RELATIONSHIP BETWEEN PARTICIPATION IN FORUMS AND BLOGS OF POLITICAL DEBATE ON THE INTERNET AND THE MONITORING OF POLITICAL INFORMATION IN PROFESSIONAL MEDIA: EVOLUTIONARY ANALYSIS 2011-2016

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Abstract

The possibilities offered by information and communication technologies have allowed many people to become political content creators. Often, the produced content is not based on information created by professionals. The objective of this work is to analyse the relationship between the monitoring of political information in professional media and the production of political content in non-professional media. The study performs a secondary analysis of the data obtained by applying the statistical method to surveys published by the Spanish Centre for Sociological Research (CIS, Centro de Investigaciones Sociológicas) between 2011 and 2016. The results show that there is a strong relationship between the participation in blogs and forums of political debate and the use of the Internet to stay informed about politics. It has also been observed that there is an association between the creation of political content and the monitoring of political programs through the press, radio and television.

Keywords

Political communication; Political information; Social media; Political participation; Citizen journalism; Digital journalism; Forums, Blogs.

1. Introduction

Receiving continuously information on a specific topic leads us, in general, to form a more consistent opinion about that topic and gives users resources for active participation. Some studies point out a connection between frequently keeping up to date through the media and the tendency to participate in discussions on political issues (Thorson, 2012; Moeller et al., 2014).

The possibilities offered by technology today allow many people to become content creators, including political content, enabling citizens to participate in public discussions and giving them the chance to express their opinions (Shirky, 2011). In this sense, the digital environment contributes to the emergence of new informative actors that can become key elements of new political activism (Casero-Ripollés, 2017).

In line with this argument, it is worth to question whether there is a relationship between the production of political content on non-professional digital media and following political information on professional media. The answer to this question, which is the main research question of this work, offers an interesting key to finding out whether behind these political manifestations of citizen journalists there is a foundation/basis in the monitoring of information disseminated through professional media. Also, it is interesting to find out whether there are links with all professional content equally, regardless of their type, or if there are differences. Finally, the observation of the incidence of sociodemographic factors (gender, age, socioeconomic status and level of studies) provides a more detailed description of the possible relations.

This article is an evolutionary analysis, taking as reference the barometers of the Centro de Investigaciones Sociológicas (CIS) –Center for Sociological Research- published in the months of October, between 2011 and 2016, of the connection established between keeping up to date with political information through professional media, and participation through the generation of political information on non-professional digital media, specifically, in blogs and forums for political debate on the Internet.

2. Bibliographic review

2.1. Public journalism, politics and persuasion

With the emergence of the internet and social media there has been a change in the relationship between audiences and the media. The ease of use and creation of social media allows individuals to express their opinions more freely and build a more active and meaningful relationship with official institutions. Despite these seemingly global facilities, some studies suggest that content creators tend to be young adults (Lenhart; Horrigan; Fallows, 2004; Jones; Fox, 2009). Apart from this, there is no uniformity regarding the influence of gender (Hargittai; Walejko, 2008; Correa, 2010) and socioeconomic level (Lenhart; Horrigan; Fallows, 2004).

Anstead and O’Loughlin (2011) point out that the main reasons that lead content creators to collect and disseminate information are to inform, educate and influence others. In addition, the informative content created by the public seems to exert influence among the public, at least in certain situations and under certain conditions (Ardevol-Abreu; Barnidge; Gil-de-Zúñiga, 2017).

Several papers indicate that the desire to persuade is one of the most common motivations for discussing politics, along with willingness to learn and the desire to express oneself politically (Huckfeldt; Sprague, 1991; Conover; Searing; Crewe, 2002). Above all, to persuade an individual some sort of dialogue should be maintained, to find alternative points of view in those discussions and, consciously, to try to change the political views of the other participants (Thorson, 2012).

From a generic point of view, Elin (2003) suggests that having more opportunities for expression, including online opportunities, can help mobilise people to perform actions in the real world. Specifically, Huckfeldt and Sprague (1995)
highlight the existence of a consistent connection between talking about politics and political participation.

2.2. Monitoring of political information in professional media and its link with political participation and the generation of the public political content

Political conversation usually arises from commitment to information about current events (Ardevol-Abreu; Barnidge; Gil-de-Zúñiga, 2017), in such a way that the arguments provided by the professional media constitute the fundamental raw material of this kind of conversation (Mondak, 2010).

