## Thinking about Cities: An exploration of contemporary themes

(Understanding cities: A Twitter route in)

**Introduction**

This document has arisen from an exploration, over several months, picking up on Twitter content relating to cities. The material accessible via Twitter (as tweeted comments, as links to blogs, links to conference presentations and links to published reports) covered a wide range and a variety of viewpoints. These ideas could be applied, in many cases, not only to cities but to urban areas of various sizes and statuses but were mostly tweeted as city-related. In all cases the ideas provided ways of thinking about larger modern cities.

The initial four month surveying of Twitter content on cities gave more than four hundred pages of material, with many of those pages having click-through links to videos or other documents. This represented a huge wealth of information, which was summarised down to a hundred pages or so of text with a few click-through links. The current document presented here is the executive summary of that summary with a few more recent bits of text woven in where appropriate. It is, therefore, not meant to be a full and detailed coverage of all aspects of thinking about modern cities. Rather it is meant to demonstrate the range of ideas about this one topic that can be gained via use of Twitter as a research tool. There may be experts in particular fields who feel disappointed by the coverage of that specific aspect. I can only repeat that what follows is the pared-down summary version of what I discovered by dipping into some of the Twitter content over a particular period of time.

In describing this as a harvesting of ideas from Twitterland, I am clearly not claiming the ideas as my own. My role has been collecting, sifting, sorting, packaging and sense-making. If people feel that I have not made adequate sense of what they intended via their tweets I am more than happy to look at sections afresh.

For the purpose of producing this summary document, recurring ideas were grouped into the themes. Within the original content these themes overlapped, interlocked and collided together because of the different understandings that tweeters had brought to them. Nevertheless, their recurrence time and again highlighted them as some of the contemporary themes amongst key thinkers reflecting on the modern city.

These themes were: placemaking and placeshaping in cities; resilient cities; smart cities; data-rich cities; cities as planned systems; walkability of cities; benefits of density; what makes cities sustainably great; liveability and the issue of creative influence; how a city becomes a first-rank leader; cities, central government and innovation; governance in complex cities; cities and economics; good-enough cities, resourcefulness, adaptability and spontaneity; what the future might hold for cities …. Quite a list from a means of communication that is relatively random and whose access points are limited to 140 characters of text.

Where content was so specifically unique to a person or organisation, they have been named as the source of that bit of thinking. Where the reader wants to follow up on an idea there should be sufficient information for them to be able to do so, but this article is not intended as a fully-referenced academic paper. Most of the ideas around cities were common to a number of different sources and, in these cases, what is summarised here is a composite view across a range of thinkers. If people wish to lay particular claim to ideas or to extend them then a DMtweet/email message might be an appropriate format for that. At the end of the article is a listing of some of the more prominent contributors to the debates looked at. This only lists those who were active via Twitter in the period of this exploration or those who other key tweeters took as their own reference points. None of this is meant to be the definitive listings of people or of concepts but was undertaken in the spirit of an exploration, to see what was there and to test out the usefulness of Twitter as a source of learning.

**Placemaking and placeshaping in cities**

In the UK a significant document in relation to cities and placemaking was ‘Placeshaping: a shared ambition for the future of local government’ by Sir Michael Lyons. This set out local government's crucial placeshaping role: using powers and influence creatively to promote the well-being of the community.

It called for a new partnership between central and local government, based on changes in behaviours, to create a shared ambition for the future. It proposed reducing specific/ring-fenced grants to give more flexibility locally, with future possibilities of introducing a local income tax or re-localisation of the business rates.

The report proposed that central government should give more local discretion and recognise the value of local choice; while local government should seek greater flexibilities and freedoms, strengthen its own confidence and capability, engage more effectively with local people, make best use of existing powers, and not be reliant on gaining central direction before acting.

This use of the phrase placeshaping was developed during times of prosperity. This was soon replaced by the idea of place-shielding as the downturn began. In its Global Risks 2012 report, the World Economic Forum described the potential for a place where life is full of hardship and devoid of hope, with immense problems of care funding, the potential for riots, worklessness and the withdrawal from traditional political engagement – with the complex and challenging social process of placemaking being all the more difficult because of that. If the downturn is more than just temporary then the strategic challenge for cities is how to placemake in very difficult circumstances.

The idea of placeshaping is not a new one. At its root is the idea that people shape places and those places shape the people. It can be seen as going back to the origins of local public services with strong drives in public health, town planning and the environmental and social improvement of the great cities and towns of the Victorian era.

More recently, David Cameron’s version was his drive for the Big Society which saw local leaders and voluntary organisations tasked with building communities and providing services. Placeshaping was seen as local groups working together to define, build and develop spaces so that they were economically viable and desirable places to live and work. Local authorities were expected to use their commissioning role to bring this about.

From a particular perspective placemaking involves listening to, and asking questions of, the people who live, work and play in a particular space in order to create a common vision for that place. In dialogue with planners this can quickly be turned into an implementation plan for changes to that locality. This approach was proposed in contrast to a style of planning that had often become so institutionalized that community stakeholders seldom had a meaningful chance to voice ideas and aspirations about the places they inhabited.

Placemaking (and placeshaking) has been put forward as a catch-all term for grass roots engagement activities that involve energising the networks of shared interest: making phone calls, organizing rallies, setting up blog conversations and running demonstration projects. It’s about all the things that need to be done just so that a whole range of community interests can begin to come together around a sense of shared purpose.

The Project for Public Space (PPS) organization, which runs training programmes as well as active planning events for residents and for professionals, has formulated their thinking in a wheel diagram:



People making places is not a new idea. In the 1960s, Jane Jacobs and and ‘Holly’ Whyte were offering ideas about designing cities to cater for people, not just for cars and shopping centres. Their work focused on the importance of lively neighbourhoods and inviting public spaces. Activities are the basic building blocks of a successful place. Having something to do means that people have a reason to come to a place. A successful place offers a variety of things in close proximity to each other — making the place more than the sum of its parts. People lingering in areas might mean more demand for street stalls selling food, for local businesses catering for local needs and so on.

Great public spaces are accessible places: people can walk or cycle conveniently; they don’t have to dart between moving cars to get around the place; there are low levels of street-level parking and it is convenient for a variety public transport, with stops close to public facilities. They are places where things happen, social and economic interactions take place, friends run into each other, and cultures mix. They are where people can easily interact with each other, with private businesses and with government agencies. A successful public space is easy to get to and get through; it is visible both from a distance and up close. The edges of a space are important. A row of shops is more interesting to walk by than a blank wall.

If a neighbourhood were that good it would be a flourishing neighbourhood and if a city had a number of such neighborhoods connected together, then every resident would have access to outstanding public spaces within walking distance of their homes. That is one goal for all cities if they want to enhance and revitalise urban life.

Making this happen is not easy but some approaches may prove more productive than others. Although some placemaking work can be about involving residents in a small-scale local development, it also needs work at whole-city level. Project for Public Space has been working with Adelaide City Council in Australia to create new models of governance and organisational culture that are more supportive of placemaking, and to embed placemaking principles, tools and processes at city level.

Though their work on placemaking, the Project for Public Space organization has suggested that public space projects (and the governance structures that produce them) tend to fall into one of four types of development, along a spectrum. On one end there are spaces that result from project-driven; top-down, bureaucratic leadership; valuing on-time, under-budget delivery of specified outcomes. Such processes generally lead to places that follow a general pattern with little adaptation for local contexts. Next, there are spaces created through a design-led process. These may aspire to be of high quality and value; with photogenic features and a reliance on the vision of professional designers. This approach can often lead to spaces that are lovely as objects, but not necessarily functional as public gathering places. The third kind of approach is place-sensitive. Here, designers and architects are still leading the process but there is a determined effort to gather community input and ensure that the final design responds to that. Finally, there is a place-led approach, which relies not just on community input but on strong community engagement able to determine some or most of the outcomes for the constructed developments.

This spectrum is reflected in the shifts in placemaking as used by architects and planners in the 1970s to describe the process of creating squares, parks, streets and waterfronts that would attract people by feeling pleasant and interesting; and the more recent writings which make a qualitative distinction is between space and place: that people make the place; that people are the place or, rather, that people’s relationship to their surroundings is the place. The question for this latter kind of placemaking then becomes one of how to develop connectivity between people and places/spaces.

Attempts at placemaking have often included the incorporation of public art. Sometimes this was simply through buying in specifically commissioned pieces. More creative versions of placemaking involved more active collaborations in which artists act as a catalyst for public participation and community transformation. Making places then became seen as more than simply altering the built environment and more about strengthening the social fabric of a place. The focus was on how people were able to act out their lives in the place being created.

