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From smart cities to wise cities

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Abstract

Much of the literature on so-called 'smart cities' is self-congratulatory in tone. Digital enthusiasts claim that the current revolution in communication technologies will transform cities in the 21st Century in the way electricity changed them in the last. This paper offers a critique of this perspective. It notes that the evidence suggesting that digital technologies can refresh and enhance the quality of democracy in cities is decidedly underwhelming. While international research shows that E-government can enhance citizen access to public services, the evidence that information and communication technologies are enhancing the quality of E-democracy verges on the non-existent. It follows that urban scholars and city leaders who wish to advance purposeful change in the modern city will need to move beyond the limiting confines of the 'smart cities' debate. The paper highlights findings from international research set out in a new book - *Leading the Inclusive City* (Policy Press). This research, which has examined bold place-based leadership in seventeen innovative cities in fourteen countries, suggests that the judgements exercised by civic leaders, not technological advances in and of themselves, are the key drivers of progressive change and urban governance improvement. The paper argues that academic analysis can serve a useful purpose by offering more penetrating assessments of who gains and who loses from 'digital disruptions'.

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Introduction

For a variety of reasons the notion of the smart city has grown in popularity during the last twenty years or so. Some even claim that all cities now have to be 'smart'. Fans of all things digital claim that the current revolution in communication technologies will transform cities in the 21st Century in the way that electricity changed them in the last. For sceptics these claims are dismissed as mindless hype. Critics of so-called smart cities policies argue that the word 'smart' is nothing more than a cleverly constructed marketing concept designed to promote the interests of the major Information and Communication Technology (ICT) companies. They point out that these companies have a vested interest in selling their products and capturing personal data about citizens.

In this paper I offer a contribution to this debate by drawing on research carried out for a new book – *Leading the Inclusive City* (Hambleton 2015). The argument unfolds in five steps. First, I try to unpack what being a 'smart' city might mean. Because the word smart is now used in a fairly indiscriminate way this task is more difficult than might, at first, appear. I will suggest that there are, in fact, at least three sets of ideas competing for attention in the ongoing smart cities discourse, and I label these: 1) Digital cities, 2) Green cities and 3) Learning cities. In the following section I identify five digital danger zones, or questions, for the digital enthusiasts to consider. The third section draws a sharp distinction between E-services (or E-government) and E-democracy. Here I suggest that innovations using ICT can improve services a great deal but there is scant evidence that ICT enhances democracy. Indeed, ICT may actually be weakening local democracy and contributing to a widening of social divisions in society. The fourth section outlines ideas on how to move beyond the idea of 'smart' cities to cultivate 'wise cities. Many cities are already doing this. The fifth section draws attention to the sleeping giants of the wise city. In the conclusions I offer some suggestions on how research, particularly action research, can help us move beyond the limiting confines of the so-called 'smart' cities discourse.[i]

1) Unpacking smart city rhetoric

The literature on smart cities has mushroomed in recent years, and the adjective 'smart' is now used widely in public debates about city government, urban development, and modern architecture. Enthusiasts claim that we will all be better off if we live in smart cities, with smart buildings and smart places to loiter in and use free the Wi-Fi. But will we? What does this increasingly popular term actually mean? Does being 'smart' represent a breakthrough in how to understand and improve the city? Or is it just another spray-on term that has already been so misused that it is now devoid of meaning?

The adjective 'smart' is, it must be said, rather beguiling. Unfortunately this may, in itself, be problematic. It has the troubling effect of implying that doubters must be in favour of ignorance. It is, then, worth sparing a moment to consider what smart means. In English the word has, in fact, several

meanings, not all of them flattering. On the one hand, a smart person may be seen as clever and well groomed, even stylish. But they might also be seen as slick and shallow, even obnoxious. For example, the phrase smart alec, or smart ass, refers to someone who displays ostentatious or smug cleverness. Today the phrase smart city, possible because it is rarely defined clearly, continues to divide opinion. The argument becomes even more complicated when the word is translated into other languages.

Lena Hatzelhoffer and her colleagues provide an introduction to the notion of the smart city in practice (Hatzelhoffer et al 2012). Their analysis suggests that the phrase smart city came into common usage in the 1990s. At that time, there was considerable excitement about the potential for using ICT to improve urban planning and city management. In those days a city could be considered smart if it actively used information technologies to improve the living and working conditions of people living in the city and the city region. With the growth of new electronic devices – PCs and tablets, simple mobile phones and high-performance smartphones – and the expansion of high-speed landline and mobile connections the availability of ICT services has become virtually ubiquitous. This expansion of availability, plus the wider growth of the digital economy, has led many city leaders to believe that improved use of ICT is essential to enhance their city's economic competitive position.

