



Article

Digital Newspapers' Perspectives about Adolescents' Smartphone Use

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Abstract: The growth of ICTs has led to a new socialization model and a continuous dynamic flow of communication and information, wherein smartphones have become very popular with teenagers. This paper investigates what teenagers use smartphones for and the related intervention measures published in digital newspapers. A qualitative methodology was used to analyze 362 news items published in 53 Spanish digital newspapers. The results and conclusions indicate that teenagers use smartphones mainly for recreational purposes and sparingly for educational ones. The published intervention measures are primarily aimed at stimulating citizens' reflections on the subject, in order to improve proper smartphone use by teenagers.

Keywords: ICT; smartphone; teenagers; digital press; education



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1. Introduction

The growth of information and communication technologies (ICTs) has changed our past ways and means of communication by configuring new socialization structures, systems and methods, especially among youngsters. Technology plays an important role in the daily life of citizens due to its ongoing presence in the surrounding culture [1]. However, it can create an undesirable dependence in vulnerable groups.

Digital resources provide people with the tools needed to improve their capacity for expression, interpretation and creation, but require them to have good literacy in all stages of life. Such digital growth generates new problems, needs and expectations for citizens, and furthermore facilitates other forms of communication and relationships [2–5]; which in turn confer different meanings, significance and interest to social interactions.

Moreover, digital development offers an essential platform for journalism that gives greater prominence to the social communication media, while producing greater impact and immediacy [6–8]. Gone are the days of exclusivity of the analogue press which has now irremediably ceded its space to the more versatile and widespread digital press, whose hunger for power and influence is rising. Several mobile news applications publish abundant posts on users' screens to alert them to the latest news [9]. These posts go beyond the traditional division between intentional and incidental news exposure.

The Internet culture is synonymous with written culture for digital natives [10,11]. Even though youngsters are considered to be digital natives, they still need training on integrating digital competence into academic work [12–15]. Computers, tablets and smartphones digitize not only their reading and writing practices but also their social relationships.

Journalism is now conceived of as an ongoing flow of information and interaction, which enjoys greater freedom for spreading huge diversity and content [16,17]. The digital press and daily newspapers in particular offer extraordinary information coverage. News is quite varied and instantaneous, but mainly focused on events, situations and phenomena capable of generating a great impact on readers and a big influence on citizens.

1.1. Literature Review: Digital Media, Mobile Devices and Teenagers

ICTs have revolutionized the information, communication, social, educational and labor processes, partly due to their usefulness, speed and attractiveness. They offer great convenience and access to a huge amount of content. However, much of this content circulates through the Internet without control or filters. This powerful technology has profoundly transformed the media, among other sectors. One such example is the digital press, which is committed to multi-platform journalism and innovation, led by social networks. Mobile journalism, which refers to the production, dissemination and reception of content on mobile devices, is now growing. The mobility component has opened up a space of enormous possibilities for press publishers and readers.

More and more citizens use mobile devices to read newspapers, use social media or play games and to browse the Internet indiscriminately. Mobile devices such as tablets and smartphones are very important means for transmitting and accessing digital information. The technological characteristics of the 21st century require information users and producers/creators to master multiple digital devices and tools [18,19]. It is noteworthy that the digital media content is intermingled with other sources, which makes it difficult to read, analyze and understand. Therefore, teaching and learning to critically and constructively read online news is vital to getting citizens informed, reflective and committed. The verification processes of journalistic texts are more important today than ever before [20]. Progress towards quality journalistic education requires most references to focus on updating journalistic knowledge and promoting skills that favor technological revolution, and thus produce a substantial change in the digital media and by extension in the written press. Training methods that pay attention to the above aspects could respond to such needs when applied from a holistic perspective [21,22].

New media and modern journalism can in many ways facilitate and promote the transmission of hoaxes and lies. Such disinformation generated by viral spreading can cause mistrust and lead people away from reading digital newspapers [23–25]. Hence, the need for journalists today to work with rigor when interpreting and transmitting reality [26–28]. The increasing popularity of the Internet and mobile devices requires that education professionals provide citizens with media literacy and training to have a critical-reflective viewpoint. Digital literacy is negotiated, adjusted, corrected and developed within an emerging criticism culture [29,30].