Others see placemaking as able to be taken forward via larger-scale capital developments. It is about creating city-level identities by taking the physical assets of the place, strengthening them and promoting them as a point of difference. São Paulo has made open space a high priority, constructing 66 new parks and planting nearly 200,000 new trees in recent years. New York has had a strategy for open space with a directive to bring each New Yorker within a 10-minute walk of a public park. To achieve that goal, the city has discovered new opportunities for public spaces: on abandoned rail lines, former roadbeds like Times Square and formerly inaccessible waterfront industrial sites; and have worked with developers to provide high quality, publicly accessible, privately-operated open space. In an attempt to change the nature of a key part of the city Perth, Australia, has attempted to connect 23 institutions within its cultural district to each other by improving the public spaces that surround and connect them, and to extend the cultural activity out into the surrounding area.

In addition to creating an improved environment for residents much of this is about developing the brand, the unique selling point for the city; developing a city’s competitive advantage to help deliver economic growth.

For others it is all about starting with the real-life concerns of the city’s residents. Jan Gehl is reported as saying ‘First life, then spaces, then buildings: the other way around never works.’ Placemaking that starts with the lives of citizens is a civic creative act that requires a deep understanding of the city and the opportunities and challenges that it faces. This sometimes involves contradictory definitions, contested spaces and contested identities. Making places in this way is a far from straightforward activity.

The definition of placemaking is thus fairly broad and can mean different things to different people. In 2006, a leading place making web site asked people how they define placemaking. What was clear was that there wasn’t one common definition. Placemaking was, and continues to be, a diverse and complex concept.

**Resilient Cities**

Many cities have had to confront their capacity to respond to immediate threats and to sustain their business within changing future conditions. These actions have been carried forward under labels such as Green City, Sustainable City and Resilient City.

Resilience has commonly been used in terms of ‘returning to the previous state’ or ‘bouncing back’ in the aftermath of a specific event. Whilst this is a useful concept it can be argued that resilience is not just about returning to the previous state of capacity/capability but about building competencies so that capacity increases over time. A resilient city is not only able to recover quickly from a current or recent situation, it is also able to prepare for unknown situations yet to come. In this context, a city’s capacity for resilience can be thought of in terms of attributes such as its ability to self-manage and self-determine under pressure, the city’s levels of entrepreneurship, degrees of civic engagement and volunteering, and the general degree of optimism about the future.

Resilience might rely in part on city procedures, but it may also be reliant on community-determined reactions. In a widespread disaster, or a massive set of social changes, government services and systems may become quickly overloaded so that resources get rationed to the most pressing need or the most severe life-threatening situations, leaving large parts of the community feeling as if they had to fend for themselves. It is at these times that community spirit, leadership, volunteering, and entrepreneurship come to the fore.

Every city has its own distinct capacity for resilience because of by its particular mix of economics, politics, environment, history and (to an extent) pure chance. At the same time, the overall problems faced by cities appear to be getting more and more universal, forcing them along similar routes of why things need to change. Working together, cities might learn how to broadly bring about such desired changes even if the specifics remain unique to each city. There is unlikely to be a universal template for resilience across all cities. Each city has to deal with the overall problem within its own unique context. What is uniquely best for Sao Paulo is not likely to be the resilience solution for New York or Vancouver.

São Paulo has been developed in ways that leave the city with wide roads and narrow pavements; with few bikes or walkers. Spaces are blanked off by having walls everywhere; and there is a strong reliance on single-use zoning of areas. Largely this has been to serve consumer demand for cars and has been in place since Robert Moses came to Brazil in the 1950s to help plan highways. The outcomes are a degradation of civic space, a need to provide services and infrastructure over a widely sprawled area, and an increase in chronic diseases as traffic pollution increases and people walk less. If Sao Paulo can change the way it works as a city it may be in a better position to become a healthier, more resilient city.

New York has recently had to focus on how it approaches urban resilience and climate change adaptations. The tidal surge caused by superstorm Sandy brought into focus the fact that more than 200,000 New Yorkers live less than 4 feet above a normal high tide. In response to the storm the city had to think about how to avoid repetitions of disruptive flooding. City planners and politicians were insistent that this did not mean an abandonment of the city’s waterfront, but there was also recognition that the city could not simply dry out what was there and hope for the best in the future.

One way of reducing a city’s vulnerabilities would involve moving critical electrical infrastructure out of the flood zone; encouraging larger buildings to invest in emergency generators; increasing the amount of backup power within mobile phone transmission towers so that phone services are not easily disrupted; and so on.

New York’s response also refocused perspectives on longer-term actions to counter an increase in the climate changes that may give rise to such storms in future. These included: More than 80 percent of the city’s roofs being painted white (thereby reducing the total energy needs of those buildings by around 25%); the goal of reducing New York’s carbon emissions by 30 percent by 2030; and adding more than 600,000 trees to the parks and pavements.

Vancouver is the most at-risk urban area in Canada when it comes to the effects of climate change, with approximately 220,000 people in the region living at or below sea level. The City of Vancouver has adopted a plan requiring all new construction that could be subject to flooding to be built up an additional metre, to 4.5 metres above sea level. The city is also planning to design and install electrical and mechanical equipment so that a building’s ground floor can flood without major disruption. Again, taking the longer view, Vancouver’s mayor wants Vancouver to take some leadership on the green cities agenda. The city engaged more than 30,000 citizens in a process designed to establish a 2020 goal for the city. The city used social media and digital technologies to spark citizen-led workshops and online discussion fora. The result is the [Greenest City 2020 Action Plan](https://vancouver.ca/green-vancouver/greenest-city-2020-action-plan.aspx), which has set a clear goal for the city to become the greenest in the world by 2020.

**Smart Cities**

As more and more people live in cities there is the need to make the cities smarter – more able to operate at optimum levels. Better use of technology can help in this but may not be the full answer.

Smart cities can be seen as cities in which digital devices are merged with traditional infrastructures so that signals from objects can feed into other decision-making parts of the ‘internet of things’ (eg making predictions about how traffic is going to develop over the next hour and adjusting the timing of traffic lights automatically); or in which there is coordinated and integrated use of social media to provide ways in which citizen groups, businesses and various agencies interact to improve their understanding of the city.

In many cities smartness is seen as about using new technology to address established problems. This included open-data initiatives; use of existing traffic or crime data to monitor events and prevent problems emerging; and the use of apps and local media that enable residents and visitors to be more informed, to report issues immediately, to carry out routine tasks such as finding the nearest parking space, to navigate the city more easily, to access wifi and real-time information on weather or buses; or to keep up with local news alerts. Cities are increasingly embracing social media tools such as blogs, twitter and facebook as a unique way to get feedback on the performance of city departments on a regular basis..

What counts as ‘smart’, and attitudes to that, change as technology changes. In the 1930s the American urbanist [Lewis Mumford](http://www.nd.edu/~ehalton/mumfordbio.html) foresaw potential dangers in adopting a smart approach to planning transport based on the newest technology of cars on super-efficient highways which might end up choking the city. The Swiss architecture critic [Sigfried Giedion](http://m.guardian.co.uk/books/2009/jan/17/space-time-architecture-sigfried-giedion) worried, after the Second World War, that what were then considered to be smartly efficient building technologies would produce a soulless landscape of glass, steel, and concrete boxes. Yesterday's smart city thinking has the potential to lead to today's problem city thinking.

The idea of the Smart City is fairly widespread. Networks of cities, eg across Europe, work together under the Smart City banner with a number of goals such as: developing a new understanding of urban problems; effective and feasible ways to coordinate urban technologies; models and methods for using urban data; developing new technologies for communication and dissemination; developing new forms of urban governance and organisation; defining critical problems relating to cities; and identifying risk, uncertainty and hazards in the smart city.

These networked cities can engage in research challenges: to relate the infrastructure of smart cities to their operational functioning and planning through management, control and optimisation; to explore the notion of the city as a laboratory for innovation; to provide portfolios of urban simulation which inform future designs; to develop technologies that ensure equity, fairness and realise a better quality of city life; to develop technologies that ensure informed participation and create shared knowledge for democratic city governance; and to ensure greater and more effective mobility and access to opportunities for urban populations.

Within cities practical steps are becoming commonplace to take these forward via such things as low-energy power sources, solar powered functions, bike-sharing/car sharing programmes, making it easier for a range of transactions to be done online, providing access to high-speed broadband etc.

Smart City is an expression, in its current state, that may serve to confuse things. While some take a narrow view of smart cities by seeing them as places that make better use of networked information and communication technology, particularly hand-held digital devices. Others view smart cities as a broad, integrated approach to improving the efficiency of city operations, the quality of life for its citizens, and growing the local economy.

There are technologies for improving urban public services, and there are civic-empowerment technologies for enabling residents to jointly create the future of the city. Seeing the city through the generic idea of a smart city allows certain needs to be tracked (energy distribution networks, traffic flows etc.) This is not the same as having ways to see the real life of the city and its citizens, which takes place on a smaller scale. A number of writers (eg Boyd Cohen – a climate strategist) believe that the smart-cities movement is being held back by a lack of clarity and consensus around what a smart city is and what the components of a smart city actually are.

