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Jones, Phil; Layard, Antonia; Speed, Chris; Lorne, Colin

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ARTICLE

MapLocal: Use of Smartphones for Crowdsourced Planning

PHIL JONES, ANTONIA LAYARD, CHRIS SPEED & COLIN LORNE

Abstract

This paper discusses the development of a smartphone app, MapLocal, which seeks to empower residents to gather spatial data about their neighbourhood. Responding to the new Neighbourhood Planning powers offered within the Localism Act, 2011, a pilot scheme was undertaken with 50 participants across two neighbourhoods in Birmingham, UK. The app allows the crowdsourcing of knowledge from individuals to report on different characteristics of their neighbourhood and to undertake visioning exercises developing possible schemes to improve it. We argue that the app enables wider engagement with the early phases of a planning process, partially mitigating the post-political challenge to planning, which seeks to marginalize dissenting voices in order to promote the interests of the powerful.

Keywords: participatory planning; post-politics; smartphones; localism; Birmingham, UK

Introduction

There is an inherent tension in neoliberal policy discourses. On the one hand, there is a rhetoric of empowering the individual suffocated by an overly bureaucratic state. On the other hand, as services are contracted out to more ‘efficient’ private providers, the individual is reduced to a passive consumer, with no power to refigure those services as they are regulated by opaque contracts between central government and the private sector that maximize profit over flexibility (Raco, 2013). Spatial planning is in the frontline of these conflicting discourses within England, as a series of major reforms embedded in the Localism Act 2011 seek to alter the relationship between the individual and the planning process (Painter *et al.*, 2011).

The Localism Act 2011 is designed, in rhetoric at least, to hand power over planning back from the state to individual communities—although in practice ‘community’ tends to be conflated with resident population. Specific new powers have thus been handed down to the neighbourhood scale, the most significant of

Phil Jones, School of Geography, Earth and Environmental Sciences, University of Birmingham, Birmingham, UK. Email: p.i.jones@bham.ac.uk

Antonia Layard, Law School, University of Bristol, Bristol, UK. Email: antonia.layard@bristol.ac.uk

Chris Speed, School of Design, University of Edinburgh, Edinburgh, UK. Email: c.speed@ed.ac.uk

Colin Lorne, School of Geography, Earth and Environmental Sciences, University of Birmingham, Birmingham, UK. Email: cal747@bham.ac.uk

which is being able to draw up a Neighbourhood Plan, which, if approved by local referendum, carries statutory force. This can be read as a strategic withdrawal of the state from responsibility for planning at the neighbourhood level, although in practice the scope of Neighbourhood Plans is highly constrained and must operate in conformity with local and national planning rules. Indeed, residents can propose new development within these plans but, under a neoliberal discourse of growth at all costs, it is much more difficult to use plans to resist new development proposed by the private sector.

Nonetheless, these are significant new powers, which have been made available to neighbourhoods in England. A major failing of the Act, however, is that the Neighbourhood Planning process demands residents themselves find ways to solve one of the key challenges with participatory planning—collecting, synthesizing and prioritizing the different spatial knowledges and aspirations of individuals living within a neighbourhood. Very little government support is offered to create a final plan, which is still required to conform to a highly technical and legalistic planning framework. It is in response to this challenge that we developed a smartphone app ('MapLocal') as a tool that allows residents to undertake a baseline survey of their neighbourhood, which might not otherwise be possible in the absence of public funds to pay for an external consultant/facilitator. The pilot study reported on here sought to investigate how the app might be used to produce rich material about the neighbourhood being surveyed, both through diversifying the range of people who became involved and by allowing people to gather that material *in situ*, rather than contributing to a discussion in a meeting room at one remove from the site under discussion.

The app focuses on the data *collection* element of participatory planning and we make no claims that MapLocal would by itself resolve the issues of synthesizing and prioritizing community knowledges into a finished plan. We argue, however, that by engaging a diverse group of people in the process of collecting rich *spatialized* data about their neighbourhood, the app offers the potential to substantially enhance the subsequent processes of synthesis and analysis needed to produce a meaningful Neighbourhood Plan.