The Spanish National Institute of Statistics (2019) [31] published that the availability of smartphones to children (aged 10–15 years) was high in 2018. It also indicated that around 70% of teenagers in Spain have smartphones and this figure increases with age, to reach 99.1% in ages 16+. Smartphones are the most widely used digital devices among teenagers and youngsters. Therefore, supervision on how they use and interact with smartphones at such a vulnerable age is essential [32–34]. Digital technology is greatly demanded, especially by youngsters, for socio-communication purposes. Teenagers use mobile phones practically all day long both for fun and communication [35]. Hence, they need protection at a key moment in their emotional and social development. This is where incentives for educational proposals can play an essential part in protecting and guiding them efficiently in ICT interactions.

The literature review in this paper expresses the need to not only develop better emotional competence during adolescence to improve well-being and manage emotions, but also to protect teenagers from the multiple situations that arise [36,37]. Information society poses new challenges to citizens that need addressing from different fields, and from education in particular. The most vulnerable groups, including youngsters, need help not only to solve the complex media challenges but also to benefit from the enormous opportunities that arise.

The use of mobile devices in education has been a promising area of research for nearly two decades [38]. One of the most important functions of education is to use digital technology to help youngsters become self-sufficient and innovative, and thus benefit from the changing environment of the 21st century [39]. Therefore, socio-educational

action should pay special attention to improving comprehensive digital literacy within the school framework. Hence, family involvement is important and an essential pillar for the protection and education of teenagers. In this type of school intervention, specific attention must also be paid to strengthening the digital literacy of the family [40]. Interdisciplinary educational intervention measures targeted at youngsters are needed to promote responsible use of mobile devices.

The competent administrations, educators and the family environment should be made aware of the ICT risks in adolescence to act accordingly. It is necessary to highlight the need for introducing different measures to ensure responsible praxis in children, especially relating to the use of smartphones [41]. Clear standards should be established at home and in the school, to promote the use of technology in a safe manner. This means reaching agreements with teenagers on rules and ICT use times. Moreover, the creation of ICT use policies is fundamental for developing good practices in teenagers.

Additionally, specific prevention programs need to be developed to improve digital education in youngsters and encourage responsible use of smartphones during adolescence. This requires knowledge of the contextual reality, for which the analysis of newspaper news items is a good starting point. Such analysis reveals a wide range of facts, situations and positions that pinpoint the many risks and possibilities associated with the topic of study.

1.2. Current Study

The current trend and interest in ICTs have shaped a new socialization paradigm that is changing the way people communicate and interact. Youngsters prefer to first use smartphones as a content mediator within the digital arena and then establish the typical live and direct relationship. The use/abuse of ICTs, particularly of mobile devices such as smartphones, by teenagers is an issue of concern [42].

This research is the first of its kind to study news items in digital newspapers focused on smartphone use by teenagers and the related multidisciplinary intervention measures published. It applies a qualitative methodology framed within a narrative approach.

The main purpose of this research is to study smartphone use by teenagers and to identify the related intervention measures published in the media, particularly in Spanish digital newspapers. The specific objectives are:

- Research objective 1: Detection of teenagers' smartphone use patterns as published in digital newspapers.
- Research objective 2: Identification of the smartphone use intervention measures published therein.

2. Materials and Methods

This study, which uses a qualitative methodology and a narrative approach, has analyzed newspaper articles. The content analysis applied (from a qualitative view) to newspaper news items is appropriate not only to examine the media experiences and discourse disseminated among citizens but also to know and understand the reality of such discourses published from online platforms [43]. As shown in the results presented, this approach enables us to discover the perspective offered to citizens by digital newspapers on smartphone use by teenagers.

