

# Motivational correlates of use and satisfaction with Facebook

## Correlatos motivacionales del uso y la satisfacción con *Facebook* en jóvenes españoles

## Correlatos motivacionais do uso e da satisfação com o Facebook por jovens espanhóis

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### ABSTRACT

This study, linked to the theory of uses and gratifications, analyzes the reasons for using Facebook and contrasts how those motives predict behavioral and attitudinal patterns. The questionnaire used, applied to a sample of Spanish students (n=268), included a scale about the reasons to use Facebook, and information on the consumption and satisfaction with that social network. An exploratory factorial analysis revealed six motivational dimensions: entertainment, virtual community, relationships maintenance, coolness, companionship and self-expression; the first three are the main reasons of use. Moreover, the search for entertainment showed the stronger statistical relationship with satisfaction with Facebook.

**Keywords:** Social media, Facebook, uses and gratifications, media behavior, mediation analysis.

### RESUMEN

*Este estudio, vinculado con la teoría de usos y gratificaciones, analiza los motivos de uso de Facebook y contrasta cómo dichos motivos predicen patrones conductuales y actitudinales. Se emplea un cuestionario, cumplimentado por estudiantes españoles (n = 268), con una escala de motivos para utilizar Facebook, e información sobre el consumo y satisfacción con dicha red social. Un análisis factorial exploratorio extrae seis dimensiones motivacionales: entretenimiento, comunidad virtual, mantenimiento de relaciones, coolness, compañía y autoexpresión; siendo los tres primeros los motivos principales de uso. Además, el factor de entretenimiento tiene la relación estadística más intensa con la satisfacción con Facebook.*

**Palabras clave:** Redes sociales, Facebook, usos y gratificaciones, conducta mediática, análisis mediacional.

### RESUMO

Este estudo, baseado na teoria dos usos e das gratificações, analisa as razões para usar o Facebook e verifica o modo em que essas razões preveem padrões comportamentais e atitudinais. Foi utilizado um questionário, preenchido por estudantes espanhóis (n=268), com uma escala de razões para usar o Facebook, e informações sobre o consumo e a satisfação com esta rede social. A análise fatorial exploratória revelou a existência de seis fatores: entretenimento, comunidade virtual, manter relacionamentos, coolness, companhia e auto-expressão; sendo os três primeiros as principais razões para o seu uso. Além disso, o fator do entretenimento tem a relação estatística mais intensa com a satisfação.

**Palavras-chave:** Redes sociais, Facebook, usos e gratificações, conduta midiática, análise mediacional.

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## INTRODUCTION

Since its inception, social networking websites have become very popular. Thus, virtual communities like Twitter, Facebook, LinkedIn or MySpace have millions of users (Joinson, 2008) and appear in the rankings of most visited websites worldwide<sup>1</sup>. Young people are the largest consumers of these networks, since 90% of them commonly uses them (Colás-Bravo, González-Ramírez & de Pablos-Pons, 2013; Subrahmanyam & Lin, 2007).

We can define social networks as web-based services that allow individuals to build a public or partly public profile and establish a list of users with whom they share your information (Boyd & Ellison, 2008). In them, Internet users can relate to friends, family, acquaintances or strangers (Mazer, Murphy & Simonds, 2007; Murray & Waller, 2007) and the activities range from chat and make friends to exchange ideas and share knowledge on particular subjects (Lin, 2006; Raacke & Bonds-Raacke, 2008; Smock, Ellison, Lampe & Wohn, 2011).

Within these virtual communities, we must highlight Facebook, which currently ranks first among social networks and has more than one billion active users each month (Spiliotopoulos & Oakley, 2013). Facebook—which in addition to the usual services of other networks (chat, email, profiling, photo albums, interest groups, etc.) offers other features (online games, applications, etc.) (Cheung, Chiu & Lee, 2011)—emerged in 2004 as a tool of communication and interaction for Harvard students (Murray & Waller, 2007). However, it quickly spread to other universities and groups, becoming the most popular and used social network nowadays (Cheung et al, 2011; Dogruer, Menevis & Eyyam, 2011). In Spain, it is the fourth most visited website, with more than 18 million unique visitors each month<sup>2</sup>, and the most used social network: 94% of Spaniards who use a social network use it<sup>3</sup>.

