Trust and fake news: Exploratory analysis of the impact of news literacy on the relationship with news content in Portugal

Abstract
In order to understand the role of contemporary journalism and the media system it is vital to consider consumers’ relationship with news content in terms of trust and perception of dubious content. This analysis is particularly relevant in a context where intense flows of information raise serious questions about individual ability to interpret, validate, and reproduce content. This analysis explores a news literacy scale used by Maskl et al. (2015) and Fletcher (in Newman et al., 2018) to investigate the links between news literacy profiles and their relationship with content, with particular focus on illegitimate/doubtful news pieces. Results suggest individuals with higher news literacy tend to trust news in general but not when content originates in social media. Higher literacy profiles are also associated with increased concern regarding online content legitimacy. These conclusions are particularly relevant in the currently volatile media sphere, highly dependent on a substantially informed public to ensure the legitimacy and importance of journalistic content and to distinguish it from other kinds of content flooding communication networks. These efforts depend not only on the journalistic sphere but also on democratic systems themselves as they rely on a well-informed public to guarantee a healthy and inclusive debate.

Keywords
News literacy, news consumption, trust, fake news.

1. Literacy and its many forms
Literacy as a concept emerges in a wide range of theoretical and research contexts, taking up different meanings and shapes. Its relevance as a conceptual core, with meaning in the explanation and justification of individual practices and perceptions, has been demonstrated by the different forms the concept assumes in different fields, such as political and education sciences, economics, sociology, and media/communication studies.

The diversity of meanings of literacy in media and communication studies is particularly complex: media education, communication education, media literacy, digital literacy, edu-communication, etc. The multiplicity of theoretical suggestions shows the opaque nature of the concept of literacy, the complexity of its definition, and the resulting challenges to the study of social systems and practices (Pinto et al., 2011).
In an attempt to define a single course of study of what was termed “media literacies” or simply “new literacies,” the European Science Foundation (2014) set out guidelines for approaching literacy in the context of communication studies. These guidelines took the form of a forward look for media research based on the association between mediation and literacy, the latter of which is traditionally linked to reading. The effort to associate new media and new literacies is reiterated “in the conviction that critical competence in using and engaging with new media and new applications is indispensable for every citizen” (ESF, 2014, p. 4). Alongside efforts to define guidelines for the study of media consumption, the ESF also questioned the “scientific capacities of media studies to take on the theoretical and conceptual challenges posed by media literacies in general and creative aspects of these in particular,” (ESF, 2014, p. 29), in a context where contemporary communication systems are far from being strictly binary/bidirectional.

It is vital to draw up a concept of literacy which considers the understanding of knowledge mobilisation processes for critical use, as “access to technologies does not, in itself, guarantee the exercise of enlightened, participative citizenship and may be a necessary but insufficient condition in citizens’ education” (Pinto et al., 2011, p. 29). Critical use is extremely relevant as a concept in contemporary media studies, especially when applied to news consumption. New challenges posed to news media and journalism in the functioning of democracy and electoral systems are increasingly relevant in an age of rising populism. Reliance on new conceptual horizons in media and technological literacy is therefore essential, as technology offers countless possibilities, generating different and challenging social practices, framed in theoretical and pedagogical contexts within the scope of the questions being asked (Buckingham in Verniers, 2009).

Livingstone (2003) provides a tripartite concept of media literacy, dividing it into access, analysis, and evaluation. Access refers to the nature and quality of access to media technologies beyond the mere relationship between users and hardware. Analysis and evaluation are linked, as capacities for analysis and evaluation form the core of media literacy. They determine not only the use of some resources instead of others, but also the user’s critical positioning in the process. The issue of critical use is essential to Livingstone (2003, 2004). He asserts that the internet is of no value as a resource if used non-critically: “[…] basic use makes for narrow, unadventurous, even frustrating use, while more sophisticated use permits a broad-ranging and confident use of the internet that embraces new opportunities and meets individual and social goals” (Livingstone & Helsper, 2007, p. 14).