2.1. Procedure and Sampling

For sample selection, an exploratory Internet search was performed in Spanish digital newspapers on the study topic and this sample was later cut to size using selection criteria. The inclusion criteria were:

- Published between 1 January 2018 and 31 December 2018.
- Relating to the Spanish context.
- Publishers with different ideologies, to enable a greater plurality of approach, situations, facts and ideas.

- Availability at the Digital Library of the National Library of Spain (Ministry of Culture and Sport).
- Higher visibility index in Sistris.
- Better ranked according to Comscore 2018 data.

Moreover, when selecting news items from digital newspapers, only those directly linked to smartphones and teenagers were taken into account. Therefore, the focus was on content related to smartphone use by teenagers and the intervention measures published in newspapers. The Google News search engine and study-related evidence clippings taken from Spanish digital newspapers were of great help.

The final information sample for analysis was selected based on its relationship to the research topic, using the following Boolean operators (in Spanish): smartphones and teenagers; smartphones and adolescence; smartphones and minors; mobile phones and adolescence. Furthermore, data collection was monitored through newspaper search engines such as Google News, which includes three blocks of information: news title, source and summary. These elements facilitated the narrowing down of the information search on the research topic.

The final research sample analyzed consisted of 362 news items, taken from 53 national (18/53) and regional (35/53) newspapers. This included digital newspapers from throughout Spain, including its 17 autonomous communities/regions. The three national newspapers that produced the most news items on smartphones were: ABC (49/362), Europa press (36/362) and eldiario.es (25/362). At the regional/autonomous level, they were LA VERDAD, from Murcia, in the southeast of the Iberian Peninsula (29/362); La Voz de Galicia, in the northwest of the Iberian Peninsula (27/362); and LA GACETA, from Salamanca, in the northwest of the Iberian Peninsula (24/362). The contents analyzed oscillated between 12 and 48 news items, i.e., an annual average figure of 30.16 for 2018.

2.2. Data Analysis

The digital news items in the sample were subject to content analysis. Five university experts were initially consulted to plan the study. They recommended: (1) extraction of the main content units included in the raw information (categorized as 1st tier), and (2) configuring them to the specific research objectives. Each axis was subsequently broken down into subcategories (2nd, 3rd, 4th and 5th tiers) (Table 1).

Table 1. Procedure followed in the categorical analysis.

Categorization			
Criterion	1st Tier		2nd, 3rd and 4th Tiers
	Name	Definition	Criterion
Articulated around the specific research objectives.	Smartphone use patterns.	Classification of the different smartphone uses by teenagers, as published in newspapers.	Detailed configuration linked to the respective specific objectives, based on the gross information analyzed.
	Smartphone intervention measures.	Grouping that includes the actions, regulations and strategies published by newspapers, relating to the applicable/proposed smartphone intervention measures for teenagers.	

- The contents were analyzed with the AQUAD software (version 7) and data coding was performed by pairs of researchers with extensive experience in this type of analysis. A combination of group work (initially to determine/unify categorization criteria, and thereafter, to collate and resolve data interpretation differences/discrepancies) and individual work (independent analysis of information for subcategory determination) was performed.

- The final data labeling process facilitated reduction and reverting of the large amount of information contained in the results upon analysis. The transfer of results from AQUAD to Excel facilitated structured presentation and counting of subcategory frequencies. However, this being qualitative research, the results analysis is not focused on quantitative enhancement, despite it being useful, for instance, to ascertain the trend and contribute to delimiting certain patterns. The results presented are completed with some textual and iconic extracts to facilitate better understanding.

3. Results

In order to facilitate interpretation, results are presented around two main analysis categories as shown in Figure 1.

