



## Use of social networks by university students from a personal and educational sphere

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### ABSTRACT

Nowadays, Information and Communication Technologies (ICTs) are part of our lives. The aim of this paper is to learn how university students from different degree studies from the same university use the Internet and social networks for different aspects of their personal, family and educational experience. In order to achieve this, a sample of 906 university students, who are studying university degrees, has been used to collect data. The 58.5% of university students study degrees in Social and Legal Sciences, Arts and Humanities, and 41.5% of university students study Science degrees. A quantitative method was applied to enable description and comparison in a natural environment. A test that measures the use of social networks and the Internet, and their link to personal and educational aspects, was used to collect the information. The results, overall, show that university students have quite a positive valuation and perception regarding the use of ICTs in the performance of their daily duties. However, significant differences have been detected (IC 99.95%) regarding predictive variables depending, for example, on gender or age. In conclusion, the information retrieved contributes to the knowledge of university students' attitudes toward ICTs and shows how they use the Internet and online spaces.

**Key words:** Information technology, communication technology, Internet, social networks, higher education.

## El conocimiento del alumnado universitario por el uso que hacen de internet y las redes sociales

### RESUMEN

Las Tecnologías de la Información y la Comunicación (TIC) son parte de nuestras vidas. El estudio que presentamos pretende conocer la práctica que tienen los estudiantes de diferentes estudios de grado de una misma universidad acerca del uso de internet y las redes sociales en ámbitos de su experiencia personal, familiar y educativo. La muestra es de 906 estudiantes universitarios de diferentes titulaciones de grado. El 58.5% de los estudiantes estudian títulos en Ciencias Sociales y Jurídicas, Artes y Humanidades, y el 41.5% en Ciencias. Se aplica un método cuantitativo, de naturaleza descriptiva y comparativa, en situación natural. Para la recogida de información se utilizó una prueba que mide la utilización de las nuevas tecnologías y el uso en Internet y en las redes sociales virtuales. Los resultados indican que los estudiantes universitarios tienen una valoración y percepción bastante positiva respecto al uso de las TIC en su práctica y quehaceres diarios. Se comprueba que existen diferencias significativas (IC 99,95%) en variables predictivas relacionadas, por ejemplo, con el género o la edad. En conclusión, la información obtenida contribuye al conocimiento de las actitudes que muestran los estudiantes universitarios hacia las TIC reflejando su uso de Internet y los entornos virtuales.

**Palabras clave:** Tecnología de la información, tecnología de la comunicación, Internet, redes sociales, enseñanza superior.

## 1. Introduction

Over the last decade, society has endured the impact of Information and Communication Technologies (ICTs) which have triggered, among others, the transformation of a technological society into a society of knowledge, etc. (Coll & Monereo 2008; Cabero, Barroso, Cejudo & Cabrera, 2016). In 2015, the Spanish National Observatory for Telecommunications and the Information Society (ONTSI) stated that 98.5% of Spaniards aged between 16 and 24 years were the most active and demanding sector of the population regarding the use of Internet (Urueña, et al, 2015). This study reported that 73% of the Spanish population stated to be using social networks, with Facebook, Twitter and Instagram being the favourite among university students. Therefore, it is clear that the use of the Internet and social networks among university students has an impact on their life styles and their learning procedure.

Higher education cannot be alien to the role of technologies and the new communication models in society. This paper will show which applications are the most used by university students, the type of downloads they perform and the social networks they use to communicate with each other. This will lead to a reflection on the teaching methodology and the ability to adapt to the students. Taking this situation into account, the aim that has been set forth is to discover whether there are any significant differences in the use of the Internet and social networks by university students based on gender, age, number of hours they spend online, number of hours dedicated to studying, and whether it takes place at home or not.

### 1.1. *The University Student: Internet and Social Networks*

ICTs have awoken a huge interest from different areas of knowledge, whereby the social impact of the Internet in youth is one of the most studied aspects. Thus, the field of sociology has focused on the analysis of online socialisation procedures used among the youth. The field of psychology has studied online consumption habits and behaviour. The analysis of the legal regulations regarding the protection of the rights of underage people when using ICTs is the most studied aspect in the legal field, whilst education sciences have focused on studying the possibilities of including ICT in the academic sphere (Cloquell, 2015).