This paper opens by considering the context for the changes to English planning represented by the Localism Act, 2011. We then consider different kinds of information and communication technology (ICT)-driven approaches to improving participatory planning, developing a typology of 'consulting', 'reporting' and 'visioning' techniques. The development of the MapLocal app is discussed within the context of a pilot study undertaken in two neighbourhoods in Birmingham, UK. Finally, we discuss the possibilities offered by the MapLocal app to broaden a conversation among residents about the future of their neighbourhood and suggest a challenge to a post-political approach to planning, which seeks to smooth out dissenting views and proffer a 'consensus', which serves the interests of the already powerful.

Communities at the Heart of Planning

Although 'community' involvement/engagement has become somewhat totemic within policy rhetoric, the idea of a singular community remains problematic and it often seems to be deployed as a crude shorthand for deprived, ethnic minority or

working-class populations (Duffy & Hutchinson, 1997). Considerable scholarly and practitioner effort within planning has gone into refining the notion of community beyond simply referring to the population of a given territory (Talen, 2000). Of course, the spatial can play a significant role in the construction of these communities—the different challenges facing populations living in urban and rural areas, ethnically homogeneous county towns and superdiverse cities, for example (Fenton, 2014). Nonetheless, communities are contingent and plural constructs, emerging out of particular interests or challenges drawing different groups together at different times (Cohen, 1985).

As such, it is important not to simply conflate ‘community’ with ‘local’. Communities can cut across a wide range of spatial scales. This has created something of a tension in the history of spatial planning in how to give voice to those people directly affected by decisions at the neighbourhood scale. Reconstruction planning during the 1940s rarely got past the point of merely *informing* citizens—via published plans and exhibitions—about the proposed changes to their local area, as part of broader propaganda push to convince people that conditions would improve after the war (Hubbard et al., 2003). Elements of ‘local’ planning were contained within the Town and Country Planning Act, 1947, but it was not until the publication of the Skeffington Report (Ministry of Housing and Local Government, 1969) that it was clearly acknowledged non-expert residents could possess significant expertise and knowledge about a local area and as such they had a right to be directly involved in making decisions about their neighbourhoods. This move towards bringing more voices into the planning system had parallels in the USA with Davidoff (1965), for example, emphasizing the power of advocacy and plurality within planning in order to provide a means through which alternative planning visions could compete against public agencies to win political support.

A variety of mechanisms have developed to find ways of bringing the relevant plural communities into a discussion about planning at the local scale. Over the last 40 years or so, planning researchers have proposed greater collaboration, communication and interaction between ‘experts’ and the ‘public’ in the planning process (Friedmann, 1973; Healey, 1997; Allmendinger & Tewdwr-Jones, 2002; Brownill & Parker, 2010). As such, planning has become a locally contingent process co-constructed between political, economic and (often sketchily defined) community imperatives. Hence, there has been a recognition of the need to bring multiple knowledges into the planning process and to find new institutional structures for achieving this (Rydin, 2007, p. 53). In practice, of course, communities have always tended to be the weakest actor in what are often highly technical processes, with greater or lesser degrees of commitment to meaningful engagement in different projects, but generally towards the tokenistic end of Arnstein’s (1969) ladder of citizen participation.

It is important to emphasize at this point that we are in no way arguing local or Neighbourhood Planning is somehow inherently superior to planning operating at other scales. There is a temptation to suggest that through ever more effective techniques for public engagement, a perfectable, ground-up mode of planning can emerge via a fantasy of Habermasian communicative rationality (Tewdwr-Jones & Allmendinger, 1998). The local is not always the most appropriate scale of

decision-making, especially where broader strategic issues (e.g. transport, flooding, air quality) need to be resolved. Indeed, participatory planning is neither impossible nor inappropriate for decision-making at larger strategic scales (see e.g. Woltjer, 2002) and we must be careful not to fetishize the local as the locus of ‘purer’ community engagement in decision-making.

