The four P's on the Internet: Pornography, plagiarism, piracy and permission

Las cuatro P en Internet: Pornografía, plagio, piratería y permisos

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ABSTRACT

Access to youth culture by adolescents has changed as new communication technologies have found new ways of offering media content to viewers. Adolescents today access more content more frequently. However, the greater their exposure, the higher the likelihood of this leading to risk behaviors such as access to pornography, plagiarism, piracy and copyright violation. The aim of the present study is, therefore, to determine the frequency of these risk behaviors linked to the Internet content accessed and downloaded by minors, analyzing this variable in accordance with gender, age and context (Spain, Italy and Greece). We analyzed the responses provided by 2,529 adolescents (1,264 girls/1,262 boys) aged between 10 and 17 years from Spain, Italy and Greece. In general, adolescent boys, especially those aged 16 and 17 years, reported engaging more frequently in risk behaviors, particularly in reference to accessing youth culture content. Likewise, in terms of context, the highest means were observed among participants from Attica (Greece) and the Madrid Region (Spain), whereas the lowest means were observed in the Marche Region (Italy) and Navarre (Spain). The results revealed statistically significant differences in terms of gender, age and context. Thereby, they highlight the importance of focusing on media education from a gender perspective.

RESUMEN

El acceso a la cultura juvenil por parte de los adolescentes se ha transformado en la medida en que las nuevas tecnologías en comunicación han venido introduciendo cambios en la manera de ofrecer los contenidos mediáticos. Los adolescentes acceden a más contenido y con mayor frecuencia. Sin embargo, a mayor exposición, mayores posibilidades de acciones de riesgo, como acceso a pornografía, plagio, piratería y omisión de los derechos de autor. El objetivo de este trabajo es determinar la frecuencia de estas acciones de riesgo referentes a los contenidos a los que acceden los menores y a las descargas realizadas en Internet analizando dicha frecuencia según el género, la edad y el contexto (España, Italia y Grecia). Para ello, se analizaron las respuestas de 2.529 adolescentes (1.264 chicas/1.262 chicos) de entre 10 y 17 años de España, Italia y Grecia. A nivel general, los chicos manifiestan realizar con mayor frecuencia acciones de riesgo, especialmente en referencia al acceso de contenidos de cultura juvenil, y, sobre todo, entre los 16 y 17 años. Respecto al contexto, la media más alta la presentan los participantes de Attica (Grecia) y de la Comunidad de Madrid (España), mientras que la más baja la presentan los de la Región de Marche (Italia) y Navarra (España). Los resultados indican que las diferencias en cuanto al género, a la edad y al contexto son estadísticamente significativos. Así, se resalta la importancia de trabajar en la educación en medios de comunicación desde una perspectiva de género.

KEYWORDS | PALABRAS CLAVE

Risks on the Internet, adolescence, pornography, copyright, piracy, plagiarism.
Riesgos en Internet, adolescencia, pornografía, derechos de autor, piratería, plagio.

1. Introduction

The Internet is one of the most transformative and fastest-growing technologies humankind has ever known. The number of Internet users worldwide increased from nearly 2.4 billion in 2012 to 5.3 billion in 2022 (Statista, 2023). Use is highest among young people aged between 15 and 24 years (Kemp, 2022). According to a report published in 2021 by the International Telecommunications Unions (ITU), the percentage of those in this age group who use the Internet is 71% worldwide and 97% in Europe. Another technological development that has had a major impact is the smartphone, coupled with the almost continuous presence of diverse social media. These platforms are used by one out of every three people in the world and by over two thirds of all Internet users. With over 656 million active users, TikTok is currently the most popular social media site, followed by Instagram with 545 million users and Facebook with 416 million users (Koetsier, 2021).

The mass use of new communications technologies, or in other words, the fact that more people spend more time using some kind of digital device connected to the Internet, has generated a cyberculture model (Lévy, 2007) that has permeated most social spaces throughout the world. However, this technological development has brought with it an increase in the risks associated with the use of the Internet and digital devices, which, during adolescence, may lead to addictions and psychosocial problems (Díaz-López et al., 2020; Kurniasanti et al., 2019) suggesting that problematic Internet use may be associated with behaviors similar to those associated with other addictions or problematic uses, such as withdrawal, compulsive behavior and impairment in daily life.

