

Analysis of disinformation regarding the referendum on 1 October detected by Maldito Bulo

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Article received on 16/04/18 and accepted on 25/06/18

Abstract

This article takes the events around the referendum for the Independence of Catalonia, which took place on 1 October 2017, as a reference to carry out an analysis on the use of disinformation within a context of political conflict and a highly polarised scenario, as part of a strategic narrative. Based on a proposed analytical methodology, and applying this to the disinformation verified by the fact-checker Maldito Bulo, we have noted that the aim of this disinformation is to discredit the people involved, to magnify facts and boost support for the different positions, that the format of this disinformation is a key element regarding its degree of dissemination, and the difficulties faced when determining the precise impact of such disinformation.

Keywords

Post-truth, fake news, disinformation, strategic narratives, fact-checking.

Resum

Aquest article pren els fets succeïts al voltant del referèndum d'independència de Catalunya del dia 1 d'octubre de 2017 com a referència per fer una anàlisi sobre l'ús de la desinformació en un context de contencions polític i un escenari d'alta polarització com a part d'una narrativa estratègica. A partir d'una proposta metodològica d'anàlisi, i aplicant-la a les desinformacions contrastades pel fact-checker Maldito Bulo, hem constatat que la desinformació té com a objectiu el descrèdit dels actors implicats, l'amplificació dels fets o bé la recerca d'adhesions als diferents argumentaris, i que el format de la desinformació és un element clau en el seu grau de difusió, així com la dificultat a l'hora de determinar amb exactitud l'impacte d'aquesta desinformació.

Paraules clau

Postveritat, fake news, desinformació, narratives estratègiques, fact-checking.

Introduction

A few days before Catalonia's parliamentary elections on 21 December 2017, the Vice-President of the Spanish government, Soraya Sáenz de Santamaría, declared to the Senate that what was known as the "Catalan process" had been "an outright fake, a process founded on post-truth where inaccuracies not only travel via the internet but also by official car" (Europa Press 2017). Certainly, this statement can be interpreted in many different ways and has a particular political aim but it addresses two issues which are current and crucial if we want to analyse, in-depth, the state of public opinion regarding the relationship between Catalonia and Spain. The first is related to the use of truth and lies (and all their nuances) to explain concrete facts, and for a purpose that can go beyond a desire to inform; in other words, introducing facts into the narrative which are known as

post-truths or fake news. The second remarkable aspect of the Vice-President's words is the role played by the internet as an origin or source for the propagation and consolidation of post-truths or fake news, and how these can make the leap from the screen to a group position, forming the basis of speeches and political stances and, ultimately, defining the world view of citizens regarding an issue.

In today's communication ecosystem, where users believe, consume, select and propagate information (Qiu, Oliveira, Sahami Shirazi, Flammini and Menczer 2017), social media sites and instant messaging services constitute a fundamental piece in a hybrid system where new and old media constantly feed off each other (Chadwick 2011). It's within this environment (which the Vice-President called "the internet") where citizen journalism and alternative sources of information can influence large publishing groups and publications (Lewandowsky, Ecker

and Cook 2017) and is where, according to the Vice-President of the Spanish government, disinformation thrives.

Theoretical framework

Disinformation, fake news and post-truths

One of the challenges that must be tackled when classifying and defining disinformation is the lack of a single, clear definition or well-established classification. This is a direct consequence of the media attention generated by the rapid emergence of the phenomenon of fake news, its appropriation by politics and the lack of an agreed taxonomy at an academic level that distinguishes between the different types of disinformation with all their nuances (Wardle and Derakhshan 2017). Post-truths and fake news include what might be considered disinformation but, although these terms have suddenly and recently appeared, the deliberate use of disinformation is far from new. Spreading news or information about unchecked or difficult to verify facts, and taking advantage of this circumstance to obtain some kind of return, has accompanied journalism since its infancy (Shudson and Zelizer 2017). The difference between the past and present of information production is today's existence of many different issuers of news, many far removed from the supervisory mechanisms of quality journalism. These are imposed by the editorial filters of publications and the professional ethics of the traditional media, and absent when the source of information is diluted by the very idiosyncrasy of the internet, making it difficult to identify indicators that might reveal inaccuracies. This article uses the term "fake news" to refer to openly false information that has no basis in true fact and which can be refuted using very basic checking mechanisms (Bounegru, Gray, Venturini and Mauri 2017). This kind of news plays with credibility and appearance and relies on the public's tacit trust in the media. Fake news is therefore presented in a certain format, as a part of what is, or seems to be, the media, and contains all the signs of being from a reliable source. One extreme example of the use of appearance to spread openly false content is the satirical publication *El Mundo Today*, which has often been confused (as has its Anglo-Saxon peer, *The Onion*) with a serious publication.