When it comes to scientific literature there are works that indicate that frequent users of the media are more inclined to participate in discussions on political matters, whether it is online or conventional media (Cho et al., 2009, Moeller et al., 2014). Monitoring of the news, by offering information that can be used as the basis for mobilisation, is related to political participation (Kaufhold; Valenzuela; Gil-de-Zúñiga, 2010).

The availability of news, much wider in the case of the internet, can be considered as an ideal to have a better informed public. Unintentional exposure to news can facilitate political knowledge (Tewksbury; Weaver; Maddex, 2001; Shehata et al., 2015, Gil-de-Zúñiga; Weeks; Ardevol-Abreu, 2017).

Despite the connection between the monitoring of political information through professional media and the trend towards political participation, no studies have been found that demonstrate an association between the monitoring of political information in professional media and the production of political content in non-professional media.

Given the abundance of professional information sources, the ease of access to them and their relevance in the dissemination of political knowledge, it seems appropriate to study whether there really is an association between this variable (the monitoring of political information in professional media) and the production of political content in non-professional media by so-called citizen journalists. This is the main objective of this work, which develops a longitudinal analysis in Spain between 2011 and 2016, focusing on the production of political content in blogs and internet forums. As specific objectives, the aim is to determine the possible link between the production of online political content and the informative monitoring of various types of professional media:

- reading the political sections of the newspaper;
- monitoring of news on radio or television;
- monitoring of other radio or television programs on politics (other than news);
- use of the internet to obtain information on politics.

3. Methodology

The study follows a quantitative methodology based on the application of a statistical analysis of data derived from surveys from the barometers of the Centro de Investigaciones Sociológicas (CIS) published in Spain in the October months between the years 2011 to 2016. The sample consists of the following number of surveys carried out on people over 18 years living in Spain:

- 2011: 2,472 interviews
- 2012: 2,484 interviews
- 2013: 2,485 interviews
- 2014: 2,480 interviews
- 2015: 2,493 interviews
- 2016: 2,491 interviews.

All barometers have a confidence level of 95.5%, with a real sample error set to ± 2.0%.

From the questions included in the questionnaires, due to their connection with the objective of this work, the ones shown in Table 1 have been selected.

Besides the possible association between participation in forums or blogs of political debate on the internet and the monitoring of political information through professional political information media (radio, press, television and internet), the relationship of the first variable with gender, age, socioeconomic status and educational level is studied.

The variable that is interesting to observe (participation in political debate forums on the Internet, Q1) is recoded with 3 possible answers:

- has participated in the last year (1);
- has participated in the more distant past (2);
- he has never participated (3).

This is an ordinal variable (it could even be classified as nominal) in which there is no proportional relationship between the numerical value assigned and the intensity of the phenomenon measured. Given this circumstance, it was decided not to analyse the degree of relationship between this type of variable using the Pearson correlation coefficient, which only makes sense when at least one of the variables is of interval or ratio. This fact is well illustrated by analysing the fourth of the data sets proposed by Anscombe (1973, pp. 17-21). Furthermore, since the possible relationship between the variables does not have to even be monotonic, the Spearman correlation coefficient has also been excluded.

To determine whether or not a relationship exists between participation in forums or blogs of political debate and the

Table 1. Selected questions from the 2011-2016 barometers

<table>
<thead>
<tr>
<th>Question</th>
<th>Denomination of the question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you participate in a forum or a political debate blog on the internet</td>
<td>Q1</td>
</tr>
<tr>
<td>Do you read the political sections of the newspaper</td>
<td>Q2</td>
</tr>
<tr>
<td>Do you listen to or watch the news on radio or television</td>
<td>Q3</td>
</tr>
<tr>
<td>Apart from the news, do you listen to or watch other programs on politics on radio or television</td>
<td>Q4</td>
</tr>
<tr>
<td>Do you use the internet to obtain information about politics or society</td>
<td>Q5</td>
</tr>
<tr>
<td>Gender of the interviewee</td>
<td>Q6</td>
</tr>
<tr>
<td>Age of the interviewee</td>
<td>Q7</td>
</tr>
<tr>
<td>Level of studies reached by the person interviewed</td>
<td>Q8</td>
</tr>
<tr>
<td>Assessment of personal economic situation</td>
<td>Q9</td>
</tr>
</tbody>
</table>

Source: CIS, barometers 2011-2016
monitoring of political information in professional media, the chi-square hypothesis test is used. When this hypothesis is null it means that the variables are independent (there is no relationship). When the null hypothesis is rejected, the strength of the association is measured using the coefficient $V$ of Cramér (1946, p. 282), which quantifies the degree of relationship between nominal variables using values within the range from 0 to 1. The 0 corresponds to independent variables; values between 0.25 and 0.30 are considered to be acceptably strong and values greater than 0.30 correspond to strong relationships.

http://groups.chass.utoronto.ca/pol242/Labs/LM-3A/LM-3A_content.htm

It is considered that values higher than 0.50 correspond to two variables that measure the same phenomenon. In those cases in which Cramér’s $V$ coefficient shows values between 0.15 and 0.20, which correspond to a weak association, a detailed study of the degree of relation is made by means of the analysis of conditioned relative frequencies.

