Identification and Characterization of Social Network (SN) Profiles in Spanish University Students

Identificación y caracterización de perfiles de uso de redes sociales (RRSS) en estudiantes universitarios

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Abstract

This article examines how Spanish university students use Social Media (SM) platforms, which have become a natural means of communication and information for Generation Z due to the expansion of the Internet. The study involved 1,363 students from various fields of knowledge, and the questionnaire data were analysed using Exploratory Factor Analysis (EFA), Two-Step Cluster Analysis, and K-means. The study found three motivational uses related to self-esteem, perceived control, and family closeness. Four distinct profiles of SM use emerged, including professional contacts and information, communication with others, avoidance of self-identity, and an alternative profile with reduced SM use. These profiles were further characterized by the type and amount of time spent on SM platforms, field of study, sex, and academic year. The study found that female students in Economics and Law primarily use SM for personal contacts, while women in the first years of Human and Social Sciences and Nursing and Physiotherapy tend to use SM to avoid self-identity. Male students in the last years of Engineering and Theology mostly use SM for alternative contacts. Only LinkedIn stands out as a platform for professional contacts. Additionally, the study found that an evasive use of SM platforms is associated with low self-esteem, little perceived control over life, and weak family

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ties. This finding suggests that educational guidance should focus on improving the training provided to students to mitigate these issues.

Keywords: social media; user profile; higher education; self-esteem; perceived control; family.

Resumen

La generación Z está marcada por el nacimiento y la expansión de internet y las redes sociales (RRSS) suponen un escenario natural desde edades tempranas para comunicarse e informarse. Este artículo muestra perfiles de uso de las RRSS en estudiantes universitarios españoles. Se aplicó un cuestionario a 1363 estudiantes de diferentes áreas de conocimiento, de primeros y últimos cursos académicos. Se analizó la estructura subyacente del cuestionario a través de un Análisis Factorial Exploratorio (AFE) y confirmación de dicha estructura a través de Análisis Clúster bietápico y de K-medias. Aparecen tres usos motivacionales que se pusieron en relación con la autoestima, el control percibido y la cercanía familiar. Aparecen cuatro perfiles de uso de RRSS (contactos profesionales e información; comunicación con otros; evasión de la propia identidad y uno alternativo con uso reducido de RRSS), descritos según el tipo y el tiempo empleado de las RRSS, las áreas de conocimiento, sexo y curso académico. En contactos personales predominan mujeres estudiantes de Económicas y Derecho; en Evasión, sobresalen mujeres de primeros cursos de las áreas de Ciencias Humanas y Sociales y de Enfermería y Fisioterapia, y entre los alternativos destacan varones de últimos cursos de Ingeniería y Teología. En contactos profesionales solo sobresalen por el uso de LinkedIn. Un uso evasivo de las RRSS se asocia a una baja autoestima, poco control percibido de la vida y escasa cercanía familiar, hecho que puede alertar en la orientación educativa para mejorar la formación que se da a los estudiantes.

Palabras clave: redes sociales; perfil de usuario; educación superior; autoestima; control percibido; familia.

Introduction and objectives

Despite their short history, the Internet and social media are omnipresent in our lives, they have penetrated almost imperceptibly into our daily lives and their daily use is the subject of much relatively recent research. In this research framework, we define SSNRs as online services that allow individuals to a) have a public or semi-public profile within a bounded system, b) articulate a list of other users with whom they share a connection, and c) browse their lists of connections and those made by other users within the System (Boyd and Ellison, 2007).

Generation Z, those born between 1995 and 2010, also known as iGeneration, Gen Tech, Generation Online or Generation C (Connected, Changing, Computerised, Communicative) (Dolot, 2018), is undoubtedly the generation marked by the birth and expansion of the Internet at an increasingly accelerated pace (Schwieger and Ladwig, 2018) and for them the RRSS are a "natural scenario" from an early age (Martín-Critikián and Medina-Núñez, 2021).

Within the framework of the research, the adolescent and university population constitutes the fundamental sample niche, precisely because their forms of information and relationships have largely shifted to the *online* world as opposed to more traditional

forms of communication that occur in personal and direct contact in the *offline* world. In the midst of this virtual expansion, the main interests have focused on the frequency of use of social media and the motivational aspects for using them (Colás-Bravo et al., 2013; Díaz-Vicario et al., 2019; Kircarubun et al., 2020).

