

# COVID-19 and the Rise of Digital Planning: Fast and Slow Adoption of a Digital Planning System

Alexander Wilson & Mark Tewdwr-Jones

## **ABSTRACT**

COVID-19 has had a traumatic effect on both the way people live and work in their everyday lives, and the way places function. The rapid transformation of employment practices, including the necessity to stay at home for lockdown periods, has given rise to increased digitisation and technological use to enable people to continue to work and to remain in contact with friends and colleagues. Digital planning, and the enhancement of digital citizen engagement, has been one area that has started to inform local government's online activity. This is coincidental to the UK Government's interest in transforming planning into a digital and map-based service. This paper examines digital planning activity in English local planning authorities since COVID-19 hit the UK, reporting on two inter-related research studies that analysed Statements of Community Involvement and planners' perceptions of digital planning activity. The paper shows that COVID-19 has certainly accelerated the adoption and deployment of digital planning, but it is an activity that has been developing in local planning incrementally for more than two decades.

Keywords: digital planning; urban planning; community involvement; participation; COVID-19

## **1 INTRODUCTION**

The impact of COVID-19 on society has been traumatic, with ricocheting shocks across the globe. Lockdowns, 'stay at home' and 'stay local' orders have led to dramatic changes in peoples' lives. These shocks have led to the rapid adoption of digital technologies to support home working and communication with colleagues, friends and family (Halliday et al., 2020). A further consequence has been felt through a renewed understanding of the importance of one's local neighbourhood (Varna and Oswell, 2021). Planning professionals are no different to how other employees have been impacted upon by the pandemic, with office closures, the initiation or acceleration of virtual meetings, implementing collaborative technologies, and

rapid changes in statute, resulted in the vast majority of planners working remotely for most of 2020 and a good proportion of 2021 (MHCLG, 2020a; RTPI, 2020a). In response to COVID-19, new digital approaches to citizen involvement have been developed that are compatible with requirements to physically distance and stay at home (Grayling and RTPI, 2020). While these changes offer an immediate and tangible manifestation of the increased role digital technologies are having in planning, it can be easy to forget that the growth of digital technologies in planning activities has been prevalent since the 2000s.

There has been sustained interest in how to foster meaningful engagement from citizens in planning processes for several decades. There is a well-established understanding of the benefits citizen participation in urban planning – such as supporting better policy making (citizens understand the issues places are facing, and are well placed to identify solutions) and democratic decision making. Despite this, public engagement with the planning process remains low (Evans-Cowley and Hollander, 2010), with “*response rates to local plans less than 0.01%*” (RTPI, 2020b). Increasing engagement with the planning system has been an aim since late-60s (Arnstein, 1969; Skeffington Committee, 1969). The barriers to citizen involvement are widely understood (see, for example, Baker et al., 2007, 2010) but have, if anything, been solidified since the onset of new digital and technological personal devices in the 2010s to make faster and more direct interactions between people, and between citizens and government (Ertiö, 2015; Wilson and Tewdwr-Jones, 2019). Translating the opportunities new digital tools present into new engagement practices remains challenging (Ertiö, 2015; Milz and Gervich, 2021; Wilson et al., 2019), even before the necessity for us all to move to more virtual engagement practices because of COVID-19.

Between urban planning (Evans-Cowley and Hollander, 2010; Hollander et al., 2020, 2020; Potts, 2020) and computing science (Le Dantec et al., 2015; Peacock et al., 2018), there is already a good understanding of the use of individual approaches, tools and technologies that encourage engagement. However, less is known about their interface with the intricacies of the planning system. While we do not have the space to reflect on all previous studies on the use of technology in planning, it is important to recognise the use of technology in planning is not new, from technology that has been used for modelling (Wilson, 1970) to the development of 3D visualisations (Hall, 1993). But, as the millennium approached, and as successive reforms to planning both stripped strategic and intelligence elements out of the system and regared planning myopically into development delivery and growth, so too did

the close relationship between technology and planning fall by the wayside. On this, Batty (2021) notes that the post-war period was “when planning reached its heyday only to decline, as its functions were stripped away by the bureaucracies that established themselves in government ... The time does now seem right, however, for a reinvigoration of the planning vision and the digital transformation is likely to be key to this” (596).

This earlier use of technology has given way to a planning system that, Milz and Gervick (2021) argue, lags behind wider societal uses of technology, such that “*planners may be using digital technologies ineffectively because of limited training, limited hands-on experience and limited guidance from planning literature... that amplify the typical challenges of participatory processes*” (6). More recent proposals for planning reform involving the rolling out of digital planning (MHCLGb, 2020) have been met with scepticism from some parts of the planning system (Local Government Association, 2020).

Before considering the impact and implications of COVID-19, we need to explore the degree to which digital planning had been adopted and embedded within planning before the outbreak – and specifically, how this has shaped approaches and practices for citizen engagement. We use this to question the extent of planning’s ‘overnight’ shapeshifting, or whether these changes are more subtle. It is also an opportunity to question the state of digital planning; while there is little doubt that COVID-19 prompted the use of digital engagement tools, how widespread are these and, critically, what have they replaced?

In this paper, we outline the findings of a research project that assessed the use of digital technologies by local planning authorities (LPAs) in England, and planners’ experience of them. The aim of this research is to develop an understanding of the use of digital technologies for citizen involvement by LPAs, identify any opportunities and difficulties with this approach, and critically evaluate the degree to which these approaches are embedded within LPAs. The increased attention given to digital technologies because of COVID-19 provides a watershed moment to understand planning’s<sup>1</sup> take-up of digital technology, its consequences, and the implications for broader digitalisation agendas. To do this, we analyse the historical and contemporary approaches LPAs have taken in England through two

---

<sup>1</sup> When referring to ‘planning’ we are discussing the professional activity of planning practice and the role and views of practicing planners within the UK.

interrelated approaches: a systematic analysis of planning policy; and a survey of planning professionals' experience of the use of digital technology. The paper first sets out the context and explanation of the paths towards digital planning, then goes on to examine the COVID implications specifically, and finally examines what changes have occurred to current practice.

## **2 DIGITAL TECHNOLOGY AND PLANNING**

### **2.1 Changes since the millennium**

The digitisation of planning, and certainly of planning information, may be traced back to the maturing of the internet. Going back to 2000 – arguably the peak of excitement of the internet ‘revolution’ – the majority of local authorities in the UK (86 per cent) had websites that published information online (Cabinet Office, 2000). Those that offered more advanced features were “few and far between and progress remain[ed] mixed” (ibid.:33). To remedy this, prime minister Tony Blair announced that all local government services in the UK should be online by 2005 (ibid.). Websites were rolled out – with policy documents, maps, applications and decisions posted online – but with limited ability for interactivity between planners and the users of planning (the so-called web 1.0; see Potts, 2020).

Later, around 2004, a new paradigm of interactive web technologies began to emerge, though the development of interactive web technologies (web 2.0), which gave people the opportunity “*to not only read about planning issues and policies on local authority websites, but also to engage with planning issues in new and more consultative ways*” (Potts, 2020: 279). In wider society, particularly as smart phones and tablets became widespread after 2007, people began to use digital technology personally for social media, sharing videos and photos, writing blogs, listening to and making podcasts, reviewing holidays, and shopping online. It is surprising to realise just how the world has changed so fundamentally because of technology in just 15 years (Dixon and Tewdwr-Jones, 2021). However, while this transformation has occurred, and the public have embraced these new technologies and platforms, there has not been the same degree of digital take-up within planning practice; if anything, the digitisation of planning has been more incremental (Ertiö, 2015; Sivarajah et al., 2015).

The use and deployment of digital technologies in planning therefore spans several decades rather than occurred as a big bang. This is seen through differing levels of technology use between planning functions, and the piecemeal adoption of digital tools ‘bolted onto’ the planning system. The lack of more substantial and systematic use of technology, with a reliance on analogue approaches, is frequently criticised: “*Tatty paper planning notices, tied to lampposts, have become the symbol for the failings of the planning system*” (Mills, 2020: n.p.).