Most cities would agree that there is value in having a smart economy, smart environmental practices, smart governance, smart living, smart mobility, and smart people. Each of these aspirations can have a small number of key drivers to achieving the goal. Overall, there are over 100 identified indicators to help cities track their performance with specific smartness-related actions.

Cohen intends to publish an annual ranking of smart cities, based on a Smart Cities Wheel that incorporates the elements/indicators referred to above.



Smartness is, in part, connected to the capacity to predict the future and prepare for it. We increasingly live in a world where, each day, we are confronted with a number of economic forecasts, statistical studies and consultants’ reports telling us what the future may look like. Alongside such attempts to predict developments is the notion of Big Data, the massive datasets created in the internet age. Algorithms that rely on structured data (such as previous online purchases) and unstructured data (Facebook posts) are now used to predict what people will buy, whom they may want to marry and which electoral candidate they will vote for. At the city level, big data can help with setting out predicted scenarios as an aid to planning for a better future.

During the time of the exploration being reported here one of the key conferences was that organized by LSE Cities and Deutsche Bank’s Alfred Herrhausen Society (The 2012 Urban Age Electric City Conference) to explore how urban societies across the world are adapting to and embracing technological innovation and environmental change. The conference theme was smart cities and urban technology: launching two days of debate from a number of the world's urban specialists. The conference focused on the complex systems of cities in the digital age where an estimated 70% of the world’s population will be living in cities by 2050.

From some at the conference there was a degree of cynicism about seeing smartness simply in terms of the techno-fixes and the techno-branding definitions of the smart city provided by some corporate agencies. Such organisations tend to promote a vision of the fully-automated city with its networks of intelligent sensor technology; with little emphasis on empowering citizens to make intelligent decisions and participate in governance.

There have been criticisms of proposals to produce smart cities if these proposals lack a perspective on how cities work: if the city starts to get driven by the product rather than the available technological product serving the needs of the city. As already stated above, the real functional intelligence of cities lies in the unstable, spontaneous social relationships between [people](http://blog.pachube.com/2011/06/you-are-smart-city.html). Technologically sophisticated top-down solutions too often collide with the [unpredictability](http://nearfuturelaboratory.com/pasta-and-vinegar/2012/01/25/talk-in-madrid-about-smart-cities/) and complexity of urban life. Smart strategies may need an understanding of urban ecology, urban sociology and the social life of public spaces: an integrated perspective of the city, a broad vision of the city as a place and not as mere space over which to deploy sophisticated networks or a preferred technological ‘solution’.

A particular approach sees making smarter cities as best done by creating smarter systems. In this a city is analysed as a system of ministructures. This approach focuses on using information in new and creative ways. It sees people as sensors who can identify faulty or dangerous infrastructure, and send images or text messages from their smartphones to be automatically analysed and prioritised so that repair orders can be issued. The people who use the roads, or buildings, or transport systems every day can better gauge the urgency, severity and degree of a problem and provide that intelligence when reporting. One example was an application that lets iPhone users turn their phones into pothole detectors. If the app is on while someone is commuting, it detects the jarring sensation of running over a pothole and sends the pothole's coordinates back to the city’s repair engineers for rapid action.

Some people worry about the impact of technology on our lives whilst others see the explosion of [social media](http://urbantimes.co/2013/03/social-media-programs-take-center-stage-at-leading-universities/) and [smart phones](http://urbantimes.co/2012/08/evolution-of-mobile-telecommunications-technology/) as having the potential to create a new wave of community spirit, creativity and entrepreneurship. Access to new information, people and technology can remove barriers for citizens wanting to make a change. Residents can more easily bypass bureaucratic red-tape; can get reliable information and support; and can more easily get their opinions heard. This can produce a feeling of freedom engendered by the access to technology itself, but there is also the way in which using technology to take action in their communities can forge new relationships, build a sense of achievement and a sense of ownership of place. This is likely to require city councils to collaborate differently with communities to develop a shared vision of the future and to create services that directly meet their needs.

Of course, in the shift towards smartness there will be people who don’t have access to technology; who can’t afford broadband subscriptions or smart phones; and people for whom the internet is a complex and confusing thing. There is going to be the danger of creating a digital divide, where some members of society are excluded from basic processes simply because they don’t have an email address.

There is little disputing that more Smartness is needed; it is just that this covers many aspects and a degree of clarity is needed if smartness is to bring effectiveness, improvements and social justice. In his book ‘Beyond Smart Cities’ Tim Campbell describes not only how cities use knowledge internally but also poses the question of why some smart cities succeed better than others and why some not-so-smart cities can outperform smarter ones. His answer is that building up skilled talent and pervasive technology are trappings of smartness which do not, in themself, guarantee better outcomes. Increasingly real progress comes from the horizontal sharing of understandings across networks of cities; and from cities managing loose relationships as well as formal ones, whilst fostering intersections between private/public and between informal/civic – and applying these to a number of recurring issues around density, influences spreading across institutional boundaries, economic competitiveness, pollution/congestion, and governance. He sees smartness as lying in the intelligent ways some cities create shared values across people of very different kinds who all care about the city they live in. New knowledge is actively pursued and very diverse strands are able to be combined into sets of collective understandings that benefit the city as public realm.

**Data-rich cities**

There is no doubt that Big Data has the potential to make the world a better place. Health experts are using huge datasets to track diseases and prevent epidemics; and thousands of lives can be saved by using more and better data to forecast the trajectory of hurricanes. At the same time, perhaps one of the biggest risks we run in the era of Big Data is confusing correlation with causation. So much of the data is manipulated in correlational/ probability terms, but this may be of only partial help when deciding on the major levers to pull in order to bring about large-scale, rapid, complex sets of changes across a city.

The sheer volume of new information at our fingertips surpasses our ability to immediately understand it. Ever more powerful computers can store and measure all this data, but they cannot so easily tell us what it all means if there are complex contexts to be taken into account. Human beings, on the other hand, can appreciate context (even if they are not always very good at doing so) but can give up in the face of huge volumes of data.

Nate Silver, the statistician who correctly predicted the winner of the 2012 U.S. presidential election in all 50 states, warns against putting too much faith in the predictive power of machines. He writes (in his recent book, The Signal and the Noise) that predictions may be more prone to failure in the era of Big Data . The exponential increase in the volume of information means an exponential increase in the number of hypotheses to investigate. At the same time, most of the data is just noise, making sorting out the signal that much harder a task.

Similarly, a 2012 Pew Research Center survey of stakeholders in the development of the internet found that 40% agreed that, by 2020, Big Data would cause more problems than it solved.

The amount of available urban data can overwhelm the number of people trained to work with it. Big data is not an end in itself. The key is turning information into knowledge. There is a predicted shortage of people with analytical expertise, and of managers and analysts with the skills to understand and make decisions based on the analysis of big data. Academic institutions are working to meet this growing demand. What is the best training for these students? If we design a curriculum would it be mathematical, spatial, design-based, computational or engineering-based? Do the academic institutions have the flexibility of structures to allow new trainings to be developed quickly?

One further danger is that the information-richness of a city may do little to enable people to think for themselves or communicate well with one another. LSE Professor of Sociology, Richard Sennett, paints a picture of a future of less-intelligent city-dwellers. His concern is that technology is taking away the city’s ability to make individuals smarter in their everyday dealing with complexity. Cities have a complex nature based on the ambiguous and incomplete interaction with strangers. Technology can rob us of those interactions that stimulate social development. Smartness in Smart Cities should be embedded in the people of the city and not in the technology systems available.

The distinction has been made between generating further masses of data and using productive knowledge to gain real-life improvements. One way forward is to establish open-data portals and to promote their analysis by groups of citizens, tracking city performances on a range of issues of interest to residents, and challenging any examples where data appears to be generated simply in order to ‘fix the indicators’. For some residents this will mean having access to the appropriate tools to do such work; for others it may be more about how data gets presented eg data visualisation techniques.

**Cities as planned systems**

Despite an acknowledgement of the inherent messiness of cities and how much the city is made up of people, not things, cities can still be seen as smart systems in which the closed nature of the city enables it to be planned and organised to maximum efficiency. There are examples of cities being designed from almost from scratch.

Masdar is a city being built in the desert, whose planning comprehensively sets out the activities of the city, the necessary technological monitoring and regulating by a central command centre, and the various options that might be available at any one time. Songdo in South Korea is another smart city in design: massive, clean, efficient housing blocks; with heating, security, parking and deliveries are all controlled by a central computerised system.

In such planned-out cities, ‘user-friendly’ reduces to citizens choosing from an established menu of options rather than helping to create the menu. There may be limits to the degree of such control that residents want. Some of these new developments might feel like cities that are simply too smart.