Since the appearance of Facebook in 2004, the social media industry has been developing faster and faster, with YouTube, Twitter, WhatsApp, Instagram and TikTok being among the most popular. According to Moreno (2021) in Spain, with a 27% increase in the number of social media users (more than 37 million Spaniards) in 2021, WhatsApp (89.5%) and YouTube (89.3%) are among the most predominant, followed by Facebook (79.2%), Instagram (69%) and Twitter (52.6%).

With the rapid growth of SSNRs, it is not surprising that their usage trends among university students continue to grow year after year (Hussain, 2012; Kaya and Bicen, 2016; Prendes et al., 2015). The rapid evolution of social media, as well as the way students use them to meet their academic and social needs, poses significant challenges and opportunities for higher education (Casey and Evans, 2017; Ritcher et al., 2022; Saini and Abraham, 2018). Apart from academic purposes, social media contribute to socialisation, enable them to exchange information in which they share common interests or activities, and allow them to be informed of the most varied issues that can occur anywhere on the planet (García and Fernández, 2022; Montaña-Blasco, 2019). But there is also a large literature that warns of the dangers posed by social media and where the terms "addiction" and "problematic use" occupy a large number of headlines in publications that associate social media with mental health, also in the university population (Díaz-Vicario et al., 2019; D'Urso and Zapulla, 2019; Hawi and Samaha, 2017; Hawk et al., 2019; Kircaburun et al., 2020; Malo-Cerrato et al., 2018).

In national and international research on social media profiles, there are numerous lines of work aimed at analysing the relationship between social media and psychological variables, such as self-esteem, anxiety, depression or the quality of family relationships. In Latin America, studies such as that of Moral-Jiménez and Fernández-Domínguez (2019) found that 11.25% of students between 15 and 22 years of age make problematic use of social media, with no significant differences between men and women. Conversely, low use of some social networks such as Facebook is associated with higher self-concept ratings (García-Murillo and Puerta-Cortés, 2020). Among other international studies, Yurdagül et al. (2021) found that problematic Instagram use is directly associated with depression and anxiety, and Hawi and Samaha (2017) found that self-esteem has a mediating effect between addictive use of social media and life satisfaction.

The importance of linking SSR to self-esteem lies in the fact that self-esteem is the balance between the real self and the ideal self. The greater the discrepancy between reality and ideal self, the higher the levels of anxiety and emotional reactions of shame. In a large study of 23,592 subjects, addictive use of social media was found to be related to low self-esteem and being female (Andreassen et al., 2017), and studies such as that of Errasti et al. (2017) found lower self-esteem among those who use Twitter than among those who did not have an account. In addition, research conducted in university samples reveals similar results to those found in adolescents. Tarazona-Luján (2013) found a negative relationship between frequency of Facebook use and self-esteem among university students, and among students addicted to social networks, lower self-esteem scores have been found when compared to non-addicted peers (Herrera-Harfuch et al.,

2010). In short, the scientific literature consistently indicates that people with lower self-esteem tend to make greater use of social networks in order to compensate for it (Blachnio et al., 2016; Gonzales and Hancock, 2011; Hawi and Samaha, 2017; Steinfield et al., 2008).

Another of the psychological processes linked to self-awareness and self-esteem, but which has been less studied in relation to social media, is self-efficacy or perceived control over one's life. The belief that efforts depend on one's own actions (internal locus of control) is associated with greater social competence (Páez et al., 2003) compared to those who believe that their fate is a matter of chance or a complex world (external locus of control). In line with Bandura's (1999) studies that associate self-efficacy with lower levels of stress, López Mora et al. (2021), in a study with young people aged 14-20, find that a greater feeling of self-efficacy correlates with less problematic use of mobile phones.

The link between the quality of family relationships and problematic use of social media has also been the subject of studies with samples of adolescents, where intrafamily communication, supervision or parental control have been postulated as relevant variables that mediate between the use of social media and good psychological adjustment, reducing involvement in cyberaggression behaviours (Ortega-Barón et al., 2017; Romera et al., 2021). Although it is ultimately considered that a good family climate can contribute greatly to preventing the dangers of social media, little is known about whether it continues to play a relevant role at the university stage.