Jenkins et al. (2009) further advances the critical approach, suggesting a model for media literacy analysis in which the criticism/evaluation process occurs in all phases of one’s contact with media content and ecosystems, and is not limited to specific stages or phases. Critical and reflexive user positioning develops throughout all phases of contact and handling of information, and therefore cannot be regarded as limited to one single instance in the communication process.

Silverstone (2000, 2002, 2003, 2004, 2005) insists on the importance of critical positioning as central in informed media use, distinguishing, but also associating, the empowerment and literacy discourses. The discussion of literacy should include generic competences that effectively empower people to take on the complexity of individual interactions. This line of thought is applied to the discussion of digital divides and communication exclusion. Even though exclusion by technology is real, the root of segregation will always be social and cultural. Literacy plays an essential role in the analysis of social inequality due to the determination of individual action in media ecosystems (Silverstone, 2002, 2003). Hobbs et al. (in Von Feilitzen et al., 2011) share a similar view of literacy as a key element for the construction of individual and collective knowledge and individual accountability in the broader context of social interactions.
2. News literacy, trust and illegitimate content

Discussion of the concept of literacy and its multiple approaches provides an explicit framework to define other forms and ways of measuring literacy. Mask et al. (2015) define literacy as the way individuals relate to news content, placing the concept of news literacy in relation to the knowledge and motivation to identify and interact with news reports. In other words, literacy provides an understanding of the theoretical dimension of interactions, and the impact these have on individual knowledge and perceptions. In the media and journalistic spheres, this approach is particularly useful as it directly addresses people’s interaction with journalistic and news content. Specifically, “Improving news literacy is partly a matter of economic survival, a way of sustaining demand for the type of content professional journalists provide, but also of fulfilling its role to help citizens be adequately informed to participate in democratic life” (Mask et al., 2015, p. 29).

While currently there is an information overload (Blair, 2011), it is vital to foster new approaches to news content and to reposition consumers in this process:

The strongest possibilities lie in the new approach to journalism [...] in which the community plays a significant role as partner, not substitute, to the professional investigative journalist. The community also has a significant role as sentinel over journalistic integrity. For that to happen, however, established news organizations must learn how to work with the worldwide audience with which they can now interact, extract from its guidance on matters that need to be brought to light, and distil its expertise in developing their professional reporting (Kovach & Rosenstiel, 2014, p. 192).

Simultaneously, citizens’ rights to information, responsibility for use, and reproduction are gaining considerable weight [...] even more so as they become producers and editors themselves” (Kovach & Rosenstiel, 2014, p. 9).

Development of new relationship structures with audiences is decisive in the journalistic sphere, mostly because its survival depends on the ability to differentiate news content from the other kinds of available content (Carr, 2011; Johnson, 2012). This is particularly challenging among younger audiences, as interest in news content is in apparent decline in favour of myriad other options (Mihailidis, 2014). Due to extreme change, technological disruption, and abundance of information it is essential to reflect on the role of news content and informative genres. Increased news literacy becomes vital, especially among young people and educational actors in order to assure new generations are able to identify, collect, and produce credible information (Kawashima-Ginsberg, 2014).

News media has a vital role in any democracy, as “[news media use] may have beneficial effects by bolstering democratic aspirations and satisfaction with the way democracy works” (Norris, 2011, p. 170). This process, however, is increasingly complex, due to the practically infinite range of content accompanied by tight limitations on demand, i.e. limits on possible attention from audiences (Webster, 2014). Consumer dynamics in these extremely fast media contexts raises relevant questions for the ability of digital media to foster participatory cultures or, on the other hand, to nurture highly polarised environments in which people consume content that corroborates their world view, instead of exposing them to a more diverse, conscious vision of society. Webster (2014) is optimistic about this duality and argues that the digital age exposes people to others with different opinions but similar interests. These are extraordinarily relevant issues, especially due to the growing influence of algorithms in determining content visibility and, broadly speaking, exposing users to a wider range of opinions.

