Smart Cities: Just how clever does local government need to be? Lessons from a case study on co-creating digital applications for elderly people.

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At the heart of the Smart City concept is a political tension that is about power and rights in a globalised economy. A tension that, curiously enough – and here there appears to be a consensus –local government is expected to resolve through a 'smart' governance process that employs digital technologies in the service of developing and sustaining local economic and political resilience. In these accounts transforming local government into smart local governance is presented as the sin qua non for a smart city. The problem here is twofold. Firstly, UK local government has a poor record on implementing the first wave of digital governance- the e-government agenda. Secondly, it is unclear how the proposed urban coalition – it is argued that the cornerstones of a smart governance framework should be provided by industry, university, government and civic society- might differ from coalitions between local government and other actors that have been criticised for achieving their specific goals at the cost of social inclusiveness. This echoes a wider concern that the deployment of smart technologies can consolidate the status quo in terms of the distribution of power and rights within the urban environment.

This paper offers an alternative approach to this 'politics as usual' scenario. Grounded in emergent theories of public administration and using a case study on the co-creation of digital applications for elderly people, it illustrates how a 'smart' local government might enable a process that not only brings into play new actors and new forces that have, hitherto, not been part of any long standing urban coalition but will also help to empower the otherwise excluded citizen.

Introduction

'Vorsprung durch technik' is the avowedly Teutonic strapline used to promote a certain make of car and 'progress through technology' is what smart city strategies promise to deliver. Just as the car advert evokes technology being harnessed to provide a powerful but controlled and efficient driving experience then the IBM Intelligent operations centre in Rio de Janeiro, a flagship development for their smart city agenda, provides an equally arresting image of how our urban environment might be managed. 'In a new glass skinned cube of a building, called the 'Centro de Operacoes' officials sit in a theatre-sized room behind rows of personal computers while in front of them a giant screen beams out constant information about the city' (Marshall, 2014). From this vantage point city officials were afforded a view of

increasingly bitter public protests against the cost of hosting the 2014 FIFA World Cup, corruption and poor public services.

Counter-posed to this technocratic image of a smart city is the more 'civic' approach promoted by Townsend (2013). This view sees smart cities developing less as a corporately sponsored and centralised operating system and more of Web enabled network of smart urban devices and services '… that reinforce the sociability that makes cities thrive' (p 291). He counsels against the unintended consequences of deploying new technologies ones that '…often dwarf their intended design' (pg14). Such consequences can often amplify existing inequalities or consolidate the status quo in terms of the distribution of power and rights within the urban environment. To counter such consequences he argues that smart cities are ones that deploy technology or encourage the development and take –up of technologies that foster a civic well-being and economic resilience. In other words they help generate social and economic capital through connecting and co-opting local communities and businesses in the design and development of appropriate technology.

These two alternative views of a 'smart' city serve to illustrate and frame the tension at the heart of the smart city concept. This tension is political and is about the purpose of our cities and their relationship with their citizens and is explicit in the UK government report on smart cities (Department of Business, Innovation and Skills, 2013). Here British cities are exhorted to claim the UK's share, £40 Billion p.a., of the global ICT market whilst improving the quality of life for their residents along with their participation levels in civic society. Can the interests of citizens and business be reconciled in city that is both '…liveable and resilient' (BIS, 2013,p7)?

The answer, evidently, lies with local government. The BIS report demands 'innovation by local authorities ….' and exhorts them to deliver '… vision and leadership …' More recently the global consultancy firm Arup (2015) underlined the point that smart technologies '…do not in and of themselves improve cities or make them 'smart places'. If cities are to leverage these capabilities to create better places, they must integrate them effectively into appropriate decision making processes and governance structures (p 21). Additionally, a consensus appears to have formed amongst interested academics that local government has to enable a smart governance process that can resolve this tension along a broadly inclusive arc that meets the needs of both citizens and businesses.

This is a complex policy agenda for local government in the best of times and for an austerity wracked English local government these are far from the best of times. Compounding these circumstances is the equivocal track record of UK local government in delivering many of its e-government objectives under the modernisation programme run by the New Labour administration in the early part of this century. While it had some successes in achieving efficiency savings in the provision of electronic public services- often as a result of outsourcing agreements with major national and multi-national companies specialising in ICT - it significantly failed to meet wider policy objectives around renewing local democracy and promoting local economic vitality. Local e-democracy initiatives failed to engage the disengaged citizen and whilst e-government in the UK was generally good business for big business (Margetts e-gov in briatin a decade on) there is little evidence that it improved the economic prospects of local SMEs. In other words this attempt at implementing e-government was very much 'politics as usual' and largely unsuccessful in transforming the city into a more politically engaged and economically resilient place.

The challenge of implementing a 'second wave' of digital or smart local governance in the teeth of austerity should not be understated. UK local government is confronting a perfect storm of adverse social and economic conditions. Unprecedented levels of cuts to public spending mirror an increasing demand for public services – and this is particularly true in Adult Social Care provision who are dealing with a growing elderly demographic whose level of digital exclusion is now seen as social care issue (Age UK, 2014).

