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Abstract

This chapter describes the analyses and results for the ESRC Domain of Citizenship and Politics, guided by two main questions: How digital technology impacts on our autonomy, agency, and privacy; Whether and how our understanding of citizenship is evolving in the digital age. It first provides an initial overview of the major insights from the literature review and analysis, the Delphi surveys, and workshop discussions about the relevant range of the concepts of citizenship and politics in a digital age. Over time the literature shows a shift from issues of public sphere and use of the Internet by government and candidates to more focus on political participation and engagement, especially through online communities, social networks, and social media. Eight main topics emerged: public sphere, measurement, social network analysis, protest and activism, governance, elections, cyber hate crime, and partisan politics. The analyses also highlighted theory, methods, and approaches in the literature. The review provides examples of literature in the project's time period that illustrate these topics. The chapter ends with a discussion of considerable future research directions (e.g., mobilization and radicalization) and research challenges (e.g., managing big data, and ethical issues).

Keywords

ESCR Review

Internet

politics

citizenship

public sphere

social network

social media

governance

elections

Chapter 16

ESCR Review

Citizenship and Politics

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Introduction

This chapter briefly explores the outcomes of the literature review and expert Delphi review process for the citizenship and politics domain. As with the other review chapters the goal is not to work through a large number of examples from the literature. Instead, building on the methods described in chapter 2, we will first set out the results of the digital humanities-based analyses of the literature and the content analysis of methods and theory. We will highlight the major topics and concepts within the literature—providing a few general examples. These are not intended to be the “most important” examples from the literature but rather simply indicative of the types of work. This is then followed by the presentation of the content analysis that sought to identify the key theories and methods in use within the literature. Next, we outline the results from the Delphi review of experts. This concludes with the key questions, topics and challenges we identified, and we compare these to the results from the literature work. In the last section, we will present the recommendations for areas of future study. As a reminder, the initial scoping questions for this area of work were:

- How digital technology impacts on our autonomy, agency and privacy—illustrated by the paradox of emancipation and control; and

- Whether and how our understanding of citizenship is evolving in the digital age—for example whether technology helps or hinders us in participating at individual and community levels.

Initial Comments

On one level this part of the project could not have taken place at a more interesting and challenging time, with both the Brexit referendum and the election of a social media active Donald Trump as US president. Behind both events are very complex issues of polarization in politics, and deep questions about the role of media, especially digital media, in all levels of political activity. Unfortunately, this means that there has been a small explosion of research on this topic since the current analysis was completed. As we will discuss later, this issue and concern comes through in the Delphi work, and we reflect on next steps in regard to polarized political communication and digital media in the conclusion. Possibly reflecting on this context, this domain had the greatest number of Delphi returns and identified starting literature; in terms of both the number of responses and in the extent and detail of the responses. As a result, a considerable amount of work was undertaken in the analysis and in the final consultation workshop focused on reducing the breath of material gathered. This chapter therefore has a slightly different structure to the other six ESRC review chapters, as the consultation workshop materials are integrated rather than separately reported. The team reflected on the reasons for this much stronger response. As we noted earlier, the Delphi process took place just after the Brexit vote and during the US presidential election. It is possible that the issues around citizenship, politics, and digital media struck a chord with respondents at this time. We also noted that the project steering group had a number of members whose current or prior work has touched on this area. Thus, though we tried to

ensure as balanced a response as we could, this may have biased the snowball sample or potentially motivated respondents in this area. Of course, both factors could have played together.

<COMP: INSERT FIGURES 1 AND 2 NEAR HERE>

We would also like to highlight something that comes through in the comparison of the concept maps from the 2000-2004 period with that of the 2012-2016 period (see [Figures 1 and 2](#)).¹ In examining the visualizations of the data from these two periods we find that concept pairs such as public sphere and a focus on government and candidate Internet use are apparent in the earlier literature. These are replaced with foci around participation and engagement for the later literature. We feel this marks a transition from an initial focus on the potential for the Internet and digital media to facilitate public debate and enhance the public sphere, to one focused on the role of networks (social media) to support and enhance political engagement. As noted later, we may now be in a third stage where the focus is on the role of networks in creating “echo chambers” or “filter bubbles,” therefore negating the potentials to enhance the public sphere or disrupt political institutions.