However, over the years, this focus on technical capacities has come to be questioned. Various writers have argued that putting the focus on the availability and quality of ICT is misguided, and that a city should be regarded as smart only if the urban society had learned to be adaptable and innovative. Mark Deakin and Husam Al Waer (2012) assemble a collection of essays discussing this shift in thinking. Their book focuses on the role of ICT, but, like other writers, for example, Townsend (2013), these authors suggest that it is the integration of digital technologies into everyday social life that is the most significant development. The claim is made that linking the two – the technical and the social – can create opportunities for more intelligent decision-making in cities by both government and governed. Clay Shirky (2008 p196) heralded this approach when he argued that cyberspace is an out of date concept:

> 'The internet augments real-world social life rather than providing an alternative to it. Instead of becoming a separate cyberspace, our electronic networks are becoming deeply embedded in real life'

At risk of oversimplification we can suggest that ICT-oriented approaches to smart cities have evolved through three main phases: 1) Provision of online information via city websites (1990s), 2) City portals for online information services and a growing number of transactions (2000s), and 3) Open data and social media initiatives creating new opportunities for government and citizens to work together to use ICT to meet community needs (2010s). Part of this most recent phase involves the use of, forgive the jargon, 'Big Data' - meaning the capture, analysis, mapping and interpretation of truly vast amounts of data about people and their behaviour. Initiatives to take

advantage of Big Data are now proliferating. For example, in 2013 the UK government launched a Future Cities Catapult, meaning a well-funded organisation set up central government to help UK cities become smarter and more forward thinking.[ii]

So far, so good. However, and this undoubtedly causes confusion, there are at least two other discourses vying for attention in smart cities thinking. First, some commentators and practitioners use the term smart city to describe what many would prefer to call a sustainable city. For example, the 'smart growth' movement has gained support in North America in recent years. Smart growth involves the creation of more compact and integrated urban development. It encourages increases in urban density, mixed-use development, a variety of housing types, transit-oriented development, protection of open space and so on (Duany et al 2010). It is, of course, perfectly possible to pursue a smart growth strategy without bothering about ICT at all. Indeed, some radical, green activists prefer to remain off-grid arguing that the hardware, cables, copper wire, telecommunications masts and all the rest of the technical equipment needed to support digital cities means that they cannot possibly be regarded as eco-friendly. However, some cities are attempting to integrate digital and green initiatives. In these cities the use of the word smart signals an effort to blend an eco-friendly approach to urban development with a commitment to making the best use of ICT.[iii]

Another major theme concerns what we might describe as the learning city. Tim Campbell (2012) has provided a helpful discussion of this perspective. The subtitle of his book headlines his focus of interest: 'How cities network, learn and innovate'. He is critical of what might be called traditional, smart cities thinking:

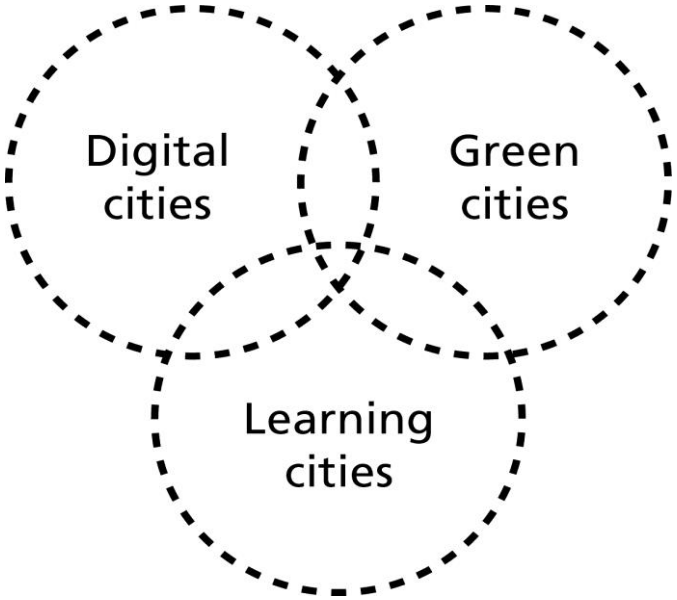
> 'Building up a knowledge economy of highly educated talent, high-tech industries and pervasive electronic connections are only the trappings of smartness and cannot guarantee the outcomes that policy makers hope to achieve. Though global talent and seamless connections are important, they can also amount to the dressing of a pauper in prince's clothing.' (Campbell 2012 p5)

Campbell argues that useful learning takes place in the heads of people who care about and take action to affect the cities where they live. His analysis is consistent with the argument put forward by Zachary Neal (2013) who discusses the connected city. Neal draws on a wide literature to present a thoughtful analysis of the role of networks across a variety of geographical scales. He highlights the role of networks of communication between cities as well as within them.

This discussion suggests that the term 'smart cities' is both confusing and contested. **Figure 1** provides a simple diagram to highlight the way three overlapping perspectives are contributing to the current smart cities discourse. Some civic leaders want their cities to be digital cities, others prioritise smart growth and picture their cities as green pioneers, yet others prefer to focus on

building rich networks to facilitate learning and innovation. The diagram shows how a given city may work to advance two, or even all three, agendas.