So how clever does local government have to be in these circumstances? It could, of course, choose to outsource this policy or 'buy- in' a smart city solution from one of the many global ICT companies now specialising in this area following Rio de Janerio (above) or Dublin's example – another IBM smart city test bed. And it is noteworthy here that Glasgow City Council recently (January 2013) won a £24m grant from the UK's Technology Strategy Board Future Cities competition on the back of a major IT outsourcing partnership, established in 2008, with Serco. They are currently showcasing a hi-tech city operations centre similar to the one in Rio de Janerio (http://futurecity.glasgow.gov.uk/index.aspx?articleid=10252).

However, a number of UK local policy makers (see for example Co-operative Councils Network[1] and one of the winners of the Bloomberg Mayoral challenge: Kirklees Council[2]) appear to be eschewing this option and looking for alternative ways of delivering the smart city policy agenda. These appear to be rooted in an approach to delivering public services that is at variance with the New Public Management paradigm that UK local government has worked within for the last twenty years and which, according to a number of accounts (Taylor, Margetts & Dunleavy), is largely responsible for the failure of the e-government policy agenda. This new approach echoes emergent ideas in public administration theory (such as Osborne; etc) where public services are seen less as a product with associated delivery goals but more of a process that can open up the possibility of negotiated, democratically determined social and economic outcomes.

Importantly for our purpose here this approach to service delivery is seen as congruent with the particular information and communication affordances of digital technology. As such it may be more likely to usher in a smart governance process that can lever in the local democratic and economic opportunities long associated with digital media but which local government has hitherto failed to grasp. However, there is little empirical evidence with which to interrogate this claim. The purpose of this paper is to address this gap through a case study of an initiative run by Liverpool City Council to co-produce digital applications for elderly people.

The paper will be structured in the following way. Firstly, we will unpick the smart city and smart governance concept before proceeding to examine, drawing on extant theories of public administration, the record of local digital governance in the UK. We will then present and discuss the findings from our case study and conclude by arguing that a clever local government – one interested in developing and sustaining an inclusive urban environment - should develop smart city solutions through the lens of emergent 'public value' theories of public administration.

Smart governance or politics as usual?

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[1] See for more information: http://www.coopinnovation.co.uk/
[2] See for more information: http://www.comoodle.com/

While the notion of smart cities might have captured contemporary policymakers imagination there is a canon of academic literature, both conceptual and empirical, dating back some 20 years that explores how technology, electronic data, or urban informatics, might best be used to improve the urban environment. This canon is characterised by a number of 'conceptual relatives' (Nam & Pardo ,2011) such as 'Wired City'; 'Digital City'; 'Information City' all concepts which arguably (Paskaleva, 2011) emphasise the potential civic utility of the growing ubiquity of Information and Communication Technologies (ICTs). Other related concepts, for example: 'Creative City'(Florida, 2002) and 'Knowledge City'(Edvinsson, 2006) and 'Smart Communities' (Coe et all, 2001) stress the intellectual capacity of citizens to exploit the availability of electronic data to improve their environment. Common to this literature are three core interconnecting factors: people, governance institutions and digitised information flowing from a technology infrastructure. The recent rise in the popularity of the smart city concept amongst policy makers (Caragliu et al , 2011) might be explained by its utility as a paradigm in linking wider social concerns around inclusiveness, good governance, sustainability with developments in ICTs(Kominos, 2011).

However, this is a concept that also appears to have become a container for a number of other urban policy objectives which are not only conceptually slippery but often difficult to reconcile. As such the notion of urban resilience has also been co-opted by the smart city movement (ARUP, 2014). In doing so it has broadened its emphasis on cities deploying policies to combat climate change, natural disasters and terrorism to include social inclusion. Similarly it appears that the smart city label is also now a container for the hopes and aspirations of the smart urban growth or New Urbanism movement (El Nassar, 2011). The smart growth paradigm originated in the USA and is characterised by an approach to urban planning that emphasises integrated and sustainable land use development. This is a concept designed to counter the high social, economic and environmental costs of the automobile driven low density suburban sprawl model that had prevailed post 1950. It was driven by broad coalition of public and private sector forces, a 'smart growth machine' (Gearin, 2004), that was embraced by government at all levels, environmentalists and especially the developer community. Yet some have attacked (Tretter, , Moore, 2013) this approach as one that has achieved its goal of sustainability at the cost of social inclusiveness.

In a similar vein Viitanen and Kingston (2013) argue that smart cities are in danger of becoming little more than a market place for the powerful global technology companies with notions of citizen inclusiveness or participation being largely subsumed within a push for greater digital consumerism that in itself disadvantages the poorer sections of the community.

Notwithstanding this the smart city protagonists insist that smart cities can be progressive 'because they use digital technologies not to hardwire themselves but to be socially inclusive, foster good governance and create better services that improve the quality of life for their citizens with an outlook to long-term sustainability and competitiveness' (Paskaleva, 2011,p 154). However, she acknowledges the many complex elements that are required to link seamlessly together if a city is to fulfil her definition of 'smart', these include: the disparate technologies; the people, and the different urban areas.