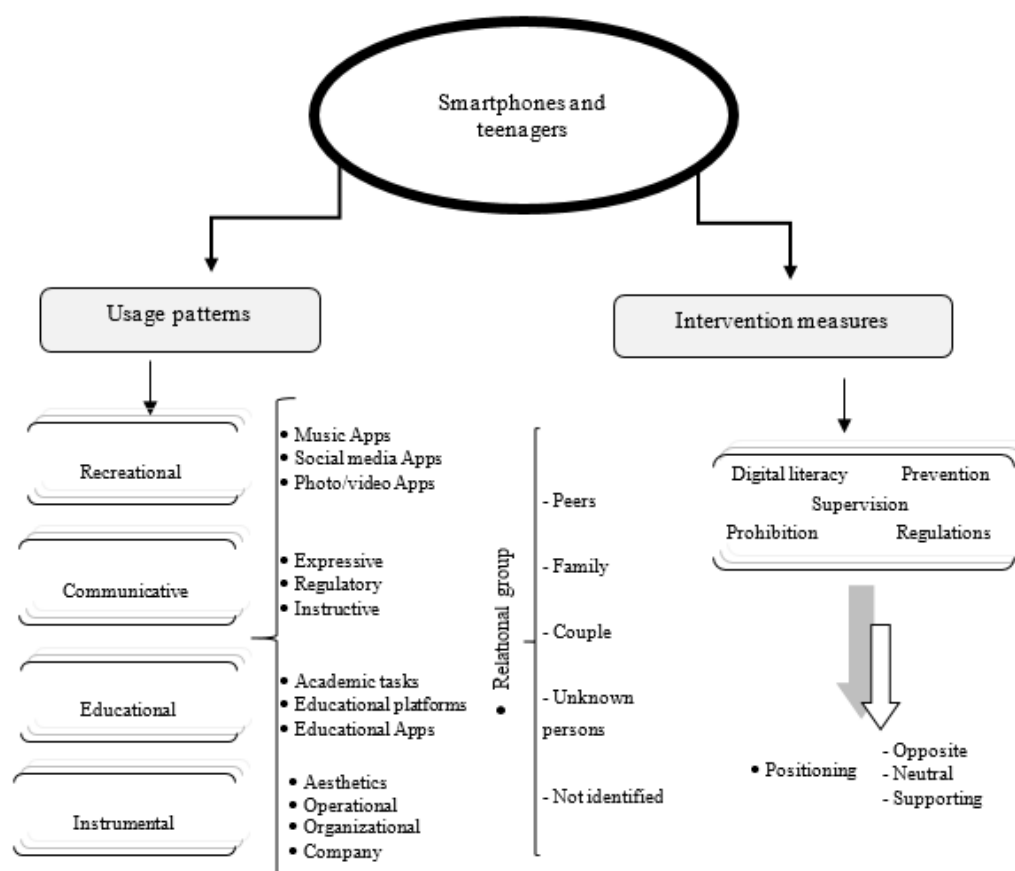


Figure 1. Relationship among the categories obtained.

3.1. Smartphone Usage Patterns

The digital newspapers analyzed indicate that teenagers use smartphones for multiple activities, regardless of their personal or family situation. Such use is essentially associated with recreation and to a lesser extent with communication (Table 2).

Table 2. Typology of recreational, communicative, educational and instrumental praxis with smartphones.

1st Tier Category: Usage Patterns								
Subcategories								
2nd Tier		3rd Tier	Relational Group * (4th Tier)					News
Name	Definition		5th tier					
			P	F	C	UP	NI	Σ
Recreational	It includes actions that facilitate entertainment of teenagers using smartphone leisure apps.	Music apps	4	∅	∅	∅	8	12
		Social media apps	37	∅	∅	∅	55	92
		Video game apps	3	∅	∅	∅	16	19
		Photo/video apps	16	∅	∅	∅	14	30
Communicative	It includes practices related to various oral communication functions, carried out by adolescents with smartphones.	Expressive	21	∅	3	2	∅	26
		Regulatory	10	7	2	3	∅	22
		Instructive	7	∅	7	∅	∅	14
Educational	It includes actions/tools used by teenagers for searching, managing and learning academic content on smartphones.	Academic tasks	2	∅	∅	∅	14	16
		Educational platforms	1	∅	∅	∅	∅	1
		Educational apps	∅	∅	∅	∅	5	5
Instrumental	It includes the daily activities performed by adolescents with smartphones	Aesthetics	∅	∅	∅	∅	2	2
		Operational	8	3	2	∅	∅	13
		Organizational	5	6	∅	∅	∅	11
		Company	2	∅	∅	∅	6	8

* Legend: P = Peers; F = Family; C = Couple; UP = Unknown Persons; NI = Not Identified. As shown in the table, there is not always a relationship with one or more groups.