Scholars, particularly in political studies and media studies, have noted the rise of the use of social media in civic and political spheres. In broad terms, attention has focused on the ways in which social media facilitates engagement in politics and participation in politics ([Dahlgren, 2013](#)) and the characteristics of that communication and relationship between citizens and politics ([Papacharissi, 2015](#)). There is a general consensus that a number of factors need to be addressed to realize the potential of digital communication to enhance participation. A continuing issue of inequality remains, with social and political inequality adding to any existing digital divides. Further, questions of how to develop open and deliberative participation using online communication remain difficult to address. There is a better understanding about the threats that digital communication poses in terms of filter

bubbles (Sunstein, 2006) and the personalization of news and other information that might limit an open debate. However, this is an area that requires more research.

Literature Analysis

The literature analysis was designed to create two analytic outcomes. First, the goal was to identify key topics within the existing literature. This would allow the comparison with areas of future importance identified by the Delphi review. Second, we conducted a content analysis of the literature to explore the predominance of specific, theories, methods and approaches. As noted in the chapter 2, the literature data were subjected to two analyses. The first round of collected literature was analyzed to create concept pairs and trios, and then the combined first and second rounds of literature were analyzed to identify key topic clusters. The results of these two approaches were then compared.

Table 1 lists the 10 most common concepts identified from the first round of literature. These represent the concepts covering 2% or more of the identified cases. Table 2 lists the concept pairs within these groups. In Table 2 the first part of the concept pair is marked in bold with various second elements presented in the list below this first part. Unsurprisingly the concepts of citizenship, action and networks were ranked top. This reinforces the point that much of the underlying conceptual base of the literature on digital media and politics is focused on the three-way interface between: citizens; political action and engagement; and the role or impacts of networks (digital or otherwise).

<COMP: INSERT TABLES 1 AND 2 NEAR HERE>

Our second approach to the analysis of the literature explored the extraction of topics using a different methodology, based on a factor analysis of salience and relevance measures. We utilized both custom-developed tools and the WordStat software. Unlike the concept

mapping which pulled out some of the underlying ontological links, the identification of topics produced groups that more overtly fitted theory and methods in the literature. (This was the case for all of the literature analyses.) [Table 3](#) presents the 15 topics identified by WordStat, and [Table 4](#) maps these to the concepts analysis.

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Topics

The eight key areas emerging from the analysis (see [Table 3](#)) are Public sphere, Measurement, Social network analysis, Protest and activism, Governance, Elections, Cyber hate crime, and Partisan politics.

The category of measurement reflects the greater proportion of work in this domain that employs statistical analysis (see the following section on methods). Although the issue and topic of governance is important in this domain, there is a separate full section of the book (see Section 7) dedicated to this topic. In order of importance, the first topic reflects the broader question of civil society and the public sphere whereas the others focus on specific actions or contexts such as election campaigns—though of course ideally these issues should strongly intersect. From the analysis in [Table 3](#) it is clear that the idea of the public sphere is a key topic in the academic debate around the impact of digital media on politics. This is clearly articulated in works by highly influential authors (e.g., [Castells, 2008](#)) but also in many individual studies. As we noted previously, one of the general findings from the content analysis was the utilization of very wide-ranging ideas or publications as “scene setters”—such as the idea from [Castells \(1996\)](#) of the “network society”—but without the detail of this work being substantively engaged with. This appears to be the case with the idea of the public sphere ([Habermas, 1991](#)), where the Habermasian concept is repeatedly pointed to without the full theoretical model being employed.