Regarding the term post-truth, we will use this more generally to refer to a narrative that deliberately manipulates, distorts and/or obscures real facts in order to produce a certain bias. We consider that the construction of such narratives is a complex process involving many different parties which, through various channels, help to create and propagate different pieces of information. To disseminate post-truths, a repertoire of techniques is used that are very similar to those used by gossip magazines, rumour mills and sensationalist journalism in general to hide, magnify, distort and deliberately bias facts in order to grab the attention of readers (Rubin, Chen and Conroy 2015). Fake news is one of the mechanisms through which post-truth is constructed; as is falsifying a CV, telling a lie in parliament, an editorial line, etc.

Post-truth as a strategic narrative

Broadly speaking, we can differentiate two different goals for publishing disinformation. The first is relatively inoffensive, easily refutable and verifiable. This happens when the aim of the disinformation is to grab the user's attention, generate a click and produce a profit in the form of advertising impact (using, for example, the click-bait technique to get the audience's attention). Initiatives and companies that carry out such practices typically fail to invest in the necessary resources to create good journalism, are completely disinterested in building up a long-term reputation and only look for a quick profit (Allcott and Gentzkow 2017). At the other end of the scale we find post-truths that offer readers a narrative and discursive framework about this narrative. But, without giving up the aim of achieving a large audience share, they also want to become part of the collective discourse and narrative of facts, distorting reality and making it difficult to take a decision in favour of a particular political or economic interest (Kuklinski *et al.* 2000). This second type of disinformation can even shape citizens' perception of a specific issue when they are strategic narratives: deliberate constructions whose aim is to create a specific position regarding an issue (Khaldarova and Pantti 2016). Given their volume and consequences (Fletcher, Cornia, Graves and Nielsen 2018), the use of disinformation in creating strategic narratives has led the European Union to class them as a threat to democratic processes (European Commission 2017).

Disinformation aiming to establish a certain discourse appears within a context of conflict in order to impose an explanatory framework, and its purpose is to influence public opinion regarding certain facts. This is accentuated, above all, in the case of issues where opinions are highly polarised (van der Linden, Leiserowitz, Rosenthal and Maibach 2017). Van der Linden uses the example of the climate change debate, where there are two highly polarised positions. On the one hand, widespread scientific consensus regarding the causes and effects of global warming and, on the other, groups with political and economic interests that support the creation of disinformation campaigns with the sole aim of discrediting scientific consensus, using a negating discourse based on post-truths. Along the same lines, it should be noted that the extent to which disinformation is accepted in such polarised contexts is related to the amplification by social media of fake news and post-truths. Such sites constitute an especially favourable breeding ground when we add in the factor of audience mistrust on seeing media in which a bias is perceived (Newman, Fletcher, Kalogeropoulos, Levy and Nielsen 2017). Alternative sources of information and citizen journalism tend to become particularly important in such cases. In the propagation of fake news and post-truths, the discursive framework proposed coinciding with the receiver's ideology becomes a determining factor in the consumption of disinformation (Allcott and Gentzkow 2017). The closer the disinformation to the receiver's set of beliefs and ideologies, the more readily the disinformation will be considered valid and will be included in their arguments (Qiu *et al.* 2017).