In addition to describing the types of social media most used by university students and their frequency of use, the main objective of the article is to establish motivational uses of social media and relate them to significant elements of students' identity, such as self-esteem, perceived control and the perception of family closeness. We also aim to see if the student body

The university students can be classified according to the possible use profiles and by which elements these profiles would be characterised.

Research questions

Research Question 1.- Which are the social networks most used by university students and how much time do they spend on them?

Research Question 2.- What kind of motivational uses do they make of social media and how do these relate to self-esteem, perceived control and family closeness?

Research Question 3 - Are there different profiles of SSRN use among students and do they differ according to the type of SSRN and time spent using them, as well as by gender, academic year and subject area?

Method

The research was carried out using an ex-post-facto cross-sectional design and a quantitative methodology. The design is cross-sectional since the aim of the research is to analyse the types of social media most used by university students, their frequency of use, as well as to establish the motivational uses of social media and relate them to significant elements of the students' identity, such as self-esteem, perceived control and the perception of family closeness, and not to analyse the temporal evolution, which will be the subject of future research.

Sample

The sample consists of a total of 1363 undergraduate students at the Comillas Pontifical University in Madrid, with the first years representing 67.1% and the last years 32.9% (see Table 1). Students were selected from these years to ensure the representativeness of newcomers to the University and those who have been at the University for a long time, in order to diversify the student body in terms of their maturity and experiences in the development of their university studies. The average age is 20.2 years and a standard deviation of 4.28. If we analyse the gender distribution, we observe that there are 477 (35%) males and 886 females (65%). Information has been collected from students of degrees in the area of Human and Social Sciences (CHS; Social Work, Psychology, Education, International Relations, Translation and Interpreting): 34.1%; 18.9% men, 81.1% women; 60.9% first years, 39.1% last years), Engineering (ING; 14.9% (67.0%) men, 33% women, 64% first years, 34% last years), Economics (ECON; 17.2%; 37.4% male, 62.6% female; 76.2% first years, 23.8% final years), Law (DER; 19.1%; 34.2% male, 65.8% female; 65.8% first years, 34.2% final years), Theology (TEO; 2.5%; 82.4% male, 17.6% female; 85.3% first years, 14.7% final years) and Nursing and Physiotherapy (ENFFIS; 12.2%; 28.9% male, 71.1% female; 74.1% first years, 25.9% final years). We have considered the areas of study following the differentiation by faculties of the University where the sample was collected and understanding Human and Social Sciences as the study of human interactions, culture, society and human behaviour, having differential characteristics with respect to Law and Economics , although the latter two belong to the branch of Social Sciences.

Table 1.

Sample distribution.

Total		CHS	ING	TEO	ECON	DER	ENFFIS	Total
		465	203	34	235	260	166	1363
		34.1%	14.9%	2.5%	17.2%	19.1%	12.2%	100.0%
Sex	Men	88	136	28	88	89	48	477
		18.9%	67.0%	82.4%	37.4%	34.2%	28.9%	35.0%
	Women	377	67	6	147	171	118	886
		81.1%	33.0%	17.6%	62.6%	65.8%	71.1%	65.0%
Course	1º	283	130	29	179	171	123	915
		60.9%	64.0%	85.3%	76.2%	65.8%	74.1%	67.1%
	Latest	182	73	5	56	89	43	448
		39.1%	36.0%	14.7%	23.8%	34.2%	25.9%	32.9%

Instrument

For this research, a questionnaire has been applied that includes items related to the uses that young people make of social networks, based on a scale applied by the International Federation of Catholic Universities (FIUC) in 2012 to 17,000 university students from countries around the world (Guy-Réal, 2014) and to which some items have

been included to update the current uses of social networks.

The questionnaire also asks them about the social networks they usually use, such as WhatsApp, Instagram, Facebook, Twitter, Tinder, LinkedIn, Blog, YouTube, etc., and how much time they spend online with the following response options: Rarely (1); less than once a week (2); two to three times a week (3); less than two hours every day (4); two to three hours a day (5); more than two to three hours a day (6).

