RESEARCH ARTICLE

MEDIA USE, POLITICAL PARTICIPATION AND THE LEVEL OF DIGITIZATION

A comparative analysis of EU countries

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ABSTRACT: The paper analyses six rounds of the European Social Surveys (from 2000 to 2012) to explore how 1) media uses, 2) unconventional and 3) conventional (i.e. voting) forms of political participation have changed in sixteen European countries. Additionally, the research considers one of the latest surveys to investigate the relation between media use and participation in the contemporary period characterized by open data and e-government. The level of digitization in each country is assessed according to its infrastructure, the legal framework (namely the Freedom of Information Act), the quality of the data available from the public administration, and e-government development in terms of online services. The research question is whether use of the Internet and the level of national digitization affect unconventional forms of political participation. The results demonstrate that both the country’s level of digitization at the macro level and the use of the Web at the individual level are co-determinants of the forms of political participation considered. However, the level of digitization does not affect voting.

KEYWORDS: digitization, e-government, media power, open data, unconventional participation

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1. Introduction

Forms of political participation have been widely connected to the functioning and use of media (Coleman and Blumler 2011; Brandtzæg 2012; Curran 2011). This article analyses this relationship in two stages. First, it considers sixteen European countries as a whole and monitors how 1) media uses, 2) unconventional and 3) conventional (namely voting) forms of political participation have changed over ten years (from 2002 to 2012).

Against this background, the second part of the article discusses developments in terms of media use and participation in the contemporary period characterized also by e-government and open data. The paper assesses the role of the level of digitization in each country. For this purpose, it considers four different and highly recognized indexes that respectively measure a) the infrastructure of the media ecology in terms of digitization, b) the legal framework in terms of information accessibility, c) the quality in terms of openness of the data available from the public administration, and d) e-government development in terms of online services.

In this framework, the study explores the relation between media uses (television, newspapers and the Internet) and forms of unconventional participation (e.g. contacting a politician, government or local government official; working in an organization or association other than a political party; signing a petition; taking part in a lawful public demonstration; and boycotting certain products). Uses of the media, jointly with other variables, are evaluated as determinants of unconventional political participation. For the purpose of comparison, the influence of the same variables will be analyzed on voting as well. The focus will be on unconventional rather than conventional participation (e.g. voting), for two reasons: 1) forms of the former are continuously changing and include diverse activities and logics (Bennett and Segerberg); 2) unconventional forms have a stronger linkage with digital media (Mosca and Quaranta 2015).

Overall, this paper is exploratory, because it uses surveys not specifically intended to investigate the topics treated. At the same time, it is one of the few comparative studies that includes a significant number of countries. Furthermore, it investigates the role of the level of digitization, which is usually neglected (especially with reference to open data and e-government). The question addressed in the research is whether use

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1 The overall sample of countries comprises Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, the Netherlands, Norway, Poland, Portugal, Spain, Sweden and the United Kingdom.
of the Internet and the level of digitization of countries affect unconventional forms of political participation.

The article is organised as follows. The next section discusses how to interpret forms of unconventional political participation, whereas the third section outlines the role of e-government and open data in terms of political participation and media power. After a description of the methodology, the paper discusses the results of the research, which combined 1) a longitudinal and descriptive investigation of the uses of media and political participation and 2) a logistic regression to determine the relevance of the determinants of unconventional political participation in the contemporary media environment.

2. Media use and forms of participation

The use of the media in forms of political engagement and participation has been extensively discussed (e.g., Carpentier 2011; McLeod, Scheufele and Moy 1999; Wattenberg 1984). Since the wide diffusion of the Internet and social media, studies on this relation have increased further (Brandtzæg PB 2012; Ellison, Gray, Lamp, and Fiore 2014; Holt, Shehata, Strömbäck and Ljungberg 2013; Pasek, More, and Romer 2009).

There is a great amount of analysis on the effects of new kinds of participation (e.g. using social media), especially since 2008, when Barack Obama won the election by extensively using the web to recruit campaign volunteers (see Cogburn and Espinoza-Vasquez 2011 and Rettberg 2009 among many studies on the subject). The “Arab Spring” previously reinforced the optimistic framework, but the role of the social media has been scaled down (Wolfsfeld and Segev 2013; Eltantawy and Wiest 2011). However, research on the effects of the various Internet services on citizens’ political and civic behaviors is no longer as limited (Ellison, Steinfeld and Lampe 2007; Ellison et al. 2014; Holt et al. 2013; Pasek et al. 2009; Gil de Zuniga, Jung and Valenzuela 2012).