Figure 1 Perspectives on smart cities



Source: Author

2) Digital danger zones

Having outlined the main contours of the discourse about smart cities I want, in this section, to raise a few doubts about ICT-driven approaches to smart cities. **Figure 1** could be taken to imply that the three perspectives on smart cities carry equal weight. This is not intended and this is certainly not the case. The dominant voices in the smart cities discourse are the digital enthusiasts – the big ICT companies, who have a clear vested interest, but also the civic hackers discussed by Townsend (2013). There is not space here to develop a full critique but, since the vast bulk of writing on digital cities is self-congratulatory in tone, it serves a useful purpose to raise a few concerns. My aim here is to encourage those involved in ICT-based approaches to smart cities to consider whether or not their activities are leading to the creation of more inclusive cities. Is digital power reducing inequality in the city? Are excluded voices now listened to in a way that did not happen before? If the answer to these questions is 'No', can ICT be employed to tackle social exclusion and bolster citizen power? I raise five points for consideration.

i) Evidence on E-democracy?

First, it is reasonable to ask: Where is the evidence that ICT is enhancing the quality of urban democracy? While progress has been made on the delivery of what we might call E-services, or E-government, solid findings relating to the way E-democracy is strengthening citizen empowerment are thin on the ground (Hindman 2009). A wide-ranging review of Internet politics confirms this broad picture (Chadwick and Howard 2009). In the next section I draw attention to the importance of distinguishing clearly between E-services and E-democracy. Improvements in service responsiveness are to be welcomed. But a successful, inclusive city needs to be a democratic city in which all residents are able to participate fully in society. It follows that a useful test of 'smartness' concerns the degree to which any given innovation furthers this democratic end.

ii) The double digital disadvantage

Second, we have the acute problem of the digital divide. On the whole poor families and communities suffer a **double**, digital disadvantage. They tend to have poor access to the Internet and, in addition, they tend to lack the skills needed to make use of online resources (Mossberger et al 2008). The creative development of ICT to enhance the quality of life in the city for all residents is full of possibilities. But, unfortunately, the evidence suggests that online services and processes are bolstering inequality. It follows that a central question for the smart city debate is: 'Smart for whom?' Answering 'Everyone' is not a convincing response given that we know that many smart-city efforts are failing to tackle social exclusion.

iii) The power structures of digital democracy

A third concern relates to the fact that there is now a substantial body of evidence suggesting that digital empowerment is a myth (Hindman 2009). This is because there are, not surprisingly, powerful hierarchies shaping a medium that continues to be celebrated for its openness:

> 'This hierarchy is structural, woven into the hyperlinks that make up the Web; it is economic, in the dominance of companies like Google, Yahoo! and Microsoft; and it is social, in the small group of white, highly educated, male professionals who are vastly overrepresented in online opinion' (Hindman 2009 pp 18-19)

In an incisive analysis Hindman shows how the Internet has served to level some existing political inequalities, but it has also created new ones. He points out that true participation requires citizens to engage in direct discussion with other citizens. But ICT is not doing too well on this score. His research shows that, whilst more citizens than ever before are contributing views via the Internet, this does little to enhance democracy if hardly anyone reads these outpourings:

> 'From the perspective of mass politics, we care most not about who posts but about what gets read – and there are plenty of formal and informal barriers that hinder ordinary citizens' ability to reach an audience. Most

online content receives no link, attracts no eyeballs, and has minimal political relevance' (Hindman 2009 p18).

iv) Practical problems with ICT approaches

The fourth problem, and this was identified by Hatzelhoffer et al (2012 pp 204-205), is that many people are sceptical about the benefits of ICT. Disadvantages of ICT identified by respondents in their study of smart city policies in Friedrichshafen, Germany include: 1) It leads to less physical exercise, 2) It competes with face-to-face social and cultural activities, 3) The information provided is often perceived as false, 4) Use of the Internet can become addictive, 5) The cost of Internet and mobile usage is very high, and 6) There is too much advertising and spam. It is possible that some of these complaints are not that well founded, but it would it would be foolish to believe that they can all be dismissed out of hand.

v) The invasion of privacy

A fifth concern relates to the invasion of privacy. The large scale sensing of data about people creates profound civil liberty concerns. The arrival of Big Data in urban management only amplifies this worry. Enthusiasts for the use of Big Data claim that sophisticated data gathering tools can provide useful information that will enable governments to advance the public good (Williams 2013). Some advocates go further and claim that: 'Big data is poised to reshape the way we live, work and think… The ground beneath our feet is shifting… Soon big data will be able to tell whether we're falling in love' (Mayer-Schonberger and Cukier 2013 pp192-194). These writers betray an astonishing lack of awareness of the potential downsides of Big Data. Carried away by the possibilities of manipulating truly vast amounts of information about us, these believers fail to provide a forensic analysis of the safeguards that need to be introduced to protect our rights to privacy. To be fair, the authors just cited do refer to the risks associated with Big Data, and note that there is a 'dark side of big data' (p170). But, they fail to provide any clear and actionable suggestions on how to stop the dark side taking over. Vague suggestions about holding data users to account do not match the dangers we face.

