Onlife youth: a study of young people's user profile and their online behaviour

Juventud onlife. Estudio sobre el perfil de uso y comportamiento de los jóvenes a través de las pantallas

Juventude onlife. Estudo sobre o perfil de utilização e comportamento dos jovens através dos ecrãs

年轻人的在线（Onlife）生活。关于年轻人对电子屏幕的使用和行为研究

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Abstract

The internet has become the main vehicle of communication and self-expression for most young people. Forms of interacting, entertaining oneself and even disconnecting are being increasingly influenced by the hyperconnectivity that these technological devices entail. A quantitative study was conducted to explore the user profile, behaviour and risks involved in screentime in a sample of 2066 Spanish adolescents aged between 12 and 18. A bespoke validated questionnaire was used. Data were analysed via descriptive and inferential statistics. Outcomes reveal that adolescents use their smartphones during leisure time mainly to communicate and interact via social networks, specifically, WhatsApp and Instagram. As adolescents grow older, they spend more time online and share more personal information. There is, therefore, a need for an educational approach aimed at attending to young people's affective, relational and communicational processes to enable them to suitably handle their exposure on social networks.

Keywords: youth, adolescents, information and communication technologies, social media, behaviour

Resumen

Las pantallas se han convertido en la nueva forma de comunicación y autoexpresión de la mayoría de los jóvenes. Cada vez más las formas de relacionarse, de entretenerse, e incluso de desconectar, quedan atravesadas por la hiperconectividad que entrañan estos dispositivos tecnológicos. Con el objetivo de conocer el perfil de uso, comportamientos y riesgos en relación con el uso de las pantallas de los jóvenes españoles se llevó a cabo un estudio de tipo cuantitativo en el que participaron un total de 2066 jóvenes españoles entre los 12 y los 18 años. Para ello se utilizó un cuestionario diseñado y validado para esta investigación. Los datos se analizaron mediante la aplicación de pruebas estadísticas de tipo descriptivo e inferencial. Los resultados ponen de manifiesto que los jóvenes utilizan el smartphone principalmente en su tiempo de ocio para comunicarse y relacionarse a través de redes sociales, preferentemente de WhatsApp o Instagram. Conforme van creciendo los jóvenes pasan más tiempo conectados y comparten más información personal. En este sentido se precisa de una pedagogía encaminada a atender los procesos afectivos, relacionales y comunicacionales de la juventud que les permita gestionar de forma adecuada su exposición en las redes sociales.

Palabras clave: juventud, adolescente, Tecnologías de la Información y la Comunicación, redes sociales, comportamiento

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Resumo

Os ecrãs tornaram-se a nova forma de comunicação e autoexpressão para a maioria dos jovens. Cada vez mais, as formas de socializar, de se divertir, e inclusive de se desconectar, são afetadas pela hiperconectividade que estes dispositivos tecnológicos representam. Foi realizado um estudo do tipo quantitativo com o objetivo de conhecer o perfil de utilização, os comportamentos e riscos em relação à utilização de ecrãs pelos jovens espanhóis, no qual participou um total de 2066 jovens espanhóis entre os 12 e 18 anos. Para isso, utilizou-se um questionário concebido e validado para esta investigação. Os dados foram analisados mediante a aplicação de testes estatísticos do tipo descritivo e inferencial. Os resultados revelam que os jovens utilizam o smartphone principalmente nos seus tempos livres para comunicar e socializar através de redes sociais, de preferência, pelo WhatsApp ou Instagram. À medida que os jovens vão crescendo, passam mais tempo ligados e partilham mais informação pessoal. Neste sentido, é necessária uma pedagogia que vise abordar os processos afetivos, relacionais e comunicacionais dos jovens que lhes permita gerir adequadamente a sua exposição nas redes sociais.

