**

Within the concept of social networking there has emerged the concept of “the wisdom of the crowd”. Here, it is assumed that a large enough group of people will get to an end result that reflects a complete truth more effectively than any individual or closed group could hope to do. While it is true that a closed group having access to only a part of the total knowledge available needed to come to a satisfactory conclusion will be enhanced through the addition of specific knowledge resources, the assumption that an unmediated, open group of resource will always come to a better conclusion than a closed group is dangerous.

Look at many of the common interest groups on the internet, such as sites on Princess Diana, on the death of John F Kennedy and the many UFO sites. Here, communities of interest drown out any voice of reason

that tries to demolish unfounded, non-provable comment, leaving the majority view essentially unchallenged.

However, within a public sector context, such fully open environments can lead to an agreed *perception* of the truth from a representative sample – which has inherent value, and can be a useful predictor of public sentiment. Also, the use of filtering, where new resources have to prove their capability through referencability (e.g. via the use of skills and content linking as described above) can provide insights that will help in reaching a valid decision within specific areas. Internally, the opening up of discussion to a greater sample of resources with greater disparity of areas of knowledge may well lead to better decision making.

We are also seeing a rapid evolution of the social networking scene. Sites that were seen as being anti-establishment and just for specific groups, either by race, creed or age, are now seen as major communication tools by commercial and political bodies. To this end, we are already seeing how the presidential candidates in the US are utilising YouTube as a means of publishing low-cost videos aimed at the US voters, and of UK politicians using blogs and video sites to attempt to get across policies and thoughts to the masses. These sites, hosted by third parties, are less under the control of the people concerned. Admittedly, these external sites have existing, loyal user bases that extend well beyond the audience existing public sector sites could ever hope to reach. However, these same sites are not as easy for the public sector to control the content of – should users start to post negative comments, it may well prove harder to deal with these comments than it would be on a site under full control.

## 5. Trends

### Main Findings:

- Many existing social networking tools will not survive
- Commercial vendors of enterprise communication and collaboration tools will increasingly integrate social networking capabilities into their offerings

The existing market of commercial social networking tools is unsustainable. The “first mover” advantage of sites such as YouTube, MySpace and LinkedIn has created a large number of copy cat sites. However, each is then chasing diminishing returns – when a specific site was the only one around, users had to sign up for it if they were interested in the approach. A new site not only has to demonstrate to users where it differentiates itself, but then has to attract a critical mass of users to attract advertising revenues, which are the mainstay behind such sites. The emergence of enterprise class tools also eats away at the existing base, with organisations no longer needing to utilise consumer sites to chase their customers or constituents. This trend will result in the end of many existing social networking sites – either through total failure, or through acquisition, as has been the case with YouTube by Google.

This acquisition frenzy of successful consumer tools will increasingly be led by more commercial entities that will then look to creating solutions that can better serve the

overall value chains between the end user consumer and the business or public sector department and their suppliers.

There is a further growth outside of the end user community, where businesses are seeing the power of social networking tools within the business-to-business (B2B) space. Here, areas such as open tender bidding can often be better managed through the use of social networking tools in conjunction with existing communication and collaboration tools and enterprise applications. By choosing a single, strategic engine for the social networking aspects of such an environment, the public sector can ensure that its commercial suppliers and customers, as well as its citizens are served in a common, auditable manner.

These social networking technologies will need to be made available as services that are directly callable by other services, capable of being integrated directly into other systems. In this manner, a citizen using a wiki to find out information on a subject can then use VoIP or instant messaging in order to drill down to a specific human resource for deeper discussions if required.

Once we have social networking services, we can also look at how these are pulled together to create dynamic solutions that meet a need at a point in time. Tools are emerging which enable end users to drag and drop services together to create a composite application that will solve a specific need. These solutions, or “mashups”, need careful control, as they may only have a short lifetime as a solution, and yet the way that a citizen or other constituent within the process is dealt with will need to be recorded for possible later audit purposes.