It must not be forgotten that twenty-one century students are huge consumers of new technologies, as it is a tool that can be used for socialisation, study, entertainment, etc. This situation divides society as there are those who do not trust ICTs, defending that an inadequate use of them could cause addiction, violence or depression (Arnaiz, Cerezo, Giménez & Maquiló, 2016; Smahel, Wright & Cernikova, 2015; Thege, Woodin, Hodgins & Williams, 2015). On the other hand, there are those who believe that the use of ICTs can benefit the field of knowledge, communication or social relations (Alfaro et. al, 2015; Carbonell & Oberst, 2015; García-Ruiz, Tirado & Hernando, 2018; Garrido, Busquet & Munté, 2016).

The life of university students is linked to the use of the Internet and social networks (Othman, Suhaimi, Yusuf, Yusof & Mohamad, 2012). Their use in the university sphere is a reality that has demonstrated its advantages for both students and lecturers. It favours the creation of spaces for socialisation (forums and chats) or the creation of academic knowledge exchange programmes (Cachia, 2008). Tur, Marín-Juarros & Carpenter (2017) carried out a study on the use of Twitter in Higher Education in Spain and the USA to demonstrate how this tool is appreciated by students in both countries. Spanish students considered it was a great application to find and share information, whilst the Americans thought of it as a tool that favoured interaction

and collaboration. There are many experiences that confirm the benefits of ICT in university education and how the lack of success is usually the lecturer's responsibility, especially due to their resistance to using ICTs (Dominguez & Sánchez, 2011; Mercader, 2019). University students consider that lecturers who use ICTs as a didactic resource are more efficient than those who resist to their use (Gastaldi, Pasta, Longobardi, Prino & Quaglia, 2014).

## 2. Method

### 2.1. *Design*

The method used in this research has a qualitative typology, with a descriptive-comparative ex-post facto design, in a natural situation. Hence, the behaviour, opinions, etc., of the youth have been measured and collected using questionnaires or self-reports so that the results can be generalised and comparable (Bisquerra, 2004; Del Rincón et. al, 1995; Hernández, Fernández & Baptista, 2010; Mateo, 1997; McMillan & Schumacher, 2005). The quantitative analysis has been carried out based on a sample of university students chosen randomly. Descriptive values have been used based on the objectives and theoretical model that has been set forth, as they are not manipulated experimentally, which is why they are not called experimental variables. Thus, one of the variables is called predictive and the other, criterial or dependent, in order to discover whether there is any relation between them. This does not mean that the predictive variable controls the criterial one. Therefore, on the one hand there are dependent variables (criteria), which are related to the use of the Internet and social networks and, on the other hand, predictive variables (controlled), which may be sociodemographic, sex and age, or personal, familiar and academic.

### 2.2. *Participants*

The sample is intentional, based on a simple random sampling. On the one hand, the youth are deliberately and intentionally chosen as key informants, as they are students who are studying university degrees. On the other hand, as these students only represent a small section of the society or a simple structure, they are arbitrary selected, in other words, they are chosen randomly. This way, as a simple random sample is used, the achievement of representative samples is ensured (Pérez, 2005; Rodríguez, 1991, 1993).

A total of 906 students from the University of Las Palmas de Gran Canaria participated in the study, 604 women, which represent 66.7%, and 302 men, 33.3%, all aged between 18 and 22 years old or above, with a mean age of 21 years. The 58.5% of university students study degrees in Social and Legal Sciences, Arts and Humanities, and 41.5% of university students study Science degrees. It has been considered to be a representative sample for finite populations, as in order to achieve a confidence level of 95%, a 50% heterogeneity and an error margin of 4%, a sample of 581 participants would be needed.