Against disinformation

During the US presidential campaign in 2016, 70% of the statements attributed to Donald Trump were false. Determining the real effect this disinformation has had on the decisions taken by voters is a particularly valuable issue that has generated a large amount of academic and political debate, placing the focus on control mechanisms and other measures to combat disinformation (Lewandowsky *et al.* 2017). Such is the case that, at the beginning of 2018, the European Commission set up a high level independent group charged with producing a report to propose possible mechanisms and measures against disinformation. Among the members of this group are various European fact-checkers, selected for their work and track record in combating disinformation. One of the members chosen is Maldito Bulo, a group of journalists which, in the past few years, has acted as a fact-checker, verifying doubtful information in the area of Spain.

This reaction by the European Commission has been due to increased citizen concern regarding everything to do with disinformation but it has also been a first attempt to define and quantify disinformation in the European framework from an institutional perspective, as well as to study possible legal measures and countermeasures to combat disinformation. Among these proposals is the creation of credibility indicators which allow social media algorithms to automatically eliminate any information that may be fraudulent, neutralise the financial motive by eliminating adverts from websites responsible for spreading disinformation, collaborating with independent fact-checkers and drawing up codes of ethics and transparency for the more traditional media (European Commission 2018).

Although the European Commission's initiative is one of the first institutional proposals to address the problem of disinformation, it is tackling problems which groups such as Maldito Bulo, FactChecker and Politifact (in the United States) and FullFact (in the United Kingdom) have spent years working on (Cazalens *et al.* 2018). Given the threat of losing their credibility as sources of information, some major traditional media also have their own initiatives to study the phenomenon of disinformation, working on monitoring and supervising information. Examples of these are Fact Checker (The Washington Post), Désintox (Libération) and Décodeurs (Le Monde).

Disinformation networks

The truthfulness of information and its intent are two criteria that help us to characterise fake news and post-truth. However, the factor that places them at the centre of today's events is the fact that the internet and digital platforms provide a vehicle that makes it easy to disseminate them to a large number of individuals via mechanisms that can withstand filters and control. In fact, we might even say that the capability of disinformation to be spread via social media actually characterises it. In other words, in addition to being defined by the message's content, it can also be defined based on the infrastructures, platforms and user practices that help it to circulate (Bounegru *et al.* 2017). In this

respect, social media have become one of the favourite media for users to access news and this has meant that platforms such as Facebook and Twitter play a crucial role in the news ecosystem (Shearer and Gottfried 2017), with new variables being introduced in the mechanisms to disseminate information. The use of bots, social media accounts that automatically publish content and interact with users, has become frequent practice during election periods (Kollanyi, Howard and Woolley 2016). However, we must take care when ascribing a decisive role to such practices as it is human users and not bots that help disinformation to spread (Vosoughi, Roy and Aral 2018).

As we have mentioned, ideological affinity between those issuing information and those receiving it is a particularly relevant factor in the circulation of news. On social media sites users tend to establish connections and share information with people who have similar political positions and points of view, encouraging environments of personalised information which, with nuances, can be conceptualised as echo chambers and filter bubbles (Allcott and Gentzkow 2017; Bakshy, Messing and Adamic 2015; Del Vicario *et al.* 2016; Freelon 2017; Pariser 2011). In addition to the aforementioned social media, we should also add instant messaging apps which are gaining in popularity as a means of propagating news. The establishment of smartphones as a device to access information, the greater sensation of privacy and less algorithmic filtering of content explain why, in some countries, this kind of app is now threatening the hegemony of Facebook and Twitter. In the case of Spain, almost 32% of users turn to WhatsApp for their news (Newman *et al.* 2017).

Research objectives and questions

Our aim was to analyse the use of disinformation as a strategic narrative and to contextualise the role it plays in conflictive politics, using the case of the referendum on independence for Catalonia held on 1 October 2017. In addition to being a recent and relevant event, the case study chosen fulfils a number of characteristics which, *a priori*, make it fertile ground to propagate disinformation and deploy strategic narratives in favour of certain explanatory frameworks: it led to huge polarisation in opinions, attracted a lot of media attention and was widely commented on social media sites. Taking these circumstances into account, we formulated the following research questions:

Q1: What were the main items of disinformation concerning the referendum on 1 October and circulated on social media, and which features distinguish them?