What is to prevent governments from misusing the rich resources provided by smart city information systems? Stephen Graham (2010) documents the growth in the use of CCTV and electronic surveillance in many cities in recent years, and he draws attention to the erosion of civil liberties. In the past concerns about the stealthy, secret construction of an electronic police state in countries like the USA and the UK were often dismissed as alarmist. Not any more.

Edward Snowden, a former contractor to the US National Security Agency (NSA), has shown that these concerns are well founded. Following his decision to release details of the NSA mass surveillance programmes to responsible newspapers in June 2013, we now know of the existence of PRISM. This is an American, clandestine data-gathering system that has

been assembling enormous amounts of data about the civilian population in the USA since 2007. This is an astonishing revelation, one that has shocked US citizens and been drawn to the attention of the judiciary. On 16 December 2013 Judge Richard Leon declared that this mass collection of so-called metadata probably violates the fourth amendment of the US Constitution, which bans unreasonable search and seizure. Leon noted the utter lack of evidence that a terrorist attack has ever been prevented because searching the NSA database was faster than other investigative tactics.

In a stinging judgement he described the NSA data gathering technology as 'almost Orwellian' and granted a preliminary injunction to plaintiffs Larry Klayman and Charles Strange, because he believed that a constitutional challenge was likely to be successful.[iv] The public pressure to rein in NSA use of mass surveillance was mounting and President Obama was forced to act. On 17 January 2014 he announced important reforms, although civil liberty activists regard his statement as only a first step to restoring privacy. The Snowden revelations have stunned Americans, but citizens living in countries that share information with the NSA are equally shocked. A key question for ICT-driven smart cities initiatives that emerges from this discussion of privacy concerns is: How can smart city enthusiasts **guarantee** that governments will not misuse the innovative data systems they create?

3) Distinguishing E-services from E-democracy

In discussions about the strengths and weaknesses of ICT-driven approaches to urban governance it is important to distinguish clearly between measures that improve E-services for residents, businesses and visitors, and E-democracy measures designed to empower citizens. The former is sometimes described as E-government. However, in this paper I use the term E-services to distinguish measures to improve service responsiveness more clearly from measures designed to strengthen democratic vitality and local accountability.

It is right to celebrate ICT innovations that improve service responsiveness - for example, the electronic citizen cards introduced into cities like Gijon and Zaragoza in Spain. In these cities, with some variation in the details, a single, citizen electronic card enables the owner to pay for public transport, unlock a bike-share, borrow a book from a library, access Wi-Fi, and pay for things like entry to a swimming pool and car parking. This approach represents a prize-winning, high quality E-service (or E-government) initiative. But do these electronic cards enhance citizen power in relation to the governance of their city? The answers is no. They are not designed to strengthen local democracy.

More recent research by Mossberger et al (2013), on the efforts made by US cities to engage citizens via social media, supports the critique developed by Hindman (2009). While this research shows that E-government has led to improvements in responsiveness to service users, social media has not, so far, done much to advance the cause of E-democracy, meaning the empowerment of citizens. This is because one-way strategies, emphasising

the pushing out of information, are dominating; imaginative strategies involving two-way engagement with citizens are far and few between. As we discuss smart cities innovations it is important to always ask the question who is gaining and who is losing from these efforts? Are they helping to revitalise local democracy or not?

4) Moving beyond the smart city

The discussion presented above is not an attempt to undermine the value of smart cities thinking or to discourage smart cities experiments. Rather I am hoping to encourage a more critical approach to the subject and, in particular, to stimulate a more penetrating consideration of the question: Who is gaining? The distributional effects of smart cities policies are not being given the attention they deserve. Unfortunately much of the literature on smart cities is dominated by case studies that appear to be little more than place-marketing literature, almost in the category of 'Look how good we are'. Worse than that, some academic studies are overly technical in emphasis, and fail to examine how smart cities policies relate to the politics of power in the cities concerned. A current example is provided by a major European Union funded study of 'smart cities of the future'. The international team of eight scholars carrying out this massive international study offer this evidence-free statement:

> 'Smart cities are equitable cities…. We believe that… the sort of infrastructure, expertise and data that will characterise the smart city will enable equity to be easily established and such cities to improve the quality of urban life' (Batty et al 2012 p 516)

Claims of this kind are deeply troubling. The suggestion that smart cities are equitable is, of course, pure assertion, and the belief that equity is 'easily established' in smart cities betrays political naivety. Granted, it is possible to imagine a future in which ICT makes a contribution to the development of inclusive, democratic cities. However, I have drawn attention to some of the significant challenges that ICT-focussed efforts at urban innovation will need to address if such aspirations are to be realised. Scholarship on digital cities that fails to deal head-on with the five danger zones I have outlined can be expected to produce findings that are of limited value.