The great amount of research, which often provides contrasting evidence, reinforces McLeod and colleagues’ (1999) view on the determinants of participation. Paraphrasing Bernarnd Berleson’s sentence on media effects, they state that: “[…] certain citizens, under certain circumstances, engage in certain acts of participation” (McLeod et al. 1999, 316).

Given the continuous change of the media environment, it appears still (or again) valuable to take a step backwards. This means, first, investigating not how the use of the Internet affects political participation, but rather whether it does so; and, second, considering other determinants of forms of political participation.
With the consolidation of the Internet within Western countries and since the very beginning of the diffusion of social media sites, digital media have been found to have positive effects on political participation (Boulianne 2009; Xenos and Moy 2007). It is exactly the pervasiveness of the use of the Internet that justifies the step backwards taken by this paper.

It is necessary to clarify what this paper means by ‘political participation’. This study starts from the common definition of political participation as “the intent or effect of influencing government action – either directly by affecting the making or implementation of public policy or indirectly by influencing the selection of people who make those policies” (Verba, Schlozman and Brady 1995, 38). This definition distinguishes between actions intended to influence the implementation of public policies and those intended to intervene in the electoral process. In their study, McLeod and colleagues (1999) differentiate further between two other forms of participation: institutionalized participation, which includes actions such as voting, and “nontraditional” forms of participating in political processes (by which they mainly mean political forums). This distinction is much debated and often appears to be almost nominalist: the use of labels like “institutionalized”, “formal”, “unconventional”, depends on the researchers’ preferences. The most convincing distinction, and the one which this paper uses, is that between conventional and unconventional forms of political participation (Barnes and Kaase 1979), later adopted by many authors (see della Porta and Diani 1999; Norris 2002; Dalton, Van Sickle and Weldon 2010).

Conventional participation concerns voting, discussing politics or working for a party, and other activities concerning the electoral process. Unconventional forms are typically related to actions like petitions, demonstrations, boycotts, occupations of buildings, and so on.

This paper considers “voting” as conventional participation, and among the “unconventional” forms, those that seemingly have stronger ties to the use of the Internet. It excludes forms like unofficial industrial strikes, blocking of traffic, damage to property, and personal violence. This is not just a theoretical choice (it would be inconsistent, in this survey, to view use of the Internet as a determinant of those kinds of participation); it is also a methodological one (the survey used here does not include those actions). Given the nature of this analysis and the fact that political participation should be understood as a dynamic process, “contacted a politician, government or local government official” has been included among the unconventional forms as well. The main reason is that respondents could interpret even the act of commenting on and criticizing a politician’s Facebook page or Twitter profile as a way to contact them. This form of relation is hardly a conventional kind of political participation.
Given the overall structure of this paper, which investigates whether the use of the Internet can influence participation, it is also important to determine the salience of the co-determinants. Even though there is an abundant literature on the topic, and it is consequently difficult to list the determinants of those forms of participation, some common understandings can be mentioned. Using traditional news media has positive effects on political participation, while television is often considered to have negative ones (Boulianne 2009; Norris 2000). Nonetheless, before looking at media use, the role of several other determinants should be recognized. The first is political interest, which is a crucial component of engagement (see Lupia and Philpot 2005). Political interest may be defined as the degree to which politics provokes citizens’ curiosity (Van Deth 2000, 119). It is therefore a motivational prerequisite for participation (Strömbäck and Shehata 2010). Before the Internet, several studies showed that individuals in higher socioeconomic brackets were the more active in terms of political participation (Milbrath and Goel 1977; Rosenstone and Hansen 1993). Finally, age has also been regarded as a predictor of political participation inequality (Henn and Foard 2012), while recent studies suggest that the Internet functions as a leveller (Holt et al. 2013).