Nonetheless, recent global events such as Brexit, the 2016 presidential election in the United States, and the 2018 Brazilian presidential election, which brought Donald Trump and Jair Bolsonaro to power, respectively, tend to underline the more negative aspects of contemporary communication structures. These three events triggered a discussion of the
legitimacy of online content, especially on social media. The viral spread of content, legitimate or not, is justified in part by the “inertia of preconceptions (that only aim at confirming themselves), though another reason is a lack of (self)critical literacy” (Baldi, 2018, p. 16).

The concept of fake news and its relationship with trust in news content is complex. The wide range of contexts, especially in the political sphere, justifies the need to define and “properly calibrate the concept” (Meneses, 2018, p. 38). The term fake news was first used by Hillary Clinton (December 8th, 2016: “the epidemic of malicious fake news and false propaganda that flooded social media over the past year”). However, Meneses suggests that it was popularised in mainstream media by President Trump, while suggesting the distinction between fake news and fake news should be made clearer.

It is not because they are (also) published on the internet that some (false) news becomes fake news. There always has been and always will be false news but [...] it is only fake news if deliberate action is taken to deceive consumers [...] Fake news and false news are different in that false news is not usually the result of a deliberate action. It is normally due to other factors, such as the incompetence or irresponsibility of journalists in the way they work with information from sources (this is the main but not the only factor) (Meneses, 2018, p. 40).

Meneses uses contributions from Lazer et al. (2018) and Wardle and Derakhshan (2017) to frame his approach to disinformation. Lazer et al. define “misinformation” as false or misleading information, while “disinformation” is false information released deliberately to deceive the public. Wardle and Derakhshan (2017) suggest a tripartite “information disorder” model, which adds “mal-information” to the above two:

- Misinformation is when false information is shared, but no harm is meant; disinformation is when false information is knowingly shared to cause harm; mal-information is when genuine information is shared to cause harm, often by moving information designed to stay private into the public sphere (Wardle & Derakhshan, 2017, p. 5).

Intense flows of information, and a wide range of offer, raise serious questions about individual ability to interpret and reproduce content. The speed at which information circulates is decisive in functional articulation of news literacy profiles and is a contributing factor to increased difficulties in establishing trust.

The concept of trust is hard to define. It is an emerging area in scientific analysis sparking interest in several fields of study. Broadly speaking, “trust in institutions is defined as the belief that the perceived institutional performance conforms to the individual’s expectations” (Muller, 2013, p. 32). Furthermore, trust is key to access information, knowledge, and events outside one’s area of experience. News and the news media are a bridge to the unknown, as they offer audiences access to otherwise unreachable areas of knowledge.

Muller underlines the importance of trust in the media in democratic systems: “while a certain level of distrust towards democratic institutions (including news media) is a healthy characteristic of a democratic system, a very low level of trust could endanger the proper functioning of the news media system. A very low believability is not helpful when it comes to informing the public” (Muller, 2013, p. 21). Trust in media is the result of a centuries-old process and is based on four prerequisites: freedom of the press, plurality, independence of the press, and journalistic professionalism (Blobaum, 2014, p. 34). If these prerequisites are systematically questioned, trust in news media declines. Some of these principles are particularly vulnerable in countries with increased democratic deficits.

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However, the existence of democracy and democratically established regimes is not the only condition for high levels of trust in news, news media, and journalists (Muller, 2013, p. 9). This is a complex conceptual relationship that suggests the need for further research.

3. News literacy and content in Portugal

Portugal is a particularly interesting case in terms of trust in news and relationship with illegitimate content. Compared to 36 other countries in the world, trust levels are structurally high, on par with Finland. Sixty two percent of respondents say they trust news (Newman et al., 2018). Data provided by the Reuters Digital News Report 2018 corroborates the high trust rates observed in previous years. Nonetheless, if we consider indicators of dubious content perception, 71.3% of respondents say they are concerned about what was real and false on the internet, a perception only found higher in Brazil.