Similarly, it is important to state that more participatory approaches do not necessarily guarantee good planning outcomes. Breakdowns in relationships between local authority representatives, developers and communities, dysfunctional community groups and unrealistic expectations on all sides can lead to conflict. In some cases, these can be quite dramatic such as Southwark Council getting a court order demanding that a community forum return key documents about a major regeneration scheme (North, 2003). It is clear, then that participatory planning offers advantages in bringing a plurality of voices to the table, which can build on local expertise to improve outcomes and increase local buy-in to a scheme. On the other hand, such approaches can also bring conflict and delay, while no engagement technique can ever meet the Habermasian communicative ideal resulting in a rational solution reconciling the interests of all parties.

This latter problem can be seen as one driver of (or cynical justification for) a post-political approach to planning, perhaps one of the most pernicious ideas that gained credence during the New Labour period (1997–2010). This emphasizes consensus, while in practice curtailing the ability to object to proposals drawn up within a market-led approach, reducing citizens to consumers (Allmendinger & Haughton, 2012). Local authorities have been complicit in this process, not least in wanting simply to get new *things* built, particularly in cities suffering from deindustrialization and attempting a services-led reimagining (Baeten, 2009). Despite the legacy of community involvement in planning, a more post-political approach, emphasizing technical decision-making, has had little room for the messiness of accommodating community desires. Those who disagree with the ‘consensus’ are simply marginalized.

It is possible to read England’s Localism Act, 2011 as an attempt to put communities back at the heart of planning. Notwithstanding the temptation this brings to conflate community and neighbourhood, any assumption that the Act puts ‘community’ interests first would be somewhat naive. The Act established strict frameworks at national and local level within which neighbourhood-scale planning has to function—this was not intended to look like the bottom-up approaches of radical planning (Friedmann, 1987). Communities were given the right to buy local assets, to build new developments within their neighbourhood and to draw up Neighbourhood Plans. Such Plans, if passed by a local referendum, carry statutory force. In a rural context, these community scale powers are wielded by the existing Parish Councils. In towns and cities, communities can establish ‘Neighbourhood Forums’ to undertake this task, although these lack the democratic accountability of Parish Councils.

The purpose of these Plans is to allow communities to say *where* homes/offices/other developments should be located and what those developments should *look like* (UK Government, 2013). There are thus two key limits placed on Neighbourhood Planning. The first is that Neighbourhood Plans cannot conflict

with the wider local and national planning frameworks (an issue which is not confined to the UK system; see e.g. Brown & Chin, 2013). The second, much more significantly, is that while communities can *propose* new development within their plans, it is much more difficult to *constrain* it. Neighbourhood Plans cannot, for example, unilaterally zone a high street to prevent any more coffee shops being opened. The national policy rhetoric under the Coalition Government since 2010 has been that function of planning is to enable ‘growth’ and this can only be constrained in very specific circumstances, such as on green belt or other protected lands.

Given that Neighbourhood Plans need to be made in conformity with local and national planning policies, they also require a high level of technical expertise. While most community members will have views about what they would like to change in their neighbourhood, the necessary skills to translate aspiration into a plan document are much less common. The UK government acknowledged this, funding a series of ‘Fronrunner’ (i.e. pilot) Neighbourhood Forums to bring in external help to draw up their plans. The vast majority of Forums, however, will not get this additional financial support and will be dependent on whatever help their local authority’s planning team is able to supply—although these teams are themselves under significant pressure because of substantial cuts to local authority spending imposed since 2010.