As we noted earlier, the longitudinal view over the last two decades points to a shift from the focus on public sphere to one on more individualistic issues of participation and engagement. There also appears to be a shift away from the earlier literature that tended to focus on the potentials for digital media to support the public sphere and deliberative democracy. Papers exploring the idea of the public sphere were not uncritical but utilized the concept to examine the potentials for deliberative democracy through digital media either theoretically (e.g., [Dahlberg, 2001](#), [Dahlgren, 2005](#)) or through the analysis of interactions (e.g., [Papacharissi, 2004](#)). The focus has since shifted towards the analysis of actual network interactions (often via social media) and the extent to which political engagement, influence, and action are developed. In the time between the literature analysis undertaken by the ESRC project and the current publication the focus has shifted somewhat to the failing of the public sphere and the rise of “echo chambers” and “mini publics” (see [Frame & Brachotte, 2015](#)). This concern clearly comes through in the Delphi analysis of experts reported later in the chapter.

As with several of the other domains, Twitter and social network analysis are two prominent and linked topics. The intersection of Twitter, politics, and citizenship is fraught with challenges, especially as both the technology itself and its uses have continued to change over the last decade ([Bimber et al., 2015](#)). As a result, it may not always be helpful to draw comparisons with traditional political behavior. Within the actual study of the use of Twitter in politics and political action there is a focus on collective action. For example, [Kende et al. \(2016\)](#) proposed and tested how the social affirmation use of social media motivates individuals for collective action to achieve social change. In this frame of work, a good number of analyses are focused on the nature of social capital, or psychological group membership measures, as routes to understanding political social action undertaken through or supported by Twitter. Much of this focuses on young citizens, but often has a strong

element of networked individualism (e.g., [Rainie & Wellman, 2012](#)) with the examination of the potential for platforms such as Facebook, Twitter and YouTube to influence political stances and civic engagement (see [Loader et al., 2014](#)). A reasonably comprehensive overview can be found in [Weller et al. \(2014\)](#). There are many papers that take on board the theory or orientation of social network analysis (SNA) in their approach, such as the ideas of weak and strong ties or network power, or reference SNA-based studies, though they do not necessarily use specific SNA methods. Examples include political participation (e.g., [Bennett, 2012](#); [Chan, 2016](#)), campaigning ([Bruns & Highfield, 2013](#)), and influence (e.g., [Grudz & Wellman, 2014](#)). The specific use of SNA methods was in fact very limited (see [Table 6](#)) and was to be found in papers with a strong methodological focus. These may not take on politics and citizenship directly but elucidate how influence may spread in both digital and non-digital communications networks and how these interact (e.g., [Haythorhwaite, 2002](#)).

More pragmatically, the literature focuses on the actual practices and online behaviors. Activism and protest appear in more recent literature, with authors focusing on the role of social and networked media in engagement and organization of politics. For example, [Agarwal et al. \(2014\)](#) compare the use of digital media by two very different political groups: the Republican Tea Party movement and the Occupy Wall Street movement. Other studies attempt to analyze the links between the types of social media used, contexts of interaction with similar or other groups, and likely political participation (e.g., [Kim & Chen, 2016](#)). Some studies try to assess the extent to which online activity leads to other forms of political action (digital or not), from voting to collective action (e.g., [Schumann, 2015](#); [Theocharis & Lowe, 2016](#)).

In regard to elections this work goes back to the mid-1990s (e.g., [Yates & Perrone, 1998](#)) and early 2000s (e.g., [Coleman, 2001a, 2001b](#)) with a strong focus on the United Kingdom

and the United States (e.g., [Foot & Schneider, 2002](#)). The breadth and variety of this work has grown extensively over the past decade to include a wider variety of nations and forms of electoral process (e.g., [Gadekar et al., 2011](#); [Vromen, 2015](#)). The issue of “second screen” communication in the electoral context has also been receiving increasing attention, for example during important televised campaign debates in various countries. Furthermore, questions of online hate or partisan interaction are at this time a key issue. Studies range from analyses of homophily in political group membership (e.g., [Colleoni, et al., 2014](#)) through arguments that social and digital media use have gone hand in hand with more personalized politics (e.g., [Bennett, 2012](#)). This then bleeds over into issues of digital governance and online crime, be it terrorism or hate crime. We would argue therefore that there appears to be a general, though not universal, shift in the literature over the last two decades, from ideas of the potential role of digital media in the broader public sphere to much more specific and analytics-based assessments of the specifics of network dynamics in regard to political action, engagement, and participation.