In conclusion, since the advent of social networks, millions of users have integrated them into their daily everyday practices. Therefore, more and more researchers from different areas study Facebook and social networks in general, in order to understand the practices of users, their implications or the culture and significance of these websites (Boyd & Ellison, 2008). However, despite the increase in studies on these environments, Cheung et al. (2011) note that there is still little empirical research to try to deal with this new

kind of communication and interaction phenomena. Therefore, many authors point out the importance of investigating why people use these communication systems, which needs do they met through their use and the differences and individual features associated with each of the reasons for using them (Amichai-Hamburger & Vinitzky, 2010; Papacharissi & Rubin, 2000; Raacke & Bonds-Raacke, 2008; Ross et al, 2009; Ryan & Xenos, 2011; Sheldon, 2008). In short, it is about researching social networks from the perspective of uses and gratifications.

## THEORETICAL FRAMEWORK

The origin of the uses and gratifications theory is in the forties, although its greatest development occurred from the 1970s to the 1980s, thanks to the work of Katz, Blumler and Gurevitz (1986). Its basic question is why people expose themselves to the media (Rubin, 2009b; Smock et al, 2011); therefore, it takes the consumer or user of communication as its starting point and examines, lists and make typologies of the reasons associated for the use of different media and/or communication technologies (Katz, Blumler & Gurevitch, 1986; Stafford, Stafford & Schkade, 2004). From this theoretical approach, it is considered that individuals are active and use the media to meet a variety of needs (Flanagin & Metzger, 2001; Lee, 2009; Papacharissi & Rubin, 2000). In addition, it assumes that each person can use the media for achieving different motivational goals (García, López de Ayala & Gaona, 2012). Thus, “the combined product of psychological dispositions, sociological factors and environmental conditions that determines the specific uses of the media by members of the public” (Katz et al., 1986, p. 152).

During the seventies, the first attempts to categorize the reasons for exposure to different media emerged. In this context, the exposure motives are defined as “those reasons verbalized by the subjects to explain their media consumption” (Igartua & Humanes, 2004, p. 318). From this perspective, it is assumed that individuals can articulate their own reasons to be exposed to the media and, therefore, it is possible to collect accurate data on this subject by self-report scales (Rubin, 2009b). According to Sundar and Limperos (2013), empirical studies that take as their star-

ting point this theoretical approach has been applied to a wide variety of media and communication technologies: radio, newspapers, television, video games, mobile telephony, Internet, blogs of political content, MP3, YouTube and social networks like Twitter or Facebook. As a result, as the analysis progresses from traditional media to new media, there are new reasons for exposure. And some reasons, especially those related to social functions and information, tend to be more nuanced and specific.

In short, the uses and gratifications theory has recently joined the study of the Internet and social networks, as is the case of this investigation. This is because the research of social networks from the perspective of uses and gratifications can provide new insights into the motivational mechanisms that explain the behavior of users (Spiliotopoulos & Oakley, 2013).

#### STATE OF THE QUESTION: USES AND GRATIFICATIONS OF FACEBOOK

In recent years, many studies have tried to explore the reasons for using social networks and, in particular, Facebook (Alhabash, Park, Kononova, Chiang & Wise, 2012; Cheung et al, 2011; Joinson, 2008; Nadkarni & Hofmann, 2012; Raacke & Bonds-Raacke, 2008; Sheldon, 2008; Smock et al, 2011; Spiliotopoulos & Oakley, 2013; Urista, Dong & Day, 2009). Most of these studies take as their starting point the research about the motivations for the use of the media in general and, specifically, the Internet, because social networks satisfy needs similar to those of the Internet and traditional media. Thus, individuals resort to the media to get gratifications based on the content (information, entertainment ...) or in the experience of the process of using the media (e.g., playing with technology). These motivations would be common for traditional media, Internet and social networks. However, in the case of the latter two, and because of their interactive dimension, we can speak of a third type of motivation: social (communicating with friends, chat or meet people) (Joinson, 2008; Papacharissi & Rubin, 2000; Stafford et al, 2004).

Precisely, and focusing on the case of the Internet, Papacharissi and Rubin (2000) conducted a study to identify the uses and gratifications related to this media. To do so, they used a questionnaire that inclu-

ded a scale of reasons for using the Internet. Through factor analysis (with varimax rotation) they found five types of motivations: searching for information, entertainment, convenience, spending time and interpersonal usefulness. García et al. (2012), in a recent study using a self-administered questionnaire, which items subsequently underwent –just as in the above case– factor analysis, identified seven motivations for using the Internet: audiovisual entertainment, searching for information, personal relationships, economic orientation, pleasure, communication and learning. Notably, in this case, the authors found that age, gender and time use variables were associated with different types of motivations. Thus, women used the Internet to find information and communicate with their friends, while men resorted to this media to find new relationships, find economic orientation and play. This shows that individual variables, such as gender or age, can determine the motivational profile associated with a specific media.