To resolve these complexities many commentators on and instigators of smart city models (Paskaleva, 2011; Kominos, 2011; Nam & Pardo, 2011; ARUP, 2011, 2015)point to the pivotal role of metropolitan forms of governance. While in many ways this role manifests itself as a Hobbesian response it is also seen as playing a more muscular part in making local politics matter again '… it is essentially enabling and encouraging the citizens to become an active and participative member of the community… '(BIS, 2013, p7). This is a role that local government has long been assigned in literatures dealing with the rapid development and diffusion of ICTs. In 'Governing in the information Age' Bellamy and Taylor(1998,p 93) claim 'the distinctive contribution to be made by local government is that it is uniquely placed to provide opportunities to experience direct and participative democracy that can encourage the revaluing of political discourse'.

Defining smart governance, however, is as slippery as the smart city concept. Leaving aside prosaic views of using ICTs to: collaborate across departments and communities to become more transparent and accountable (IBM, 2010); engage various civic stakeholders in decision making and delivery of public services (Giffinger & Gudrun, 2010; Glaeser & Berry, 2006) and manage the interaction of ICTS with the various political and institutional components of local government (Mauher & Smokvina, 2006). Critically it also appears to be about the kind of alliances or coalitions that local government can convene to achieve its policy objective. Recent commentary (Lombardi et al, 2012) suggests that the cornerstones of a smart

governance framework should be provided by industry, university, government and civic society. The inter-play between these actors and forces, they argue, supplies the necessary components for a smart city development: knowledge creation, capitalization and sustainability. In these accounts transforming local government into smart local governance is presented as the sin qua non for a smart city.

Absent from this analysis, however, is a critique of power and it is assumed that actors are engaged on a level playing field. This is unlikely to be the case and it is noteworthy here that Glasgow's recent award of £24m of government grant to transform it into a smart city was criticised (Baldwin, 2013) for excluding small technology 'start-up' enterprises. Indeed, Viitanen and Kingston (2013) argue that the smart city model is a political resource that has been used selectively by diverse actors to further their agendas. This 'politics as usual' scenario is the counter argument to those who promote the democratising capacities of the new technologies and, in the broad context of political participation, been empirically underpinned (see for example: Margolis & Resnick, 2001; Hindman, 2010).

While the 'politics as usual' trope does point to the maintenance of the status quo it is the potential for smart city developments to exacerbate existing inequalities that concerns Townsend (2013). He questions if the notion of a digital divide is now sufficient to frame the policy debate about technology and the poor. While access to technology can still be a problem the cultural barriers that prevent certain groups of citizens accessing local services persist regardless of opportunities to access the service through new technology. In the absence of a more sophisticated understanding his concern is that these exclusions might be compounded by local government, faced with tough spending decisions, withdrawing from delivering basic services and relying instead on relatively inexpensive but 'smart' citizen-centred alternatives driven by crowdsourcing applications. In such circumstances this is likely to be regressive as they rely on an excess of volunteer time and energy – resources that that the working poor have in short supply. Moreover, the current emphasis on utilising 'big data' to better manage cities also privileges those people with a certain skill set, data scientists, although currently in short supply they might possibly comprise the future elite cadres of city managers.

Townsend does acknowledge that the political agency of local government can be decisive in these circumstances and other empirical research (Hepburn, 2013, 2015) has sought to replace the 'politics as usual' scenario with a more nuanced view: one that acknowledges the dominance of vested interests but at the same time recognises the technology has enabled the status quo to be disrupted, albeit marginally, by providing a platform for those citizens that have hitherto not been able to get their voices heard by the more mainstream media. Indeed some local authorities[3] have attempted to promote the idea of the 'smart' citizen through the production of open technology platforms designed to encourage citizen engagement in developing smart city solutions. It remains therefore a 'contested space' but one in which local government might act to 'level the playing field'.

The problem here is that UK local government failed to fully implement the first wave of digital era governance– the e-government agenda (Lomas, 2005). The local e-Government programme was closed in April 2006, and commentators have pointed to the "appallingly low uptake of government services via …technological means" (Lomas, 2005, 3). The initial impact of e-democracy on the levels and quality of civic participation appeared negative. Early pilot initiatives in increasing voter turnout through electronic means had little success in attracting new voters but may have served to increase public confidence in using these channels (Electoral Commission, 2002). Moreover, research by the Local e-Democracy National Project (2004) concluded that both local government politicians and officers saw little demand for e-democracy and indeed perceived citizens to be hostile to such innovations. Wright (2006, p 247) concluded that despite the fact that '...no other government has funded or conducted e-democracy initiatives on a similar scale 'the radical potential of the internet to enhance representative democracy "…largely been normalised to support existing processes" (2006, 248).