These challenges have been picked-up by several organisations in England, including the RTPI (Grayling and RTPI, 2020; 2020c), Connected Places Catapult (CPC) (2020; RTPI and Connected Places Catapult, 2019), Ministry of Housing, Communities and Local Government (MHCLG), and individual local authorities (MHCLG, 2021a; Mills, 2020). There have been rumblings and discussion of a new digital-first planning system for a several years now. Organisations such as CPC have been ahead of the curve, outlining what a digital planning system might look like. Earlier discussions identified the need to ‘fix the plumbing’ of planning (MHCLG Digital, 2019), moving away from planning’s reliance on documents stored on proprietary systems, towards datasets, common standards, and digital tools. But the response has been ad hoc, often reliant on the degree of enthusiasm from individual LPAs to take up opportunities for pilot projects, or else initiated as part of local projects led by the universities through UKRI funding (CPC, 2019).

## 2.2 Accelerating digital planning under COVID-19

The world had to change rapidly as the pandemic hit nations in February to March 2020. In some countries the move to lockdown was not necessarily instant (Newton, 2020). On 23 March 2020, the UK Government told people they “*must stay at home*” (Johnson, 2020). People were ordered to work from home, unless ‘absolutely necessary’ (ibid.). City centres became deserted (Halliday et al., 2020) as high streets, places of entertainment and employment centres closed. Shopping, movies, pub quizzes, celebrations and funerals took place online. Planning offices were no different: 96 per cent of respondents to a Royal Town Planning Institute (RTPI) survey reported working remotely between March and April 2020 alone (RTPI, 2020a).

On 3 April 2020, Housing Secretary Robert Jenrick removed the requirement for local authorities to hold public meetings in person, and later (on 13 May 2020) announced the introduction of a statutory instrument that enabled local councils and developers “*to publicise planning applications through social media instead of having to rely on posters and leaflets*” (MHCLG, 2020a). These announcements led to rapid changes to both how planning is practiced, and its interface with the public, thereby allowing planning to move entirely to a virtual world.

What became noticeable, through the emptying of council officers, was the overnight shift of planning online, and the start of a reassessment the opportunities the internet offered (Milz and Gervich, 2021; RTPI, 2020a). To support remote working, various digital platforms were adopted including Microsoft Teams, Slack Channels and shared Dropbox folders, while planning committees, meetings and public inquiries were scheduled on Zoom; official planning documents were signed virtually, and planning engagement activities moved online (PAS, 2020; RTPI, 2020a). While the lockdowns illustrate a story of a fast transition online and the instantaneous take-up of digital technologies, it should also be remembered that the take-up of digital technology within planning practice has been much slower, spanning several decades (Carver et al., 2001; Evans-Cowley and Hollander, 2010; Hollander et al., 2020; Wilson, 1970).

As a response to COVID-19, there has been increased interest and scrutiny of planning’s use of digital technologies. Grayling/RTPI (2020: 10) examined changes to planning engagement practices in the early stages of lockdowns, noting that “*almost overnight, local authorities have had to gain a level of comfort with online collaboration and video conferencing tools that previously seemed years away*”. The report found that 83 per cent of LPAs changed their community engagement practices, and that 93 per cent felt these practices will continue to be important post-pandemic. However, despite widespread digital take-up since March 2020, a separate survey showed that 36 per cent of LPAs “*felt their IT systems were ineffective for conducting public consultations*” (RTPI, 2020a: 31). They identified opportunities for digital technologies facilitating ongoing engagement, with more people, at a lower cost (echoing work by Evans-Cowley and Hollander, 2010) particularly with young people (see also Ertiö, 2015), but found barriers with the digital skills planners possess (see Hollander et al., 2020). While there is a growing body of work that documents how citizens want to use technology to engage with planning, there is a less developed understanding of whether and how

planners want to use these technologies (Evans-Cowley and Hollander, 2010; Hollander et al., 2020; Milz and Gervich, 2021), with a concomitant lack of a high-level understanding of the take-up and use of digital technologies across the country.

Irrespective of the impact of the pandemic, there has been a growing interest politically and professionally in accelerating the rolling out of digital planning in practice. In response to calls for planning to be “simpler, clearer and quicker” (MHCLG, 2020b: 6), digital technologies have been placed centre-stage in proposed planning reforms. This includes a shift to “*a radical, digital-first approach to modernise the planning process. This means moving from a process based on documents to a process driven by data*” (Ibid.: 21) that is then used to automate routine processes, support further engagement, produce interactive maps, and create new datasets. This has been characterised as Planning 3.0, where the “*core ontologies, epistemologies and methodologies of planning are shifting in response*” (Potts, 2020: 284).

Concerns have been raised by the prospect of these reforms, not necessarily the use of digital technologies in planning per se, but rather their application in automating decision-making, enabling a more prominent role for private companies, and contributing to reducing the role of democracy, citizens and the public interest in planning (Chapman et al., 2020). While not dismissing these recent concerns, we emphasise the need to engage with the digital reform agenda as a continual process and one that has taken place since Blair’s call for the increased use of digital technology in government (Cabinet Office, 2000), rather than view the present reforms as a threat to professional forms of planning.

### 2.3 Planning and Citizen Involvement

England’s planning system has undergone multiple personality changes over the decades (Tewdwr-Jones, 2012, 2015). It has a ‘plan-led’ system meaning policy is the first consideration in driving decisions. There are three tiers of policy: national, local and neighbourhood. The National Planning Policy Framework (NPPF) is developed by central government. LPAs are required to prepare development plans (local plans) that conform to national policy. Neighbourhood forums can also develop their own planning policies through Neighbourhood Plans that must be in conformity with local policies. Decisions on individual development proposals must be made in accordance with policy unless there is a good reason

to not to. The planning system, therefore, has two distinct stages: developing a plan, and implementing it through decisions on whether to grant planning permission. Although there are opportunities for citizen participation at both stages, the opportunities at later stages (when policies are adopted and planning applications are being considered) are much narrower (Cullingworth et al., 2015). Since 2010, downstream reforms to relax permitted development (PD) rights (that is, development that does not need planning permission) and simplify the categorisation of the use of land, has reiterated the importance of early involvement for public engagement with policy.

A required component of the development of policies for a Local Plan is a Statement of Community Involvement (SCI)<sup>2</sup>, to be reviewed every five years<sup>3</sup>, that outlines a LPA's approach to engaging people in policy development, with the aim of it being "*shaped by early, proportionate and effective engagement between planmakers and communities*" (MHCLG, 2019: 8). Recent reform emphasises the importance of citizen engagement in playing "*a key role for ensuring that the right levels of growth are identified to meet the needs of the community*" (MHCLG, 2021b). Legal precedent has held that LPAs must follow their published policies outlined in their SCIs "*unless there are good reasons not to*". An RTPI survey showed that 28 per cent of public planners are concerned about the potential of "*being sued for non-compliance of planning procedures*" (RTPI, 2020a). Probably because of this context, some SCIs outline only what is legally required with the aim of going beyond these requirements where time and resources allow, whereas others choose to outline commitments in advance.

Local plans, and the resources that are required to develop policies and shape their contents, and statements of community involvement, both provide a useful indication of the digital transformation of planning. These sources should be seen alongside the significant take-up of personal digital media in the UK since the introduction of smartphones and the public signing up to social media platforms. The number of households that now own a mobile phone stands at 95 per cent, a figure that has remained broadly static since 2014 (Office for National Statistics, 2019). Equally, the numbers of people commenting on planning-related issues appears to have increased dramatically over the same period through social media rather than

---

<sup>2</sup> Planning and Compulsory Purchase Act 2004 (s18(1))

<sup>3</sup> The Town and Country Planning (Local Planning) (England) (Amendment) Regulations 2017

traditional non-digital planning consultation (Wilson et al., 2019). But, other than anecdotal stories, we have very little evidence of numbers, extent or impact, nor the profile of those getting involved, or whether digital means are accelerating that interest. More pertinently, we do not know at present whether LPAs are embracing the digital more willingly to correspond to the public's increased take-up of digital technologies and platforms, or switching to more digitally-enabled consultation techniques.

### **3 RESEARCHING THE DIGITALISATION OF PLANNING**

In this section we outline our approach to understanding the use of digital technologies in planning practice. We do this in two ways: through the analysis of adopted SCIs in England; and presenting the findings of a survey of planning professionals.