### 2.3. *Instruments*

To reach the proposed targets, a questionnaire with 22 items was used, divided into two sections. The first section was based on a set of questions taken from the Youth Life Style Questionnaire created by Martín, Rodrigo & Máiquez (2004), adapted from Mendoza, Batista-Foguet & Oliva (1994), which assesses the habits and lifestyles of adolescents and youth; it includes 10 items on the use of new technologies that ask about: the hours spent per day using the Internet, social networks, etc., as well as other activities

linked to the use of the Internet (searches, downloads, reading, etc.). The content of the questions can be evaluated based on the dichotomy scale (Yes/No) and multiple and open answers. The second part adapts Martín & Baez's (2012) Internet and social networks usage scale, which includes 12 items linked to behaviour in the use of these technologies. The questions are weighted on a Likert-type scale, with six possible answers, where: 1= Never; 2= Seldom; 3= Occasionally; 4= Sometimes; 5= Frequently; 6= Always. The questionnaire also contains questions regarding sociodemographic variables, such as gender, age, academic year, place of residence, etc.

2.4. Procedure

The SSPS 20.0 and AMOS 18.0 statistic packages were used to carry out the following analysis: a) univariate (descriptive): they provide an overall view of the sample used, at the same time that they reduce and summarise the features of the set of data; b) multivariate: it aims to identify the number and composition of the components required to summarise the points observed in the main variables (Lloret-Segura, Ferreres-Traver, Hernández-Baeza & Tomás-Marco, 2014). An exploratory factorial analysis is carried out to determine the main components that appear from the rotation of the variables; c) contrast of the factorial structure: in order to test the idealness and significance of the extracted factors or components, Barlett's test and the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy Description is applied (Cuesta, 1996); d) trustworthiness: Cronbach's Alfa trustworthiness test and the model adjustment trust test are used; e) contrast of averages: an Anova stadigraph is applied to measure and assess the possible differences of significant averages among the dependent and predictive variables being studied.

These results lead to the conclusion of whether the use of the Internet and social networks has differences based on the variables of gender, hours dedicated to these technologies, academic performance depending on number of study hours, etc. As a result, the second part of the applied test, the Internet and social networks usage scale, assesses the existence of these significant differences.

First of all, a factorial analysis of this Scale was performed by means of the method used to extract the most plausible data and the Varimax normalisation rotation method with Kaiser that provides the resulting factorial matrix. The data analysis highlighted

two factors that represent a total explained variation of 49.096%. Factor 1: dependence on the Use of Internet and social networks and Factor 2: Inadequate Use of Internet and social networks. The saturation or factorial weight of both factors were above .50. Image 1 represents the concentration of items based on the saturation from the rotated factorial solution. To this extent, the questionnaire has a high overall trustworthiness,  $\alpha = .88$ , in addition to the internal consistency of each of the two resulting factors which also provided a more than acceptable trustworthiness coefficient:  $\alpha = .84$  for the first factor and  $\alpha = .643$  for the second one.

3. Results

Overall, it can be appreciated that a third of students spend over 15 hours a day on the Internet, whilst the rest, approximately 75%, claim to use it less than that. Similar results are noticed for items regarding whether the women or men have Messenger. However, the values change when the question focuses on social networks and the tools and resources that are handled for this purpose. Thus, 93% of the sample (840 youth) declare using WhatsApp. Among the most frequent activities performed on the Internet, are downloads (70%) and watching videos (80%). Among the activities carried out while surfing the Internet, the most common are "searching for information" (29.8%) and "academic use" (27%).

Similarly, table 1 shows the factorial matrix and the factorial weights reached for both dimensions on the Use of Internet and social networks scale.

Table 1. Matrix and factorial weights based on the Use of Internet and Social Networks Scale.

Factors	Items	$\alpha$
1.- Dependence on the Use of Internet and social networks	11.- I get nervous when I am unable to go online	.585
	15.- I am "addicted" to social networks	.808
	17.- They say that I spend too much time chatting	.635
	18.- Social networks are essential for me	.772
	20.- I get excited when I go online	.637
	21.- I use the Internet whenever I can	.663
2.- Inadequate use of Internet and social networks	12.- I have accessed a website that promotes the consumption of drugs and alcohol	.591
	16.- I have accessed pornographic websites	.569
	19.- I have accessed violent website or websites that incite violence	.714

Extraction method: Maximum plausibility. Rotation method: Varimax normalisation with Kaiser.

Rotation converged with 2 repetitions.