Following Robins et al. (2001), subjects were asked to what extent they consider themselves to have high self-esteem, with one item on a scale of 1 (very low) to 10 (very high). In addition, another item was added with a response range from 1 (no control) to 10 (total control) to assess the degree of self-efficacy or control that the subject has over the evolution of his/her life, as formulated in the initial studies of the *World Value Survey* by Inglehart (1998).

Finally, includes a scale on family closeness made up of 7 items that has been taken from the FIUC study, with which McDonald's Omega reliability =.84 is obtained and through the exploratory factor analysis (Principal Components) a single factor is obtained that explains 51.2% of the total variance.

Data collection and analysis procedure

The questionnaire was applied during the months of February-March 2021. The student body was selected by means of a non-probabilistic convenience sample within the framework of a project called Polaris, which analyses the cultures of university students in a broad sense. After approval by the university's Ethics Committee (ref. 21-10-2020), the academic heads of the different degrees were contacted to apply the questionnaires in class in *online* format. Participation was voluntary and confidentiality was guaranteed.

An Exploratory Factor Analysis (EFA) is carried out with principal component extraction method and Varimax rotation. Subsequently, a two-stage Cluster Analysis is performed to determine the optimal number of groups, and finally a K-means analysis.

To analyse the internal consistency of the SSR usage scale, McDonald's Omega (1999) is used since the scale of the items is ordinal and there are less than 7 response options. Pearson's correlation coefficient between the item and the total on the scale is estimated if the item is removed (r) and McDonald's Omega (1999) if the item is removed from the scale, to assess the appropriateness of each of the items. Correlations between the different dimensions proposed for the scale were also assessed.

To analyse criterion validity, Pearson's r correlations of young people's use of the Internet with self-esteem, perceived level of control and family closeness were also made.

Means are contrasted according to sex and course using Student's t test, Cohen's d to calculate the effect size and factorial ANOVA to analyse the interaction between sex, course and area of knowledge, together with eta2 to calculate the magnitude of the differences and Chi-square to associate qualitative variables. The assumptions of homogeneity of variances are analysed through Levene and normality with Shapiro-Wilk and non-parametric tests (Mann Whitney U and Kruskal-Wallis) are analysed when they are not fulfilled. Significant values were considered to be those where p<.05. IBM SPSS 26 software was used to perform the analyses.

Results

To answer the first research question, the most used social networks by university students are WhatsApp/Telegram (98%) and Instagram (92%), followed by Twitter (45%), Facebook (34%), TikTok (31%) and LinkedIn (24%). The least used are having a YouTube Channel (6%), Tinder (4%) or having a personal website or blog (2%). Of all the networks used, statistically significant differences (t= -3.64 p<.001, Cohen's d= 0.27) are only detected between men and women in the use of Instagram, more used by women (92%) than by men (88%), TikTok, which is much more used by women (39%) than by men (17%), while the YouTube channel is more frequent among men (9%) than among women (5%).

In terms of the time they say they spend using social networks, 71.8% spend more than 2 hours and 32.4% more than 3 hours a day. Only 2.6% do not use social networks every day (Table 2).

Table 2.

Frequency of use of social media.

	Frequency	Percentage
More than 3 hours a day, every day	442	32.4
2 or 3 hours a day, every day	537	39.4
Less than 2 hours per day, every day	349	25.6
2 or 3 times a week	19	1.4
Less than once a week	3	0.2
Rarely	13	1
Total	1363	100

Considering the second research question, in order to describe the profiles of SSRN users and based on the perception or opinion of young people on the use of SSRN, the aim is to look for differentiated patterns of behaviour.

To this end, firstly, in order to reduce and avoid redundant information contained in the 7 items used, a Factor Analysis was carried out, using the Principal Components method. Both the KMO (.69) and Barlett's test of sphericity (p=.000) recommend carrying out this Factor Analysis, so that it is possible to reduce the initial set of 7 items to three factors or components, managing to explain almost 62% of the original variance contained in , as can be seen in Table 3.

Table 3.

Exploratory Factor Analysis.