## 6. Social networking and the Public Sector

### Main Findings:

- The Public Sector has differentiated issues in the usage of social networking issues
- Social networking tools can help in achieving the aims of Transformational Government and the Gershon Report

The public sector has historically been behind the curve in technology adoption in many areas, due to multiple issues such as financial constraints, skills availability and the need to be seen as a “safe” environment. There has been a concerted effort by the government to introduce the concept of Transformational Government (see below), where public services are used to create greater positive change within a citizen’s life. This is predicated upon a greater focus on the individual through Citizen Centred Services (CCS), and on the re-use of common solutions through Shared Services. The whole concept of Transformational Government – of providing an individual citizen with a highly personalised view of the services that are pertinent to them through the use of common views and centralised services – means that major mindset changes are having to be undergone within the public sector, and that new tools are having to be investigated.

### Transformational Government, the NAO and Gershon

The government has already taken certain steps to bring a more centralised view to the usage of IT within the public sector. The creation of the CIO Council in late 2004,

followed by the CTO council a year later, provided an environment for public sector technology heads to discuss and compare best practices and approaches to the optimum utilisation of technology within the public sector. These two groups are responsible for the creation of policy around, and the monitoring of the progress of, Transformational Government. Within the [Transformational Government – Enabled by Technology](#) policy document, the common faults of existing public sector IT projects are identified as:

- Systems remaining too paper focused and human resource intensive
- Systems being focused around the “product” rather than the individual
- Systems being created as islands of functionality, with associated impact on usability and the exchange of information between government bodies.

The aims for Transformational Government are stated as:

- The provision of choice in the way that a citizen or business interacts with government
- Taxpayers to gain through efficiencies
- The reduction of paperwork, and the better management of regulation
- The provision of better tooling for public sector employees to undertake their jobs
- The capability for policy makers to be better able to achieve intended outcomes in practice
- The freeing of back office resources to the front line
- The better engagement of citizens in the democratic process

In order to reach these goals, it will be necessary for the CIO and CTO Councils to involve other resources – internally and externally – in the investigation of the technologies which may be right for any specific solution. Other groups within the public sector involved with IT and information (such as the Office of Public Sector Information (OPSI), and the National Audit Office (NAO)), need to be included to prevent the creation of yet more islands of thought, vision and technology. As a starting point for the use of social networking within the public sector, the CIO and CTO Councils are ideal platforms for using and testing various tools within a mixed audience.

The NAO has also identified that the public sector needs to take a more professional approach to the use of innovation, with a focus on looking to the private sector for best practice and novel usage. Its report, “[Achieving Innovation in Central Government Organisations](#)”, which is not focused on technology issues, showed that where the majority of innovation within the private sector is driven by the usage of technology, only a little over half of public sector innovation reported did. Indeed, 30% of departments approached stated that they “did not do innovation”. This report indicates the need for the public sector to take a broader view, to look to emerging technologies as well as existing ones, and to look to both the private sector for best practices, and to the consumer as to usage profiles.

The report also shows how innovations can work within the requirements of Gershon workstreams. The Gershon report looked at how public sector resources could be freed up for front line work, and provided a set of guidelines as to where public sector departments and bodies should look to provide such benefits. Theoretically, all project plans submitted for public sector implementation should have a section dedicated to how the project will help in these workstreams.

Overall, the main takeaway from these (and other) government sponsored reports and policies is that technology utilisation within the public sector has to be for the benefit of the citizen, has to provide efficiency and effectiveness gains, has to provide an open means of moving information across department boundaries, and should not replicate functionality that is available from another area. That all of this has to be gained with enterprise class security, drill-up/drill-down reporting, and support for consumer technologies points to the need for solid, fully supported commercial systems built on open standards.

### Social networking as a driver

All the tools chosen to support public sector solutions have to be able to deal with internal needs, those across other public and quasi-public bodies, as well as the citizen themselves. However, all of this has still to be undertaken under the scrutiny of the media and the public – and a highly professional approach has to be taken to ensure a high overall value and that group and citizen security is maintained.

The public are becoming more demanding and expect to have an experience when dealing with the public sector equivalent to that which they experience with the best of their interactions with the private sector and with one another. As newer devices increase the end user’s perception of the social experience and as mobility increasingly creates a need for “always on, any device” services, it becomes incumbent on the public sector to become a leader in this space, rather than a follower.

