Social media and the city

Social media is changing the conversation. Twitter, Facebook, LinkedIn, foursquare – we no longer just communicate; we interact. In the process, **how can the wealth of information being generated by social media help us better understand how our cities function** and create smarter cities in the process?

Part of a series of papers on IBM Smarter Cities

Facebook, LinkedIn and Twitter all report membership in the hundreds of millions. **Google+, the social media network launched by the search engine** giant early in 2011, saw 25 million people sign up in its first four weeks. **Foursquare popularised geolocation in social media, and now photographs**, tweets and status updates can be tagged with your location. **Our appetite for social media** is changing the way we communicate and offers new ways to interact with our cities.

Over a billion people worldwide log on to social networking sites.[1] British internet users on PCs clocked up a total of 169 million hours on Facebook alone in April 2011, according to research by Ofcom, the UK's communications regulator. Mobile users of Facebook, meanwhile, spend more than five and a half hours on the site each month.[2]

Clearly, social media is not a fad. Instant communication over social networks – and the presumption of instant feedback – now underpins just about every aspect of our lives. This includes our relationships with local and city governments. The spectacular growth of social media has also increased expectations about transparency and the right to participate in the policy-making process. Used properly, social media represents new value for local authorities, especially when coupled with the right technology, such as a secure private cloud. Leading cities in the UK, US and beyond are already tapping into this hunger for public engagement, with social media playing a part in everything from town planning to combating traffic jams.

The smarter social media city

Social media provides local government with powerful and flexible tools to deliver information services through a variety of channels. Equally important, it provides unique tools for formulating policy and redefining the meaning of accountability as well.

Discovery techniques based on social media are already helping local authorities to shape the future and to define exactly what a smarter city should look like. Coventry in the UK's West Midlands is a case in point.

CovJam is a collaborative online venture staged by Coventry City Council and IBM. It used social media as part of a unique three-day brainstorming exercise to identify ways to make Coventry a smarter city.

IBM's "jam" technology is a proven technique for drawing on the wisdom of crowds, capturing ideas in a way that isn't possible using traditional forms of consultation. CovJam generated more than 2,000 posts, with 82 per cent of pre-registered participants, including residents, public-sector organisations and companies, taking part.[3]

Following the event, IBM used corporate brand and reputation analysis to organise the unstructured information, identify patterns and to help the city council to prioritise key topics and viewpoints. For the council, CovJam provided new ideas; for local people and businesses, it provided an easily accessible opportunity for people to become active citizens.

As well as providing a channel for capturing and analysing real-time information, social media provides a critical feedback mechanism, with citizens able to report on everything from road closures to broken water mains. Commuters can also provide feedback after an incident or event is reported, using the social web including Twitter, blogs and forums.

Social media also has a unique capacity to capture the mood of the moment and to spur powerful, impromptu actions. That can have both a positive and negative impact: social media may have been used by some rioters to organise criminal activity during the disturbances that took place in English cities during the summer of 2011. Yet the same social media helped to galvanise the unprecedented community response that followed.[4] An account on Twitter – @riotcleanup – attracted more than 70,000 followers in a matter of hours, with residents turning out to help in the clean-up operation across the country.

Key characteristics

What makes a smarter social media city? At its best, it is:

ENGAGING

It promotes citizen involvement and builds a new sense of ownership with scope for collaboration in every aspect of city life.

TRANSPARENT

It lifts the bonnet on how the city works – processes are visible, dialogue is open, feedback is swift.

NIMBLE

It delivers services in real time with an enhanced ability to adjust to citizens' fast-changing needs.

SECURE

It respects privacy, protects data and leverages technology to enhance the physical security of citizens.

New value for local government

With public-sector budgets under greater pressure and scrutiny than ever, having the ability to fine-tune services and to deliver them where they're needed most is becoming increasingly important. Social media gives city authorities this opportunity, tapping into public sentiment in real time – albeit only that portion of the public using social media and in a raw form.

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Crucially, it's not just a case of passively watching and listening to what citizens are saying. The social web also makes it possible to reach out in new ways. Social networks mean local government can carry out surveys – and publicise them – at relatively low cost. Insights gained in this way not only represent a significant cash saving; they can also be carried out more rapidly than traditional opinion polls, with no paper processing delays and no risk of data transcription errors.

The use of social media also opens up potential for enhanced cross-departmental collaboration within councils. Local government is a major employer: for example, Merton London Borough Council employs upwards of 5,000 people, as does Brent Council, while Birmingham City Council is the largest local authority in Europe, employing 60,000 people – the same size as a multinational company. Tapping into that resource makes sense and can unlock real value, with crowdsourcing creating synergies that would otherwise be lost.

Perhaps the most important aspect of social media, though, is the potential it has to open up public participation. Social media has a decisive role to play in motivating and empowering citizens, as well as increasing engagement with the third sector, which includes charities, voluntary groups and not-for-profit organisations.