3. E-government as a new phase in the study of political participation?

Since 2010 a growing number of countries have introduced e-government practices and opened their data. This may lead to an increase in public transparency, but at the same time it may allow citizens’ engagement in policy or at least in assessment of the government’s work (see the critical evaluation by Gurstein 2011). This development has been recurrently discussed in terms of government transparency and efficacy (Cox 2014), but it is still neglected in terms of political participation and activism.

The accessibility of e-government facilities in general, and access to open data in particular, can enhance two kinds of participation. First, the simple use of data can itself be a new form of participation. It is not by chance that when the three major candidates in the 2008 American electoral campaign expressed their willingness to provide more online information via government websites, one of the most recurrent criticisms was that it would be preferable to provide government data available in an accessible format (Robinson, Yun, Zeller and Felten 2009). Even if the use of the data is often seen as a new form of digital divide, as the pioneering work of Solomon, Bhuvaneswari and Rajan (2007) shows, providing open data means providing sites to engage citizens.
Secondly, there is the rise of several organizations and movements that see open
data and e-transparency as a new right to claim from governments. Even if the benefits
of the adoption of open data is still in question, the myth of its efficacy appears to be
resilient (Janssen, Charalabidis, and Zuiderwijk 2012; Janssen and van den Hoven 2015;
Bekkers and Homburg 2007; Bertot, Jaeger and Grimes 2010). This is the reason for the
growth of organizations which claim open data. The second edition of the report issued
by the World Web Foundation underlines that a global movement to make government
open arose in 2013. During that year, the G8 leaders signed an “Open Data Charter”.
One year later: “[…] the G20 largest industrial economies followed up by pledging to
advance open data as a weapon against corruption” (World Web Foundation 2015, 6).

From an analytical point of view, this paper interprets both the use of and the claim
for open data as inherent to the relation between media and participation. Firstly,
using online facilities provided by the government can be regarded as a form of
unconventional political participation. Secondly, citizens who claim an increased
volume of e-government facilities and open data certainly engage in a form of
unconventional participation. Particularly the latter is commonly pursued by the
unconventional forms of participation highlighted here (boycotting, signing a petition,
or contacting government members to claim that openness). Although the surveys
referred to here cannot specifically detect neither of the two, the results discussed by
the paper should be read in light of this framework. This further explains why the
paper divides the countries analyzed into two groups according to their level of
digitization (particularly in terms of e-government and open data).

Debating the use of media and forms of participation means dealing with the
relation between media and power. In this regard, nuanced and detailed perspectives
exist on both traditional (Curran 2011; Curran and Seaton 2009; Blumler and Gurevitch
1995) and new media (Coleman and Blumler 2011). The paper draws on the discussion
conducted by Nick Couldry and James Curran in their Contesting Media Power (2003).
Their starting point is that: “[…] how power is contested under different but
structurally comparable conditions across the world – it becomes obvious that media
power is rarely the explicit subject of social conflict” (Curran and Coulr 2003, 4). They
define this assertion as a paradox, since media power should be regarded as a hard
type of power. Their discussion could not include what is happening with open data
and e-government. Nevertheless, it supports the framework of this paper that tries to
find further statistical evidence on those two domains (media use and forms of political
participation) in light of e-government facilities provided by the countries analyzed.

As said, the questions addressed by this paper are whether use of the Internet and
the level of digitization of countries can be considered determinants of forms of
political participation. Given the nature of the survey and the discussion thus far, the paper formulates four hypotheses.

H1: Use of the Internet is a determinant of unconventional forms of political participation.

H2: Higher levels of a country’s digitization enhance forms of unconventional participation.

H3: Use of the Internet is a predictor of unconventional forms of political participation also in countries where the levels of e-government openness and digitization are lower.

H4: The most common determinants of political participation (political interest, higher socioeconomic bracket, age) still play a significant role.

Additionally, in order to compare the weight of the chosen variables, the same model is tested for another dependent variable: voting.

