Doctoral Thesis

What Drives Consumers to Patronise a Hedonic Social Network? An Empirical Test of Consumers' Experiences, and their Impact on Continuance Intention

Universitat Oberta de Catalunya

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Doctoral Programme in Information and Knowledge Society

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Acknowledgements

I am not a child any more, mum. I am grown. I am many years old, despite how much my prudence tells me to hide. Yet still, everything you taught me remains within me because it forms so much of what I am today, what you made me. You and your partner, the one who chose to accompany you instead of learning to live without you.

It was a long time ago, but I still remember the things you taught me: 'feel like' or 'want to' are not variables to include in the equation when something must be done. Anything that is worthwhile must be done well. There is no reward without effort, and life is built upon the plans you make.

Today you would be proud of me, you and dad both, even if I did nothing more than follow the path you showed me. In fact, perhaps every step I've taken in my life has not been for anything other than to make you proud of me. And this achievement, as well as all the rest, is yours because all I have ever done in my life is harvest what you sowed.

Thus, I want to thank on your behalf all those who have made your achievement possible.

Thanks to Irene, my travelling companion and complementary partner in life. Thanks to my three kids, who will always be mine and always be kids. Like me, no matter how much time passed, I continued being your kid, mum, until the last day, even if I was already grown. My kids, as you once did before, can remove every cloud in my conscience with just one hug. Thanks to them, I have a purpose in life. Thanks to my brother and my sisters, accomplices of this silent covenant to perpetuate your wonderful legacy and fill your gap altogether. How fortunate we were for having you in our lives, and having each other now.

And of course, all those who have led me down this path, which has been longer and more tortuous than I could have ever imagined when I started it: thanks to Inma and Toni for selecting me, trusting me, understanding me and leading me throughout the process. Thanks to the Internet Interdisciplinary Institute of the Universitat Oberta de Catalunya (Resident Researchers Programme 2012/13) for supporting my research. Thanks to my patient and meticulous proofreader Peter Bonney. Thanks to my colleagues at Universidad Europea for supporting me and understanding what this effort involved.

And thanks to the great Pat Metheny, whose music I chose to wrap me up every single day during the five years of this adventure, who with his first chords of "Cathedral in a suitcase" was able to transport me to the Thesis Country.

Finally and again, thanks to you both. Thanks for still being necessary to me, for insistently clinging onto my mind to accompany me every single day of my life, and for letting me harvest the achievements of your success.

I am not a kid any more, mum. I am grown. And today you would be proud of me, you and dad both.

Ya no soy un niño, mamá. Soy mayor. Tengo muchos años. Tantos como la prudencia me aconseja ocultar. Y sin embargo, todo lo que me enseñaste sigue en mí, porque forma parte de lo que soy; lo que hiciste de mí. Tú y tu compañero, a quien no le puedo reprochar que prefiriera acompañarte a aprender a vivir sin ti.

Han pasado muchos años, pero aún recuerdo lo que me enseñasteis. Que lo que uno quiera o le apetezca son variables que no entran en la ecuación cuando algo debe ser hecho. Que lo que se empieza hay que terminarlo. Que cualquier cosa que merezca la pena hacer merece la pena hacerla bien. Que no hay recompensa sin esfuerzo y que la vida se construye de los planes que uno hace.

Hoy estarías orgullosa de mí, mamá. Tú y también papá. Y eso que no hice más que seguir por el sendero que vosotros me mostrasteis. Y es que probablemente cada paso que he dado en mi vida no ha pretendido sino que vosotros estuvierais orgullosos de mí. Y sin embargo este logro, como todos los demás, es vuestro, porque yo no he hecho más que recoger lo que vosotros sembrasteis.

Así que permitidme que agradezca en vuestro nombre a todos aquellos que han hecho posible vuestro logro.

A Irene, mi compañera y complemento de mi vida. A mis tres niños, siempre míos y siempre niños por más años que pasen, como yo seguí siendo vuestro niño hasta el último día aunque fuera ya mayor. Ellos que, como tú en su día, mamá, con un solo abrazo disipan hasta la última nube de mi conciencia. A ellos, razón de mi vida. A mis cuatro hermanos, cómplices en este pacto silencioso de perpetuar vuestro maravilloso legado, y cubrir entre todos vuestro vacío. Qué afortunados somos de haberos tenido y de tenernos ahora nosotros.

Y por supuesto a los que han guiado mis pasos en este camino, mucho más largo y tortuoso de lo que pude imaginar en su comienzo: a Inma y Toni, por elegirme, confiar en mí, comprenderme y dirigirme a lo largo del proceso. Al Internet Interdisciplinary Institute of the Universitat Oberta de Catalunya (Resident Researchers Programme 2012/13), por patrocinar mi investigación. A mi paciente y meticuloso proofreader, Peter Bonney. A mis compañeros de la Universidad Europea, que se solidarizaron conmigo entendiendo perfectamente lo que conlleva este esfuerzo.

Y al gran Pat Metheny, cuya música elegí para arroparme cada día de los cinco años que duró esta aventura, quien con los primeros acordes de su "Cathedral in a suitcase" era capaz de transportarme al país de las tesis.

Y de nuevo y por último, gracias a vosotros dos. Por seguir haciéndome falta. Por aferraros con insistencia a mi memoria para acompañarme cada día de mi vida. Por permitirme hoy recoger las mieles de vuestro éxito.

Ya no soy un niño, mamá. Soy mayor. Y hoy estarías orgullosa de mí. Tú y también papá.

Table of contents

Table of contents

List of tables and figures

List of tables

List of figures

Chapter 1

Introduction and Objectives

1 Introduction and objectives

This doctoral research focuses on the various factors that potentially contribute to loyalty towards a particular hedonic social network (from now on HSN). The concept of loyalty, as adopted from Oliver (1999:34), is: "a deeply held commitment to rebuy or repatronise a preferred product/service consistently in the future."

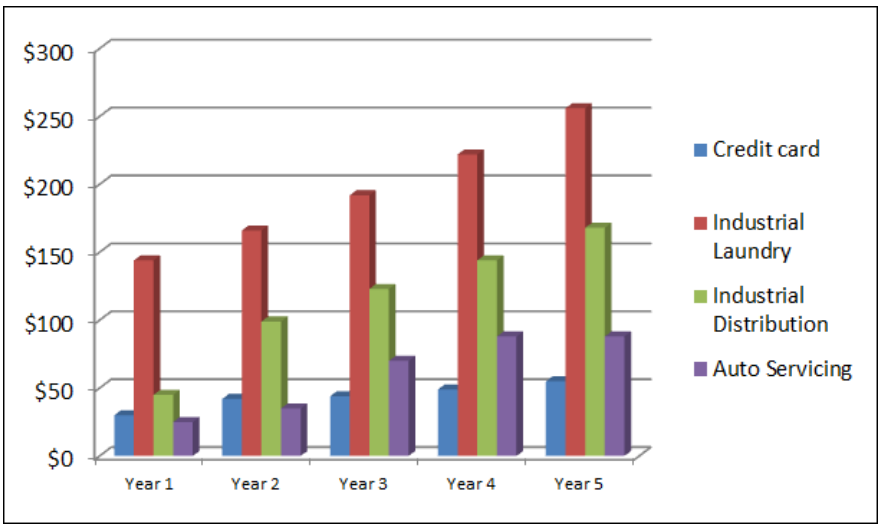
This chapter starts with a justification of our study, followed by the objectives pursued in the research, and finally the structure of this doctoral thesis.

1.1 Why study loyalty on hedonic social networks?

This study emerges from the combination of two elements that have become central to the study of consumption experiences on social media. First is the need to achieve and maintain consumer loyalty online. Second is the emerging interest in understanding consumer behaviour on social network sites (from now on SNSs), particularly on hedonic SNSs such as Facebook.

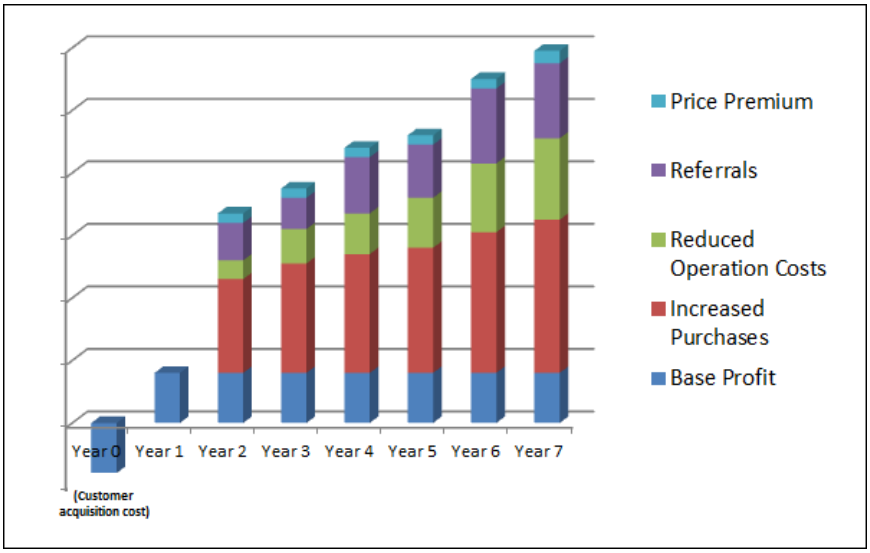
Consumer loyalty has become a priority for marketers and managers of all industries and businesses (Straub, 2014). As a matter of fact, companies seek to strengthen relationships with their customers and to do so they bear in mind the following two long-lasting customer base effects (Reichheld and Sasser, 1990): in most of the sectors, the benefit provided by a customer over the third year triples the one generated in the first year by that same customer (see Figure 1); and a loyal customer generates not only a higher margin but also additional benefits, including increased purchases, lower operation costs, referrals, and a higher willingness to pay price premiums (see Figure 2).

Figure 1. Customers long-term profit in different sectors



Source: Reichheld and Sasser (1990).

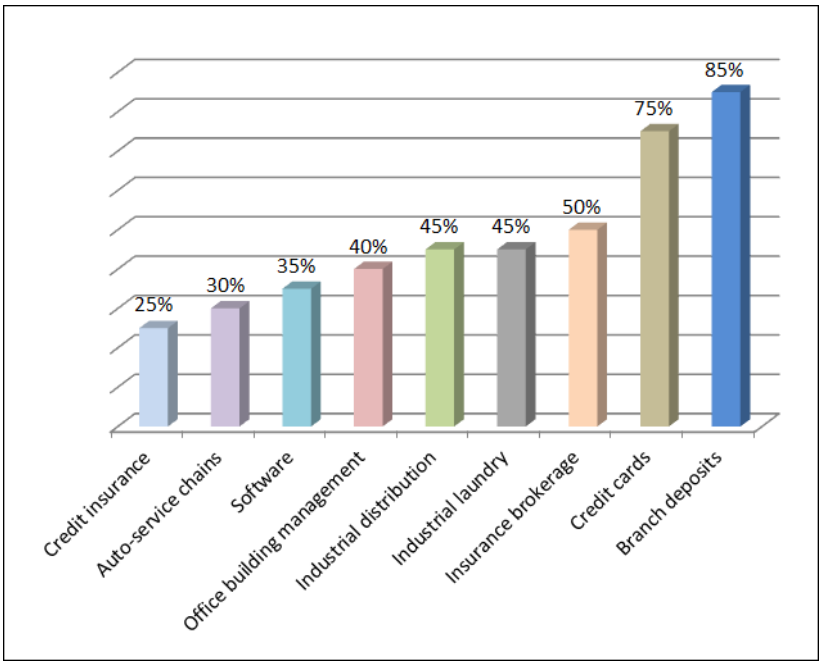
Figure 2. Average customer cost and benefit over time (aggregated percentage)



Source: Reichheld and Sasser (1990).

Firms in every sector focus on customer loyalty because it contributes to profitability (Bowen and McCain, 2015). In fact, the MBNA Bank of America found that a 5% improvement in defection rates increased customer value by more than 125%, a similar result to that of Reichheld and Sasser (1990) where they analysed different sectors such as credit insurance, auto-service chains, software, office building management, industrial distribution, industrial laundry, insurance brokerage, credit cards and branch deposits; in all the cases a 5% decrease of defection rates boosted profit 25 to 85% (see Figure 3).

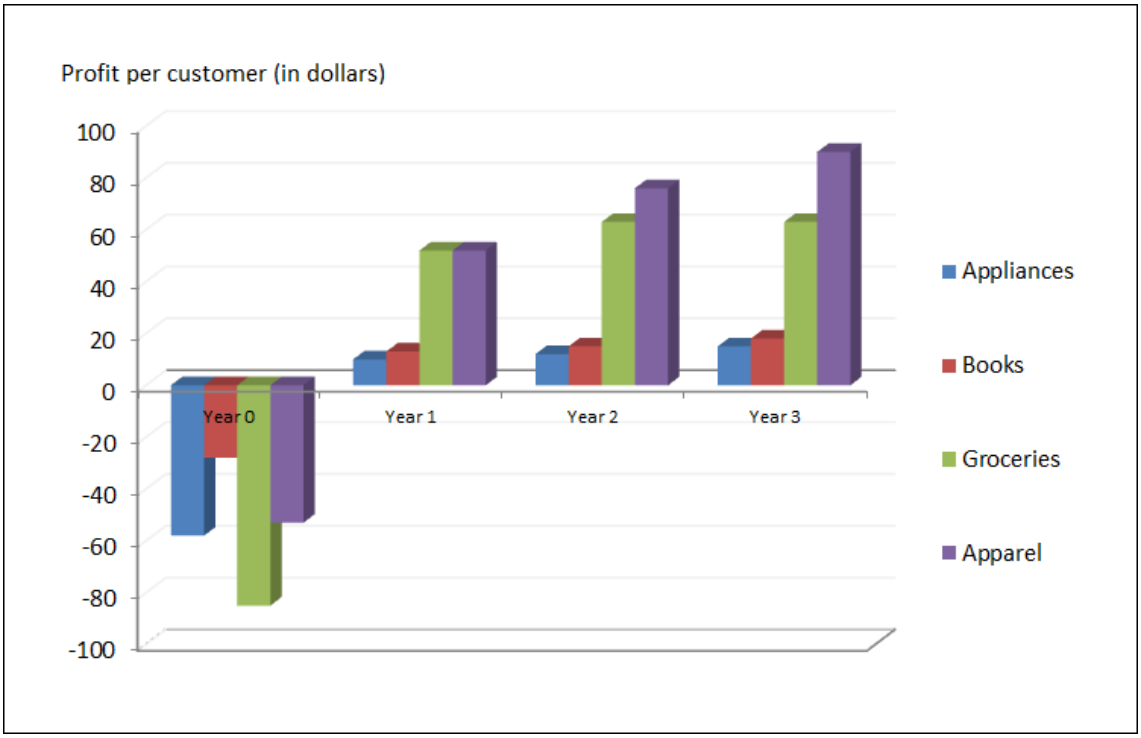
Figure 3. Customer value increase derived from 5% defection rate reduction



Source: Reichheld and Sasser (1990).