As the Coventry project reveals, the online environment can be "sticky", with users tending to spend longer perusing material than they might in an equivalent paper-based exercise. CovJam participants each spent an average of two and a half hours online.[5]

CovJam underlines the extent to which social media and new technology can help to improve the agility of local authorities, with complex public consultations made far more manageable and granular than an equivalent approach based on filling in paper forms.

Web-based technologies also have the potential to revolutionise routine public interactions. Research carried out by the Society of Information Technology Management in 2010 reveals the scope of potential savings. At only 27 pence, the cost of a customer service interaction on the web is nearly 11 times cheaper than a phone transaction and nearly 25 times less expensive than an equivalent face-to-face meeting.[6]

This does not mean that governments should slash all paper-based services in favour of digital – such a move risks creating a digital divide and excluding those without access to the internet. By offering more digital channels, however, service can be improved and the public feels it has even more options.

Creating the strategy

Unlocking the transformative power of social media means finding ways to connect, collaborate, communicate and innovate.

CONNECT

Social media generates huge amounts of data. Finding ways to make sense of it all and to glean insights from the ongoing conversations is the challenge. For local governments and city authorities, that means using tools and techniques that have already proved themselves in the commercial sector.

Social media analytics makes it possible to measure public sentiment with real-time data mined from Twitter, blogs and other social networks. Text analytics uses natural language processing to spot key words and to gauge sentiment.[7] And by combining data from social networks with existing, structured data, including internal documents, call centre notes and emails, it's possible to obtain even better intelligence, leading to better decision-making.

For example, Medway Youth Trust, a charity working with young people in Kent, has been using IBM analytics software to help spot those at risk of becoming NEET (not in education, employment or training).[8]

The system combines contact information collected by personal youth advisers and community schools with the youth charity's database.

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The system – which had been handled manually – has cut the effort involved in identifying potential at-risk candidates from weeks and months to hours, resulting in 250 per cent savings in time and cost processing.[9] It draws on often unstructured information from a variety of sources, including social media to achieve its goals.

COLLABORATE

Research carried out as part of IBM’s Smarter Cities[10] programme reveals that the public expects to see increasingly joined-up city governance. This survey of more than 2,000 adults from four British cities indicates that more than 75 per cent of Londoners want better co-operation between public-sector services and better communication with city leaders.

Smart use of social media has the capacity to enhance collaboration between different agencies and between individual departments within local authorities to leverage synergy benefits. Tools such as IBM Connections can be used by some local authorities to promote collaboration and share information internally, with discussions, opinions and knowledge-sharing covering everything from bus lanes to planning and policy initiatives.

In many cases, the impetus for implementing social networking technology for internal use has come from the workforce itself. And, like many other contemporary technological developments, it illustrates the phenomenon of consumerisation – the process by which technology emerges in the consumer market before being adopted by mainstream business. The message is clear: if local governments and city authorities do not embrace new ways of communicating, staff will do it for themselves.[11]

COMMUNICATE

The traditional hub-and-spokes model of communications, where information was pushed from the centre to the people, is crumbling. Social media creates the expectation of dialogue. It gives local authorities an unprecedented opportunity to publish draft policies and plans, and create active conversations throughout the process from an initial idea right through to final implementation.

The effectiveness of such collaborative information-gathering techniques is proven by initiatives such as CovJam. Similar approaches are now being tested by local authorities; the city of Leeds, for example, harnessed the power of social media – including Twitter and Facebook – to drive discussion as part of its “What if Leeds...” initiative to map out a future for the city.[12]

It’s also important to communicate using tools people expect and understand. That means making use of the full gamut of rich media tools that can be used alongside text-based social media. These include podcasting, photo-sharing sites such as Flickr and video hosting services such as YouTube and Blip.tv.

Social media opens up the possibility of engaging with new groups, such as 18- to 24-year-olds who have traditionally been hard to reach. It also capitalises on the fact that when people arrive at a website via a social network, such as Facebook or Twitter, they may spend longer looking at it than visitors who arrived via a search engine.

INNOVATE

Social media has proved its ability to unleash innovation on the ground. By combining data, from text to geographical information and video, it’s now possible to create an all-encompassing synthetic view. This approach could be adopted by local authorities as a way to visualise and better manage the city. A range of critical situation views could be provided, making it possible to monitor and manage traffic situations, major events, disturbances and even natural disasters.

For example, the city of Edmonton in Alberta, Canada, working with IBM, found more innovative ways to use its available data and

technology, including social media. As one of 24 cities chosen to be part of IBM's Smarter Cities Challenge, the local authority benefited from IBM's expertise, brainstorming about the city's future. The partners determined that, by integrating, analysing and transmitting relevant data, decision-making across the city could be improved. Edmonton also collaborated with IBM to find more innovative ways to use social media as part of a package of measures to enhance the quality of transport in the city. Traffic and road safety initiatives in particular were quick to benefit from the provision of timely transport information via more channels to more people.

5%

Even a small response rate in an online survey of an average London borough could generate more than 10,000 replies.

The success of the strategy is based on effective two-way communications, using social media platforms – including Twitter, Facebook, blogs and forums – and other communications tools to get information published online and give citizens the chance to contribute to the process in real time.