Palavras-chave: juventude, adolescente, Tecnologias da Informação e da Comunicação, redes sociais, comportamento

摘要

电子屏幕已经成为了大部分年轻人沟通和自我表达的新方式。这些电子仪器所提供的过度连接越来越影响到我们的交往、娱乐甚至脱离的方式。为了了解西班牙青年对电子屏幕的使用、行为以及行为危险等情况，我们对2066 名年龄在 12 至 18 岁间的西班牙青年进行了一项定量研究。我们使用了为该研究设计并验证的问卷。通过描述性和推断性统计证据来对数据进行分析。分析结果显示年轻人主要在空闲时间使用智能手机，他们使用智能手机的主要目的是通过社交网络（较为突出的为 WhatsApp 和 Instagram）来沟通和交往。年轻人的在线时间逐渐变长，分享的个人信息也越来越多。因此在这方面，研究认为应该提出并实施新的教学法，辅助年轻人的情感、关系及沟通过程，从而帮助他们合理地规划投入到社交网络上的时间。

关键词: 年轻人、青少年、信息通信技术、社交网络、行为

Introduction

In the present day, it is difficult to escape the influence of information and communication technology (ICT), especially for the younger generation that was born and has largely been socialised in a technological world (Imbert, 2003). Such a large number of changes have been brought about by ICT – and in such a short period of time – that some authors contend that we are facing a re-ontologizing of our world (Floridi, 2014). Ways of being and living in society have changed. ICT has paved the way, both for the migration from a physical world to a virtual one, and for the creation of new settings (García del Dujo *et al.*, 2021). Spaces of normal coexistence have vanished, being replaced by new ones characterised by interrelatedness and new forms of interpersonal interaction that correspond to this new life oneline. This has led to a broadening and expansion of the relational spectrum (Álvarez Menéndez & Moral Jiménez, 2020; García del Castillo *et al.*, 2020; Moral & Fernández, 2019). According to the approach taken by Imbert (2003) and Baudrillard (1978), young people now find themselves in a hyperreality in which everything can be seen and, beyond seen, invented. The internet has created an intangible space, seemingly immaterial and flexible (Kim, 2022; Muñoz-Rodríguez *et al.*, 2021). We are no longer bound by the physical limitations imposed by the real world, as there are no walls, doors and windows enclosing specific online spaces. Instead, unlimited information, openness and transparency abounds. Nevertheless, this new reality need not be immaterial per se, but, instead, may form part of a new digital materiality (Sánchez-Rojo *et al.*, 2022) in which young people's ways of learning, interacting, entertaining themselves and even disconnecting are informed by the hyperconnectivity of these technological devices (Palacios Ramírez *et al.*, 2020). Adolescents have adopted new habits and routines with regards to communication and consumerism, resorting to the use of mobile devices, especially smartphones, as an ally and

facilitator for the development and extension of their social relationships. They also lean largely on these devices as a means for building identity and to showcase their tastes, emotions and interests (Ballesta Pagán *et al.*, 2021; Muñoz-Rodríguez *et al.*, 2020). As a result, the virtual setting has witnessed an evolution of *homo sapiens* into *homo deus,* in which people create their spaces according to their preferences, interests and identity (Kim, 2022).

Faced with this scenario, educational institutions have expressed their concern over the influence that the internet and, specifically, social media, have over young people (Torrijos-Fincias *et al.*, 2021). There is, therefore, a pressing need to design strategies that go beyond restricting screentime and usage. Edifying pedagogies are required to teach young people how to have a healthy and responsible relationship with technology and generate a critical mindset.

Nonetheless, in order to design such strategies, research is first needed in order to provide up-to-date information on adolescent use of technology and social networks. Hence, the present research seeks to understand usage durations and modalities in young people with regards to both technological devices and social media as a function of various sociodemographic variables, such as gender, age and location (rural – urban). Examination of the following is of particular interest: a) the profile of online use (devices, spaces, purpose and length of time); b) length of time dedicated to online activities during free time or leisure (hours spent per day); c) length of time dedicated to offline activities during free time or leisure (hours spent per day), and d) online use behaviours (profiles, posting of information and consumption of information).

Research background

Approaches taken to engaging in virtual settings depends on the availability of devices used to access them. Smartphones are the most widely used devices today, especially by younger generations (Ballesta Pagán *et al.*, 2021; Domoff *et al.*, 2021; García-Umaña & Córdoba, 2020; Martínez-Sánchez *et al.*, 2020).