Explanations for this failure are attributed to: misguided strategies (Prattchet, 2006); emphasis on citizen as consumer (Fagen, 2006) to more wide ranging critiques of the public administration theory of New Public Management (NPM) -a paradigm that has guided the delivery of local government public services for the last twenty years. It's focus on privatisation or disaggregation of public service provision, Dunleavy& Margetts (2013)

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[3] See for example an EU funded initiative co-ordinated by Manchester
http://www.manchesterdda.com/smartip/

maintain, is incompatible with introducing digital governance designed to deliver joined-up government that cuts across organisational boundaries or 'silos' and delivers shared services and create client-based government structures that are agile and resilient. Taylor (2012) mobilises arguments against the inherently technocratic nature of how NPM attempted to implement digital change. He points to the over reliance on the 'measurement industry' and e-government benchmarking regimes which have tended to measure only that which can be measured quantitatively. Related to this was the focus on the 'supply-side' which led to insufficient reflection on the 'user-experience' of these services and nature of the demand in general for particular electronic delivery channels

However, the advent of the social web has a led a number of commentators (Dutton, Coleman, Chadwick, 2012) to insist that new usage of digital technologies has reached a critical mass, opening new opportunities for local policy makers interested in developing the social capital of its citizens and, by implication, their participatory inclinations. This coupled with the 'big data revolution' (Cukier & Mayer-Schonberger, 2013) is, arguably (Dunleavy & Margetts, 2013), now helping to drive a second wave of digital era governance.

Notwithstanding this, we argue here it is the potential eclipse of the New Public Management paradigm alongside emergent theories from within the public administration and management literature that offer the most convincing explanation for how local government, faced with the current economic context, might avoid past failures and effectively exploit digital technologies in the pursuit of smart governance that delivers local economic and political benefits.

The old is dying and the new cannot be born (Times of interregnum)

Antonio Gramsci wrote in one of his prison notebooks ' The crisis consists precisely in the fact that the old is dying and the new cannot be born; in this interregnum a great variety of morbid symptoms appear' (1971, p 276). It is arguable that this quote does resonate with our contemporary macro socio-economic condition but in the narrower field of local government these are clearly times of interregnum or uncertainty. The crisis is one primarily driven by austerity policies but accompanying this, and compounding it, is a growing recognition amongst local policymakers that the New Public Management theory and method of

administering public services has not succeeded in enabling local government to address the complex and diverse socio-economic issues facing many of its urban residents.   While there are examples of a small number of councils pioneering innovative ways of delivering services (see above) this is despite a governance environment which remains largely shaped by the NPM. Thus, local government struggles with: defining and measuring 'outcomes' in contracts; finding the right financial balance that incentivises risk but rewards results; and, managing relationships in an environment where public service delivery is increasingly marked by collaboration, partnerships and sub-contracting (Crowe et al, 2014).

NPM is characterised by its belief in the efficacy and efficiency of markets and in economic rationality; and, in the move away from large centralised government agencies towards devolution and privatisation (Bryson et al, 2014). It has been widely criticised (see for example Hood 1991; Metcalfe and Richards, 1991;Pollit and Bouckaert, 2004;) for: its intra-governmental focus in an increasingly plural, polycentric and networked governance environment; its adherence to outdated private sector techniques; the organisational separation of policy implementation from policy makers; and, for its benefits being at best partial and contested.

Osborne (2013) considers questions about the legitimacy of NPM have been largely overtaken by events. While issues of efficient and effective use of public sector resources remain it is unlikely these will be delivered through NPM's intra-governmental focus. Rather the challenge now is how to deliver these objectives in a postmodern fragmented society where contemporary public service provision is characterised by its inter-organisational and interactive environment. Of particular interest here is his argument that NPM is now no longer 'fit for purpose' because it is theoretically grounded in outdated private sector theory derived from the experience of manufacturing and industry (see for example, Porter, 1986). This makes number of assumptions about the production process of which, he argues, three are most important. 'These are, first that production and consumption are discrete processes that are ruled by different logics. Second, and consequently, that the costs of production and consumption are distinguishable and separable. Finally, that consumers are largely passive in this process' (2013, p138).

In rejecting NPM as obsolescent he proposes an alternative based on services management theory (see Gronroos, 2000; Lusch & Vargo, 2006; Norman, 1991). Integral to this theory are three elements. One is an understanding that service user's judgement about how 'fit for purpose' the service is - is based upon their expectations and experience of that process and not the outcomes alone. The second is that production and consumption are not separate in the service delivery process as they are in a manufacturing process– they occur simultaneously. Thirdly in a service delivery process, where the nature of their interaction or experience of the process determines their judgement of it, the users are essentially a co-producer of that service. It is the quality of the knowledge exchange between user and producer in this process that defines the value of the service.

Of course knowledge exchange is, and was, a fundamental resource to the manufacturing process and many such industries[4] are now using digital technologies to develop better knowledge exchange relationships with the consumers of their products. Indeed, in a modern digital economy companies like Amazon and e-Bay for example embody the principles of this service management theory. As such Osborn recognises the folly of basing a new public management theory on the wholesale importation of modern private sector ideas and instead contends that they should be used as 'insights' to inform a new approach to the delivery of public services.

