Who shares fake news? The consumption and distribution of information among adolescents and its relationship to hate speech

¿Quién comparte fake news? Consumo y distribución de información entre adolescentes y su relación con el discurso de odio

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Abstract

Young people are particularly vulnerable to fake news as they tend to get their information mainly through social media. Moreover, much of the content of fake news includes hate messages and therefore aims to discriminate against minorities. This article presents the results of eight European focus groups and a regionally representative survey (Community of Madrid) on how young people access and share information online, including fake news. This study forms part of the H2020 European project RAYUELA on minors and internet risks. The results show a widespread preference among young people for getting their information via social media, despite acknowledging that traditional media are

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more reliable. This predilection can be explained by the fact that the former use more videos, attract more people and enable comments to be posted with opposing opinions. The differences are also described between adolescents who share fake news intentionally and unintentionally. The latter state that they are more likely to use handheld devices (e.g. smartphone, tablet) while a greater proportion of the former admit to also being perpetrators of online hate speech (sexism, racism and LGTB+ phobia).

Keywords: fake news, internet, hate speech, online information, adolescents, cyberhate.

Resumen

Los jóvenes son especialmente vulnerables a las fake news, ya que tienden a informarse principalmente a través de las redes sociales. Además, gran parte del contenido de estas noticias falsas incluye mensajes de odio y, por tanto, persigue la discriminación contra las minorías. Este artículo presenta los resultados de ocho grupos de discusión europeos y una encuesta representativa a nivel regional (Comunidad de Madrid) sobre cómo los jóvenes acceden y comparten la información online, incluyendo las fake news. El estudio forma parte del proyecto europeo H2020 RAYUELA sobre menores y riesgos de Internet. Los resultados muestran una preferencia generalizada entre los jóvenes por informarse a través de las redes sociales, a pesar de admitir que los medios tradicionales son más fiables. Esta predilección se explica porque las primeras utilizan más vídeos, congregan a más gente y publican comentarios con opiniones contrarias. También se describen las diferencias entre los adolescentes que comparten noticias falsas a propósito y sin querer. Los segundos afirman haber empleado en mayor medida dispositivos manuales (por ejemplo, smartphone, tablet), mientras que los primeros admiten en mayor proporción haber sido también autores de discursos de odio en línea (sexismo, racismo y LGTBIfobia).

Palabras clave: fake news, internet, discurso del odio, información online, adolescentes, ciberodio.

Introduction

The circulation of fake news has increased in recent years, especially during the recent health crisis (Apuke & Omar, 2020). Although there is no clear definition of the term (Anderau, 2021), for this article we use "fake news" to refer to content that is produced with the aim of misleading the reader, so they believe the information they are receiving

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is true (Shu et al., 2017). Specifying the intention serves to distinguish fake news from, for example, satire (Verstrade et al., 2018). Normally fake news is distributed through websites and social media but sometimes it is also produced via the traditional mainstream media (Muigai, 2017).

One of the main dangers of fake news is that it circulates faster, deeper and more broadly than real news (Vziatysheva, 2020). The very characteristics that make a news story appealing, such as its emotional content, eye-catching topics that position the sharer as well-informed or that potentially interest the recipient, are also the characteristics of fake news. Moreover, due to the "filter bubble" effect and social media algorithms, "echo chambers" end up being generated in online environments, whereby certain content becomes dominant for the user through repetition, leaving out other alternative points of view that could oppose such content (Fernández-García, 2017).

This rapid spread raises the question of the ultimate motivation for sharing fake content. Duffy et al. (2020) found that, in many cases, people share fake news without realising it, believing they are helping or informing others. In fact, there is a strong relational component behind the dissemination of misinformation on social media: if the original sender is a friend, the previously established bond of trust reduces the level of suspicion and, subsequently, the need to verify the information. Given that young people access information mainly through social media (Herrero-Diz et al., 2020), content that comes from friends would be more highly valued than content from the original source (Herrero-Diz et al., 2021): the relationship of trust with the person sharing the information is known to affect content credibility (Tompson, 2017).

It is important to note that self-expression and socialisation could also be reasons for people to share false information, placing greater importance on this than on the accuracy of the information or the authority of the source (Chen et al., 2015). In fact, such people may still be interested in sharing news or information even when they realise the content is not truthful (Herrero-Diz et al., 2020). Consequently, sharing or not sharing certain content may also be motivated by the need to express one's identity or show one's affinity with certain ideas (Marwick, 2018).

In this respect, the traditional media do not always connect with the interests of young people (Marchi, 2012), are not necessarily perceived as more trustworthy (Chen et al., 2015), and less frequently use the formats most trusted by teenagers, such as videos (Literat et al., 2020). Mendiguren and colleagues (2020) describe Generation Z as characterised

by interaction, speed and impatience, aspects that make it easier to fall prey to misinformation. In fact, the authors found that, although most young people (82%) acknowledged they had assumed some item of fake news to be true, they were concerned about the credibility of the information consulted. However, it seems that young people are easily misled when the false information is presented in the form and format used by the news media (Herrero-Diz et al., 2020), and also when the content is sponsored and includes data and statistics (McGrew et al., 2017), because a seemingly neutral or scientific appearance is seen as synonymous with credibility.