The risks associated with the use of the Internet and mobile devices can be divided into four categories. First, content risks, referring to the type of information accessed. Second, contact risks, linked to the type of interpersonal relationships established over the Internet. Third, behavior risks associated with aptitudes (capacities), attitudes (behaviors) and actions that may be carried out on different platforms and applications. And finally, contract risks, referring to online purchases, sales, subscriptions and financial actions (Livingstone & Stoilova, 2021). In the present study, we focus on analyzing the first category, referring to the risks linked to the content to which adolescents may be exposed and which they access as a result of their own interest. Within this category (content risks), we will focus specifically on analyzing four different types: access to pornography; access to gambling; access to pirate content; and plagiarism within the school context. These four problem areas are the most recurrent during adolescence, since they correspond to the psychosocial development of young people during this life stage (Andrie et al. 2019; García-Holgado & García-Peñalvo, 2018; Livingstone et al., 2011).

Consequently, and bearing in mind the results of previous research into risk behaviors linked to adolescent media consumption (Chu et al., 2019; Smahel et al., 2020; Andrie et al., 2021), the aims of the present study are, firstly, to determine the frequency of online content-linked risk behaviors (linked to pornography, plagiarism, piracy and permission) and, secondly, to analyze this frequency in terms of gender, age and context.

1.1. Theoretical background

1.1.1. Access to adult content: Pornography and gambling

During adolescence, sexual exploration and identity, as well as gender construction, are vital aspects of individual development; this has repercussions for the contents that are consumed in the digital world, which may be pornographic in nature. According to a European study carried out by the EU KIDS Online Network (Barbovschi et al., 2021) with a sample of 21,964 young Europeans aged between 9 and 16 years, 33% of participants reported having accessed pornographic content online over the past year. In Italy, the percentage was lower (27%), whereas in Spain, it was higher (41%). In both contexts, more boys than girls reported accessing this type of content. Also in both countries, older participants reported accessing this type of content more than younger ones. In Spain, 25% of those aged between 9 and 11 years and 76% of those aged between 15 and 16 years reported accessing content of this nature. In Italy, these figures were 12% for the younger age group and 48% for the older one. In Greece, 27% of adolescents aged between 14 and 17 reported accessing this type of content frequently. A significant difference was also found in terms of gender, with boys being 18 times more likely to be frequently exposed to online

pornography than girls (Andrie et al., 2021). These findings are consistent with those reported by similar Europe-wide studies (Stanley et.al. 2018), which found viewing rates of between 19% and 30%.

The results outlined above indicate an increase in access to pornographic content. In 2010, in an earlier study also carried out by the EU KIDS Online Network (Livingstone et al., 2011) on the issue of accessing pornographic content both online and offline, the authors found that 14% of Spanish participants admitted to having accessed this type of content, with these figures being 12% among Italian participants and 29% among Greek youths. In that study, the mean for all participating countries was 23%. In other words, in ten years, access to pornographic content increased by 10% in Europe, 15% in Italy and 27% in Spain.

According to Ballester et al. (2019), there are three types of access to pornography: an initial, accidental access through pop-up advertising; a second, intentional access through searches on specific websites; and a third access, aided by friends or relatives. Among Spanish boys, the influence of friends is the main reason for accessing pornography, whereas accidental access is the most common among girls.

Another type of adult content that adolescents sometimes access is linked to online gambling and betting. According to a European study on gambling by Andrie et al. (2019), today's adolescents live in a society in which gambling is easily accessible and socially accepted as a form of entertainment. Legislation in many countries is weak, as are the mechanisms used by websites to prevent access by minors. In their analysis of 44 studies on the issue in Europe, the authors found gambling addiction rates of between 0.2% and 12.3% among adolescents. Similarly, the data published in the 2019 European School Survey Project on Alcohol and Other Drugs (ESPAD) revealed that 8% of adolescents had frequently gambled on the Internet (between once a day and once a month) over the past 12 months. In Spain, this figure was 4.2%, in Greece it was 4.9% and in Italy it was 7.6%. The gender differences observed in relation to online gambling are significant, with the figure for boys in Europe being 12.5%, as opposed to just 2.7% for girls (ESPAD, 2020).