In any case, the use of social networks is an experience qualitatively different from the generic use of the Internet (Alhabash et al., 2012). This is because the Internet offers a wide range of applications, each of which can meet different needs (García et al., 2012). Therefore, an empirical analysis of the specific motivations for the use of these virtual communities is necessary. In this sense, the maintenance of social relations is one of the main reasons to use these media. Thus, it has been found that most users resort to social networks because they are an efficient way to communicate and stay in touch with family and friends (Colás-Bravo et al, 2013; Raacke & Bonds-Raacke, 2008; Sheldon, 2008; Urista et al, 2009). However, despite that the most important motivation for using Facebook is the social connection, it has been observed that what predicts a more intense use of that social network is the status update (Alhabash et al., 2012).

It should be noted that research in this area have developed different scales to measure the reasons for using social networks. Kim, Sohn and Choi (2011) conducted a transcultural study with college students from the United States and Korea through a questionnaire designed to measure their motives for using them. From the factor analysis they identified five types of motivations: searching for friends, social support,

information, entertainment and convenience. Similarly, Gülnar, Balci and Çakir (2010) used a questionnaire with 45 items to examine the reasons for use of social networks. After a factor analysis they found seven underlying dimensions: narcissism and self-expression, *imbibe* from the media, spend time searching for information, personal profile, maintaining relationships and entertainment.

Moreover, in the specific case of Facebook, Papa-charissi and Mendelson (2011) conducted an online survey that combined items related to interpersonal reasons, media considerations, of new media and for professional growth. They conducted a factor analysis of main components with, as in previous cases, varimax rotation, meaning that it is assumed that the factors are orthogonal, i.e., they are not strongly correlated to each other (Igartua, 2006). They identified the following reasons for using Facebook: as entertainment to relax, expressing and sharing information, escapism, following follow a new trend, company, career growth, social interaction and spending time. In this case, spending the time and the dimension of entertainment to relax were the highlights for the reasons to use this social network. The scale of motives of Papa-charissi and Mendelson (2011) was subsequently used in the study of Smock et al. (2011) with similar results in terms of dimensions and scale reliability.

Joinson (2008) conducted a similar investigation, but through two studies: one prior, exploratory, with a questionnaire with open questions, and one with a closed instrument composed of 46 items, made from the previous study. Through factor analysis seven kinds of reasons for use were obtained: social connection (for example, "Facebook allows me to maintain relationships with people I do not see very often"), share identities ("Facebook allows me to organize or participate in events"), photographs ("Facebook allows me to be tagged in photos"), content ("Facebook gives me access to games"), social research ("With Facebook I can meet new people"), navigate on social networks ("see friends of others") and status update ("see what people have put as their status"). This motivations scale was also used later by Spiliotopoulos and Oakley (2013). Similarly, Nadkarni and Hofmann (2012) conducted a review of the scientific literature on the psychological factors

that contribute to the use of Facebook and established that its use is mainly determined by two basic needs: to belong, that is, achieve social acceptance; and self-presentation, i.e., continuously manage the impression given by oneself.

Finally, the study of Sheldon (2008), primarily basis of this research, conducted a survey among college students incorporating an instrument created from previous scales on the use of Internet and Facebook and collecting information on different reasons to use Facebook (measured on a 5-point Likert scale). The results of the factor analysis identified six factors (which accounted for 60% of variance): maintaining relationships (item example, "I use Facebook to communicate with my friends";  $M=3.64$ ,  $SD=1.25$ ), spending time ("I use Facebook to occupy my time";  $M=3.88$ ,  $SD=1.23$ ), virtual community ("I use Facebook to meet new friends";  $M=1.29$ ,  $SD=0.60$ ), entertainment ("I use Facebook because it is entertaining";  $M=3.23$ ,  $SD=1.19$ ), coolness ("Facebook makes me feel cool among my friends";  $M=2.12$ ,  $SD=1.19$ ) and company ("I use Facebook to feel less lonely";  $M=1.35$ ,  $SD=0.78$ ).