This also applies to internet environments, where the importance of customer retention, or e-loyalty, to succeed was introduced by Reichheld and Schefter (2000). Not surprisingly, e-loyalty is conceived as a key factor for the sustainability of online retailers (Ameen and Khali, 2012). This is because the pattern of early losses-rising profits – which justifies the interest in establishing long-term relationships with customers – is even more evident in virtual environments. This phenomenon is also visible in other sectors such as appliances, books, and groceries e-retailing, and is utilized by Reichheld and Schefter (2000) to emphasize the importance of creating loyalty relationships with customers (see Figure 4).

Figure 4. Customer life-cycle economics in e-commerce



Source: Bain & Company and Mainspring, as illustrated by Reichheld and Shefter (2000).

The importance of loyalty was clearly expressed by Gremler and Brown (1996:171): "few, if any, businesses can survive without establishing a loyal customer following." Understanding the factors that lead to loyalty is of great importance for companies (Martensen *et al.*, 2000). But this is becoming increasingly challenging for the firms due to the consumer's tendency to be less loyal towards brands (Fraering and Minor, 2013). This challenge must be managed by all the firms as loyalty increases their equity (Atilgan *et al.*, 2005). This is why companies often try to lead their customers to the highest levels of loyalty (Kasolowsky, 2014).

Therefore, companies should be interested in finding out the mechanisms that contribute to a consumer's continuance intention to use the product, and thus loyalty.

SNSs have been and continue to be a growing phenomenon. For the next five years, the global social network market is expected to increase in terms of both number of

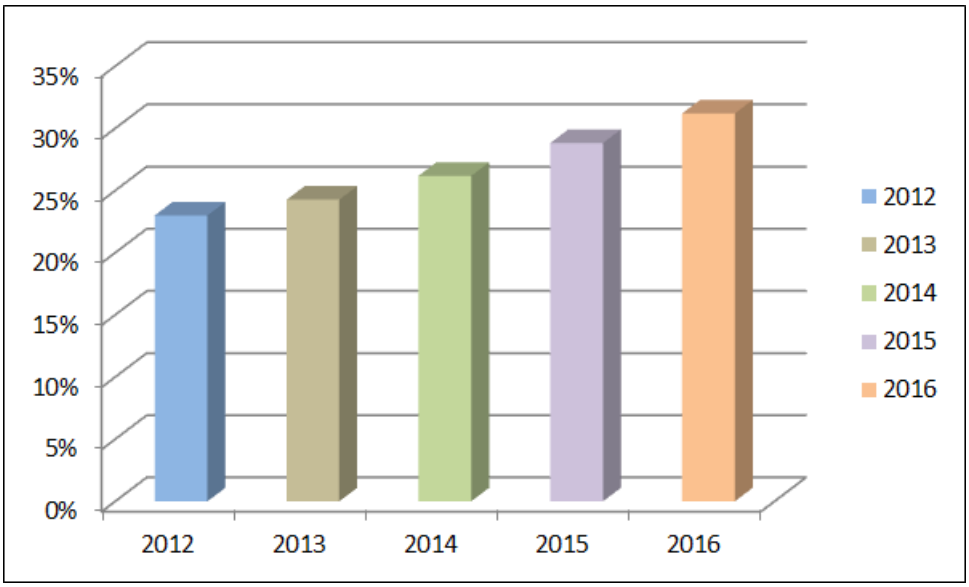
consumers and revenue (Tsiotsou, 2015). SNSs is one of the most important emerging internet phenomena due to their capability of sharing people's interests and opinions and the interactivity they allow (Sledgianowski and Kulviwat, 2009).

We focus our doctoral research on a particular type of consumer experiences in SNSs: those that are particularly hedonic and enjoyable, like the consumption experiences raised on Facebook. Taking into account that these SNSs tend to raise exploratory behaviours, and bring pleasure, fun or escapism to consumers (Childers *et al.*, 2001), we refer to them as hedonic SNSs or HSNs.

According to the annual report by We Are Social (Kemp, 2016), almost half of the world's population in 2016 (3,419 million) were internet users and 2,307 million people were active social media users, which is equivalent to 31% of the total world population. More than half of the adult world population regularly uses at least two SNSs (Morrison, 2015). Users spend more than 2 hours a day on average on SNSs, a figure that is particularly higher in the Philippines (3.7 hours), Brazil (3.3 hours), Mexico and Argentina (3.2 hours), and United Arab Emirates and Malaysia (3 hours, Kemp, 2016). Interestingly, they spent more time on SNSs than watching television (1.25 hours, Statista, 2016).

This increase in the number of SNS users could be attributed to a general increase of the population, but this is not the case as shown in Figure 5: the percentage of SNS users related to the total population has constantly increased over the years.

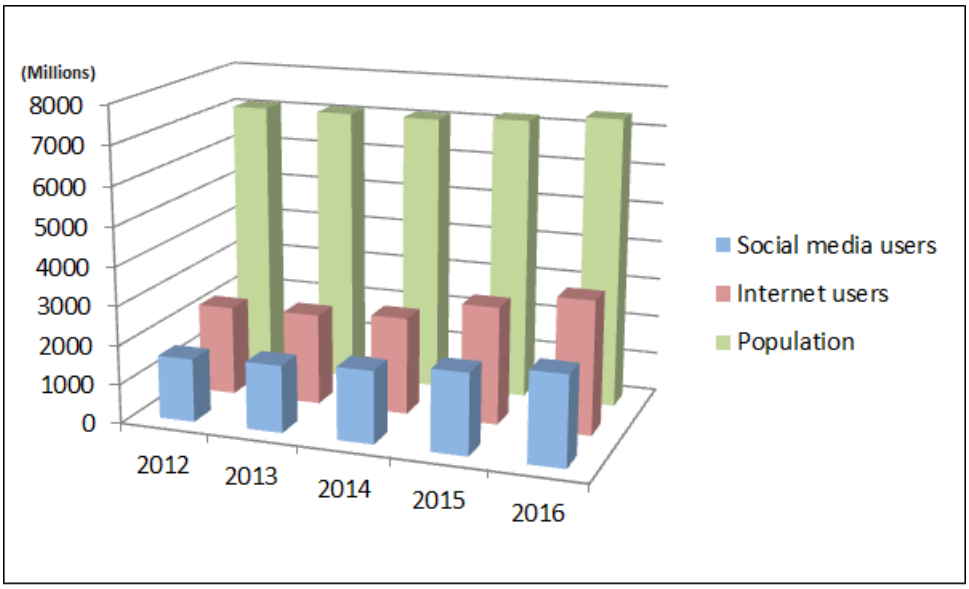
Figure 5. Penetration of SNSs among total world population (in %)



Source: own elaboration from We Are Social 2012-2016 reports.

In fact the total population has increased only 4% from 2012, far distant from the growth in the number of users (49%) and SNSs (42%, see Figure 6). Nowadays there are as many as 1,623 million active social media users.

Figure 6. Evolution of population, internet users and SNS users

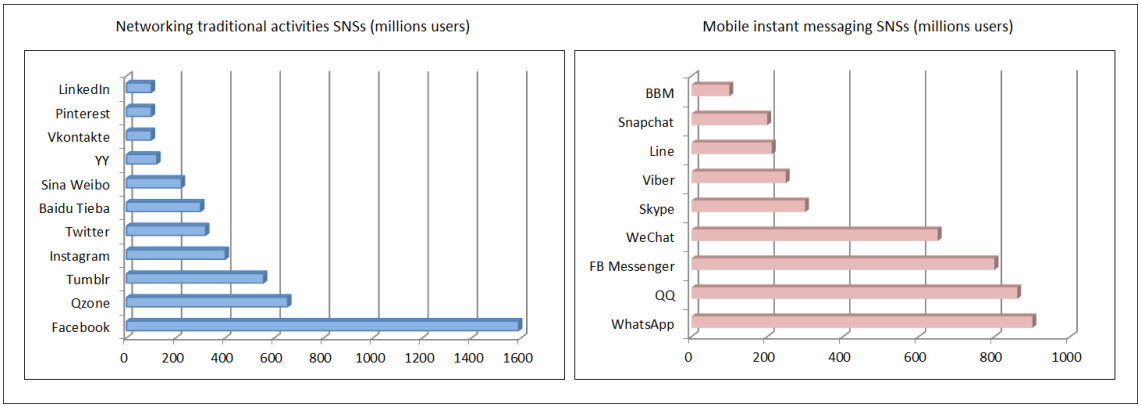


Source: own elaboration from We Are Social and Population Reference Bureau 2012-2016 reports.

All these figures above show the importance of SNSs.

The figures about Facebook growth are also very illustrative about the emergence of the SNS phenomenon: every day a half a million people join Facebook for the first time, which means that 6 new profiles are created every second (Regan, 2015). Facebook is by far the largest SNS with a total of 1,590 million users worldwide, followed by Whatsapp (900 million) and QQ, the Chinese instant messaging company (860 million, see Figure 7).

Figure 7. Ranking of the largest SNSs worldwide



Source: Kemp (2016).

Facebook is also a leader among all SNSs in terms of frequency of use (Mander, 2016). Facebook's audience is indeed the second biggest of all sites and mobile applications

worldwide [1].

Since its inception, user experiences with SNSs have evolved significantly (Alarcon-del-Amo *et al.*, 2012). Originally, SNSs were exclusively aimed at allowing individuals to build their profile and stay connected to personal social networks within a virtual environment (Boyd and Ellison, 2008). However, SNSs have also become a marketing channel that is heavily used by brands. In fact, more than 90% of brands use more than one social media channel for marketing purposes (Morrison, 2015).

Particularly, Facebook has become a channel for marketing communications one that allows users to design or broadcast an advertising message according to the contents and message source; this was designed to enhance the consumer's attitude of the brand (Yang, 2012). Facebook has been the main beneficiary of advertising migration from traditional media to SNSs (Tynan, 2016), becoming a high-potential marketing instrument. Facebook alone captures a 3% share of the total advertising expenditure, a figure that is expected to continue to grow (DiChristopher, 2015). Fans for the most-followed brands on Facebook are as follows: Coca Cola has as many as 102,771,380 fans, McDonald's has 68,655,743 fans, and Red Bull has 47,074,595 fans[2]. This gives an idea of the importance of Facebook as a marketing channel for brands.

As seen above, increasing brand loyalty is currently a main goal for companies, and SNSs are one of the most important media sources for achieving these goals. A number of studies have analysed ways to improve customer brand loyalty (e.g. Anderson *et al.*, 2014; Chan, 2012; Erdoğmuş and Cicek, 2012; Ruiz-Mafe *et al.*, 2013; Wallace *et al.*, 2013). Nevertheless, Facebook consumers have been poorly studied (Van Dam and Van de Velden, 2014), and only a few studies have considered the factors that trigger user loyalty towards Facebook or other HSNs.

1.2 Objectives of the study

The main purpose of our study is to develop a better understanding of the main driving factors of customer loyalty towards a HSN. More specifically, we hope to accomplish four objectives.

The first objective is to build a coherent framework of antecedents of consumer willingness to patronise a HSN. This is important because HSNs have been poorly studied in previous investigations. In fact, in a more generic scope, hedonic online consumer experiences (from now on HOCEs) have not been examined extensively. Most online experiments and surveys focused on SNSs have only explored non-hedonic behaviours. The limited number of studies that analyse hedonic online navigation was observed in a search using the Thomson Reuters Web of knowledge, which yielded only 26 papers on HOCEs[3]. This is surprising especially because of the emergence and expansion of the HSN phenomenon.

[1] www.similarweb.com [2016/12/20]
[2] Source: www.socialbakers.com [2017/01/24]
[3] Research completed in May, 2016

We have taken into consideration two central constructs closely related to consumption experiences on HSNs: flow and presence. The relationship between these two constructs and loyalty has been poorly studied and, to the best of our knowledge, is not found in any cases within studies related to HSN. Our study could help to close this gap, which is necessary because HSNs provide an environment that prompts online social meetings, and hedonic experiences –both closely related to flow and presence. Even more, the concept of presence has hardly been analysed and, to the best of our knowledge, is never in-depth enough to distinguish between its components that are specifically applied to a HSN environment. We create our framework based on presence and flow and complete it with a set of constructs that provide a valuable contribution to the understanding of HSN experiences.

Our second objective is to analyse the interplay between personal factors, product experience factors, and social factors in the continuing usage of HSNs. On the basis of Oliver's (1999) model, we provide a holistic view of the diversity of factors that might prompt user's loyalty towards a HNS. As early as in 1999, Oliver proposed to consider three types of driving factors of loyalty: personal, experience-based, and social factors. Surprisingly, although Oliver's paper is the most cited in the field of loyalty[4], to the best of our knowledge no previous study has approached the analysis of loyalty towards SNSs having into consideration those three types of factors. All these three categories of factors have been taken into consideration in our study, where personal factors are represented by optimum stimulation level (from now on: OSL), social factors are represented by subjective norms, and experience-based factors consider interactivity, flow, social presence and spatial presence. In addition, we include attitude as a personal factor with a product experience component. To the best of our knowledge, our study is the first to explore the factors favouring loyalty while taking into account the three factors proposed by Oliver (1999). The inclusion of these factors enriches the study and will provide a broader vision that has not been previously explored. This could be a valuable contribution to the study of loyalty and can serve as a starting point for further investigations.

The third objective of our study is to construct an integrated model of the direct and indirect drivers of the continuance intention of a HSN. This involves the need to analyse the relationships among all the constructs proposed and their roles in the construction of loyalty towards a HSN. After review of the relevant HOCE and HSN literature regarding consumer experiences in online environments, we propose different relationships among all the construct antecedents of loyalty, namely interactivity, OSL, spatial presence, social presence, flow, attitude and subjective norms. These relationships are developed and analysed in our study.