4. Results

To begin with, in the presentation of the results, the description of the followers of political information through the internet is presented, and then, the analysis of the mentioned recipients as producers of political information through internet blogs and forums for political is detailed.

4.1. Analysis of the monitoring of political information on the internet

Figure 1 shows the relative frequency (%) of the following of politics information on the internet. The percentage of those who check the internet daily increases remarkably (it has doubled since 2011). Also, the percentage of those who never check it decreases (15%).

Next, we analyse the age distribution of people who keep themselves informed about politics on the Internet (Figure 2), noticing that it is a non-uniform distribution: around 70% are under 47 years old. This figure is important because it suggests that participation in forums or blogs, predictably, will also have an age barrier. In addition, it can be seen that the curves are moving to the right as the year of the barometer grows. This displacement can be attributed, among other reasons, to the fact that each year studied, the group of people without difficulty in using new technologies includes people one year older than the previous one.

4.2. Analysis of political participation through Internet blogs and discussion forums

The prediction regarding the age barrier in terms of participation in political forums or blogs is confirmed by observing their age distribution (Figure 3): 70% of those who participated were under 47 years old. In general terms, the curves are moving to the right as the year of the barometer grows.

To study the relationship between the variables of participation in blogs and political forums and the rest of the variables in Table 1, the chi-square test is used, the results of which are shown in Table 2. With a significance level of 1%, the test determines that the variables are independent in cases highlighted in bold. For a level of 5%, the test considers underlined cases to be independent. The critical values corresponding to these levels of significance for the different degrees of freedom (df-degrees of freedom) are shown in Table 3.

The results of the test suggest that there is no clear association between participation in forums and blogs about politics and the following variables:

- Frequency by which the news is followed on radio or television

Figure 1. Relative frequency of monitoring political information on the internet

Figure 2. Use of the internet to obtain political information by age
levision (Q3). Although the test rules out independence between 2014 and 2016, the 2014 and 2015 values are very close to the critical value of 1%. Therefore, it is not possible to indicate a clear link in the period analysed. This fact alerts us to the problem that would have meant discarding a longitudinal study.

- Assessment of the personal economic situation (Q9). Taking into account that the result for 2015 is very close to the critical value, it could be stated that in 5 out of the 6 years analysed there is no significant connection.

- Gender (Q6). Although a more detailed analysis (not shown here) has enabled us to observe a greater participation of men, the test indicates that this association is not statistically significant.

- Age (Q7). In spite of the absence of a relationship, in most years the chi-square value is very close to the critical value. This fact, together with the age barrier observed in previous sections, indicates that the apparent absence of a connection can be a consequence of the sample. To corroborate this, the age variable has been recoded into 3 categories:
  - under 28
  - between 28 and 46
  - older than 46.

Table 4 shows the values of the chi-square statistic. As can be seen, they are much higher than the corresponding critical value (9.49), which indicates the existence of association.

To illustrate the relationship between both variables, figure 4 represents the relative frequency of the age of those who have never participated in forums or blogs and those who have. As can be seen, there is a clear difference between the two: in the case of those who do not participate, the percentage increases with age, while among those who participate, the majority are between 28 and 46 years old.

At the opposite extreme, the high values of the chi-square statistic (in relation to its critical value) in certain rows of table 2 suggest the following:

- There is a very strong relationship between participation in blogs and forums and the being informed on politics through the internet (Q5) and the press (Q2).
- There is also a relationship with academic studies (Q8).

Although there is a slight decreasing trend in the intensity of the chi-square statistic, the critical value is exceeded in certain cases, indicating a significant association.