In short, the policy of Neighbourhood Planning demands skills, which may not exist among a resident group and does not provide financial resource to buy-in expertise. If a Neighbourhood Forum does not have resources to engage residents in the process of drawing up a Neighbourhood Plan, then that local area simply has to manage without one. So much for empowerment. Thus, the purpose of our project was to provide a tool for resident groups to undertake at least some of the processes of drawing up a Plan in a situation where the resources to do this might otherwise not be available.

Approaches to Community Involvement

There are a number of tried and tested approaches to participatory planning. These tend to revolve around town hall/community centre style workshops, engaging people in a range of pen and paper type activities attempting to both harvest community views and build a consensus for particular kinds of development. These can be extremely effective. In recent years, there has been a considerable effort to enhance these approaches through a range of ICT-driven techniques, which we can be broadly characterized into three types: consulting, reporting and visioning. *Consulting* techniques provide a means for planners/developers to gain feedback on proposals in ways that do not necessarily require citizens to attend a conventional public meeting—email or web-based surveys, for example. *Reporting* techniques allow individuals to feed information directly back to a local authority about perceived problems, for example, potholes, broken street lights and so on using web-based systems like ‘FixMyStreet’ (King & Brown, 2007). Thus, citizens can get relatively small-scale problems dealt with as they arise, while local authorities benefit by drawing on local intelligence about maintenance issues that could become costly if neglected. Both these techniques,

however, offer a relatively low level of engagement with processes of neighbourhood change.

Visioning techniques, conversely, give communities the opportunity to engage with different development scenarios and, in some cases, devise their own. Salter et al. (2009), for example, examine a project that allowed communities to model developments of different densities in the Snug Cove area of Bowen Island, British Columbia. At an even greater level of abstraction, Gordon and Koo (2008) had their participants working with undergraduate students to build their fantasy version of Boston within the 3D gaming platform SecondLife to explore how communities understood the challenges facing their city and possible responses (see also Evans-Cowley & Hollander, 2010). Both these cases required a considerable input from technology-savvy facilitators, a criticism which has also frequently been levelled at participatory geographic information systems (GIS) approaches (Sieber, 2006). Participatory GIS has, however, been rapidly evolving in recent years, as web-based mapping has matured. As a result, it is becoming easier to get people engaged with map-based projects that are concerned with reimagining the form and function of urban spaces. The social enterprise Mapping for Change, for example, gives communities the tools to collect spatial data about an issue facing their community and provides online maps which analyse these data (Mapping for Change, 2013).

There is considerable ongoing enthusiasm for the possibilities that computing technologies offer to planning, manifested through the annual *Cities, Technologies and Planning Conference*, for example. ICT, however, is merely another tool within participatory planning and such approaches do not guarantee the delivery of good governance (McCall & Dunn, 2012). Perhaps, the most significant purpose of adopting such an ICT-led approach is finding ways of engaging a different audience and potentially reducing the ratio of resources spent to the quantity and quality of citizen engagement. The MapLocal app developed for this project fell somewhere between the reporting and visioning modes of ICT-driven participatory techniques. There was clearly an element of being able to report problems with particular spaces in the neighbourhood (e.g. where the drug dealers operate, where the paving is uneven etc.), but also the capacity to reflect more generally on things that work well currently and envision changes, both dramatic and trivial, that could make things work better. We should be clear, however, that technology moves very quickly and—as pioneers using SecondLife have discovered—what was once cutting edge rapidly becomes laughably outdated as people start to use newer platforms. MapLocal should therefore be thought of simply as a proof-of-concept and would need a programme of ongoing development to maintain its relevance.

At the outset of the project, discussions were held with local design/community social enterprises Chamberlain Forum and MADE to sketch out the functionality of what would become the MapLocal app. Chamberlain Forum describes itself as a ‘think-and-do-tank’ and is a third sector organization, which has worked extensively with Neighbourhood Forums in Birmingham. MADE is a hub for architecture and planning expertise in the West Midlands, working among other things on community involvement in urban design. These initial discussions identified key types of information that could be easily gathered

using a smartphone and how these might be used to inform a plan-making process:

1. Photographs: different locations can be photographed, commented on and given a ranking to indicate whether the scene in the image is perceived positively or negatively.
2. Audio clips: allowing participants to record an audio commentary about a location to gain in-depth information and reflection, rather than relying on short comments typed into a smartphone keyboard interface.
3. Boundary data: allowing people to mark where they consider the edge of their area to be simply by walking/driving along the perceived boundary.