Furthermore, fake news could be linked to hate speech, a phenomenon that has also been on the rise in recent years (Mascheroni & Ólafsson, 2014; Hawdon et al., 2015), with consequences that transcend the virtual world (Williams et al., 2020). Specifically, racial hoaxes can validate discriminatory and racist attitudes (Cerase & Santoro, 2018), increasing people's disapproval of migrants and refugees (Schäfer & Schadauer, 2018). In the case of sexism, there is evidence that, for example, gender stereotypes are reinforced through fake news when female electoral candidates are portrayed as unfit for leadership, either by villainising or trivialising them (Stabile et al., 2019).

It therefore seems more relevant than ever to educate the population in the proper use of technologies that include the dissemination of information. Doing so implies the belief that media citizenship can be empowered by communication skills that protect them from such risks (Gozálvez & Contreras-Pulido, 2014) and enable them to properly develop their freedom of expression. This concern for media literacy, already identified by the UN (Aguaded, 2012) and UNESCO (2009) in recent decades and repeatedly expressed via specific programmes aimed at preventing risky behaviour and extremism (e.g. Al Nasser, 2017), is known as "educommunication". According to this paradigm, it is necessary to educate people on how to receive and send communication whilst involving and establishing a dialogue with the active agents of such communication, as opposed to top-down educational approaches (Aparici, 2011). Based on this paradigm, it is therefore important to know how the agents who are most vulnerable in terms of their use of technology, such as adolescents, relate to each other, as well as the media they use and their motivations, so that evidence-based preventive educational pathways can be proposed.

For preventive purposes, it is important to understand, firstly, their own experience of the internet; i.e. the ways in which they consume and

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disseminate information and, secondly, the main reasons and potential risk factors behind the dissemination of fake news. To this end, in this exploratory study we addressed the fake news phenomenon through eight focus groups of adolescents in five European countries (Portugal, Spain, Greece, Slovakia and Estonia) and then conducted a representative survey in one of them (Spain). Our rationale for using this methodology is twofold: as the phenomenon of fake news has only been studied recently, there is not much evidence on young people's tendencies and motivations for sharing fake news, nor on whether there are any differences between those who share false information intentionally and those who share it unwittingly. With an exploratory study, and by listening to their first-hand experiences, we can contribute some preliminary information regarding the main issues involved. Consequently, in the international focus groups we first collected general data and possible trends and then triangulated the information obtained at a more local level by means of a representative regional survey in Madrid.

Exploring the sources of news used by the participants and the characteristics they rely on to judge the credibility of content is useful in order to prioritise, in preventive programmes, how to check the veracity of sources, as well as to emphasise the importance of consuming truthful information and the dangers of relying on false information. An additional aim was to explore two different ways of spreading false information (intentionally and unintentionally), as the different motivations for each form could also be taken into account in preventive programmes. Finally, by exploring the prevalence and first-person experiences of online hate speech, we can get a preliminary idea of how teenagers perceive this phenomenon and whether there are any particular aspects that should be identified or addressed to prevent aggression and victimisation.

Method

Two methodologies were applied in this study. Firstly, we carried out an exploratory qualitative investigation by means of a categorical content analysis of eight focus groups set up in five European countries (Portugal, Spain, Greece, Slovakia and Estonia). Secondly, we conducted a quantitative analysis by means of a representative survey in the Community of Madrid (Spain). Both processes were approved by the

Ethics Committee of the authors' university before starting to collect data. In both cases (focus groups and survey), the project and the voluntary nature of their participation were explained to the students and, depending on their age, their parents or the participants themselves signed informed consents. Although the transcripts of the focus groups are not provided in the supplementary material for confidentiality reasons, the raw survey data can be downloaded from our institutional database (link: http://hdl.handle.net/11531/69582).

Qualitative analysis

Based on a literature review, we designed the focus group questions with the aim of eliciting the participants' views on how they consume and share news, their criteria for verification and direct experiences with fake news (see Annex I in the supplementary material for the initial set of questions).

We set up eight focus groups (Table I) comprising a total of 47 adolescents aged 12-14 or 14-17 in five European countries (Portugal, Spain, Greece, Slovakia and Estonia). Although the selection of candidates was random, we sought a balance between males and females and, where possible, diversity (ethnic background and sexual orientation). Interviewers were trained researchers with fieldwork experience in online child victimisation.

TABLE I. Focus groups characteristics

Country	Total Groups	Number of Participants by group	Age by group
Spain	2	6 participants (SP1) 5 participants (SP2)	12-14 14-17
Portugal	1	5 participants (P1)	15-17
Greece	1	6 participants (G1)	14-16
Estonia	3	6 participants (E1) 5 participants (E2) 7 participants (E3)	12-14 12-14 14-17
Slovakia	1	7 participants (SL1)	14-16

Source: Compiled by the authors.