It is the broader notion of 'public value' governance that situates Osborne's service-dominant approach to public service delivery firmly within a public sector ethos and separates it from private, commercial enterprise. Public value governance is an emergent approach that is beginning to cohere around the contributions of a range of academic and policy-makers (see for example: Bryant et al, 2014; Osborne, 2010; Stoker, 2006; Bozeman; 2007, RSA, 2010). Central to this idea are democratic values that emphasise the active role of citizens in the service delivery process where public value is seen as emerging from a broadly inclusive dialogue, deliberation and collaboration between citizens and public managers. It is acknowledged that public value is a contested idea and it is not our purpose to review this debate which is amply covered in Bryant et al (2014) rather we will accept a working definition where public value is created by '... sustained efforts by a mix of people who solve common

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[4] See for example Ford cars https://econsultancy.com/blog/64861-q-a-scott-monty-on-ford-s-social-media-strategy/

problems and create things, material or symbolic of lasting civic value' (Boyte, 2011 in Bryant et al, 2014 p 447). This stands in the tradition first noted by de Tocqueville in eighteenth-century America (2003) - and more recently by Ostrom (1971) and Putnam (2001) - of the fundamental importance to a healthy democracy of local people collectively resolving local problems.

Moreover, in this view (RSA, 2010, p 9) '…public services should explicitly be judged by the extent to which they help citizens, families and communities to achieve the social outcomes they desire'. As such public services are seen less as a product with associated delivery goals but more of a process that can open up the possibility of negotiated, democratically determined social and economic outcomes. Here the role of citizens moves beyond that of a consumer to becoming problem solvers or co-creators engaged in producing what is of valued by the public. The co-production of public services is not a new idea. Indeed, it is almost four decades since Elinor Ostrom (1978) put forward the simple, yet foundational idea, that citizens might not only participate in consuming public services but in producing them as well. Subsequently the co-production of public services has been empirically credited with a number of benefits from saving public money to developing social capital amongst service users (Hattzidimitriadou et al, 2010; Cabinet Office, 2009; Bartnik et al, 2007; Seyfang, 2004). It is this capacity for generating social capital that enables co-production to be associated with the notion of creating 'public value' as it links to the wider policy agenda concerned with increasing levels of trust between the governed and government; citizen empowerment and wider participation in the civic and democratic process. In so doing co-production becomes a potentially transformative way of thinking about power.

Importantly this new approach also affords a different agency to local policy makers and public managers than the NPM paradigm. Under NPM managers were encouraged to rely on market based tools such as competition to deliver efficient and effective services and citizens were viewed as consumers. Under this emergent approach local government is a guarantor of public value and to fulfil this role policy-makers and public managers are expected to negotiate cross-sector collaborations in the governance environment and ensure engagement with citizens to achieve mutually agreed objectives. In this context, as Osborne states (2006), trust and relational capital are the core governance mechanisms.

This approach with its emphasis on inter-organisational relationships and co-production promotes a more strategic orientation towards the governance environment as a whole. It is this, more holistic strategic outlook, that is congruent (Dunleavy & Margetts, 2012; Osborne et al, 2012) with the particular information and communication affordances of digital technologies. These can be used to transform the local public service environment by: delivering an effective information management culture, one that shares appropriate information to empower collaboration between diverse professionals and service users but also sees wider value in opening up public data for local economic exploitation; for enabling a more transparent and accountable local political culture, and; for re-connecting an otherwise disengaged citizenry to the political and civic process.

In other words this emergent approach to delivering public services may enable a smart local governance that subverts the 'politics as usual' narrative by bringing into play urban actors that have not historically been part of any long-standing urban coalitions. However, there is a dearth of empirical evidence with which to interrogate this view and the remainder of this paper will attempt to address this through y presenting a case study of Liverpool City Council's 'Helping hands' project to co-create digital applications for elderly people.

The 'Helping hands' case study.

Liverpool City Council (LCC) has had to manage the impact of Government cuts to local authority budgets which are unprecedented in their scale and severity and amount, in the city's case, to a reduction of 58% of its budget over the spending period 2010-2015. As such the council has been looking at innovative ways to meet the needs of its residents. As part of their 'friendly economy initiative' Liverpool City Council have been working to develop a new approach to open up opportunities for both local Social Providers (such as a Registered Providers of Social Housing) and local technology SMEs to develop innovative entrepreneurial solutions to some of the most entrenched social issues the city is facing and will need to manage into the future. There is particular interest in developing more accessible services that should prolong people's independence and prevent the need for social care for as long as possible. LCC feel that digital connectivity will have an important role to play in addressing this and they understand that digital exclusion amongst older people is now a social care issue. Part of these agencies' learning has been the increasing popularity of tablet technology with

older people, as this interface only requires one finger (instead of the parallel use of keyboard and mouse etc.) it is seen as an ideal way to increase digital inclusion with clients who are both new to the technology and challenged in aspects of their mobility.

The Council were aware that co-production is increasingly seen as the health care model that can ensure more effective, efficient and therefore more sustainable local health services. Driving this view is the undoubted pressure to increase service efficiency and reduce public spending but also the growing awareness of the importance of user generated knowledge in service improvement and development. The capacity of new information communication technologies to enable new and more sustainable ways of working is well documented and the promise, therefore, for local co-production exploiting digital connectivity technologies is substantial.