In the rest of this paper I want to make a case for developing a deeper understanding of the nature of public learning and democratic innovation in the modern city. I will argue that we need to go well beyond the confines of the limiting smart city discourse. Spectacular advances in ICT, including revolutions in social media and crowd-sourcing, are not going save our cities. It is the exercise of judgement that matters, not technological advance. It is possible that innovations in ICT can contribute to making cities more inclusive, but only if these developments are driven by public purpose.

In my new book I suggest that place-based leaders are central to the effective performance of democratic cities and that they can promote the development of inclusive cities (Hambleton 2015). Such leaders articulate public purpose and exercise well-informed, value-based judgements in their decision-making

to advance it. This line of reasoning leads me to suggest that, when it comes to civic leadership, the focus of attention should be on wisdom, not smartness. Put bluntly, being smart is not going to cut it. It is not enough to be clever, quick, ingenious, nor will it help even if Big Data is superseded by Even Bigger Data. Acquiring zettabytes, or even yottabytes, of data about human and technical interactions in cities is not going to enhance the quality of life in cities in the absence of judgement.

Leadership requires far more than intellectual dexterity. Following Keohane (2010), I am suggesting that leadership involves broadening your perspective to take account of the views of others affected by your judgements. It involves making an emotional connection - and effective place-based leadership depends on wisdom. What is wisdom? The simple answer is the judicious application of knowledge. The key word here is judicious. Knowing a vast amount is **not**, in the end, what matters – it is being able to exercise judgement that is critical. Sir Geoffrey Vickers, one of the best writers on the art of judgement, has written extensively about the application of knowledge in decision-making (Vickers 1965). He offers profound insights and returns, time and again, to the nature of values in the policy process:

> 'Learning what to want is the most radical, the most painful and the most creative art of life' (Vickers 1970 p76)

Sir Geoffrey signals an important message for modern civic leaders. Forget about data for a moment and ask: What kind of city do we want to create? The idea of the city as an advanced learning system offers potential. Such a city draws insights from a range of forms of knowledge, not just data that can be captured by electronic surveillance and presented on a computer screen. Information about how people **feel** about living in the city is of critical importance. This more rounded social knowledge is in people's heads.

It is helpful to make a distinction between 'explicit' knowledge (sometimes described as formal, scientific or professional knowledge) and 'tacit' knowledge (meaning knowledge stemming from personal and social experience) (McInery and Day 2007). Tacit knowledge is often undervalued in public policy making and this is clearly misguided. Tacit knowledge embodies understanding of what it is like to live in the city and it embraces emotions – it includes an appreciation of loyalty and civic identity. Successful civic leadership pays attention to how the city feels. Wise city leaders build their understanding by drawing on both kinds of knowledge. The soft evidence derived from tacit knowledge is blended with the hard evidence presented by explicit knowledge.

5) The sleeping giants of the wise city

As part of this presentation I want to suggest that universities are a neglected resource in many cities. It might be that they are the sleeping giants of modern urbanism who, with the right encouragement, might wake up and help cities move beyond the limiting confines of the 'smart cities' debate. Reflecting their origins many fine universities are located slap bang in the

middle of their city and, simply by virtue of their presence, they have an impact on urban and regional developments as well as the local civic culture (Goddard and Vallance 2013). However, many universities do not see themselves as key players in improving the quality of life in their city. On the contrary, the traditional university still tends to view its campus as being a space that is, somehow, detached from the surrounding area – a separate reflective place devoted to learning, research and study. Increasingly, and we will return to this theme shortly, universities are recognising that this attempt to cut academic life off from society not only creates town-gown tensions, but also misses significant opportunities for student learning, practice-oriented research and innovation in theory building. The disconnected campus is an outdated view of the role of the modern university.

Yes, we need critical scholars who stand aloof from the hurly burly of public policy making, who bring a fresh eye to the challenges facing the modern city and who focus on advancing urban theory. But we also need academics who can connect effectively to the world of policy and practice, who are passionate about the possibilities for local community activism and who recognise the value of tacit as well as explicit knowledge.

Engaged scholarship

At this point I would like to introduce the idea of 'engaged scholarship', a phrase used to describe a process in which the academic and civic cultures communicate with each other in a creative way (Boyer 1990). I define engaged scholarship as the co-creation of new knowledge by scholars and practitioners working together in a shared process of discovery. For the purposes of this definition a practitioner is anyone who is not a scholar. **Figure 2** illustrates how practice and academe are brought together in engaged scholarship. In some of the most innovative cities in the world universities see themselves as place-based leaders and play an active role in, for example, urban development (Perry and Wiewel 2005; Wiewel and Perry 2008). The US has led the way in the development of engaged scholarship and this is partly because of the historical trajectory of higher education.