1.1.2. Plagiarism

In addition to accessing adult content such as pornography or gambling websites, adolescents also engage in plagiarism linked to their schoolwork and consume media products without respecting copyright. Given the age of our participants, in this article we focus on plagiarism in the school environment. Plagiarism is understood as a risk behavior that has legal repercussions, since it basically entails stealing someone else's work, an action that violates the ethical code of scientific communication and is linked to the content-based risks to which today's adolescents are exposed. Plagiarism is understood as the intentional copying and claiming of authorship of what is known to be someone else's work and is linked to poor school behavior (Chu et al., 2019).

The most frequent cause and motivation for plagiarism by students is lack of interest in the subject matter, followed by lack of knowledge and/or failure to understand the subject, poor writing skills and little likelihood of being caught by teachers. According to Šprajc et al. (2017), other reasons that may prompt students to plagiarize someone else's work are linked to their exposure to information technology, the ease with which they are able to appropriate information and the paradox between academic success, fraud and teachers' inability to detect such actions. Family and social pressure to get good grades, as well as the prestige associated with academic excellence may also be factors motiving plagiarism among school-age adolescents, along with financial pressure linked to the high cost of education (Hayes & Introna, 2005; Ramzan et al., 2012).

1.1.3. Piracy

Regarding piracy and a failure to respect copyright, digital culture enables access to information of a wide range of different qualities and origins, in many different languages. Access may be free or by subscription only, but in all cases, it is fast and interconnected. Users are presented with many different ways of selecting content; however, in the music, audiovisual, film and videogame industries, alternatives have emerged to avoid paying for content, based on platforms or websites that offer free access. The free nature of these services is linked, for the user, to payment evasion, as well as to access to platforms

containing hazardous software. Both distribution of and access to this content are considered criminal offenses. However, this issue also entails debates about free access to information (García-Holgado & García-Peñalvo, 2018). Furthermore, some adolescents may opt to access ad-free content by subscribing to preferential access online services through payments made fraudulently or without their parents' consent.

Notwithstanding the association between the Internet, free access and piracy, in which users refuse to pay for content, these debates decreased as the range of legal access options has expanded. Video on demand (VOD) platforms such as Netflix, HBO and Movistar+ have become increasingly popular, enabling legal access to TV shows, films, documentaries and videos on a subscription basis. Subscriptions enable access to a menu and cost relatively little, particularly in the case of those that enable shared access between several users (Sanz, 2020). Software and videogame companies also generate ongoing obsolescence in the different versions of their products, which has further served to reduce the prevalence of piracy.

Listening to music is a key activity in the lives of adolescents, who mainly access this content on their mobile devices or over streaming platforms offering legal content (Soler & Oriola, 2019). The music industry has adapted to this and subscription-based music consumption has largely displaced MP3 downloads, which were very popular in the year 2000. The principal reasons for subscribing to these platforms include uninterrupted access to content, access with and without Internet, the availability of millions of songs and on-demand music consumption. The success of these platforms has resulted in the illegal consumption of music being limited to just 30% of the general population. However, among young people worldwide, the figures are slightly higher, with 38% of those aged between 16 and 24 years in the world reporting having accessed music content without respecting copyright; and 35% of the same age group reporting having used illegal sites or having violated copyright in order to listen to or obtain music (IFPI, 2021).

1.1.4. Permissiveness and the ubiquitousness of technology during adolescence

The experience of being an adolescent in the information era is linked to the constant use of the digital media, all of which compete with each other to attract users' attention through notifications (De-Bérail et al., 2019). Leisure, entertainment and learning exist together in the midst of ongoing competition between platforms and social media sites that adolescents explore within the privacy and ubiquitousness of their mobile telephones, with no adult supervision. A single device provides access to a range of different traditional media, including television, radio and the written press, and adolescents manifest their development and independence by accessing and publishing content. From their personal devices, adolescents engage in a range of different activities, including accessing culture, maintaining friendships and interacting with different social circles (Buckingham, 2020). However, adolescent actions and behaviors are characterized by the fact that they often skirt close to what is perceived as risky or prohibited, a characteristic that is reflected also in their use of the Internet (Díaz-López et al., 2020, Kurniasanti et al., 2019).