Finally, the adjustment trust and error indexes of this factorial structure show that for the first group, the values were adequate, whereby CFI .98 and TLI .96; however, for the second group, the

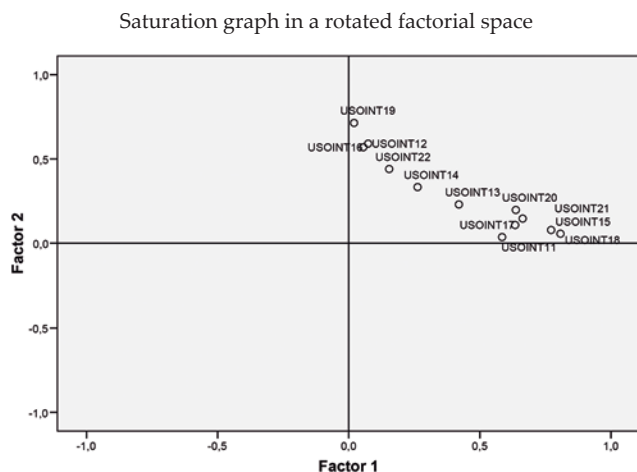


Image 1. Saturation graph in a rotated factorial space based on the Use of Internet and Social Networks Scale.

Table 2.  
Average punctuation, typical deviations and Anova of average differences of the factorial structure of the Use of Internet and Social Networks Scale based on gender.

		Men		Women		F	gl	Sig.*
		M	Dt.	M	Dt.			
Factor 1	Item 11	2.36	1.341	2.64	1.478	7.623	2.899	.006
	Item 15	2.35	1.323	2.57	1.466	4.800	2.895	.029
	Item 17	3.31	1.488	2.56	1.539	.001	2.895	.981
	Item 18	2.35	1.343	2.46	1.446	1.032	2.895	.310
	Item 20	2.31	1.221	2.16	1.223	2.810	2.896	.094
	Item 21	2.55	1.531	3.19	1.568	1.176	2.897	.278
Factor 2	Item 12	1.53	.990	1.25	.710	24.080	2.898	.000
	Item 16	3.65	1.468	1.53	1.029	627.416	2.895	.000
	Item 19	1.98	1.270	1.20	.621	152.325	2.894	.000

Scale of values: 1= Never; 2= Seldom; 3= Occasionally; 4= Sometimes; 5= Frequently; 6= Always

\*Bonferroni: The difference of averages is significant at level  $p < .05$  (bilateral)

Table 3.  
Average punctuation, typical deviations and Anova of average differences of the factorial structure of the Use of Internet and Social Networks Scale based on age.

		18 - 19 years		20 - 21 years		22 years or more		F	gl	Sig.*
		M	Dt.	M	Dt.	M	Dt.			
Factor 1	Item 11	2.44	1.332	2.61	1.480	2.63	1.535	1.873	3.895	.154
	Item 15	2.70	1.478	2.46	1.422	2.29	1.313	6.931	3.891	.001
	Item 17	2.84	1.618	2.52	1.489	2.22	1.339	13.421	3.892	.000
	Item 18	2.55	1.434	2.51	1.498	2.18	1.276	6.062	3.891	.002
	Item 20	2.25	1.203	2.28	1.304	2.10	1.174	1.638	3.892	.195
	Item 21	3.27	1.543	3.31	1.580	3.11	1.551	1.192	3.893	.304
Factor 2	Item 12	1.36	.826	1.25	.710	1.40	.910	2.392	3.894	.092
	Item 16	2.12	1.507	2.34	1.630	2.27	1.547	1.593	3.891	.204
	Item 19	1.49	.980	1.43	.901	1.45	.988	.312	3.890	.732

Scale of values: 1= Never; 2= Seldom; 3= Occasionally; 4= Sometimes; 5= Frequently; 6= Always

\*Bonferroni: The difference of averages is significant at level  $p < .05$  (bilateral)

results show that satisfactory adjustments such as RMSEA were .08 and WRMR, .81. Likewise, the analysis of the sample adequacy and the sphericity test confirm the trustworthiness of the mentioned factorial structure: a) the correlation matrix shows a determinant of E .035, which provides values close to 0; b) the Chi-square value, 188.20, has a significance of  $p = .00$ ; c) the same adequacy of the data reveals a punctuation of .856, which means that the factorial structure is satisfactory; d) the sphericity test confirms the applicability of the studied variables (2914.885; gl: 66;  $p = .000$ ).