In the previous section, we developed a practice-focussed account on the use of digital technology in planning. Through this, it becomes apparent that, while there is a lot of research exploring citizens and planners using technology, there is little understanding of the widespread use of technology across the planning system more generally. COVID-19, and the requirement for physical distancing and self-isolation, ushered in sweeping changes to many people's daily life, work, education and access to healthcare, but it also presented a unique opportunity for an assessment and reflection of the state of use of digital technologies within the English planning system. There has been no recent assessments of the use of digital technologies by LPAs across England.

COVID-19 has provided "*a renewed appreciation of the importance of (high-quality) public spaces*" (Varna and Oswell, 2021: 109) and shone a spotlight on the need to bolster our efforts in findings ways to "*help shape and translate local aspirations and needs into realistic plans that become places people love and feel comfortable living in*" (Ibid.: 110), and both of these arguments are set against the backdrop of the digital revolution. Accordingly, there is a need to understand the position of Statements of Community Involvement (SCIs) in planning as perceived by LPAs, and the planner's understanding of this transition. The research undertaken sought to provide a systematic review together with an indicative survey distributed to practicing planners on these interrelated issues.

In February 2021, we conducted a systematic review of adopted SCIs for all 455 LPAs in England. We identified 335 SCIs adopted by these local authorities (with a lower number due to some LPAs adopting joint SCIs). The latest and adopted SCIs were obtained from their websites (except in 2 cases, where the document could not be accessed due to website errors). As part of the research, we collated evidence of what was contained in each of the SCIs. If methods were suspended, we included both those suspended and any additional methods that were introduced. The approaches were then grouped into five themes:

*Digital approaches:* using digital internet technologies to allow people to access and comment on planning policy;

*Traditional not in-person:* using approaches that do not require someone to travel to participate or use digital technologies;

*Traditional in-person:* using approaches for in-person engagement approaches; methods for

*Raising awareness: using methods to publicise opportunities for involvement;* and

*Media and press: using approaches that use internal and external media.*

These are outlined in more detail in Table 1.

*Digital Approaches*

Website	LPA websites, as well as interactive policy portals (for example, a tool that allows line-by-line responses to policy proposals).
Email	Used to alert residents and organisations on a database to opportunities for involvement.
Social Media	Used for advertising opportunities for engagement.
Virtual Events	Virtual events included online workshops, webinars, presentations, virtual or online exhibitions, or video conferencing.

*Traditional Approaches - Not In-Person*

Letter	LPAs posting letters or inviting responses through letter.
Phone	Hotlines, or officers made available to discuss policy proposals.
Parish & Town Councils	Notification of opportunities for involvement.

*Traditional In-Person*

Exhibitions	Staffed or unstaffed collections of displays, either fixed or used as part of a road show.
-------------	--

Events	Events, or public events were noted when specifics of the event were not detailed.
Meetings, Workshops or Focus Groups	Meetings, workshops or focus groups get several people together to discuss in different formats, with people usually invited in advance.
Questionnaires, Response, Forms or Survey	Surveys distributed through letters and email. Forms, often in conjunction with exhibitions and events, are used to collect feedback..
Attend other Group's Meetings or Plan Additional Meetings	Planners attending existing groups (such as local neighbourhood or interest groups) to provide information.
Surgeries or One-to-One Meetings	Meetings with the LPAs with specific individuals or organisations.

*Raising Awareness*

Libraries	Deposit points for people to view policy documents.
Principal Council Offices	As above.
Site Notice or Community Notice Boards	Notices placed near to allocated sites, or around wider areas, such as existing community notice boards to inform them of the consultation.
Notifying Groups	Specific community groups notified.
Leaflets or Posters	Leaflets or posters produced with summary information.

*Media & Press*

TV or Radio	The mention of TV or Radio used to raise awareness of consultation.
Press Advert or Notice	A formal, paid for, advertisement placed in the press.
Press or Media Release	Press or media releases about opportunities for consultation.
Local Magazine or Newsletter	A LA-owned publication, or a temporary planning newsletter, to share opportunities for involvement or progress.

*Misc.*

Other Methods	Less common methods were noted.
---------------	---------------------------------

Table 1: Categorisation of methods of planning engagement. Source: Authors

In order to understand the consequences of the move online, and the increased use of digital technologies, we had also conducted a small, indicative, survey online between in July and August 2020 with LPA professional planners. The survey, which received 20 responses, questioned whether planners have adopted or escalated the use of digital technology, and identified any difficulties associated with this.

#### 4 ANALYSING STATEMENTS OF COMMUNITY INVOLVEMENT

## 4.1 Overview of SCIs

A critical objective about undertaking this research was to ascertain whether digitisation was beginning to infuse aspects of the planning system in practice. Analysis of the Statements of Community Involvement (SCI) element of local plan preparation would indicate whether LPAs were appearing to acknowledge the escalation in the use of digital methods by citizens, and how since 2020 the impact of COVID-19 was causing a reconfiguration of planning to online modes. Figure 1 shows the number of SCIs adopted by LPAs by year, with the most (re)written in 2020. The modal average of the SCIs was 3 years. In 2020, the research shows that 44 per cent of all SCIs in England were updated.