Studies focusing on adolescents' and young people's access to inappropriate content coincide in asserting that there are certain cross-cutting aspects of technological development that facilitate risk behaviors linked to content. These aspects include accessibility over the Internet and smartphones, the speed and immediate nature of access to information, constant connectivity to content online, on-demand access to information and the privacy of access bestowed by personal digital devices (Andrie, 2019; Barbovschi et al., 2021).

According to the studies by Gairín-Sallán and Mercader (2017) and Díaz-López et al. (2020), most adolescents report a low level of supervision by their parents and a lack of limits regarding the time for which they are allowed to use their various devices. Curiously, both these studies conclude that younger adolescents are subject to less adult supervision than their older counterparts while they browse the Internet or play online with other people.

Equally, from a feminist perspective, it has been suggested that gender differences exist in terms of online experiences, with these differences being linked to the patriarchal beliefs and values still present in today's society. For example, women are exposed to sexist attitudes in the form of harassment and

insults, and their perceptions of Internet use are associated with vulnerability, prevention and self-censure (Torrecillas-Lacave et al., 2022).

However, despite the seriousness and urgency of the issue, European public media education policies tend to focus on aspects linked to Internet security, overlooking those associated with the development of critical thinking about the online world and information in general (Vuorikari et al., 2022). As a result, media literacy lacks the means necessary to guarantee its development in the school curriculum and to ensure the inclusion of new teaching outlooks. In this context, it is important to analyze adolescents' risk behaviors in the digital environment, particularly those linked to accessing risk contents, such as pornography or pirated material, for example. The question that needs to be asked is: what is the association between the frequency of these risk behaviors and other variables such as gender, age and context?

Bearing in mind the results of previous research into online risk behaviors among adolescents (Andrie et al., 2021; Chu et al., 2019; Smahel et al., 2020), the aims of the present study are, firstly, to determine the frequency of online content-linked risk behaviors (linked to pornography, piracy, permission and plagiarism) and, secondly, to analyze this frequency in terms of gender, age and context.

2. Methodology

2.1. Research design

To achieve these aims, we carried out a descriptive ex post facto, cross-sectional, quantitative and exploratory study. The aforementioned phenomena were analyzed and studied, and the associations between the different variables were identified. We used an online questionnaire (White et al., 2001) that was designed following the recommendations provided by Lumsden (2007) and Norman et al. (2001). This questionnaire has been used and validated in several other studies (Lareki et al., 2017a; Lareki et al., 2017b; Martínez-de-Morentin et al., 2021).

2.2. Sample

The sample comprised 2,529 participants aged between 10 and 17 years from seven different regions: Autonomous Community of the Basque Country (ACBC, Spain) (n=972, 38.4%), Navarre (Spain) (n=389, 15.4%), Galicia (Spain) (n=512, 20.2%), Cantabria (Spain) (n=149, 5.9%), Madrid Region (Spain) (n=114, 4.5%), Marche Region (Italy) (n=102, 4%) and Attica (Greece) (n=291, 11.5%)[1]. The population range selected for the sample was consistent with the World Health Organization (WHO) classification of early (10-14 years) and late adolescence (15-17 years). Moreover, previous research into adolescent Internet and mobile telephone use has reported that said use tends to start at age 10 years (George et al., 2020).

In terms of gender, 50.0% were girls (n=1,264), 49.9 % boys (n=1,262) and 0.1% (n=3) did not respond to this question. In terms of age, 191 participants (7.6%) were ten, 317 (12.5%) eleven, 507 (20%) twelve, 462 (18.3%) thirteen, 443 (17.5%) fourteen, 415 (16.4%) fifteen, 139 (5.5%) sixteen and 54 (2.1%) seventeen years of age. In all contexts, samples were selected using a convenience method, and all came from the Mediterranean region in Southern Europe.