Usually there are differences in the use and motives for using Facebook based on gender and age (Joinson, 2008; Sheldon, 2008; Spiliotopoulos & Oakley, 2013). This circumstance is convergent with the assumption in the model of uses and gratifications, which states that the psychological and social characteristics of each individual motive and influence their media use. Thus, it has been found that younger users and women tend more to a social connectivity and maintaining relationships (Joinson, 2008), while men are more likely to develop new relationships or meet people (Sheldon, 2008).

Similarly, it has been found that the cultural context also plays a key role in shaping the reasons for the use of social networks, which in turn influences the usage patterns and attitudes towards these environments (Kim et al., 2011). For example, US users usually show a much larger number of friends in their social networks than Asian users (Alhabash et al., 2012). For this reason, many authors point out the importance of such studies in different countries and cultures, allowing to cross-culturally validate the model of uses and gratifications in the context of

research on the motivations associated with the use of Facebook (Nadkarni & Hofmann, 2012). And this is even more important considering that most of the research on Facebook has been made in the United States, even though most of its members come from other countries (Alhabash et al., 2012). Therefore, it is essential to investigate this social phenomenon elsewhere or in different cultural contexts, and it is this gap of previous research on the uses and gratifications of Facebook in the Latin American context which we aim to fill with this research.

The study contains the paper conducted in Spain from a convenience sample of young high school and college students. The participants completed a questionnaire created from previous studies (especially based on the work of Sheldon, 2008) on the behaviors, attitudes, satisfaction and reasons associated to the use of Facebook. Given the exploratory nature of the research, and the diversity of previous results on the motivational structure associated with Facebook, there are no specific hypotheses but the following research questions:

- RQ1. What is the motivational structure of the use of Facebook among Spanish young people surveyed?
- RQ2. What are the main reasons associated with the use of Facebook?
- RQ3. Are there gender and age differences in the motivational structure associated with the use of Facebook?
- RQ4. Do the reasons identified for the use predict behavioral and attitudinal patterns? In particular, what reasons are associated with greater satisfaction with Facebook?

## METHODOLOGY

### PARTICIPANTS

The study involved 268 students (123 undergraduate and 145 from college) who had a profile on Facebook. A 41.8% (n = 112) were men, 57.5% (n = 154), women and two people did not indicate this data (0.7%). The average age of respondents was 19.26 years (SD = 2.72; range: 16-35 years).

### DESIGN AND PROCEDURE

The study was based on a survey of a convenience sample (non-random), by collectively applying in the classroom (self-administered) a questionnaire on the uses of Facebook, with which it was intended to inquire about the habits of consumption and the reasons why young people use this network. To apply the survey different schools were contacted and, therefore, we had the collaboration of teachers and heads of the centers in which the questionnaire was administered.

### INSTRUMENT AND VARIABLES

The instrument used was a questionnaire developed specifically for this study, with reference to previous studies (and in particular, the work of Sheldon, 2008). The questionnaire was structured in three blocks.

The first section contained a scale to measure the *reasons for using Facebook*, composed of 20 items and made from the work of Sheldon (2008). The wording of the question was: "We would like to know the reasons or the reasons why you usually use Facebook; please, indicate your level of agreement or disagreement with each of the statements that follow." A 7-point Likert scale was used for each item, from 1, "strongly disagree" with the statement to 7 "strongly agree" (see scale items in table 4).

A second block of the questionnaire contained a series of questions to find out how the person used this social network. Thus we asked for the *number of Facebook contacts* ("How many contacts do you have on Facebook?"), the *daily consumption of Facebook* ("on any given day of the week, about how much time do you connect to Facebook?", encoded in minutes) and the *duration of a regular connection* ("every time you enter Facebook, how long do you spend in or you stay connected?", encoded in minutes).

The third block contained two questions to assess *satisfaction with Facebook*: a) "To what extent do you find rewarding your use of Facebook?" (From 0=unrewarding, to 10=very rewarding); b) "Imagine that Facebook suddenly disappeared, how much you would miss it?" (from 0=none, to 10=very much). Scores on both questions were strongly correlated ( $r(266)=.61$ ,  $p < .001$ ), so we combined them to create an index of satisfaction with Facebook ( $\alpha = .73$ ).

Finally, the questionnaire collected socio-demographic information on age, gender of the respondent and their study center.