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The discussions in the focus groups were transcribed in full and translated into English (as each group session was conducted in the local language) and a categorical content analysis was carried out; i.e. the text was broken down into units that were then grouped into categories according to topic (Páramo, 2011). Finally, we carried out the conceptualisation and interpretation based on the data extracted using this category system. Following Gil and collaborators (1994), we first approached the data by reading the entire discourse and noting down some key ideas. Secondly, we carried out a descriptive analysis, structuring all the information related to the main topics. Within this structure, we included quotations to illustrate the most relevant ideas. Thirdly, we carried out two-stage data reduction: segmentation by dividing the text into units, and categorisation by grouping these units conceptually. The categories were drawn directly from the initial script of the discussion and were also deduced from the issues raised during the focus groups. After this data reduction, we mapped and created a textual matrix with the groups and categories, searching for global meanings and related or similar ideas. In all phases this analysis was carried out by at least two researchers.

Quantitative analysis

Our aim was to compare some of the findings of the focus groups at a local level. To this end, we distributed a survey to a representative sample of 682 participants in the Community of Madrid (Spain) (95% confidence level estimate). The survey was designed based on the results of the focus groups and then transferred to the Microsoft platform. The survey included socio-demographic questions on age, gender, migrant background and sexual orientation, as well as information on internet use, including the time spent online and most frequently used apps and devices, and questions related to the prevalence of the dissemination of fake news and the importance given to different aspects of sharing content online. The full set of questions can be found in Annex II of the supplementary material.

We used a stratified probability sampling method to select participants. The strata were made up of the type of school the participants went to (public, private and charter) and the type of location where they lived (big city, medium-sized city and village). Participants were aged between 13 and 17 years to cover the age range of the focus groups (see Table II).

TABLE II. Survey sample characteristics

School	n	Percentage of the total	Type of centre	Type of town[1]
A	109	16.0%	Private	Big
B	64	9.4%	Private	Big
C	107	15.7%	Semi-private	Medium
D	70	10.3%	Public	Medium
E	140	20.5%	Public	Big
F	192	28.2%	Public	Small

Source: Compiled by the authors. Note: For the purpose of this table, "big" cities had more than 100.000 inhabitants; "medium" between 10.000 to 100.000, and "small" <10.000.

The survey was conducted online via Microsoft Forms and answered during class time at school. It included questions about the young people's internet habits, as well as fake news and hate speech online. The questions were designed to test some of the research questions and hypotheses emerging from the focus groups: How widespread is fake news? Is there a typical profile for someone who shares fake news? Is this profile related to the degree of importance given to different topics when sharing information? How does it relate to becoming someone who commits hate speech?

For statistical exploitation, the database was first reviewed and cleaned (i.e. deleting duplicate cases and outliers) and a consistency analysis and coding were carried out. Some variables were recoded to facilitate further analysis and the data were exported and analysed using the statistical programme IBM/SPSS version 28. In addition to a simple frequency analysis, a bivariate analysis was also performed using contingency tables and the Chi-square test, verifying statistical significance between pairs of variables by means of adjusted standardised residuals and resulting in the contingency coefficient (CC).

Results

Sources of information and media reliability

For most of the participants in the focus groups, social media appear as the main source of information and not the traditional media. However,

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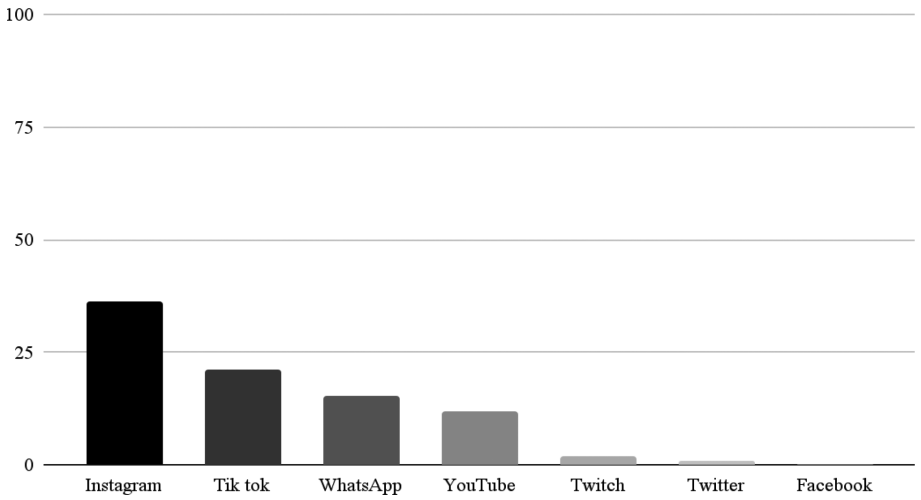
there was a small difference between age groups. In the younger focus groups (12-14 years), except for one participant who watched the news on TV with her parents, the traditional media were not mentioned as being consulted, not even online. Although some participants reported using Google to search for information, they mostly reported watching TikTok and YouTube, showing a preference for the video format. Specifically, YouTube was said to be used to "*search for something previously seen on the internet in general or on TV, to check the information given by YouTube*", and also for "*a quick overview of the news*" (E1). However, there was greater diversity among the older age groups (14-17). Although some said they used traditional media for information, the source reported by the majority was social media, mainly TikTok and Facebook: "*I get notifications on Facebook for breaking news*" (E3). This means that most of the news is not selected by the viewers but appears according to the user's preference algorithms via notifications: "*It's not so much that news items appear for you; rather you find out from the news posted by other people or the things people tell you*" (SP2). In fact, some participants acknowledged that social media "*aren't a good source of information because you* [only] *see things based on your own preferences*" (P1).