2.3. Instrument

The data collection instrument was an online questionnaire entitled "Digital Anomy. The use of digital technology and inappropriate behavior", comprising 39 items grouped into 5 dimensions: use, content and downloads, data management, relationships, and posts (Martínez-de-Morentin et al., 2018). In all the contexts studied, the protocol included an explanation of the instrument and any doubts participants had regarding the meaning of the statements or the response scale for each item were resolved. To adapt to our specific research aims, in the present study we used only the dimension referring to content and downloads, which comprises 6 items. These 6 items refer to: consumption of adult content (first item), copyright (second item), piracy (third item), and online actions without parental permission (fourth, fifth and sixth items). Participants rated the frequency with which they engaged in the different actions described in the items on a 4-point Likert-type scale: (1) never, (2) rarely, (3) often and (4) always. The Cronbach's alpha value obtained for the whole questionnaire was .66, and the value obtained for the Content and

downloads dimension was .76. The reliability value given is the result of the scores obtained on the questionnaire and includes all items under study. In general, values of over 0.6 indicate a reasonable level of internal consistency (Huh et al., 2006; Malhotra, 2008).

2.4. Procedure and data analysis

The management teams and students at the participating schools were informed of the study and agreed to take part in it. In accordance with the favorable report on the questionnaire issued by the Ethics Committee and that stipulated in Organic Law 3/2018, of 5 December, on the Protection of Personal Data and Guarantee of Digital Rights, students' informed consent was also obtained. The questionnaire was completed by students during class time, under the supervision of a teacher and a member of the research team. In all contexts, parental consent was obtained for all minors participating in the study. In the first item about access to adult content, we clarified that adult websites referred to websites containing pornography.

The SPSS Statistics program (version 24) was used to analyze the data gathered. Descriptive statistics were calculated for each variable and the means for independent groups were compared (t-test). Effect sizes (Cohen's d) were also calculated and an analysis of variance (ANOVA) was performed.

3. Results

In this section we present the results obtained in the study. First, we will present the descriptive statistics for risk behaviors referring to content and downloads (Table 1). Next, we will analyze these behaviors in accordance with gender (Table 2), age (Tables 3 and 4) and context (Tables 5 and 6).

Table 1 shows the results for risk behaviors referring to content and downloads. Three behaviors had a higher mean than the rest (minimum=1; maximum=4): the consumption of adult content ("I access adult content", M=1.59), failure to recognize copyright ("I copy work from the Internet without mentioning the author", M=1.69) and pirate downloads and consumption ("I download films, music, etc. from places on the Internet that are not allowed", M=1.80). With a difference of between 0.5-0.6 points between the two groups, a lower mean was found for inadequate behaviors linked to permission: "I download paid-for applications or programs without my parents'/teachers' permission" (M=1.19), "I use passwords belonging to my parents or other adults to access the Internet without permission" (M=1.13) and "I shop on the Internet without permission, using an adult's accounts or passwords" (M=1.08).

Table 1. Risk behaviors referring to contents and downloads: descriptive statistics												
	M	(SD)	Never		Rarely		Often		Always		Total	
			N	%	N	%	N	%	N	%	N	%
I access adult content (adult games, adult pages, etc.).	1.59	.95	1,653	66.3	416	16.7	219	8.8	207	8.3	2,495	100
I copy work from the Internet without mentioning the author.	1.69	.89	1,362	54.5	685	27.4	312	12.5	139	5.6	2,498	100
I download films, music, etc. from places on the Internet that are not allowed.	1.80	1.05	1,399	56.3	477	19.2	322	13.0	285	11.5	2,483	100
I download paid-for applications or programs without my parents/teachers' permission.	1.19	.60	2,210	88.6	155	6.2	64	2.6	65	2.6	2,494	100
I use passwords belonging to my parents or other adults to access the Internet without permission.	1.13	.46	2,258	90.4	169	6.8	45	1.8	25	1.0	2,497	100
I shop on the Internet without permission, using an adult's accounts or passwords.	1.08	.37	2,362	94.8	90	3.6	16	.6	23	.9	2,491	100

If we analyze the items in more detail in terms of the frequency with which participants engage in each behavior, two groups emerge: over 30% of participants' report having accessed adult content (item 1), having failed to respect copyright (item 2) and having engaged in digital piracy (item 3). In this group, 8.3% (n=207) said they always accessed adult content, 5.6% (n=139) said they always copied work from the Internet without mentioning the author, and 11.5% (n=285) said they always carried out illegal downloads.

