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**Introduction and key themes**

One of the objectives of the Public Square project is to develop understanding of how digital tools can create meaningfully participative and collaborative environments. This brief paper provides an overview of current academic research into the themes relevant to this goal, and draws out salient points to inform the development of tools and approaches to be created as part of the project. This review primarily covers what has been evidenced and researched at an academic level, and so suffers from gaps in published knowledge, and the time-slip associated with journal publication. The key themes are:

1. Bureaucratic and institutional structures will exert pressure upon new digital platforms, likely in the form of brittle or hierarchical norms, that may subvert or frustrate product development. Any digital tool needs to integrate into the existing structures while breaking down barriers between policy departments.

2. Meaningful digital engagement necessarily goes beyond the transactional and should close the feedback loop. This requires not only citizen input, but a commitment that citizen input is not the end of the process.

3. Social media platforms are the preferred method of contact for a large number of people. Any tool operating exclusively outside of this environment is likely to exclude those whose preference is to stay within their pre-existing media platform of choice. However, more effort need to be made to reach those who have less engagement with social media.

4. Any platform needs to treat citizens as citizens, rather than consumers, and provide as far as possible, a rounded and holistic experience.

The academic literature has shown that new forms of digital engagement and governance can work, and that citizens do value them, but that good design and commitment to engage meaningfully is key to success.
Interactivity and legitimacy

Academics and practitioners are in broad agreement that providing citizens with the ability to participate actively in governance has the potential to increase the legitimacy of the administrative state and provide new insights to inform policy (Arnstein, 1969; King, Feltey, & Susel, 1998; Stout, 2013; Waldo, 2007). This participation in turn encourages administrators to adopt a more democratic approach to the delivery of public services that values citizen participation in spite of inherent challenges (Irvin & Stansbury, 2004; Rawlings & Catlaw, 2011). The concept of democratic participation hinges on the accommodation of such participation, and meaningful responsiveness to it by institutions. Responsive governance should embody process and partnership that will subsequently enhance service decision-making and delivery through transparency and citizen engagement. At present, digital technologies, in particular social media platforms, are the means through which administrators can increase citizens' access to local authority services (Mergel, 2013a, 2013b).

Static, one-way websites where people could engage in transactional relationships with governments, such as paying bills or filing forms (West, 2004), have been the standard digital experience for citizens. More recently social media platforms, and digital platforms specifically designed to reduce the distance between citizen and institution, have emerged as key means through which governments are attempting to become more responsive (Bryer & Zavattaro, 2011; Mergel, 2013a). Social media platforms are varied, but exhibit common capabilities such as sharing, instant information gathering, networking, co-creation, and interactivity (Bryer & Zavattaro, 2011; Mergel, 2013a, 2013b). Digital platforms designed specifically for the purpose of engaging citizens in democratic participation display similar features, such as spaces for learning, sharing, deliberation and decision-making, but tend towards being more focused on specific policy areas or locations, and require significant moderation and management in order to direct the activity effectively. Peer-to-peer digital platforms can amplify social inclinations to cooperate over assumed impulses of self-interest (Benkler, 2006; Glaeser, 2011). These innovations provide local government with the opportunity to engage a larger number of individuals with varying interests in governmental affairs than could be achieved offline.

There is evidence to suggest that local authorities may not be optimising their use of the interactional capabilities of these tools, and are only increasing capacity for one-way and directed participation, rather than meaningful citizen participation and engagement (Brainard & Derrick-Mills, 2011; Brainard & McNutt, 2010; Bryer, 2013; Hand & Ching, 2011; Mergel, 2013a; Rishel, 2011; Zavattaro & Sementelli, 2014).