4. Research design and methodology

The research design consists of two different parts. First, the analysis used – whenever possible – all six waves of the European Social Survey (2002, 2004, 2006, 2008, 2010, 2012) to monitor changes in media uses and unconventional forms of political participation, considering the European countries as a whole. A longitudinal overview of media use and political participation in sixteen European countries regarded as a whole then follows. Each questionnaire from the “European Social Survey” (from the ESS round 1 2002/2003, to the ESS round 6 2010/2011) proposes two different questions about the use of television and newspapers: “On an average weekday, how much time, in total, do you spend watching television?” (question A1) and “On an average weekday, how much time, in total, do you spend reading the newspapers?” (question A5). The answer proposes eight (0-7) items from “No time at all” to “more than three hours”. The values considered below are the standardized averages of the respondents’ choices. Therefore 0.5 means that European citizens watch television 1.5 hour each day. The ESS6 (2012/2013) is also considered in reference to television (the use of newspapers is excluded here because the questionnaire does not include the question).

Regarding the Internet, each questionnaire – from the ESS round 1 2002/2003, to the ESS round 5 2010/2011 – keeps one question on its use: “How often do you use the internet, the World Wide Web or e-mail – whether at home or at work – for your personal use?” (question A7). The answer proposes eight (0-7) items from “No access
at home or work” to “Every day”. The scale is different from the questions on television and newspapers. Here the time spent using the Internet is calculated on the basis of one month (02 “Less than once a month”) to a week (06 “several times a week). The values considered below are the standardized averages of the respondents’ choices. Therefore 0.5 means that European citizens use the Internet once a week. The ESS6 is not considered because it lacks question number A7. Although the surveys use a different unit of analysis to monitor use of the Web, I have included the three media within the same figure (Figure 1).

The forms of conventional and unconventional participation were also monitored. Voting was analyzed through the B9 question: “Some people don’t vote nowadays for one reason or another. Did you vote in the last [country] national election in [month/year]?”. With reference to unconventional participation, the analysis used question B15: “There are different ways of trying to improve things in [country] or help prevent things from going wrong. During the last 12 months, have you done any of the following?”. The analysis considered five types of action: “...contacted a politician, government or local government official, ...worked in another organisation or association, ...signed a petition, ...taken part in a lawful public demonstration, ...boycotted certain products”. Both the questions were analyzed for the six waves of the ESS (from the round 1 2002/2003, to the round 6 2012/2013).

The second part of this study examines the relation between the use of the Internet and the level of digitization as determinants of forms of political participation. Given that the forms of digitization considered here are linked specifically to e-government facilities and open data, that relation can be monitored only in the most recent surveys. To run the logistic regression, I opted for the ESS round 5 2010/2011, which includes all the questions necessary for the purposes of this paper.

The regression model included independent variables gathered from the questionnaire except for the level of digitization. To include the level of digitization, it was necessary to consider external indicators. Several well-recognized indexes exist to assess the level of a country’s digitization. At the same time, none of them balances an evaluation of both access and e-government/open data facilities, and they rarely consider the legal framework. Moreover, my intention to consider different perspectives led me to select and combine four different indicators in order to monitor the four dimensions suitable for investigating how the digital media system influences unconventional participation. The four dimensions were: 1) the infrastructural/technological level of each country; 2) the freedom to access data at the legal level (mainly this means analyzing the Freedom of Information Act – FOIA); 3) the quality of the data available from the public administration; 4) e-government
development in terms of online services. The analysis employed the Digital Economy and Society Index (DESI)\(^2\) to assess the digital infrastructure, the Global Right to Information Rating (RTI) to evaluate the quality of the FOIA\(^3\), the Open Data Barometer to estimate the level of openness of data provided by the public administration\(^4\), and the e-Government Development Index (EGDI)\(^5\) to evaluate the level of the e-government services\(^6\).

The four indexes were linked to the European countries considered. To identify clusters of countries with similar levels of digitization, I opted for a multidimensional scaling technique (see Sarti 2007). This technique measures the proximity (and the distance) among the various countries according to the variants in the indexes selected. The scaling was used to identify two clusters of countries, one in which the level of digitization is higher, the other in which it is lower.

After those countries were grouped, the article discusses four models of logistic regression analysis based upon the 2010/2011 European Social Survey. Models 1, 2 and 3 had as their dependent variable the forms of unconventional participation. Model 4 had “voting” as its dependent variable. Models 1 and 4 included a variable called

\(^2\) The European Commission issues “The Digital Economy and Society Index (DESI)” within the framework of the “Digital Agenda for Europe”. The Digital Economy and Society Index (DESI) is a composite index that summarizes relevant indicators on Europe’s digital performance. It includes five main dimensions. This paper considers only the first one: “Connectivity”. The Connectivity dimension measures the deployment of broadband infrastructure and its quality. This dimension is a standardized measure that goes from 0 to 1 (https://ec.europa.eu/digital-agenda/en/desi).