In contrast, in relation to the three remaining items, referring to actions carried out without permission, around 90% of participants said they never engage in such actions: 88.6 % (n=2,210) said they had never

downloaded paid-for applications without adult permission, 90.4% (n=2,258) said they had never used passwords belonging to their parents or other adults to access the Internet without permission, and 94.8 % said they have never shopped on the Internet without permission, using an adult's accounts or passwords.

Table 2 shows the risk behaviors studied in accordance with gender. The results revealed that boys engaged in more risk behaviors than girls (with means of 1.49 and 1.32, respectively). This difference is statistically significant: p<.00; and its effect size (d=.37) ranges from weak (d=.20) to moderate (d=.50) (Cohen, 1988).

Table 2. Risk actions referring to contents and downloads, in accordance with gender							
Gender	N	Mean	SD	Mean standard error	t	Sig. (bilateral)	Cohen's d
Boys	1,214	1.49	.53	.01	9.30	.00	.37
Girls	1,233	1.32	.37	.01			

We also analyzed differences in accordance with age (Table 3). The results revealed that older participants engaged in more risk behaviors, with the mean increasing with age. The main difference was observed from age 12 to age 13, with an increase of 0.21 points, followed by the change from age 15 to age 16, with an increase of 0.19 points, and the change from age 14 to age 15, with an increase of 0.1. The statistics indicate that these differences are significant (p=.00; η^2=.20).

Table 3. Risk behaviors referring to contents and downloads, in accordance with age							
Age	N	M	SD	Standard error	ANOVA		
					F (between groups)	Sig. (between groups)	Eta squared
10	185	1.12	.23	.01	88.45	.00	.20
11	306	1.13	.24	.01			
12	493	1.23	.32	.01			
13	451	1.44	.46	.02			
14	432	1.52	.47	.02			
15	397	1.62	.48	.02			
16	136	1.81	.54	.04			
17	49	1.86	.58	.08			
Total	2,449	1.41	.46	.00			

We also analyzed the similarities and differences observed between different age groups. As shown in Table 4, four subgroups were identified. The first, with the lowest means, encompassed the youngest participants (10, 11 and 12 years of age). The second, with medium values, encompassed participants aged 13 and 14 years. The third, also with medium yet increasing values, encompassed those aged 14 and 15 years. And finally, the fourth group encompassed those aged 16 and 17, with higher means. The results therefore indicate that risk behaviors increase progressively between the ages of 10 and 17.

Table 4. Group means for the homogeneous subgroups, in accordance with age					
Age	N	Subgroup for alpha = 0.05			
		1	2	3	4
10	185	1.12			
11	306	1.13			
12	493	1.23			
13	451		1.44		
14	432		1.52	1.52	
15	397			1.62	
16	136				1.81
17	49				1.86

We can therefore say that boys (M=1,49) engaged in more risk actions linked to content and downloads than girls (M=1.32), and that risk actions increased gradually from age 10 to age 17 years, with older adolescents engaging in more risk actions. Consequently, older boys constituted the group that engaged in most risk actions. Table 5 shows risk actions linked to content and downloads in accordance with context. The highest mean was observed among participants from Attica (M=1.69), followed

by those from the Madrid Region (M=1.57) and Cantabria (M=1.51). In contrast, the lowest mean was observed among participants from the Autonomous Community of the Basque Country (ACBC), (M=1.29), followed by the Marche Region (M=1.38) and Navarre (M=1.39). These differences were statistically significant: F=31.76; p=.00; η^2=.07.