Policy silos

The published academic research into digital tools for democracy, that has a UK focus, is mainly splintered into several policy-related categories. Broadly, grouped, these consist of Digital and
Health, Digital and Heritage/Culture, Digital and Physical Environment, Digital and Communities of Interest, Digital and Education, and Digital Infrastructure. A range of digital tools and initiatives are in their nascent stages, but are evidently targeted at very specific outcomes, rather than as all-encompassing platforms for a range of policy and service dialogues. These silos will not be explored here, but it is pertinent to note that digital solutions for broader democratic engagement that transcends individual policy or service concerns have thus far not been widely attempted (or at least, if they have, have not been studied) within local authorities in the UK.

**Consumer vs Citizen**

A focus of the literature about the migration of government to a digital environment has been the question of how to treat the individual citizen within this new digital world, and whether previous concepts of the citizen as a customer remain valid in an age where the democratisation of government function is increasing. The adoption of New Public Management (NPM) methods of structuring public administration in the 80’s and 90’s saw the citizen or resident cast as a consumer. This was in response to theories of management gleaned from private sector consumerism and the achievement of large scale efficiency and cost reduction in the private sector that government was increasingly encouraged to emulate in order to reduce the cost and waste associated with the delivery of public services (Dutil et al, 2008). The increasing availability and usage of the internet and associated digital tools alongside this phenomenon embedded these customer-oriented business perspectives in the nascent digital infrastructure, solidifying this approach to citizen relations and service provision. While local authority engagement with citizens had been conducted in a piecemeal, top-down and formal format during this period, the significance of developing greater routes to engagement and participation between citizen and state has been amplified in the last 15 years by the rise of more social and responsive digital platforms, and by the service sectors’ increasing commitment to providing a more holistic and human-centred approach to local delivery, which has been shown to produce better outcomes at an individual level.

Sktic and Sailor (1996) argue that if human service organizations are to be responsive to the individual, they need to develop not only external solutions, but also internal adaptability and flexibility. It is impossible to provide a holistic and fluid service when constrained by bureaucratic structures. Traditional machine bureaucracies and professional bureaucracies are suggested to be rejected in favor of adhocracy, in which staff collaborate and share information in order to build on the insights gained from practice. This requires a shift away from New Public Management practices, and a dismantling of standardised and bureaucratic logic in order to accommodate the development and delivery of better services that are citizen-oriented.

This shift away from NPM is beneficial for citizens, as they prefer to be seen as citizens rather than customers (Dutil et al, 2008). In a Government of Canada survey, 48% of respondents indicated that their preference is to be seen as a citizen by their local government. This far outstripped being
thought of as a client (16%) or customer (13%), and even outranked the category of taxpayer (19%) (Ekos, 2006). At the most fundamental level then, new digital landscapes for interaction between citizen and state must accommodate the citizens identity, not as a passive consumer of services, but as a rounded citizen, potentially with multiple interests, concerns and needs that cross individual policy silos.

There is therefore a need to think more about technology usage and innovation that is able to cut across policy spheres, and to identify whether there are separate technical and organisational requirements across each one that will create complexity. Currently, the internal logic of e-government as an online service, emphasising customer focused structures has produced some benefits, but only within the narrow customer construct. However, it is clear that such architecture is inappropriate in overseeing technological innovation and integration across the customer and citizen dimensions of democratic governance, which are significantly more complex organisationally and politically.

**Forms of digital engagement**

Different forms of engagement exist in the local authority sphere, and to date the majority are very top-down and directed at narrow outcomes, usually implemented at the councils own initiative. The main forms of digital engagement across the literature can be categorised as:

- Information Provision
- Social Media
- Consultation/Survey
- Customer Service
- Citizen Panel

With the exception of the Citizen Panel forms of participation, the other streams remain primarily in the form of one-way interaction, whether that is broadcasting information, reporting information, or acquiring very specific information for pre-existing purposes.

While many residents are content to seek and find relevant information as and when they feel it necessary, citizens with more complex needs are shown to be having multiple ‘engagement points’ with councils across different services, with little centralisation of information or contact. Even in an ‘information provision/acquisition’ frame of interaction, citizens are unable to interact holistically with councils. For example, where an individual citizen is both a carer for an individual receiving adult services, and also carer for a child receiving education services, these two services are not linked in anyway, even though the two will inevitably interact and affect each other within the citizen's own life experience. When considering a higher or more meaningful level of
engagement, the information and organisation needs of such a citizen require a more holistic approach than highly structured and formal bureaucratic exercise.