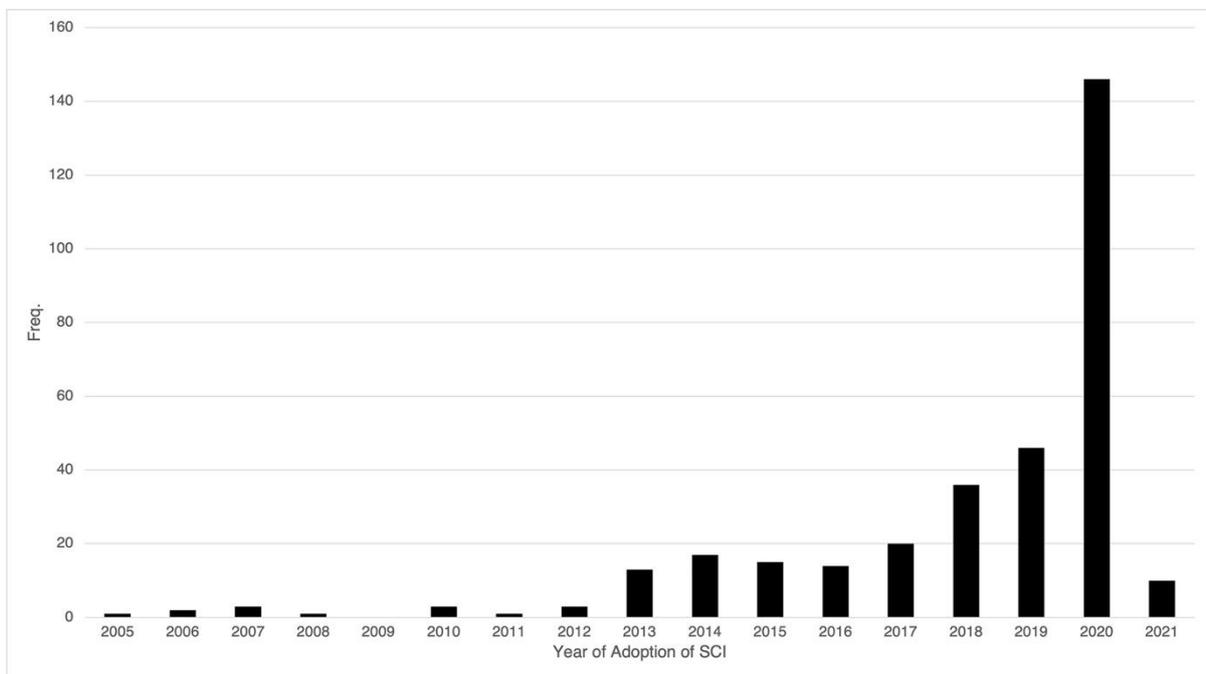


Figure 1: Date of Adoption of SCIs since 2005. Source: Authors

	2005 - 2009	2010 - 2014	2015 - 2019	2020 - 2021	Trend	TOTAL
<b>Total in Group</b>	<b>7</b>	<b>37</b>	<b>132</b>	<b>152</b>		<b>328</b>
<b>Digital Approaches</b>	<b>39%</b>	<b>56%</b>	<b>63%</b>	<b>74%</b>		<b>66%</b>
Website	100%	92%	94%	96%		95%
Email	57%	81%	83%	82%		81%
Social Media	0%	51%	75%	84%		74%
Virtual Events	0%	0%	1%	34%		16%
<b>Traditional Approaches - Not In-Person</b>	<b>33%</b>	<b>37%</b>	<b>35%</b>	<b>40%</b>		<b>37%</b>
Letter	43%	78%	75%	74%		74%
Phone	29%	5%	7%	18%		13%
Parish and Town Councils	29%	27%	22%	28%		25%
<b>Traditional In-Person</b>	<b>52%</b>	<b>50%</b>	<b>43%</b>	<b>43%</b>		<b>44%</b>
Exhibitions	100%	86%	64%	70%		70%
Events	0%	11%	12%	10%		11%
Meetings/Workshops/Focus Groups	71%	78%	75%	69%		72%
Questionnaires/Response Forms/Survey	29%	57%	42%	41%		44%
Attend other Group's Meetings or Additional Surgeries/One to one meetings	71%	30%	42%	35%		36%
	43%	35%	26%	31%		29%
<b>Raising Awareness</b>	<b>29%</b>	<b>45%</b>	<b>49%</b>	<b>56%</b>		<b>37%</b>
Libraries (to view hard copies)	57%	62%	58%	66%		61%
Principal Council Offices (to view)	43%	62%	64%	78%		57%
Site Notice/Community Notice	0%	51%	75%	84%		14%
Notifying Groups	0%	0%	2%	1%		1%
Leaflets/ Posters	43%	49%	48%	52%		49%
<b>Media &amp; Press</b>	<b>46%</b>	<b>44%</b>	<b>41%</b>	<b>43%</b>		<b>42%</b>
TV/Radio	14%	14%	6%	11%		9%
Press Advert	29%	49%	46%	46%		46%
Press Release	57%	76%	66%	70%		68%
Local Magazine/Newsletter	86%	38%	44%	45%		44%
<b>Other Methods</b>	<b>100%</b>	<b>59%</b>	<b>52%</b>	<b>56%</b>		<b>56%</b>

Table 2 shows the range of consultation methods that LPAs highlighted within their SCIs. The percentages set out for each method indicates the individual LPAs within the period that use the approach. The theme's percentage (e.g. digital approaches) is an average of the individual percentages.

	2005 - 2009	2010 - 2014	2015 - 2019	2020 - 2021	Trend	TOTAL
<b>Total in Group</b>	<b>7</b>	<b>37</b>	<b>132</b>	<b>152</b>		<b>328</b>
<b>Digital Approaches</b>	<b>39%</b>	<b>56%</b>	<b>63%</b>	<b>74%</b>		<b>66%</b>
Website	100%	92%	94%	96%		95%
Email	57%	81%	83%	82%		81%
Social Media	0%	51%	75%	84%		74%
Virtual Events	0%	0%	1%	34%		16%
<b>Traditional Approaches - Not In-Person</b>	<b>33%</b>	<b>37%</b>	<b>35%</b>	<b>40%</b>		<b>37%</b>
Letter	43%	78%	75%	74%		74%
Phone	29%	5%	7%	18%		13%
Parish and Town Councils	29%	27%	22%	28%		25%
<b>Traditional In-Person</b>	<b>52%</b>	<b>50%</b>	<b>43%</b>	<b>43%</b>		<b>44%</b>
Exhibitions	100%	86%	64%	70%		70%
Events	0%	11%	12%	10%		11%
Meetings/Workshops/Focus Groups	71%	78%	75%	69%		72%
Questionnaires/Response Forms/Survey	29%	57%	42%	41%		44%
Attend other Group's Meetings or Additional Surgeries/One to one meetings	71%	30%	42%	35%		36%
	43%	35%	26%	31%		29%
<b>Raising Awareness</b>	<b>29%</b>	<b>45%</b>	<b>49%</b>	<b>56%</b>		<b>37%</b>
Libraries (to view hard copies)	57%	62%	58%	66%		61%
Principal Council Offices (to view)	43%	62%	64%	78%		57%
Site Notice/Community Notice	0%	51%	75%	84%		14%
Notifying Groups	0%	0%	2%	1%		1%
Leaflets/ Posters	43%	49%	48%	52%		49%
<b>Media &amp; Press</b>	<b>46%</b>	<b>44%</b>	<b>41%</b>	<b>43%</b>		<b>42%</b>
TV/Radio	14%	14%	6%	11%		9%
Press Advert	29%	49%	46%	46%		46%
Press Release	57%	76%	66%	70%		68%
Local Magazine/Newsletter	86%	38%	44%	45%		44%
<b>Other Methods</b>	<b>100%</b>	<b>59%</b>	<b>52%</b>	<b>56%</b>		<b>56%</b>

Table 2: Use of consultation methods of involvement by date of adoption. Source: Authors

It is worth briefly reflecting on some of the changes made in response to COVID-19. 146 SCIs were adopted in 2020, and 10 in 2021. 31 per cent (106) of all LPAs in England now make explicit mention of COVID-19 in their SCIs. These updates were commonly made through an addendum that either serves to suspend and/or introduce new methods.

The year the SCI was adopted had no bearing on whether it was updated in response to COVID-19. Among these, viewing documents in libraries and local authorities, meetings, workshops and focus groups and exhibitions were frequently suspended, as face-to-face contact was prohibited and public buildings closed. The updates led directly to more frequent use of digital approaches, with 44 per cent (47) of those updated specifying a switch to virtual events. Some SCIs introduced restrictions on previously available methods because of circumstances, such as requiring appointments to view documents in council offices and libraries. The following sections discuss each theme in-turn, with selective illustrations from individual local planning authorities, referred to by LPAX and page numbers of direct quotes.

#### 4.1.1 Digital approaches

The findings show a general growth in the use of digital approaches, rising from 39 per cent 2005-09 to 74 per cent of SCIs in 2020-21. While the use of websites is high (95 per cent across all periods), there has been a growth of other types of digital technologies used, such as email, and a much sharper increase in the use of social media. Virtual events saw a huge increase, with no use of virtual events until 2020-21, when 34 per cent of SCIs noted them.

There is no sharp rise in the uptake of digital approaches; however, more interactive approaches (that rely on web 2.0 technologies) see a steeper rise (social media and virtual events). Although the use of digital technologies was commonplace, further reading of the SCIs suggest they tend to echo web 1.0 paradigms (for broadcast, rather than two-way interaction/discussion). Websites were frequently used to share policy documents and information and collect comments, rather than host discussions. There was some use of interactive policy portals (for example, through the system 'Objective', 'Limehouse' or interactive policy maps that allowed for comments on policy), but not intended to aid discussion directly between citizens and planners.

Social media (with a growth from 0 per cent in 2005-09 to 84 per cent in 2020-21) was discussed as an approach to engage the 'hard to reach' groups through planning, such as young people. It provides an interesting example of the use and potential of more interactive web technologies, and while this might suggest the adoption of more interactive digital tools, the majority of its uses were to direct people towards the website to view planning policy, or other opportunities. For example, LPA4 states, "*social media will only be used as a method of notification. Formal comments on Planning Policy consultations and applications will need to be received by email or by letter*" (18); LPA15 states that social media will be "*utilised as a means of keeping people informed, rather than a formal part of consultation... where appropriate, pages should be referred to on literature & website to raise awareness*" (33); while LPA6 states, "*Any anonymous comments or comments made via social media will not be taken into account*" (18). Although rare, social media was used in more dynamic ways, with LPA13 stating, "*it allows officers to gauge initial responses and respond to issues sooner and more effectively*" (para. 4.6), and LPA8 noting, "*social media allows for real-time dialogue... as an accessible method of communicating to many groups when done well*

*and is inexpensive and immediate*” (36). The interesting issue to note here is that although social media allows ‘for real-time dialogue’, they see it as a device for ‘communicating to’.

LPA9’s SCI notes the difficulties in using digital platforms that planners alone do not have control of, stating: *“The use of social media can be an effective and inclusive way of engaging with people and communities, allowing people to input at a time and in a way that suits them. However, careful thought should be given to how the consultation is structured to prevent inappropriate use and ‘trolling’ by, for example, requiring approval of comments by a moderator or similar mechanism”* (8). As part of their SCI, LPA5 ran a poll on Twitter asking their online followers how people want to engage with planning. It found the majority would rather use email (60 per cent) compared to websites and social media (40 per cent), newspaper notices and articles (0 per cent) and public meetings and exhibitions (0 per cent); this was then utilised to shape their digital approach.