Having stated the above, the results achieved from the Anova analysis that determines the existence or not of average contrasts, should the factors established with the studied predictive variables be compared, the existence of *statistically significant differences* could be confirmed (IC 99.95%) with the following variables:

Based on gender, there are significant differences as can be appreciated in table 2.

The comparative analysis shown in table 2 demonstrates that the second factor has average differences in the three items that confirm it. For instance, for question 16 "I have accessed pornographic websites", men claim to have accessed sometimes, as reflected in the average punctuation achieves, 3.65; whilst women, with an average of 1.53, declare to never or seldom have accessed such websites, whereby  $F_{2, 895} = 627.416$ ;  $p < .000$ . Likewise, the

results for items 12 and 19 are reiterated; men value the content of the items more than women, although the average punctuation for both genders were located in the most negative values of the scale,  $F_{2, 898} = 24,080$ ;  $p < .000$  and  $F_{2, 894} = 152.325$ ;  $p < .000$  respectively. Nonetheless, the first factor regarding the dependence on the use of these technological tools, two significant differences have been found: the results show that women show more addiction to social networks and the Internet than men.

Based on age, there are significant differences as reflected in table 3.

In this case, there are no significant differences between the dimension that refers to the inadequate use of Internet and social networks. Both younger and older youth share a similar perception. However, there are average contracts within the first factor. Younger students show a higher dependence on the use of social networks than older students (item 15:  $F_{3, 891} = 6.931$ ;  $p < .001$ ). The same happens for questions 17 and 18.

Based on the daily hours spent to the use of Internet and social networks, there are significant differences as illustrated in table 4.

The data collected in table 4 demonstrates that the youth that spend more hours using the Internet and social networks are those who state a higher allegiance to them. Thus, for item 21: "I use the Internet whenever I can", students that stated to spend

Table 4.  
Average punctuation, typical deviations and Anova of average differences of the factorial structure of the Use of Internet and Social Networks Scale based on the number of hours dedicated to the use of Internet and Social Networks.

		< 5 Hours		>15 Hours		F	gl	Sig.*
		M	Dt.	M	Dt.			
Factor 1	Item 11	2.35	1.327	2.91	1.595	12.505	2.894	.000
	Item 15	2.28	1.301	3.25	1.615	38.748	2.896	.000
	Item 17	2.28	1.360	3.33	1.723	41.206	2.898	.000
	Item 18	2.27	1.371	3.07	1.620	24.002	2.897	.000
	Item 20	2.11	1.180	2.47	1.330	6.527	2.893	.011
	Item 21	3.04	1.486	4.09	1.580	37.528	2.895	.000
Factor 2	Item 12	1.31	.779	1.53	1.098	5.120	2.896	.824
	Item 16	2.24	1.560	2.15	1.490	.297	2.898	.586
	Item 19	1.47	.971	1.34	.847	1.372	2.895	.242

Scale of values: 1= Never; 2= Seldom; 3= Occasionally; 4= Sometimes; 5= Frequently; 6= Always

\*Bonferroni: The difference of averages is significant at level  $p < .05$  (bilateral)

Table 5.  
Average punctuation, typical deviations and Anova of average differences of the factorial structure of the Use of Internet and Social Networks Scale based on the number of hours dedicated to studying.

		0 to 1 hour		2 to 3 hours		4 hours or more		F	gl	Sig.*
		M	Dt.	M	Dt.	M	Dt.			
Factor 1	Item 11	2.67	1.541	2.59	1.442	2.46	1.349	1.289	3.798	.276
	Item 15	2.66	1.432	2.59	1.431	2.29	1.430	4.789	3.794	.009
	Item 17	2.66	1.564	2.67	1.515	2.35	1.538	3.598	3.795	.028
	Item 18	2.58	1.412	2.49	1.423	2.26	1.420	3.209	3.795	.041
	Item 20	2.31	1.203	2.19	1.228	2.23	1.259	.633	3.797	.531
	Item 21	3.41	1.231	3.29	1.539	3.10	1.546	2.450	3.796	.087
Factor 2	Item 12	1.42	.914	1.31	.778	1.36	.856	1.166	3.797	.312
	Item 16	2.56	1.622	2.10	1.484	2.17	1.584	5.921	3.795	.003
	Item 19	1.64	1.423	1.45	1.074	1.37	.957	4.941	3.795	.007