This situation is seen in a range of areas, including political communication and news, connective action, and the media hybridity. In the area of political communication, research has identified that people access their news using both social media and mainstream (whether public or commercial) media ([Rainie et al., 2011](#); [Oxford Reuters Institute for the Study of Journalism, 2016](#)). The wider media environment for political communication has resulted in the development of media hybrid systems in political communication ([Chadwick & Dennis, 2017](#)). What Chadwick and Dennis argue is that both traditional media communication and social media communication are configured in different ways to reach different social groups. There is an organizational dimension to this that draws on the networked logic of social media; here, both connective action and collective action is mobilized ([Bennett & Segerberg, 2013](#)).

Theory, Method, and Approach

As chapter 2 describes, the content analysis builds on [Borah's \(2017\)](#) approach to analyzing a set of communications and media literature in regard to digital media use. [Table 5](#) provides the results with regard to the empirical approach taken in the literature. The majority of the papers (45%) undertook primary data collection, with 33% being theoretical-synthesis of current or prior work. The main disciplines from which theory was used or for which theory was developed were: politics and public administration (48.6%), sociology (28.0%), and communication and media (14.3%). It is important to note that only actual use of theory for the purposes of design, synthesis, or analysis were coded. General references to prior work and theory, such as broad reference to “network society” (Castells) or “public sphere” (Habermas), were not coded. This distinction is important, as it highlights the use of theory to design and analyze data or synthesize materials, as distinct from more general discussion. There was considerable variety in the specific theories applied from these disciplines, with no clear preference. Ideas of the public sphere (6%) and political participation (5%) were the most common in the political science literature. The main research methods were literature reviews (33%), surveys (29%), content analysis (8%), and interviews (7%; see [Table 6](#)). The majority of the empirical work focused on specific groups (e.g., Facebook users) with a limited number of general population studies (see [Table 7](#)). Where new data was analyzed, the majority (53%) of the analyses were qualitative, though the methods varied, the remainder being statistical (see [Table 8](#)). Only one study overtly stated that they were using a “big data” approach. Compared to the other domains, there is a stronger emphasis on both empirical data collection and quantitative analysis in the literature analyzed here. As with all the domains, both big data and SNA are so far only used to a limited extent.

<COMP: INSERT TABLES 5 THROUGH 8 NEAR HERE>

Delphi Review

The literature review analysis explored the themes found within recent research publications. The following sections detail the results of the Delphi process for the Citizenship and Politics domain. There were three parts to the Delphi review: an initial survey, a confirmatory questionnaire to address the findings from the survey, and a confirmatory workshop. The goal of the Delphi process was to identify and prioritize areas for future research. These might include areas already covered by literature but also new concerns, or the needs for a tighter focus on a specific issue. The process sought to identify suggested future scoping or research questions, key topics to address within these questions, and key challenges that might be encountered when researching these questions.

Future Research and Scoping Questions

Given the amount of input to the Delphi process for this domain, the suggestions for scoping and research questions were coded into the eight categories and 36 specific questions, which were grouped into 21 questions, as detailed in [Table 9](#). The process used two measures to assess the importance of these questions. The first was how frequently the suggestion came up in the Delphi survey, and the second was how important these topics were ranked by the Delphi interviewees. [Table 10](#) shows the ranking of these categories by the number of questions allocated to the category and by their ranked importance from the confirmatory survey. It is important to note that ranked importance is almost same in both tables. As [chapter 25](#) describes, there are a number of areas identified in the scoping questions and challenges that are cross cutting, a key one of these being governance. As a result, there are also some strong overlaps with the Governance and Security domain (see [chapters 22 and 23](#)) that will be addressed there.