To qualify as active, participative, deep, or deliberative, citizen engagement needs to be focused on action-directed dialogue, the “what’s the problem” and “what to do about it” of decision-making, rather than inviting mere assertions of wants or needs in response to surveys or focus group questions (Dutil et al, 2008). Truly participative and deliberative programmes avoid prescription or restriction of the scope of possible outcomes through detailed criteria or limited resource. This form of engagement should also be based on comprehensive, neutral, and accessible information, and should occur at a point in time in which the agenda for change remains fully open to revision. It should use appropriate spaces and institutional arrangements that enable orderly and inclusive interaction and collaboration among the widest possible range of affected and interested stakeholders (Coleman & Gotze, 2003; Dutil et al, 2008; Lukensmeyer & Torres, 2006). Deliberative engagement at the front end would also extend into the implementation and accountability phases of the service transformation process, with citizens acting as alpha and beta testers of the shortcomings of emerging integrated, multi-channel service arrangements.

Any digital engagement tool would need to fulfil at least some of these criteria in order to be considered meaningfully participative, and would need to address how tension between bureaucratic internal structures that are slow to change and the fluidity and cross-departmental service required by citizens can be overcome or reduced.

**Crowdsourcing civics**

Whereas digital participatory activity conducted by local authorities is primarily focused around the exchange of information on either a broadcast or one-to-one customer service basis, there are growing examples of councils and other public bodies empowering the public to gather necessary data on their behalf. The basic idea of involving the average citizen in data gathering has been discussed across a number of academic disciplines, with each using their own language to convey the concept. The phenomenon has been termed ‘crowdsourcing geospatial data’ (Heipke, 2010) and ‘volunteered geographic information’ (Goodchild, 2007) by geographers, ‘citizen science’ by natural scientists (Bhattacherjeem 2005; Silvertown, 2009), and ‘people-centric sensing’ (Campbell et al, 2006) and ‘participatory sensing’ (Holler et al, 2014) by computer scientists. In some European contexts, the term ‘citizen observatory’ is used in a predominantly geographic and environmental management discipline, to include activities in which the observations of ordinary citizens (not only those of paid professionals), are used to enhance environmental management. Citizen observatories are varied in their size and structure, and often extend beyond data
collection to include elements of more active participation in decision making and analysis, much like e-platforms used within a range of other disciplines. One example of a digital platform used for environmental management is the WeSensel project operating in the Netherlands, where information on flooding is generated from both monitoring hardware installed in key sites, and from citizens and businesses in the region, who are able to report instances of flooding in real time, and who are then consulted on strategies for water management. While this project is in its early stages, the project displays positive levels of engagement and empowerment among users, the majority of whom are citizens and businesses affected by flooding in the area.

The difficulty with crowdsourcing arises out of its fundamental unreliability. Not all citizens participate equally in civic technology (Rumbul, 2016), and as such, distortions in service provision are possible. For example, in the US, technology attached to cars to detect potholes to be fixed resulted in more potholes being reported and fixed, but those reports and fixes were largely in more affluent areas, where people drove more and where people were more likely to engage with municipal authorities. A reliance upon crowdsourcing information is therefore a high-risk strategy for any digital tool seeking to democratise governance of certain services. Elements of crowdsourcing encompassed into a larger participation initiative which can engage those not traditionally using civic tech would be more beneficial, assuming that a crowdsourcing element was appropriate for the project.