Despite the preferential use of social media, most focus group participants referred to the traditional media as the most credible source of information, specifically TV news, stating that "*when something appears on the news it feels more reliable*" (SP2). However, their general lack of trust in social media does not affect how they tend to get their news: most access information via social media because "*breaking news appears first" (*P1), "*everyone's there"* (G1) and "*you can keep up with controversies*" (G1). There were only a few cases where some young people claimed to get their news from the traditional media (e.g. three participants watched the news on TV with their parents, one person in the older age groups read a newspaper online and some participants accessed the BBC and a local news app). No participants claimed to read a physical newspaper and many of them acknowledged that they rarely read the news ("*We don't read the news much*" E3).

The survey did not address the different information channels but it did measure the most widely used social media sites, which are summarised in Figure I. At the time of the survey (December 2021), Instagram, TikTok, WhatsApp and YouTube were the most popular.

FIGURE I. Percentage of most used Apps (N=682)



Source: Compiled by the authors.

Precautions taken by adolescents and their concerns about sharing information on the internet

Although reliability is not one of the reasons why the focus group participants choose a particular platform for their news, this does not mean that they lack criteria for assessing which information is reliable and which is not. In general, the most relevant aspect for the participants is the issuer of the news item. The most important thing was that the sender was trustworthy and that the site from which the information came was also trustworthy, "*famous sites*" such as major newspapers and Wikipedia being described as reliable. Finally, to a lesser extent, authorship was also considered as a credibility factor, whether because the author was renowned or a verified user, for example, of YouTube.

Other aspects that were also suggested were style (i.e. good colour saturation, good quality photographs and no typos as opposed to misleading headlines or bad spelling), the comments made on the post (e.g. "*Look at the comments first and foremost. If the comments say it's*

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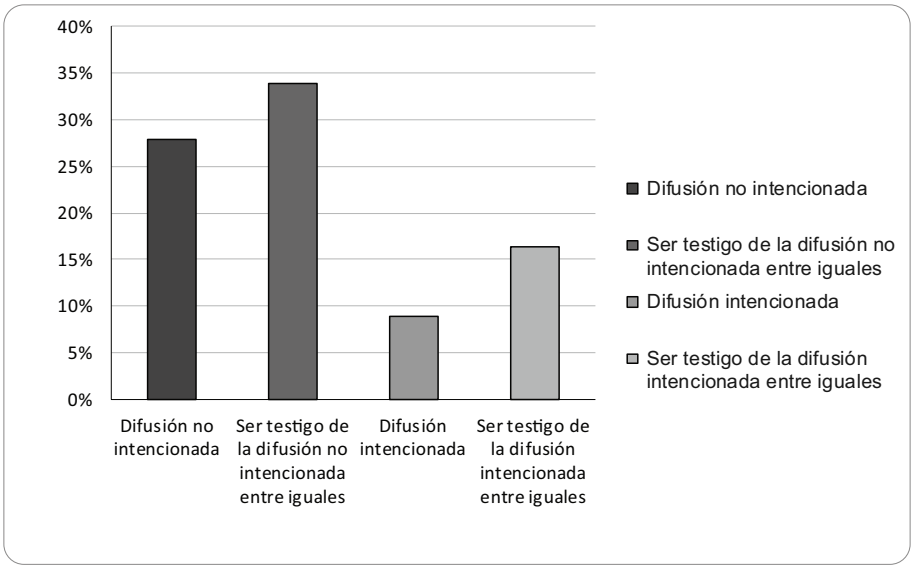
fake, don't trust it", SP2), the date of publication and the inclusion of a video. Most of the participants noted that they hardly ever crosschecked the information ("*only if it's very incomplete*" (P1)). Some reported that they only crosschecked an item if they wanted to share it, sometimes preferring not to share rather than to crosscheck: "*If I read something and start to have doubts, then I don't share it*" (E2). However, in general they said they did not usually share news ("*My friends and I don't share a lot of news*" E1). When they do crosscheck information, most of the younger respondents reported using YouTube as their tool, while in the older age groups Google appeared as the most widely used platform to search for specific information.