**RESULTS**

**DESCRIPTIVE ANALYSIS OF THE USE AND SATISFACTION WITH FACEBOOK**

Table 1 shows descriptive information about the use of Facebook among respondents. As it can be seen, the average number of contacts is close to 175, being the most frequent value having 100 contacts (mode). On the other hand, respondents indicate connect to Facebook every day almost 80 minutes (1 hour and 20 minutes) on average, and recognize that the average connection usually lasts around 20 minutes. Given these data, we could infer that the respondents would be connecting to Facebook around four times a day. Finally, satisfaction with the use of Facebook shows a value of 4.15, below the theoretical statistically significantly midpoint of the scale, which corresponds to the value 5 ( $t(267)=6.35, p<.001, 95\% \text{ CI } [-1.10, -0.58]$ ).

Table 2 shows the correlational results where the association between the variables of use and satisfaction with Facebook is analyzed. The number of contacts is positively associated with the intensity of use of Facebook (both the time spent each day and the duration of the connection) and with satisfaction. Similarly, it is observed that all indicators of use considered are associated with satisfaction, although the time spent each day on Facebook is the variable that shows a higher correlation ( $r(252)=.43, p<.001$ ).

We conducted a multivariable linear regression analysis in which we included as a criterion variable satisfaction with Facebook and as predictor variables, the number of contacts, the number of minutes a day using Facebook, the duration in minutes of a regular connection to Facebook and the socio-demographic variables of gender and age (table 3). The regression model was statistically significant ( $F(5, 220)=13.48, p<.001$ ), noting that the predictors factors considered explained 21.7% of the variance in satisfaction with Facebook ( $R = .48$ , adjusted  $R^2= .217$ ). As shown in table 3, the variables with a statistically significant

Table 1. Descriptive data on use and satisfaction with Facebook

	N	Mean	Mode	SD	Minium	Maximum
Nº of contacts on Facebook	240	173.30	100	135.63	0	1,007
Nº of minutes you connect to Facebook	254	79.41	60	74.69	0	480
Nº of minutes of a usual connection to Facebook	260	19.46	10	16.19	0	120
Satisfaction with Facebook	268	4.15	2.5	2.18	0	10

Source: Own elaboration.

Table 2. Pearson correlations between indicators of use and satisfaction with Facebook

	Minutes/Day	Minutes/ Connection	Satisfaction with Facebook
Nº of contacts on Facebook	.28 ***	.12 *	.24 ***
Nº of minutes you connect to Facebook		.17 **	.43 ***
Nº of minutes of a usual connection to Facebook			.19 ***

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

Source: Own elaboration..

Table 3. Socio-demographic factors and use predictors of satisfaction with Facebook (multiple linear regression analysis)

Predictors	Tolerance	$\beta$	$t$	$p$
Gender (0 = man, 1 = woman)	.95	.08	1.39	.164
Age	.99	.14	2.45	.015
N° of contacts on Facebook	.91	.12	1.99	.047
N° of minutes/day of use of Facebook	.85	.35	5.49	.000
N° of minutes/usual connection to Facebook	.95	.10	1.69	.091

Source: Own elaboration.

Table 4. Factor analysis of the main components (varimax rotation) of the scale of reasons for using Facebook

Factors (scale items)	Factor loading	Explained variance	$\alpha$
<i>Entertainment (M = 3.91; SD = 1.31)</i>		14.76	.82
"To have a good time"	.85		
"Because it is entertaining"	.83		
"To occupy my free time"	.64		
"Because I enjoy connecting to Facebook"	.62		
"For spending time when I am bored"	.57		
<i>Virtual community (M = 4.01; SD = 1.42)</i>		13.10	.79
"For viewing photos / videos of other people"	.88		
"To view the profile of other people"	.81		
"To upload photos or videos"	.73		
"To post on my friends' wall"	.42		
<i>Coolness (M = 1.86; SD = 1.00)</i>			
"Because it makes me look cool among my friends"	.84		
"Because it is cool"	.77		
"To make new friends"	.62		
"To not feel alone"	.59		
<i>Maintaining relationships (M = 4.43; SD = 1.74)</i>		12.28	.85
"To communicate with my friends"	.90		
"To stay in touch with my friends"	.88		
"To send a message to a friend"	.80		
<i>Company (M = 2.36; SD = 1.31)</i>		8.70	.56
"When I do not have anyone to be with or who to talk to"	.76		
"To find company"	.68		
<i>Self-expression (M = 3.27; SD = 1.66)</i>		8.28	.64
"To express my views on political or social issues"	.82		
"To publish information about my personal interests"	.72		

Source: Own elaboration.

relationship with the satisfaction with Facebook were age ( $\beta = .14, p < .015$ ), the number of contacts ( $\beta = .12, p < .047$ ), and the level of daily consumption or usage time of Facebook ( $\beta = .35, p < .001$ ).