As such Red Ninja (a local Technology company) and Plus Dane (a local Registered Provider of Social Housing) were commissioned to co-produce, with an elderly group (65+) of service users, a tablet based digital application that can enable internet shopping and client relevant social connectivity. They agreed to deliver this technology for up to 50 service users.

The project was managed through a project board comprising a project manager; senior managers from LCC Adult Social Care, Plus Dane and Red Ninja; a local councillor who was Mayoral lead for social value in Liverpool; and project workers from Plus Dane and Red Ninja who would be working directly with the elderly service users.

Research approach

The approach adopted here comprised a number of elements which aimed to collect both quantitative and qualitative data. The more quantitative aspect of the evaluation involved the user group, fifty people in all, completing a health and well-being questionnaire at the start of the process and then completing the same questionnaire six months to a year later - depending on how long they continue to use the technology. The completed questionnaires will be analysed with a view of providing some understanding about how the technology might have impacted on these peoples' general health and well-being. This part of the evaluation

remains to be completed but the questionnaire used to inform this analysis is presented at appendix 1.

The qualitative data was collected and driven by a process of 'appreciative enquiry' (Mathie & Cunningham, 2002) which relies on interviews and story–telling as a way of drawing out experiences and critical elements of success. Such an approach can be particularly important in illuminating the co-production process (Beebeejaun et al, 2013). As such a total of eight semi-structured interviews were conducted with key workers, managers, and local elected representatives involved in the project. In addition to this two focus groups were conducted with the service users who were co-creating the application – one at the beginning of the process and one at the end. The following presents the findings from this approach.

A new model for delivering public services?

The aim of this project then was to develop a model for providing a digitally driven service - to an otherwise digitally excluded elderly population - while at the same time building resilience into the local economy by enabling a local SME to develop a marketable product. Central to achieving this aim was a successful co-creation process with service users and local inter-organisational collaboration between very different local agencies: a private sector company; a 3rd sector organisation and a local authority.

It was generally acknowledged that this project represented 'new territory' for all participants, as a project worker stated *'all of this project has been new territory, every single thing from start to finish'.* Importantly, the City Council did see it as a learning process, as one senior manage commented *'… this is about taking everybody with you on a journey rather than imposing something'.*

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Fit for purpose local government?

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This was a steep learning curve for the City Council. This was apparent in the way local government officers and politicians were seeking outcomes from the project which were different from those the private sector partner was contracted to deliver. For the local SME outputs were straightforwardly and contractually quantified: 50 service users able to shop via

the internet. For the local authority strategic relationships and 'empowerment' of the service user were mentioned as desirable outcomes. For one politician an important contribution in looking to do things differently was an understanding that *'…what was probably most important to making an area work, and making work for people, was good relationships'.* This perspective saw such relationships growing out of small, bespoke networks of local organisations and individuals working with a shared sense of creating public value. When pushed on what he understood by this he stated *'…creating things that matter, are important, to local people'.*

For a senior manager, from the City Council, the process was critical *'…the commercial success is of importance but the process is equally important…that it's something that can go on and influence other ways of working'.* So, notions that the process might add *'dignity'* and *'empowerment'* to the service users lives were often expressed. The forging of new relationships was also seen as an important by-product of this process. This was not only about an improved relationship with service users but also, wider, strategic relationships between different agencies.

The problem for the city council here was that it had not put any thought into how if might measure, let alone contractually commit the SME to deliver, the extent to which these softer, more qualitative outcomes had been achieved.

Another issue that quickly became apparent was not fit for the purpose of achieving these collaborative, creative and trusted relationship with local SMEs and other agencies was the local council's procurement process. This was very much a 'one size fits all' standard procurement procedure where companies submitted a tender against the council's advertised contract – it was essentially a competitive bidding process. As a manager from the 3rd sector organisation put it, *'… to get entrepreneurs and customers working within a creative process, you can't halfway through the process say, well, we really like your ideas, but now you've got to bid for them. And that stops entrepreneurs joining …and so until we can find a process through which the public bodies are comfortable, that creativity can move through a process and come up with a collaborative result ….and that's where the interesting stuff is happening where people are sharing ideas for mutual benefit and sharing rewards for mutual benefit and that*

doesn't sit easily in a process that's designed for a single provider in a competitive competition and that's what the local authority expects.'

Moreover the length of the procurement process also militated against the involvement of local SMEs. SMEs are commonly poorly capitalised and for them any loss-leading activity is a huge risk where every meeting costs them money. For Red Ninja the procurement process they encountered was very different to their experience working with private sector clients. *'… we were under pressure to start this project in 2013 but because of various public sector procurement and timescales of getting paid… it was painful, it was months…..I said no we will not start this project unless I have 100% guarantee that I have a contract and money in the bank.'*

In this instance the alliance with the local SME was only saved by a local authority manager who was prepared to *'cut corners'* from the established procurement policy. Such was the inflexibility of this system that in order to keep the project alive it became *'… easier to ask for forgiveness than ask for permission…'* This was a judgement call, one that weighed the risk to the project against financial risk to a public body, which on this occasion was taken correctly.