Also, as central government pushes the concept of joined up working and centralised services, regional and local public sector groups are now looking at how to maximise their capabilities in involving their constituents in the various processes that they are involved in.

These constituents will have a range of needs and a range of access mechanisms, from the face-to-face meeting, paper mail and telephone, through to PCs, mobile telephone devices and kiosks. Each channel needs to be successfully integrated in to an overall solution – and the solution must allow each member of the public to deal with the public sector in the way that they see provides the greatest value.

It has to be borne in mind, however, that individual citizens and constituents within a process can also be aggregated into communities, driven by locale, by ethnicity, by religion, or by a myriad of other demographic or interest areas. Social networking tools allow the public sector to reach out to these groups without having to know each individual within that group, and yet to allow those individuals to drill down behind the group approach to gain the individual view required by Transformational Government.

As discussed previously, the biggest problem for the public sector is that it cannot be proscriptive in its approach to the public and other groups it interacts with. Whereas a private company can dictate the type of technology clients used internally, and to a certain extent externally amongst its

suppliers and customers, the public sector has to be able to deal with a highly diverse set of tools that may be utilised by the public and other departments and groups.

For the majority, the main client of choice will be an internet browser. Therefore, any solution being considered by the public sector should use a browser as the main point of access, with any specific functionality being served through small downloadable, flexible components written to open standards. The usage of different device types has to be catered for – to gain full reach to groups of individuals will mean allowing for access via smartphones, personal digital assistants (PDAs) and other mobile devices as well as desktop and laptop computers – even down to relatively unintelligent devices such as a standard telephone.

Increasingly, it will also be necessary for the public sector to look to how it can utilise social networking solutions that are outside of its complete control – sites that are major congregation points for its constituents where pushing information out will be far easier than trying to attract people directly to a public sector site. This will require a knowledge of how events triggered within these sites can be used to integrate with back-office systems, and how aspects of the experience can be directly controlled by the public sector, even when the visible part of the solution is not being facilitated through a directly controlled site.

Social networking provides the means of interacting with groups of individuals, with existing communication and collaboration methods enabling interaction with the individual. A mix of social networking and communication and collaboration tools gives the best way to meet the needs of Transformational Government, providing added value to the citizen while lowering process costs and improving security and auditability at the same time.

## 7. The Need for Control Through Information Assurance

### Main Findings:

- Uncontrolled social networking is likely to be at best unproductive, and at worst counterproductive
- Information has to be monitored – both outgoing, to ensure the validity of information, and incoming, to ensure that the department maintains its legal obligations, as well as the focus of any social network interactions

As can be seen from the preceding discussions, the main issue with social networking is the need for adequate control. Within the enterprise environment, this brings in the need to look at “information assurance” – being able to monitor and ensure that the quality, currency, security and value of information being handled are fit for purpose.

Within the public sector environment, the need to be able to demonstrate adequate control over interactions is of paramount importance. Even the largest private companies will have less overall visibility in a community than a public sector body will have. Overall, when we look at the impact the public sector has on the public’s day-to-day life through education, health, law and order, transport, social services

and tax as well as local services such as refuse collection, highways, libraries and so forth, it is not surprising that we see so much coverage of the public sector through the media. When we see this combined with legal issues such as the Data Protection Act (DPA) and the Freedom of Information (FoI) bill, we see that the needs within the public sector for control tend to be more complex than would be found in the majority of private sector environments.

The public sector also has to deal with many points of contact within its work. As well as the citizens themselves, there are the direct employees (including such diverse areas as MPs, teachers, police, social workers and so on), there are an increasing number of contractors, there are ancillary workers and then there are those who have a combined private/public role, such as councillors. Outside of these groups, we also have to look at the bodies that the public sector will be dealing with on an on-going manner – groups such as Citizens’ Advice Bureaux, church groups, charities and individual, group or commercial lobby groups. When we then look at bringing these individuals together as groups based on common interests and utilise social networking services, we introduce further complexity into how the contextuality of interactions can be tracked.