Q2: Do they have the necessary characteristics to be considered strategic narratives?

Q3: To what extent can we trace and measure their impact/degree of propagation?

The first question aims to identify and characterise disinformation; the second uses the concept of strategic narrative to determine the goals, beneficiaries and injured parties. Lastly, the third question addresses the difficulty in determining the origin, scope and real impact of disinformation.

Methodology

Sample selection

To obtain a sample of disinformation related to the referendum on 1 October, we used the news items refuted by the fact-checker Maldito Bulo on its Twitter account (@malditobulo). We selected items during a period thirty days before and thirty days after the date of the referendum: from 01/09/2017 to 30/10/2017. This decision was due to the need to limit the sample but have a long enough period to allow both the deployment of complex narratives and also to obtain a large enough volume of examples of disinformation.

During the period of analysis, a total of 74 items of disinformation were checked, of which 52 were related to the case in point. These 52 items of disinformation make up the sample analysed. It's important not to forget that this sample corresponds only to disinformation detected and checked by the fact-checker Maldito Bulo. We must assume that not all instances of disinformation circulating during that period were detected or, at least, checked.

Attributes and analytical values of the items of disinformation

The disinformation items were classified, first of all, base on a series of attributes associated with specific values used to

identify the main characteristics. For example, based on the attribute "Authority", we have differentiated 4 values that help us to determine whether the disinformation is supported by the force of an authority attributable to concrete source.

Our proposal was to measure the impact based on two attributes: "media coverage" and "action". The first attribute (media coverage) allows us to know whether the disinformation spread via social media has lead to content in the media; i.e. whether the disinformation being circulated has moved into the media sphere and therefore magnified its potential audience. The second attribute (action), allows us to distinguish between the responses of "propagate" and "refute". In the cases of media coverage, we can find situations when the media refute the disinformation circulating on the internet, or situations in which the media repeat the disinformation and help to propagate it. This distinction allows us to differentiate between those instances when the media act as a corrective force on the transmission of disinformation and when the media are allied with the control structures. The analytical framework is completed with these impact indicators.

Taking these criteria into account, each of the 52 items of disinformation related to the referendum on 1 October were analysed and coded. For example, the disinformation checked by Maldito Bulo and contained in Figure 1 refers to an image of a brutally attacked police officer and was related to the events of

Table 1. Details of the disinformation analysis

Attribute	Value	Description
Authority attributed	Name	Name of the original source of the disinformation or anonymous, depending on whether it's identifiable.
	Anonymous	
Truth of the source	Real	When the attributed source is a real entity.
	False	When the attributed source is a supplanted entity.
	Diluted	When the original source can't be identified.
Authority	Official	When the disinformation makes use of the authority of an official body to reinforce the message.
	Media	When the disinformation makes use of the authority of the issuer as part of the media.
	Public	When the disinformation makes use of the authority of the issuer as a public or famous person.
	Diluted	When the source can't be identified.
Narrative	Pro-independence	When the disinformation is used to support a pro-independence narrative (or to harm the opponent's narrative).
	Pro-unity	When the disinformation is used to support a pro-unity narrative (or to harm the opponent's narrative).
Format	Text	When the disinformation is based on a text.
	Photo	When the disinformation is based on an image.
	Video	When the disinformation is based on a video.
Media coverage	Yes	The disinformation has been repeated in the media.
	No	The disinformation has NOT been repeated in the media.
Action	Propagate	Helping to spread the disinformation, repeat or modify it without refuting it.
	Refute	The reaction has been to refute or verify the disinformation.

Source: Author.