When the survey participants were asked how they rated the importance of different aspects when sharing news or content online (Figure 2), the most frequently mentioned was believing the information comes from a known author or medium, or that it has been received from a trusted person. Crosschecking the information before sharing was

FIGURE II. Grade of concern when sharing news



Source: Compiled by the authors.

also mentioned. To a lesser degree, but also relevant, was the fact that the information is fun and that it is in a video or image format. The least valued aspects by the respondents were the text format and whether the information was potentially interesting for their followers.

The topics of fake news and the extent to which fake news is spread among adolescents

While the participants in the Estonian and Slovakian groups mentioned the tabloids as a source of fake news, in the other groups only social media were mentioned. The most common topics mentioned in relation to fake news were, firstly, health-related misinformation. For some of the participants, their first contact with fake news was during the first few months of COVID-19: "*My mother told me there was a vaccine for COVID-19 but then she told me it was a hoax. I was quite shocked because I'd never seen it* [fake news on any topic] *before*" (SP1); "*Like the news about the hospital being empty, etc.*" (E2). Other health-related topics reported included alleged health risks, such as cosmic radiation emitted by our phones while we sleep.

A second prominent topic was celebrity gossip (e.g. fake romances or deaths) and, thirdly, various alarming news items that create social panic (e.g. "*rape day"* SP2, P1, "*kidnappings*" (SP2)).

In terms of the survey, Figure III shows that 27.9% of the sample (n = 190) acknowledged they had shared news or stories and subsequently found out they were false (unintentional dissemination), while slightly more (33.9%, n = 231) know someone their age who has done so (witnessed unintentional peer-to-peer dissemination). Albeit to a lesser extent, 8.9% of the sample (n = 61) acknowledged they had knowingly shared fake news (intentional dissemination), and 16.3% (n = 126) know someone who has done so on purpose (witnessed intentional peer-to-peer dissemination).

The survey found significant age differences in the dissemination of fake news. About twice as many older teenagers (15-17) compared to younger teenagers (13-14) reported sharing fake news without realising it was fake (χ^2 = 8.824, p= .003, CC=.113), as well as those who realised it was fake before sharing it (χ^2 = 4.970, p = .021, CC=.085). In addition, students in the survey sample reported knowing more people of their

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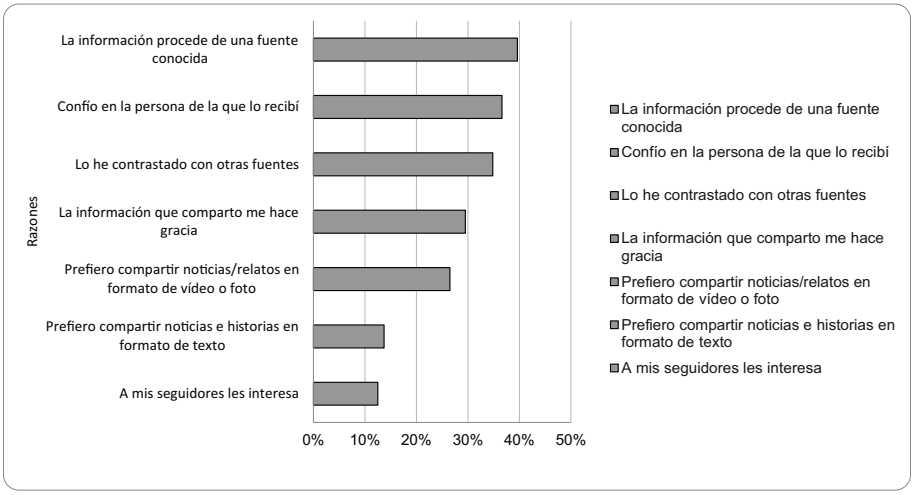
FIGURE III. Percentage of young people who have shared or witnessed Fake News online



Source: Compiled by the authors.

own age who have shared fake news, both unintentionally (33.9%, n = 231) and intentionally (18.5%, n = 126), than older people who have done so, both unintentionally (25.7%, n = 175) and intentionally (14.4%, n = 98).

Adolescents who spread fake news: unintentionally and intentionally

As described above, the main news items that focus group participants recall receiving or even sharing were either related to their interests (gossip, concerts, etc.) or had some emotional content (kidnapping and rape). Indeed, when asked about the reasons for spreading fake news, they suggest it is "*to get people's attention and appeal to their interests. That's why it spreads faster*" (P1). Participants also described the role played by the fun aspect: an article that sounds funny is much more readily shared: "*I tend to share* [content] *if I find it funny. Sometimes I just read the headline and, if it's funny, I share it*" (E2). In particular, even when the recipient knows the funny content is not true, it can still have an impact on the person, as another participant explained: "*Sometimes*

I read the news on the internet because it's funny and, even if it doesn't seem true, I believe it a little bit" (E2).

According to participants, the reasons why other people share fake news are to gain popularity and fame ("*People who actively seek to get as many likes, mentions, etc. as possible tend to share fake news*" (G1); just for fun and entertainment, or because they are "*uneducated people*" (E2). Finally, the participants also stated that many spreaders believe the news is true and their motivation is to inform or help others.