#### REASONS FOR USING FACEBOOK

In order to contrast the motivational structure associated with the use of Facebook, we conducted a factor analysis of the mail components (with varimax rotation) on the 20 items which of the scale to measure the reasons for using Facebook. The analysis extracted six factors that explained 70.05% of the variance. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy showed a value of .80 and Bartlett's test of sphericity was statistically significant ( $\chi^2(190) = 2043.56, p < .001$ ), indicating that the information provided by the analysis is of quality and relevant.

Table 4 shows the factors identified by factor analysis, the values of internal consistency (Cronbach's Alpha) and the descriptive data (median and standard deviation). It is noted that the three motives considered by respondents as the most important to use Facebook as motivational dimensions are: maintaining relationships ( $M = 4.43$ ), virtual community ( $M = 4.01$ ) and entertainment ( $M = 3.91$ ). Similarly, the less relevant reasons are those with a lower average: coolness ( $M = 1.86$ ), company ( $M = 2.36$ ) and self-expression ( $M = 3.27$ ).

We also contrasted whether there were gender differences in the reasons for use of Facebook. Statistically significant differences were only observed in the reasons for entertainment ( $t(258) = -3.94, p < .001$ ) and virtual community ( $t(245) = 4.19, p < .001$ ). In both cases women were looking in Facebook, to a greater extent than men, for entertainment and to develop a sense of virtual community. On the other hand, no statistically significant association between age and the reasons for use of Facebook (in all cases,  $p > .150$ ) was observed.

#### REASONS FOR USING FACEBOOK AND BEHAVIORAL AND SATISFACTION VARIABLES

To answer the research question 4, four multiple linear regression analysis were conducted, one for each criterion variable considered: the number of contacts in Facebook, daily consumption of Facebook (in minutes), the duration of a regular Facebook connection (in minutes) and satisfaction with Facebook. All analyzes

were made using the six reasons identified by factor analysis as predictive variables, plus gender and age as control variables (table 5).

Regression analyzes showed that exposure reasons (along with gender and age) accounted for between 5% and 27% of the variance of the behavioral and satisfaction criteria considered. The number of contacts ( $R = .35$ , adjusted  $R^2 = .09, p < .001$ ) was only associated with the coolness factor ( $\beta = .29, p < .001$ ). Second, the daily consumption of Facebook in minutes ( $R = .41$ , adjusted  $R^2 = .14, p < .001$ ) was explained by the motivations of entertainment ( $\beta = .22, p < .01$ ), coolness ( $\beta = .20, p < .01$ ) and self-expression ( $\beta = .15, p < .05$ ). Third, the time in minutes that a connection to Facebook usually lasts ( $R = .30$ , adjusted  $R^2 = .05, p < .01$ ) was explained by entertainment ( $\beta = .22, p < .01$ ) and self-expression ( $\beta = .16, p < .05$ ). Finally, satisfaction with Facebook ( $R = .54$ , adjusted  $R^2 = .27, p < .001$ ) showed a statistically significant positive association with seeking entertainment ( $\beta = .42, p < .001$ ) and use Facebook to feel part a virtual community ( $\beta = .11, p < .05$ ).

#### MEDIATION MODEL

Regression analyzes indicate that the main predictor of satisfaction with Facebook was the time devoted each day to use that social network (table 3). Furthermore, we observed that the reasons for using Facebook also predict greater satisfaction (table 5). The last issue analyzed was to what extent these motivational variables mediate the relationship between consumption time and satisfaction with Facebook, which would allow reaching a more detailed analysis of the processes that explain this satisfaction.

A mediation model is a method of statistical analysis that can answer the question of how much and how a given predictor transmits its effect on a criterion variable. To carry out this mediation analysis we used the macro PROCESS for SPSS created by Hayes (2013). This procedure calculates the direct, indirect and total effects. In these analyzes, the direct effect quantifies the effect of the time of daily consumption of Facebook on the satisfaction with this social network when statistically controlling the mediating variables (in this case, the reasons for exposure to Facebook). The indirect effect quantifies the effect of the time of daily consumption of Facebook (predictor) on the satisfaction