Table 5. Risk behaviors referring to contents and downloads, in accordance with context							
					ANOVA		
Context	N	Mean	SD	Standard error	F (between groups)	Sig. (between groups)	Eta squared
ACBC (Spain)	942	1.29	.40	.01			
Navarre (Spain)	378	1.39	.39	.02			
Galicia (Spain)	505	1.42	.47	.02			
Madrid (Spain)	109	1.57	.48	.04	31.76	.00	.07
Attica (Greece)	278	1.69	.57	.03			
Marche Region (Italy)	96	1.38	.46	.04			
Cantabria (Spain)	142	1.51	.47	.03			
Total	2,450	1.41	.46	.00			

Finally, we determined whether the association between the means for each context was statistically significant (Table 6). In the case of the ACBC, all cases were statistically significant (ACBC – Navarre, p=.00; ACBC – Galicia, p<.00; ACBC – Madrid Region p<.00; ACBC – Attica, p<.00), except for the association between the ACBC and Italy. In relation to both Navarre and Galicia, three cases were found to be statistically significant in each (Navarre – ACBC, p=.00; Navarre – Madrid Region, p=.00; Navarre – Attica, p<.00; and Galicia – ACBC, p<.00; Galicia – Madrid Region, p<.05; Galicia – Greece, p<.00). In the case of the Madrid Region, in addition to those statistically significant cases mentioned above (Madrid Region – ACBC; Madrid Region – Navarre; Madrid Region – Galicia), another case was also observed (Madrid Region – Marche Region, p<.05). The results for Attica and the Marche Region (p<.00) and Attica and Cantabria (p<.05) were also statistically significant. Finally, in addition to the associations mentioned above between the Marche Region and other contexts, the association between the mean for this region and that of Cantabria was not statistically significant. In general, the effect size ranged from weak (d=.20) to moderate (d=.50) (Cohen, 1988).

Table 6. Associations between the means of each context					
Context (I)	Context (J)	Difference between means (I-J)	Standard error	Sig.	Cohen's d
Autonomous Community of the Basque Country	Navarre	.10*	.02	.00	0.25
	Galicia	.12*	.02	.00	0.29
	Madrid	.27*	.04	.00	0.67
	Attica	.39*	.03	.00	0.88
	Marche Region	.08	.04	.58	
	Cantabria	.21*	.04	.00	0.52
Navarre	Galicia	.02	.03	.97	
	Madrid	.17*	.04	.00	0.41
	Attica	.29*	.03	.00	0.60
	Marche Region	.01	.05	1.00	
	Cantabria	.11	.04	.13	
Galicia	Madrid	.14*	.04	.03	0.30
	Attica	.26*	.03	.00	0.51
	Marche Region	.04	.05	.97	
	Cantabria	.08	.04	.37	
Madrid Region	Attica	.11	.05	.23	
	Marche Region	.19*	.06	.03	0.40
	Cantabria	.06	.05	.94	
Attica	Marche Region	.31*	.05	.00	0.56
	Cantabria	.17*	.04	.00	0.32
Marche Region	Cantabria	.13	.05	.29	

4. Discussion and conclusions

The risks linked to the contents accessed by adolescents are related to the activities they engage in most assiduously on the Internet. Accessing leisure and entertainment content is the action adolescents carry out most frequently using their mobile devices. The risk actions found to be most closely associated with this frequent use are accessing websites or platforms for consuming music, TV shows, films and games (Soler & Oriola, 2019). This finding is consistent with the results of the present study, in which the highest means were found for downloading music and films from places on the Internet that are not allowed,

followed by plagiarism and access to adult content. Similar to previous research reports, in our study, 30% of participants admitted to having accessed adult content, having failed to respect copyright and having consumed pirated content. In terms of accessing adult content, the contextual factors linked to adolescence, such as the exploration of one's sexuality, interest in risk-taking, pushing boundaries and disobedience, should be taken into account when interpreting the results. Lack of interest, the ease with which it can be done and the low likelihood of being found out are linked to the item on respecting copyright; and the results regarding pirate content may be interpreted as one of the consequences of the high cost of transmedia content prior to the emergence of VOD platforms. Our results contribute to shaping the theory of Internet-related risks among adolescents, specifically in relation to accessing content and information, as well as behavioral risks linked to actions carried out on different platforms and applications (Livingstone et al., 2011; Winstone et al., 2022). They also enabled the aims of the study to be fulfilled, providing insight into the frequency of risk actions, particularly in relation to content and downloads (pornography, plagiarism, piracy and permission), in accordance with gender, age and context.