\(^3\) This is a measure of the legal framework for the right to information in each country provided by the “Centre for Law and Democracy”. The Centre is a non-profit organization funded by (among others): Open Society Foundations, UNESCO, Sigrid Rausing Trust, NOVIB, Oxfam Canada. The methodology applied by the RTI consists of 61 Indicators. For each Indicator, countries earn points within a set range of scores (in most cases 0-2), for a possible total of 150 points. The indicators are divided into seven different categories, namely: Right of Access, Scope, Requesting Procedures, Exceptions and Refusals, Appeals, Sanctions and Protections, and Promotional Measures (www.rti-rating.org).

\(^4\) The index is provided by the “World Wide Web Foundation”, which was established in 2009 by Tim Berners-Lee. The mission of the foundation is to advance the open Web as a public good and a basic right. The Open Data Barometer brings together the results of expert survey research, technical assessments of data supply, and secondary data. The index ranges from 0 to 100 (barometer.opendataresearch.org).

\(^5\) The index is provided by the United Nations Member States. It is calculated on three different dimensions of e-government, namely: provision of online services, telecommunication connectivity, and human capacity. In accordance with the aims of this paper, I selected the rank of the first dimension “provision of online services” (OSI), which is a standardized index that spans from 0 to 1 (http://unpan3.un.org/egovkb/en-us/About).

\(^6\) The paper considers the 2012 values for each index in order to match the year when the European Social Survey (Round 5, 2010/2011) took place, except for the Digital Economy and Society Index (DESI), which is available only from 2014. The RTI and OSI indexes were standardized.
“digitization”, which was a dichotomous variable that distinguished the most advanced countries in terms of digitization from the least developed ones. Model 2 included only the most developed countries; model 3 included only the least developed ones.

The models maintained the same group of explanatory variables. The use of media was calculated according to the questions described above. Each type of media was included in the models through two different variables that assumed medium and high use. The other variables were: “political interest” (“How interested would you say you are in politics”; there were three items that were dichotomized for the model); “occupation” (a dichotomy variable that divided employed from unemployed respondents); “education” (the variable was calculated on the basis of the number of full years of completed education); “age” (the variable was calculated on the date of birth and was included as the distance from the average); and gender.

5. Ten years of media use and participation in Europe

Figure 1 presents the variation in the use of television, newspapers and the Web, with values that span from 0 to 1. The use of both television and newspaper appears to be relatively stable. Given that the 0.5 value means that the European citizens use those media 1.5 hour each day, Figure 1 states that on average European citizens watch television for about two hours per day and read newspapers for half an hour per day. Despite recent changes in the national media systems, the use of television is still stable. Although other surveys on European citizens (see Eurobarometer 2009) report a slighter decrease in the use of television, the results presented here are almost completely explained by the way in which the question is asked. The European Social Survey does not distinguish between different ways to watch television. It therefore detects the ongoing relevance of television as an institution that in Europe, despite the process of convergence, is still in the hands of a few major companies. As D’Haenens and Sayes (2007) highlight, the structural features of the systemic, economic and political contexts determine the market conduct of broadcasters, and this conduct in turn determines media performance. People can watch television in different ways (also on computers or mobile telephones), but the content provided depends on the market structures (see Shehata and Strömbäck, 2011).

7 See also Eurobarometer 80.1 2013.
The decline in the use of newspapers is more apparent (on average from more than 1 hour to less than 1 hour), although it is not as marked as it appears from common discourses on the crisis of newspapers (McChesney and Pickard 2011). Especially in comparison with the U.S., the decline appears to be less striking because in the majority of European countries (except for the Scandinavian ones and the United Kingdom) its use has never been popular (Hallin and Mancini 2004). However, the use of newspapers (and therefore of news) has to be necessarily related with the Internet (closely interrelated with news consumption). Although there is no agreement on the effect of Internet use on news knowledge (see Fenton 2012; Curran et al. 2012), online news is the most commonly used source of information.