There has been a sharp increase in virtual events, in line with the digital transition caused by the pandemic. LPA1 noted the Planning Advisory Service’s COVID-19 advice to, *“think differently about how you consult and how you use the online and virtual tools you have access to promote your consultation and allow people to get involved”* (1). The discussion of virtual events, however, was less committal than others, with virtual events undertaken ‘where appropriate’, ‘feasible’, ‘practical’ or ‘possible’, with less detail when compared to other approaches.

While a number of LPAs noted the use of virtual events during the need for physical distancing and stay at home orders, some noted they may play an increased role in the future. For example, LPA3, noted that, *“If these methods are successful, the council will consider utilising these methods in the future”*, and LPA14 stating, *“We will consider the use of new technologies to deliver consultation in different ways... using software platforms such as MS Teams and Zoom through online exhibitions, Q&A sessions and other meetings... such consultative measures, if successful, will be continue to be utilised in the future”* (18).

#### *4.1.2 Traditional approaches - in-person and not in-person*

Letters were used for citizen engagement and notification when email addresses were not already on the LPA’s database. The use of phones tells an interesting story, of being an

important, later falling, but with a more recent growth in 2020-21 (2005-2009: 29 per cent; 2010-2014: 5 per cent; 2015-2019: 7 per cent; 2020-2021: 18 per cent). The changes reflect phones use as an approach that could overcome physical distancing requirements and possible digital exclusion through internet access. Many SCIs noted, however, that the LPAs would not take representations made by people over the phone; LPA7 notes, “*when we invite representations... we will include an email address and phone number*” (5). The use of letters remains high (74 per cent), and is a statutory requirement; therefore, many LPAs may have chosen not to include it in their SCIs. Informing and involving parish and town councils remained steady throughout the period (between 27 and 29 per cent over the period, except in 2015-2019, when it was 22 per cent).

Over the 15 years, there was a small reduction (from 52 per cent between 2005-2009 to 43 per cent between 2020-2021) in the number of traditional in-person approaches, the use of exhibitions, and attendance at other people’s meetings or holding additional ones. While the reason for reducing these was not explicitly stated, it was noted in some cases that they are resource intensive and costly, with LPA10 stating, “*public exhibitions were attracting very limited attention from local people as opposed to development interests*” (4). The use of unstaffed exhibitions, poster displays and roadshows are seen as a popular alternative to other more resource-intensive methods, but the use of events was relatively low. Meetings, workshops and focus groups were popular, and remain so, with only a slight decline over the period (from 71 per cent between 2005-2009 to 69 per cent between 2020-2021).

Where details were provided, meetings tended to follow similar formats that would encourage people to talk, either directly to LPA planners or between themselves. To widen engagement, one LPA planned to allow “*piggy-backing on existing events... in reaching groups not normally involved in planning*” (11). We did not identify any uses of digital technologies to support in-person activities, except LPA12 that mentions the use of “*interactive displays*” (23), but with no additional information provided.

#### 4.1.3 Raising awareness, media and press

‘Raising awareness’ aimed to make people aware of opportunities for involvement. This was usually done through community notices, making groups aware of proposals, distributing notices, or displaying posters. As noted earlier, many of these approaches were suspended

following the pandemic outbreak, and replaced by placing documents on a website. They are characterised by the one-way flow of information from planners to citizen.

There was overall growth in the use of approaches for raising awareness (from 29 per cent between 2005-2009 to 56 per cent between 2020-2021), with the largest growth seen in the use of site and community notices (from 0 per cent to 84 per cent). The details of these methods was similar across all LPAs. It is worth noting that the majority of these approaches were statutorily required (such as making copies of these documents available for inspection), although this requirement was suspended in 2020 (MHCLG, 2020c). In one novel use, LPA11 used variable message physical signs on A classification roads to “*promote Local Plan consultation... and... reach a wide range of people in different geographic locations*” (31).

There was little change in approaches that used the media and press (between 41 and 46 per cent over the entire period). The use of TV, radio, press adverts, and press releases remained stable. There was a significant drop-off in the use of local magazines and newsletters after 2009 (from 86 per cent between 2005-2009 to 38 per cent between 2010-2014, perhaps for cost reasons as a response to the government’s austerity program). Press notices for planning policy is a statutory requirement (although this too was suspended in 2020 (MHCLG, 2020c)).

	2005 - 2009	2010 - 2014	2015 - 2019	2020 - 2021	Trend	TOTAL
<b>Total in Group</b>	<b>7</b>	<b>37</b>	<b>132</b>	<b>152</b>		<b>328</b>
<b>Digital Approaches</b>	<b>39%</b>	<b>56%</b>	<b>63%</b>	<b>74%</b>		<b>66%</b>
Website	100%	92%	94%	96%		95%
Email	57%	81%	83%	82%		81%
Social Media	0%	51%	75%	84%		74%
Virtual Events	0%	0%	1%	34%		16%
<b>Traditional Approaches - Not In-Person</b>	<b>33%</b>	<b>37%</b>	<b>35%</b>	<b>40%</b>		<b>37%</b>
Letter	43%	78%	75%	74%		74%
Phone	29%	5%	7%	18%		13%
Parish and Town Councils	29%	27%	22%	28%		25%
<b>Traditional In-Person</b>	<b>52%</b>	<b>50%</b>	<b>43%</b>	<b>43%</b>		<b>44%</b>
Exhibitions	100%	86%	64%	70%		70%
Events	0%	11%	12%	10%		11%
Meetings/Workshops/Focus Groups	71%	78%	75%	69%		72%
Questionnaires/Response Forms/Survey	29%	57%	42%	41%		44%
Attend other Group's Meetings or Additional Surgeries/One to one meetings	71%	30%	42%	35%		36%
	43%	35%	26%	31%		29%
<b>Raising Awareness</b>	<b>29%</b>	<b>45%</b>	<b>49%</b>	<b>56%</b>		<b>37%</b>
Libraries (to view hard copies)	57%	62%	58%	66%		61%
Principal Council Offices (to view)	43%	62%	64%	78%		57%
Site Notice/Community Notice	0%	51%	75%	84%		14%
Notifying Groups	0%	0%	2%	1%		1%
Leaflets/ Posters	43%	49%	48%	52%		49%
<b>Media &amp; Press</b>	<b>46%</b>	<b>44%</b>	<b>41%</b>	<b>43%</b>		<b>42%</b>
TV/Radio	14%	14%	6%	11%		9%
Press Advert	29%	49%	46%	46%		46%
Press Release	57%	76%	66%	70%		68%
Local Magazine/Newsletter	86%	38%	44%	45%		44%
<b>Other Methods</b>	<b>100%</b>	<b>59%</b>	<b>52%</b>	<b>56%</b>		<b>56%</b>

Table 2 also notes a reduction of ‘other’ approaches taken. These included mentioning citizen panels (5 per cent), ‘Planning for Real’ exercises (4 per cent), and ‘Planning Aid’ (3 per cent). The decline in ‘other’ methods also illustrates a reduction more generally in the number of diverse approaches discussed in SCIs.

## 4.2 Survey of Practitioners

To supplement the analysis of LPA SCI documents, an additional piece of research was undertaken to gather opinions from professional planners to the impact of COVID-19 on planning activities. This was achieved through an open online survey, distributed to planners through email to planning departments, social media (LinkedIn and Twitter), with no targeted number of responses occurred during the first UK lockdown in spring/early summer 2020. This may explain why there was a relatively low response rate (just 20 people completed the survey), although these are broadly representative of the professional make-up of the planning profession (survey: 60 per cent public, 30 per cent private, 10 per cent voluntary; compared to the RTPI (see RTPI 2019b): 56 per cent public, 44 per cent private). While we

make no claims on the representativeness of this survey, the results do provide some interesting snapshot anecdotes to supplement our understanding of previous work.

The survey first explored the planner's employing organisation's priorities on a number of topics. The highest priority after March 2020 were the deployment of technologies to enable home working and meetings with internal colleagues (90 per cent saw this as a 'high' or the 'highest priority'). The lowest priority issues among public sector planners (25 per cent seeing it as low priority) was undertaking appeals, site visits, enforcement action, or pre-application advice.