In 1862 Abraham Lincoln signed into US law the famous Morrill Act. This heralded, not just a startling expansion of higher education in the US, but also a reframing of the very purpose of a university. The Act, later called the Land Grant College Act, provided grants of federal lands to the states for the creation of public universities and colleges. Using proceeds from the sale of the land these 'land-grant' universities were to provide for 'the liberal and practical education of the industrial classes in the several pursuits and professions of life'. This was a breath taking innovation that lead to the establishment in every state of a distinctively American kind of university, one that attempted to fuse scholarly inspiration with a strong commitment to practical application. Some 150 years later the US continues to benefit from the foresight shown by Representative Justin Smith Morrill and his colleagues as the vision he espoused was of an 'engaged university', not an ivory tower.

Ernest Boyer, in his insightful book *Scholarship Reconsidered* (1990), built on the land grant tradition to articulate a more rounded view of the nature of modern scholarship than the one that still prevails in many universities today. He felt that it was time:

> '… to move beyond the tired old "teaching versus research" debate and give the familiar and honorable term "scholarship" a broader, more capacious meaning, one that brings legitimacy to the full scope of academic work' (Boyer 1990 p16)

Boyer distinguishes four overlapping kinds of scholarship:

- The **scholarship of discovery** comes closest to what is meant when academics speak of research. It contributes not only to the stock of human knowledge but also to the intellectual climate of a college or university

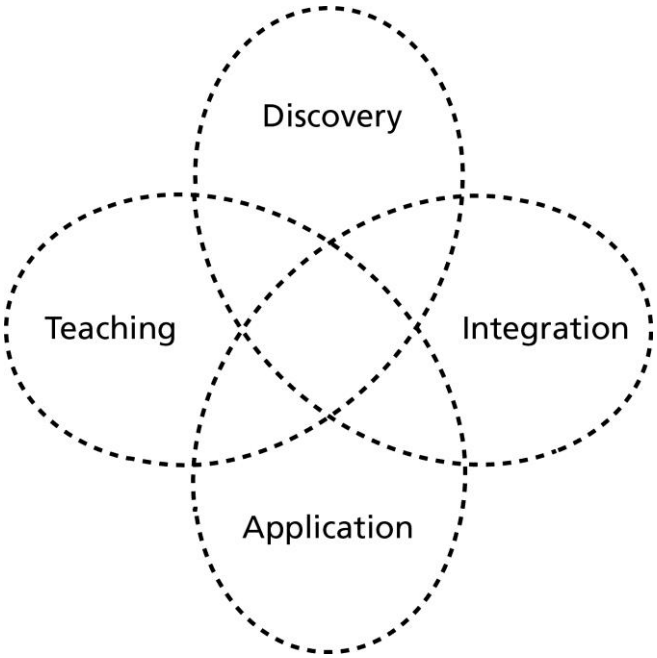
- The **scholarship of integration** gives meaning to isolated facts, putting them in perspective. It places discoveries into their larger scientific, social and political context. It is serious disciplined work that seeks to interpret, draw together, and bring new insights to bear on original research

- The **scholarship of application** applies knowledge to consequential problems. Boyer does not see this as a one-way process in which knowledge is first 'discovered' and then 'applied'. He stresses that new intellectual understandings can arise from the very act of application

- The **scholarship of teaching** keeps the flame of scholarship alive by sharing knowledge not just with students in the lecture theatre or seminar room but also by disseminating insights and research findings in the public sphere

Boyer stresses that what we urgently need today is a more inclusive view of that it means to be a scholar: '… a recognition that knowledge is acquired through research, through synthesis, through practice, and through teaching' (Boyer 1990 p24). In **Figure 2** I provide a visual illustration of Ernest Boyer's taxonomy of scholarship. This shows that all four kinds of scholarship overlap one another.