Once basic services are in place people don't continue to value efficiency above everything else; they want quality of life. Once certain stabilities are in place people want a more open indeterminate city in which to make their own way and begin to take ownership over their lives. People want cities that work well enough, but are open to the shifts, uncertainties, and messiness which make up real life.

In articles with titles such as: ‘Smart cities: what urban life will be like in 2050?’ there are glimpses of what people might mean by smart cities. These can be cities where buildings of the future will be made from self-healing concrete, be powered by their solar paint, be maintained by automated robots, with modular parts that can easily be upgraded or replaced over time. Office blocks will contain working farms, produce their own energy, and be linked together by suspended green walkways. Smart cities, in this context, refers to energy-efficient urban worlds, underpinned by technological systems.

A number of commercial organisations are offering support to cities around this agenda. For some, smarter cities are ones that can most effectively harness and make productive use of the mass of data on the use of city systems. For others, it may be more about energy efficiency. The low energy prices that drove city sprawl may not exist in twenty years’ time. They see the way forward as likely to be fewer roads and better integrated public transport, supported by local intelligence that influences how the transportation networks operate.

Some of the technology is not yet in place. Researchers on graphene supercapacitors expect a future of instant phone chargers and of petrol stations with plugs that can charge cars faster than they currently fill up with petrol; others suggest 4D printing processes by which objects (eg underground water pipes) self-assemble by absorbing water. Innovation and responding well to challenges underpin the routes to successful cities of the future.

In 2010, IBM created the Smarter Cities Challenge to help 100 cities over a three-year period to address some of the critical challenges facing cities by contributing time and expertise of top experts to work closely with city leaders to make the city smarter and more effective on issues such as citizen engagement; economic development; education & workforce; environment; public safety; social services; transportation and urban planning. (Further details of ‘How to Reinvent a City: IBM's Smarter Cities Challenge’: <http://t.co/imG8SuClkn>).

At the end of all such developments it may be that real smartness may rely not on technology but on foresight, capabilities and willingness to change. New models of collaboration may be needed between businesses, city decision-makers and central government. A number of cities are working on this agenda. The cities that take some leadership in this may just end up being amongst the smartest.

Birmingham, UK, is a strong contender. As a successful city in the Smarter Cities Challenge Birmingham is now one of the elite world smart cities. Below is the Birmingham Smart City Commission’s Vision Statement which outlines the strategic vision and framework that will lay the foundation for building Birmingham’s Smart City Roadmap:

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**Walkability of cities**

Public space is generally seen as a good thing: the cure for a range of urban problems from air quality to obesity. Certainly much is being made of the need for great cities to have public open spaces and to link such amenities together so that the city becomes a Walkable City.

A recent summary of this has been ‘[Walkable City: How Downtown Can Save America, One Step at a Time](http://www.amazon.com/Walkable-City-Downtown-Save-America/dp/0374285810/?tag=braipick-20)’ by city planner Jeff Speck, who has worked directly with a couple of hundred US mayors to help solve their city challenges. Speck believes that it is not an intellectual revolution that is necessary. There is no lack of awareness about what needs to be done but rather there is a disconnect between that awareness and the actions of those responsible for the development of cities. We’ve known for at least three decades how to make livable cities.

Speck goes on to outline a General Theory of Walkability. He argues that this is more than a utopian notion. The walkable city is a practical solution to a number of problems that affect both our daily lives as individuals and our economic, environmental, and cultural health as a society.

Walkability is both an end and a means, as well as a measure. How can cities design themselves to be more conducive to walking? Speck points to key actions for making a city a walkable city, each of which is essential and none alone is sufficient.

Locate many aspects of daily life close at hand and organize them in a way that makes walking around them easy. Create a balance of uses in each area including retail, restaurants, offices, and residential. At a basic level, design streets so that there is little chance of pedestrians being hit by cars. Multi-lane, one-way streets are unsafe for pedestrians, so encourage the return of narrower two-way low-speed streets.Streets must not only be safe but feel safe. As block sizes increase perceived safety decreases, so create smaller, walking-friendly blocks Invest in frontage quality. Create a sense of space. The presence of street trees has a dual benefit as pedestrians enjoy their walks more and as drivers slower when surrounded by trees. Keep an area interesting by retaining unique buildings. Aesthetically, invest in streetscapes and artwork. Establish public places for people to convene and loiter so they don’t feel as though they are walking simply to and from one place to another.

Each action makes some difference. Collectively they can transform a city and the lives of its residents. To spark such holistic transformation, Speck advocates for the role of the generalist rather than silos of specialists. He believes that generalists ask the big-picture questions like: What kind of city will help us thrive economically? What kind of city will keep our citizens not just safe, but healthy? What kind of city will be sustainable for generations to come?

Walkability is being emphasised in city planning around the world. The Walkable City idea reflects many of the basic intentions of placemaking, once streets are seen as places and not just as arteries for cars.

Making life easier for pedestrians is becoming a priority. There are hopeful signs: the drop in car miles driven, or the number of young people who are no longer simply aspiring to car ownership. Cities are building or adding pedestrianized areas, wider pavements, and intersections where the pedestrians cross in all directions while the cars have to wait. You have to look at where the concentration of amenities is the highest and start developing that into a walkable district, and build out from there. Linked to some of this is the notion of Shared Space. Take away a lot of the segregation (cars here, people here, bikes here) and a street may become safer by making it appear less safe, as people become more careful when they are moving around because they can no longer rush through an area irrespective of other types of movers in the same space.

The idea of streets as places goes further than that by focusing not just on how people are moving through a street but what they’re doing while they’re there. People rely on informal networks of contacts. Those with extensive loose social networks are more likely to find economic opportunities and be happier. If people don’t have public spaces where they can bump into friends and neighbours on occasion, the work of maintaining those networks can be more difficult. In similar ways it is harder for small shops to remain in business if there aren’t a lot of people already walking around. One of the most important things about how a great public space works is that it encourages the kinds of short, random encounters that help keep those loose networks of interaction stay intact.

Speck suggests that it only takes a few blocks to create a reputation. Within the area of those blocks there needs to be things to walk to and from. A University of Melbourne study found that for every local shop, residents' physical activity increased an extra 5-6 minutes of walking per week; and for every recreational facility (such as a park or beach) residents' physical activity increased by an extra 21 minutes per week.

For some city areas walkability is becoming a marketing feature, with properties being promoted as being in walkable locations. Too often these just pull up a [Walkability Score](http://rethinkurban.com/2012/places-and-spaces/beyond-the-buzzword-4-real-life-essentials-for-walkable-cities/www.walkscore.com) via an online measurement tool that is a useful measure but which only takes things so far. Places can be highly walkable on that score yet still have missing pavements, a cloud of traffic fumes and a lack of natural features. It is not easy to score walkability but it may be possible to describe it.There aresome recognizedkey characteristics of walkable localities. These include proximity, density and infrastructure.

Proximity is the first determinant of whether people walk somewhere. If we can walk somewhere in around fifteen minutes then we might easily consider it. That translates into 1.5 km or about a mile. (Even for trips of less than a mile, one study in the U.S. found that 75% of travelers still use a car). Of course people can and do walk much further at times, often undertaking journeys linking multiple destinations which, with stops, might last a few hours. But most of us hesitate to walk as part of daily tasks if the walk is likely to take more than 20 minutes one-way, especially if it involves carrying stuff to and from the destination. A walkable area enables people to work, play and learn, all within 15-20 minutes’ walk of each activity.

In a city, an appropriate level of population density and diversity is almost always necessary for walkability. A walkable place has sufficient diversity to meet the mix of people’s range of needs in the same locality. A diverse area features a number of small independent shops and the area needs sufficient population density to support such niche retailers. The more such stores thrive the more they create an ambience and the street becomes a diverse and interesting destination for more and more people.

A basic infrastructure to support walking is key. On suburban-style roadways some main routes have pavements that leap-frog from one side to the other, or there are gaps that make walkability more difficult. There is the need for kerbside ramps so that someone in a wheelchair or with a pushchair can navigate with ease and comfort. Walkways need to be wide enough for people to pass one another comfortably. Frequent street crossings (with pedestrian activated crossing lights) give pedestrians a sense of real choice, control and priority.

The configuration of streets themselves has an impact on walkability: the width of streets, the length of blocks and the way that the streets intersect. With the right design traffic flow is slow and pedestrians can cross side streets without worrying about through traffic. Such infrastructure elements can’t always be retrofitted to a neighbourhood but they are important to keep in mind when we are trying to design new walkable areas.