Digital newspapers relate teenagers' recreational use of smartphones (153/362) primarily to the use of mobile apps. The apps are mainly used during leisure time for photographs/videos, music and games. WhatsApp (53/362) is the predominant social media used, while Facebook (19/362), Twitter (8/362), Instagram (7/362) and Snapchat (5/362) are used to a lesser extent, regardless of whether or not teenagers are old enough to use them legally. Some excerpts published in the newspapers are:

"More and more youngsters own a mobile phone and quickly download the most widely used social network apps such as Instagram, Facebook, Snapchat or WhatsApp" (ABC, 6 March 2018; news item no. 12).

"Young Spaniards have adopted the mobile first experience, that is to say, they have converted their mobile phones into their main and almost sole communication device (. . .). Worth highlighting is the time spent by users on messaging applications. This rose by 394% due to a rise in use of mobile apps that merge communication with entertainment, such as YouTube, Instagram or Facebook, a model consolidated by the teenage public" (EL PAÍS, 5 February 2018; news item no. 150).

Only a few newspapers reported teenagers entertaining themselves with video games on their smartphones (19/362). This activity, a recurring entertainment practice at this age, is hardly covered by newspapers. Furthermore, the news items analyzed indicate that they only carry out recreational and educational activities with peers. The journalistic content did not show any interaction with another group.

According to newspapers, the teenage smartphone communicative practices (62/362) performed both in private and public respond to the expressive function. The smartphone activities carried out exclusively at home contribute to the implementation of the regulatory function. However, activities associated with the persuasive communication function and carried out in public spaces are generally motivated by teenagers dominating behaviors. Moreover, such news items highlight the communicative interaction with peers. The following extract illustrates the above:

“Some teenagers become obsessed with the use of screens; they stop eating, sleep badly and rather than go outdoors prefer to stay at home for hours (. . .) interacting through social media” (ABC, 15 April 2018; news item no. 15).

This study indicates that the smartphone communication trends of teenagers associated with the expressive function generate positive and negative effects. Some news items (21/362) emphasize negative aspects produced by the device. They focus on the harmful or damaging consequences arising from misuse such as sexting, grooming, cyberbullying, sextortion, etc. All victims mentioned in this type of news are females while the aggressors are males. The following excerpt is taken from a news item:

“The National Police posted at Fuenlabrada, in the province of Madrid, arrested two teenagers aged 15 and 17 years yesterday, on charges of alleged sex abuse of another 14-year-old minor and forcing her to have sex with them (. . .). According to police sources consulted, the detainees contacted the victim of this sextortion through social media apps on her phone (. . .)” (EL ADELANTADO, 23 August 2018; news item no. 84).

Other recent social phenomena covered by digital newspapers focus on selfies (compulsive self-portraits taken by teenagers to share with peers), phubbing (paying more attention to the smartphone rather than to people around them) and nomophobia (teenagers panicking about leaving home without their smartphone, for fear of possible loss or running out of battery power). These manifestations, which generally lead to smartphone misuse, are associated with the different communicative practices linked to the persuasive and expressive communication functions.

The few practical implications that stem from trends linked to positive smartphone use are related to the instructive facet of communication. Newspapers highlight the opportunity that smartphones offer to teenagers for development of free and spontaneous expression. The device is presented as a means of greater socialization through exchange of opinions, where its contribution to teenager interaction is highlighted. Newspapers sometimes state that the smartphone is a very powerful tool, however, they primarily emphasize the negative influence of the device on academic performance.