The fourth objective of our study is to find empirical support for the causal paths in the model. For that purpose, we designed a questionnaire utilizing scales validated in previous research for every construct reflected in our model. The target population of

[4] According to Thomson Reuters Web of Science, until now it has generated 1508 citations in JCR-indexed journals (15th Apr 2017)

our questionnaire is composed of Facebook users worldwide who were selected using a snowballing sampling method. The data gathered was analysed using SEM (structural equation modelling), a method highly recommended in social sciences investigations because it allows us to propose and test theoretical models based on hypothesized relationships (Merchant *et al.*, 2013).

1.3 Structure of the thesis

This document is divided into four chapters. The current chapter presents the justification of interest and the main objectives of the research.

The second chapter is dedicated to the theoretical background and conceptual model. It will start with a review of the relevant literature regarding the concepts involved in our study, particularly ones that discuss the deepening of HSN consumption. This will help to understand the different types of experiences associated with HSNs, as well as to identify the factors that potentially trigger loyalty in HSN environments. It analyses in-depth every factor taken into consideration in our study, leading to relationships that constitute the base of our model. Accordingly, the conceptual model will be presented.

The third chapter is dedicated to the presentation of the methodology and results of the study. It will explain in-depth the methodology applied to the research, namely sampling and processing of the information methods, measuring scales and their sources, and application of SEM. All the steps involved in the application of SEM will be emphasized, primarily the measurement and structural models and the analysis of the validity of the hypothesized relationships. This allows us to assess which hypotheses are reinforced and which ones should be rejected according to the empirical data obtained.

Chapter four starts with a comprehensive presentation of the main contributions of our study and draws managerial implications of our findings. Then, we explain the limitations of our research and how they were managed. The chapter concludes with potential directions for future research.

Additionally, a chapter containing all the bibliographic references considered in the study is included, as well as one appendix containing the questionnaires utilized in the empirical field work.

Chapter 2

Theoretical Background and Conceptual Model

2 Theoretical Background and Conceptual Model

In this chapter, we offer a review of the relevant literature regarding consumer intentions in continued use of a HSN. This review allows us to identify and study the factors that potentially trigger HSN loyalty. As a result, we build a conceptual model of HSN users' continued intentions, which include the driving factors intervening in HSN formation and the interplay among them.

It should be noted that a HSN user's continuance intention represents the willingness to repeat the usage of the HSN due to a favourable attitude towards it (Moon *et al.*, 2001). This concept is mostly equivalent to Oliver's (1998:34) definition of consumer loyalty: "a deeply held commitment to rebuy or repatronise a preferred product/service consistently in the future." Thus, the study of HSN user continuance intentions involves an examination of user loyalty; the terms continuance intention and loyalty are used interchangeably.

The chapter is composed of six sections. In section one, we theoretically explore the criterion variable of our model, that is, a HSN user's continuance intention. In sections two to four, we identify and conceptually examine three typologies of factors that potentially trigger HSN continuance intentions: consumer experiences with the HSN, consumer personality traits, and social influences. These sections are divided into subsections devoted to the specific driving factors considered in each category: interactivity, spatial presence, social presence, and flow as experience factors; optimum stimulation level (OSL) as a personal trait; and subjective norms as a social influence. Section five revolves around the role of attitude in a HSN user's continuance intention, which is conceived as a mediating precursor to HSN loyalty. Finally, section six presents and justifies the hypothesised relationships included in our conceptual model.

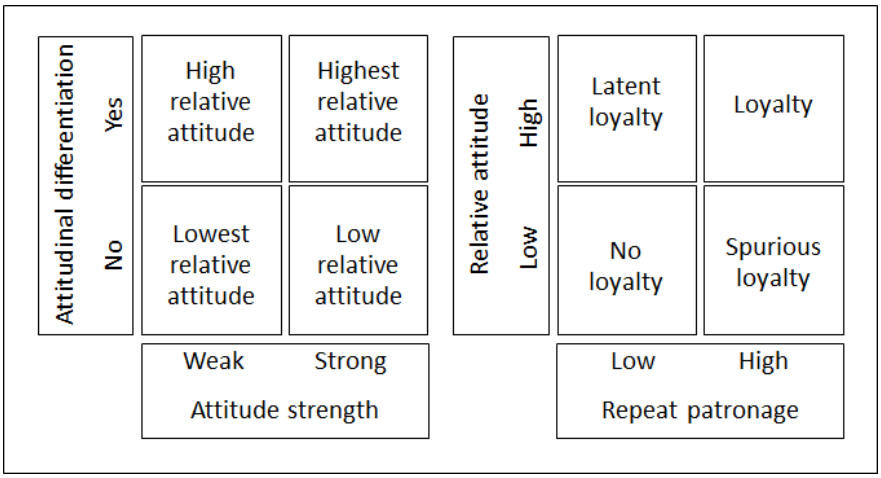
2.1 A first approach to loyalty

Brand loyalty is an intriguing concept due to the fact that apparent "loyal" behaviours do not necessarily involve loyalty, such as a repurchase due to a lack of alternative options, or a routine decision other than the consumer's preferences (Wood, 2004).

Dick and Basu (1994) reported that, although loyalty is related to repurchasing behaviour and is facilitated by attitude, there is not always a cause-effect relationship between attitude and loyalty. For instance, a consumer with a very favourable attitude towards a brand may not purchase it because of a stronger positive attitude towards an alternative brand. Based on this, Dick and Basu proposed a model suggesting an interplay between attitude, repeat patronage, and loyalty (see Figure 8). This model includes two initial factors: the strength of the attitude towards the brand and the attitudinal differentiation shown to the brand. These two dimensions combined elicit a higher or lower relative attitude, which expresses the likelihood of an individual to

prefer a brand in a non-isolated environment (i.e. considering the other existing brands). The combination of relative attitude and repeat patronage will indicate the individual's level of loyalty towards a brand.

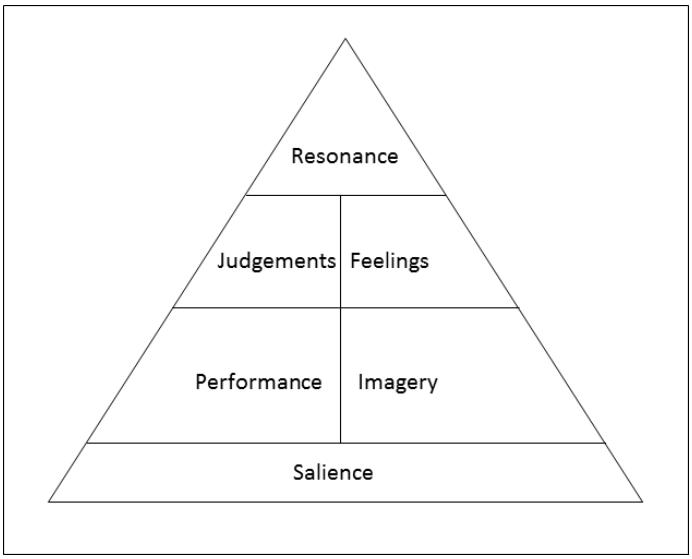
Figure 8. Relative attitude model



Source: adapted from Dick and Basu (1994).

Keller (2008) proposed a model for brand resonance consisting of four stages where brand loyalty sits at the last stage. The author defends that consumer loyalty can be determined with the following questions: whether the consumer will buy the brand whenever they can and as much as they can, whether the brand is the only alternative available to meet the consumer's needs, whether the brand is the only one the consumer prefers to use, whether the consumer can go out of their way to use the brand, and whether the consumer regrets situations in which the brand is not available and they must use a different one.

Figure 9. Keller's brand resonance model



Source: Keller (2008).

Jacoby and Kyner (1972) recognised the difficulties for conceptually delimiting brand loyalty and proposed a definition based on six necessary and sufficient conditions: (1) the consumer considers past experiences with the brand in the purchase decision process, (2) repurchasing is a consequence of the consumer's behavioural intention, (3) repurchasing is repeated over the time, (4) there is a decision maker in the form of a person or a decision unit, (5) purchase decision refers to a brand or set of brands among a larger set of brands available, and (6) purchase decision results from a psychological evaluative process.

Jacoby and Kyner's (1972) characterisation was later extended by Jacoby and Chestnut (1978):

1. Brand choice does not follow a zero-order process, which would happen if the consumer's decision to purchase a product were not affected by past decisions. Conversely, a non-zero-order process involves that brands can participate in the creation of brand loyalty.

2. Loyalty is a behavioural concept. Consequently, a verbal manifestation of a brand's preference is not sufficient enough to indicate brand loyalty. Loyalty involves a behaviour that leads to repurchasing the brand.

3. Loyalty requires consistent behaviour over time, so an incidental preference of a brand does not imply loyalty.

4. Regardless of the agents and influencers that intervene in the purchase process, it is the consumer or the decision-making unit who will make the decision of continually purchasing (and being loyal to) a brand.

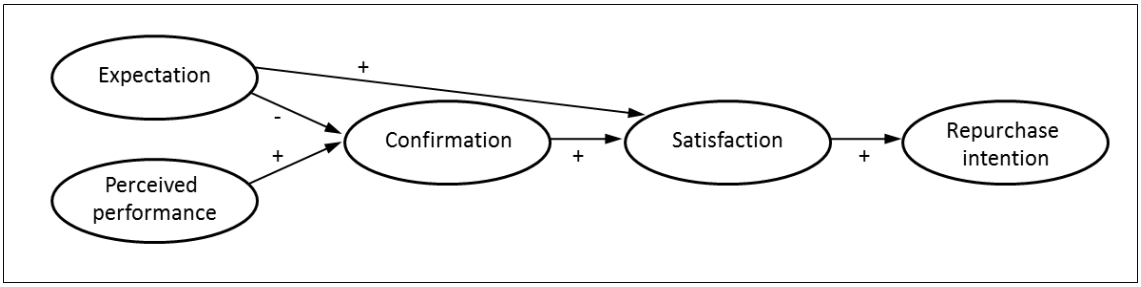
5. To demonstrate loyalty, there must also be a possibility of being disloyal. This implies the existence of a range of brands to choose from, among which only a small number of brands or a single brand will be selected. Reversely, if only a single option is available, consumers cannot show their loyalty.

6. The consumer's preference and commitment towards a brand results from an internal evaluation process. On the basis of consumer knowledge and previous experiences, they assess brands and form their preferences.

Many studies have dealt with brand loyalty. As early as 1978, Jacoby and Chestnut identified and reviewed up to 53 definitions of brand loyalty. In a comprehensive and more recent literature review, Wang (2007) examined 29 models and theories on loyalty, which covered a broad range of topics about loyalty: conceptualisations of loyalty (e.g. Muncy, 1983), the attitudinal facet of loyalty (Jacoby, 1971; Bourdeau, 2005), classifications of loyalty (Backman and Prompton, 1991; Tideswell and Friedline, 2004), measurements of loyalty (Pritchard and Howard, 1997), typologies of loyal consumers (Baloglu, 2002; Reinartz and Kumar, 2002), and drivers to loyalty (Hallowell, 1996; Back & Parks, 2003; Morgan and Hunt, 1994; Bowen and Shoemaker, 1998).

In most of these studies brand loyalty, or the intention to repurchase, are situated in a post-purchase stage of the consumer's decision-making process, which is indeed related to brand satisfaction (Erciş *et al.*, 2012). Following this line of reasoning, studies such as Oliver's (1993) built a model of loyalty revolving around expectations-confirmation theory (ECT). ECT is probably the most utilised theoretical framework considered to examine brand satisfaction and their subsequent effect on post-purchase intention (Lin *et al.*, 2005; Jiang and Klein, 2009). According to ECT modelling, repurchase intention is prompted by satisfaction, which is triggered by the confirmation of the individual's initial expectations about the brand and the brand's perceived performance.

Figure 10. ECT modeling

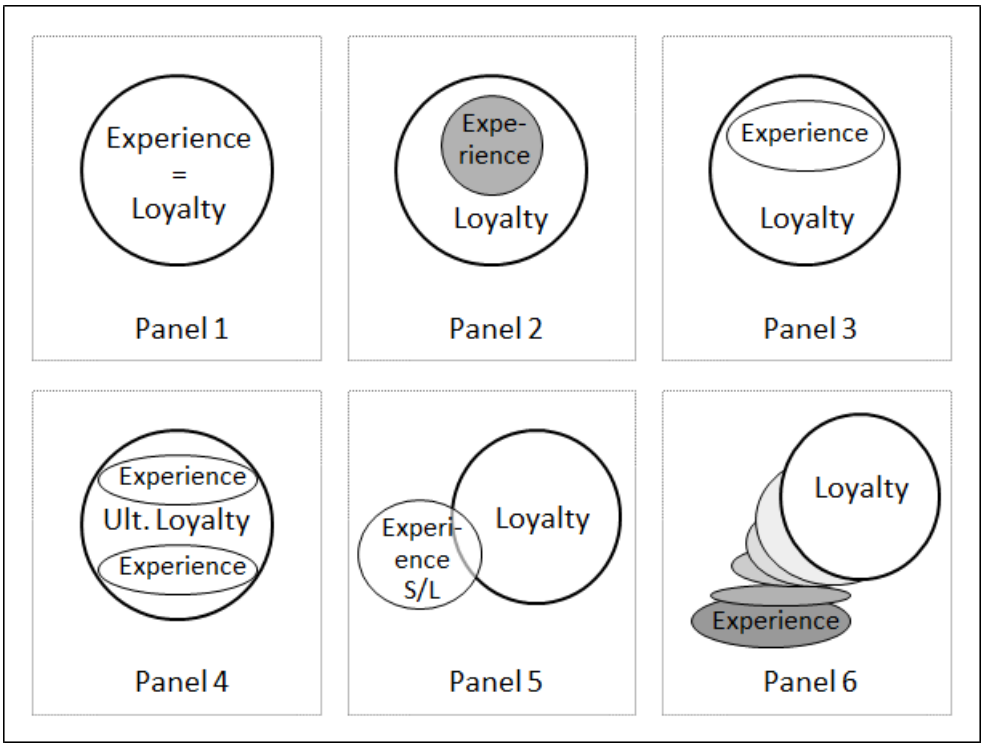


Source: Lin *et al.* (2005).