<table>
<thead>
<tr>
<th>Year</th>
<th>Chi-square Q1-Q2 (df=8)</th>
<th>Chi-square Q1-Q3 (df=8)</th>
<th>Chi-square Q1-Q4 (df=8)</th>
<th>Chi-square Q1-Q5 (df=8)</th>
<th>Chi-square Q1-Q9 (df=8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>120.50</td>
<td>14.52</td>
<td>85.10</td>
<td>348.56</td>
<td>16.77</td>
</tr>
<tr>
<td>2012</td>
<td>129.91</td>
<td>14.52</td>
<td>76.73</td>
<td>368.16</td>
<td>13.87</td>
</tr>
<tr>
<td>2013</td>
<td>140.75</td>
<td>11.28</td>
<td>82.67</td>
<td>373.56</td>
<td>35.79</td>
</tr>
<tr>
<td>2014</td>
<td>193.77</td>
<td>21.95</td>
<td>89.94</td>
<td>392.99</td>
<td>9.22</td>
</tr>
<tr>
<td>2015</td>
<td>171.52</td>
<td>20.67</td>
<td>124.72</td>
<td>344.08</td>
<td>21.81</td>
</tr>
<tr>
<td>2016</td>
<td>118.90</td>
<td>33.02</td>
<td>92.15</td>
<td>307.62</td>
<td>11.22</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Chi-square Q1-Q8 Recoded with 3 categories (df=4)</th>
<th>Chi-square Q1-Q6 (df=2)</th>
<th>Chi-square Q1-Q7 (df=depends on the year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>113.76</td>
<td>16.45</td>
<td>211.448</td>
</tr>
<tr>
<td>2012</td>
<td>101.48</td>
<td>7.47</td>
<td>(df=148)</td>
</tr>
<tr>
<td>2013</td>
<td>101.96</td>
<td>3.47</td>
<td>(df=154)</td>
</tr>
<tr>
<td>2014</td>
<td>96.90</td>
<td>17.26</td>
<td>(df=150)</td>
</tr>
<tr>
<td>2015</td>
<td>96.12</td>
<td>13.78</td>
<td>(df=150)</td>
</tr>
<tr>
<td>2016</td>
<td>89.30</td>
<td>9.82</td>
<td>(df=148)</td>
</tr>
</tbody>
</table>

Table 2. Chi-squared statistic values obtained from the data

<table>
<thead>
<tr>
<th>Year</th>
<th>Chi-square Q1-Q7 (df=4)</th>
<th>Chi-square Q1-Q8 (df=4)</th>
<th>Chi-square Q1-Q7 (df=4)</th>
<th>Chi-square Q1-Q8 (df=4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>54.606</td>
<td>42.181</td>
<td>43.877</td>
<td>32.462</td>
</tr>
<tr>
<td>2012</td>
<td>42.181</td>
<td>43.877</td>
<td>32.462</td>
<td>51.937</td>
</tr>
<tr>
<td>2013</td>
<td>43.877</td>
<td>32.462</td>
<td>51.937</td>
<td>24.130</td>
</tr>
</tbody>
</table>

Table 3. Critical values of the chi-square hypothesis test

<table>
<thead>
<tr>
<th>df</th>
<th>Critical value for significance level 5%</th>
<th>Critical value for significance level 1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>5.99</td>
<td>9.21</td>
</tr>
<tr>
<td>4</td>
<td>9.49</td>
<td>13.27</td>
</tr>
<tr>
<td>8</td>
<td>15.51</td>
<td>20.09</td>
</tr>
<tr>
<td>148</td>
<td>177.38</td>
<td>190.94</td>
</tr>
<tr>
<td>150</td>
<td>179.58</td>
<td>193.21</td>
</tr>
<tr>
<td>152</td>
<td>181.77</td>
<td>195.48</td>
</tr>
<tr>
<td>154</td>
<td>183.95</td>
<td>197.74</td>
</tr>
</tbody>
</table>

Source: Carried out using the mathematical calculation program Matlab.

Figure 3. Participation in internet blogs and political forums by age.
Table 5. Values of Cramér’s V

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square Q1-Q2</td>
<td>0.157</td>
<td>0.163</td>
<td>0.169</td>
<td>0.199</td>
<td>0.187</td>
<td>0.155</td>
</tr>
<tr>
<td>Chi-square Q1-Q3</td>
<td>0.058</td>
<td>0.054</td>
<td>0.048</td>
<td>0.067</td>
<td>0.065</td>
<td>0.082</td>
</tr>
<tr>
<td>Chi-square Q1-Q4</td>
<td>0.132</td>
<td>0.125</td>
<td>0.130</td>
<td>0.136</td>
<td>0.159</td>
<td>0.137</td>
</tr>
<tr>
<td>Chi-square Q1-Q5</td>
<td>0.268</td>
<td>0.275</td>
<td>0.277</td>
<td>0.284</td>
<td>0.265</td>
<td>0.251</td>
</tr>
<tr>
<td>Chi-square Q1-Q9</td>
<td>0.059</td>
<td>0.053</td>
<td>0.086</td>
<td>0.043</td>
<td>0.067</td>
<td>0.048</td>
</tr>
<tr>
<td>Chi-square Q1-Q8 recoded with 3 categories</td>
<td><strong>0.156</strong></td>
<td>0.147</td>
<td>0.147</td>
<td>0.143</td>
<td>0.143</td>
<td>0.137</td>
</tr>
<tr>
<td>Chi-square Q1-Q6</td>
<td>0.082</td>
<td>0.055</td>
<td>0.038</td>
<td>0.084</td>
<td>0.075</td>
<td>0.063</td>
</tr>
</tbody>
</table>