Items	Factors					
	Media	DT	F1	F2	F3	Communalities
1. They allow me to get to know the lives of other people, other places, other beings, other	2.91	0.83	.744			.592

	Mean	SD	F1	F2	F3	
experiences, that I would not get to know if it were not in this way.						
2. Thanks to them I can stay connected with the people I care about; be informed about what they do and share what I do.	3.38	0.77	.727			.551
3. It's a way of informing myself and keeping up to date with current affairs.	3.38	0.712	.543		.453	.502
4. I can adopt for a while the identity/identities that I cannot have in real life.	1.42	0.716		.844		.724
5. They allow me to experiment with different identities and possibilities in life without the risks and disadvantages of real life.	1.88	0.88		.747		.621
6. They serve as an escape from reality when I need it.	2.49	1.02	.443	.517		.525
7. Facilitates professional networking	2.55	0.94			.889	.82
Variance explained			23.34%	22.69%	15.89%	
KMO	.69					
Barlett's test for sphericity	Approx. Chi Square= 1048.142		p<.001			

Note: In F1, F2, F3, factor loadings above .40 are indicated.

The interpretation of the three retained factors is as follows:

- F1: Personal contacts and communication (PCC). All variables have positive factor loadings and are related to knowing and connecting with others and those closest to them (Items 1 and 2).
- F2: Avoidance (E). All factor loadings of the variables are positive and are related to acquiring new identities or escaping from one's own life (items 4, 5 and 6).
- F3: Professional Contacts and Information (CPI). The variables also have positive factor loadings with the factor, and they include everything related to the possibility of making professional contacts or being informed and keeping up to date with current affairs (Items 3 and 7).

For the subsequent analyses, the mean score of the items that make up each factor was calculated. McDonald's omega reliability was calculated using these mean scores, obtaining a McDonald's omega=.81. It is observed that the factor related to the avoidant use of social media lowers the reliability of the scale and obtains a correlation r=.30 with the rest, due to the fact that this scale cannot be considered as unidimensional. In order to check its validity, the correlation between the new constructs and the factors of the AFE has been estimated, resulting highly significant (p<.001) and with values higher than r=.87, so that its use basically reproduces the same behaviour found in the original factors.

On the other hand, we analysed the possible relationship between the three uses of social media and the variables self-esteem, perceived control and family closeness, Table 4.

Self-esteem does not correlate significantly with Contacts and Personal Communication or with Professional Contacts and Information, but does correlate negatively with Avoidance, with a low magnitude (r=-.15; p<.001). Perceived control does not correlate with Contacts and Personal Communication, but is statistically significantly and negatively correlated with Avoidance, although with a low magnitude (r=-.12; p<.001) and is statistically significantly and positively related to Professional Contacts and Information, although with an irrelevant magnitude (r=.06; p<.05). Finally, family closeness does not correlate with Professional Contacts and Information and positively with Personal Contacts and Communication, although the magnitude is very low (r=.074; p<.01). Finally, it correlates negatively with Avoidance, although the magnitude is also low (r=-.11; p<.001). Therefore, it stands out that the greater the use of social media for avoidance purposes, the less family closeness, the less perceived control and the lower self-esteem. Likewise, the use of social networks for personal contacts does not show a significant relationship with any of the variables analysed, while the greater the use of social networks for professional matters, the greater the degree of perceived control.

Table 4'.

Correlations between uses of social media and family closeness and perceived control of life.

	CCP	E	CPI
Family Proximity	.074**	-.109***	.050
Self-esteem	-.019	-.153***	-.004
Perceived Control life	.017	-.121***	.062*

Note. *p<.05, **p<.01, ***p<.001

In order to answer the third research question, using the three factors of the EFA, a Cluster Analysis was carried out to classify each student into groups that were different from each other, but with a high degree of internal homogeneity. To this end, firstly, a two-stage Cluster Analysis was carried out, which recommended establishing the division into four different groups or clusters. Based on this information, a K-means Cluster Analysis is carried out. Table 5 and Figure 1 show the mean scores in each of the clusters obtained.

Table 5.

Results of the Cluster Analysis.