Digital newspapers indicate that the group studied rarely uses the smartphone for educational (22/362) and instrumental praxis (Table 2). They reveal that teenagers almost never use the device for school tasks, but when they do, tasks are limited to searching academic content on Google (16/362). Access to e-learning platforms (1/362) or educational apps (5/362) is virtually non-existent. Some news items associate smartphone educational applications with the creation of multimedia content, grammatical and orthographic tasks, and improving language learning, but others emphasize the negative impact of smartphones on academic performance and student scores, and only a few report that they can be of interest to teenagers for education. The following excerpt illustrates this fact:

“The advantages of using smartphones in education are undeniable (. . .) there are multiple experiences in different countries where these are used as a teaching-learning tool within the classroom with very good results” (EL MUNDO, 29 December 2018; news item no. 145).

The different contents published in newspapers point to an instrumental use of smartphones by teenagers (34/362) to carry out daily activities. An operational facet is also associated with the mobile device for use as a clock, timer, alarm and/or alarm clock for controlling time spent on physical activity, study, and as a reminder of healthy routines (diets, vital sign control, etc.).

These newspapers furthermore add that teenagers use smartphones for another function: company. Youngsters use smartphones for company because they associate it with security. Digital newspapers rarely report girls using it for aesthetic purposes, for example, as a mirror. As for the organizational function, teenagers use this device to guide their actions and those of peers through textual tips and warnings: notes, messages, schedules, etc. The device allows them to learn about the status of their arrangements, communicate updates and carry out certain procedures.

3.2. Intervention Measures on the Use of Smartphones

An analysis of the content relating to smartphones and adolescents sheds light on several varied intervention measures (271/362) (Table 3), which are often aimed at promoting reflection on smartphone use by teenagers and at encouraging better use. Some recommendations talk about digital literacy, warnings on restricting use and on introducing actions to prevent the harmful effects of the device. Newspapers also publish content on legislation enforcement to promote moderate and adequate smartphone use by teenagers, and to deploy rules aimed at tackling or moderating recreational use in the school environment. This is disseminated mainly in national newspapers (219/362) written by journalists who are not specialists in the subject matter. The publication of this content is concentrated in September.

Table 3. News on intervention measures related to smartphone use by teenagers.

		Number of News Items per Month					Σ
Months	JANUARY	Ø	1	4	Ø	Ø	5
	FEBRUARY	15	10	11	Ø	2	38
	MARCH	4	7	3	Ø	3	17
	APRIL	4	7	5	Ø	3	19
	MAY	3	7	5	1	2	18
	JUNE	2	6	4	3	4	19
	JULY	9	9	12	4	2	36
	AUGUST	Ø	5	3	Ø	Ø	8
	SEPTEMBER	2	16	10	13	6	47
	OCTOBER	3	11	5	1	1	21
	NOVEMBER	2	10	8	Ø	2	22
	DECEMBER	4	7	6	2	2	21
1st tier Category: Intervention measures							
Subcategories	Digital literacy	Prevention	Supervision	Prohibition	Regulations		2nd tier
Definition	It provides guidance on the skills required for proper use of smartphones	It includes recommendations on preventing harmful situations that may arise from smartphone use	It refers to surveillance/redirection of smartphone activity	It includes guidelines for restricting smartphone use	It includes rules for guidance and enforcement to improve smartphone use		
Position (3rd tier)	Frequencies					Σ	
Opposite	Ø	Ø	Ø	1	Ø	1	
Neutral	39	88	74	17	27	245	
Supporting	9	8	2	6	Ø	25	

Approximately a hundred news items in digital newspapers (96/362) outline preventive measures to improve smartphone use by teenagers. More than half of such journalistic content has the backing of the relevant professionals, specialists and institutions. These include universities, entities advocating the safe use of ICTs, law enforcement agencies and experts on ICT applied to education. The vast majority of news provides guidance on the responsible use of smartphones and the Internet.

With regard to the month of publication, most were in September and aimed at prevention. Their purpose was to promote safe and responsible smartphone use by teenagers. January and August were the months with little or no news on this measure. Another measure published in the news (76/362) refers to monitoring smartphone use, in order to acquire a certain control over teenagers' actions, for which several ideas are published to highlight the importance of supervision by family and education professionals.