To be pleasantly stimulating an environment has to be safe (from vehicles or from personal assault). There are different cultural and personal senses of what is safe and what is not. Within those understandings, in a walkable place the sense of comfort is just there. Beyond basic safety the area needs to be interesting enough to want to walk through. Some of this interest comes from the static stuff: the variety of homes or shops, the interesting features or artworks. Much also comes from the street or neighbourhood being dynamic: the transition of seasons, the street festivals or the people mixing around a local market. Integrated into this can be usable things like local fitness parks with six to eight exercise units free to anyone who wants to use them.Then we can add appeals to the senses – sights, sounds, smells, and tactile sensations that are positive rather than negative. Many of these are hard to quantify. They are inherently subjective; which is how it should be since walking is about being at the human level; going at a human pace. A large part of how people become fascinated by cities is by walking through them.

A long walk gives people time with their thoughts and establishes the right speed to appreciate the complexity of the world around them. It allows time for random observations and random thoughts. Streets come to life when we walk on them. People can create a narrative of the place. Walking embodies the thinking city – it gives you the space, the time and the stimulation to reflect and learn. In comparison, people don’t get the most from a city by observing it through a car window rather than by slowly being connected to the urban. How do we build this urban experience into planning or managing cities? It is about prioritising pedestrians and making walking both feasible and interesting.

This has described the walkability of localities. Most of the same aspects apply at city level as walkable neighbourhoods are linked together. Other elements are also needed to create an entirely walkable city: factors such as transport and cycling connections. Cities are increasingly looking at integrating different transport systems so that a traveler can be multimodal for different parts of their journey (walk, pick up a cycle, onto a train, walk to bus, … and so on) and are increasingly focusing on how to make travelling safer and more effective for cyclists and walkers (specialized lanes/areas, detailed maps and suggested routes, good signposting, …) or where spaces might be shared by various means of travelling.

How much do people walk much at the moment? A study of how much Americans typically walk in a day, published in 2010, gave 1,136 Americans pedometers and concluded that they walked an average of 5,117 steps every day. In similar studies Australians and Swiss walked around 9,600 steps daily and Japanese 7,100. 5,000 steps equates to about two and a half miles every day or 900 miles per year. That’s not an insubstantial amount but is less than people used to walk, and may be less than people would want to walk if they were in more ‘walkable’ environments.

The website [Walkonomics](http://www.walkonomics.com/w/index.php/about) rates the walkability of streets in cities, offering an understanding of how pedestrian-friendly different cities and neighbourhoods are or can be. This ideal of walkable neighbourhoods – small scale, tight-knit, fine grain and mixed-use – is at the core of much urban planning today as walkability is bound to the notion of livability in cities.

**Benefits of density**

[Jane Jacobs](http://en.wikipedia.org/wiki/Jane_Jacobs) has had a profound impact on the way planners think about cities. She made [the case](http://en.wikipedia.org/wiki/The_Death_and_Life_of_Great_American_Cities) for more people-centred urban planning. By focusing on people, she suggested three principles to guide urban design: mixed-use, density and permeability. In terms of mixed-use she felt that having a range of different activities made a place more lively. If a neighbourhood has some offices, some houses and some shops, there will be people on the street for longer. Not only does this contribute to livability, but it also creates safer neighbourhoods where there is less need for CCTV because there are ‘eyes on the street’.

In respect of permeability she argued that people should have a choice of different routes so that they can actively choose how they want to navigate the urban environment. An imposed grid structure of streets can be functionably very useful but curbs creativity. Allowing people to walk around and find their way freely means that they are more engaged with and more likely to interact with the urban environment and with one another.

The debate about density is an important, and at times contentious, topic in urban development. Many people now regard high-rise developments as bleak and unattractive, but high building density enables less car use because people are closer to amenities and thus more likely to walk. Population density can also play a role in economic growth. It brings people and businesses closer together which makes it easier to share and exchange information, invent new technologies, and launch new firms. These views have been asserted by various writers but the question remains of how exactly density makes our cities more productive.

A [study](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9787.2011.00742.x/full) by economists [Jaison Abel](http://www.newyorkfed.org/research/economists/abel/index.html), [Ishita Dey](https://www.fcs.uga.edu/hace/faculty.php?id=749) and [Todd Gabe](http://umaine.edu/soe/faculty-and-staff/gabe/) uses detailed statistical models, in more than 350 US cities, to pull out the nature of the relationships between density, human capital, and urban productivity .The study found that density plays a considerable role in the productivity of those cities. Doubling density increases productivity by an average of two to four per cent. Density plays a bigger role in cities where levels of skill and human capital are higher. Cities with below average levels of human capital produce no productivity gains from increasing density. The effect of density is even more substantial in industries with high levels of knowledge and creativity, where exchanging information and sharing ideas are important parts of the production process (particularly in the information, arts, entertainment, professional services and finance industries).

For many people Vancouver has provided an example in liveable density that is the model for other cities. It has a combination of high population density in smallish downtown neighbourhoods, intimate street life and popular public transport. There are great places that are both initially attractive and sticky (ie people are reluctant to leave once there). All of this has been done in a way that makes residents see that having a relatively crowded downtown core may not necessarily be a problem but can a solution to living well in a city.

Density done well in this way usually has a design-based approach, flowing from a city’s vision and values with responsible city leadership. Vancouver emphasises the quality of people-friendly architecture and infrastructure in what it calls a ‘city by design’. The city appears to have a framework for successful, vibrant, authentic place-making.

Great design contributes to making density work well for people. High quality design emphasises making places people will love to be in, and includes connecting to and embracing assets like waterfronts. It does not see building height as an either/or issue but as a challenge for better design. All buildings, tall, medium or small, should be designed creatively and appropriately. Good design understands that making density work means focusing on how the buildings meet the street, and making the walking experience constantly visually inviting, at eye-level, at the slower pace of a walker.

There is a whole set of wider public values that are put forward as arising from smartly done density. Density supports a stronger city life by lowering the carbon footprint and increasing energy resiliency; by making walking, biking and transport more inviting, improving the city’s public health; by helping to curb the negative impacts of sprawl and mitigating against climate change; and by making municipal services and infrastructure more economically efficient per-capita.

So what does density done well look like? Writers such as Richard Florida, Brent Toderian and others supply their versions of the answer.

Cities, especially in North America, have too often separated their thinking around land-use and transportation, with the car use being prioritised over land-use. This has always usually resulted in car-dependent cities that don't even work well for drivers, rather than the model of a multi-modal city that prioritizes walking, biking and transit, and sees the best transportation plan as also being an effective land use plan. If amenities and activities are mixed and compact, with everything close-by and walkable, the contradiction is that this may even make the city work better for drivers.

Amenities support public life, and the denser it gets, the more such amenities are needed. Where cities have planned for too many people with too few amenities, it often fails. In Vancouver attention has been given to the quality of amenities that make density livable and sociable. These include things like parks, community and cultural places, schools and child-care, recreational areas, civic and heritage buildings, all interspersed with local grocery stores, cafés and pubs.

Density has not always been used successfully. There are cities with buildings overcrowded onto compact sites, disconnected from context or place, with few appealing design features, with little sense of mix, and with few amenities or places of respite. People don't enjoy that kind of density. It has led to a general reluctance to accept that there can be any social benefits at all from population densities above a certain level.

**What makes cities sustainably great?**

What matters most to the users of a city is what happens at street level: the visual enchantment of the place; the way people interact; the freedom to look, to stroll and to explore; the uniqueness and diversity of the place and so on. People like cities whose buildings and quirky spaces tell the stories of the city’s history, and whose city hall, main square or major avenues feel like places of some importance.

How can cities create these elements of greatness? The quick and simple answer is that it is about density, walkability, and transport. These are the three basic prerequisites to compact growth, which in turn is the basic prerequisite to increased livability and environmental sustainability in cities. These, of course, need to be taken forward with due regard for sustainability: making buildings greener, making alternative energy workable and other components of environmental responsibility.

Sustainable greatness isn’t just about the physical environment it is also about making communities economically competitive, preserving culture in neighbourhoods facing rapid change, improving public health, maintaining community in the midst diversity, maintaining appropriate revenues for parks and schools in an era of constrained public finances, creating densities that support walkability and a wider range of lifestyle choices . . . and so on.

Great cities pay attention to their citizens – not only their views but the opportunities the city offers for people to act authentically and realise their varying potentials. Some cities are great because they deal well with change. They enable people representing very different perspectives to recognize when change is necessary and work out how to make it happen.

Most cities have documents setting out their plans for change but too often workers and residents are sceptical that any new plan will make things substantially better. There is a need to develop a widespread confidence that things are tangibly getting better and can continue to improve.

Is it possible to measure the ‘greatness’ of a city?Isn’t that trying to place different emphases on different features of cities? For years, the Economist Intelligence Unit has rated the world's top cities in a livability survey. This considers 30 indicators of varying weights in five broad areas, including social stability, infrastructure, education and culture. The method looked at seven new indicators related to "spatial" qualities ([available here](http://www.eiu.com/bestcity)). These included the amount of green space and urban sprawl, as well as pollution, isolation and cultural assets. These features seem to be important ones when judging a city but there can be anomalies in the outcomes produced by such scorings when the different aspects carry different values in different cultures. Sprawl in Memphis is a grimy over-extension of the city whereas in Tokyo it is an orderly expansion: but for some sprawl will always carry particular negative connotations.