In the survey, we came across several characteristics of both intentional and unintentional spreaders of fake news that were significantly different from those of the other participants in the overall sample. Firstly, we found a significant trend among the different reasons stated by the participants for sharing content. On the one hand, the motives that were significantly more prominent among those who have shared fake news unintentionally were the fact that the information had come from a well-known newspaper/author and that it had been previously crosschecked by themselves. On the other hand, one of the reasons for sharing content among those participants who have shared fake news intentionally was that the information was funny. Moreover, among these participants we found an inverse correlation with respect to whether the information came from a well-known newspaper/author and had been previously crosschecked (see Table III). Secondly, other characteristics that showed significant differences were age, the technology used and whether the participant had any migration background (in the case of unintentional spreaders). Another significant factor was when participants received less information and less supervision at home from their parents (for intentional spreaders) and recognising oneself as an aggressor in online hate speech (sexism, racism and LGTB+ phobia), as shown in Table III.

Fake news and hate speech

In the focus groups, a relationship was noted between online hate speech (cyberhate) and fake news (e.g. "*cyberhate is related to the spread of false information*" (SL1)). Showing disinterest was the most frequent reaction to online hate speech ("*I ignore it*" (P1 and SL1); "*it doesn't do anything to me*" (SL1)), even when the participants' characteristics matched those of the people being attacked: in the case of racist content,

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TABLE III. Summary of the spreaders' risk factors and issues considered important for them when sharing content

	Unaware Sharing[1]	**Purposeful Sharing**
Age Older (15-17) vs. Younger (12-14)	**15-17 y-o (χ^2 = 8.7, *p* = .003, *CC* = .112)**	**15-17 y-o (χ^2 = 4.63, *p* = .031, *CC* = .082)**
Gender Girls vs. Boys	(χ^2 = 4.509, *p* = .212, *CC* = .081)	(χ^2 = 7.223, *p* = .065, *CC* = .102)
Type of school Private vs. Public	(χ^2 = 1.08, *p* = .582, *CC* = .040)	(χ^2 = .607, *p* = .738., *CC* = .030)
Migrant background Yes vs. Not	**Yes (χ^2 = 10.47, *p* = .015, *CC* = .123)**	(χ^2 = 1.17, *p* = .759, *CC* = .041)
Use of Smartphone High vs. Low usage	**High usage (χ^2 = 14.647, *p* = .005, *CC* = .145)**	(χ^2 = 5.12, *p* = .271, *CC* = .087)
Use of tablet High vs. Low usage	**High usage (χ^2 = 14.917, *p* = .005, *CC* = .146)**	(χ^2 = 1.41, *p* = .843, *CC* = .045)
Use of computer High vs. Low usage	(χ^2 = 8.85, *p* = .065, *CC* = .113)	(χ^2 = 3.91, *p* = .418, *CC* = .076)
Hours online during the week	(χ^2 = 6.98, *p* = .137, *CC* = .101)	(χ^2 = 2.58, *p* = .630, *CC* = .062)
Hours online during the weekend	(χ^2 = 7.62, *p* = .107, *CC* = .105)	(χ^2 = 8.9, *p* = .064, *CC* = .114)
Information about risks at home High vs. Low	(χ^2 = 3.78, *p* = .436, *CC* = .074)	**Low (χ^2 = 13.27, *p* = .010, *CC* = .138)**
Parental supervision High vs. Low	(χ^2 = 5.22, *p* = .266, *CC* = .087)	**Low (χ^2 = 10.976, *p* = .027, *CC* = .126)**
Online sexist behaviour	(χ^2 = .359, *p* = .549, *CC* = .023)	**High risk (χ^2 = 37.92, *p* < .001, *CC* = .229)**
Online LGTBIphobic behaviour	(χ^2 = .146, *p* = .703, *CC* = .015)	**Higher risk (χ^2 = 35.12, *p* < .001, *CC* = .222)**
Online racist behaviour	(χ^2 = .177, *p* = .674, *CC* = .016)	**Higher risk (χ^2 = 27.76, *p* < .001, *CC* = .198).**
Relevance attributed to some factors when sharing info/news		
The information is funny	(χ^2 = 8.63, *p* = .125, *CC* = .112)	**Greater importance (χ^2 = 32.08, *p* < .001, *CC* = .212)**
The information comes from a known newspaper/author	**Greater importance (χ^2 = 18.07, *p* = .003, *CC* = .161)**	**Lower importance (χ^2 = 16.61, *p* = .005, *CC* = .154)**
The information has been previously contrasted	**Greater importance (χ^2 = 12.055, *p* = .015, *CC* = .145)**	**Lower importance (χ^2 = 13.12, *p* = .022, *CC* = .137)**

Source: Compiled by the authors.
Note: significant results are marked in bold.

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two black participants noted that "*it depends on the day but, a lot of days, I just ignore it... because I don't feel like arguing"* (SL1). Although in the minority, some participants did block or report cyberhate.