It was also apparent that the City Council's response to implementing financial cuts to public services was harming relationships with local 3rd sector organisations. A criticism from one senior manager implied that the City Council was taking a less than holistic view of the governance environment and focusing inwards upon their own organisation. The implication here is that this manifested itself in a less than collaborative consultation process – the fallout from which was impacting upon projects like this. *'It's very hard for Liverpool City Council to be creative and think differently because they are on a cuts agenda and their consultation process is about maintaining an unchanged service as far as they can afford it'.*

Cross sector collaboration

Nonetheless, the cross-sector approach to developing this service was seen as effectively combining and blending distinct skill sets and values to present a new model for developing and delivering public services. The particular private sector perspective that Red Ninja, the

local technology company, embodied was going to be important for this project as they brought an attitude of *'… we will not develop something unless there is a market for it and we won't know if there's a market for it unless we engage with the people who are potential customers'.* As such a 'co-creation' or 'co-design' process with the potential users of their products was integral to their commercial philosophy. As their CEO stated *'…it's not really a new philosophy to me it's just about being market-led…and not having any assumptions and actually asking what do you want?'* This, combined with Plus Dane's commitment to community development and engagement, created *'…quite a powerful tool, not only for developing something useful but also for creating a new market amongst those people who are probably furthest away from internet services and from how retail has changed…'.*

There is, as we have stated, nothing new about importing private sector techniques and expertise into the public sector, particular in relation to delivering e-government or digital services, and there is much evidence (see for example Margetts,2006) that points to the inappropriateness and ineffectiveness of these endeavours. So how might this be a different model of development?

Much emphasis is placed on the design aspect of this approach. Here *'…a lot more investment is put into the design process which is extended in an iterative fashion, it's sort of a lean software model.'* Again, there is nothing particularly new about using this 'lean' model of development within public services and it has in some cases saved a considerable amount of public money (see HMRC,2011).   What is more questionable is the extent to which it has added value to the lives of public service users in other words: how effective has it been? It is likely then that the degree to which the model here is judged as a new, alternative model of delivering services will depend on how or if the City Council can move beyond measures of efficiency to capture more qualitative outcomes.

The Co-production process

Co-creation was integral to this project and is intended here to enable a product to be created that will be of use to elderly people. This combination of development method and target audience is significant in at least three respects. Firstly, the successful take-up of digital services amongst elderly people is largely dependent upon the efficacy of the particular

application (AgeUK, 2014). Secondly, elderly people over 65 years old represent a large potential market, 4 out 10 are digitally excluded (Policy Exchange, 2012), and thirdly, digital exclusion of this group – the over 65's make up the bulk (53%) of those digitally excluded (Government Digital Inclusion Strategy, 2014)- is increasingly seen as a social care issue where increased digital connectivity has the potential to help maintain independent living and combat loneliness. As one manager stated *'… the outcomes around digital inclusion are something that's very important for the city'*.

The process of co-creation or co-production commonly come freighted with a range of expectations, many of them addressing wider policy agendas. The process has been credited with not only delivering effective goods and services but also empowering service users. Comments from service users in this project tend to support both of these notions. In terms of the specific aims of the project the co-creation process was heartily endorsed by the users:

"So to be able to get to different sections of your shopping in the actual shop by just touching the screen, y'know, and I found it was – I was surprised how quick and easy it was. And I mean, that's because they asked you wasn't it, they asked you. They asked you - what do you want and how would you do this?'

This user group were also asked how their involvement in this project had made them feel:

'Yeah, it's like what we said at the meeting the other week when you ask for something to be changed, it got changed, they actually listened to what you wanted…and that makes us feel, wow!'
And,
'I think they talked through every step …asked our opinions and that, so I think we were really involved. It was absolutely fantastic, you feel as though you've achieved something'.

These statements powerfully speak to what academic commentators on the merits of co-production (Alford, 2009) have described as increased perceptions of competence and 'self-efficacy'. Importantly, these intrinsic feelings are associated with a greater propensity to trust (Mishra, 1996; Whitener et al, 1998) particular those with whom they have been involved in the co-production process (Pestoff, 2009). It is this relationship that connects the co-

production process with wider policy agendas, put simply: trust can foster social capital which in turn is related to citizen participation in wider networks which can create greater social cohesion[5][6] (Ostrom et al, 1978; Putnam, 2001) While we have no evidence of the wider impact of this project the following, poignant, comment from a service user, suggests its potential:

'I can't speak for everybody else, but when this came along I started feeling as though I belonged to the community…I am a human being, I'd quite often say, we're going out somewhere or I'll have to go home and put the bandages on, because they just – people don't see you, don't hear you…'

It is important to emphasise these feelings of trust and self-efficacy were not apparent at the start of this project. As the CEO of Red Ninja recalls, *'…at first there was suspicion, mistrust …it was a case of what do you want from me?...Part of it was cultural you know, gobby ''I'm from Liverpool'' but there was certainly a feeling this is not going to be a good experience so it took us a while…'*

The CEO attributes this initial suspicion and lack of trust to poor previous experience of traditional public sector practices of developing and delivering services. Suffice it to say there is no evidence here to support this assertion but academic commentators (Pestoff, 2009; Brudney, 1984) claim traditional practices have left service users feeling alienated and cynical about their capacity to influence public services.