The quantitative scope of the availability of these devices has been investigated from different perspectives. In Spain, according to the National Institute of Statistics - Instituto Nacional de Estadística (INE), data for 2021 show that mobile phone use is widespread among young people. Use of these devices increases with age, with a spike seen from the age of thirteen. This is reflected by the report's finding that over 90% of adolescents aged between 14 and 15 owned a mobile phone (Instituto Nacional de Estadística [INE], 2021). These figures coincide with those reported in other studies (e.g., Anderson and Jiang, 2018; Fernández de Arroyabe-Olaortua *et al.*, 2020; López-de-Ayala *et al.*, 2020; Martínez-Sánchez *et al.*, 2020), in which the use of technologies was rated as intensive, especially with regards to using such devices for the purpose of engaging with social media.

This new social reality, boosted by the ease of access to these technologies, is particularly defined by the breakdown and subsequent transformation of the way in which new spaces of communicating and socialising are occupied (Herrera *et al.*, 2017; Polo *et al.*, 2017). Certain scholars, such as Del Prete & Redon Pantoja (2020) and Mace (2020), state that, for adolescents, virtual ecosystems constitute privileged spaces of communication, coexistence and exposure. This facilitates connections between individuals and acts as a driver to seek constant recognition through the creation of discourses in any format which nurture and reinforce one's virtual presence. This online presence represents a way of 'being' and 'living' in the world for many individuals, serving as a platform to project one's feelings, emotions and thoughts. In this way, individuals invest a large amount of time in constructing their virtual image (Del Prete and Redon Pantoja, 2020; Torrijos-Fincias *et al.*, 2021), prompting the creation of new forms of identity, relatedness and

representation (Kirmayer *et al.*, 2013; Palacios Ramírez *et al.*, 2020). Accordingly, online social platforms represent settings that may potentially have an impact on psychological and social development, whilst also impacting identity building and development in adolescents (Del Prete & Redon Pantoja, 2020; Muñoz-Rodríguez *et al.*, 2020; Palacios Ramírez *et al.*, 2020). It is, therefore, no surprise that scientific interest in these virtual settings has considerably increased in recent years.

A number of studies conducted in recent decades have laid bare the versatility of the internet. In this sense, existing scientific literature has considered youth-technologies from different perspectives. Behaviour pertaining to different variables has been examined according to subject areas, such as the reasons or purposes behind online usage, activities undertaken within these ecosystems, effects arising from participation, inherent benefits and risks and, even, social media in itself (Capilla-Garrido *et al.*, 2020; Conde & Delgado, 2021; López-de-Ayala *et al.*, 2020; Muñoz-Rodríguez *et al.*, 2020; Torrijos-Fincias *et al.*, 2021).

Examination of these variables has revealed that young people are impelled to use social media, not only for communication and maintaining or forging ties (Martín-Martín *et al.*, 2020) but, also, for instructional and educational purposes, consuming and producing information, identity development, entertainment, and for filling free time (Brough *et al.*, 2020; Fernández de Arroyabe-Olaortua *et al.*, 2020; García del Castillo *et al.*, 2020; García Galera *et al.*, 2017; McConnell *et al.*, 2018; Torrijos-Fincias *et al.*, 2021; Valdemoros Dan Emeterio *et al.*, 2018). For example, outcomes reported by Ballesta Pagán *et al.* (2021) indicate that young people are drawn to the use of social media due to its potential for sharing content and communicating, in addition to its utility as a means for enlarging one's social circle (Domoff *et al.*, 2021; García del Castillo *et al.*, 2020; García Galera *et al.*, 2017). These authors concluded that the reasons for using

social media are not restricted solely to personal considerations and identity building. In fact, they also focus on satisfying social needs of an affective and relational nature. Young people also report using social media for learning in both academic and social settings (García Galera *et al.*, 2017; Ricoy and Martínez-Carrera, 2020; Romero-Rodríguez *et al.*, 2021).