This mix of users creates information security issues, not only in the transmission of information from one individual or group to another, but also in managing the creation and lifecycle of the information itself. It also leads to problems with collaboration and communication – whereas a large commercial entity will have rigid hierarchies and touch points between different departments, the public sector struggles with information flows, particularly across departments and functional units. By putting in place controls over information, based on having full knowledge of what is available at any time, and by creating a secure environment where collaboration and communication can be carried out in a trusted manner, the public sector can open itself up more, and can be far more responsive to central government’s and the public’s needs going forwards.

The current state of the public sector means that there has been a basic lack of capability to monitor and record interactions end to end. This can obviously have disastrous consequences through being unable to demonstrate what actions were taken in specific cases, and this can then lead to litigation and its associated costs and time lost.

Increasingly, the public sector has to be more agile and flexible. Central government has continued to pile on requirements for target measurement and for being responsive to the public, without increasing resources or funding. Local public sector bodies have to respond to changes far faster than in the past – both at a back office level, and in how they deal with their constituents.

These needs are dictating how the public sector will have to interact with the public going forwards – there is a need for greater public involvement, and for interactions to be far more transparent. However, the need for control seems to militate against this and all information being pushed out to the public or being created by the public within areas under the direct control of the public sector must be fully mediated to ensure that reality and legality is maintained.

This then drives the need for the public sector to ensure that it abides by both open ‘de jure’ and accepted ‘de facto’ standards within its chosen solutions. The use of proprietary, non-inclusive software will only lead to the need for wholesale changes down the line, and to the public being

disengaged and disenfranchised from the solutions themselves.

Within this need for control, the following key areas should be considered by the public sector.

- **Profiling**

The public sector has a wealth of skills across a broad range of employees, contractors, ancillaries and other contacts. This resource pool is not easily tapped, due to the lack of tools that enable the specific skills available to be identified and accessed on a consistent basis. The capability to create on-line profiles, where a person's skills are made visible and can be easily searched, means that solutions can be found far more easily than through previous means. By opening up a subset of the profiles to the public through social networking sites, customer service can be vastly enhanced through ensuring that the right skill is applied to the problem from an earlier stage.

- **Information categorisation**

The public sector is an information centric environment. Internally and externally, the amount of information that needs to be worked on, exchanged and communicated is large and continues to grow. This information needs to be easily categorised such that it can be easily identified and searched by those who have the need. In many cases, this will be through the usage of simple meta data tags, but information "clouds" can be easily created which reflect how information resources have been previously used. In many cases, this will not involve the creation of multiple copies of information, but can utilise virtual pointers, such as uniform resource locators (URLs) to information both inside and outside the department's firewall. For example, through the use of simple shared bookmarks, combined with user-driven information tagging, a prioritised, highly categorised information base can be rapidly created. This also remains highly dynamic, reflecting the changes in the underlying needs, with documents and links that are pertinent to problems being seen by today's constituents automatically becoming more visible through tag clouds and through relevance reporting.

- **Community of interest support**

The remit of the public sector is broad, and yet citizens will generally want to interact with the public sector on a specific issue at a time. Attempts to have broad scale online solutions within a department will only confuse the citizen, and will often drive them to utilise more resource intensive manual systems, such as the contact centre. By targeting communities of interest, more focused solutions can be provided. Indeed, utilising communities of interest internally can bring best practice ideas to the fore, ensuring that citizens gain far greater overall value and a better experience than previously.

- **Common activity management**

Linked to the above, there will be many activities that are common across a range of communities. The provision of tools to enable users to group and manage such tasks means that the governmental vision of shared services becomes closer to a reality. Internal public sector workers can service a number of processes by having common business tasks and activities managed

through tools that streamline and audit the progress of these activities, and also enable groups with similar resources to work as one against such task lists. Such tooling also enables automatic escalation, better task automation and the measurement of efficiency and effectiveness. Social networking allows others to offer best practice ideas into the mix, and providing the back end solution has the desired flexibility, processes can be rapidly modified to react to the needs of the department, its process chains and the citizens.

## 8. Use Case Scenarios

Within the public sector, there are many areas where social networking could be utilised to achieve the Transformational Government aims. Existing usage of social networking by the UK government and other public sector areas includes the use of YouTube to disseminate information to the public on areas such as Transformational Government and service consolidation. There is also the integration of CCTV systems into community services, as with The West Lancashire Safety Partnership, where the community is encouraged to help with watching live CCTV over the internet and reporting anything to the police. Blogs are becoming heavily utilised by individual politicians (generally heavily moderated and controlled via their central office), with the aim of getting more "personal" messages out to the public in a shorter time than has historically been possible through other websites or direct mailing systems.