A mock interface for MapLocal was produced by Chris Speed and used as the basis for app design by Chris Blunt of Plymouth Software. The decision was taken to use Android smartphones for this because they are relatively inexpensive and more commonly used in the UK than the iPhone.

The app went through a rigorous process of development and testing prior to being given to participants involved in the pilot scheme. The emphasis was on producing an interface where users were not having to focus on the technology, but could simply walk, talk and take photos, while the more technical processes such as tagging to location using GPS and uploading via 3G to a central server happened in the background.

It is clear then that the MapLocal app only covers part of the process of actually drawing up a Neighbourhood Plan—consulting with a broader community to canvas knowledge and opinions about the area and how it might be developed. Taking these data, synthesizing and prioritizing it to inform the aspirations contained in a formal Plan are beyond the capacity of this tool. MapLocal does, however, relate community knowledges to particular spaces, without participants needing to be sufficiently spatially literate to translate their everyday knowledge of a location into the formal Cartesian coordinates of a two dimensional map. It is also important that participants were able to explore their understandings of a place while actually passing through that place—as Evans and Jones (2011) have demonstrated, being in a location stimulates more in-depth comments about that place, compared to sitting in a standard meeting room.

Pilot Study

The pilot study was undertaken in 2012 across two contrasting neighbourhoods within Birmingham, UK. Balsall Heath is located in a relatively deprived neighbourhood just to the south east of the city core, covering around 149 ha and with a population of approximately 12,000. It is an ethnically mixed community, with a high proportion of Muslim residents. The Jewellery Quarter is of quite a different character, adjoining the city centre to the west, covering an area of around 107 ha. Its residential population is only around 3,000 (primarily white middle-class professionals) with a concentration of small-scale manufacturing related to the jewellery industry and various creative businesses. Balsall Heath

was granted Frontrunner funding to prepare its Neighbourhood Plan by the Department for Communities and Local Government (DCLG) and had already undertaken a series of data gathering exercises, facilitated by urban designer Joe Holyoak. The Jewellery Quarter, lacking Frontrunner funding, was much less advanced in moves towards producing a Plan at that time.

These two sites provided an interesting contrast, with some participants in the Balsall Heath neighbourhood being able to compare the use of the smartphone interface with their experience of undertaking Holyoak's more conventional local information gathering exercise. Fifty individuals in total took part in the pilot, evenly split across the two study areas, recruited through a combination of snowballing and social media, using a convenience sample of those who were interested in having a say about their neighbourhood. We were very clear with participants that the project was limited to testing a new methodology, rather than intended to enact changes within the neighbourhood—a position we made explicit by paying all participants a small sum for their time spent testing the app. All participants engaged in an initial training session with the field researcher for the project. Participants were then loaned a smartphone for up to 2 weeks and asked to map their neighbourhood. A debrief was carried out by the field researcher once participants were finished.

All the data generated within the pilot study can be viewed online at <http://www.maplocal.org.uk>, where it can also be downloaded into Google Earth or a more conventional GIS mapping system.

Project Findings

Over 1,000 photographs, 626 audio clips and 182 boundary lines were gathered by participants as part of the pilot study across two neighbourhoods. These data, combined with the walking interviews and focus groups, were analysed in NVivo to examine qualitative themes and ArcGIS to explore spatial patterns. The richness of the data that were produced by participants is testament to the fact that individuals are good at portraying complexity, though being able to understand complex urban processes on the one hand and being able to take that understanding and produce a highly technical planning document on the other are, of course, two quite different things.