In turn, studies such as those conducted by Fernández de Arroyabe-Olaortua *et al.* (2020) and López-de-Ayala *et al.*, (2020) reported a wide range of uses of different digital platforms in young people. In particular, young people used videogames and miscellaneous content, mainly, photographs and videos in which they themselves appear, followed by music, television series, films and pornography. Adolescents themselves are also often the creators of content that they then share with their followers via different applications. Research on this aspect has also revealed gender-related differences, whereby young females tend to be more willing to post their image on social media, whilst young males make greater use of online games (Masanet *et al.*, 2021; Tateno *et al.*, 2019).

The spontaneity with which adolescents use the internet has meant that, over the past few decades, young people are commonly assumed to be digital natives (Prenksy, 2001) when it comes to describing the ease with which they handle and use such technology. The reality, however, seems to be quite different. Young people do not have the critical capacity to manage their use of technological devices (Escofet Roig *et al.*, 2014; Rowlands *et al.*, 2008). One study has even reported that young people are not digital natives, precisely because of their lack of a critical mindset (Kirschner & De Bruyckere, 2017).

Although young people's use of social media does, indeed, provide opportunities and ways of interacting with other users, it also exposes them to certain risks (García del Castillo *et al.*, 2020). In accordance with studies conducted along this line of research (e.g., Castillo & Ruíz-Olivares, 2019;

Hernández-Pérez, 2019; Ramos-Soler *et al.*, 2018), risk is defined as the likelihood of young people coming to harm or experiencing some form of psychological, cognitive, emotional and/or physical distress due to problematic internet use, specifically, excessive or over intense usage. With regards to this latter issue and based on studies by scholars such as Walsh *et al.* (2018) and Sampasa-Kanyinga *et al.* (2019), more than two hours of screentime per day is to be considered by the present study as intensive use. Furthermore, risks posed to young people by the misuse of screentime may be intensified by different aggravating factors, such as age, gender and the invasion of privacy on social media (Castillo & Ruíz-Olivares, 2019; Ramos-Soler *et al.*, 2018; Thoilliez, 2021).

In this sense, the academic community has sought to address some of the risks and pitfalls arising from the misuse of technologies, such as inappropriate involvement in virtual settings. Some of the most commonly identified phenomena to arise from this research concerns different types of addictions (Benchea, 2021; Marzilli *et al.*, 2020) often pertaining to online gaming (Álvarez Menéndez & Moral Jiménez, 2020; Domoff *et al.*, 2021; García del Castillo *et al.*, 2020; Martínez-Sánchez *et al.*, 2020; Palacios Ramírez *et al.*, 2020; Vannucci *et al.*, 2020), cyberbullying (Domínguez-Alonso *et al.*, 2017; Anderson & Jiang, 2018; Garaigordobil & Larrain, 2020; García del Castillo *et al.*, 2020; Garmendia *et al.*, 2019; McConnell *et al.*, 2018; Savoia *et al.*, 2021) and FOMO (fear of missing out) (Kuss & Griffiths, 2017). In short, existing research deals with situations that expose young people to risks that may compromise their mental, emotional and physical wellbeing, identity development, academic performance, and/or the development of relationships (Arab & Díaz, 2015; Domoff *et al.*, 2019, 2020, 2021; Raudsepp, 2019; Vannucci *et al.*, 2109).

Method

A quantitative study with a non-experimental ex post facto design was conducted. The study aimed to uncover online use profiles in Spanish adolescents in consideration of age (12-15 vs. 16-18). For this, the following specific objectives were addressed:

1. Describe user profiles (frequency and motives) pertaining to screentime in Spanish adolescents. The following was proposed: H1. Statistically significant differences will exist in the user profiles of adolescents depending on whether they belong to the 12-15 or 16-18 age group.

2. Examine whether age is a factor related to increased risk of an excessive amount of screentime during leisure time. This leads in to the following secondary hypothesis: H2. Differences will exist between daily online time and time spent engaged in offline activities during leisure time. It is assumed that adolescents spend more time online. This will particularly be the case within the older examined age group and will, therefore, put this group at greater risk of excessive use.