The survey then asked about how widely digital approaches were enacted. Many of the categories of technologies were 'widely enacted' – home working was 'widely enacted' (public: 91 per cent; private: 100 per cent), and online citizen participation least enacted (public: 55 per cent 'partially enacted' or 'not enacted'; private: 83 per cent 'partially enacted' or 'not enacted').

The survey then questioned whether planners found these changes easy to adopt or not. Overall, the majority of respondents thought the transition online was easy (75 per cent). The easiest ('extremely easy' or 'easy') to undertake was virtual meetings (85 per cent) and home working (80 per cent). 85 per cent expressed the opinion that the technologies adopted during COVID-19 are here to stay.

Open questions encouraged respondents to reflect on how their practice has changed, the difficulties they experienced, and whether new practices would become more established. Many responses discussed how many of the individual tasks they perform have changed, such as with meetings where *"Zoom is a critical tool"*, the ability to digitally *"co-edit documents, share screens"*. Respondents noted that planning *"has become paperless"*, with efficiencies due to *"Not unnecessarily waiting for paper processing"* and with *"less hidden processes i.e moving work to different stations and trays within the office"*. Other important tasks were highlighted, such as site visits and statutory notices, where they *"asked for photos of the site and we asked applicants to print notices where possible"*, how committee meetings had changed (*"At planning committees staff with no personal tie to applications would read out statements received from the public instead of the public actually speaking"*) and the reduction in statutory requirements that was *"Cutting out unnecessary steps"*.

In response to questions about the use of social media, 75 per cent used it for pointing people towards online participation portals, and 58 per cent for posting links to development proposals. One participant thought COVID-19 *“has pushed it [digital techniques] from ‘nice to do’ to ‘we can see at staff level there are benefits’”*.

Respondents were encouraged to reflect on how their new working arrangements change their practices. While some noted the positives, such as *“webinars for people to view and phone in to watch”*, with more of a focus on *“utilising infographics, interactive maps and videos to communicate our proposals as well as gather responses”* which is *“enable[ing] us to have more of a complete picture of what the public want. Its helping the silent majority have a voice”*, others discussed the *“Danger of it becoming less democratic”*, stating: *“online citizen engagement has strong class bias: ppl in white-collar jobs OK but many working class ppl averse or cowed or daunted + lack online access or data credit”*. Opportunities for planning to become more efficient were discussed too, with a focus on time savings (14 responses) and cost (7 responses), with one planner stating *“Less travel time, less expense, more time to do planning”*.

Looking to the future, many respondents expect the changes to be retained: *“It’s proven to work therefore why should it not continue”*, *“overall my organisation is very focused on retaining the digital ways of working”*. One respondent felt the changes were inevitable saying: *“it has pushed us forward with the use of technology - it has moved us forward at least 5 years which would not have happened”*. Another recognised the need for digital technologies to be situated within wider reforms of the planning system, noting: *“Big opportunity for digitised, data driven approach to planning, but needs cultural change and financial resource... It’s often the smaller steps that would make the most difference... rather than investing in over-engineered tech solutions. i.e. sometimes low tech can be high tech”*.

The following section reflects on these findings and situates them within boarder changes over the previous two decades.

## **5 REFLECTING ON THE USE OF DIGITAL TECHNOLOGIES IN PLANNING**

The research findings demonstrate both the slow take-up of digital technologies since 2000, with opportunities for digital engagement growing throughout the study period, and the faster adoption of more advanced digital technologies to support new approaches to digital engagement since the start of the COVID-19 pandemic. In this section, we reflect on planning's response to COVID-19 largely enacted as an emergency reaction to the curtailing of face-to-face contact and in person/office-based activities with the increased reliance on online interaction. What emerges is an understanding that digital approaches taken in SCIs mirror broader uses in technology; for example, earlier uses are characterised by the one-way flow of information, whereas later are more interactive (echoing Potts' (2020) conception of planning 1.0, 2.0 and 3.0).

While new and increasingly sophisticated interactive digital technologies are being adopted by LPAs, new forms of engagement present their own challenges, especially how to integrate them legally and practically into formal planning processes. Given such widespread use and adoption of digital technologies by LPAs, it is a concern that a recent survey showed a majority of planners may not see digital approaches as 'legitimate' (18), and 26 per cent see their IT systems as 'not effective' or 'slightly effective' for public consultation (Grayling/RTPI, 2020). This, perhaps, could relate to difficulties in accounting for new engagement approaches within a formal planning system designed for different forms of citizen input. Just as the adoption of digital technologies in the early 2000s led to swift changes, planning is going through an intense period of digitalisation. We need to carefully consider the long-term implications if the overnight digitalisation of the planning system, prompted by COVID, is here to stay.

Digital technologies present opportunities to reimagine and transform planning processes, but can also be used at a base level to replicate previous offline processes (Evans-Cowley and Conroy, 2010; Wilson et al., 2019). The immediate consequences of COVID-19 has been using digital technologies to move activities online (RTPI, 2020a), with little time to reconceptualise or reconfigure processes in response to the increased use and opportunities presented by digital technology and the public's appetite for social media. Reflecting this, 68 per cent of planning respondents to the Grayling/RTPI (2020) survey stated "*they did not particularly use any innovative consultation methods during the pandemic*" (20). While more ambitious possibilities for digital technology might involve 'replumbing' the planning system (MHCLG Digital, 2019), there are opportunities for the use of digital technologies that

enhance citizen participation. We must remain cognizant that digital technologies themselves do not make processes innovative, revelatory or more inclusive. Attention needs to be given to the consequences of the use of these digital technologies, concentrating not just on what technologies that are used, but how they are being used and the new forms of engagement they facilitate.

Social media – a technology that saw rapid growth between 2007 and now – can allow people to “*share their opinions on decision-making in real-time, ask questions, and actively participate in discussions around key areas of interest*” (Hollander et al., 2020: 508). The challenge, however, comes because the ability of these technologies are often at odds with the more formal and ridged planning system. The barriers of traditional methods are replicated through how potentially more accessible technologies are used as older, brittle, approaches are transferred to new technologies. While there is widespread use of social media (Hollander et al., 2020), which may ostensibly appear to be more democratic, there is little change in the formal processes of planning engagement. The use of social media is illustrative of planning’s use of technology: while there is an abundance of new tools and technologies, there is little underlying change in how these voices are accommodated within planning.

While novel digital approaches – when used and considered appropriately – offer opportunities for widening engagement, the underlying ways these voices are captured needs to be reflected on. If LPAs are interested in opening up discussions with broader groups, consideration is needed on both the tools that are used within planning, what they are used for, and how they are embedded within the planning system. While these considerations may seem obvious, we found limited discussion of the appropriateness of individual methods for different groups. To open-up the democratic potential of digital planning, increased attention needs to be given on how appropriate methods can be devised that present interesting and citizen-centred opportunities for comment, involvement and – critically – interaction. This responsibility falls as much on government to amend the statutory form of planning as the way planning is practiced on the ground by local planners.

The research shows that some LPAs did take the opportunity to rethink their approach to engagement. Despite this, the majority replaced in-person approaches with digital, with homogeneity across the country rather than them being tailored to local contexts. During the study, we were surprised to not find exemplar engagement work we had not already known

about. For example, the Plymouth plan – that brought together a wide-ranging engagement on the future of Plymouth for a discussion on housing, children, young people, transport, arts, culture and the environment – was not within their SCI (Plymouth City Council, 2020). It is worth noting that while there are several innovative engagement programmes that gain attention, the predominant engagement approaches are not through these innovation methods but through the more mundane and everyday approaches identified within this research.

Bolstering citizen perspectives in planning, whether using technology or not, requires resources. Since the implementation of austerity in England, local authorities have prioritised cutting services they are not legally required to provide, including services “*such as planning, libraries and culture activities [that] have seen the deepest cuts in cities and non-urban areas alike, with spending on planning and development falling by 41 per cent in urban areas*” (Centre for Cities, 2019: 16). In turn, LPAs “*are weathering austerity by becoming lean and commercialised; staff cuts and churn are endemic while rapid policy change and proceduralism generate increased workloads*” (Tait et al., 2020: 12). The research found that the first activities that tend to be cut are those surrounding policy-making (73 per cent of cuts), rather than statutorily-required decision-making processes. The impact of this is reducing the time for both planning and securing community participation (RTPI, 2019a: 7). While new methods can provide the means for people to become involved, there are several other barriers (see Baker et al., 2007, 2010) that cannot be overcome by technology alone, and require investment, time and resource to develop (Wilson et al., 2019). There has been a lot of excitement about the opportunities presented by new digital tools; however, without the stick of legislative backing and the carrot of a dedicated resource, the ability of these approaches to open-up planning remains limited.