The contents published contain some regulations (27/362), but only a few mention legislative ones (4/362), and guidelines aimed at orienting use of smartphones by teenagers (23/362). The wording is somewhat sensationalist to capture or draw the attention of readers. Below is an excerpt of such a news item:

“WhatsApp for children under 16 years is banned, in accordance with the new data protection act (. . .). As of May 25, the instant messaging application WhatsApp is prohibited for children under the age of 16. The previous limit in Spain was 13 years. The new features of this regulation include a minimum age of 16 years to use one of the most popular applications in the world, although one wonders how Facebook will control the actual age of persons that access its application” (20 minutos, 25 May 2018; news item no. 1).

Different news items highlight the importance of regulating smartphone use in educational centers to establish and enforce rules on how and when teenagers can use it and for what educational purposes. With regard to prohibition in the school environment, some newspapers (24/362) report that it has already been implemented in France, however, no documentary or pedagogical proof is provided to support the same. Below is an excerpt from one such news item:

“The Government plans to introduce regulations on the use of mobile devices such as smartphones in classrooms, according to sources from the Ministry of Education and Vocational Training, following the wake in other countries such as France, which has banished mobiles from schools this year” (La Voz de Galicia, 7 September 2018; news item no. 328).

Most news items on promoting digital literacy measures were published in February. The June news focuses on supervision, while the September news is on restrictive provisions of smartphone use in educational centers.

The position of such news is mostly neutral for intervention measures on smartphone use by adolescents. Some contents are directed towards implementation of interdisciplinary digital literacy impact measures and the application of preventive actions to promote good practices.

4. Discussion

Digital newspapers constantly cover smartphones because they are very popular among teenagers. Noteworthy is the annual average publication of more than 30 news items per month, mostly in the national newspaper ABC and in the autonomous/regional newspaper LA VERDAD from Murcia.

The contents published reflect different smartphone use patterns by teenagers. The main smartphone use observed in this group is recreational, followed by communication. The latter use is associated with harmful effects when used at home or in public spaces, especially without parental control. Publication of such information by media can alert families and educators to the importance of using filters to protect teenagers from accessing inadequate Internet content and provide them with digital education.

The recreational use of smartphones by teenagers is essentially associated with the use of social media apps. This coincides with a study which states that teenagers use smartphone apps mainly for recreational purposes [44,45]. On the other hand, the time spent on video games is surprisingly little. This indicates that digital newspapers publish only part of the reality of the situation, because scientific literature demonstrates exactly the opposite on this issue. For instance, several studies indicate that children frequently use video game apps on smartphones and these are now a fundamental entertainment activity for teenagers [46].

It is necessary to highlight the need to include video gaming apps in learning to take full advantage of digital media possibilities [47]. Video game app-based learning has drawn considerable attention recently in education because teenagers improve their learning outcomes thus indicating it as a rewarding and enjoyable activity. Moreover,

another study revealed that teenagers express a variety of positive emotions linked to the use of smartphones and video games apps [48].

Newspapers state that adolescents relate more to peers through smartphones, regardless of the activity undertaken. In this sense, other studies show that youngsters tend to constantly use smartphones to share and obtain recreational content, preferably with their peers [49,50].

According to newspapers, teenagers rarely use smartphones for educational purposes. Thus, some authors indicate that the device is not used for multi-tasking [51]. The scant publication of educational news is also conditioned by poor public credibility regarding use of the devices for pedagogical purposes. However, scientific literature echoes the device's possibilities to generate learning and benefit students from a broad digital technology spectrum [52,53]. Nevertheless, one should not forget the controversies triggered by ICTs [54]. Educators, parents and the media have expressed concern about the academic consequences of the growing popularity of social media among teenagers [55]. They blame activity in social media apps (Facebook and Instagram, among others) for the bad ratings.