As examples of possible usage for social networking tools, Quocirca offers the following:

### Information dissemination

Although the usage of pure direct blogging (i.e. any single person being allowed to disseminate their thoughts without any peer review and filter) cannot be recommended due to the need for any postings to be legally verifiable and correct, fully reviewed blogs can be a good means for specific information to be disseminated within the community. For example, a council recycling blog could provide up-to-date information on where recycling resources are, what new ideas the council has been looking in to for e.g. the recycling of council waste, the use of waste from parklands as compostable material for re-use within the parks or for sale to the public, and so on. Through the additional use of RSS/Atom feeds, this information can be rapidly promulgated through to groups of interested readers, as well as being directly accessible through the web.

Provided that the output is reviewed and verified through the use of workflows and peer reviews, a less formal approach to information dissemination through a blog that is assigned to a named person can be highly effective in getting certain information to a broader group of citizens.

### Planning discussion site

There has been much discussion on the lack of speed and perceived democracy within the local planning process, with many citizens complaining that plans and the capability to submit comments are not made widely available. The provision of discussion sites, where plans can be made available and submissions can be made directly by citizens, can not only make the process far more transparent, but can also create a forum for discussion where perceived issues can be uncovered and dealt with far more rapidly. In many cases, misperceptions will even be dealt with by the community itself, without the need for a council employee to

intercede. However, Quocirca recommends that a moderator does police the forum strongly, to stop any discussions from moving away from the point (for example, a planning application to move a bus stop may start to move to a discussion around public transport in general), and to hive off any such comments in areas away from the main topic of discussion.

### Local information

The provision of a council run wiki will enable the local community to build their own information base. Areas can be set up for such services as shopping, health, libraries, eating/drinking, childcare, builders, plumbers, and so on, and the local community can populate the content themselves. In this way, a representative view of the local area can be built up which can not only serve the local citizens themselves, but can also act as an information source for tourists or for those looking to move to the area.

Again, content will need to be moderated for validity and legality, but a wiki-based approach should provide more complete and timely information than would be possible through a small team directly employed by a local authority themselves.

### Multi-department interactions

With departments now having an increased need to deal with other public sector departments and non-governmental organisations, the need to streamline and manage interactions is of growing importance.

The use of a single skills database enables constituents along the value chain to identify who is the right person to help them in specific matters, and/or where the requisite information sources are.

Web conferencing enables groups of people to get together and discuss issues without the need for a highly formal, expensive face to face meeting. Instant messaging allows the small details to be rapidly decided. Knowledge bases enable other constituents within the value chain to rapidly find out information without the need to involve an expensive human resource.

If this is backed up with solid workflow capabilities, full audit trails can be kept and automated escalation of issues can be carried out to ensure that targets are kept, and future trends can be analysed.

Use of skills identification and presence, along with information sharing environments will best utilise the available skills in the whole ecosystem – public sector workers, associated groups, external bodies and end users.

Through the provision of tooling that is highly standardised, such value chains can be streamlined, and more people can be involved in ensuring that the right decisions are made.

### Advanced Mashups

An example where a mashup makes sense is in the provision of geographic detail by a local council. For example, people and businesses looking to relocate to an area will want to know where specific resources and service are within an area. A council could create a map with these details placed upon it – but any changes to the map itself or to the information on it necessitates the complete re-creation of the map with the updated information.

It is now possible to use, for example, Google Maps as a base for the showing of information already held by a public

sector body. By making this information available by different classes (e.g. schools, doctors, bus stops, libraries, etc), the base map can just show the information a citizen wants, with less complexity and with far easier means of maintaining the currency of the information.

Indeed, as we move towards the vision of the personalised services for an individual, we can see this moving towards a citizen being able to create their own mashups – for example, a map showing the public transport routes between their GP surgery, the hospital, consultant's office and pharmacy, together with the times booked for each one pulled directly from central records and the up-to-date details of timings for the public transport being presented from the public transport company's databases.