3. Describe engagement in certain behaviours (use of several profiles, following influencers, sharing personal information) among adolescents when using social media. Specifically, the third hypothesis is formulated as follows: H3. Statistically significant differences will exist in adolescent behaviour on social media as a function of age, gender and location.

Population and sample

The present study involved 2066 Spanish adolescents, of whom 57.2% were female and 42.8% male, with ages ranging between 12 and 18 (M = 14.92, SD = 1.77). The sample was divided into two age brackets, with 55.4% aged 12-15 and 44.6% aged 16-18. With regards to location, 68.4% lived in an urban area or city, whilst 31.2% lived in a rural area or village.

Instrument

The "studies on the use of technology" questionnaire was used. This instrument was drawn up by project researchers (CONECT-ID. The hypoconnective identity of young

people and their perception of time in their digital leisure moments). All dimensions were defined from the results of a prior qualitative analysis (Muñoz Rodríguez, *et al*., 2020; Torrijos Fincias *et al.,* 2021). Prior to coding the instrument, a preliminary test was conducted with a convenience sample of 15 adolescents after securing the consent of their legal guardians. Following this, a final questionnaire of 19 items was produced. This questionnaire demonstrated satisfactory internal consistency (Cronbach's alpha = 0.713) according to the criterion applied by George Mallery (2003), whereby overall scores between 0.7 and 0.8 are considered acceptable.

Anonymous responses to this questionnaire were divided into three sections. The first corresponds to the rate of online use. Responses were given on a three-point Likert scale (1 = no use, 2 = limited use, and 3 = intense use). Responses to the second section were given along a four-point Likert scale (1 = no use; 4 = more than three hours) and pertained to the number of hours dedicated to leisure time activities. In this case, three items (school days, weekends and half-term, and school holidays) were divided into two factors (online activities and offline activities). Finally, a third group of items was responded to along a three-point Likert scale (1 = never happened to me; 3 = has often happened to me) which corresponded to motives for going online. Finally, three dichotomous response items were used to analyse different behaviours (using several profiles, following influencers and the sharing of personal information).

The questionnaire was converted into a Computer Assisted Web Interview (CAWI) using an online form. An online survey was especially appropriate for the present study due to both the subject matter and the target population (Niemi *et al.*, 2008).

Data gathering and analysis procedure

A sample was recruited from the target population. As the study's target cohort almost exclusively pertained to school attenders, data collection mainly pertained to a sample originating within the school context. According to official figures for the 2018-2019 school year provided by Spain's Ministry of Education, Culture and Sport, the net rate of the population aged 12-15 and schooled in Spain is almost 100%. Specifically, 96.0% of 16-year-olds, 89.8% of 17-year-olds and 79.5% of 18-year-olds are schooled in Spain.

Sampling was carried out in two stages and was stratified into conglomerates (Spain's autonomous communities grouped into four regions: centre, north-east, east and south) defined by different sampling points (secondary schools) and in consideration of three core variables (location [rural or urban], the school's socioeconomic standing [low, middle or high] and school oversight [state or privately funded]). The selection of schools followed an opportunity criterion related to the research team's network of institutional liaisons. This allowed quotas to be defined for the collection of sampling units by applying random criteria at each school. This ensured randomness in sample selection.

Fieldwork was undertaken on a continuous and uninterrupted basis, seven days a week, between September 2020 and January 2021, amounting to a sample of 2,720 units. With a view to removing incomplete or invalid data, the decision was made to apply screening and affixation criteria according to the target population's location, age and gender. The final data sample for the present study consisted of 2,066 units. Table 1 provides a summary of the main details of the data-gathering process.

Table 1. Survey factsheet

Survey type	Quantitative, anonymous, self-administered in electronic format, application of a structured questionnaire.
Universe	Population aged 12-18 living in Spain
Sample size	N = 2066
Sampling error	Approx. ±2.15% for a confidence level of 95.5% and p = q = 50, (2 sigma)
Instrument	Closed questionnaire with some open-ended questions
Pre-test	15 interviews
Sampling point	31 secondary schools, segmented by region, size of location and socioeconomic status of the region
Sampling procedure	Multistage sampling, stratified by conglomerates, with selection of primary sampling units (centres) in a proportional random manner and selection of final sampling units (individuals) in a simple random way with gender and age quotas

With regards to descriptive data analysis, frequencies and percentages were identified. The Kolmogorov-Smirnov statistical test (with the Lilliefors test for normality) was employed with the aim of examining the distribution of study data. A significant p values was produced ($< .005$) leading to rejection of the null hypothesis (H0). Thus, it was concluded that data did not follow a normal distribution.