The strategy provided a channel for disseminating real-time travel information as well as acting as a critical feedback mechanism, with citizens able to report on road closures and accidents. The Edmonton initiative promotes smoother, safer journeys and reinforces civic engagement by encouraging citizens to become the eyes and ears of the city.[14]

Similarly, in the UK, two local authorities – Kirklees Council and Essex County Council – used Twitter to provide live updates around the clock on the state of the roads during heavy snowfall, indicating which roads were being treated and thereby taking pressure off the system while keeping the roads safe.[15]

A separate Twitter appeal by Brighton & Hove City Council to owners of four-wheel-drive vehicles, again during winter's extreme weather, saw a flurry of volunteers signing up to help reach vulnerable residents.[16] A growing number of local UK authorities – including Bracknell Forest Council and Wokingham Borough Council in Berkshire, Barnet Council in London and Belfast City Council in Northern Ireland – are leveraging the popularity of Facebook to improve engagement and provide new ways to access existing services.[17]

Bracknell Forest Council's Facebook page (www.facebook.com/bracknellforestcouncil), for example, provides a comprehensive front end with access to the full gamut of council services. It provides a friendly and familiar interface for those who may not be accustomed to dealing with local authorities. Initiatives of this sort underline the unique power of social media to engage the third sector and generate innovative action that benefits everyone.

Understand the risks

WARNING: HEAVY TRAFFIC AHEAD

The ubiquity of web access means that the potential feedback from any initiative or announcement can unleash a flood of data. An average London borough, for example, has a population of around 200,000. An online poll that generates a five per cent response means more than 10,000 sets of replies – ten times more data than is generated by a conventional survey. Analytics are needed to make sense of this deluge of data.

ME TOO?

Social media is all about inclusion, but not everybody has access to a computer or is sufficiently interested in engaging online. By

"The ubiquity of web access means that the **potential feedback** from any initiative or announcement can unleash a **flood of data"**

focusing only on social media, there's a risk of widening the gap between the digital haves and have-nots. Citizens still need the option to contribute in ways that suit them – and that is likely to include letters, dedicated phone lines and face-to-face contact for some years to come.

KNOW WHO'S CONTRIBUTING

The presumption of anonymity that has grown up with the web means that local authorities and city councils need to exercise some healthy scepticism about any responses gathered via social media. Who exactly is getting involved? Are your 500 responses legitimate, or has your survey been influenced by a highly organised sectional interest group? Social media users tend to be a self-selecting group and the views captured may not reflect those of the population at large.

REPUTATION, ESCALATION AND RISK MITIGATION

Social media can spread bad news at the speed of light – a routine complaint such as a pothole can be magnified into potential public-relations disaster within minutes, all at the click of a mouse. Local authorities need to be able to deal with incoming complaints rapidly, responding in minutes rather than days.

Social media offers local government a unique way to reach the people they serve. Administrators and staff using social media need to be trained to respond to enquiries from the public via this route quickly and in an appropriate way. Common sense and courtesy are important here, as is the ability to generate concise, unambiguous messages.

How can IBM help?

Ultimately, IBM meets the needs of smarter cities by:

- **Creating** strategic frameworks to empower citizens and centralise information.
- **Collecting and analysing** information in real time.
- **Integrating and disseminating** information to support decision-making.
- **Creating** centres of excellence for data analytics.

Smarter cites benefit from:

- **Added value** from all data types with optimum usability.
- **Reduced time penalties** with analysis of data in motion and at rest.
- **Reduced time to insight** by converting raw data into actionable information.
- **Leveraged information** to deliver insights and knowledge.
- **Enhanced visibility** with text and data visualisation.

To take full advantage of social media, the smarter city will need to harness the right technology for organised social discovery. This means digging deeper wherever possible and helping disparate, decentralised channels and data architecture to behave centrally.

In the US, for example, IBM has launched the SmartCloud for Social Collaboration for Government, a new service that mixes social networking and cloud computing.[18] This combines social collaboration tools with email to improve productivity and interactions among workers and agencies, and with citizens.

The SmartCloud allows government agencies to communicate, collaborate, share files and analyse social media with greater ease, exchanging information via the web. Among other things, it includes:

- Software that supports wikis, blogs, staff profiles, instant messaging, web conferencing, email and various other items for social interaction.
- Support for a range of mobile devices including iPhones, iPads, Android smartphones and BlackBerrys.

The service is also compliant with the US Federal Information Security Management Act's guidelines, making it a viable option for government agencies looking for a secure private cloud option.[19]

For smarter cities to take full advantage of social media, they will need to explore their options and collaborate in order to find the right mix of social media strategy and supporting technology. By tapping into this new and rich source of information, local authorities will be able to turn their cities into the smarter urban environments of tomorrow.

75%+

of Londoners want **better co-operation** between public-sector services and **better communication with city leaders**.

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For more information on IBM's Smart City solutions, please visit:

IBM Smarter Cities
www.ibm.com/thesmartercity/uk

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