A different ranking is Mercer’s Quality Of Life measure. In 2012, on this ranking, the top five cities for Quality of Living were Vienna, Zurich, Auckland, Munich and Vancouver. The top five cities for quality of city infrastructure were Singapore, Frankfurt, Munich, Copenhagen, Denmark and Düsseldorf.

London and Birmingham are the highest-ranking cities for quality of life in the UK. On the world scale they do not have impressive rankings. Birmingham was ranked 44th in the world for infrastructure and 52nd for quality of life. London’s high ranking in the infrastructure index reflects its extensive system of airports, London Underground, buses and rail services.

Responding to its high domestic (but modest worldwide) ranking Birmingham has claimed an incredible offer for those who live, work and visit there. It is one of the youngest and most diverse cities in Europe, which brings energy and vibrancy. It is one of Britain’s greenest cities with more than 30 miles of canals crossing the city centre; a growing reputation as a food capital; and a strong cultural scene. These attributes are not just good to have for those who live there, they also play a vital part in attracting visitors and investors to the city. In 2012 Birmingham attracted a record high of 33.5million visitors, giving a £4.9 billion boost to the local economy.

**Livability and the issue of creative influence**

 Livability is another term that has been used in various ways. It is often associated with transport models (walking, cycling, integrated multimodality, public transport systems seen as place-shaping mechanisms); with knowledge investment for the common good; and with good amenities, good environments and good food.

One supposed common thread among smaller cities is a high quality of life: higher than average livability. A number of smaller, well-connected cities regularly feature in the top positions amongst the world’s most livable cities. In Europe this means Zurich and Copenhagen. In the US San Francisco is similarly well-regarded for livability among North American cities. Each of these smaller more successful cities has built success in a specialised field: Zurich as a key financial centre; Copenhagen as a leader in design and a global exporter of green technology; San Francisco as a cultural pioneer/city for technology startups. They are, in this sense, global cities. Not all small cities can become global cities, but the benefit of positioning as an international hub means more employment options, a more diverse set of citizens, and a greater potential for new ideas to emerge.

The high-ranking small global cities are also highly walkable, with generous public space and high quality public transport. In some respects, these cities’ small size puts them at an advantage–they have developed at a human scale. They are attractive places to live for native residents and international visitors alike.

Without necessarily having tall skylines, these successful smaller global cities are compact. Zurich, Munich and San Francisco (with populations of 400,000 to 800,000) all have densities 4000-8000 people/sq km. (Other comparable cities are often around 500,000-600,00 population at 1000-4000 people/sq km). They may be more successful cities because of more people in less space creating more social interaction; more potential for new ideas; a higher productivity of the local workforce; a greater efficiency of public services: all enabling more funds to be invested in higher quality of life and economic development. Small or large, global cities must be compact cities.

The small global cities have an above-average presence of foreign-born residents: Copenhagen 20%, Zurich 30%, San Francisco 35%. (Other smaller cities come in at the 10-17% range). The acceptance of a diverse population opens the potential for the synthesis of different ideas (building new thinking onto old ways of doing things), and a vibrant cultural experience. Where national governments have tightened immigration controls, this could be to the detriment of these global cities. The world’s larger global cities are well aware of the benefit immigrants provide their development; cities like Chicago, Toronto, and Vienna have begun intensive initiatives to attract workers from abroad.

Talented young adults are relocating to cities in growing numbers. In an update to “The Young and the Restless,” a 2005 report on the residential patterns of college educated 25-34 year-olds, CEOs for Cities released information, using 2005-2009 American Community Survey data, on the migration of talented young adults to cities. Since 2000, the number of college-educated 25 to 34 year-olds has increased twice as fast in the denser neighbourhoods of large US cities as in other metropolitan areas. On aggregate, in the largest US cities, the number of young adults with a four- year degrees living in denser neighbourhoods increased 26 percent since 2000, whereas outside these neighborhoods, the number of young adults with a four-year degree increased only half as fast.

The trend towards denser living is apparent in almost every city. Additionally, solvingmany of the problems facing a city requires creativity and innovation. The relatively high numbers of young, well-educated adults working in the creative/ information/ technology/ managerial sectors in dense residential/mixed neighbourhoods will help cities to succeed in a knowledge based economy. The strongest proponent of this view is Richard Florida (via his “[Rise of the Creative Class](http://www.amazon.com/Rise-Creative-Class--Revisited-Anniversary---Revised/dp/0465029930/ref%3Dsr_1_1?s=books&ie=UTF8&qid=1363970776&sr=1-1&keywords=rise+of+the+creative+class)"). Florida’s research divides workers into three socio-economic classes — highly skilled knowledge, professional, and creative workers, and less skilled and lower paid blue-collar and service workers — and takes into the account the wages and housing costs borne by each. He proposed that clustering the talents of knowledge/professional/creative workers in a city led to benefits in terms of economy, livability etc..

Why do talented Creative Class people, who have lots of choices, opt to locate in certain places? What draws them to some places and not to others? Economists and social scientists have paid a great deal of attention to the location decisions of companies, but have virtually ignored how people (especially creative people) make the same choices. [Florida](http://urbanland.uli.org/Meet-the-Authors/Richard-Florida) believes that it is quality of place, in contrast to the more traditional concept of quality of life, that make a location attractive.

A place has its territorial assets, to be set alongside technology, talent, and tolerance. Quality of place can be seen as an interrelated set of experiences cutting across: What’s there (the combination of the built environment and the natural environment; a stimulating, appealing setting for the pursuit of creative lives); who’s there (diverse people of all ethnicities, nationalities, religions, and sexual orientations, interacting and providing clear cues that this is a community where anyone can fit in and make a life) and what’s going on (the vibrancy of the street life, café culture, arts, and music; the visible presence of people engaging in outdoor activities—altogether a lot of active, exciting, creative activities).

From this perspective, creative-minded people enjoy a mix of influences. This group of key people also look for a sense of reality: interesting buildings, variedpeople, a sense of history, and worthwhile experiences; as opposed to a place that is full of chain stores, chain restaurants, and venues that look pretty much the same everywhere, offering the same experiences that might be found almost anywhere.

Such attractive places are cosmopolitan, with an interplay of culture and ideas. In these environments outsiders can quickly become insiders. People can find a peer group to be comfortable with and be stimulated by. In her book *Cosmopolitan Culture*, Bonnie Menes Kahn says a great city has two hallmarks: tolerance for strangers and intolerance for mediocrity. Both are qualities conducive to innovation, risk taking, and the formation of new businesses. These are precisely the qualities that appeal to members of the creative class.

Quality of place does not simply happen. It is a result of ongoing, dynamic processes that encompass a number of disparate aspects of a community. Like most good things, it is not unambiguous. What looks like neighbourhood revitalisation from one perspective is gentrification from another. Rising housing values can mean the displacement of long-term residents. Change can mean improvements in the quality of place for some groups but at the expense of the quality of place for others..

Richard Florida has come under some attack for his Creative Class ideas. Others suggest that any gains from such talent clustering accrue largely to the members of that group and do little to make anyone else any better off. It may help cities overall but it does little to alleviate poverty for those not in that grouping.

Florida's creative class thesis has been described as a repackaging of the traditional human capital economic theory which states that long term economic growth is possible thanks to the increasing returns of scale due to human knowledge strategies (with policies then stressing subsidies for research & development, good funding for education, technological outreach programmes and so on).

However, he is still one of the most influential of current urban thinkers. Whether you agree with his theories and policy recommendations or not, his influence is absolutely undeniable. He has substantially influenced how planners and economic developers plan and set policy

**How a city becomes a first-rank leader**

One problem with urban design is that, often, its theories are untested yet are accepted as fact. Urban designers often assert that cities have an emergent complexity which results from the interactions among people as well as between people and the environment, and that there is an element of human behavior that cannot be reduced to an equation. Cities are some of the most complex systems in the universe, making it almost impossible to test comparable options to see what works best. Much of what is done can look like acts of faith or applications of dogma.

If organisations want to make big changes, they have to have a mechanism to do it and absorb much of the risk, which is what some cities are doing. There may be great innovators across a number of different departments around a city not knowing where they could go with a productive idea. In such situations, cities are looking for ways to channel things so that innovation is even if outcomes cannot be absolutely guaranteed. Leading cities are ones prepared to take the risk strengthened but are also able to manage things if failure starts to appear.

In 2012 Philadelphia’s mayor instituted a new arm of city government called the Office of New Urban Mechanics, emulating a mechanism Boston had already put in place The aim, via a small team, was to find innovative ideas and steer them through the city bureaucracy. The mechanism doesn’t focus on putting structures in place but looks for ways to get more people involved in peer co-produced ways of seeing what the solution might be.