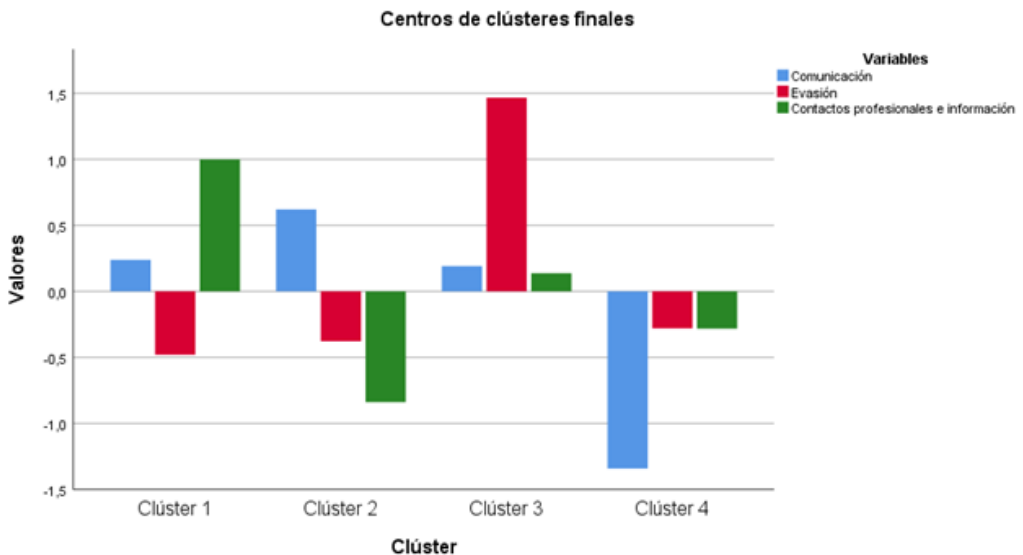| Clusters	N (%)	F1: CCP	F2: E	F3: CPI
1: Professional contacts and information	382 (28%)	0.238	-0.480	0.999
2: Contacts and Personal Communication	402 (29.5%)	0.620	-0.378	-0.839
3: Evasion	285 (20.9%)	0.191	1.466	0.137
4: Alternatives	294 (21.6%)	-1.342	-0.280	-0.283
N	1353			

Figure 1. RRSS usage profiles

Thus, the first cluster (C1) is made up of 28% of the sample and is characterised by high mean scores in the construct that accounts for professional contacts and information and by the lowest mean scores in Avoidance. This is a cluster in which they mainly make use of social media to establish professional contacts and stay informed. The second cluster (C2), comprising 29.5% of the sample, is characterised by high mean scores in the construct that accounts for interpersonal communication, with mean values below the mean in the other two constructs, especially in professional contacts and information. In short, this is a group in which the members use social media mainly for communication. The third cluster (C3) is characterised by high average scores in the construct that accounts for the attitude of escaping from reality, with average values in the other two constructs. It is made up of 20.9% of the sample and is a group in which its members use social media mainly to escape. The fourth and last cluster (C4), comprising 21.6% of the sample, is characterised by average scores below the mean in the three constructs, especially in the

communication construct. This is a group in which the people in it use social media moderately, with a lower intensity than normal, and use them very little to communicate.

Next, the 4 clusters will be described according to the type of SSR and time of use, in addition to the area of knowledge, gender and academic year (Table 6). Thus, the students in C4 (the alternative ones) have the highest percentage of men and the highest percentage of ING, TEO and ENFFIS students, and they predominate in the final years, being the ones who spend the least time on social networks, and the ones who use them the least (mainly Instagram, Twitter and TikTok). Meanwhile, C3 (the most evasive) is the second group with the highest percentage of women, mainly belonging to CHS and DER and with the highest percentage in the first year, being the ones who spend the most time on social networks and use them the most (mainly Instagram, Twitter and TikTok). In C2 (they stand out for their use focused on communication and for having personal contacts) is where the highest percentage of women are found, mostly students of ECON and DER, and in a lower percentage, in relation to the rest of the clusters, there are people belonging to ENFFIS. C1 (interest in finding information and having professional contacts) shows a fairly normal pattern of behaviour, similar to the overall average pattern, in which no noteworthy characteristic is to be highlighted, except for the greater use of LinkedIn. It can be seen that there are clear significant differences between the clusters according to Area of studies, gender, time spent, use of some of the social networks and, to a lesser extent (p=.021), according to academic year.

Table 6.

Description of the clusters.