The adolescents also described how online hate speech is often disguised as humour, as one participant explained:

> *"On TikTok there's a lot of humour with sexism and all that, with homophobia, racism and all that. So if someone says something like 'this is sexism', everyone says: it's just a laugh; you don't have a sense of humour and that. Nobody sees it as sexism but as a joke" (SP2).*

In terms of the survey, and as seen in the previous section, cyberhate (sexism, racism and LGTB+ phobia) was frequently carried out by intentional spreaders of fake news. It is also significant that, while overall concern about fake news is quite low among all the participants (both the teenagers in the European focus groups and those in the Spanish survey, where 58.21% were little or not at all concerned about it), the three groups that were potential victims of cyberhate seem to be more aware of the phenomenon than the other participants: : girls (χ^2 = 29,34, p = .015, CC = .203), migrants (χ^2 = 27,05, p = .028, CC = .195) and LGTBI participants (χ^2 = 25,11, p = .048, CC = .188).

Discussion

Although previous research has shown how teenagers tend to mistrust traditional media (Spilker et al., 2020) it was the opposite in our study; the majority of the participants in our sample agreed that the traditional media are a more reliable source of information than social media. Although practices and discourses were quite similar across countries, a specific type of traditional media - tabloids - was only singled out as a source of fake news in two countries (Slovakia and Estonia). The trustworthiness of the media might therefore depend on the type of media that are popular in different countries. However, no other notable differences between countries were found.

Despite being more trustworthy, the teenagers reported that they hardly ever consume traditional media and mainly get their information through social media, as has been found in other studies (e.g. Pérez-

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Escoda et al., 2021). Consequently, rather than discussing whether young people mistrust the traditional media, future research should perhaps focus on finding the reasons why they are used so infrequently. Perhaps the more technical language employed by the traditional media deters young people from enjoying them, so that sections with friendlier, more accessible language could be proposed to attract young readers (indeed, some scientific journals already reach out to younger audiences, see *Frontiers for Young Minds* as an example). In addition, the participants in our sample described social media as the places where they find breaking and controversial news items, along with different opinions that they often use to form their own view of current affairs (Marchi, 2012) and that these bring "everyone together there". This description seems to be related to a certain necessity among teenagers to seek out others, interact with them and create their own identity, which fits with the characteristics of generation Z (Mendiguren et al., 2020). In this respect, the traditional media would not connect as much with young people's interests as social media.

We have also found that, while content has to be deliberately created to be called "fake news" (Shu et al., 2017), the spreader does not necessarily share the creator's goal of intentionally misleading, as most spreaders do not realise they are sharing fake content. In the survey sample, whilst almost a third of the participants had unintentionally shared fake news, this being a lower percentage than in other research and with no gender differences (Chen et al., 2015), fewer than 10% shared fake news on purpose.

The aspects listed by the focus groups for fake news to be more likely to be believed and shared coincided with the aspects highlighted by research for a news story to be attractive, such as emotional content, relevance to the receiver and well-informed senders (Duffy et al., 2020), as well as certain types of content such as funny stories and surreal or surprising information that, according to previous research, are also of interest to other teenagers (Baptista, 2020; Herrero-Diz et al., 2020). In short, teenagers seem to prefer emotional, eye-catching content that is relevant to their interests (Herrero-Diz et al., 2020). This could explain why our sample did not consider fake news related to politics (as is generally found (see Goyanes & Lavin, 2018)) as much as information related to health issues, celebrity life (Gómez Calderón et al., 2020) and moral panics; topics that interest them more. This finding is particularly

relevant for prevention purposes, as programmes are likely to be more effective when this type of content is used to attract attention and teach young people how to detect false information. The online success of fake health news, especially items related to COVID-19, shows that responding to people's concerns is an effective technique; i.e. when people are concerned about something, they will look for answers online, sometimes ending up in a spiral of unverified information driven by social media algorithms.

However, and strikingly, although previous research has suggested that sharing news would form an important part of how young people express their identity and maintain their social connections (Marchi, 2012), in our sample most of the participants claimed not to share so many news items. In addition, the majority stated that they mainly only read news items that are posted on their social media by friends. This could be the reason why, generally speaking, they are not particularly concerned about fake news. Its dissemination via the internet is seen as of little concern, both in the focus groups and in the survey, far behind other internet risks such as cyberbullying and online grooming. In this respect, educational programmes should focus on the dangers and effects of fake news as the problem is not (or not only) a matter of a lack of skill in detecting fake news but, above all, of underestimating its impact.