Scale of values: 1= Never; 2= Seldom; 3= Occasionally; 4= Sometimes; 5= Frequently; 6= Always

\*Bonferroni: The difference of averages is significant at level  $p < .05$  (bilateral)

Table 6.  
Average punctuation, typical deviations and Anova of average differences of the factorial structure of the Use of Internet and Social Networks Scale based on whether they live at home.

		Live with parents		Don't live with parents		F	gl	Sig.*
		M	Dt.	M	Dt.			
Factor 1	Item 11	2.56	1.441	2.52	1.439	.087	2.895	.768
	Item 15	2.55	1.427	2.34	1.398	2.913	2.891	.088
	Item 17	2.61	1.542	2.37	1.429	3.422	2.891	.065
	Item 18	2.46	1.418	2.31	1.390	1.616	2.891	.204
	Item 20	2.22	1.238	2.18	1.162	.111	2.893	.739
	Item 21	3.22	1.223	3.28	1.544	.227	2.895	.634
Factor 2	Item 12	1.31	.795	1.47	.928	5.360	2.894	.021
	Item 16	2.12	1.423	2.63	1.499	15.230	2.891	.000
	Item 19	1.43	.941	1.58	1.037	3.165	2.895	.076

Scale of values: 1= Never; 2= Seldom; 3= Occasionally; 4= Sometimes; 5= Frequently; 6= Always

\*Bonferroni: The difference of averages is significant at level  $p < .05$  (bilateral)

less time on the Internet and social networks present an average of 3.04, whereby  $F(2, 895) = 37.528$ ;  $p < .000$ . For factor 2, average differences have not been described.

Based on the number of daily hours dedicated to studying, table 5 reveals that there are significant differences.

The data shows that there are average differences for items belonging to both factors. Students who state to spend 0 to 1 hour and 2 to 3 hours per day studying are those who achieve higher mean punctuations, 2.66 for the former and 2.67 for the latter ( $F(3, 795) = 3.598$ ;  $p < .028$ ).

No significant differences have been found regarding the perception that the youth have of themselves in terms of the relation between their academic performance and the dependence and inadequate use of the Internet and social networks.

Regarding whether or not the live with their family, there are significant differences, as appreciated in table 6.

The second factor presents significant differences, in specific, items 12 and 16. Those youth who declare to live away from their parents are those with the highest mean punctuations with regard to the other group. There are no significant differences among students who live with their family, whether with one parent or both.

#### 4. Conclusions

having analysed the factorial structure, a two-factor model has been found. The first refers to the dependence on using Internet and social networks whilst the second, the inadequate use thereof. The results of this paper show that there are significant differences in the use of the Internet and social networks by some university students based on their gender. It has been found that men access erotic and/or pornographic website with more frequency than women. Other research has coincided with these results, demonstrating that men are more careless when using the Internet than women (Carbonell, Fúster, Chamorro & Oberst, 2012). Regarding the dependence on the use of these tools, however, women show a higher adhesion to social networks and the Internet, in terms of addictiveness and connectivity, than men. To this extent, Beranuy, Fernández-Montalvo, Carbonell & Cova (2016) report that there is a trend whereby male students going online for entertainment purposes, whilst female students use it for social and academic purposes.

Regarding the use of the Internet and social networks based on the student's age, it has been found that there are no significant differences. They all state to avoid webpages that promote violence or the consumption of alcohol and drugs. Nonetheless, younger students show a higher dependency on the use of social networks than their older counterparts. Other research, such as the studies carried out by Secades-Villa, Calafat, Fernández-Hermida, Juan & Duch, (2014) or Fernández-Villa, Alguacil & Martín (2015), coincide with the results achieved in this research paper as they report that those students below the age of 21 years show more risky behaviours.