Furthermore, close to 76% of interviewees in Portugal say that they recently came across at least one kind of dubious content, related to poor journalism, manipulation of facts, or attempts to push an agenda. The structurally high trust rates were considerably lower when cross-referenced with trust by source: 48% percent trust news in search engines, and only 29% in social media news content. A third (34%) rely on the Internet (including social media) as their main source of news. Digital journalism in Portugal is constrained by the structurally low rates of payment for digital news content. Only 8.6% of interviewees paid for online news in the previous year. There is a substantial increase in the use of adblocking software, which is used by about a third of the sample (31.1%) (Cardoso, Paisana & Pinto-Martinho, 2018).

Data points to a relationship between Portuguese consumers’ news literacy and news content or media spheres. The survey used in the Reuters Digital News Report 2018 referred to the news literacy framework used by Maskl et al. (2015), which consisted of questions about different dimensions of the media sector. The questions were of the right/wrong type. The following exploratory analysis suggests similar trends to those found by Maskl et al., establishing a way of measuring the respondents’ knowledge of the media sector. Posed questions were: “Which of the following news outlets does not depend primarily on advertising for financial support?” (Answer: RTP, 44.1% right answers), “Which of the following is typically responsible for writing a press release?” (Answer: A spokesperson for an organization, 32.5% right answers) and “How are most of the individual decisions about what news stories to show people on Facebook made?” (Answer: By computer analysis of what stories might interest you, only 23.9% of respondents knew the right answer)

Three questions might initially seem insufficient for an accurate measurement of a reality as complex as news consumption, however, this method establishes a reliable scale, and it is not the first time that right/wrong questions have been used for the purpose (Fletcher in Newman et al., 2018). Fletcher’s analysis of a sample of countries shows that individuals with different news literacy profiles have different news diets. For example, more literate people chose written/online press as their main sources. Radio and television registered higher usage rates among those with lower news literacy. People with higher literacy also tend to make more informed, critical use of social media as news sources, and look for further information on content credibility before clicking a link or story, while lower news literacy patterns attribute greater importance social cues, such as the number of interactions with content (likes, number of shares, and comments).

The subsamples based on the number of right answers were renamed in categories ranging from very low (0 right answers) to very high (3 right answers). A comparison between Portugal and a sample of selected countries where the same survey was used, we find similar response patterns.

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2 Sample includes Sweden, Finland, Denmark, Norway, UK, Germany, United States, Switzerland, Netherlands, Australia, Spain, France, Canada, Austria, Belgium, Italy, Ireland and Portugal, a total of 36,911 respondents.
Results show that the Portuguese sample followed similar patterns of the selected countries analysed in the Reuters Institute Digital News Report 2018 (Newman et al., 2018). In this analysis 33.6% of the Portuguese respondents had a “very low” news literacy profile (0 right answers), while 35.2% were “low” (modal category). In the higher quadrants, 23.6% of the respondents had a “high” and 6.9% “very high” profile. The behaviour of Portuguese respondents was not different from the international sample in all four instances. However, there were fewer people in the Portuguese subsample with very high news literacy, as the incidence of right answers was lower than in the other countries. With a difference of almost three points, only 6.9% of the Portuguese respondents got the three answers right, compared to 10% in the selected countries sample.

3.1. The weight of demographics in news literacy profiles

An analysis of news literacy and gender shows that women have lower news literacy than men. The profile of 73.1% of the women was “very low” or “low,” compared to 64.2% of men. There are also more men than women in the higher levels, by almost eight points (sum of high or very high literacy for both genders and subtraction of the lower (women) from the higher (men)).

This finding is particularly interesting for a reflection on the factors that impact news literacy profiles. Gender figures indicate that Portuguese women tend to have lower news literacy levels, in spite of the higher number of women with university degrees: at the time of the 2011 Census, 16.9% of women had graduated from university, and only 12.4% of men.

Figure 1: News literacy profile by gender in Portugal.


Data filtered by gender suggests that higher educational achievements by Portuguese women does not reflect higher news literacy. Nonetheless, considering the complexity of literacy acquirement, this apparent discrepancy may be explained by the levels of interest in news. The RDNR 2018 data shows that women are much less interested in news than men. 64.7% of women say they are very or extremely interested in news, with a higher percentage of men (74.5%) responding the same.