Key Topics

If we turn next to specific topics that might cross cut these questions, we find that topics that were most commonly cited in the Delphi process were also those deemed most important in the confirmatory survey (see [Table 11](#) and [Table 12](#)). These topics also closely match the proposed research and scoping questions. Given the number and detail of the scoping questions provided in the initial rounds of the Delphi process, this overlap was highly likely. One of the reasons for this was that as respondents interpreted differently the idea of there being two levels, one of overarching questions and then the topics within them, questions for some respondents were topics for others. This distinction appeared to be clearer for other domains, where the volume of responses was lower. Overall, though, this does provide reinforcing evidence, along with the broad support of the consultation workshop, for the relevance of the questions and topics. We do note, however, that a key comment made in the confirmatory workshop was that the literature and Delphi work had not really addressed the issue of digital media use in the context of major state control and censorship. We agree that this is a topic that appears not to have had as much attention in the literature we surveyed nor in the Delphi review.

<COMP: INSERT TABLES 11 AND 12 NEAR HERE>

If we leave aside the governance issues for chapters 22 and 23, then it is clear that the Delphi panel, confirmatory survey, and the workshop see the future focus for research to be focused on citizenship, participation, and engagement, with specific concerns about mobilization and radicalization. The questions about empowerment, public sphere, links to older media, and emancipation that are present in some of the earlier literature in this domain has moved down the list of priorities. Importantly, there is a growing concern for how digital technologies are disrupting politics and political institutions.

Research Challenges

Our final set of questions asked the Delphi panel about the challenges that may be faced in undertaking research in these areas. These were placed into 14 categories and ranked by the number of coded items (Table 13). None of the main challenges was deemed to be specific to any of the seven domains by the consultation workshop. Table 14 shows the ranking of these by the confirmation survey. Such cross-cutting topics and challenges are discussed in the concluding chapter 25.

<COMP: INSERT TABLES 13 AND 14 NEAR HERE>

Conclusion

The concepts and topic mapping analyses generated very similar results, and these closely map onto the Delphi results. The close mapping of the Delphi and literature analyses potentially indicates that this is a well-developed domain of research with clear foci. The consensus around the consolidation of research questions in the consultation workshop reinforces this. There may be a number of good clear reasons for this emphasis. Political communication and behavior are substantive aspects of both communication studies and political science. These are both areas that have been dramatically affected in very public ways by digital media, in contrast to the very real but less visible impacts of digital technologies on governance or public policy. There are also indications that the visibility of digital media—from the web to social media—have made (at least some) processes of political communication very visible and open to analysis.

Given that the literature and the Delphi recommendations strongly overlap, the research has not identified any clear new topic gaps to highlight for future work. Rather, the Delphi work appears to confirm the patterns found in the literature, with a move away from the

assessment of the potentials of digital media for deliberative politics, development of the public sphere and broad civic engagement, to a clearer focus on the role of networks in political mobilization, influence, partisan politics, and more individualistic measures of engagement and political action. This may be a reaction to political changes experienced over the last five years that have often been associated with the use of digital media—such as the Arab Spring, Brexit, and the election of Donald Trump. It might also reflect the nature of available data (e.g., Twitter and Facebook posts) or the nature of these media which are more notably individualistic in form than either prior mass media or even older forms of digital media (e.g., [Rheingold, 1993](#)). The disruption caused by social media itself or its use and misuse in politics (cf. Cambridge Analytica scandal) are a further clear set of contemporary questions. Yet underneath this is both an empirical and theoretical need to fully understand what our current social media-based politics is telling us about citizens' behavior and political processes, and vice versa. We would argue that for the health of democratic institutions, there is a need to empirically understand contemporary political behavior and participation in the context of digital technology use.