An interesting model of factors leading to loyalty is one proposed by Dick and Bassu (1994). These authors conceived loyalty as the relationship between the consumer's attitude towards an entity (a brand, a medium or a vendor) and his or her patronage behaviour. From Dick and Bassu's point of view, patronage is not an output or a consequence of loyalty but a component of the mentioned relationship between attitude and patronage behaviour. Interestingly, the model was completed with two non-attitudinal factors: social norms and situational factors.

Oliver (1999) synthesised earlier conceptualisations of consumer loyalty and suggested six stages in loyalty theoretical thought, which he graphically represented as panels (see Figure 11). Loyalty models situated in panel 1 are those in which loyalty and experience are conceived as different manifestations of the same concept. Panel 2 refers to more evolved models, which conceive of a consumer's experience as a necessary condition for loyalty. Models represented in panel 3 go one step further as they consider satisfaction as not only a necessary component but also critical for loyalty. Models in panel 4 suggest a superordinate loyalty concept that encompasses both loyalty and a consumer's experience that manifests in various levels of loyalty. In models in panel 5, consumer experience and loyalty are related and overlapping concepts, yet the overlapping area is relatively small in comparison to the full area covered by each concept. This implies that loyalty can exist without a positive consumer experience, and that there is a relatively small area of coincidence between both concepts. Finally, models included in panel 6 defend that consumer experience precedes loyalty "much like a caterpillar becomes transformed into a butterfly".

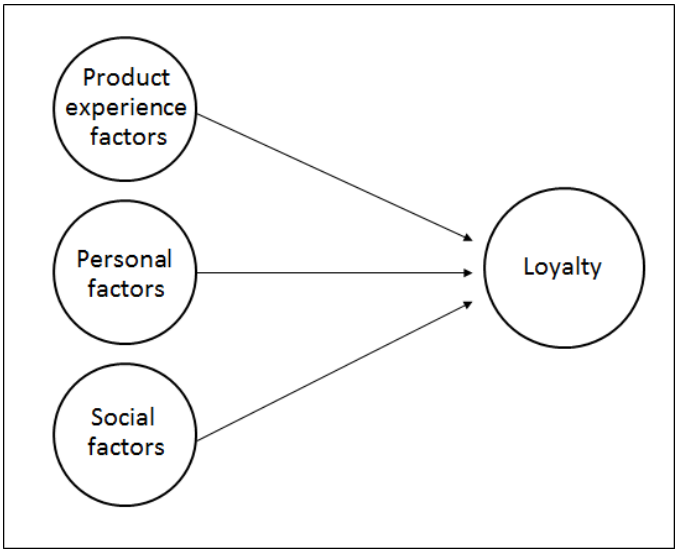
Figure 11. Oliver's view on consumer's loyalty models



Source: Oliver (1999).

Starting from Dick and Bassu's (1994) framework, Oliver (1999) built his own loyalty model, which he placed in panel 6. He further suggested three necessary requirements for the "caterpillar" to evolve: product experience factors, personal traits, and social forces (see Figure 12).

Figure 12. Oliver's model (1999)



Source: own elaboration from Oliver (1999).

Even though Oliver's article is the most cited paper on consumer loyalty, to the best of

our knowledge there is no empirical evidence that supports the conjoint influence of product experience factors, personal traits and social forces in the particular territory of user loyalty towards SNSs. Most studies on SNS loyalty perceive loyalty exclusively in terms of user experiences and disregard other elements that might play a part. For example, Geçti and Gümüs (2014) only examine loyalty factors related to brand experience; Pövry *et al.* (2013) just consider the consumer's participation; Gummerus *et al.* (2012) focuses on the benefits of the experience; and Anderson *et al.* (2014) explains brand loyalty formation in terms of saving time. Only a fraction of studies have examined the impact of social factors in SNS user loyalty. This is the case of Munnukka *et al.*'s (2015), who studied the impact of community promotion on brand loyalty; and Chiu *et al.* (2013), who explored the effect of social prestige on loyalty formation. Only a few studies such as Ruiz-Mafe *et al.* (2014) conceived a more complex compound of potential determinants of SNS usage, which combined experiential and personal factors. For their part, Al-Debei *et al.* (2013) studied the impact on SNS loyalty of two experience constructs (perceived value and control) and subjective norms.

Therefore, there is a lack of studies that offer a comprehensive view of the individual's various mechanisms that explain why people keep using SNSs, and particularly HSNs. Those studies that focus only on a typology of driving factors miss the integrative effect of elements of diverse nature, and the potential interplay among them. Consistently with seminal view of loyalty from Oliver's (1999), we propose an integrative model of HSN continuance that considers the influence of three types of driving factors: factors related to the individual's experience on the HSN, personal traits related to the user's personality, and social factors that reflect the extent to which social groups influence an individual's decisions on HSN continuance.

In the following epigraphs, we undertake a thorough review of these three drivers, initially suggested by Oliver, and explore their potential influence on consumer loyalty towards HSNs.

2.2 Experience factors driving HSN loyalty

The first factors potentially driving loyalty have to do with the individual's internal experiences from the use of a HSN. According to Oliver's (1999), factors related to the individual's experience with the product or service, are key to explain their willingness to patronise such a product or service.

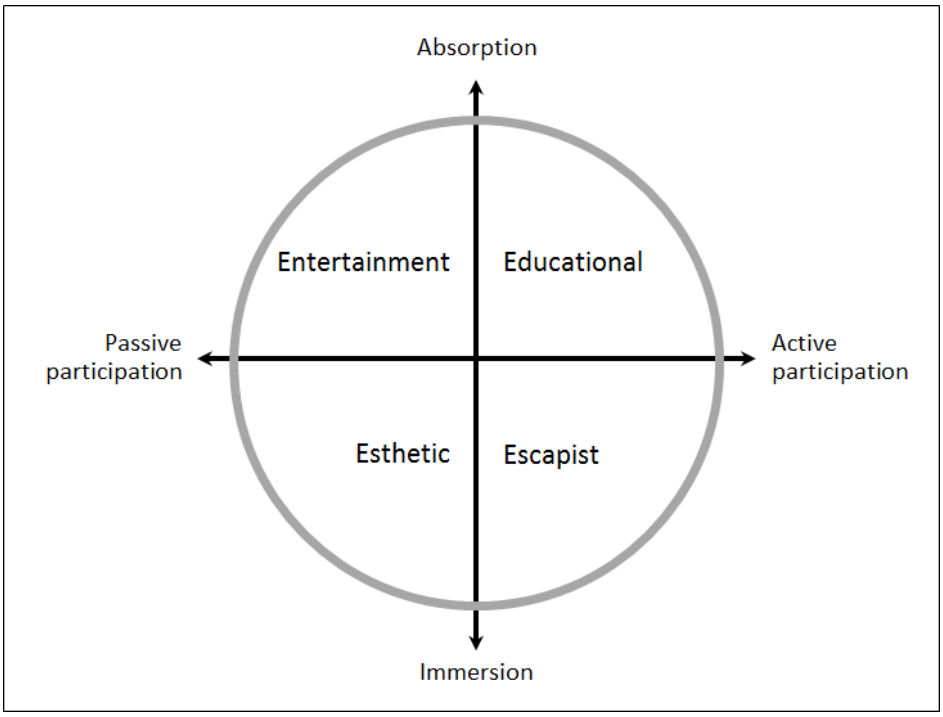
This interest in an individual's experiences on a HSN is in sync with the emergence of positive customer experience as a marketing and customer service priority for managers within the IT and new media industries (Laufer, 2015) as well as for app developers (Carter, 2015). As many as 9 out of 10 American consumers are willing to pay a higher price to ensure a superior customer experience (RightNow, 2011).

Similar considerations apply to HSNs. On the basis of seminal studies on consumption experiences (e.g. Gentile *et al.*, 2007; Meyer and Schwager, 2007; Häubl and Trifts, 2000), a HOCE has been described as a "psychological state manifested as a subjective response" (Rose *et al.*, 2012, p. 309). When a HOCE is positive, favourable responses

towards the brand will arise, including consumer satisfaction (e.g. Homburg *et al.*, 2006), trust (e.g. Kennedy *et al.*, 2001; Koufaris and Hampton-Sosa, 2002) and a greater intention to revisit the app or website (e.g. Ha *et al.*, 2010), which may all precede loyalty (Heskett, 2002).

Pine and Gilmore (1998) noted that the methods with which companies seek customer satisfaction have evolved, moving from offering mere goods and services to bringing personal experiences. Pine and Gilmore classified consumer experiences on the basis of two dimensions (see Figure 13). The first dimension is consumer participation, which expresses the level of an individual's contribution to the experience and ranges from passive participation in the experience (e.g. attendance at a classical music concert) to active participation. The second dimension is consumer connection, which captures the individual's involvement in the experience, from the lowest level of involvement or absorption (e.g. watching a derby from the grandstand as a spectator) to the highest level of involvement or immersion (e.g. watching a 3D film in a theatre with large screen and surrounding stereophonic sound).

Figure 13. The four realms of an experience



Source: Pine and Gilmore (1998).

The concept of consumer experience deserves careful attention in the particular territory of new media and social networking. If the consumer's experience is a pillar to building consumer loyalty towards any conventional, physical product, it might become more important in the understanding of digital products and SNS usage, which often faces even more difficulties in gaining loyal users (Gommans *et al.*, 2001). This implies that the role of positive usage experiences for new media and SNSs may be even more important than the role they play on conventional consumption environments (Shankar

et al. 2003; Van Riel *et al.* 2001).

When online usage experiences become successful from the consumer's point of view and they configure unique, memorable and sustainable experiences over time, the consumer may want to patronise businesses offering such experiences (Pullman and Gross, 2004; Jacoby and Kyner, 1973).

The first theoretical attempts to conceive consumption experiences were usually positivists. This is because the first dominant position within the marketing and consumer behaviour disciplines was positivism and its variants (see Shankar and Patterson, 2001). According to this early positivist perspective, consumers make their decisions based on rational arguments, giving greater weight to economic or utilitarian reasons. In contrast, Katona (1965) proposed a different perspective, one that considers the role of psychological variables in explaining consumption experiences. More than a decade after Katona's proposal, hedonic components were added to the equation of consumer experience and two types of consumption experiences were differentiated and explored: utilitarian experiences and hedonic experiences (Holbrook and Hirschman, 1982; Hirschman and Holbrook, 1982; Unger and Kernan, 1983; Havlena and Holbrook, 1986). In connection with this, the study of the mere act of a purchase was being considered insufficient, so the entire consumption experience was regarded as a more adequate phenomenon to be examined (Hirschmann and Holbrook 1982; Holbrook and Hirschmann, 1982; Hirschmann, 1989). This is because consumers valued their experience consuming the product more than the product's physical features (Holbrook and Hirschman, 1982). Currently, this is a dominant view in the disciplines of marketing and consumer behaviour (Childers *et al.*, 2001; Martínez-López *et al.*, 2006).

Solomon (1997) went a step further and proposed a taxonomy of consumer behaviours: utilitarian behaviours, which are related to the search for functional and practical benefits combined with the consumption of a product or service; and hedonic behaviours, which are linked to the entertaining and pleasant experiences that a product or service might provide. This taxonomy of consumer behaviours was later connected (Martínez-López *et al.*, 2006) with a distinction between intrinsic and extrinsic psychological consumer motivations (Malone and Lepper, 1987). Since then, marketing and consumer behaviour literature has assumed that utilitarian behaviours are largely related to extrinsic motivations, as long as these motivations lead consumers to look for benefits related to the utility, economy, or convenience derived from the consumption of a particular product or service and are not related to their internal feelings or experiences with the product. In contrast, hedonic behaviours are presumed to be triggered by an individual's intrinsic motivations, such as the pleasure and enjoyment that the consumption experience in and of itself might bring to the individual (Teo *et al.*, 1999).

The dual conceptualisation of the consumption experience was adopted by earlier internet studies dealing with online consumption experiences, which pointed out the key role of hedonic behaviour online. Importantly, Hoffman and Novak (1997)

distinguished between goal-directed and experiential navigation. Similarly, Catledge and Pitkow (1995) distinguished between searching and browsing behaviours. Later, Pace (2004) identified two types of consumer behaviours online: directed search behaviours (aimed at finding specific information about products or services and performing purchases online); and exploratory browsing, defined as "more experimental in nature" behaviours considered with no specific objective. Sánchez-Franco and Roldán (2005) also took into consideration a distinction between goal-directed and experiential surfing behaviours to explain individual differences in web usage. Recent studies have followed this line of reasoning and separately examined utilitarian and hedonic consumption experiences online (Zhou *et al.*, 2012).

Consumer experiences resulting from the user's interaction with a hedonic SNS, like Facebook, provide the consumer with the "multisensory, fantasy and emotive aspects" they might be looking for (Hirschman and Holbrook, 1982). According to this rationale, what consumers seek with their hedonic usage of a SNS are not utilitarian functions but intrinsic benefits the SNS provides, such as fun and excitement that emerges from HSN usage (Rodríguez-Ardura and Martínez-López, 2014).

We will similarly include important elements related to an individual's experience with a HSN in our conceptual model constructs (see Figure 29). More specifically, the impact of subjective experiences of spatial presence, social presence, and flow on continuance intention will be theoretically explored. The importance of these three experience constructs was revealed in previous research about hedonic online consumption that noted their connection with hedonic human behaviour on SNSs, consumer satisfaction within a HSN and the intention of online consumption continuance (e.g. Trevino and Webster, 1992; Lin, 2010; Roca *et al.*, 2006; Sukoco and Wu, 2011; Lee, 2010).

Keeping in mind our interest in understanding these three central experience constructs, we considered a fourth construct: interactivity. Interactivity has shown to be a relevant antecedent of presence as well as of flow, and its inclusion will help to obtain a more comprehensive view of individual experiences in HSNs.

In what follows, we offer a detailed description and discussion about each one of these four constructs.