A parallel process may involve giving more people open access to more raw data and getting them to work out what it all might mean for a city. Open data can provide insights into how a city works, empowering urban storytelling: The process of identifying a trend, or some important characteristic of an urban area and presenting that information in a compelling way for others. With the right data, it’s not hard to tell an important or compelling story about a city.

Being a leader, for some, means ranking high up in international lists. The city leaders may focus on such city rankings solely to show how their city is doing compared to others. The same information can also be about identifying which other cities are making progress so that others can learn from them. This helps leaders understand what people (residents/ investors) want from a city. The failure to understand their offer from an informed perspective is a big weakness of some cities: They cannot see themselves from outside because they do not know what those outside are thinking.

In the 1980s/1990s it was thought that cities needed brands largely in order to attract tourists. Current thinking is that it is not sufficient for a city to have a brand; cities must have an identity that tells a unifying story about the value the city can add to people living there.

What do successful cities do to find and communicate such an identity? What are the habits of success that make cities winners in the personality competition that happens between cities? Steven Covey’s book outlined seven habits of success, and Greg Clarke (Urban Land Institute, and global adviser on urban development) applied them to cities:

Cities must prioritise this reputational kind of thinking; communicating and relating with the rest of the world. Deciding to build an identity and a reputation is an important step that moves cities away from simply providing services and structures and into the realm of influencing people. This is difficult when media, politicians and citizens have become sceptical about the value of a logo, a strap line, or hosting expensive events. Prioritisation of this way of working requires deep thinking, analysis, and wisdom – based on a rigorous assessment of what the world wants now and will seek in the future.

It appears that a key task for city leaders is to understand more accurately how the city works in practice. This means understanding the values and vision that led the city in the past, the journey it is on, the decisions needing to be taken, and the role the city is playing, and can play, in the lives of the people who live there. The unique story of the city must be clear and be well told: even if cities can have more than one story, with the ability to simultaneously be different things to different people. Great cities can accept and integrate ambiguity.

Cities today are characterised more by ambiguity and complexity than by certainty and simplicity (if these ever were features of a city). The modern city is a dispersed network of various organisations that make up its governance. The city local government is one of these, but it does not have a monopoly over resources or assets and it must therefore be a good leader of the others (with other loyalties), working to build a family of organisations where each has its own identity but are keen to enter into collaborative commitments.

Once a clear identity emerges, and the city knows what the outside world is looking for, it is essential to make it highly relevant for the people in the city; looking at what part the city can play in their success or wellbeing; how the city can help them fulfil their aspirations. Within this citizens need to be able to trust the stories used to shape their lives.

City infrastructures get worn or depleted: the road and rail networks become over-used, or services decline. This is normal but once a city has claimed an identity it has made a promise that the city will always be as claimed. It is essential to consistently upgrade and refresh the experience that people have of the city. The city has to solve problems rigorously as they arise and prevent new problems from emerging as a way of protecting its identity from corrosion. In the end people’s experience of the city must be aligned with the story being told about it.

By narrating the story of how cities can be the leaders of the 21st Century (as they were in centuries past) cities can demonstrate their future role in leading nations and citizens on to the next stage. Building a city identity is a long term game. The rewards build up over time. There is value in quick wins but not if taken at the expense of long term gains. City leaders can be judged, not by whether they get immediate returns within their term of office, but by whether the city’s reputation improves under their leadership. Good city leaders simply move the city forwards.

**Cities, central government and innovation**

When it comes to structural changes, government can often be slow-moving, risk-averse, and subject to many electoral and legal constraints. Cities, on the other hand, may be able to move much faster – if they choose to do so. Cities are where the biggest experiments can be tested out. Cities are the R&D facility for a country. The density of the population and buildings make an effective testing ground for the new kind of infrastructure being developed: low carbon; resource efficient approaches to heating, power generation, transport and waste management. They all work best if done where the demand is greatest, and that means at the city scale.

In the UK, recent city deals transfer new powers, control over funding and approaches to financing to the cities. In the US, whilst the national administration was seen to be quarrelling over partisan issues, city mayors have been showing strong leadership and innovation. Cities have been pushing on education reform, public safety, quality of life, use of data for predictive analysis, embedding well-being into policy-making, using procurement processes to bring entrepreneurs into the problem-solving, in addition to stimulating job creation.

Bloomberg Philanthropies run a Mayors Challenge which is dedicated to this idea that cities are the new laboratories of democracy. The purpose is to inspire American cities to generate innovative ideas that solve major challenges and improve city life. More than 300 cities took part. The winning cities were selected based on four criteria: vision, ability to implement, potential for impact, and potential for replicability. Many of these projects, which are central to how the country will work in the future, are already a reality in the cities.

In the UK, Birmingham council is doing the same, trying to reduce the energy it imports every year at a cost of £1.5bn and replace it with energy they make themselves. In the centre of the city a central heat capacity serves the convention centre, the town hall, the new library and local hotels and theatres. It is within the compactness of cities that the future is already happening.

**Governance in complex cities**

Anthony Giddens has talked of the high-risk/high-opportunity society we live in. He predicts a future that will be increasingly dominated by energy politics and calls for policies that will allow a city to be resilient enough to fully handle climate change effects, emphasising the responsibility of city governance.

Others question if it will continue be possible to create effective policy within 18th Century city institutions when the city itself is facing 21st Century problems. One way forward is for city government to move away from focusing on providing historical services and to focus on creating a better place for citizens. This may mean being the advocate of citizens in the complex web of industrial, financial and political outside influences that will shape the city in the future: getting away from command-and-control and adopting approaches based on influencing and shaping the future.

In equitable places, individual citizens feel that they (and their ideas/opinions) are welcome, and that it is within their power to change their local places through their own actions within a clear governance framework. A problem with citizenship today is that people don’t take it very seriously or don’t see its relevance. For most people, citizenship is doing good deeds, or it is occasionally voting, or it is about getting services and support. Cities may need to develop the idea of civic agency, where citizens are co-creators of democracy and the democratic way of life. Cities hold great promise, but they are not yet the engines of transformations we need them to be. We need new ideas.

Triangulating across concerns related to economy, equity and environment may be one of the competencies expected of decision-makers committed to improving the quality of life for city-dwellers.

**Cities and economics**

Cities are economic entities. To survive, a city has to make money and use that money wisely. One of the most important things for a 21st Century city is that it needs to be highly productive. Cities have got to generate sufficient private sector and public sector cash flow to be economically sustainable. They will thus need to be attractive to people (in order to have the creative densities necessary) and to businesses (to have the range and scale of assets/amenities; and to generate sufficient business revenues and wages). All the while acknowledging that although cities are hugely influential on the national scale they are not in control of national funding/taxation mechanisms. There are options for creating a better economic future for cities, but these are dependent on the city’s own capabilities and on agreements with central government.

A recurrent city issue is that of persistent poverty, sitting alongside visible wealth. Poverty places a significant burden on city services. There needs to be a shared understanding, within a city, of the costs and benefits of tackling poverty. Joining up local growth and poverty alleviation agendas provides perhaps the best opportunity for managing the potentially overwhelming demand on local services.

Current economic policies make growth hard to come by and poverty and social inclusion objectives are being regarded as too complicated to really deal with at root. Bringing poverty into the growth equation makes it more complicated and there are more questions than answers, but it is worrying how few people are even asking the questions, let alone doing something about it. Many cities are starting to review existing economic strategies more strongly against a poverty filter: recognising the issue of in-work poverty; ensuring jobs become better quality – in terms of pay, conditions and progression routes; and publishing detailed implications of the impacts of national financial policies.

At the same time, the reality for some cities across the world is that they are facing bankruptcy. In this context how far do the ideas above still apply? When a city hits rock bottom, it can afford to experiment? Or can it afford not to? In some US cities (eg Vallejo, California; and Detroit) bankruptcy, or near bankruptcy, may have been the best thing to happen: It was regarded by some as effective at helping the city re-create itself and change the culture so that it could restart from a stronger financial footing.

However, it left Vallejo’s Police Department about a third smaller, the Fire Department cut by nearly a quarter, and the median home price reduced by almost 70%. Half of the downtown storefronts were vacant. There may have been positive aspects to bankruptcy in the eyes of some but if a city’s residents can’t have faith in safety, business and investing in property, the city may survive but it certainly won’t flourish.

Cities often have strong ideas about what they’d like to accomplish, but in our still challenging economic climate, they find it difficult to make the necessary financial investments needed. In the UK, as elsewhere, cities are arguing for new era of cities managing their own economic growth.

In addition to an absolute level of financial constraint, cities also face relative, equity-focused, concerns about the lives of citizens. Gains may not come equally for all people. Cities are exploring the benefits of technology in engaging citizens, delivering better services, managing flow-systems, in addition to cutting out waste, fraud and inefficiencies to reinvest money into much needed services. But, at the same time, there’s an underlying economic divide – both from an access and opportunity standpoint that prevent everyone from accessing such benefits.