1 October. In this case a real image has been used (not a photo-montage) but it is not actually related to the referendum but to a demonstration by farmers in 2008 in Almeria. It's important to note that the elements available to determine whether the image corresponds to the events regarding 1 October are very few in number and refuting this requires advanced search techniques and a detailed analysis of the image, something which is not within the reach of audiences. Although Maldito Bulo published a message containing the name and surname of a user who had shared this information, we cannot find a clear author, so it has been coded as having an **anonymous** source and the truthfulness and authority of the source are **diluted**. We have considered that it formed part of the **pro-unity** narrative since it feeds the narrative that the pro-independence movement uses violent means. Given that the disinformation is based on the use of a photograph taken out of context, we have noted the format as **photograph**. Regarding the impact indicators, we have been able to determine that it was published in the media (Vera 2017) during the period analysed in the context of an article which contained several images and news items that were refuted and checked against facts. In this respect, the publication of this item of disinformation in the media contributed to stopping its propagation online and provided the public with information that helped them to interpret the image.

Results

As can be seen in Table 2, after coding the 52 items of disinformation checked by Maldito Bulo, we have found that 67% of the items of disinformation (35) form part of the pro-independence narrative, while 33% (17) correspond to a pro-unity narrative. In accordance with these figures, it seems evident that the independence movement more frequently used items of disinformation to support its discourse.

If we look at the impact indicators, we can see that, in 39 of the 52 cases analysed, 75% were covered by the media, which confirms that the items of disinformation did indeed achieve a significant amount of publicity. In this respect, we should note that, as we can see in graph 1, 94% of the items of disinformation used to support the pro-unity movement reached the media while, in the case of the independence movement, this figure falls to 65%. However, if we pay attention to the type of media coverage obtained (refuted or propagated), we can see that 43% of the items of disinformation by pro-unity followers manage to be propagated by the media while, in the case of the independence movement, only 8% of their items of disinformation managed to get the traditional media to collaborate in their propagation. On the other hand, if we look at the occasions when the media have acted as a means of controlling items of disinformation, the figures are the opposite, showing that the traditional media are much more effective at detecting and checking items of disinformation that aim to benefit the independence movement.

Figure 1. Hoax refuted by the fact-checker Maldito Bulo



Source: Maldito Bulo.

Table 2. Summary of items of disinformation published, by narrative and share of total

Narrative	Number	Share of total
Pro-independence	35	37,30%
Pro-unity	17	32,70%

Source: Author.

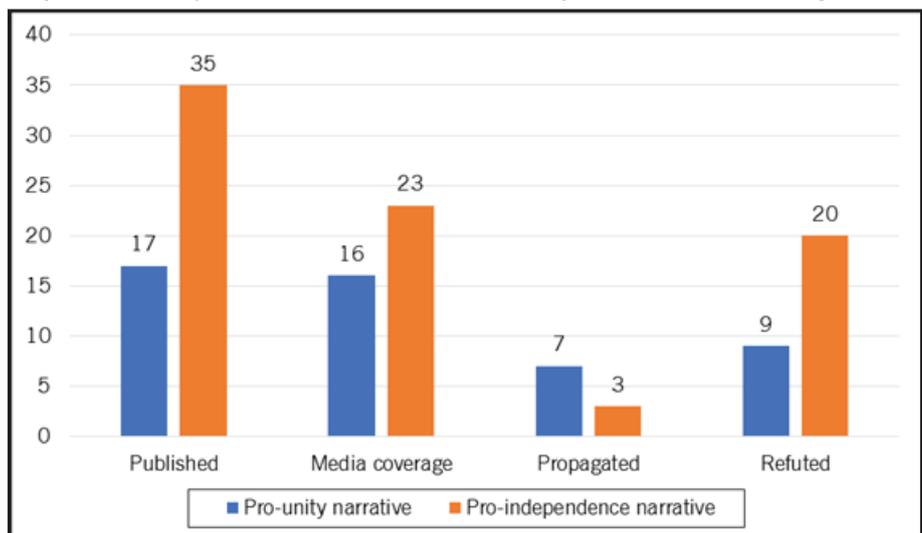
Looking at the strategies used in constructing fake news and, ultimately, the post-truths of the Catalan case, we can see that both extremes use a repertoire of very similar resources. Graph 2 provides the percentages to compare more clearly the strategies used by pro-independence followers and pro-unity followers. In both cases, almost half the items of disinformation published were not attributed to any clear source. Those that were attributed, the other half, claimed to be published by public figures and the media and, in the case of the independence movement, official sources were also used to make the disinformation appear more credible.