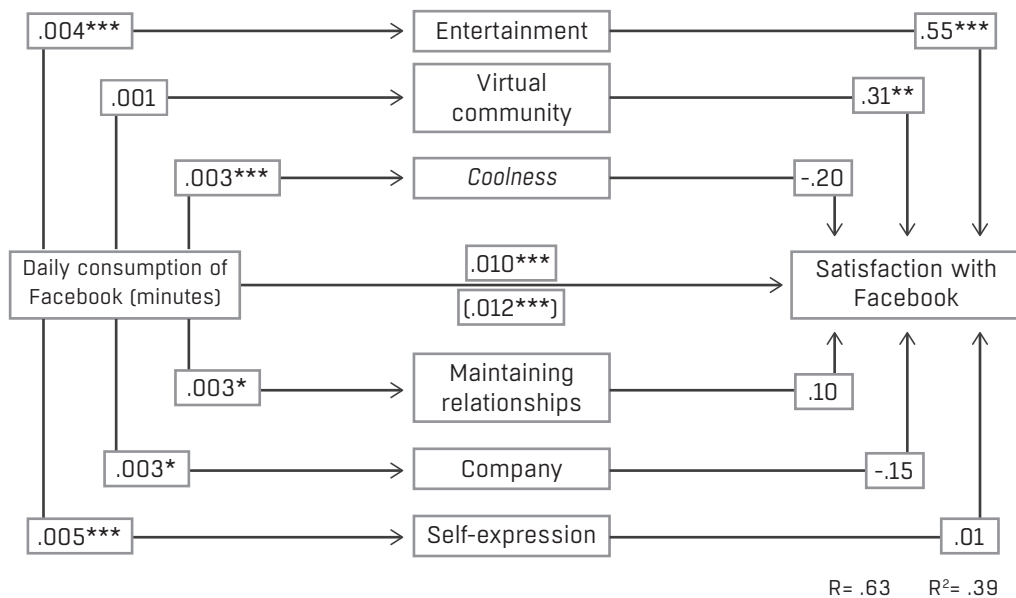


Table 5. Reasons for use as predictor variables of use and satisfaction with Facebook (multiple linear regression analysis)

Dependent variables	N° contacts		Minutes/ day		Minutes/ Connection		Satisfaction	
	Beta	p	Beta	p	Beta	p	Beta	p
<i>Predictors</i>								
Gender (1 = W. 0 = M)	-.00	.969	.14	.034	-.09	.153	-.00	.951
Age	.03	.565	.10	.112	.00	.967	.19	.001
<i>Reasons for using Facebook</i>								
Entertainment	.05	.503	.22	.006	.22	.006	.42	.000
Virtual community	.09	.243	-.14	.053	-.12	.116	.15	.022
Coolness	.29	.000	.20	.007	-.02	.747	-.01	.985
Maintaining relationships	.02	.749	.01	.790	.08	.223	.08	.163
Company	-.14	.081	-.04	.591	-.01	.825	-.13	.055
Self-expression	.08	.302	.15	.031	.16	.032	.04	.538
F (gl)	3.52 (8. 193)		5.50 (8. 210)		2.69 (8. 213)		11.61 (8. 218)	
p	.001		.001		.008		.000	
Adjusted R <sup>2</sup>	.35 (.09)		.41 (.14)		.30 (.05)		.54 (.27)	

Source: Own elaboration.

Figure 1: Effect of daily consumption of Facebook on satisfaction mediated by the reasons for use.



Note. The figure shows the non-standardized regression coefficients (B). In addition, it shows the regression coefficient of the direct effect and, in parentheses, the coefficient of the total effect of consumption on satisfaction with Facebook. \*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

Source: Own elaboration.

with Facebook (criterion variable), through the reasons for using Facebook (mediating variables). And finally, the total effect is the sum of direct and indirect effects.

Using the macro PROCESS allows the estimation of the indirect effects, standard errors and confidence intervals on the basis of the distribution obtained with the technique of bootstrapping (Hayes, 2009). This method uses resampling with replacement, where, from the original sample, series of simulated samples to calculate the standard error (SE) are generated. In this research, the indirect effects were calculated for the model 4 and using 10,000 samples of bootstrapping, generating bias-corrected bootstrap confidence intervals. In this context, it is considered that an indirect effect is statistically significant if the confidence interval set (95% CI) does not include the value 0. If the value 0 is included in this confidence interval, we cannot reject the null hypothesis which states that the indirect effect is equal to 0, i.e., there is no association between the variables involved (Hayes, 2013). In the mediation analysis gender and age were included as control variables. Therefore, with this analysis we respond to the question of to what extent the reasons for use of Facebook exert a mediating role in the relationship between consumption levels and satisfaction with Facebook.