This discrepancy is even more evident in access to news, with only 62.1% of women saying that they accessed the news several times a day, as opposed to 76% of men. This may be a possible explanation for the difference between educational achievements and news literacy, since the different levels of interest may reflect distinctive practices and consumption of news content.
Figure 2: News literacy profile by age in Portugal.


Portuguese people aged 55 and over tend to have slightly lower news literacy than remaining interviewees, though both the lowest (18-24) and highest (55+) age groups had lower percentages of “very high” literacy. Both age groups have the highest figures for “very low” literacy, however, it is the youngest age group that had the highest news literacy profile of all (high + very high).

If we cross-reference degree achievement with news literacy, we find that people with higher educational degrees also tend to have higher literacy. An exception is made to the group of respondents who are still studying and therefore can be found in all age groups and education levels.

Figure 3: News literacy profile by education level in Portugal.

Data suggests that educational levels may be crucial to the acquisition of higher news literacy. It is interesting to note that in respondents who did not complete secondary education, there was only one with “very high” news literacy. If we add the two highest levels of literacy, however, we get very close percentages: 23.2% among those with incomplete secondary education and 24.7% who completed it. These figures are not very far from respondents with vocational training.

A large gap is observed between respondents who did not complete secondary education, and those with a master’s or doctoral degree. The news literacy of the respondents with “very low” was 16.3 points lower than those with “low.” The difference between “high” and “very high” is 16.2% for respondents with master’s or doctoral degrees.

The comparison of news literacy data and educational achievement matches findings in other studies, and the relationship between school success and general literacy. This confirms a particular aspect of news literacy: the higher the academic achievement, the higher news literacy profile. Nonetheless, it is important to remember the above-mentioned gender discrepancy in Portugal.

3.2. Exploratory analysis of the impact of news trust and fake news

The Portuguese samples in the 2018 Reuters Digital News Report, shows consistently high trust levels in the news, as it did in previous editions. If we compare trust in news and news literacy, we find that respondents with higher news literacy tend to have greater trust in news. The percentage of trust for “high” and “very high” is the same. Respondents with “low” literacy were around three points lower. The largest difference is found in respondents with a very low level, where only 57.3% say they trust news. However, this is the group that trusts news in social media the most. There is a very significant difference between respondents with “very high” literacy and those with “low” literacy: 18% of the former trust social media compare to 33.1% of the latter.

Figure 4: Trust in news by news literacy profile in Portugal.

Source: Reuters Institute for the Study of Journalism, Reuters Digital News Report 2018. nPortugal=2008. nNews literacy levels: Very low=674; Low=707; High=473; very high=139. Note: trust levels relate to proportion of respondents that say they trust news in analysed parameters.
The opposite trend is found when it comes to trust in news via search engines, as trust increases with news literacy. Only 34.1% of the respondents with “very low” news literacy trust news found using search engines, while 61.9% with “very high” news literacy trust news obtained via this source. This once again suggests a trend towards trust in their own actions and choices by people with higher news literacy. We recall this was also the group who trusted news on social media the least (which tends to have a “tighter” algorithm system than search engines) and also who shows the least interest in social cues from social media platforms.

We find a similar trend if we filter news literacy with concerns about what is real and fake on the internet, with the more literate expressing greater concern. 65% of those with Very low literacy profiles express concern with online content legitimacy, with 70% of respondents with Low also showing concern. High and Very High literacy respondents show similar levels of concern, with 78% and 79%, respectively, claiming they are worried about what is real and fake on the internet.

The concern about the truth of what they find online amongst respondents with “very low” news literacy is not as high as amongst those with other levels of literacy, though the percentage of concerned respondents is also considerably high (65%). Portuguese respondents, regardless of news literacy profile, appear to be concerned about the truthfulness of news found on the internet, regardless of news literacy level. Nonetheless, concern tends to increase with literacy.

Looking at concern about specific content by news literacy profile, we find that people with higher literacy tend to be more concerned about poor journalism, stories manipulated to push agendas, stories fabricated for political or commercial purposes, using the term fake news to describe news sources and headlines that seemed to refer to news, but were actually advertisements.