The fact that the sources attributed are public figures does not mean they were actually involved in constructing and disseminating the items of disinformation. In fact, in 12 of the 17 items of disinformation signed by a known figure, this person had been supplanted or manipulated. The items of disinformation had used the authority of the source precisely to make the information being published seem more credible.

However, we should not forget that this also means that, on 5 occasions, it was actually the public figures themselves (politicians, journalists, etc.) who originated the disinformation, suggesting that this type of person plays a crucial role in deploying the strategic narratives of the conflicting parties.

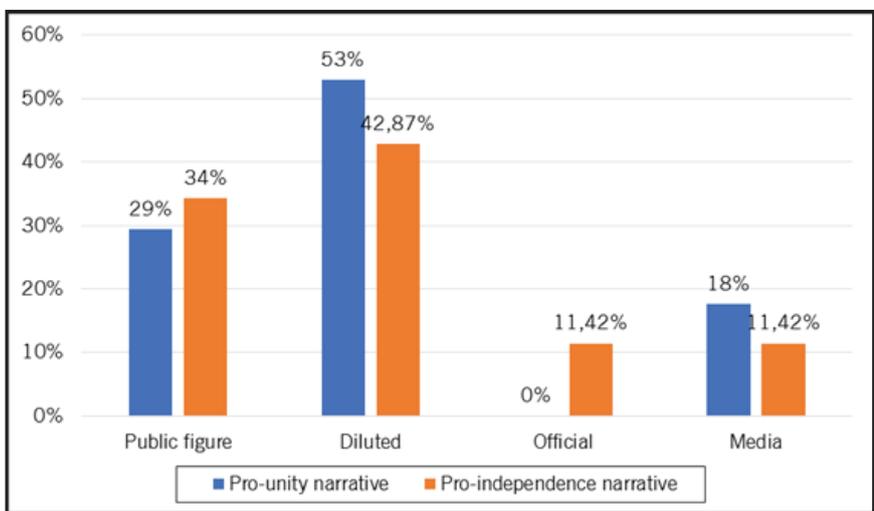
In those cases where the source attributed is a name (28 items of disinformation, 53% of the total), 16 were sources that had been supplanted, manipulated or falsified. The remaining 12 sources were real and admit to having spread the disinformation. The cases of sources being supplanted were quite similar for the two political movements. Of the 20 items of disinformation in which pro-independence followers clearly identified the source, 12 (60%) were fake, supplanted or modified, while 8 (40%) of them were real sources taking part in spreading the disinformation. For the pro-unity movement, 8 (47%) of the 17 items of disinformation published had an attributed source that could be identified. Of these, 4 (50%) were real sources that admitted to spreading disinformation while 4 (50%) were fake,

Graph 1. Summary of all the items of disinformation published, media coverage and media action by narrative type



Source: Author.

Graph 2. Authority of the sources attributed as the origin of the disinformation by narrative type



Source: Author.

supplanted or modified. The results suggest that supplanting sources is typical of the pro-independence narrative. The pro-independence movement, on the other hand, is characterised by being more effective in involving public figures in spreading its items of disinformation. It should also be noted that we have not found any case in which the media had been supplanted or anything similar: 100% of the items of disinformation attributed to the media were accurate.

The items of disinformation analysed can be grouped into three different formats: video, photo or text. As can be seen in graph 3, text is the most widely used format to spread disinformation (65%), followed by photos (25%) and finally videos (10%). These figures indicate that text is the preferred format to spread items of disinformation and the evidence suggests this may be due to the ease with which a text can be produced, compared with a photograph or video.