## **6 CONCLUSIONS**

This paper offers an insight into the use of digital technology within planning during an important period concerning the rolling out of public service technology (Hollander et al., 2020; Potts, 2020; RTPI and Connected Places Catapult, 2019; Wilson and Tewdwr-Jones, 2022), the potential for further planning reforms (Grayling and RTPI, 2020; MHCLG, 2020b; RTPI, 2020a), and the sudden challenges caused by COVID-19 (Dixon and Tewdwr-Jones, 2021). It demonstrates the relatively slow-paced adoption of digital technologies in planning

since 2000, alongside the fast-paced emergency transformation to online planning pursued since March 2020.

The findings prompt reflection on the future roll-out of digital technologies, as expected by the UK Government and the professional planning body. This means not just focusing on how digital technologies should (or should not) be used within planning, but how planners and planning might enact these opportunities. While there is increasing recognition of the importance and opportunities that digital present, and the opportunities they can present for encouraging citizen participation, there are important questions that need resolving about how these are accommodated within the present planning system (Ertiö, 2015) and how these will work alongside future practices. Of particular need is exploring how citizen-centred technologies that capture experiential accounts of places can be harmonised within a fairly rigid and legal process that is increasingly focused on development delivery. Moving forward, the implications of an entirely-digital planning system, that might be phrased as ‘digital by default’, exemplified by the changes touted in a recent reform paper (MHCLG, 2020b), need careful reflection. Without such broader understanding, we risk ‘tacking on’ digital technologies to existing processes that give the ‘illusion’ of engagement (Arnstein, 1969) but are, in effect, a shallow form of digital planning.

More generally, planning is just one sector among many, governmentally, that is being affected by growing digitisation and impacted by technological developments. Such transformation processes have already affected all our lives, in the way we work, bank, shop, undertake leisure, access the news, and keep in contact with people. The rise of the so-called smart city has also seen the systemisation of places and services in fast-paced ways. These changes exceed the often slower-paced statutory activities of institutionalised regimes such as planning that were designed in a pre-digital era. It is society’s expectation of instantaneous access to intelligence, data and performance driven by our own use of personal technology that is creating a desire for government and planning to adapt to digital demand. Planning is not and cannot be immune from digitisation, even if there are legitimate questions to ask about who initiates technological change, who benefits from it, at what cost, and whether it is meaningful, visible and accessible for all.

Digital planning should not be solely about creating the most efficient and cost-effective way for local authorities to undertake planning. It has to be rooted in local democracy and place

management, creating ways to bring together disparate data and intelligence about how places are performing, overcoming institutional fragmentation and agency duplication, while informing pathways to set out visions for the future and plan for them. At the time of writing, the UK Government's digital planning reforms are concerned overtly with speeding up development delivery, but that is only one small part of the task ahead. The challenge is for the planning profession to understand and recognise the possibilities that are there for the taking – to harness and claim ownership of a suite of new planning tools that happen to be more digital than many professionals are used to, align different data intelligence and digital processes, and not be wedded to older methods of working that will increasingly be seen to be archaic.

These challenges cannot be resolved overnight, and it will take time for local government, professional planners, and even planning schools to adapt to the new requirements and expectations. Inherent within these challenges is an awareness that technological transformation can be, and can be seen to be, disruptive. So we should expect degrees of uncomfortableness on this journey, including generating wider awareness and understanding of what specific technologies can offer, wayfinding through an innovation landscape that is constantly reinventing itself, identifying what skills and resources are available at any one time that may be appropriated for planning tasks, and acknowledging that there are many tech businesses waiting in the wings to not only design new digital built environment systems, but run them too. That, in itself, should serve as a warning to public sector planning professionals of what may be a less desirable path ahead for digital planning.

COVID-19 has accelerated the interest in and use of digital planning in practice. That process has been somewhat behind the curve compared to citizens' use of technology, smarter systems enacted for service provision, tech businesses' development of digital tools, and a burning government appetite to adopt digital forms in planning. This is the moment when planners need to ensure that digital planning develops in a way that both enhances their own knowledge and skills as managers of place change, and supports more open, accessible and equitable democratic debate.

## **ACKNOWLEDGEMENTS**

The authors wish to acknowledge everyone that that responded to our survey. This work was supported by the Economic and Social Research Council (Ref: ES/V01160X/1). Data supporting this publication is available at: <https://doi.org/10.25405/data.ncl.16955308>

## BIBLIOGRAPHY

- ARNSTEIN SR (1969) A Ladder Of Citizen Participation. *Journal of the American Institute of Planners* 35, 216–224. DOI: 10.1080/01944366908977225.
- BAKER M, COAFFEE J and SHERRIFF G (2007) Achieving successful participation in the new UK spatial planning system. *Planning, Practice & Research* 22, 79–93. DOI: 10.1080/02697450601173371.
- BAKER M, HINCKS S and SHERRIFF G (2010) Getting involved in plan making: participation and stakeholder involvement in local and regional spatial strategies in England. *Environment and Planning C: Government and Policy* 28, 574–594. DOI: 10.1068/c0972.
- BATTY M (2021) The digital transformation of planning, *Environment and Planning B: Urban Analytics and City Science* 48, 593–597. DOI: 10.1177/23998083211016122.
- CABINET OFFICE (2000) *e-gov: Electronic Government Services for the 21st Century*. September. London, UK: Cabinet Office.
- CARVER S, EVANS A, KINGSTON R, et al. (2001) Public participation, GIS, and cyberdemocracy: evaluating on-line spatial decision support systems. *Environment and Planning B: Planning and Design* 28, 907–921. DOI: 10.1068/b2751t.
- CENTRE FOR CITIES (2019) *Cities Outlook 2019*. 28 January. London. Available at: <https://www.centreforcities.org/reader/cities-outlook-2019/a-decade-of-austerity/> (accessed 6 April 2021).
- CHAPMAN K, TAIT M and INCH A (2020) The dangers of data. *The Journal of the Town and Country Planning Association* 89, 307–311.
- CONNECTED PLACES CATAPULT (2019) *Planning standards: The foundation of an effective digital planning system*. London, UK.
- CONNECTED PLACES CATAPULT (2020) *Transforming the digital architecture of planning*. April. London, UK.
- CULLINGWORTH B, NADIN V, HART T, ET AL. (2015) *Town and Country Planning in the UK*. 15th ed. Oxfordshire: Routledge.

- DIXON, T. AND TEWDWR-JONES, M. (2021), *Urban Futures: Planning for City Foresight and City Vision*, Bristol University Press, Bristol.
- ERTIÖ T-P (2015) Participatory Apps for Urban Planning—Space for Improvement. *Planning, Practice & Research* 30, 303–321. DOI: 10.1080/02697459.2015.1052942.
- EVANS-COWLEY J AND CONROY MM (2010) The growth of e-government in municipal planning. *Journal of Urban Technology* 13, 81–107. DOI: 10.1080/10630730600752892.
- EVANS-COWLEY J AND HOLLANDER J (2010) The New Generation of Public Participation: Internet-based Participation Tools. *Planning, Practice & Research* 25, 397–408. DOI: 10.1080/02697459.2010.503432.
- GRAYLING AND RTPi (2020) The Future of Engagement. Available at: <https://www.rtpi.org.uk/press-releases/2020/december/more-than-half-of-uk-public-want-to-be-involved-in-changes-to-their-local-community-post-pandemic/> (accessed 10 March 2021).
- HALL AC (1993) The Use of Computer Visualisation in Planning Control: An Investigation of Its Utility in Selected Examples. *The Town Planning Review* 64(2). Liverpool University Press, 193–211.
- HALLIDAY J, MORRIS S AND WHITE T (2020) Empty city centres: ‘I’m not sure it will ever be the same again’. Available at: <http://www.theguardian.com/business/2020/jul/18/empty-city-centres-leeds-bristol-newcastle-im-not-sure-it-will-ever-be-the-same-again> (accessed 22 March 2021).
- HOLLANDER JB, POTTS R, HARTT M, ET AL. (2020) The Role of Artificial Intelligence in Community Planning. *International Journal of Community Well-Being* 3, 507–521. DOI: 10.1007/s42413-020-00090-7.
- INCH A, AND SHEPHERD E (2020) ‘Thinking conjuncturally about ideology, housing and English planning’, *Planning Theory* 19, 59–79. DOI: 10.1177/1473095219887771.
- JOHNSON B (2020) Prime Minister’s statement on coronavirus (COVID-19): 23 March 2020. Available at: <https://www.gov.uk/government/speeches/pm-address-to-the-nation-on-coronavirus-23-march-2020> (accessed 12 March 2021).
- LE DANTEC CA, ASAD M, MISRA A, ET AL. (2015) Planning with Crowdsourced Data: Rhetoric and Representation in Transportation Planning. *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW ’15)*, 1717–1727. DOI: 10.1145/2675133.2675212.
- LOCAL GOVERNMENT ASSOCIATION (2020) Debate on planning reform and housebuilding targets. Available at: <https://www.local.gov.uk/parliament/briefings->