Figure 1 also shows use of the Internet. According to the items used to understand use of the Internet, the 0.5 value means that Europeans citizens use the Internet at least once a week. Since use of the Internet is calculated by a scale different from that employed for television and newspapers, Figure 1 helps to gain an overall picture of the trends related to each type of media. Regardless of the scale used by the questionnaire (which appears inadequate in relation to current use of the Internet), Figure 1 shows the impressive (and both well-known and predictable) increase in the importance of Internet use. This is explained both by the increasing accessibility of the
Web from different devices and the process of media technology’s acceptance and use from an increasing number of people (see among others Haddon 2006).

Figure 2 – Voting and unconventional participation

![Graph](image)

Source: The European Social Survey (from Round 1 – 2002/2003 to round 5 from 2010/2011)

Figure 2 shows the standardized percentages of citizens who have performed at least one of the five actions selected from the database as *forms of unconventional participation*. This trend is compared to the same measure for voting in a national election (the figure shows the standardization of the percentage of voters).

As in the case of the use of *traditional* media, participation in elections is also stable across the 10 years analyzed. The pattern of *unconventional participation* is slightly different. The ratios are not linear (the lowest rank is in the middle of this series), while, starting from 2010, the rank increases. At the same time, these results appear to reject our main hypothesis: unconventional participation does not increase together with use of the Web.  

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8 The two figures (1 and 2) have different units of measurement. Use of the media is calculated on the average amount of time spent by citizens; instead, unconventional participation is calculated on the average of the numbers of citizens who participate.
6. Digital countries, use of the Web and participation

With regards to the next research question in this paper, Table 1 shows the indexes of digitization presented in section 4 for each of the countries considered.

<table>
<thead>
<tr>
<th>Country</th>
<th>Connectivity*</th>
<th>RTI**</th>
<th>OSI***</th>
<th>Open Data****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>0.722</td>
<td>0.393</td>
<td>0.348</td>
<td>0.647</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.489</td>
<td>0.48</td>
<td>0.439</td>
<td>0.542</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.665</td>
<td>0.427</td>
<td>0.718</td>
<td>0.856</td>
</tr>
<tr>
<td>Finland</td>
<td>0.57</td>
<td>0.7</td>
<td>0.494</td>
<td>0.882</td>
</tr>
<tr>
<td>France</td>
<td>0.497</td>
<td>0.427</td>
<td>0.639</td>
<td>0.876</td>
</tr>
<tr>
<td>Germany</td>
<td>0.626</td>
<td>0.347</td>
<td>0.65</td>
<td>0.752</td>
</tr>
<tr>
<td>Greece</td>
<td>0.333</td>
<td>0.433</td>
<td>0.276</td>
<td>0.576</td>
</tr>
<tr>
<td>Hungary</td>
<td>0.459</td>
<td>0.58</td>
<td>0.261</td>
<td>0.688</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.492</td>
<td>0.633</td>
<td>0.358</td>
<td>0.714</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.694</td>
<td>0.547</td>
<td>0.637</td>
<td>0.969</td>
</tr>
<tr>
<td>Norway</td>
<td>0.652</td>
<td>0.52</td>
<td>0.718</td>
<td>0.856</td>
</tr>
<tr>
<td>Poland</td>
<td>0.408</td>
<td>0.527</td>
<td>0.369</td>
<td>0.536</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.524</td>
<td>0.487</td>
<td>0.386</td>
<td>0.653</td>
</tr>
<tr>
<td>Spain</td>
<td>0.472</td>
<td>0.487</td>
<td>0.482</td>
<td>0.77</td>
</tr>
<tr>
<td>Sweden</td>
<td>0.669</td>
<td>0.613</td>
<td>0.857</td>
<td>0.822</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.668</td>
<td>0.667</td>
<td>1</td>
<td>0.813</td>
</tr>
</tbody>
</table>

Source: * DESI (2012) ** RTI *** OSI **** Open data barometer

At the same time, in order to combine those four indexes, I applied a multidimensional scaling technique (see Sarti 2007). This technique identified clusters of countries on the basis of their scores. It measured the proximity (and the distance) among the various countries according to the variants in the indexes selected. The multidimensional scaling does not allow any inference to be drawn about the direction of the indexes, but it clearly shows the proximity and the affinity among the countries.\(^9\)