		Cluster 1: majority use of IPCs	Cluster 2: majority use of CCP	Cluster 3: majority use of E	Cluster 4: Alternatives
N		382	402	285	294
	WhatsApp	98%	89%	99%	97%
	Instagram***	94%	95%	97%	79%
	Facebook	36%	34%	29%	33%
	Twitter***.	52%	46%	51%	33%
Social Networking	TikTok***	34%	34%	39%	15%
	Tinder+	3%	3%	7%	3%
	LinkedIn**	30%	21%	18%	24%
	Web or blog	3%	1%	1%	2%
	YouTube Channel*	8%	4%	9%	5%
Time spent[1] F=31.69*** gl=3;1359	Media	5.07	5.04	5.25	4.58
	Tip deviation	0.81	0.79	0.85	1.05
Areas Ji² :39.64** gl:15	CHS	34.8%	31.1%	40.4%	31.3%
	ING	15.7%	14.4%	9.5%	19.7%
	TEO	2.6%	2%	0.7%	4.8%
	ECON	17.8%	21.1%	16.5%	11.9%

	DER	16.8%	21.4%	20.0%	18.0%
	ENFFIS	12.3%	10.0%	13.0%	14.3%
Sex	Men	33%	27.9%	32.6%	49.7%
Ji² :38.17*** gl:3	Women	67%	62.1%	67.4%	50.3%
Course	First	66.8%	67.9%	73%	60.9%
Ji² : 9.76 gl:3	Latest	33.2%	32.1%	27%	39.1%

Note. +p=.10, *p<.05, **p<.01, ***p<.001;[1] Time spent is an ordinal variable ranging from 1 to 6, depending on the frequency spent from least to most.

Discussion and conclusions

In this study we have analysed the use of social media in a sample of university students. Beyond the consideration of whether its use has a positive or negative impact, there is no doubt that it is a dynamic and changing reality that is part of the everyday life of university students. In relation to the first research question, it can be seen that social media are aimed at an audience whose main objective is to establish connection and interaction between people. WhatsApp and Instagram are undoubtedly the most used by almost the entire sample, which is somewhat different from the data found in Spain in the same year (Moreno, 2021), which indicates that Instagram does not exceed YouTube and Facebook in terms of use, as in the present study. In this line, Dolot (2018) indicates that those who belong to this generation are increasingly connected, more computerised, more changeable and communicative. In this everyday life, the time invested in use exceeds two hours a day in just over 70% of the sample, although there is a not insignificant percentage, just over 25%, who invest less than two hours in social media, suggesting a student profile with a moderate use of networks. This generational description linked to their connectivity to social media shows that both teaching staff and university institutions face the challenge of managing their use in the classroom, when teaching staff tend to underuse them for academic purposes but which could give rise to new proposals for collaborative learning (Ritcher et al., 2022). Therefore, faculty need guidance on how their pedagogical approaches can be better aligned with the needs and skills of university students' use of social media (Casey and Evans, 2017).

In response to the second research question, given the wide variety of practices offered by social media, it is proposed to establish usage profiles that account for different patterns of behaviour in order to relate them to some variables of interest such as self-esteem, family closeness and perceived control. The factor analysis has extracted three factors that refer to different motivations for the use of social media. A first factor suggests that they are intended to meet and connect with others outside professional relationships; a second factor traces the possibility they offer to acquire new identities or to escape from reality; and a third factor is more linked to making professional contacts and keeping up to date with current affairs. Likewise, our data differ in the motivational uses highlighted in Colás-Bravo et al. (2013) whose questions are more in line with the pre-university stage with a mainly emotional exploration and which suggest a virtual space that allows feelings to be expressed through the perception that others have of them. Nor is there a clear relationship with the data found by Kircaburun et al. (2020) who associated

problematic use of social media with demographic factors and personality traits in university students. Although these authors report problematic use of social media, the difference in the variables used makes it difficult to compare with the avoidant use of social media shown in the present study.