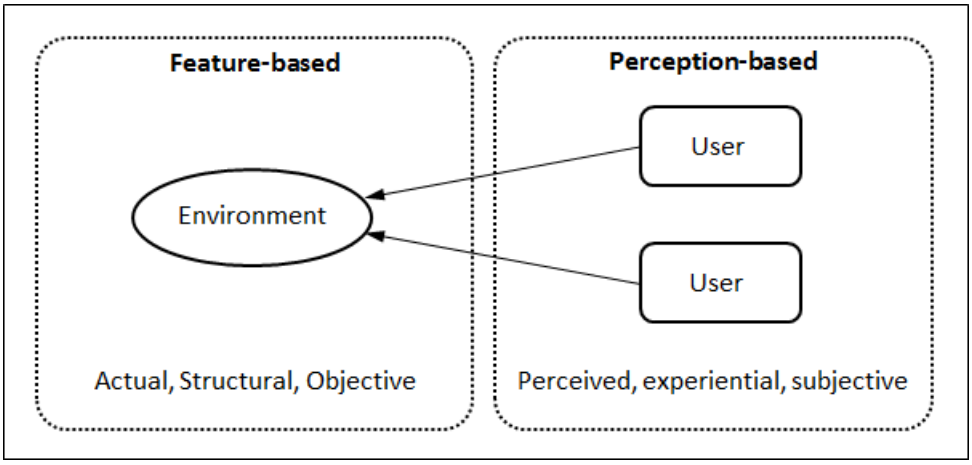
2.2.1 Interactivity

The nature and scope of interactivity has not been consistently defined (see e.g. McMillan and Hwang, 2002). As a matter of fact, interactivity is still conceived as an "undertheorized" construct (Voorveld *et al.*, 2011:77). Depending on the perspective adopted to study the concept, interactivity has a different meaning. For example, technologists might define interactivity in terms of the feedback provided by systems, applications and technologic devices while advertisers might be more interested in interactivity as a two-way communication with the target market (Johnson *et al.*, 2006).

From a theoretical point of view, we can identify two main approaches to interactivity. The first approach takes into consideration the interaction or feedback between the

user and the technology. Accordingly, interactivity is described as a characteristic of an app, a website, or a technological system and tackled with feature-based measures. In contrast, the second approach considers the interaction with the app, web, or system as perceived by their users, so the interactivity afforded by a technology environment might vary for each user. The second approach makes more sense in social sciences studies such as this doctoral research and therefore will be the approach adopted from now on. Consequently, we will examine HSN interactivity from the point of view of the user, i.e. as a perception-based construct (Cui *et al.*, 2010).

Figure 14. Feature vs. perception-based interactivity studies



Source: own elaboration from Cui *et al.* (2010).

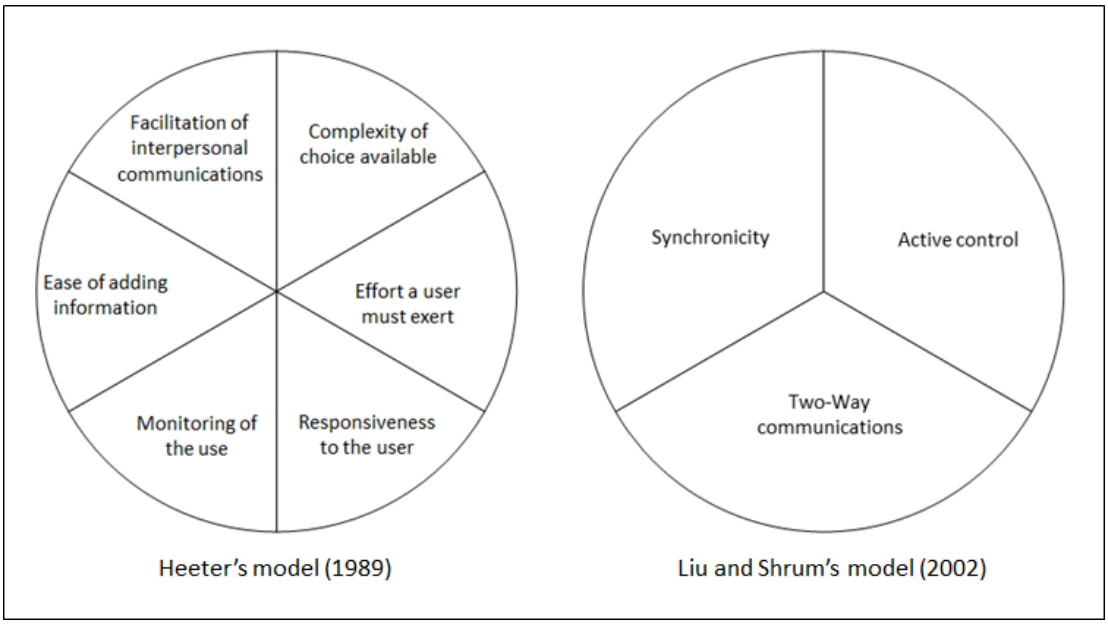
Heeter (1989) proposed a model for interactivity based on six components: (1) the complexity of choices available, (2) the effort the user must exert, (3) the responsiveness to the user, (4) the monitoring of the communication process, (5) the ease of adding information, and (6) the facilitation of interpersonal communication. First, the complexity of choice available is a concept that emerges in analyses of mass media, where the greater the possibilities offered to the audience, the greater the interactivity. Accordingly, hedonic HSNs offer a broad range of options and require users to make choices, making them highly interactive media. Second, a number of researchers considered the user's effort in their conceptualisations of interactivity. This is the case with Heeter, who defined interactivity as "the amount of effort required from users" (Heeter, 1989:222). Similarly, highly interactive environments (such as HSNs) require effort from users to access information. Third, response from the new media must resemble human behaviour so the interactivity perceived will be higher; this will be facilitated by highly technologically sophisticated environments. Thus, the responsiveness of a simple electronic device might be quite low, whereas a HSN may increase interactivity and even provide the possibility of interchanging communication roles. Fourth, the more interactive the media, the better their capacity to measure and monitor the use of the system. Fifth, HNSs enable users to become information transmitters, which increases interactivity. Sixth, the more a new medium facilitates face-to-face communications, the more interactive it will be.

McMillan (2006) proposed three dimensions of interactivity: (1) user-to-documents,

which is how humans react to content; (2) user-to-system, which is how individuals interact with the immediate environment; and (3) user-to-user, which "focuses on ways that individuals interact with each other" (McMillan, 2006:166). For their part, Liu and Shrum (2002) identified three components of interactivity: (1) active control to customise the information they want to access; (2) two-way communications, which allow reciprocal communication between companies and users and users with one another; and (3) synchronicity, which is related to the simultaneous actions between a user and its response to the environment.

Liu and Shrum (2002:54) stated one of the most relevant definitions of interactivity: "the degree to which two or more communicating parties can act on each other, on the communication medium, and on the messages and degrees with which such influences are synchronized." Liu and Shrum's model coincides well with the model of McMillan and Swang (2002) because Liu and Shrum considered three components suggested by McMillan and Swang: direction of the communication, user control, and time. Johnson *et al.* (2006) examined reciprocity, responsiveness, and speed of response as three basic components of interactivity and added a fourth dimension, nonverbal information, which is the richness of the communication messages.

Figure 15. Comparison between Heeter's and Liu and Shrum's Interactivity models

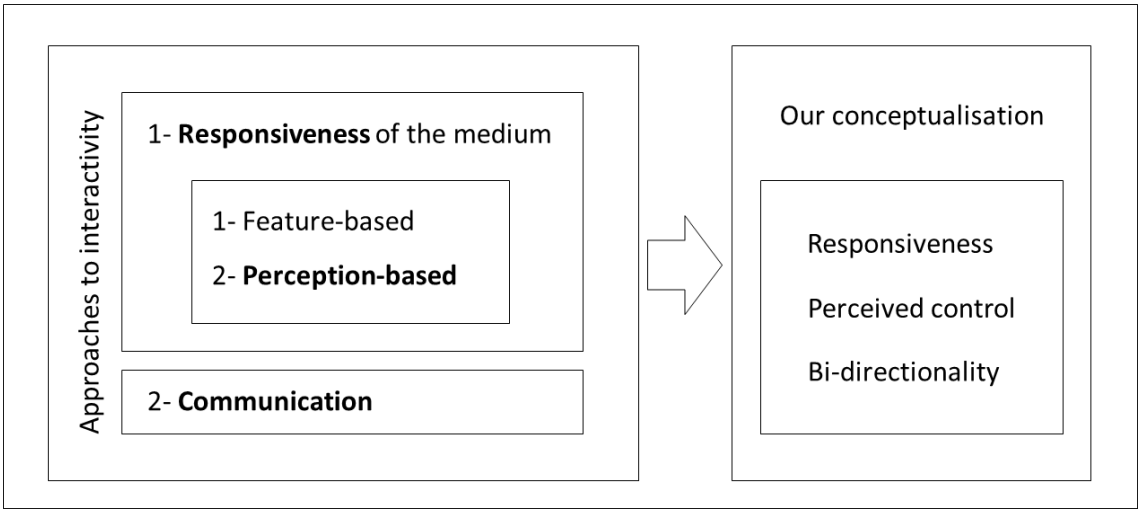


Source: own elaboration from Heeter (1989) and Liu and Shrum (2002).

Other authors distinguish the interaction between the user and the technology (e.g. Novak *et al.*, 2000; Chung and Tan, 2004; Bridges and Florsheim, 2008) from the communication afforded by the technology (Liu, 2003; Chang and Wang, 2008; Cui *et al.*, 2010; Song and Zinkhan, 2008). Accordingly, interactivity is conceived either as a perception of speed or "responsiveness" (Novak *et al.*, 2000) or as a "communication" facet (Song and Zinkhan, 2008). These models are summarised in the elements shown in Figure 16, which involves the main concepts of the previous modelisations: responsiveness, perceived control (as the most relevant feature perceived by users),

and bi-directional communication. Let us examine those three concepts.

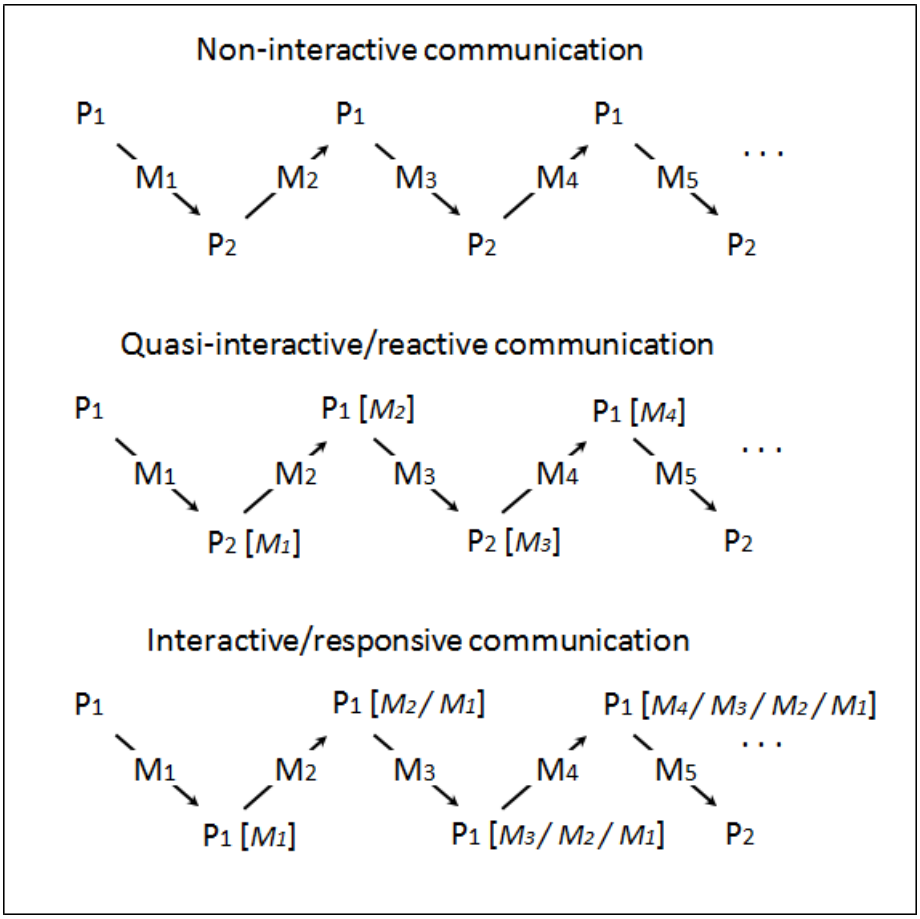
Figure 16. Conceptualisation of interactivity



Source: own elaboration.

Responsiveness. Defined as 'the relatedness of a response to earlier messages' (Dholakia *et al.*, 2001:7), responsiveness is an extreme feature of interactivity. In fact it differentiates between non-interactive, quasi-interactive, and interactive communications. In non-interactive communications, there is no coherence in the conversation between sender and receptor. In quasi-interactive communications, there is a sequence in the conversations: there is either a response that acknowledges prior messages, or a regular response that involves a reaction to prior messages, i.e., there is a reaction from receptor to sender's message. Additionally, total interactivity requires that later messages depend on the reaction to earlier messages, i.e. not just a reaction but an interaction (Rafaeli, 1988). Figure 17 shows the different processes typical of non-interactive, quasi-interactive, and interactive communication, where P_1 and P_2 represent the two persons engaged in the communication process, M_j the messages numbered in the temporal sequence, and $[M_j]$ the message M_j taken into account to create the next message.

Figure 17. Interactive, quasi-interactive and non-interactive communication



Source: adapted from Rafaeli (1988).

In non-interactive processes, each message is created independently from the previous ones; in quasi-interactive processes only the previous one is taken into account in the creation of each message; in totally interactive, there is responsiveness, which involves the previous sequence of messages in the creation of each new message. As a result, 'it incorporates reference to the content, nature, form, or just the presence of earlier reference' (Rafaeli, 1988:19). In online communications, responsiveness of an environment can be featured according to the probability of the response, its speed, relevance, and elaboration (Lee, 2005).

Control is present in many studies about interactivity focused on the features of the environment as perceived by users (e.g. Lee, 2005; Liu and Shrum, 2002; McMillan and Swang, 2002; Rodríguez-Ardura and Meseguer Artola, 2016; Shankar *et al.*, 2003; Teo *et al.*, 2002). Control, together with exchange of roles and participation, is a requirement for any communication to be interactive (Williams *et al.*, 1998). Control allows user to determine the flow of information and actions available in the medium each time. This flow varies from one medium to another; thus a person watching television will only be able to switch the channel, whilst in highly interactive media such as HSN or in general the internet, users have greater control on the surf sequence (Liu and Shrum, 2002). There appears to be an obvious direct relationship between the

perceived control of users and the level of interactivity of the environment.