In addition, it has been discovered that students of both genders spend less than 15 hours per day using the Internet and Messenger in contrast to the use of social networks, whereby the number of hours increases. Arazuri, Ruiz, de Juberá Ocón, de León Elizondo & San Emérito (2018); and Artola & Gonzalez, (2018), also declare that social networks and the use of the instant messaging application WhatsApp have had an important effect on university students. The report published by Urueña, Valdecasa, Ballester, Ureña, Castro & Cadenas (2015) states that Facebook, Twitter and Instagram are university students' favourite online platforms. Furthermore, research carried out by Romero & Espi-

nosa (2015) coincided with the results of this paper, stating that WhatsApp has even substituted telephone calls among the youth.

According to this paper, the main use of Internet is for downloads, at a general level, and, particularly, for watching videos, although there are also those who acknowledge surfing the Internet to search for academic information. To this extent, Santamaría Mariscal, San Martín Gutiérrez, and López Catalán (2014) declare that the online tools related to group projects, online exams, online self-assessments, etc., are more motivational for university students and help them to achieve the learning objectives (Velandia-Mesa, Serrano-Pastor & Martínez-Segura, 2017). The expertise of Lara et al. (2018) is also confirmed, who states that the didactic use of WhatsApp improves the participation of university students when learning a foreign language.

The research carried out has found that, based on the number of hours spent daily to the use of the Internet and social networks, male students spend more time on networks than their female counterparts. Garrote-Rojas, Jiménez-Fernández & Gómez-Barreto (2018) agree that male university students download more files from the Internet and access social networks for entertainment purposes than female students. The outcome of this paper shows that university students acknowledge that people from their surroundings warn them that they spend too much time chatting. This situation has led to words such as cyber-addiction, online dependency syndrome, etc., understood as the inadequate use of the Internet or social networks to the extent that other aspects of their life are neglected, have become a social worry (Widyanto & Griffiths, 2006; Young, 2010; Griffiths (2010).

No significant differences have been found regarding the perception that the youth have of themselves in relation to their academic performance and their dependency and inadequate use of the Internet and social networks. Students who are aware of their low and/or medium academic performance, and those who state to have a high and/or very high academic performance, both consider that a lower or higher academic performance does not affect the dependency or inadequate use of the mentioned technological tools. As mentioned before, the university population spends a lot of time connected to online networks for academic reasons, going onto the Internet every day or two to three times per week (González, Herrero, Gutiérrez, Díez & García, 2018).

Finally, it is worth mentioning that those students who live away from their family home are more prone to access inadequate websites. This could mainly be due to the fact that they are not under the supervision of their parents. Frangos, Fragkos & Kiohos, (2010); Fernández-Villa, et al., (2015); and Durán & Guerra (2015) confirm this data by stating that those students who do not live with their family show higher behavioural risks towards the Internet and social networks. This study has revealed that there are no significant differences among students who live at the family home, independently of whether it is a single-parent or dual-parent household. Therefore, regardless of the number of parents living at home, the perspective related to dependency and the inadequate use of the Internet and social networks is analogous.

On the other hand, the results obtained will also allow teachers to identify which online tools motivate students the most and, therefore, to design didactic strategies that can improve the teaching-learning activity.

In order to minimise limitations, future papers should analyse what the effects or influence of using the technologies mentioned herein for academic and professional training could be, as well as studying the socio-emotional features involved to learn what are the variables at the base of the use of the Internet and social networks among the youth.

The results will allow lecturers to identify which online tools motivate students the most and, thus, design didactic strategies that could improve the teaching-learning activity.

Despite the sample used for this research paper being an adequate, trustworthy and representative sample of the university population, it would be convenient to work with stratified samples taken from university students in general.

These conclusions should be understood as a step and contributions towards a field of study of great interest, mainly, from the educational and social point of view and which, undoubtedly, are worthy of being approached from different perspectives. In addition, the set of data collected, opinions and behaviours that university students reveal towards ITCs, in general, are sensible, mature and realistic. Furthermore, it is believed that this attitude, basically positive towards these technologies, reveals that youth and ITCs could be a fruitful field so that any research carried out to this regard would be worthy, in particular, for the educational and training context.

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