Consequently, following suggestions made by scholars such as Dexter (2013) and Ríos and Peña (2020), data analysis was based on statistical techniques for non-normal samples (Mann-Whitney U-test for independent samples). Data were analysed using version 25.0 of the SPSS statistics package (licence provided by the University of Salamanca).

Table 2. Online user profiles

Profile of online users		Ages 12-15		Ages 16-18		TOTAL		χ^2	p-value
		N	%	N	%	N	%		
Which devices do you most use?	Mobile	1032	89.7	896	96.9	1928	92.9	493989	.000
	Tablet	155	13.5	77	8.3	232	11.2	504963	.000
	PC	558	48.5	441	47.7	999	48.1	528058	.716
	Console	236	20.5	98	10.6	334	16.1	479586	.000
Which services do you use most often?	YouTube	320	27.9	273	29.5	593	28.6	517236	.251
	WhatsApp	596	52.1	639	69.2	1235	59.7	431701	.000
	Instagram	506	44.1	617	66.9	1123	54.3	175.568	.000
	TikTok	417	36.3	250	27.1	667	32.2	462736	.000
	Facebook	4	0.3	15	1.6	19	0.9	494362	.000
	Twitter	54	4.7	145	15.7	199	9.6	374773	.000
	Telegram	11	1	9	1	20	1	516949	.279
	Snapchat	44	3.9	42	4.6	86	4.2	498306	.023
	Spotify	527	46	585	63.5	1112	53.8	425890	.000
	Online videogames	309	27	157	17	466	22.5	414460	.000
	Online betting	10	0.9	5	0.5	15	0.7	471864	.923
	Pornography	45	3.9	43	4.7	88	4.3	471864	.000
What do you mostly use the internet for?	Learning	619	50	618	50	1237	59.9	466374	.000
	Entertainment	1038	54.7	858	41.4	1896	91.5	455041	.000
	Social relationships	234	48.3	250	51.7	484	23.4	514014	.217

Results

With regards to the first objective, namely, uncovering online user profiles (see Table 2),

the main reason for going online was to have fun (91.5%). Analysis of the device use revealed that mobile phones were most commonly used (92.9%), whilst tablets were the least commonly used devices (11.2%). In terms of the most widely used applications, WhatsApp was number one (69.7%), followed by Instagram (54.3%). In order to examine whether statistically significant differences existed according to age group, the Mann Whitney test was conducted. Outcomes showed that, in the case of device use, statistically significant differences existed in relation to all examined devices, with the exception of the PC ($\chi2$ = 528058; p-value = .716). In the case of services, statistically significant differences existed in all cases, except for in relation to YouTube ($\chi2$ = 517236; p-value = .251), Telegram ($\chi2$ = 516949; p-value = .279) and online betting ($\chi2$ = 525433; p-value = .923). Finally, with regards to reasons for going online, statistically significant differences existed for all examined motives, with the exception of social

relationships ($\chi2$ = 514014; p-value = .217).With regards to the second objective and examining whether age influences the risk of reporting excessive screentime during leisure time (see Table 3), the majority of young people spent more than three hours per day engaged in activities that involve the internet during their free time (54.6%), particularly during the school holidays. Only 1.1% of participating young people stated that they did not use the internet during their free time, with those aged 12-15 reporting the lowest usage on a daily basis. Statistically significant differences did, therefore, exist in the time that young people dedicated to online activities in their free time according to age group. Overall, the younger age group (12-15) reported greater engagement that the older age group (16-18). This was reflected in daily screentime ($\chi2$ = 439196; p < .000), screentime at weekends and during half-term ($\chi2$ = 471879; p < 000), and screentime during the school holidays ($\chi2$ = 460063; p < 000).