Bi-directionality. Bi-directional communication represents the capacity for media to provide 'reciprocal interdependence' (Markus, 1987:491) and is a key element that differentiates interactive media. This two-way communication allows media to create interactive environments (Rafaeli, 1988) which favour the inherently human impulse for interpersonal communications (McMillan, 2006) in environments that reproduce natural interactions (Reeves and Nass, 1996). This will emerge in source as well as in receiver, where there is a feeling of mutual and equal communication for both parties (Burgoon, 1999) and each party can interchange their roles, becoming a symmetrically interactive form of communication (Bretz and Schmidbauer, 1983). Bi-directionality is a condition for responsiveness (see Figure 17), and necessary for users to feel in control of their environment, as there should be a response to their commands.

Keeping in mind the importance of the three concepts above, we propose a conceptualisation of the construct that includes them all (Rodríguez-Ardura and Meseguer Artola, 2016). Thus, we consider the interactivity of a HSN as the extent to which the users perceive the medium as bi-directional, responsive, and under their control.

2.2.2 Spatial presence and social presence

According to the Cambridge Dictionary[5], the term presence expresses either the "fact that someone or something is in a place" or the "feeling that someone is still in a place although they are not there or are dead." Interestingly the terms telepresence or virtual presence do not appear, and no reference is made to the individual's feeling of being in a virtual and non-physical place.

As early as 1980, Minsky started to use the word telepresence to describe the environments that allow users to operate in remote systems. In later papers, Minsky, along with Akin, Thiel and Kurzman (1983:1.1.3), defined the conditions that should be satisfied for an environment to elicit telepresence:

> *"At the worksite, the manipulators have the dexterity to allow the operator to perform normal human functions at the control station, the operator receives sufficient quantity and quality of sensory feedback to provide a feeling of actual presence at the worksite"*.

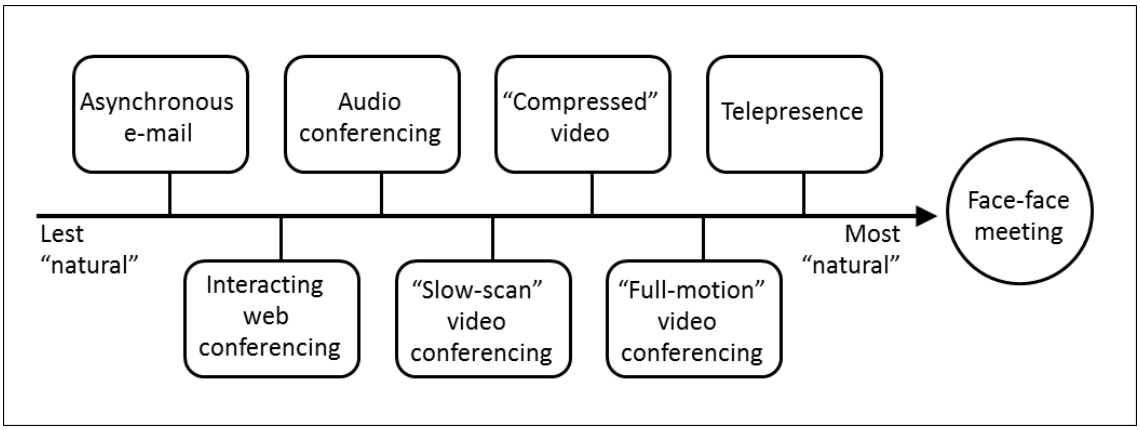
Although this definition includes feeling as a relevant nuance, it is too imprecise to define the phenomenon of telepresence, as it refers to "perform normal functions" and ignores the environments that are designed to perform non-normal operations (Held and Durlach, 1991).

In early studies, the terms virtual presence and telepresence were often interchangeable. As mentioned above, Minsky (1980) used telepresence to describe

[5] Available at http://dictionary.cambridge.org/dictionary.

the individual's feeling of being transported to a virtual environment. Later on, however, Steuer (1992) distinguished between virtual presence and telepresence and conceived virtual presence as a feeling and telepresence as an environment provided by the medium (Stavropoulos *et al.*, 2013). Following this line of reasoning, more recent studies refer to telepresence as a set of technologies that allow users who are geographically distant to maintain face-to-face meetings (Ogden and Jackson, 2010). These technologies have evolved over time, provide people with environments where they can interact as they were involved in personal encounters, and unleash cues that resemble physical presence (Biondo-Salomão, 2015). In contrast, virtual presence is often referred to as a personal feeling of "being there," in the virtual environment produced by the technology (Sheridan, 1992).

Figure 18. Teleconferencing continuum



Source: adapted from Ogden and Jackson (2010).

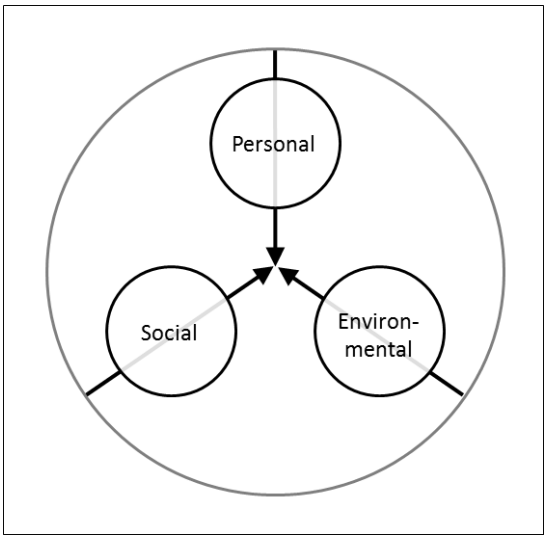
Virtual presence has two cornerstones: the difficulty in assessing the extent to which an individual perceives a sense of "being there," and the factors that help to improve feelings of presence, which seem to be related to the features of the environment (Held and Durlach, 1991). Notwithstanding, presence research has identified interactivity and other related constructs, like vividness (Steuer, 1992) and media richness (Sukoco and Wu, 2011) as presence-driving factors.

Virtual presence has been defined as the sense of "being present" in the virtual environment (Kim and Biocca, 1997; Steuer, 1992), "being in" a digital space (Lombard and Ditton, 1997; Biocca *et al.*, 2003), and "being with" people involved in the virtual environment, with whom the user interacts (IJsselsteijn *et al.*, 2000; Nowak and Biocca, 2003). The concept of virtual presence has been extensively studied in fields of computer sciences and human-computer interaction (e.g. Steuer, 1992; Minsky, 1980; Sheridan, 1992; Klein, 2003). However, the role of virtual presence in consumer behaviour has been rarely explored. In these cases, virtual presence has often been considered as a construct of minor importance, even as a mere dimension of flow (Hoffman and Novak, 1996; Novak *et al.*, 2000; Skadberg and Kimmel, 2004; Lee and Chen, 2010; Zaman *et al.* 2010).

One interesting conceptualisation of presence was proposed by Heeter (1992), who

identified three components of presence: (1) personal, as in the individual's capacity to feel immersed in the virtual environment and recognise themselves in it; (2) social, as in the more the other users recognise the individual, the higher his or her feelings of being there will be; and (3) environmental, where the more the technology acknowledges the virtual existence of the individual, the stronger the feelings of presence will be.

Figure 19. The three components of presence



Source: own elaboration from Heeter (1992).

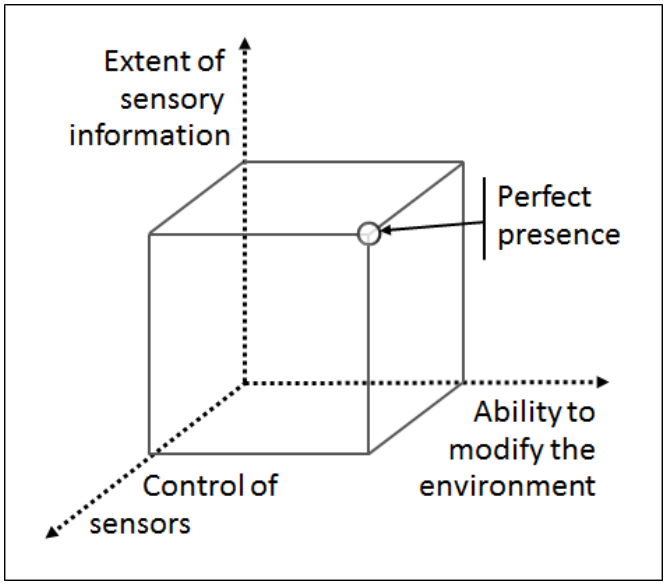
A broad vision of presence was given by Lombard and Ditton (1997) who identified six conceptualisations of presence: (1) as a social richness, which relates to the medium's capacity to be perceived by users as warm, sociable, and ultimately, as favouring social encounters; (2) as realism, which means that a medium will be able to accurately represent objects, events and persons; (3) as a transportation in any of its forms – whether the user is transported anywhere ("you are there"), objects from elsewhere are brought to the user ("it is here"), or several users are transported to a common place where they can interact ("we are together"); (4) as an immersion, which has to do with the replacement of the real world by a virtual one to such a degree that real stimuli are ignored while the user is concentrated in the virtual environment; (5) as social actors within a medium, expressing the phenomenon by which a user considers the media elements as real actors with whom they can interact; and (6) as a social actor, since the medium itself might elicit responses from users who will interact not only with other users but also with the medium. All these elements cause users to feel like they are not using a medium or a technology, rather they are being placed in a real realm, i.e. a "perceptual illusion of non-mediation."

The six facets of virtual presence discussed by Lombard and Ditton (1997) can be summarised in two broad categories (IJsselsteijn *et al.*, 2000) which we considered in our study: spatial presence and social presence (Biocca *et al.*, 2003; Horvath and Lombard, 2010). The first facet of virtual presence is related to the user's feeling of "being inside" the virtual environment and is often termed spatial presence (Wirth *et*

al., 2007), but also virtual presence (Sheridan, 1992) or simply presence (Welch *et al.*, 1996). For our study, we will use the term spatial presence. The second facet of presence is usually named social presence (Rice and Tyler, 1995; Short *et al.*, 1976; Trevino *et al.* 1987; Tu, 2002; Walther, 1996), but also co-presence (Goffman, 1963; Ciolec, 1982), and is associated with the feeling of "being with others" (Moon *et al.*, 2013:16) or "being together" and in communication with other users. Social presence construct relates to the extent to which every person involved in an interpersonal relationship seems to exist and react with one another (Heeter, 1992). This differentiation between spatial and social presence seems appropriate as long as it depicts a broad spectrum of presence feelings triggered by digital technologies (IJsselsteijn *et al.*, 2000).

An interesting view of spatial presence was provided by Sheridan, who considered three determinants of spatial presence: the extent of sensory information, the control of sensors, and the ability to modify the environment.

Figure 20. Three determinants of sense of presence



Source: Sheridan (1992).

Social presence feelings offer users extra proof of the virtual environment's existence. Firstly, the fact that there is a response from other users reinforces the idea of the existence of the environment. Secondly, the reactions the user receives give clues into their own existence in the environment. Social presence offers evidence of the importance of the virtual environment and is key to its usage (Heeter, 1992).

Since a HSN can elicit high degrees of both spatial presence and social presence (e.g. Shin, 2010; Kuss and Griffiths, 2011; Oum, 2011), the two constructs are included in our conceptual model and their consequences in terms of loyalty are explored.

2.2.3 Flow

The concept of flow was proposed by Csikszentmihalyi in the 1960's after interviewing people who operated at peak performance levels (such as artists or athletes). The concept was useful for describing an individual's experiences with challenging tasks and clear goals, which led them to focus their energy and attention on the activity at hand, provide continuous feedback, and lose self-consciousness (Mirvis, 1991). The word flow was adopted from dancers and rock climbers who use it to describe the feelings associated with an optimal experience in their endeavours (Finneran and Zhang, 2005).

Csikszentmihalyi (1975:36) defined flow as "the holistic sensation that people feel when they act with total involvement." This state has also been described as an optimal experience where nothing else but the ongoing activity at hand "seems to matter" (Nah *et al.*, 2011:734). Flow is further associated with high-level skills and challenging activities (Pullman and Gross, 2004).

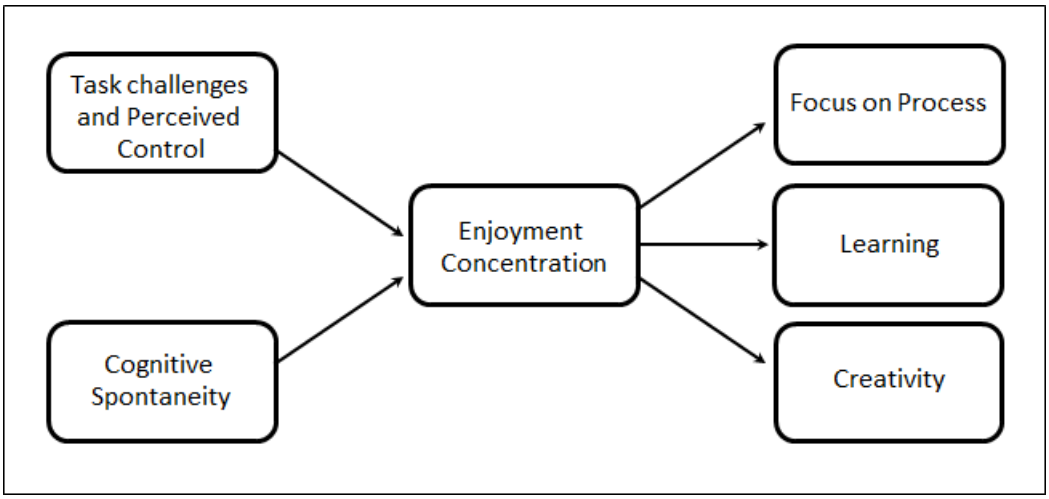
According to Csikszentmihalyi and colleagues' work (e.g. Csikszentmihalyi, 1975, 1977; Nakamura and Csikszentmihalyi, 2002), flow experiences can be described in terms of five features: (1) personal skills required to face challenges raised by the activity; (2) high levels of concentration on the activity; (3) a sense of control over the actions; (4) a loss of self-consciousness; and (5) a sense of time passing very quickly. Flow has been associated with an intense feeling of joy and a purely hedonic and autotelic subjective experience, as it "appears to need no goals or rewards external to itself" (Csikszentmihalyi, 1975:53). Flow not only appears in joy experiences but causes happiness itself (Sartika and Husna, 2014). Rodríguez-Sánchez and Schaufel (2008) further observed that online flow is a three-dimensional construct that involves absorption, enjoyment, and intrinsic interest.