The results found no significant relationships between the uses of social media and the psychological variables used, except for the avoidant use of social media. A lower sense of family closeness, lower self-esteem and lower perceived control (or external locus of control) were found to be related to the use of social media to escape or evade reality. Although we cannot establish a clear relationship between different motivations in the use of social media with problematic coping, our data suggest that this style of use is more related to negative psychological variables and would go in the same direction as the studies by Andreassen et al. (2017), Errasti et al. (2017) or Hawi and Samaha (2017). Ortega-Barón et al. (2017) and Romera et al. (2021) consider that a good family climate can contribute greatly to preventing the dangers of social media, although this factor is outside the context of universities, it can alert us to the family situation in some cases. In addition, the use of social media for professional connections, although of a small magnitude, is related to a greater perceived control over one's life. It would therefore be interesting to differentiate which motivational aspects in the use of social media are linked to potentially problematic uses from those that are not, and which can be inferred to have greater relevance for academic and professional life, along similar lines to the approaches of Díaz-Vicario et al. (2019) who try to link the problematic use of social media to the academic sphere.

In order to answer the third research question, a cluster analysis was carried out which allowed us to establish groups of students who were different from each other, but very similar to each other, taking into account the three previous usage factors. The results indicate four clusters in which, in terms of sample size, we find, in first place, the use of social media for personal contact and communication (29.5%), closely followed by professional contacts and information (28%), which is also characterised by a low score in avoidance. The cluster that could be more linked to strategies of escape or escape from reality would represent the smallest minority of the sample (20.9%), below the cluster we call "alternative", which accounts for 21.6% and which would be characterised by a low profile in all three factors, which could indicate a medium-low use of social media, especially to communicate with others.

When we characterise these four groups of students according to the type of social media and the perception of the time invested in them, as well as the areas of knowledge, gender and academic year, we find that the largest group, which focuses on personal contact and communication, has the highest percentage of women, especially in the faculties of Economics and Law. On the other hand, the group in which the predominant use of social networks for professional contacts or for information, LinkedIn being the most outstanding social network, does not stand out in any of the characteristics analysed, which shows the more generic or global profile of the students. The "alternative" group of students is characterised by a lower use of social media and is found among men in their final years and in areas of knowledge linked to Engineering, Theology and Nursing and Physiotherapy. Finally, the profile that we have seen that could be the most problematic, with especially high scores in avoidance use, are those who spend the most time on Instagram, Twitter and TikTok, are mostly in first years and belong to the areas of

Humanities and Social Sciences and Law. These data are similar to students who associate time and number of SSRs used with potentially negative effects (Primack et al., 2017; Vannucci et al., 2017).

In conclusion, social media are fundamental elements in the lives of university students and we have found usage profiles that establish differences between users according to the type and time of use of social media, gender, academic year and areas of knowledge. Among these profiles, avoidant use is associated with negative psychological variables such as low self-esteem, low perceived control of life and low family closeness.

In a context in which university lecturers may feel that the use of social media in the classroom is more of a rival or a distraction, a better knowledge of the profiles can help them to design and put at their service pedagogical strategies that take advantage of the potential of these tools, which also encourage collaborative learning, participation, creativity and communication. On the other hand, it can help to guide students on how to use social networks in a responsible, critical and ethical way, avoiding undesirable behaviour in the university context, such as an evasive attitude that distances them from their academic objectives, or misinformation if they do not acquire a critical sense.

In general, in these generations, social media are a "natural setting" and special attention should be paid to the dangers they pose, as this is a fact reflected in numerous publications. Following Bandura (1999) and more recently López Mora et al. (2021), it is suggested that people who have a high sense of self-efficacy are able to regulate stress better, so it would be necessary to work on the students' sense of self-efficacy as an aspect to be taken into account in teaching methodologies, assessment strategies and, in general, in the psycho-educational guidance processes offered in the university context, in order to mitigate the problematic uses of social media and facilitate their use for other more profitable practices.

Although the sample size was considerable, delving deeper into social media profiles would require a more heterogeneous sample to be able to generalise the results to Generation Z, which is why focusing on a single university institution is a limitation of the study. It should also be borne in mind that the data collected in the study are from the year 2021 and changes in the use of social media can vary enormously in a short period of time, with new social networks appearing and replacing the most widely used ones in a short period of time.

In future research, it will be necessary to make the sample more heterogeneous by analysing the uses of social media by students from different university institutions, adding other academic years and maintaining the different areas of knowledge. In this way, it may be of great interest to relate the SSR usage profiles to significant aspects of university life. Namely, to relate them to approaches to learning, to participation in university life, as well as to study habits and expectations of job self-efficacy.

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