Table 3. Leisure screentime

	Ages 12-15						Ages 16-18						Total	
	Hours online daily		Hours online at weekends and during half-term		Hours online during the school holidays		Hours online daily		Hours online at weekends and during half-term		Hours online during the school holidays			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
No use	32	2.8	7	0.6	14	1.2	4	0.4	2	0.2	4	0.4	63	1.1
Less than 1 hour	249	40.6	51	4.5	75	6.6	104	11.3	29	3.2	42	4.6	550	9.9
1-3 hours	614	53.5	383	33.8	273	24.1	527	57.1	244	26.6	145	15.8	2186	39.4
More than 3 hours	253	22	692	61.1	770	68	288	57.1	642	26.6	724	79.1	3369	54.6
Total	1148		1133		113		923		917		915		6168	100

With regards to offline leisure time activities (see Table 4), more than three hours a day was reported by most young people (50.8%), especially during the school holidays, whilst only 4.2% reported not engaging in these activities at all. Outcomes reveal that the percentage of young people who do not engage in offline activities is almost four times higher

than those who do not engage in online activities (4.2% compared with 1.1%). Finally, significant differences were found in the time spent on offline activities as a function of age group. Participants in the 12-15 age group reported higher engagement in these activities than those in the 16-18 age group. This was reflected in daily offline use ($\chi2$ = 501751; p < .005), engagement in offline activities at

weekends and during half-term ($\chi2 = 4448549$; p < .000), and engagement in such activities

during the school holidays ($\chi2 = 466374$; p < .000).

Table 4. Time spent engaged in offline activities during leisure time

| | Ages 12-15 | | | | | | Ages 16-18 | | | | | | Total | |
| | Offline hours daily | | Offline hours at weekends and during half-term | | Offline hours during school holidays | | Offline hours daily | | Offline hours at weekends and during half-term | | Offline hours during school holidays | | | |
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
No use	95	8.2	28	2.43	33	2.86	85	9.2	11	1.2	8	0.9	260	4.2
Less than 1 hour	293	25.4	109	9.47	76	6.6	260	28.1	61	6.6	44	4.8	843	13.7
1-3 hours	522	45.3	416	36.1	205	64.5	415	44.9	259	28	113	12.2	1930	31.3
More than 3 hours	237	20.6	577	20.6	818	52.2	161	17.4	586	63.4	750	81.1	3129	50.8
Total	1147		1130		1132		921		917		915		6162	100

With regards to the third objective, namely, identifying adolescent behaviour (use of different profiles, following influencers and the sharing of personal information) on social media (see Table 5), most participants reported following influencers (87%), whilst only 46.9% stated using different profiles and 48.4% reported sharing personal information (photos, address, hobbies…). With regards to differences as a function of age, gender, and location, firstly, statistically significant differences were found between the two age groups with regards to the sharing of personal information ($\chi2 = 375015$; p < .000) and using different profiles ($\chi2 = 465359$, p < .000).

Specifically, those aged 16-18 (64.3% and 51.3%) reported doing so more than those aged 12-15 (35.7% and 48.9%, respectively). Secondly, statistically significant differences were found as a function of gender with regards to the sharing of personal information ($\chi2 = 413703$; p < .000) and using various profiles ($\chi2 = 421573$, p < .000), with females stating that they shared more personal information (57.2%) and used more profiles (55%) than their male peers (36.8% and 35.9%, respectively). Thirdly, differences emerged between adolescents as a function of location with 87% of adolescents living in rural regions reporting that they followed influencers.