Representations by More Than the 'Usual Suspects'

Of the 50 individuals who took part in the pilot, many would not normally have become involved with participatory processes in Neighbourhood Planning, including young people, women and people from minority communities.

	Non-white	Females	30 or under	18–20
Balsall Heath (<i>n</i> = 26)	18	10	11	6
Jewellery Quarter (<i>n</i> = 24)	0	10	16	1

It was clear from the outset of the project that using technology to gather views and information on the neighbourhood appealed to participants. The field researcher's diary and the recordings of the training sessions with participants provide vignettes, demonstrating how participants quickly got to grips with using the app. In one case, during a training session, one participant—who had only just learned how to use it himself—started showing his friend how to use the device:

... what you do, you walk around and you see what's there and what's special about something and then you can type it in, or record it, and if you want to take a photograph you press this. (Audio clip, Balsall Heath)¹

As part of their debrief, participants Kate and Chris reflected on the fact that they enjoyed being left alone to collect their thoughts about the area using the device. This is quite different to the situation in a conventional town hall meeting, where there is always the problem of the person who shouts loudest dominating the conversation while the views of less confident others go unheard. Indeed, this capacity to access the expertise of the quieter voices is acknowledged as a key advantage in online crowdsourcing approaches within participatory planning (Brabham, 2009).

The technology is relatively egalitarian, in that it was designed to minimize the degree of training required even for those with little or no experience of information technology. The app thereby enables a large number of people to have their say and can solicit views, which, although important to how people understand their neighbourhood, might be subject to self-censorship in a public meeting. As an example, the presence of traveller communities in a neighbourhood often proves contentious in the UK, but individuals may be unwilling to raise concerns for fear of appearing politically incorrect:

This is the planned site for the travellers to come and park... I think the planners need to hurry up and do something because this is affecting the residents of Highgate and Balsall Heath. (Audio clip, Balsall Heath)

The freedom to discuss contentious issues without the fear of being shouted down in a public meeting means that the app can elicit a commentary, which reflects genuine concerns, even if these might be deemed problematic in a consensus-driven, post-political planning atmosphere that seeks to smooth out controversy.

This more egalitarian approach to the voices and views being heard is important because there has been real concern that the retired and/or wealthy are better placed to campaign on behalf of a vision for 'their' place. The Intergenerational Foundation puts it bluntly in the title of their 2012 Report on the localism agenda: *How the Localism Act hands power to older generations* (Leach & Kingman, 2012). Expanding the range of participants is then an important objective in information gathering exercises, empowering a diverse set of respondents to become involved.

Reporting and Visioning

The primary functionality of the app is in creating a capacity for reporting problems in the functioning of the neighbourhood and for envisioning changes that could be made. A great deal of the material that could be classified as serving a reporting function related to questions around neglect, prompting 106 comments picked up by the NVivo analysis. These comprised a range of issues including the relatively trivial such as a broken railing (Audio clip, Balsall Heath) and issues around the aesthetic '[The abandoned pub] . . . really doesn't look nice as you're entering into Balsall Heath . . . it just brings the whole area down and makes the area look untidy, uncared for' (Audio clip, Balsall Heath). One quite rich quote lamented the current state of redevelopment strategies:

Again, really shoddy, this is a building that has gone to wrack-and-ruin. One of the problems with the periphery of the Jewellery Quarter is that there is very little in the way of investment. If you walk into the centre of the Jewellery Quarter, it's a totally different state of play and really this has been perpetuated by the Development Trust Strategies which seems to be investing everything in the middle and not very much in the periphery. (Audio clip, Jewellery Quarter)

While such commentary does not present a vision for change, it does serve a potentially useful function in flagging areas where current strategies are failing and intervention activity might be targeted. Indeed, where spatial clusters of comments by participants along the same lines are identified on the community map, there is some justification in identifying this as a priority.