In terms of how adolescents share news according to the survey, video and image formats were preferred over text (as in Literat et al., 2020), despite the emergence and popularity of new deepfake software (e.g. imitating real speeches within non-original video sources and creating images that look real but which never actually happened) or the widespread use of image editing software, which tends to be already embedded in the smartphones commonly used by teenagers. However, although the veracity of the information and the authority of the source were not relevant factors for information sharing in previous research (Chen et al., 2015), in our sample these were considered the most important, which could indicate a slightly positive change in trend. However, trust in the sender was also identified as a relevant variable when deciding whether or not to share information, a behaviour which could be risky especially considering that the main channel of information for teenagers is social media. There is a large number of trusted people on social media and double-checking might be compromised as it could be interpreted as indicative of distrust. It seems that teenagers should be educated about

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double-checking and informed about how the dissemination of fake news can cause even trusted people to become spreaders of disinformation. In a similarly risky vein, participants also claimed to trust the design and degree of refinement of content, as highlighted in previous research (McGrew et al., 2017). Given that many websites with dubious content are becoming increasingly sophisticated, young people should also be educated on how to switch between websites to crosscheck facts, rather than base their judgements on aesthetic criteria.

Finally, one of the main strategies reportedly used by adolescents when determining the credibility of some content was to check the comments made on the posts, as has also been found in other studies (Colliander, 2019). Whilst checking comments can be considered a form of critical thinking, it is not without risk as it is a tactic that can readily be found in marketing strategies, such as sponsored comments. This trend, along with a preference for news items containing controversial opinions and topics, would fit Daum's (2019) description of younger generations who apply less critical thinking, engaging in more passive in-group/out-group thinking. This means that the subject takes a stance on certain issues after reading what others think about then. A certain scepticism for comments should therefore be promoted by preventive misinformation programmes for adolescents.

Regarding the risk factors related to the unintentional dissemination of fake news among teenagers, they were found to have a migrant background regardless of their country of origin (i.e. not only those from low-income countries). This could be related to the difficulty in accurately understanding the content they encounter on the internet due to linguistic limitations. In addition, unintentional spreaders were more likely to use mobile phones and tablets to browse the internet. This preference could be related to the fact that handheld devices favour impulsiveness, a characteristic associated with the dissemination of false content (Herrero-Diz et al., 2020), as they make it more difficult to check the veracity of content compared to accessing such information via a computer. Unlike what has been found in other studies (Goyanes & Lavín, 2018), we can indirectly surmise that family income was not a relevant factor, as no differences were found between the different types of educational centres.

In terms of the importance assigned to different aspects when sharing information, whilst intentional spreaders valued the source and the fact

that the information had been verified less highly than the sample as a whole, unintentional spreaders valued this above the rest. This could be due precisely to the fact that they have been unwitting victims of fake news.

A link was also found between intentionally spreading fake news and committing online hate speech. This could illustrate how the ideological use of fake news is succeeding among young people. Moreover, not only ethnicity and nationality were targets of cyberhate but also sexual orientation and gender (Castaño-Pulgarín et al., 2021). The ideology of hate speech could produce a cognitive bias in people who follow spreaders of this type of content so that, when they receive news, they might be more inclined to believe information that confirms their existing beliefs (Weidner et al., 2020) and, consequently, not evaluate the content objectively. Users tend to be surrounded by like-minded people, which means they might be exposed only or mainly to a part of the whole story that could be partially true or completely false. Furthermore, algorithms amplify this phenomenon by creating filter bubbles, so that when someone reads a post or gives a like, it is recorded that the person is interested in that information and they will be shown more related content in the future. Ideological motivation, moreover, could lead to someone sharing a news item even when the sharer realises that the information it contains is untrue.

Consequently, preventive measures regarding fake news should not only address media literacy but also educate against hate speech and discrimination. Likewise, families should be included in prevention, as receiving little information and little supervision at home are risk factors. There is also a certain trivialisation of fake news and hate speech, since humour seems to play a role in both justifying the sharing of fake news and masking hate speech to some extent. This points to the need to equip young people with tools for empowerment, in the form of counter-discourse (Blaya, 2019).

Our results and conclusions are not without their limitations, however. In order to delve deeper into the phenomenon, we used two different methodologies but, due to the size of the project, which involved several countries, the samples were not balanced across countries and survey triangulation was only carried out in one country (Spain). Nevertheless, considering the fact that we did not find any relevant differences between countries, although an interregional comparison was not our aim, we believe that fake news is a global phenomenon among adolescents.

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Although this is an exploratory study, our results, both in the focus groups and in the survey, are consistent enough to be considered as preliminary information that may provide the basis for further research, as well as useful pointers to be taken into account in educational work and prevention projects.

Conclusions

In summary, despite the limitations of the study, the results obtained point to a series of issues that are important when designing prevention measures or programmes. Firstly, emphasis should be placed on the consequences of distributing and consuming such content, as there does not seem to be a lack of knowledge but rather a lack of concern among teenagers. Secondly, for such programmes to be successful, they should include, as examples, content that is emotional, appealing and related to young people's interests. Thirdly, attention should be drawn to three unreliable criteria of truthfulness that are often considered valid: an affinity with or trust in the person sharing the content (for example, a close friend who unknowingly shares a fake news story), the degree of sophistication of the design of the information's source (again, examples with a good design, no typos and a scientific appearance can be used), and crosschecking via comments. Finally, alongside media literacy, the spread of hate speech and the danger of trivialising discriminatory messages through humour should also be addressed.

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