Social Media interactions with local authorities

Social media usage in the UK is currently one of the highest usage rates in the world, at 83% of the population using one or more social media sites, and with Facebook cited as the most popular overall, with 80% of the population actively using the platform (Flint, 2018). Facebook and Twitter are becoming an essential medium for communication between municipalities and citizens in Europe and the US (Bonsón, Torres, Royo, & Flores, 2012; Norris & Reddick, 2013). The majority of public bodies in the UK now have an official presence on social media, and use it as a tool to interact with citizens. Considering social media as a key tool in increasing engagement between citizens and local authorities is therefore necessary (Bertot, Jaeger, & Grimes, 2012; Deakin, 2010; Shkabatur, 2010). Decisions made at the local authority level directly impact the daily lives of citizens, and as such, local authorities are the most ‘real’ and tangible form of government to ordinary citizens. Education, public transportation, welfare, waste and social care are currently decided at the local rather than national level, and local authority Facebook pages or Twitter feeds may function as useful arenas for residents to engage with the delivery of these services.

In addition to the level of interest citizens have in local authority service delivery, studies demonstrate that local authority website usage is correlated with trust in local authorities (Tolbert & Mossberger, 2006) and with the scope of interaction between citizens and local governments
(Feeney, Welch, & Haller, 2011; Garrett & Jensen, 2011). The more citizens use local government websites, the more they communicate with local authorities and trust them, even more so than at the national level. Thus, local authority Facebook or Twitter activities have the potential to generate beneficial results for both citizen and institution. The most important predictor of diffusion of e-government tools (Facebook usage specifically) has been identified as size of the authority, which influences both adoption of social media, and the scope of usage (Lev-On & Steinfeld, 2015). Authority websites and Facebook/Twitter feeds are shown to attract significantly more activity in larger and more populous urban areas than those of smaller authority areas (Ahn, 2011; Borge, Colombo, & Welp, 2009; Garrett & Jensen, 2011; Haug, 2008; Holden, Norris, & Fletcher, 2003; Moon, 2002; Norris & Reddick, 2013; Wohlers, 2009). Additional variables that predict usage are location/peripherality (Haug, 2008; Norris & Reddick, 2013; Wohlers, 2009), structural attributes such as the funding and composition of the institutional communications function (Carrizales, 2008; Norris & Reddick, 2013; Reddick & Norris, 2013; Wohlers, 2009), and the local income and education levels (Reddick & Norris, 2013). This is pertinent, because solutions across different local authority areas may differ in their effectiveness. A solution designed for an urban population may not suit a rural one, and therefore while social media should be seen as a key element in digital engagement, and one that, if integrated into a broader tool could be very effective, it is not suitable as a standalone or primary vehicle for meaningful engagement.

**Local authority websites**

Every local authority in the UK has a website, which performs two main functions for government. In the first instance, they structure the necessary interactions between officials and members of the political community. Second, they consolidate the institution’s online presence for users, constructing the online “face” of government (Chadwick, 2001). The website forms the online interface between citizens and governments, and is often the first and only place that citizens interact with it (Jensen & Venkatesh, 2007).

The study of web design and development sits within a computer science silo, with its own norms and language, however the realities of UK local government web design and implementation should be framed not through the lens of computer science, but through a bureaucratic lens encompassing institutional pressures, budgetary constraints and limitations in internal expertise. Numerous studies have been conducted on the design of websites, however these studies tend to focus solely on the service offered by local governments (Moon, 2002) and the extent to which websites can increase efficiency and decrease costs (Danziger & Anderson, 2002). This emphasis predominates in local authority attitudes to online presence, where the notion of ‘one-stop shopping’ and ‘customer-oriented principles’ are embedded in their websites, emulating a private
sector approach to treating citizens as consumers (Ho, 2002; Needham, 2004), as discussed above. Council websites also assign greater weight to static content, such as contracts, tenders and information on council (and councillor) activities, with much less emphasis on interactive content or engagement (Haug, 2008; Lev-On & Steinfeld, 2015; Mossberger, 2013; Musso, Weare, & Hale, 2000; Norris & Reddick, 2013).