As a word of caution, in the other domains we noticed a “platform focus” in many studies. In the case of politics, an example might be a focus on political uses of Twitter, in contrast to boarder studies of the full range of digital media that citizens may utilize for political communication. Though there are examples of platform focus, it does not appear as pronounced in relation to political research as in other domains. As with the other domains, we believe that the complexity and variety of potential work warrants consideration to be taken of all the questions topics and challenges identified. Noting this, we would argue that the analysis here has identified four key areas for future research:

1. “Digital technologies,” radicalization, mobilization, and political action
2. “Digital technologies” and the disruption of current political institutions

3. 1) “Digital technologies” and new forms of citizenship
4. “Digital technologies,” political communication, debate, and media

We note that the Governance and Security domain significantly addresses the issue of “Digital technologies and governance,” which was the top ranked topic in the confirmatory survey. The other key topics identified fit within these four scoping areas, except for Digital and state control. This topic, identified as well in comments at the consultation workshop, reminds us that not all politics are democratic and there is no necessary causal link between digital media use and open societies.

Notes

¹ As part of the review, The Digital Humanities Institute at the University of Sheffield applied concept modelling techniques to a curated corpus of 1,900 journal articles from the period 1968 to 2017. Concept modelling is a computational linguistic process that involves identifying the emergence of concepts, or key ideas, via lexical relationships. For the purposes of the review, lexical relationships were limited to high-frequency co-occurrences of terms as pairs and trios. The process is entirely data driven and resulted in 2 million rows of data. The website <https://www.dhi.ac.uk/waysofbeingdigital/> provides access to the top 50 most frequently occurring pairs and trios through a series of data visualizations. Click on *View Data Visualisations* at the top. Then check/submit which of the seven ESRC domains you are interested in (including all). Then choose the visualization. These show configurations across selected time frames. Choose bubble chart, tree map, zoomable pack layout, or network diagram, by individual subject or by all seven subjects combined, by document or concept frequency. You can similarly search the analyzed documents (all, by subject, author, concept, concept trio, and year) by clicking on *Browse Articles* at the top. Also, see <https://waysofbeingdigital.com/literature-analysis-interactive-results/> for

interactive visualizations with mouse-overs of the main clusters of concepts within each domain and the relative frequency of concepts associated with each cluster.

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Table 1 Analysis Concepts Ranked

Concept	Percent
Citizen	7.56
Action	7.32
Network	6.21
Campaign	5.35
Citizenship	4.35
Channel	4.08
Access	3.46
Engagement	3.35
Government	2.92
Participation	2.81
Information	2.59
Link	2.43
Delivery	2.40

Table 2 Concept Pairings—Main and Secondary Concepts

Concepts	Percent	Concepts	Percent	Concepts	Percent
citizen	13.79	campaign	9.75	engagement	6.11
democracy	2.96	candidate	2.02	norm	1.13
engagement	2.91	election	2.91	participation	2.46
government	4.43	movement	1.03	use	2.51
participatory	1.58	party	2.86	government	5.32
perception	1.92	practice	.94	latino	1.13
action	13.35	citizenship	7.93	responsiveness	2.27
activism	1.87	engagement	2.02	stage	1.92
campaign	1.82	people	2.17	participation	5.12
frame	3.20	phenomenon	.89	participatory	2.86
membership	1.18	study	1.43	protest	2.27
protest	4.29	youth	1.43	information	4.73
talk	.99	channel	7.44	literacy	1.43
network	11.33	citizen	2.17	overload	.49
power	6.65	consumer	.99	protest	2.81
recognition	2.36	phone	1.43	link	4.43
strength	1.18	service	2.86	pattern	1.13
transformation	1.13	access	6.31	site	2.41
		citizenship	.44	twitter	.89
		latino	1.67	delivery	4.38

	percentage	1.33	perception	1.48
	survey	1.77	phone	1.38
	white	1.08	value	1.53

Note: **bolded** term is the main concept; the unbolded terms below that and above the line are the related subconcepts.