Flow occurs when individuals are required to use their skills at full capacity to face the challenges raised by certain activities. Otherwise, if individuals feel that their skills clearly exceed the challenges, they will become unmotivated and will not reach flow. Conversely, if individuals feel that the challenges are above their skills, they might become overwhelmed and not achieve flow either (Richard *et al.*, 2010).

First detected in music, arts, literature and sports, (Csikszentmihalyi, 2005), Trevino and Webster (1992) revealed for the first time the existence of flow experiences within computer-mediated environments. From then on, online flow has been observed in a number of studies (e.g. Hoffman and Novak, 1996; Skadberg and Kimmel, 2004; Pace, 2004), including during the use of SNSs (e.g. Zhou *et al.*, 2010; Chang and Zhu, 2012).

Ghani (1995) proposed a model of flow, operationalised as enjoyment and concentration that considers the effects of two main antecedents and three main outcomes of flow.

Figure 21. Model of flow in human-computer interactions



Source: own elaboration from Ghani (1995).

According to Ghani's model, the first driving factor to flow states is related to the adaptation of the individual's skills to the difficulty of the task, which is required to optimize favouring the feeling of an achievable (controllable) challenge. This sense of control over the activity is revealed as one of the most important factors that captivate computer gamers (Malone and Lepper, 1987), and comes from the feeling of being able to predict the results of individual actions. The second factor that should affect flow is cognitive spontaneity, which captures the extent to which the individual is spontaneous when interacting in an environment, as all the individuals learn and understand the surrounding reality in a different spontaneity level (Bassili and Smith, 1986). Martocchio and Webster (1992) detected a positive relationship between cognitive playfulness, which includes spontaneity, with a more positive mood and satisfaction. Similarly, Voiskounsky *et al.* (2004) related flow with high levels of spontaneity among computer gamers.

Under a flow experience, individuals focus on the online experience itself, not on its result, as found by Turkle (2005). Flow is further connected with online exploratory behaviour, which leads the individual to surf without pursuing a specific result but the joy of the surfing experience in and of itself (Ghani and Deshpandeb, 1994), so it triggers self-oriented intrinsic motivation (Miller, 1988).

Ho and Kuo (2010) detected a positive relationship between flow and three dimensions of learning (Gray and Meister, 2004): replication, or the extent to which an individual is able to reutilise the existing knowledge; adaptation, understood as the ability of an individual to change their mental structures to produce new knowledge; and innovation, referred to as the individual's capability of making substantial changes to apply new knowledge. Hsieh *et al.* (2016) analysed elementary students' performance with game-based environments and reported improved results for individuals with high flow. This result makes sense, as flow involves extreme attention related to higher learning levels (Nakamura and Csikszentmihalyi, 2002).

In addition, "flow plays a lubricating role in the formation of creativity" (Yan *et al.*, 2013:1923). Garaigordobil and Berrueco (2011) detected a positive effect of fun and absorption –a term closely associated with flow states– with higher levels of creativity among preschool children. Wang and Tsai (2014) identified the positive effect of the intrinsic motivation raised by flow in the creativity and innovation capabilities of organisations. Kalinauskas (2014) observed a relationship between flow and creativity in gaming environments, and Elam and Mead (1990) related absorption and enjoyment with higher creativity.

Finneran and Zhang (2005) extended Ghani's model to explain the positive impact of flow on e-commerce and e-learning since it increases communication, exploratory behaviour, learning, positive effects, and computer usage.

The operationalisation and empirical examination of flow can be performed according to two main perspectives. The first of these perspectives perceive flow as a multidimensional construct, considers each component of flow separately, and captures flow indirectly as a higher-order factor (e.g. Richard and Chandra, 2005; Bridges and Florsheim, 2008). In contrast, the unidimensional perspective understands flow as a holistic cognitive state (e.g. Novak *et al.*, 2000; Novak et al, 2003; Hsu and Lu, 2003) so it measures it directly.

The main disadvantage of the multidimensional or indirect approach is that it requires a consensual operationalisation of flow, which does not occur yet. For instance, Bakker (2005) proposed absorption, enjoyment, and intrinsic motivation as components of flow, while Trevino and Webster (1992) operationalised flow through control, attention focus, curiosity, and intrinsic interest. Hsu and Lu (2004) considered total involvement, enjoyment, control, concentration, and intrinsic interest as dimensions of flow. This inconsistency does not appear in flow literature that adopts a unidimensional or direct approach because participants are openly asked to report their flow experiences, and there is consensus on the scales of flow (e.g. Choi *et al.*, 2007; Rodríguez-Ardura *et al.*, 2016; Woszczynski *et al.*, 2002).

With this reasoning in mind, we adopt the unidimensional or direct perspective in this study. Hence, we consider flow as a holistic state.

2.3 Personal traits driving HSN loyalty

Personal features and personality traits cannot be overlooked when we seek to enhance our understanding of brand loyalty. Indeed, a consumer's personality may directly affect their consumption decisions to the extent that there might be consumers "inherently loyal, disloyal or ambivalent" (Oliver, 1999:43). In other words, loyalty might be directly affected not only by the consumer's experience with the brand but also by intrinsic individual traits.

Some common patterns can be identified regarding the individual's traits that influence brand loyalty (Mishra and Prasad, 2014): age, because young consumers may be less

likely to show loyalty than older consumers; education, as higher educated consumers tend to be less loyal; and status, since more affluent consumers tend to show less loyalty. Even the individual's gender can be relevant in terms of brand loyalty, as women are typically more loyal than their male peers (Melnyk *et al.*, 2009).

Mellens *et al.* (1996) classified brand loyalty measures on the basis of two criteria: brand-oriented (versus individual-oriented) measures and attitudinal (versus behavioural) measures.

Figure 22. Classification of brand loyalty measures

	Attitudinal	Behavioural
Brand oriented	• Stated purchase intentions preferences measures • Commitment measures	• Based on aggregated data • Based on individual-level data
Individual oriented	• Measures of the product category level • **General individual-oriented attitudinal measures**	• Proportion-of-purchase measures • Sequence-of-purchase measures

Source: own elaboration from Mellens *et al.* (1996).

In Mellens *et al.*'s classification, there are a set of loyalty measures aligned with the idea that loyalty depends more on the individual's personality than on brand attributes. Mellens *et al.* identified Raju (1980), Sproles and Kendall (1986), and Hafstrom *et al.* (1992) as the most relevant authors in stating that there is a type of loyalty completely dependent on an individual's personality.

The analysis of the personality factors and its implications on brand loyalty was enhanced with the formulation and acceptance of Goldberg's (1990) model, called the "five-factor model" or simply the "big five." This model proposes five main personality traits: extraversion, neuroticism, openness to experience, agreeableness, and conscientiousness. The model became a pillar to many researchers in examining the impact of personality on loyalty. Interestingly, Matzler *et al.* (2006) observed a direct relationship between the traits of extraversion and openness to new experiences and loyalty in their study of randomly selected Austrian shoppers. Lin (2010) analysed the behaviour of 400 adult video game consumers and reported a positive influence of personality traits, such as agreeableness and openness on loyalty. Vázquez-Carrasco and Foxall (2006) detected that certain personality traits, like the need for social affiliation and the search for variety, have an impact on loyalty towards hair styling services. Mahatanankoon (2007) studied the behaviour of text-messaging services and

found that the personality traits of innovativeness and playfulness are closely related to OSL and have also direct impact on loyalty.

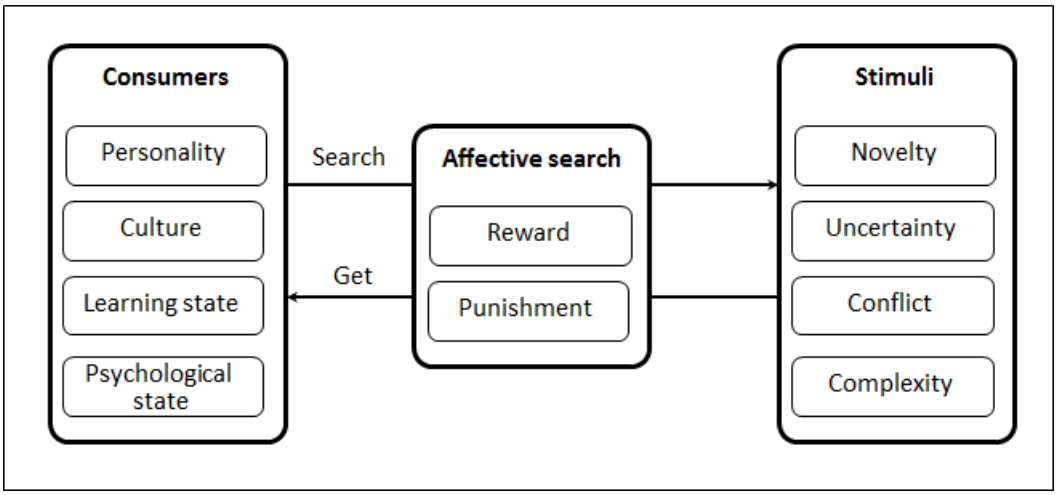
Consistent with Mahatanankoon (2007), we considered one personality construct, OSL, as a potential driver of HSN loyalty. OSL is closely related to the personality traits of openness to new experiences and innovativeness (Steenkamp and Baumgartner, 1995), as "those individuals with high OSLs will be more likely to explore new situations and will have a greater comfort level with new situations than individuals with low OSLs" (Woszczynski *et al.*, 2002:377). Since openness to new experiences and innovativeness are antecedents of loyalty, as seen in previous studies such as Raju (1980) on the behaviour of homemakers and students or Woszczynski *et al.* (2002) on computer interactions, there is enough ground to include OSL as a personality factor in our model.

2.3.1 OSL

OSL captures the response of an individual to external stimuli (Fiore *et al.*, 2005). This is a construct introduced simultaneously by Hebb (1955) and Leuba (1955) to characterise individuals on the basis of their personal responses to environmental stimuli (Raju, 1980). Previously, Zuckerman (1961, 1971) observed behavioural patterns in terms of sensation-seeking; this helped to consider that some individuals tend to seek environmental stimuli to feel comfortable.

External stimuli can be classified according to four attributes (novelty, uncertainty, conflict, and complexity) that match affective searching and, depending on a consumer's personality, will provide them reward or punishment (Wahlers *et al.*, 1986).

Figure 23. Consumers' affective search

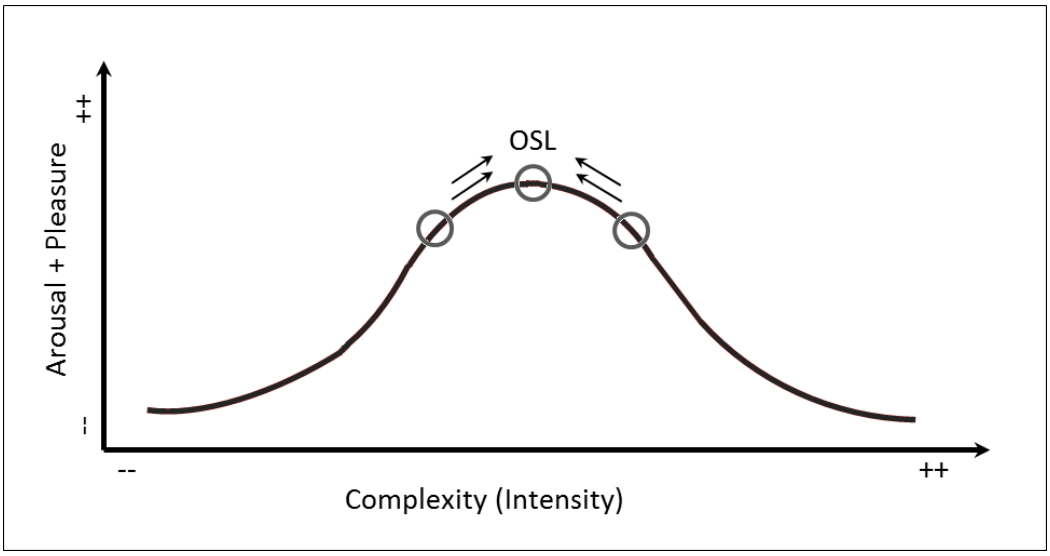


Source: own elaboration from Wahlers *et al.* (1986).

As early as the nineteenth century, the German psychologist Wilhelm Maximilian Wundt discovered that an increase in the intensity of the stimuli perceived by the individual improved pleasure until a certain point was reached. Beyond that point, increasing intensity decreased pleasure. In 1960, Berlyne extended Wundt's work by

creating more complex elements for both axes: the abscissa axis will now represent not only intensity, but also complexity, while the ordinate axis now represents the pleasure plus the arousal experienced (Mapes, 2007), as shown in Figure 24.

Figure 24. Berlyne's adaptation of the Wundt Curve



Source: Berlyne (1960).

The underlying concept of OSL is that every person has an "optimal stimulation" level, i.e., a preferred level of stimulation. That stimulation level marks the threshold that the individual will not be willing to exceed or fall below. This implies that if a consumer is exposed to novel, ambiguous or complex external stimuli, and this stimulation is below his or her OSL, he or she will attempt to increase stimulation. This behaviour is named exploratory or curiosity behaviour and aims to change the field of the stimuli (Berlyne, 1963; Fowler, 1965), so that the consumer pursues pleasure, fun, or escapism (Childers *et al.*, 2001). Conversely, if the external stimuli are above the consumer's OSL, the individual will try to decrease that stimulation (Raju, 1980).

Raju (1980) considered seven categories of exploratory behaviour: repetitive behaviour proneness, innovativeness, risk taking, exploration through shopping, interpersonal communication, brand switching, and information seeking. These categories revealed a clear characterisation of low and high OSL individuals; particularly there is a positive relationship between high OSL and the features innovativeness and risk taking. Raju's study was extended by Steenkamp and Baumgartner (1995) who employed six constructs related to exploratory behaviour: risk taking and innovativeness, variety seeking, curiosity-motivated exploration, exploratory purchase behaviour, exploratory information seeking, and variety seeking. According to Sapra and Mor (2012), these six constructs can be summarised into three main points (Sapra and Mor, 2012): (1) risk taking expresses the individual's tendency to make choices that involve innovation and unfamiliarity; (2) variety seeking captures the tendency to avoid familiar behaviour; and (3) curiosity-motivated behaviour searches exploratory information. For these constructs the results were basically the same: a high correlation of high-OSL with

strong exploratory behaviour, where high-OSL individuals look for “thrills, adventures, dis-inhibition, new experiences, fantasies, sensory stimulation, escape from boredom, and alternation among familiar things” (Sapra and Mor, 2012: 62), always to increase the level of the stimuli they are exposed to.