The impact of disinformation on the traditional media is also related to the format in which it's presented. Graph 4 shows that, when disinformation is in the form of a text, it's spread more widely than in the rest of the formats while the photo format is the one most readily refuted. We believe this relationship

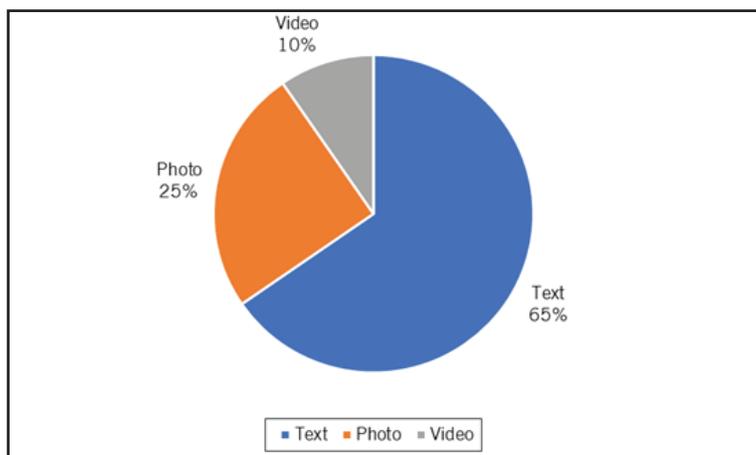
between being propagated or refuted is related to how easily the format can be manipulated. While it's easy to manipulate a text, it can also be more difficult to check whether it is disinformation. Photographs, on the other hand, can be verified more effectively, making it easier to detect disinformation.

Discussion

The content of the items of disinformation analysed allows us to state that most of the items of disinformation published in the period under study had highly specific objectives: to link the independence movement with violence, exaggerate the police action on 1 October, accuse the Spanish government of waging a dirty war, overstate the number of people supporting each side and discredit the leaders of both movements.

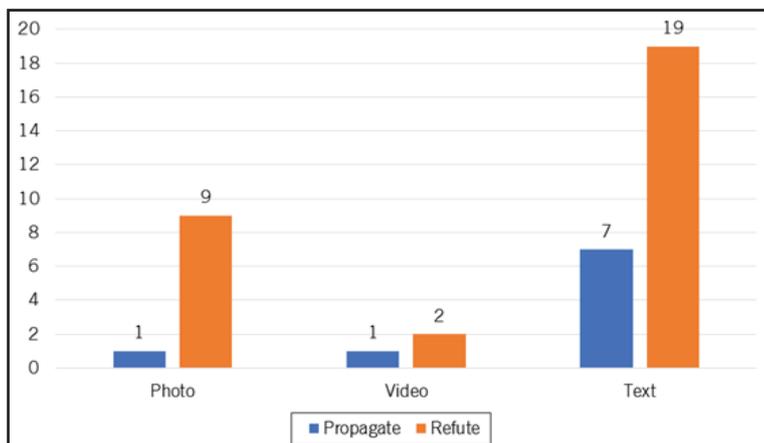
An analysis allows us to conclude that the main items of disinformation published during the period in question were texts (65%). This is due to their low production cost and greater ease of propagation. In 46% of the cases, the source of the disinformation cannot be determined and, in those cases where

Graph 3. Overall data on the format used for the disinformation analysed



Source: Author.

Graph 4. Action carried out by the media by the format of the disinformation



Source: Author.

the source is alleged, 57% of these had been supplanted. Along the same lines, in only 42% cases of items of disinformation issued by an identifiable source was this source accurate. In other words, if we take all the items of disinformation analysed, 76% of them had a fake source or a source that was impossible to identify.

As has been seen in the analysis section, items of disinformation were also propagated in photo format (25%) and video format (10%). However, the effectiveness of these formats in terms of them being spread by the traditional media is very low. This is particularly due to the existence of mechanisms (search engines, data banks, fraud indicators) which can be used to quickly check the accuracy of content.

Given the results, the evidence suggests that the pro-independence movement is more active in terms of producing items of disinformation. However, we must not forget that the pro-unity movement is much more effective at involving the traditional media in its propagation and also in refuting disinformation. This could be related to the editorial line of some media, leading them to align themselves with one of the two sides in the conflict. Also important is whether there are factors that make it easier to check certain items of disinformation more than others. We cannot discuss here whether fact-checkers themselves may have an ideological bias that leads them to act more zealously against a certain type of disinformation but it's obvious that such organisations are limited by the resources required to detect and, most especially, check out fake news. We must therefore be very careful when reaching certain conclusions based on the sample analysed. In any case, it's evident that more effective mechanisms are required to detect the construction and dissemination of post-truth.