- and-responses/debate-planning-reform-and-housebuilding-targets-house-commons-8 (accessed 8 May 2021).
- MHCLG (2019) *National Planning Policy Framework*. Available at:  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/810197/NPPF\\_Feb\\_2019\\_revised.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf).
- MHCLG (2020a) Housing Secretary sets out plan to re-start housing market. Available at:  
<https://www.gov.uk/government/news/housing-secretary-sets-out-plan-to-re-start-housing-market> (accessed 3 August 2020).
- MHCLG (2020b) Planning for the future. Available at:  
<https://www.gov.uk/government/consultations/planning-for-the-future> (accessed 11 August 2020).
- MHCLG (2020c) *The Town and Country Planning (Local Planning) (England) (Coronavirus) (Amendment) Regulations 2020*. Queen's Printer of Acts of Parliament. Available at: <https://www.legislation.gov.uk/ukxi/2020/731/made> (accessed 8 March 2021).
- MHCLG (2021a) Local Digital: Funded Projects. Available at:  
<https://localdigital.gov.uk/funded-projects/> (accessed 13 March 2021).
- MHCLG (2021b) Local Plan Pathfinders: expressions of interest. Available at:  
<https://www.gov.uk/government/publications/local-plan-pathfinders-expressions-of-interest> (accessed 25 March 2021).
- MHCLG DIGITAL (2019) One year of fixing the plumbing: the Local Digital Declaration. Available at: <https://mhclgdigital.blog.gov.uk/2019/07/15/one-year-of-fixing-the-plumbing-the-local-digital-declaration/> (accessed 17 March 2020).
- MILLS E (2020) Start treating planning applications as data, rather than documents. MHCLG Digital. Available at: <https://mhclgdigital.blog.gov.uk/2020/05/28/start-treating-planning-applications-as-data-rather-than-documents/> (accessed 13 March 2021).
- MILZ D AND GERVICH CD (2021) Participation and the pandemic: how planners are keeping democracy alive, online. *Town Planning Review*, 92, 335–341. DOI: 10.3828/tpr.2020.81.
- NEWTON K (2020) Government Communications, Political Trust and Compliant Social Behaviour: The Politics of Covid-19 in Britain. *The Political Quarterly* 91, 502-513. DOI: 10.1111/1467-923X.12901

- PAS (2020) PAS Guide to virtual planning committees. Available at:  
<https://local.gov.uk/sites/default/files/documents/PAS%20virtual%20planning%20committee%2020200408.pdf>.
- PEACOCK S, ANDERSON R AND CRIVELLARO C (2018) *Streets for People: Engaging Children in Placemaking Through a Socio-Technical Process*. Engaging Children in Placemaking Through a Socio-technical Process. New York, New York, USA: ACM. DOI: 10.1145/3173574.3173901.
- PLYMOUTH CITY COUNCIL (2020) Statement of Community Involvement. Available at:  
<https://www.plymouth.gov.uk/sites/default/files/StatementOfCommunityInvolvement2020.pdf>.
- POTTS R (2020) Is a New ‘Planning 3.0’ Paradigm Emerging? Exploring the Relationship between Digital Technologies and Planning Theory and Practice. *Planning Theory & Practice* 21, 272–289. DOI: 10.1080/14649357.2020.1748699.
- RTPI (2019a) *Resourcing Public Planning*. London, UK. Available at:  
<https://www.rtpi.org.uk/policy/2019/november/resourcing-public-planning/> (accessed 6 April 2021).
- RTPI (2019b) The Planning Profession in 2019. RTPI. Available at:  
<https://www.rtpi.org.uk/research/2020/may/the-planning-profession-s-rapid-response-to-covid-19/>.
- RTPI (2020a) Pragmatic and prepared for the recovery: The planning profession’s rapid response to Covid-19. Available at: <https://www.rtpi.org.uk/research/2020/may/the-planning-profession-s-rapid-response-to-covid-19/> (accessed 17 March 2021).
- RTPI (2020b) *RTPI discusses Jenrick’s English Planning Reform Paper*. Available at:  
<https://www.youtube.com/watch?v=JoEfQyXyEyK> (accessed 19 October 2020).
- RTPI (2020c) Transforming Planning, Places and Scotland. Available at:  
<https://www.rtpi.org.uk/research/2020/november/transforming-planning-places-and-scotland-summary-of-findings/> (accessed 13 March 2021).
- RTPI AND CONNECTED PLACES CATAPULT (2019) RTPI and Connected Places Catapult set out vision for digital future of planning. Available at:  
<https://www.rtpi.org.uk/press-releases/2019/september/rtpi-and-connected-places-catapult-set-out-vision-for-digital-future-of-planning/> (accessed 16 April 2020).
- SIVARAJAH U, IRANI Z AND WEERAKKODY V (2015) Evaluating the use and impact of Web 2.0 technologies in local government. *Government Information Quarterly* 32, 473–487. DOI: 10.1016/j.giq.2015.06.004.

- SKEFFINGTON COMMITTEE (1969) *House of Commons Debate*. 18 November. Available at: [http://hansard.millbanksystems.com/written\\_answers/1969/nov/18/skeffington-committee-report#column\\_246w](http://hansard.millbanksystems.com/written_answers/1969/nov/18/skeffington-committee-report#column_246w).
- TAIT, M., INCH, A., SLADE, J., GUNN, Z., VIGAR, G., SCHONEBOOM, A., CLIFFORD, B. (2020), 'Working in the public interest? What must planners do differently?' (Report, July 2020), Sheffield. Viewed 7 April 2020. Available at: <https://sites.google.com/sheffield.ac.uk/witpi/research/planners?authuser=0>
- TEWDWR-JONES, M. (2012), *Spatial Planning and Governance: Understanding UK Planning*, Palgrave Macmillan, Basingstoke.
- TEWDWR-JONES, M. (2015), 'National planning in the United Kingdom', in Knaap, G., Nedovic-Budic, Z. and Carbonell, A. (eds), *Planning for States and Nation/States in the US and Europe*, Lincoln Institute of Land Policy, Boston, MA, 419-66.
- VARNA G AND OSWELL D (2021) Towards a stronger quality-of-place agenda in the 'new normal'. *The Town Planning Review* 92, 107–114. Liverpool, United Kingdom: Liverpool University Press: 107–114. DOI: <http://dx.doi.org/10.3828/tpr.2020.71>.
- WILSON A (1970) *Entropy in Urban and Regional Modelling*. London, UK: Routledge.
- WILSON A AND TEWDWR-JONES M (2019) Let's draw and talk about urban change: Deploying digital technology to encourage citizen participation in urban planning: *Environment and Planning B: Urban Analytics and City Science* 47, 1588–1604. DOI: [10.1177/2399808319831290](https://doi.org/10.1177/2399808319831290).
- WILSON A, TEWDWR-JONES M AND COMBER R (2019) Urban planning, public participation and digital technology: App development as a method of generating citizen involvement in local planning processes. *Environment and Planning B: Urban Analytics and City Science* 46, 286–302. DOI: <https://doi.org/10.1177/2399808317712515>.
- WILSON A AND TEWDWR-JONES M (2022) *Digital Participatory Planning Citizen Engagement, Democracy, and Design*, London, UK: Routledge.