Table 5. Screentime behaviour

| Behaviour | Age | | | | Sex | | | | Residence | | | |
| | 12-15 | | 16-18 | | Female | | Male | | Rural | | Urban | |
	N	%	N	%	N	%	N	%	N	%	N	%
Use of various profiles	475	48.9	497	51.1	648	55	317	35.9	326	50.2	644	45.8
Sharing of personal information	411	35.7	591	64.3	674	57.2	324	36.8	331	51.1	670	47.3
Following influencers	1005	87.6	796	86.3	1039	88.2	754	85.6	566	87	1230	38.7

Discussion and conclusions

Present findings reveal that the process of communicating and interacting with the world

among adolescents is increasingly taking place online. In consideration of the first objective – describing online user profiles -, the most commonly used device by young people was smartphones. This coincides with findings reported in other similar studies (Anderson and Jiang, 2018; INE, 2021; Spanish Ministry of Education and Occupational Training, 2019; Osorio-Tamayo & Millán Otero, 2020). Young people mainly use this device for fun and entertainment during their free time and, accordingly, study participants reported using smartphones mostly as a means of accessing applications, such as WhatsApp and Instagram, that enable them to communicate with their peer group. This is in accordance with outcomes reported in previous conducted studies (Anderson & Jiang, 2018; Labrador Encinas *et al.*, 2018; Martin *et al.*, 2018; Martín-Martín *et al.*, 2020; Ohannessian & Vannucci, 2020).

In terms of the second objective, examining whether age is a factor related to the risk of excessive screentime, present findings reveal that screentime and online time increases with age during adolescence. This is consistent with findings reported by previously conducted studies (e.g., Castillo & Ruíz-Olivares, 2019; Cebollero Salinas *et al.*, 2022; Díaz-López *et al.*, 2020; Osorio-Tamayo & Millán Otero, 2020; Peris *et al.*, 2018). Although adolescents also stated spend some time engaged in offline activities, online activities occupied a large part of their available free time. This may constitute a risk factor in cases where adolescents do not possess the right tools for handling excessive screentime, as reported in other similar studies (García del Castillo *et al.*, 2020; Muñoz-Rodríguez *et al.*, 2020; Pastor *et al.*, 2022; Torrijos-Fincias *et al.*, 2021). As for the online behaviours demonstrated by adolescents, it should be emphasised that older adolescents share more personal information, with females tending to disclose more personal details on social media and using more profiles on social networks. Indeed, the fact that females tend to share more personal information online seems to be related to a higher risk of online bullying (Savoia *et al.*,

2021). This notion has been reinforced by a study conducted by Castillo & Ruíz-Olivares (2019) whose findings show that major risk factors related with online bullying were being female and having a smartphone from as early as the age of ten.

Present findings, therefore, reveal an aspect that has been little studied thus far, namely, that although most adolescents stated that they followed influencers, the majority of these individuals lived in a rural setting. This finding may be of interest for informing future research seeking to explore the extent to which influencers are preferred by young people living in the countryside.

It is clear that the internet and, especially, access to it via smartphones, has become the main vehicle of communication and socialisation for adolescents in their new way of living in an online world. The internet is no longer simply another accessory in the hands of young people but, instead, provides the setting, environment or context itself in which processes of enculturation and identity building are incorporated. At the same time, social media has become a *par excellence* space in which adolescents communicate and interact. For Castillo & Ruíz-Olivares (2019) and Labrador Encinas *et al.* (2018), in addition to being settings for socialisation, social media acts as a positive personal reinforcer of easy access. Messages, favourable comments and likes may be received and interpreted as immediate stimuli of a reinforcing nature. This, in turn, has a direct and significant impact on increasing screentime, with the knock-on effect of increasing the risks to which young people are exposed (Besolí *et al.*, 2018).

Modern pedagogy is charged with attending to these phenomena, specifically, by providing instruction for identifying and exploiting the potential of using these devices and applications whilst, at the same time, correcting potentially harmful actions and problematic screentime engagement. Education based on recommendations around the use of social media should, therefore, be

superseded by education that nurtures affective, relational, communicational and self-regulatory processes. In this sense, education must teach young people how to handle screentime exposure and learn self-control, helping them to understand that the boundary between online and offline is becoming increasingly blurred. This same education should also address the risks young people are exposed to online by encouraging responsible and ethical screentime. There is, therefore, a need to address this education from a holistic perspective, engaging not only formal schooling but, also, social and cultural agents and associations, as well as families themselves. Programmes are needed to prevent screentime misuse and enable young people to experience a healthy onlife and offlife existence, especially, at a critical period in their development.

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