The work carried out by the fact-checker Maldito Bulo in the context of the case in question, as well as the work carried out by its European peers in situations of highly polarised public opinion, has turned out to be highly valuable in safeguarding the right of citizens to receive true information and to stop the circulation of items of disinformation. In spite of everything, we must not lose sight of the fact that, as we have seen in the analysis carried out, the fact-checker Maldito Bulo may always be better equipped to detect post-truth than others, a situation which may get worse if the media system intervenes to refute items of disinformation aligned with a certain narrative but less so with the other narrative. Such a scenario could result in an imbalance in the volume or thoroughness with which items of disinformation are checked and may mislead us regarding the real production of disinformation occurring at each of the extremes in a conflict. It's therefore important to have the tools and a methodology in place to treat and detect items of disinformation fairly, in order to act with the same speed and conviction irrespective of the narrative reinforced by the disinformation in question.

Conclusions

The results obtained allow us to conclude, firstly, that the main items of disinformation aim to reinforce a series of "facts" which, to a greater or lesser extent, can be classified as post-truths: violent behaviour by pro-independence followers, exaggerated police violence on 1 October, the "dirty war" orchestrated by the Spanish government, the deployment of troops in Catalonia, the number of people supporting each of the causes and discrediting political leaders on both sides. We have also observed that 76% of the sources were supplanted or fake, that falsifying messages is one of the most widespread techniques, and that it's more normal to use text (65% of the cases) than images or videos.

The items of disinformation analysed contain a series of characteristics which allow them to be classified as strategic narratives. We can conclude that they serve three purposes: a) encourage support, b) discredit and c) provide an explanatory framework. In the case of encouraging support, disinformation aims to provide arguments. In the case of discrediting, the aim is to generate an argument that neutralises the ability of one of the people involved in narrating facts to influence others. Lastly, disinformation can also aim to provide arguments or a version of the situation that helps to generate a strategic discourse about certain facts. In any of these three cases, disinformation aims to alter public opinion and hinder reason, or to sway decisions in favour of its particular movement, supporting a position in opposition to certain facts and generating a certain version of narrative.

While carrying out this study, we have found that, in many cases, it's almost impossible to measure the impact or degree of propagation of items of disinformation. Firstly, the disinformation analysed has been circulated via social media and the content published by users is restricted in terms of access and due to the social media sites' own privacy rules. In many of the cases analysed, users themselves have eliminated items of disinformation they had posted, or the social media site has erased content in an attempt to stop it from spreading. In those cases where disinformation has been spread via a private messaging network (WhatsApp or Telegram), there is zero traceability. It's therefore important to find methods and techniques that allow us to more accurately analyse the creation and propagation of items of disinformation.

Nevertheless, there are some techniques which can be used to analyse the impact of items of disinformation published in the past. By means of other analytical instruments we can quantify how much content has been spread on social media, although this kind of analysis is only possible when the disinformation can be found on an URL, which is what provides traceability online. Lastly, our methodology included an indicator of the publication of items of disinformation or related content in the media. Although this indicator does not measure the scope or impact, it does help to contextualise the importance of an item of disinformation at a specific informative moment, framed within a discourse and taking as relevant the fact that content

generated initially on social media should be able to make the leap to a much broader communication sphere, such as the media, where the potential audience is multiplied.

Finally, in the case in point, there is only one fact-checker of any standing in Spain that can be used as a source of disinformation that has been checked. If there were more agents involved in the task of checking information, or impartial sources of refuted disinformation, we would be able to expand our analytical base. By increasing the number of cases analysed, either by obtaining more sources or extending the sample longitudinally, we could even measure to what extent disinformation can be traced, quantify its impact and calibrate the levels of propagation more precisely.

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