If combined with the local services wiki described above, a citizen would be able to take the wiki as their base information source, and use a mashup to personalise this to fit their individual needs – in other words, meeting the aims of Transformational Government exactly.

## 9. Conclusions

### Main Findings:

- Social networking will be a major tool within the public sector, but has to be controlled
- Policies and procedures will be required – as well as integration and interaction with existing communication and collaboration systems

Social networking is here to stay, but is currently in a highly dynamic state. New variations on themes are coming to market on a regular basis, with the majority being from small companies that are unlikely to be around for long, and have little to no capabilities to meet enterprise or public sector needs.

The usage of social networking is not just confined to consumers – usage is steadily creeping into public sector departments and local education groups through employees seeing value in the end result, and utilising consumer-focused clients or web based tools. This stealth-mode usage is laying the foundations for future problems as interactions between employees and citizens are not being captured, and so cannot be referenced during later communication. Any approach by the department to preclude the usage of consumer clients and to force through proprietary solutions will exclude the very people who the department wishes to deal with – the citizens.

The public sector has a lot to gain through the use of social networking tools in a controlled manner. The use of consumer tools will just lead to chaos, and yet the public sector cannot dictate to the citizens what clients they should choose to use when interacting with local and central government.

Quocirca believes that over dependence on the wisdom of the crowds promise from social networking tools will result in failure. The key is to build up trusted communities where the validity and value of information being input and exchanged can be depended on to a greater extent. Where social networking tools do help is in improving the reach of the collaboration, and in enabling those with valuable information to become involved. For this to happen to the

greatest extent, contextual tools and directories of roles and responsibilities are required.

Quocirca also believes that enterprise versions of social networking tools with open interfaces enabling existing consumer clients to be utilised as access points will offer the functionality required by the public sector to continue to provide fully audited, secure interactions with citizens. However, issues such as information assurance for the information being made available to a public audience will need to be addressed, and issues around information control, repudiation and deletion on sites under external control, such as YouTube, FaceBook and MySpace will need to be covered by agreed policies and procedures.

Quocirca believes that the benefits to the public sector of using social network heavily outweigh any issues. Through the choice of enterprise-focused solutions which can build on and interact with existing communication and collaboration platforms, the main areas of concern such as information recording, audit, security, reliability, scalability and support for open standards should all be dealt with.

Overall, there is a strong need to create up-front policies around which tools should be utilised in what circumstance – and how each chosen technology will interact with other systems. Flexibility is key, and a callable service approach, based around a service oriented architecture (SOA) , will provide the best ongoing solution.

## Appendix A

### Communication and Collaboration Tools

Social networking builds on the existing platform of communication and collaboration tools already utilised within an organisation. For those looking to implement new communication and collaboration technologies such as instant messaging, the co-implementation of social networking tools will provide the optimum means of a public sector body dealing with internal employees and external citizens, suppliers and co-workers. Information created from within social networking environments can then easily be transported to specific individuals and groups through the use of email or workflow, for example, enabling more formal interactions to take place.

Within the remit of existing communication and collaboration methods fall standard means of interaction including face to face meeting, telephone calls, paper mail, fax and so on. However, those methods where IT comes to the fore include:

- **Email**

The standard means of getting information from one person to another, or to a group of people. Email usage is still growing for relatively formal messages, but is falling for less formal interactions, as the new intake of employees looks to more immediate systems such as instant messaging.

- **Workflow**

Workflow is utilised for very formal interactions, where individuals have a specific role to play within the movement of information, either as someone who has a sign off capability, or as a specific source of data or knowledge to be added to the information.

- **Instant Messaging (IM)**

IM has become the tool of choice for many users – from the sweet spot user in the 12-18 year old group to the grandparents wanting to keep in touch with family in far flung places.

- **Web conferencing**

Although web conferencing has not become widely used by the consumer, its capabilities as a social networking tool should not be underestimated.

- **Web sharing**

On top of web conferencing, many tools enable users to share their desktops, with one, two or many people being able to access functionality at the same time.