The lack of broadband infrastructure, the cost of smart phones and needed data plans, as well as the cost of computers, make it difficult for those in challenged economic situations to be connected. In collaboration with cities, private sector service providers are attempting to create universal access to wireless infrastructure or reducing the cost of services to broaden the base of technology inclusion.

Economic inequalities goes further than just device access. It spills over into skills levels, quality of schooling and other factors. Cities like San Francisco are grappling with the rapid growth in the technology sector with lots of jobs, but having low-skill unemployed citizens unable to fill them. Partly in response to this cities are working with companies to create 9-14 schools that give students the necessary training to get jobs in the technology field. Writing code is not particularly difficult, it just takes training, practice and attention to detail and smart cities will be encouraging such initiatives. The great economic challenge and opportunities for cities will be how to innovate and attract new technologies and the talent they bring, while ensuring that all their residents are able to participate in the innovations and employment opportunities that technology has to offer.

**Good enough cities, resourcefulness, adaptability and spontaneity**

After more than a century of growth, cities are now getting used to the fact that each generation is not automatically going to be more successful than the last. Working out how they will cope with high expectations and limited means, in the face of issues such as climate change and inequality, will be critical to the endurance of cities. Resourcefulness means having the ability to overcome such difficulties. It goes without saying that cities need to be able to decide and act intelligently. But of course it also means having the assets to be able to succeed.

Weak city governance and management creates additional problems; and the answers are not as simple as sometimes imagined. Cities have a range of responsibilities that make them different from running large companies. While local government has the responsibility of representing all people, for example, the private sector does not. Governance arrangements in cities have to much more openly match development with inclusion. Yet private sector solutions are continually put forward for the problems faced by cities.

Putting too much emphasis on private sector solutions may be overlooking why public services arose in the first place. In the 19th century, private fire departments only served the people who paid for their services. A burning house wouldn’t be saved if the owner hadn’t paid into the local fire department service. Relying on private sector agencies to come to the rescue of cities might be a very risky move. Much has also been made about the efficiencies of the private sector but we have yet to see how efficient the private sector is without a fully-functioning public sector under-pinning it. Most private-sector activities in cities function with some kind of government subsidy.

If we agree that local government of cities is important, but that its current model is unsustainable, how should it be modified? How do cities get to where they need to be with the legacies they are starting from? Some places have been so profoundly weakened that, short of demolishing and starting again, they will never be perfect. Cities can’t wipe out all of their buildings or infrastructures or social arrangements and start from scratch. Cities have to work with what they have. One facet of this is the repurposing of bits of old infrastructure for new uses. From an adaptive stance, cities need to look at possibilities for creative ways to make suitable use of underdeveloped sites and buildings: infrastructures, public facilities, public spaces, empty shops, new urban developments, unused roofs in residential and public buildings, etc. This is not ideal and may limit what cities are able to achieve. In these cases a planning approach that attempts to produce a perfect urban environment may not be the best path to follow. Each place has its own logic due to its own culture and context. Maybe aiming to be good enough is more realistic than striving to be perfect.

A way forward may require taking much more sophisticated ways of simultaneously working at differentiating scales - from the highly individual, personal level to the level of the city as a flexible, developing complex organism. Whatever the approach, it will have change and adaptability as a feature. The rigid planning, and strictly-formal regulations, approaches of the past offer little chance of success in this new situation. A number of city development mechanisms were thought out in a business-as-usual scenario (with ‘usual’ meaning iconic buildings, large developments, and massive public resources). Seeing cities as hardware –just build it and things will happen- is not so simple a way forward for many cities now. They will need to make more of their urban software intelligence and that presumes a higher degree of flexibilities within systems and processes. Cities will need to manage within adaptability, change and uncertainty because these are likely to be the new normal for some decades.

**What does the future hold for cities?**

The world’s cities are on track to grow from 3.6 billion inhabitants today to more than 6 billion by mid-century. This presents cities with a panicky sense of emergency but also a sense of great opportunity. At their best, modern cities are hubs of human connection, incubators of creativity, and exemplars of sustainable living. Yet at the same time, they still suffer the legacies of their social, political and industrial pasts. More writers are putting emphasis on cities having the potential to be solutions on a range of fronts, in the near future. Now, more than ever, is the time for cities to envision what they can be.

What might that future look like for cities? Some things are bubbling beneath the surface that have been floating around in urban planning and architecture circles for years but are continuing to build momentum. One such idea is that of suburban retrofit, with a continued emphasis on infill with creative mixed-used options, tactical urbanism, complete streets, walkability etc as part of the need to fix declining suburban areas of cities.

Another recent trend is the increased ‘formal’ usage of social media. 2013 will probably see a higher level of social media use by both citizens and [elected officials will want to tap into the conversation](http://socialmediatoday.com/gursharn/488959/when-elected-officials-do-social-media-right). There are a number of brilliant minds out there on the web and politicians really need to seize the advantages of [crowdsourcing](http://urbantimes.co/2012/06/web-based-crowdsourcing-power-to-people-or-planners/) to understand exactly what their constituents want and need. Social media and general enthusiasm about cities and place provide a constant flow of ideas that move us away from the one-way dialogues of public hearings.

As the world population continues to increase, cities will become even more important than they are today. To understand where cities are going, it helps to be aware of the most important trends happening now. The BMW Guggenheim Lab Berlin has listed 100 of what it considers to be the most talked-about trends in urban thinking. Included in the long list of interconnected things are:

3D printing; accessibility; active transformation; activist citizen; ageing population; anthropocentric urbanism; architecture of necessity; behaviour change; bike sharing and bike safety; bottom-up civic engagement; city centre versus periphery; cities as ideas generators; citizen empowerment; cities as organisms; climate change; closing loops; collaboration; collaborative urban mapping; comfort; connectivity; creativity; crowdfunding; crowdsourcing; customisation; data visualisation; decentralisation; deregulation; design-build; digital democracy; disneyfication; do-it-yourself urbanism; emission reduction; emotional connections; emotional intelligence; empowerment technologies; environmental footprint; experiential technology; experimentation; food consumption; forecasting; future of parking; gentrification; hacker space; hybridity; influencer; innovation; intergenerational interaction; intuition; learning by doing; livability; maker movement; megacity; minimum variation/maximum impact; mixed use; multidisciplinary; non-expert; open governance; open source; ownership of public space; participation; place-making; rapid prototyping; reduce/re-use/recycle; responsive infrastructure; self-regulation; self-solving; sensor; share culture/ skill-share; smart city; space activation; space consumer/space producer; sustainability; temporary architecture; thinkering; tinkering; trust; upcycling; urban beauty/urban ugliness; urban histories and microhistories; urban fatigue; urban intervention; urban mobility; urban psychology; urban sound; urban space; vacant space.

Trends such as these demonstrate that there is significant capacity for further development of cities in ways that will make them sustainable, smart, resilient, adaptable, intelligently able to learn, livable, resourceful, creative, innovative, spontaneous, economically-viable and well-governed places.

**Appendix: Learning from others: Twitter lead thinkers in urbanization and city issues**

The following were the most frequently recurring Tweeters that provided productive routes into learning about cities:

Cities Today @Cities\_Today

Eurocities network @EUROCITIEStweet

Urban Data @urbandata

Project for Public Space @PPS\_Placemaking

Enabling City @enablingcity

The Atlantic Cities @AtlanticCities

Saskia Sassen @SaskiaSassen

CEOs for Cities @CEOsforCities

Planetizen @planetizen

C40 Cities @c40cities

Richard Florida @Richard\_Florida

Brent Toderian @BrentToderian

Living Cities @Living\_Cities

Sustainble Cities @sustaincities

Next Cities @NextCityOrg

Boyd Cohen @boydcohen

Jeff Speck @JeffSpeckAICP

Engaging Cities @EngagingCities

Adaptive Cities @AdaptiveCities

LSE Cities @LSECities

Recurring names mentioned by others in tweets during this exercise included:

[Richard Florida (Academic, Author, Urban Theorist](http://www.ubmfuturecities.com/document.asp?doc_id=%20523617&page_number=2)); Mathieu Lefevre (Executive Director, New Cities Foundation); Rick Robinson (Executive Architect, Smarter Cities Programme, IBM); Brent Toderian (international consultant on advanced urbanism); Ed Glaeser (Department of Economics, Harvard University); Saskia Sassen (Professor of Sociology, Colombia University); Philip Rode (LSE Cities); the Atlantic Cities website; TED website …. And many others.

This is not to say, by any means, that these are the only thinkers/writers in this field, or the only people tweeting about cities – just to list the sample that Twitter threw up for me during this exploration. Others, doing their own Twitter search, or searches done over a different period of time, may well come up with a different list.

My own Tweets can be followed via @geoffbateson