Table 3 WordStat Analysis of Topics

Concept topics	Keywords	Eigen-		%	
		value	Freq	Cases	Cases
Public sphere	SPHERE; DELIB; HABERMA; DEMOCRACI; DELIBER; DEMOCRAT; PUBLIC; DEBAT; DISCOURS; FORUM; POLIT	10.5	29,329	486	98.0
Measurement	VARIABLE; REGRESS; STATIST; TEST; TABL; MODEL; MEASUR; PREDICT; ESTIM; SIGNI; SAMPL; CORREL	3.19	18,205	474	95.6
Social network analysis	INFECT; NODE; CONTAGION; NEIGHBOR; THRESHOLD; TI	2.77	2144	313	63.1
Protest and activism	MOVEMENT; PROTEST; ACTION; COLLECT; ORGAN; ACTIVIST; OCCUPI	2.69	12,940	473	95.4

Governance	GOVERN; SERVIC; POLICI; PUBLIC; SECTOR; ADMINISTR; MANAG	2.52	20,565	490	98.8
Elections	ELECT; PARTI; VOTER; CAMPAIGN; CANDID; ELECTOR; VOTE	2.37	11,159	407	82.1
Cyber hate crime	CRIME; VICTIM; HATE; GUARDIANSHIP; CYBER; POLIC; SECUR	2.14	2632	317	63.9
Partisan politics	EXPOSUR; PARTISAN; POLAR; ATTITUD; ATTITUDIN; PERCEIV; OPINION	2.01	5060	429	86.5
Web and social media	SITE; WEB; PAGE; USER; BLOG; SEARCH; LINK; GOOGL; FACEBOOK	1.92	14,607	470	94.8
Gender and ethnicity	GENDER; WOMEN; EDUC; FEMAL; ETHNIC	1.83	4741	400	80.7
Civic engagement	CIVIC; ENGAG; CITIZENSHIP; YOUTH; LEARN	1.81	8650	455	91.7
Mobile	PHONE; MOBIL; SM; CHANNEL	1.72	3746	395	79.6
Political online fora	FORUM; THREAD; TALK	1.65	2255	325	65.5
Homophili	HOMOPHILI; NOIS; AGENT; NEIGHBOR; INFLUENC	1.63	2044	315	63.5
Twitter	TWITTER; TWEET; HASHTAG	1.57	2267	181	36.5

Table 5 Empirical Approach

	Percent
Primary empirical (data collected and analyzed)	45.1
Theoretical (synthesis of current or prior work)	33.3
Discursive/descriptive (no new data or theory)	13.7
Secondary empirical (analysis of existing data)	7.8

Table 6 Research Method

	Percent
Literature review (general or narrative)	32.7
Survey	28.6
Content analysis	7.8
Interview(s)	6.9
Theory building	6.9
Other	4.2
Experiment	3.2
Ethnography	3.2
Focus groups	2.8
Social network analysis	1.8
Textual (linguistic-discourse analysis)	.9
Meta-analysis or systematic review	.9

Table 7 Study Population

	<u>Percent</u>
Specific group	48.8
General population	33.7
Case study(ies)	17.4

Table 8 Analytic Approach

	Percent
Qualitative (textual-non-discourse)	53.5
Statistical (numerical)	32.2
None	8.3
Not applicable	5.2
Discourse (textual-linguistic-discourse)	.9

Table 9 Delphi Review Scoping Questions

Question category	Questions
Digital technologies, radicalization, mobilization and political action	<p>In what ways do digital technologies impact traditional forms of mobilization, collective action, and/or political participation?</p> <p>How have “negative” online behaviors (such as trolling and flaming) impacted on civic and political activity?</p>
Digital technologies, emancipation, agency and control	<p>How and in what ways are digital technologies challenging or reinforcing existing power relations?</p> <p>What are the impacts on our autonomy, agency, dignity and privacy?</p>
Digital technologies and the disruption of current political institutions	<p>How do new technologies disrupt and challenge incumbent political institutions?</p> <p>What are the opportunities and challenges facing democracy in an age of digital participation?</p> <p>How do social media affect the quality of democracy/citizenship?</p> <p>And what about non-democratic states?</p>
Digital technologies, political identity, emotion and empowerment	<p>Does access to digital technologies have a positive emotional impact on citizens, making them feel empowered, with a voice and potential influence?</p>

Digital technologies and new forms of citizenship

How does technology enlarge or change our understanding of, and interaction with, citizens outside of our own national borders? What constitutes citizenship?