The results of the analysis (figure 1) allowed only to conclude that there was a statistically significant indirect effect, through the entertainment reason ( $B = .0027$ ,  $SE = .0009$ , 95% CI [.0012, .0049]). Therefore, the effect of consumption on satisfaction with Facebook is explained by the search for entertainment: a higher daily consumption of Facebook is associated with a greater search for entertainment ( $B = .004$ ,  $p < .001$ ), which, in turn, is associated with greater satisfaction with that network ( $B = .55$ ,  $p < .001$ ).

## CONCLUSIONS

Social networks, like other technologies and communication media, have a special ability to capture people's free time. As newer technologies, they have had a much greater penetration among younger people (Colás-Bravo et al., 2013). Sharing content on Facebook (one of the major social networks) has become a massive worldwide activity; hence the importance of

analyzing its use and also try to inquire about the motivational factors that explain it, even more so when it has been proven that using Facebook can lead to greater participation in socio-political activities (Park, Kee & Valenzuela, 2009).

This research's main objective was precisely to contribute to the debate and empirical analysis of the motivational structure associated with Facebook, based on a particular theoretical approach: the theory of uses and gratifications (Papacharissi & Rubin, 2000; Rubin, 2009a, 2009b). While there has been a large number of empirical studies on the uses and gratifications associated with Facebook in various countries, this issue has barely been investigated to date in Spain, despite the fact that among young Spaniards Facebook has a very high penetration. In addition, it has been recognized that the uses and motivations associated with Facebook vary depending on culture (Kim et al, 2011; Nadkarni & Hofmann, 2012). All this made it appropriate to conduct this study, which involved 268 high school and college students who had a Facebook profile.

First, the results obtained by a self-administered questionnaire allow us to check that satisfaction with Facebook is not very high, but it increases with age and number of contacts, and keeps a strong positive association with the level of consumption. Therefore, greater involvement with that social network (which is manifested in a high number of contacts and long time connected each day) can lead to greater satisfaction with that network.

Second, the analysis of the reasons for exposure has identified six motives of use, which reproduce, broadly, the motivational structure obtained by Sheldon (2008). Now, it is found that a new factor not identified by that author emerges, that has been called self-expression (use Facebook to express opinions on political and social issues or to post information about personal interests on other issues). It is important to note that in a study conducted in Chile with 18-29- year-old people, it was also observed that the use of Facebook predicted the participation in actions of social protest (Valenzuela, Arriagada & Scherman, 2012). And although in this study the use of Facebook to express opinions does not predict participation in social protests, it could be said that such motivation could be linked to other social actions and behaviors.

The participants recognize that maintaining relationships, desiring to be part of a virtual community and entertainment are the main reasons for using Facebook. However, it is noted that seeking for entertainment is the motivational factor that keeps a stronger statistical relationship with satisfaction with Facebook. And besides, entertainment also becomes a predictor factor of the intensity with which respondents use that social network (how long they connect each day and how long a normal connection lasts).

The last significant result of this study is related to the mediating role of the reasons for using Facebook that may help explaining the relationship between the intensity of consumption and satisfaction. The mediation model revealed that, again, the factor linked to the search for entertainment is which meets this mediating role. This means that as the daily consumption of Facebook increases, there is more search for entertainment, leading to greater satisfaction with the social network. However, it is necessary to interpret the results with caution, given the correlational nature

of the investigation. However, it is enlightening that other motivational factors, such as maintaining relationships or using Facebook to feel part of a virtual community (identified by participants as very relevant to explain the use of Facebook) actually do not exert a mediating role and therefore do not serve to explain why Facebook higher consumption is associated with greater satisfaction.

Future research should investigate (with longitudinal studies) if a change or evolution in the motivational structure associated with Facebook occurs. It would also be advisable to conduct such studies with larger, probabilistic samples, formed by non-students young people, or even by people of different age groups. Another possible line of research is the analysis of the uses and gratifications of other social networks with a strong social penetration in young people, as WhatsApp, Snapchat or Twitter. Finally, another area of study which should be deepened in future research is the relationship between personality variables and the use of social networks (Ryan & Xenos, 2011).

#### FOOTNOTE

1. Alexa.com.
2. comScore, study conducted in May 2014.
3. V Annual Study of Social Networks developed by IAB [Interactive Advertising Bureau] in 2014 (<http://www.iabspain.net>).

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