Given the values in Table 1, it is evident that the cluster of the countries in Figure 3 on the right of the y axis comprises those where the process of digitization in terms of transparency and openness is better than in the countries on the left of the y axis. Finland is an outlier for instance. At first glance, it is closer to the group on the left of the y axis. The reason is that Finland obtains the highest rank according to RTI, the

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\(^9\) Multidimensional scaling scores: Belgium (-.639; -.321); the Czech Republic (-.317; -.063); Germany (.082; -.746); Denmark (.353; -.493); Spain (-.181; -.078); Finland (.104; .732); France (.151; -.431); the United Kingdom (1.323; .356); Hungary (-.635; .461); Ireland (-.325; .586); Greece (-.774; -.105); the Netherlands (.289; .028); Norway (.467; -.136); Poland (-.419; .167); Portugal (-.425; .000); Sweden (.947; .043).
second according to Open Data, but it is eighth in both Connectivity and OSI (however, both ranks are better than those of the countries included in the group where the process of digitization is lower). Overall, while assessing the scores, there is no doubt that Finland is a country where the process of digitization is very well developed.

The results from the scaling suggest that the 16 countries included in this survey should be divided into two different groups. The first consists of Denmark, Finland, France, Germany, the Netherlands, Norway, Sweden and the United Kingdom (this is obviously the group where the process of digitization is faster and overall better). The second cluster consists of Belgium, the Czech Republic, Greece, Hungary, Ireland, Poland, Portugal and Spain.

This clustering therefore makes it possible to assess whether and to what extent use of the Internet within countries more and less developed from the point of view of digital facilities can be regarded as determinants of forms of unconventional participation. In this regard, a logistic regression analysis was used, with two different dependent variables: unconventional participation and voting.

Figure 3 – Proximity of countries according to their digital indexes.

Source: Elaboration on * DESI (2012) ** RTI *** OSI **** Open data barometer
The four models are presented below. They share all the independent variables included as determinants except one.\textsuperscript{10} Models 1 and 4 include also a dichotomous variable distinguishing the two groups of countries discussed above. Model 2 was applied only to the eight countries where the process of digitization was regarded as better. Model 3 was applied to the countries where the process of digitization is lower. Finally, models 1, 2 and 3 had the same dependent variable (forms of unconventional participation), while model 4 kept voting as a dependent variable. In this analysis the other variables, except use of the Web and the status of digitization, were considered \textit{control variables}.

H1 is confirmed by the regression model. Use of the Web is a determinant of unconventional forms of political participation. There are obviously other variables that are more influential (mainly political interest), but use of the Web has a significant relationship with the unconventional forms of political participation. Moreover, in line with the finding of other studies, the use of television is negatively linked with political participation, while the use of newspapers has a positive impact.

H2 is equally confirmed. Forms of unconventional participation are higher in countries where the process of digitization is more developed. Also H3 is confirmed: even within countries grouped as less developed from the digitization point of view, use of the Web plays a role in enhancing forms of unconventional political participation. Finally, the overall H4 is confirmed except for age in models 1 and 2. Holt and colleagues (2013) provide a possible explanation: use of the Web can work as a leveller in terms of political participation.

According to model 4, all the independent variables considered yield predictable results (the positive influence of the use of newspapers and the negative one of television, the positive roles of political interest, job, education and age) except for the level of digitization of countries, which is not statistically significant. Based upon the paper’s theoretical framework, this confirms the need to separate forms of conventional and unconventional political participation. At the same time, it indirectly confirms the three hypotheses, individualizing the role of the level of digitization specifically in relation to forms of unconventional political participation.