The only situation in which this trend is reversed is in humorous or satirical news. People with low news literacy show more concern for this kind of content. People with higher literacy profiles are more likely to accept satire as a legitimate subgenre of news.

The genres that generate the most concern are those prone to story manipulation and poor journalism. This is in itself revealing of present-day reality, not only in terms of the media, but also in the sphere of journalism. Data from this exploratory analysis shows the respondents’ possible perceptions of the effect news content can have unfolding events. This perception is seriously affected by people’s news literacy, even if this is measured on a simple scale that tests knowledge of current events and the functioning of media systems.
Figure 4: Concern about specific types of content by news literacy profile in Portugal.

Source: Reuters Institute for the Study of Journalism, Reuters Digital News Report 2018. nPortugal=2008. nNews literacy levels: Very low=674; Low=707; High=473; very high=139. Note: proportion of respondents that say they tend to “agree” or “strongly agree” with statements.

4. Discussion of results and importance of associating news literacy with relationship with news content

This research aims to highlight the importance of news literacy as a principal concept in particularly challenging contexts for journalism and news media, where an understanding of the relationship between consumer behaviour and news content is vital.

The relationship between consumers and news begins before consumption. It entails notions of what news is, the role of the news media in everyday life, and how users contribute to a perception of what is real and relevant in a narrative. It is therefore important to ascertain whether consumers understand the news production process and the media reality. This understanding is one of the factors that help conceptualise what news are or should be, as well as what is not legitimate informative content. As shown above, financial status and school attainment, among others, are linked to different views and positions in relation to news content.

This exploratory analysis shows that respondents with lower school attainment tend to also have lower literacy levels. The perception of respondents with lower news literacy are different from those with higher profile, and these different profiles may have a significant impact on issues such as the choice of news sources and consumption format.

We can therefore argue that news consumption habits may result essentially from two factors: individual identity (sociodemographic variables), and the relationship between consumption and perceptions of content legitimacy. Different literacy configurations may have a significant impact on structural issues such as trust in news with data pointing towards distinctive trust rates among users, as well as their perception of news in search engines and social media. Overall tendencies indicate consistently high trust in news and lower scores in...
news content with origin in social media. News literacy appears to be relevant to this discussion as lower literacy is parallel with higher trust in social media news content.

Analysis also suggests a link between literacy and concern about online news content legitimacy with more critically empowered consumers showing greater concern about the truthfulness of digital content.

This exploratory analysis demonstrates the importance of news literacy and its relationship with sociodemographic variables and news consumption framework that is of crucial importance in today’s ecosystems. While mass communication has fostered the power of the individual in society, network communication, and joint network action have promoted the construction of new institutional environments and relationships.

By linking offline and online networks, people have built network cultures that are an essential trait of society’s action and reflexivity today. This construction involves renewing the traditional dialectic between media and message and challenging it. A key idea is the relationship between “people and message” and no longer just “media and message” in McLuhan’s (1964) traditional approach. The domestication of social media and its ability to connect all communication networks suggests that it challenges traditional dualities of communication theory: not only production/reception but also media/message, i.e. a fusion of the dualism between form and content.

All available media and content are potentially digital. They flow in a network environment built by people and technology, who consume, but can also create, remix, (re)create and (re)remix. This means that choices of specific channels and authorship of the message is not enough to sustain the message, thereby giving new importance to our understanding of news literacy. When a message is made available on the network, it can be (re)signified, remixed and (re)inserted into the network flow, if considered inappropriate by persons or groups within the network. Individuals tend to change the message or its meaning if they consider it necessary to achieve their goals.

Network communication can foster a subject’s autonomy and this process corrodes the centrality of the dialectics between media and message, changing the role of news, its original producer, and the current meaning of news consumption. The way in which people seem to think more and more about social connections, institutions, power, social change, and autonomy as network based is perhaps the fundamental novelty brought to our societies by the new media.

One question remains: what is the transforming power of these experiences? Can they go viral on the social scene, transforming institutions, or are they confined to the margins of society? This question can be addressed by investigating a society’s degree of news literacy, which will also partly define its future social, political, and economic development.

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