The material on open spaces is a good example of commentary that frequently goes beyond mere reporting, however, towards envisioning how the area might be developed. Balsall Heath participants in particular suggested strategies for dealing with some of the empty sites in the neighbourhood. Some of these were straightforward and pragmatic, such as handing over a piece of waste ground to the neighbouring church because 'they would look after it better' (Audio clip, Balsall Heath). Other comments were more aspirational, such as improving the play spaces and adding a cultural centre to Freeside Park, so that residents did not have to travel the 1 km to the much larger Cannon Hill Park. Similarly, development opportunities were identified, such as the site on the corner of Kyrwicks Lane 'which has been empty for the last, at least 30, 40 years . . . it's a prime position' (Audio clip, Balsall Heath). Comments like this indicate that communities are often enthusiastic to see new building and do not necessarily want to preserve their neighbourhood as is. Of course, this is rather fortunate given that, realistically, the Neighbourhood Plan gives communities much greater power to promote rather than prevent new development.

The Jewellery Quarter is an unusual area in Birmingham in that a great deal of early and mid-nineteenth century buildings survived the city's mania for clearance and redevelopment during the post-war period. Unsurprisingly, therefore, much of the visioning material produced by participants in this neighbourhood is related to preserving and enhancing the history and heritage of

the area. These included some really quite nuanced proposals drawing on in-depth knowledge of the area:

But what I'd like to see with this one though, the top floor apparently used to have a Turkish Baths on it . . . and it would be great if we could get a lottery grant and re-fit it out as it used to be. The plans must be somewhere and just get it back as a tourist attraction and something different, that would be a really great use for the building. (Audio clip, Jewellery Quarter)

Opportunities similar to this will tend only to be identified by local experts—except in the case of very famous pieces of heritage infrastructure, it would be unusual for an outside developer to come in with such a proposal. Again, this emphasizes the importance of providing a vehicle to bring community knowledges into the planning process.

Discussion: Adding Value to Policy Processes

The principle behind MapLocal is that the information gathered is crowdsourced. By gathering the views of many people, the key issues facing a neighbourhood can be identified. As well as providing richer information, through drawing in representatives beyond the 'usual suspects' and being mobile, the technology saves time and money by not needing a professional facilitator. This was recognized by participants in Balsall Heath, a Frontrunner Neighbourhood Plan area with DCLG funding, where individuals had already spent considerable time and energy in putting together Neighbourhood Planning materials. As one of the participants at the focus group commented:

a lot of power is being devolved to community level, so to me [MapLocal] would be really useful for the Neighbourhood Plan. Instead of Joe [Holyoak the paid facilitator] going to each residents' group, we could use this, and I've picked up exactly the same things in a shorter space of time.

Nonetheless, 'local knowledge' is itself not unitary and may itself need to be triangulated. By consulting with local councillors and officers, the pilot project began to investigate how one might bring together resident expertise with other more conventional data-sets that inform planning decisions—demographic sources, police intelligence and so on.

This project was set up with the aim of developing techniques for both individuals and communities to independently gather data about their area and identify the key issues that need to be addressed. It enables a broad range of opinions to be gathered at the agenda setting stage, which has been identified as important in collaborative planning research, before established stakeholders take up the negotiation processes (Margerum, 2002). Diverse sources of information, however, can make decision-making difficult. Just how should differing views be traded off? A number of participants in the Jewellery Quarter, for example,

commented on the recent opening of the ‘Libra Parlour’ on the edge of the neighbourhood. Some were not particularly concerned, or wryly amused by the presence of a massage parlour in their area. Others were upset about this new development. The app cannot itself undertake the tricky process of trying to balance different priorities for development in a neighbourhood. But it does allow these views to be aired and recorded, rather than marginalized or dismissed as irrelevant in a post-political process that allows little space for those uncomfortable with how the holy grail of economic development is sometimes manifested (Swyngedouw, 2009).