Nonetheless, it is likely that this process of engendering trust was central to achieving the specific aims of the project. To recap, this pilot user group had never been involved in any project like this before and were generally unfamiliar with digital technologies. As one service user reflected:
'These things pass you by, you know like the tablets, laptops, computers and all that, or, you know, you're not well enough to go out to the shops but you don't know how to do the ordering. Yeah and now we want do it now...it gives you the independence again'.

Smart citizens?

If the co-creation process comes with high expectations then the addition of digital technology to the mix only serves to raise this bar a little bit higher. The digital connectivity dimension of the project was seen by one manager as: *'… creating more economic opportunities for people…equipping people with skills and experience of digital connection is a way of keeping people economically active'*. For another it was about its potential to ' ... *break the cycle of worklessness…to achieve a transformation in the city'.* One politician saw the technology as not only helping to address the isolation of elderly people but also connecting them with socially useful activities in their communities in a context *'…where families are becoming increasingly fractured'.*

Whether or not these expectations can be met is as yet unknown but this project did confound assumptions around elderly people and their facility with new technology. One manager commented *'…it's challenged some of the pre-conceptions about how you involve people with technology…there's a certain perspective that says you've got to almost fool people into using it like attaching it to bingo or something...what we found was completely the opposite they wanted to use tablet because that's what their grandkids use…they want to communicate, why wouldn't they?'.*

This was supported by the CEO of Red Ninja who thought *'…that there was a stereotype about elderly people and technology but in fact there was a massive thirst and desire from these people for the technology and once we talked about the power of the web they desperately want to get involved and were asking about dating services…our generation has used Tinder or match.com but they want a bit of that as well…'.* The excitement these elderly service users genuinely felt about the technology is nicely captured by one of their comments: *'Bring us into the 21*st *century. Bring it on!'*

Whilst confounding expectations this process also highlighted learning challenges particular to this demographic. This user group, unsurprisingly, demonstrated an under-confidence with the technology. This manifested itself in their lack of technical vocabulary to describe their specific difficulties they were having in using the technology. This had an impact on how their

engagement was supported and resourced. As one user explained '*we are older now and we need more time spent on us. I need somebody who will spend 10 minutes or quarter of an hour with me on my own. I must have been to 4 different classes which didn't work as I didn't get individual attention'*.

It was here that the community engagement skills of Plus Dane - the local registered social landlord – came to the fore*.* The skill and experience of their Project co-ordinator enabled them to find skilled volunteers for 'hands-on' sessions with the elderly users and made it possible to provide one to one support without which the project would have been severely delayed. This requirement for face to face support also made redundant the idea of providing a telephone helpline. Indeed, whilst this service was made available not one person used it.

Conclusion

So, how clever does local government have to be to initiate a smart governance process? This case study has gone some, but far from all, the way to answering this question

One clear lesson is that smart governance is first and foremost about policy. Of course the technology is, and will be, increasingly important but – if we are to eschew technological determinism - it is only a tool. As Townsend (2013) reminds us we should not see smart technology as the default solution to our urban problems but as '… another set of tools in an already well-equipped box' (pg285). If smart governance is about using technology to enable our urban environments to be more socially inclusive and economically resilient, and, if local government is to be a key agent in delivering this outcome it requires a political approach to delivering public services that is qualitatively different to the NPM approach that failed to deliver e-government.

This case study speaks to an emergent public values approach to service delivery. The group of senior officers and politicians associated with this project clearly saw the potential for wider public value to be created from the *process* of delivering public services *'…the fact is it's not just about the ends it's about the means of how you actually create or deliver services because we are talking about people and they are the social fabric of the city'*.

Nonetheless, the hostility to such innovation in the public sector – noted by one politician – only serves to underline the embryonic nature of this approach. This lack of coherence in this nascent approach was further emphasised by the inadequacies of many of the local council's policies required to support this approach. As such its procurement process was a major obstacle to providing work for local SMEs; it has given little thought on how to commercially specify outcomes that might capture aspects of public value; and, lastly, but perhaps most importantly the Local council struggles to look beyond the intra-organisational focus of NPM and take a holistic inter-organisational view of its local governance environment. This was exemplified by its approach to managing public service cuts, which according to one senior manager in a 3rd sector organisation, was far from open and collaborative.

Notwithstanding this unfavourable environment the project illustrated, albeit on small scale, what smart local governance might achieve. Here local government conceived of a way of delivering public services, utilising digital technology, to benefit the local community and economy.

Collaborating with local providers of bespoke services - actors and agencies that have not historically been part of urban coalitions around this policy objective - it succeeded in demonstrating the wider outcomes from delivering public services in a different, smarter manner.

The profound comments from the elderly service users about their experience of the co-production process not only reinforced much empirical work on co-production but also highlighted the failings of traditional ways of delivering public services. In confounding assumptions around elderly peoples' attitude to new technologies the project took an important step forward in addressing digital exclusion amongst this demographic. More importantly it has contributed to our understanding of how smart governance might enable smart citizens.

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