\textsuperscript{10} The common independent variables were use of the Web, use of television, use of newspapers, political interest, occupation, education, age and gender.
6. Conclusion

With the intention to explore the determinants of unconventional political participation, the paper has scrutinized the role of two main independent variables (among others with a widely recognized role in political activism). The first predictor has been the use of the Web. Although many studies on the subject already exist, the assumption that justifies this analysis has been that the media environment is

| Table 2 Regression model for “unconventional participation” |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Country                        | Model 1                         | Model 2                         | Model 3                         | Model 04                         |
| Medium use of TV               | .791*** (0.027)                 | .777** (0.048)                  | .807*** (0.0516)                | 1.049 (**.044)                   |
| High use of TV                 | .650*** (0.0218)                | .585*** (0.046)                 | .732*** (0.049)                 | .864*** (0.04)                   |
| Medium use of Newspapers      | 1.318*** (0.037)                | 1.349*** (0.038)                | 1.28*** (0.0425)                | 1.412*** (0.035)                |
| High use of Newspapers        | 1.228*** (0.071)                | 1.299** (0.078)                 | 1.15 (0.0877)                  | 1.173034** (0.0770024)          |
| Medium use of the Web          | 1.586*** (0.085)                | 1.546*** (0.0742)               | 1.645*** (0.077)                | 1.108* (0.062)                  |
| High use of the Web            | 1.921*** (0.070)                | 1.969*** (0.0511)               | 1.866*** (0.0534)               | 1.394*** (0.0427)               |
| Political Interest             | 2.021*** (0.053)                | 1.934*** (0.0361)               | 2.124*** (0.039)                | 2.733*** (0.0348)               |
| Job                            | 1.035 (0.028)                   | 1.028 (0.0378)                  | 1.044 (0.0401)                  | 1.479*** (0.0329)               |
| Education                      | 1.083*** (0.004)                | 1.072 (0.005)                   | 1.095*** (0.005)                | 1.04*** (0.004)                 |
| Gender                         | .969 (0.0248)                   | 1.038*** (.03488)               | .895** (.0377)                  | 1.211*** (.0306159)             |
| Age                            | 1.003 (.001)                    | 1.003 (.001)                    | 1.005*** (.0013055)            | 1.033*** (.001092)              |
| Digitization                   | 2.601*** (.0673)                | ----                           | ----                           | .9625 (.0320165)                |
| Constant                       | 0.524*** (.044)                 | -.462*** (.0629102)            | -1.462*** (.0613011)           | .518*** (.0635206)              |
| Observations                   | 31820                          | 15383                          | 16437                          | 29248                           |
| LR chi2(11)                    | 6281.29                        | 1660.83                        | 1832.73                        | 3008.67                         |
| Pseudo R2                      | 0.145                          | 0.078                          | 0.095                          | 0.098                           |

Source: ESS round 5 2011/2012. Notes: ***p<.01; **p<.05; *p<.1. (standard error in brackets)
changing, and that the use of the Web is increasing, as well as changing so quickly that it is again necessary to investigate its influence on political participation. In line with previous research (Boulianne 2009; Xenos and Moy 2007), the results of our data state that the use of the Web is – among others determinants even with higher explanatory capacity – one of the determinants of political participation (both unconventional and conventional). This research has also tested the significance of a country’s level of digitization and whether e-government facilities enhance or inhibit political participation. In this regard, the results confirm our assumptions. Given the nature of the survey, the interpretation of those results may be called into question. Within countries better equipped in terms of digitization, activities related to uses of e-government services should be regarded as forms of political participation. Instead, within less equipped countries, protests and claims for more openness should be included among those activities of unconventional political participation. In any case, from a statistical point of view, the models confirm that the level of digitization plays a role in terms of unconventional forms of participation.

Overall, this paper should be regarded as exploratory. Its aim has been to encourage new research and new conceptualizations in the field of media and participation. The fact that the overall trend of unconventional political participation is not expanding, while the use of the net is increasing, with the latter as a determinant of the former, reveals that unconventional forms of participation are changing. Even if I do not adopt the pessimistic interpretation of armchair activism (see Morozov 2011), I believe it necessary to re-evaluate views on participation. In light of the advancement of online activism, can previously considered unconventional forms of action now become conventional? What kind of protest is signing an online petition? Does the normalization of some forms of protest become a third category of political participation besides the usual categorization in conventional and unconventional?

Contrary to armchair activism, there is instead the need to recast the traditional conception of media power. It is obvious that demands to receive open data or to obtain a better FOIA should be considered simply demands for transparency. At the same time, the Web itself as a medium is a carrier of the transparency and openness that citizens and some movements are claiming.
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