- **Voice**

Voice has historically been kept separate to the data network, yet has been the major form of person to person interaction for some decades, outside of direct face to face interactions. However, the capability for voice to be carried over public data networks now means that it has become far more integrated into many consumers' computer environment. Indeed, the use of tools such as Skype means that many people are using voice over IP (VoIP) as a cheap means of calling other people. Again, the usage mix is diverse, with the sweet spot being the 20-30 year old, but with many in older groups making use of such technology to avoid high international telephone charges. Other voice-based technologies are also on the increase – interactive voice response (IVR) is beginning to replace dial tone multi-format (DTMF) hierarchical menu services, and text to voice services such as Spinvox are providing the capabilities to get emails to people on the road as voice messages.

- **Person availability**

The capability to see whether a specific person is available, and by what means, such as via IM, via email, via telephone/VoIP or whatever.

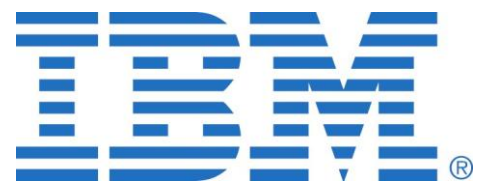
- **Video Conferencing**

Video conferencing is emerging from being seen as a poor communication tool, beset by complexity and failures, to a highly useful tool based around more immersive approaches, such as telepresence. Video conferencing can heavily reduce lost time due to travel and can bring in disparate groups of people to be involved in discussions.

Quocirca recommends that any overall solution chosen by the public sector to address social networking be built upon a solid collaboration and communication platform. Through this approach, a highly functional solution, where flexible processes can be facilitated based on dynamic policies.

## **About IBM**

IBM is a globally integrated innovation company, serving the needs of enterprises and institutions worldwide. The company seeks to be a partner in its clients' success by enabling their own capacity to innovate, so that they may differentiate themselves for competitive advantage in a globalised economy. IBM views enterprise innovation not only in terms of products and services, but across all dimensions of a business: its business processes, business model, management systems, culture and role in society. To help clients achieve growth, effectiveness, efficiency and the realisation of greater value through innovation, IBM draws upon the world's leading systems, software and services capabilities



#### About Quocirca

Quocirca is a primary research and analysis company specialising in the business impact of information technology and communications (ITC). With world-wide, native language reach, Quocirca provides in-depth insights into the views of buyers and influencers in large, mid-sized and small organisations. Its analyst team is made up of real-world practitioners with first hand experience of ITC delivery who continuously research and track the industry in the following key areas:

- Business process evolution and enablement
- Enterprise solutions and integration
- Business intelligence and reporting
- Communications, collaboration and mobility
- Infrastructure and IT systems management
- Systems security and end-point management
- Utility computing and delivery of IT as a service
- IT delivery channels and practices
- IT investment activity, behaviour and planning
- Public sector technology adoption and issues
- Integrated print management

Through researching perceptions, Quocirca uncovers the real hurdles to technology adoption – the personal and political aspects of an organisation's environment and the pressures of the need for demonstrable business value in any implementation. This capability to uncover and report back on the end-user perceptions in the market enables Quocirca to advise on the realities of technology adoption, not the promises.

Quocirca research is always pragmatic, business orientated and conducted in the context of the bigger picture. ITC has the ability to transform businesses and the processes that drive them, but often fails to do so. Quocirca's mission is to help organisations improve their success rate in process enablement through better levels of understanding and the adoption of the correct technologies at the correct time.

Quocirca has a pro-active primary research programme, regularly surveying users, purchasers and resellers of ITC products and services on emerging, evolving and maturing technologies. Over time, Quocirca has built a picture of long term investment trends, providing invaluable information for the whole of the ITC community.

Quocirca works with global and local providers of ITC products and services to help them deliver on the promise that ITC holds for business. Quocirca's clients include Oracle, Microsoft, IBM, Dell, T-Mobile, Vodafone, EMC, Symantec and Cisco, along with other large and medium sized vendors, service providers and more specialist firms.

Sponsorship of specific studies by such organisations allows much of Quocirca's research to be placed into the public domain at no cost. Quocirca's reach is great – through a network of media partners, Quocirca publishes its research to a possible audience measured in the millions.

Quocirca's independent culture and the real-world experience of Quocirca's analysts ensure that our research and analysis is always objective, accurate, actionable and challenging.

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