Figure 2 Enlarging the definition of scholarship



Source: Concepts – Boyer 1990 pp15-25; Diagram - Author

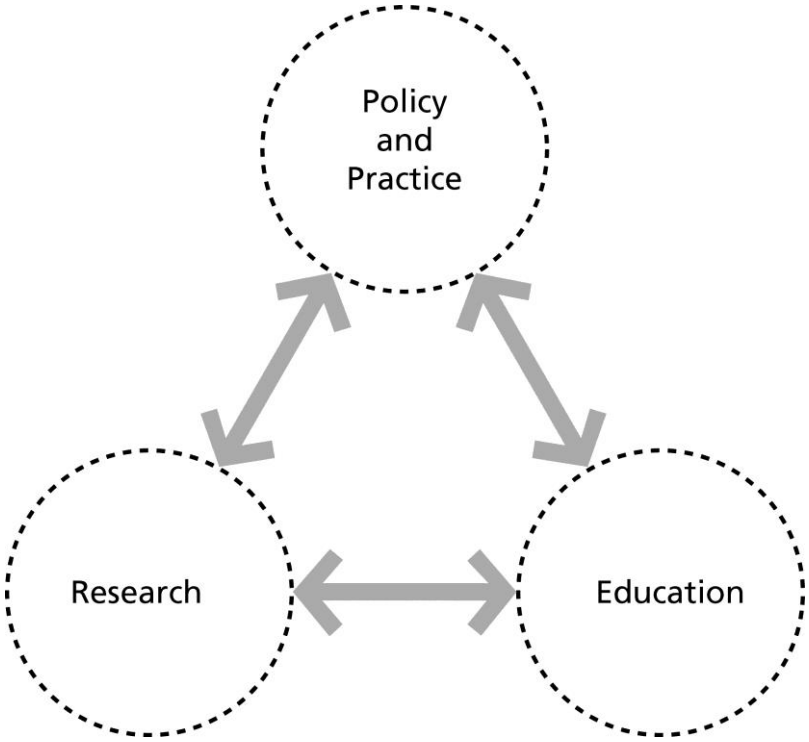
Boyer argues that the interactions between the different kinds of scholarship enhance the performance of the whole. In effect Boyer presents a strong argument **against** the disengaged university. Indeed, according to Mathew Flinders (2013 p629), he offers a 'damning and far-reaching critique of the gradual withdrawal of academics from the public sphere'. Boyer's ideas had a significant impact on US higher education. Many universities took account of his analysis and revised their academic promotion and evaluation criteria to take account of his wider definition of scholarship.[v]

The triangle of engaged scholarship

By building on Boyer's analysis, and my own experience of working in British and American universities, I have identified a 'triangle of engaged scholarship' (Hambleton 2007). In this model the familiar pillars of research and education, long established in the European tradition, are linked to a third pillar: policy and practice. This conceptualization is shown in **Figure 3**. It is my contention that it is the **sides** of the triangle that hold out exciting possibilities for intellectual and practical advance. The triangle suggests that the talents and resources of a university can be conjoined in a creative way with the world of policy and practice to the benefit of all stakeholders. In my book I provide Innovation Stories to illustrate examples of interaction on the left hand side of the triangle. In this case, the process involves researchers and practitioners co-creating plausible accounts of urban innovation. Turning to the right hand side of the triangle, well-managed student projects can benefit policy and practice in a city as well as enhance the learning experience of the students involved. This approach is well established in American urban planning programmes – see, for example, the edited collection provided by Lorlene Hoyt (2013).[vi] Along the bottom side of the

triangle academics feed insights drawn from research into course content and they work with students to co-create new insights.

Figure 3 The triangle of engaged scholarship



Source: Hambleton 2007 p551

Ernest Boyer was a visionary thinker and he now has a growing number of followers. Certainly the notion of 'engaged scholarship' has flourished in recent years. This surge of interest in strengthening the societal relevance of universities can be seen in efforts to promote 'knowledge exchange' and university 'public engagement' in many countries. Many scholars across the world are breaking new ground in changing the relationships between their university and their city. Not all of them will use the language of 'engaged scholarship' but the significance of their efforts for the future of higher education is difficult to over estimate.

Because of the land grant tradition the culture of civic engagement is particularly well developed in many US public universities.[vii] But, even in America, there is room for improvement. A study by the Pew Partnership notes that:

> 'Many colleges and universities articulate a commitment to the public good but too often fail to bear witness to that commitment intellectually, structurally, institutionally, or behaviorally.' (Pew Partnership 2004 p2)

The same could be said of colleges and universities in just about any country. The Pew Partnership report presents evidence from the US of university innovations in civic engagement, and concludes that higher education has a vital role to play in helping to address national and community problems, and in preparing students for engaged, responsible citizenship.

It is encouraging to note that academic interest in civic, or public, engagement has grown in recent years. For example, in the UK, the Academy of Social Sciences has set out advice on how learned societies can become more active in knowledge exchange and public engagement (Benyon and David 2008). Moreover, a National Coordinating Centre for Public Engagement (NCCPE) was created in 2008 to help inspire and support universities to engage with the public.[viii] Added to this, the Talloires Network is working hard to build up an international network of universities committed to public and civic engagement.[ix]

This discussion of the changing nature of scholarship can be located within a wider conversation about the role and purpose of universities in modern times. Ronald Barnett (2011), in an imaginative exploration, asks: 'What is it to be a university?' He examines how the nature of being a university has unfolded over time – simply stated, from being a metaphysical university, to a research university and now an entrepreneurial university. He offers a robust critique of the latter, which he describes as a 'for-itself', competitive institution driven by neo-liberal patterns of thinking, one in which the **collective** academic community fades. Barnett then outlines various 'feasible utopias', meaning futures for universities that have a relatively realistic potential of actually happening. His favoured model is the 'ecological university' by which he means a university that is both authentic and responsible. This notion, which balances the tensions between the inner and the outer callings of the university, is in line with the scholarship of engagement that I have presented here:

> 'This is a university that takes seriously both the world's interconnectedness and the university's interconnectedness with the world' (Barnett 2011 p451)

John Brewer (2013) takes the view that social science can play a crucial role in the creation of such public-facing universities. He believes that the social sciences are under threat from, inter alia, external forces seeking to marketize higher education, and narrow thinking within the social scientific community. He argues for the development of a 'new public social science' and notes that:

> '… social science teaching and learning has civilizing, humanizing and cultural effects in addition to whatever use and price value the new public social science might have' (Brewer 2013 p169)

He notes, correctly, that university civic engagement is about much more than dissemination of research findings to different audiences. Rather, as I have argued here, it requires a reformulation of research and teaching activities in

ways that can bring different publics into the process of discovering and applying new knowledge.