Is it meaningful to talk about digital citizenship?

Does digital expand the notion or simply provide a new space for the exercising of citizenship rights and duties?

How are youth engaging with digital technologies and online politics?

Digital technologies and governance

How does technology improve governance (i.e., government's responsiveness to citizen concerns and ability to effectively manage competing interests)?

Does electronic governance transform relationships between states and citizens and the nature of politics?

Digital technologies, groups and elites

How do political elites use digital media?

How do old and new parties use new technologies and with what consequences?

Does new media promote populism?

How do emerging media platforms impact the ongoing digital divide?

Digital technologies, political communication, debate and media

How do new ecosystems of information and delivery impact on political participation, opinion forming, and education?

How do people perceive "success" in online political participation?

How does digital media interact with traditional media in
shaping public opinion?

Table 10 Delphi Review Scoping Questions Ranked by Number of Cases and by Importance

Question category	Rank: Number of cases	Rank: Importance (Percent)
Digital technologies, radicalization, mobilization, and political action	3	1 (21)
Digital technologies and the disruption of current political institutions	1	2 (17)
Digital technologies and new forms of citizenship	6	3 (16)
Digital technologies, political communication, debate, and media	2	3 (16)
Digital technologies and governance	8	4 (12)
Digital technologies, emancipation, agency, and control	4	5 (10)
Digital technologies, political identity, emotion, and empowerment	5	6 (6)
Digital technologies, groups and elites	7	7 (1)

Table 11 Key Topics Ranked by Percent of Delphi Survey Responses

Topic	Percent	Topic	Percent
Divides	8	Technologies	3
Mobilization	8	Civic	2
Talk	7	Commercial	2
Control	6	Cultural	2
Data	6	Direct democracy	2
Media	6	Empowerment	2
Other	6	Geopolitics	2
Participation	6	Policy	2
Citizenship	5	Trust	2
Engagement	4	Young people	2
Governance	4	Contestation	1
Privacy	4	Parties	1
Identity	3	Populism	1
Methods	3	State	1

Table 12 Key Topics Ranked by Importance from Delphi Survey

Topic	Very				Very
	important	Important	Neutral	Unimportant	unimportant
Governance in a digital age	51.9%	37.0%	11.1%	0.0%	0.0%
Political mobilization via digital media	48.1	40.7	7.4	3.7	0.0
Digital and state control	48.1	37.0	11.1	3.7	0.0
Citizenship in a digital age	48.1	33.3	14.8	3.7	0.0
Data—big, small, and citizen	44.4	37.0	14.8	3.7	0.0
Political participation and engagement	44.4	37.0	14.8	3.7	0.0
Privacy in a digital age	40.7	40.7	11.1	3.7	0.0
Political media, old and new	29.6	44.4	18.5	7.4	0.0
Digital divides	22.2	59.3	11.1	7.4	0.0
Political identity in a digital age	22.2	48.1	29.6	0.0	0.0
Online debate and interaction	18.5	70.4	11.1	0.0	0.0

Table 13 Challenges Ranked by Percent of Cases

Challenge	Percent
Methods	42
Theory	14
Big data	12
Epistemology/ontology	7
Ethics	6
Psychology	5
Technology	4
Exclusion	2
Education	1
Funding	1
Impact	1
Individualism	1
Policy	1
Training	1

Table 14 Challenges Ranked by Importance from Delphi Survey

Challenge	Very	Important	Neutral	Unimportant	Very
	important				unimportant
Developing new theory	55.6%	37.0%	7.4%	0.0%	0.0%
Developing new methods	44.4	33.3	18.5	3.7	0.0
Dealing with “big data”	44.4	33.3	18.5	3.7	0.0
Ethics	37.0	51.9	7.4	0.0	3.7
Epistemological and ontological issues	37.0	25.9	25.9	7.4	3.7