The day-to-day needs of teenagers, the influence of the environment and the new habits acquired have marked a turning point in the functionalities attributed to smartphones, for example, their use as a mirror and as a task organizer. Smartphone use by teenagers will continue to grow due to the increasing number of applications (on communication, health, entertainment, shopping, finance, weather forecast, etc.) available [56,57]. Moreover, the news items indicate that attention should be paid (mainly in the school and family contexts) to teenagers' use of smartphones given the general relevance of the social media apps.

In terms of smartphone use intervention measures, digital newspapers emphasize those aimed at improving proper use by teenagers, especially the ones on prevention. The need for adult supervision of teenagers' use of smartphones is present in almost all news published. The month with the highest content published coincides with the beginning of the academic year, which could be due to greater concern, receptivity and attention on the part of educational centers and families. The content could also be directed at increasing precaution and preventive measures, and thus contribute to greater public awareness.

Emphasis should be placed on the prevention strategies for proper use of smartphones, by stimulating practices that promote proactive privacy protection [58]. Proper parental supervision can be a productive intervention measure to boost responsible and secure Internet use in mobile devices such as smartphones. It is worth highlighting the pressing need to provide teenagers with instrumental skills to boost development of digital and media competences, and thus contribute to a more responsible use of smartphones [59].

Newspapers published only a small number of news items on prohibition and regulation of smartphone use in teenagers. However, frequent cyberbullying cases and their social impact have led many educational centers to ban mobile devices on their premises [60]. Banning the use of smartphones means acknowledging the existence of a problem, and we should instead offer worthy alternatives. Moreover, scientific literature highlights the advantages of establishing rules to regulate teenage smartphone use and exploit its educational potential [61,62]. The media highlight the role of smartphones in boosting communication and school learning among teenagers and in motivating them, as well as in innovating teaching methodologies.

Finally, both publication in newspapers and pedagogical implementation of measures could contribute to improving smartphone use and utilization by teenagers. This contribution could be in the form of promotion of communication and social skills, regulating integration with clear less stringent instructions on smartphone use in educational centers, monitoring via the school curriculum and, in particular, by using different apps to foster collaborative work, improve school coexistence and boost healthy daily habits.

5. Conclusions

While it is true that there is an abundance of fake news in digital media, this study has found that they also publish sound news that has been rigorously contrasted with scientific literature for reliability, which is reassuring to the journalism industry and to citizens, and especially for families and educators.

This study shows that teenagers use smartphones mainly for recreational purposes (largely via social media apps) and to a lesser extent for communication and instrumental purposes. They rarely use smartphones for educational purposes. Teenagers use smartphones both at home and in public spaces. They mostly relate with peers through smartphones, regardless of the nature of the activity carried out. The intervention measures promoted in digital newspapers focus on encouraging citizens to improve smartphone use by teenagers.

Even though digital media mention some inadequate uses of smartphones by teenagers, most news items discuss their apparent benefits, which is encouraging to citizens, especially to families and educators. Noteworthy among the recommendations are the promotion of digital literacy, restriction of smartphone use, parental supervision and development and implementation of regulations/guidelines to prevent further adverse effects.

6. Limitations, Findings and Prospects

One limitation is that the analyzed data were taken from digital newspapers published in Spain in 2018. It is logical to assume that the approach, facts, situation and actions on the subject matter can vary from one country to another.

Given that no research has to date focused on analyzing media coverage on this subject from an educational perspective, this study is a first response to address the current void. Knowledge and awareness on the state of the matter may enable experts, authorities, educators and families to develop/re-design educational actions and contribute to the improvement of smartphone use by teenagers. These conclusions cannot be generalized, but may be extrapolated from a critical point of view, to other countries where smartphone use is widespread among teenagers [63].

Future research should study a bigger sample, include newspapers from different countries, and use the quantitative approach. Moreover, in order to understand the reality better, teenage participation should be included to get their direct experience, and such information should be compared with that from another country. It would also be interesting to carry out the study over a longer duration to consider the subject from a longitudinal point of view.

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