In order to quantify the strength of these relationships, the Cramér coefficient V has been calculated. The results are shown in Table 5. The pairs of variables in which the chi-square test suggested independence to corroborate that its coefficient V is very low have also been included. In red are values greater than 0.25, which could be considered an acceptably strong relationship. As observed, this only happens for the relationship with the obtaining of information on politics through the internet (Q5). The values represented in blue are greater than 0.15. These cases, without denoting such a strong association, indicate the existence of a certain relationship and are studied in detail by means of the analysis of the conditioned relative frequencies that are subsequently developed.

4.3. Detailed analysis of the relationship between participation in forums or blogs on politics and level of education

Figure 5 shows the evolution over time of the relative frequency of academic studies of those who have participated in forums or blogs and of those who have never done so before. There is a clear difference between the two groups. Among those who have participated in a forum or blog of political debate since 2013, most have university, followed by those with a medium level of studies. On the con-
trary, among those who do not participate, the majority have a moderate level of studies, while those with high or low level of studies are in similar proportions.

4.4. Detailed analysis of the relationship between participation in forums or blogs about politics and reading political information in the press

Figure 6 presents the relative frequency of the periodicity with which they read about politics through the press, both those who have participated in a forum or blog about politics and those who have never done so before. As observed, there is a clear difference between the two groups. Among those who have not participated, those who never read are a clear majority. On the contrary, among those who have participated, most keep themselves informed daily. Surprisingly, the rest is distributed almost consistently among the different periodicities. That is, the percentage of content creators who never read the press is similar to that of those who do it 3-4 days a week.

5. Conclusions and discussion

The study presented has analysed the correlation between the production of online political content and the monitoring of different types of professional media, reaching the following conclusions.

Among the media observed, the results show that the monitoring of news on radio or television is not associated with participation in forums and blogs for political debate. This point could be related to the fact that the exposure to political content in the news is more accidental than the deliberate consumption of specifically political content, such as the monitoring of political information on the internet, in the press, and in specific programs (different from the news) of radio and television.

Regardless of the nuances described, in all three cases the monitoring of political information through the internet, press, radio and television programs (other than the news), clearly shows a relationship between the monitoring of political information and participation. This trend confirms what was pointed out in previous works (Cho et al., 2009; Moeller et al., 2014).

Apart from that, taking into account the sociodemographic categories, the results show the existence of an age barrier using the internet that conditions both participation and access to political information.

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Apart from that, taking into account the sociodemographic categories, the results show the existence of an age barrier using the internet that conditions both participation and access to political information, in line with what was established in previous studies (Lenhart; Horrigan; Fallows, 2004; Jones; Fox, 2009). The barrier is due to the need to have a series of technical skills (Van-Dijk, 2013) that are less common as the age of the population increases. With the passing of time this barrier is reduced, and access becomes
more global. It is observed that the most active group in the production of content in forums or blogs of politics is that of the population between 28 and 47 years old. This suggests that, rather than a technological barrier, which would not affect the population under 28 years old, it should be highlighted as a barrier of interest in matters of a political nature.

Beyond age, neither gender nor the assessment of personal economic situation have been linked with participation, which seems more connected to motivations of a cognitive nature. This is evidenced by the association found between the monitoring of political information and the level of studies. In this case, there is a greater participation of people with medium and high levels of education.

The argument followed leads us to highlight that the real barrier when participating in the creation of political content on the internet is no longer the lack of technical skills (reflected by age), but rather the motivations of a cognitive nature that can be related to the level of education and the voluntary and deliberate exposure to informative content of a political nature in professional circles.

Notes
1. In the barometers of 2012 to 2016, all three categories were considered, but in 2011, a fourth option was included (Neither participated nor would ever do). Since this last option expresses the absence of participation and is not included in the subsequent barometers, the variable was recorded in the indicated answers.
2. The academic studies have been recoded into 3 levels: (1) primary education or less than 5 years, (2) primary and secondary school, vocational training and (3) University.

6. References