As a final point, at the end of project workshop, some councillors identified the app’s possibilities in consulting local people about budget cuts, shared service delivery, commissioning and co-production. This is particularly interesting as cities like Birmingham begin to investigate models of participatory budgeting to more directly involve communities in these tough choices (Sintomer *et al.*, 2008). Integrating multiple voices in these decision-making processes acknowledges (even if it cannot resolve) tensions between input and output legitimacy; the development of local places and neighbourhoods cannot possibly be value free. Nonetheless, MapLocal as a pilot study identified real possibilities to integrate a broad range of holistic, lived experiences in local decision-making processes.

Conclusions

The new Neighbourhood Planning powers in England give residents an opportunity to have a direct say in the kinds of development they want to see in their area. It should be noted, however, that of the 1.07 million people living in Birmingham, only around 40% live in areas covered by Neighbourhood Forums.² Furthermore, many of these Forums are only minimally active and none, as yet, has a Neighbourhood Plan approved by local referendum. The technical complexity of putting together these documents combined with a lack of financial resource to buy in expertise has proved too much for most localities. This is no small irony given central government rhetoric about its new planning system having been established to tear down bureaucratic barriers and hand power to the people.

ICT is not a magic bullet for enhancing resident engagement in planning any more than participatory approaches guarantee good outcomes. In pilot work, the MapLocal app proved to be effective as a tool for gathering local knowledge about neighbourhoods and suggestions for improvement. These reporting and visioning processes are, however, only the first stage in drawing up a Neighbourhood Plan and the app makes no claims to be able to synthesize these knowledge into a set of priorities for intervention. Instead, MapLocal improves the quality of the data-set that will inform subsequent synthesis/prioritization by giving space for voices who might otherwise not engage and levelling the playing field so that the loudest voices do not dominate. By giving people the opportunity to talk about spaces while actually *in* those spaces, smartphone technologies bring with them the advantages of spatial prompting and through the use of GPS do not require spatial literacy of participants to contribute to a mapped data-set. This, we argue, is a

major advance, even beyond the specific context of England's current policy on Neighbourhood Planning.

We are, however, alert to the dangers of a crowdsourcing process reducing individuals to passive 'citizen sensors' (Goodchild, 2007), generating useful intelligence about potential development sites, but not permitted to object to development under a new planning system committed to a neoliberal agenda of growth at all costs. MapLocal cannot eradicate the inherent inequalities of an English planning system that talks about community empowerment, while allowing developers to override local feeling and impose projects on neighbourhoods. What MapLocal does is respond to a challenge to bring more voices into the planning process, moving beyond mere *consultation* to practices of *reporting* on the existing state of neighbourhoods and *envisioning* ways to take their development forward. Rather than fitting into a post-political discourse that smoothes over tensions in favour of the powerful, we suggest that in giving space for discordant voices MapLocal acknowledges messiness and promotes a more grown-up debate about reconciling different needs and desires within neighbourhoods.

MapLocal was, however, very much a pilot project, with significant room for refinement. Further development would include finding a way for participants to begin the process of synthesizing and prioritizing, perhaps through a redesigned interface allowing participants to identify and rank the ten most significant sites for intervention. Similarly, finding a coherent way to feed this material directly into local authority and neighbourhood decision-making processes would add significantly to the app's value. As currently configured, MapLocal can capture a variety of experiences, from a wide range of people beyond the 'usual suspects' and represent these visually and in audio. The broader question is how to take these representations of the urban and translate them into political representation to make a positive difference to the quality of the environments in which people live.

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Notes

1. Quotes from participants collected via the app are anonymous and the date of collection is not recorded—this was a deliberate choice in how we set up the devices to reduce the possibilities of 'big brother' surveillance of individuals. All the data in the pilot were collected during October–December 2012.
2. This is a crude estimate made by interpolating population data to the 2013 Forum boundaries, which do not conform to Low-Level Super Output Areas used by the UK Census.

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