Reflections and conclusions

In this paper I have suggested that the idea of 'smart cities' has been, and is being, oversold. It is clear that advances in communication technologies can bring benefits to service users but the gains may be more superficial than might, at first, appear. On the plus side, it is clear that innovations with ICT can enhance access to public services and improve the ability of public servants to respond to requests from citizens. Moreover open data and social media initiatives can provide exciting opportunities for social entrepreneurs to create new apps to meet social needs. Smart city initiatives that bring together digital experts with non-technical people can be expected to lead to significant improvements in public service responsiveness in the years ahead.

However, I have suggested that, when it comes to efforts to deepen democracy and strengthen citizen participation, the evidence that ICT can make a big difference is thin on the ground. The arrival of E-democracy has been underwhelming. It has certainly not led to a surge of effective innovations in citizen empowerment. While ICT can deliver vast amounts of information to citizens, it does not appear to be doing that much to advance the creation of democratic, inclusive cities.

The paper has identified five weaknesses in ICT-driven approaches to smart cities. I have called these danger zones, rather than fundamental flaws. It is possible that ICT experts can work with others to find ways of navigating safe and fruitful paths through these danger zones. At this point, however, the route maps across this minefield have yet to be constructed. It is clear, then, that technologically driven approaches to urban governance have serious limitations. This is why I have argued that we need to develop a deeper understanding of the nature of public learning and democratic innovation in the modern city. My central suggestion is that decision-making in and for cities should be led by sound judgement, not technological advance. From the point of view of public policy ICT innovations that fail to serve public purpose are a distraction. Hence my headline argument that future thinking about cities should focus **not** on developing smart cities but on creating wise cities.

How do we do this? There are many ways, but one possibility is to tap into the resources of local universities. In many cities, universities are the sleeping giants of place-based leadership and social innovation. However, the giant is waking up. Across the world higher education is undergoing significant change and, as part of the rethinking of the role of universities in modern society, the very nature of scholarship is being reconsidered. It is encouraging to note that a growing number of scholars in a wide range of disciplines now see active engagement with the city as a splendid way to advance knowledge and understanding, invent new theories as well as contribute to public purpose. Universities can, perhaps, assist in helping

public policy makers and activists deepen understanding of public learning and radical innovation in the modern city.

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Endnotes

[i] This paper draws heavily on Chapter 11 of *Leading the Inclusive City* (Hambleton 2015).

[ii] For more information on the work of Future Cities Catapult visit: http://futurecities.catapult.org.uk

[iii] This linkage of ecological and digital agendas is, for example, a feature of urban policy making in Bristol. Jo Howard and I have examined this digital+green initiative elsewhere (Hambleton and Howard 2013)

[iv] On 27 December 2013 US District Judge William Pauley contradicted Judge Richard Leon and ruled that the NSA's mass surveillance programme was legal. Two different judgements from the district courts can be expected to result in the issue going to an appeal court and eventually the US Supreme Court.

[v] The traditional university evaluates scholars according to two main criteria: research and teaching. A university committed to the scholarship of engagement adds other criteria designed to assess the societal relevance of academic efforts (Elman and Marx Smock 1985). This aspect of scholarship is often called professional service in US universities but other terms are used – for example, societal impact and/or influence on policy and practice.

[vi] This approach overlaps with educational practices that are sometimes described as community or service learning. A note of caution is needed. Tanja Winkler (2013b), writing from a South African perspective, notes that community-university engagements of this kind may not always deliver sufficient benefits to the communities involved.

[vii] There is an extensive literature on US higher education engagement in public policy and practice. Two associations of universities provide valuable online resources. The Coalition of

Urban Serving Universities (USU) is a network of more than 40 large, public, urban research universities: www.usucoalition.org The Coalition of Urban and Metropolitan Universities (CUMU) includes a number of smaller urban universities and publishes a quarterly journal – *Metropolitan Universities Journal*. More: www.cumuonline.org A small but influential research and action institute focussing on how to use analysis to advance equity and social justice is PolicyLink: www.policylink.org

[viii] The National Coordinating Centre for Public Engagement (NCCPE) defines engagement as a two-way process, involving interaction and listening, with the goal of generating mutual benefit. It has an excellent website providing useful resources and links relating to university public engagement: www.publicengagement.ac.uk

[ix] The Talloires Network, created in 2005, is an international association of institutions committed to strengthening the civic roles and social responsibilities of higher education: www.talloiresnetwork.tufts.edu