The statistically significant difference ($p.<.001$) found in terms of gender (Boys=1.49; Girls=1.32) is consistent with that reported previously by other studies, which found that boys and young men access pornography and gambling sites to a greater extent and more frequently than their female counterparts (Ballester et al., 2019; Mateu, 2016). These gender differences may be associated with cultural stereotypes about men exploring sexuality through sexually explicit content, and about gambling as a socially and culturally accepted practice, identified as low risk (Andrei et al., 2019). When interpreting these results, it is also important to bear in mind the conclusions drawn by previous studies, which found that teenage boys tend to access adult content as a result of an intentional search, whereas teenage girls tend to access it through pop-up adverts on websites, and indeed, in some cases, this exposure has negative repercussions on their mood (Barbovschi et al., 2021). These differences in both use and access pathways should be taken into consideration in the design of education policies or digital literacy strategies focusing on appropriate Internet use. Interventions should include a gender perspective, since, as Estanyol et al. (2023) point out, males and females interact with the media in different ways, at least during adolescence. Educational policies should include strategies designed to raise awareness of the harm caused by risk behaviors during adolescence, to empower people to cope with any disagreeable experiences they may have had and to encourage them to explore the possibilities offered by the Internet in terms of personal growth and development (Buckingham, 2020, Torrecillas-Lacave et al. 2022). In other words, educational policies should seek to strengthen resilience to negative experiences involving the digital media (Livingstone & Stoilova, 2021).

In terms of age differences, the results are also consistent with those reported by previous studies (IFPI, 2021), which found that young people aged between 16 and 25 years are more likely to engage in risk actions linked to accessing online leisure and entertainment content. In terms of sexually explicit content, Barbovschi et al. (2021) and the ESPAD (2020) found that risk actions are more frequent among young people aged between 15 and 16 years. These results may be interpreted based on the characteristics of the different stages of adolescence proposed by Sullivan (1974): pre-adolescence, early adolescence and late adolescence, the last of which includes more traits inherent to adult life.

The results obtained in the present study regarding gender and age differences in the consumption of inappropriate content are consistent with those found by Lareki et al. (2017a), who observed the existence of two different adolescent user profiles in terms of the perceived risks involved: a majority group, made up of younger adolescents, mainly girls, and a minority group, made up of older adolescents, mainly boys. The latter group generally perceived inappropriate behavior in the use of technology as being less serious than the former. One may assume that viewing certain behaviors as less serious may result in adolescents engaging in them more frequently.

In relation to risk behaviors linked to engaging in activities without one's parents' or teachers' permission, it is worth highlighting that 10% of the participants in our study claimed to have downloaded applications or programs without permission, used passwords belonging to their parents or other adults to access the Internet without permission and shopped on the Internet without permission, using an adult's accounts or passwords. Although no prior research exists in Spain and Europe in relation to this specific type of action,

these results are associated, in percentage terms at least, with the frequency of access rates reported for the other items in this dimension. It may therefore be assumed that, at least in terms of frequency, all the risk behaviors analyzed in the present study are related.

Regarding context, a significant difference was observed by contexts (F=31,76; p.<.00; η^2=.07). In the post-hoc test, however, not all cases were statistically significant. Previous research in the European context (Andrie et al., 2019; Barbovschi et al., 2021 and Livingstone et al., 2011) has shown the need to develop education policies that, rather than being general in nature, respond to contextual needs, since all regions, even those located in the same country, have their own specific social-cultural dynamics, as indeed the results of the present study confirm. Furthermore, in the results reported here, the social-cultural similarities that exist between the Mediterranean regions of Europe were not found to have a statistically significant impact. Our results therefore indicate that despite the cross-cultural nature of the study, this variable does not explain the differences and similarities observed. One of the study's limitations is the convenience sampling method used to recruit the samples in the different contexts. Future research may wish to use the instrument with statistically broader samples in order to enable the results to be generalized.

Notes

[1] The harmonic mean sample size was used=175.771. The size of the groups differed. The harmonic mean of the group sizes was used. Type I error levels are not guaranteed.

Authors' Contribution

Idea, S.C., I.E.; Literature review (state of the art), S.C.; Methodology, I.E.; Data analysis, I.E.; Results, I.E.; Discussion and conclusions, S.C..; Writing (original draft), S.C., I.E.; Final revisions, S.C., I.E.

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