Councils have been shown to shy away from the transactional and conversational potential of social media or interactive web platforms, instead choosing to post or broadcast informational materials that are one-directional (Graham & Avery, 2013; Lovari & Parisi, 2012; Oliveira & Welch, 2013; Perlman, 2012). This emphasis on access to government services and broadcast of static information has historically been prioritised over the participatory potential of local government digital platforms (Musso, 1999), and local government digital in the UK has been described as of ‘limited ambition’ and ‘mixed achievement’ (Needham, 2004). Concerningly, the static and broadcast nature of local authority website communication has been seen to be reproduced in their Facebook pages, despite the fact that Facebook is inherently interactive (Lev-On & Steinfeld, 2015). Some local authorities in the UK are now exploring more agile and participative ways of working but are significantly behind similar municipalities in the USA, many of whom have invested in a range of civic technologies to address key local issues, such as https://largelots.org/ in Chicago, or http://www.speakupaustin.org/ in Texas. The ‘Civic Tech Cities’ report by mySociety (2017) evidences the positive effects of developing digital tools alongside developing new policy, showing that the design thinking brought to the table by tech experts positively affects how eventual policies are solidified and operationalised, creating not only better digital tools, but better policy too.

**Network/Digital governance**

The practice of developing policy as a collaborative activity inclusive of multiple actors has been given a number of names, many of which are policy area specific, however the majority describe a form of democratic network governance. This form of governance is typically horizontal in design, decentralised and non-hierarchical, and is composed of interest groups beyond institutional policymaking groups, to include wider distributed networks of interest, citizen groups, philanthropic groups, campaigning groups, private partnerships and emerging sectors, often more global in their scope. A pertinent example of this is described by Williamson (2016), who examined the policymaking activity surrounding the creation of ‘learn to code’ initiatives in the UK. This activity included, in addition to professional education policy experts, campaigning groups such as Computing at School and the Royal Society, NESTA, and the Nominet Trust (now Social Tech Trust) - groups that are not necessarily always organised and intimately involved in co-creating education policy. Key connective nodes in this network governance framework such as Nesta and Nominet Trust play a significant amplifying role through “mobilising their connections across public, private and civil society sectors to translate disparate activities around agendas such as learning to code into major policy concerns.” (Williamson, 2016). Network governance therefore
includes individuals and citizens, but utilises the reach and expertise of weightier organisations outside of the traditional provider/consumer hierarchy to leverage better policy outcomes.

The term ‘digital governance’ grows from network governance, presuming a networked aspect and encompassing a necessary digital element. Naturally included in this is a practice of computational thinking in relation to contemporary techniques of governance, assuming that social, governmental and individual problems can be treated as technical issues that are able to be addressed through the application of appropriate code (Kitchin 2014a, 2014b). This paradigm shift in the approach to bettering public service again moves away from the citizen as a one-dimensional consumer, and towards the citizen as a multi-faceted actor. Strategies of digital governance are becoming central to how institutions are shifting their attitudes concerning their relationships with citizens (Margetts and Dunleavy 2013). Digital governance does not mean that pre-existing offline structures of governance should migrate online to resemble historic offline structures, rather that the new digital environment should better reflect the realities of citizens as both consumers and participators (Jensen & Venkatesh, 2007). This involves building services into new digital formats that will enable governments to harvest citizen data that can be mined and analysed to shape service. Leveraging advances in data development, aggregation and engagement, many governments are now deploying a form of ‘city wide digital strategy’ as an intervention to ensure their jurisdictions capitalise on the opportunities around data-driven governance (Barns, 2016). These strategies are distinct from earlier conceptions of digital economy strategy or ‘digital era governance’ (Dunleavy 2013), in that they focus on implementing data-driven decision making tools as integral to the performance of governing itself, and not restricted to the role of government in supporting or enabling particular industry sectors. In cities such as New York, data-driven analytics tools and platforms are used to improve internal efficiencies and deliver better services to citizens. More widely, open data platforms are prioritised by councils as strategic engagement tools to allow government data to be released in machine-readable formats, that can be adopted by entrepreneurs and developers to deliver new services and platforms to citizens (Barns et al, 2017).

In order to achieve new forms of digital governance driven by data, governments must not only gain the trust of their citizens in collecting and handling this sensitive data, but actively encourage citizens to cooperate in the design and ongoing operation of those digital services (Williamson 2014a). This collaborative approach has quickly evolved to encompass both the back-end development and the citizen policy input with initiatives just as ‘Code for Europe’, ‘Make Things Do Stuff’ and ‘Future Makers’ enabling coding experts to co-design participative platforms and programmes for broader civic engagement. Indeed, the recent push by both government and education policymakers to increase the quality and take-up of coding education reflects part of this digital governance strategy that encourages participation and co-production. Williamson (2016) notes:
“This shaping of students’ digital subjectivities prepares them as the ideal participants for the ‘digital governance’ of the reluctant state, as citizens with the technical skills, computational thinking and solutionist mindsets to ‘hack’ solutions to problems of contemporary governance on behalf of the government. This emerging solutionist state is one in which political computational thinking, based on a technocratic logic that all social phenomena can be formalized into computable models, has become the main governmental style of thought; and it delegates its problems to active citizens with the technical literacies to ‘code for x’, using open government data as a platform for the creation of new digital services.”

There are a number of potential issues with ‘government as a platform’ or of an all encompassing digital governance model. The collection, storage and use of vast swaths of personal data is an obvious risk to individual privacy. The digital divide remains very real in terms of disenfranchising not only obvious groups (such as older people), but of other groups unable to fully engage digitally, such as low-income groups and those with specific communication needs. Potentially the most subtle but pernicious risk to digital governance is the way in which it is built. As Williamson (2016) puts it, “Coders simply do not always know the effects of the code they are writing, and nor do they acknowledge how their own worldviews, ideologies and assumptions are embedded in the kinds of interactions and forms of doing that they make possible.” Without detailed and extensive consideration of how digital infrastructure is being designed, it is likely that structural biases that have characterised local, national and global institutions will be perpetuated or exacerbated. The collaborative and inclusive model of not only engaging people in policy through digital, but of engaging citizens in the development of digital tools, is a factor to consider in building digital tools for democratic participation.

**Trust**

Trust is a key requirement for meaningful engagement. In order to engage in civic life, a citizen first needs to hold at least a certain amount of trust in the civic institution in question. Trust is particularly important in decision-making scenarios, where the individual citizen independently assesses the fairness of an outcome or decision-making process based on their own values (Gordon, Baldwin-Philippi & Balestra, 2013). Studies show that people will evaluate relative trustworthiness in decision making institutions based on their perception of fairness in the decision making process used, in particular where there is a paucity of information available about the trustworthiness of the decision makers or institution (Terwel et al, 2010). Currently, the prevalence of contemporary peer-to-peer communication tools, such as social media platforms, has provided citizens with the ability to be able to communicate (or, at least, feel like they are communicating) with decision makers online. Studies have shown that this mere perception of communication, in a direct and personalised form, substantially contributes to the individuals perception of trustworthiness of the specific institution (Lupia & Sin, 2003; Rosenstone & Hansen, 1993).
The perception of trust a citizen has in an institution dictates how likely that individual is to remain a member of the group and how willing they will be to help the group, even at personal cost (Tyler et al, 1996). As Gordon, Baldwin-Philippi and Balestra (2013) put it “this principle underlies the concept of a ‘virtuous cycle’ from the field of economics and in particular management, wherein even though an individual expends some initial effort for the good of the group, they are ultimately even more capable of achieving their objectives as a collective in a reinforcing cycle”. In order for citizens to develop or retain trust in an institutional process, a sense of fairness, distributive justice or an assessment of a personally favorable cost/benefit ratio to participation (Homans, 1961) must be achieved. As individuals continuously engage in institutional processes, their experience of responsiveness reinforces their sense that the system is, indeed, responsive (Valentino, Gregorowicz, & Groendyk, 2008) which builds trust and perpetuates a positive cycle of engagement and participation.

References