The desire for stimulation is a factor that consumers take into consideration in their decision-making processes (Keng *et al.*, 2015). OSL influences consumer behaviour, and this influence has been evidenced in a number of studies that examined searching processes (Raju, 1980) and type of shopping (Fiore *et al.*, 2005; Holbrook & Hirschman, 1982).

OSL is a key factor in consumption decisions and behaviours: consumers with high OSL tend to look for hedonic purchasing experiences whereas low OSL individuals are more prone to be involved in utilitarian consumption experiences (Steenkamp and Baumgartner, 1995). Moreover, the effect of OSL on consumer behaviour has reportedly taken place in a broad range of environments, including virtual communities and SNSs (Gu *et al.*, 2016). User online behaviour may vary depending on their OSL and the hedonic value provided by the community (Yoo *et al.*, 2010), so high-OSL individuals will more likely pursue hedonic experiences than low-OSL individuals (Keng *et al.*, 2015).

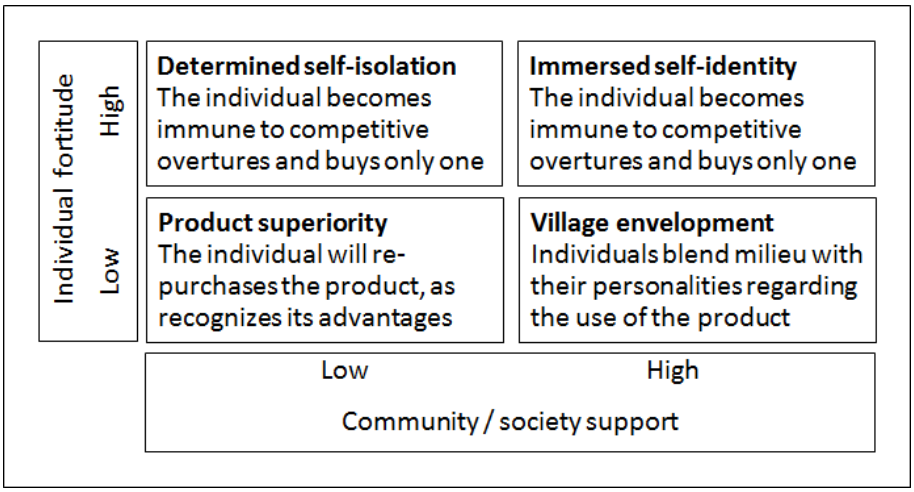
The above reasoning leads us to believe that a positive relationship may exist between an individual’s OSL and their subjective experiences in HSNs, like flow, that are closely connected to exploratory behaviours.

2.4 Social factors driving HSN loyalty

According to Oliver (1999:40), “a consumer’s willingness to rebuy or repatronise reaches ultimate extremes until he or she is willing to adore and commit unfailingly (i.e., love) to a product or service. Beyond this, the necessary additional adhesion stems from the social bonding of a consumption community and the synergy between the two. In essence, the consumers want to be loyal, the social organisation wants them to be loyal, and as a result, the two may become symbiotic.” This passage suggests the importance of social pressure in the consumption or rejection of a product or service. This idea has been extensively championed by Ajzen and Fishbein (1975, 1980) who modelled how social elements influence consumer behaviour.

Social groups may have considerable impact on the individual's loyalty towards a brand. Oliver (1999) considered the impact of social factors in his loyalty model, which included two socially related factors: the individual fortitude about the benefits of the brand and the support of consumption from the social groups. According to this model, four possibilities arise, as shown in Figure 25.

Figure 25. Oliver's four loyalty strategies



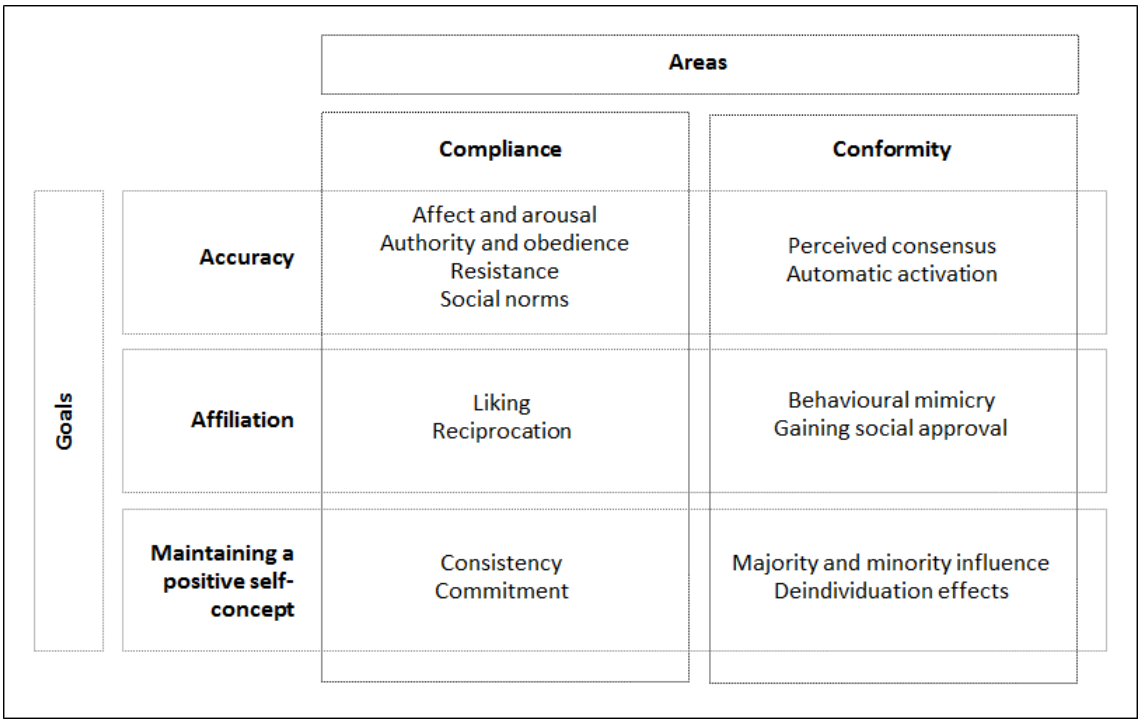
Source: own elaboration from Oliver (1999).

Since the 1950's, many researchers have studied why individuals are so greatly affected by social influences (Kincaid, 2004). Central to these studies is the idea that social groups tend to promote uniformity and cohesiveness among their members. If a majority in the social group detects non-uniform-behaviour in some individuals or in minority groups, they will firstly inform them about the expected norms and will eventually reject those individuals that do not fit the expected norms. This forces the retreat of minorities within the group, even if their behaviour would have resulted positively for the majority (Emerson, 1954).

Social pressure has shown to be a crucial factor in an individual's decision-making processes for areas as different as political voting intention (e.g. Panagopoulos *et al.*, 2014), communication processes (e.g. Lapinski and Rimal, 2005), healthy habits (e.g. Holt *et al.*, 2010), exposure to advertising (e.g. Batinic and Appel, 2013), and purchasing decisions (e.g. Wood and Hays, 2012; Grinblatt *et al.*, 2008). Effects of social pressure are particularly relevant in SNSs because of the "bounded normative influence" (Kincaid, 2004:38); this concept reflects the tendency of social norms to favour long-term homogeneity by affecting minority subgroups. This effect will be especially intense in social networks, as they are composed of a number of local subgroups in which bounded normative influences tend to act. Social norms can even generate automatic behaviours, through which individuals do not need to decide, what Cialdini (2001) called fixed-action patterns.

In their literature review, Cialdini and Goldstein (2004) identified three main motivations or goals of an individual under the influence of social networks: accuracy, affiliation, and a positive self-concept. These central goals are pursued in two areas: compliance, related to the individual's feeling that they are expected to respond in a particular way; and conformity, which relates to the modification of the individual's behaviour aimed to match other individuals' expectations (see Figure 26).

Figure 26. Social influence on compliance and conformity



Source: own elaboration from Cialdini and Goldstein (2004).

In the compliance area, the goal of being accurate will force individuals to look for the right expectations from social groups, which they must accomplish to gain affect and arousal. Consequently, individuals will recognise and obey the authority and accept social norms, which will decrease their resistance. The goal of affiliating with others will be achieved by liking their endeavours with others' behaviours in a reciprocal way. The individual's goal of maintaining a positive self-concept will be achieved by being consistent with their previous behaviours and maintaining their commitments. In the conformity area, the accuracy goal is conditioned by the perceived consensus about norms and expectations, and will be activated in a little-mindful (i.e. not automatic) way. The goal of feeling affiliated will imitate the group's expressions, gestures and postures (i.e. though behavioural mimicry) aimed at gaining social approval. Quite often, individuals conform to other's expectations to protect their self-esteem. This will be affected by either majority or minority group influences, and result in a process of deindividualisation in favour of a social identity.

The concept of norm must be explored in two components (Lapinski and Rimal, 2005). The first component is related to the collective level in which norms exist for the society, social networks, groups, or communities. At this level, norms serve as conduct guidelines that make a difference between accepted and rejected behaviours. The second component refers to perceived norms, i.e., the individual's understanding of existing social norms.

The phenomena of pluralistic ignorance (Grant *et al.*, 2009) appears in "situations where a majority of individuals perceive that most of their peers think differently than

themselves when, in fact, their attitudes are similar." One of the reasons for the misunderstanding of social norms is that they are not always explicitly stated, so they might elicit situations of hidden profiles which "occur when the members of a group individually hold information favouring a low-quality decision but collectively have the information necessary to make a high-quality decision" (Cruz *et al.*, 2000:104). In fact, not only the knowledge of the norms, but also the way they are communicated, will affect the decision-making process. This is because individuals more likely take into account the social group's norms when they are explicitly shared within the group than when they are individually known, which is called the common-known knowledge effect (Gigone and Hastie, 1993). Moreover, individuals will tend to "discount" or "bolster" information items based on their own opinions and preferences (Cruz *et al.*, 2000).

Depending on their nature, social norms can be classified as descriptive and injunctive. Descriptive norms indicate to individuals the prevalence of the expected behaviour and are easily perceivable in the media representations of topics or behaviours. In contrast, injunctive norms are related to the pressure level towards individuals regarding a particular issue and can be identified by analysing the policies of social groups towards or against that issue (Lapinski and Rimal, 2005).

In conclusion, individuals in a social group are affected by either informational and normative influences, and the existence of social norms does not imply an equal interpretation by all group members. Thus, it makes more sense to analyse the perceived component of social norms than the socials norms at the collective level.

We understand subjective norms as a construct that potentially captures the social influences on user behaviour in terms of their continuing usage or loyalty towards a HSN. This is consistent with Oliver's (1998) conception about the effect of social influences on consumer loyalty. Therefore, we propose including subjective norms in our modelling of user intentions to continue using a HSN.

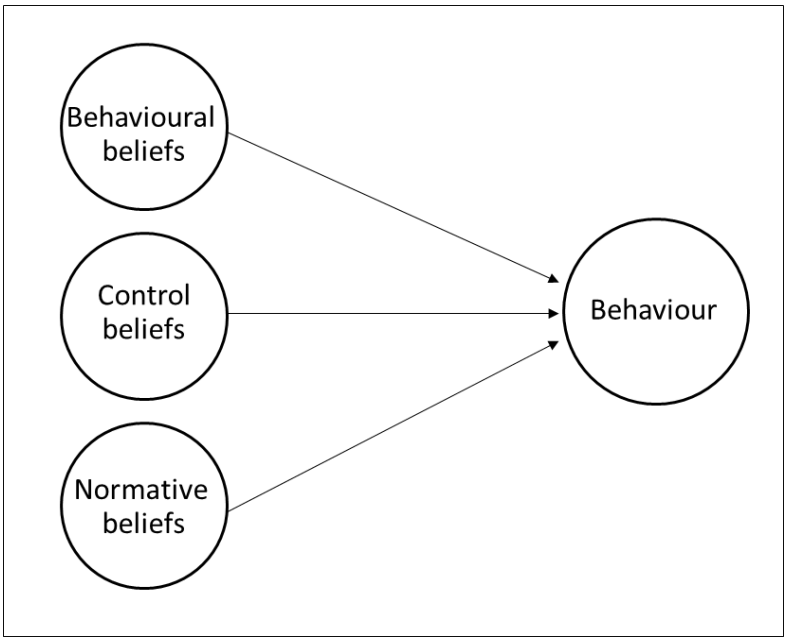
2.4.1 Subjective norms

Subjective norms are a construct that we included in our model to examine the social pressure felt by individuals when considering their continuing use of a HSN. The concept of subjective norm was first introduced by Ajzen and Fishbein (1975, 1980) in their theory of reasoned action to depict social influences on human behaviour. Later on, the theory of planned behaviour –proposed by Ajzen (1985) to enhance the predictive power of the theory of reasoned action– also considered the role of subjective norms in an individual's behaviour.

As stated by the theory of planned behaviour (Ajzen, 2002), human behaviour is guided by three types of beliefs: behavioural beliefs, depending on what individuals take into consideration as a result of their behaviour and, consequently, form attitudes towards or against such behaviour; control beliefs, which assesses how easy or difficult the planned behaviour will be; and normative beliefs, which result from the individual's evaluation of social normative pressures and other people's beliefs about their possible

behaviour.

Figure 27. Types of beliefs according to the theory of planned behaviour



Source: own elaboration from Ajzen (2002).

Subjective norms are a form of social pressure perceived by consumers where they feel compelled to behave in a certain way. Subjective norms materialise in "the person's beliefs that specific individuals or groups think he should or should not perform the behaviour and his motivation to comply with the specific referents" (Ajzen and Fishbein, 1980:8). The concept of subjective norms is closely related to that of perceived norms (Lapinski and Rimal, 2005) as it takes into consideration the individual's feelings about the collective norms. In fact, subjective norms can be defined as "the perceived social pressure to perform or not perform the behavior" (Bosnjak *et al.*, 2005).

In digital environments, a subjective norm is usually conditioned by two types of elements (Kim, 2011): interpersonal influences from people belonging to the individual's personal social network who will encourage or discourage their use of certain technologies; and media influences that channel businesses' marketing efforts to promote their products and brands. In a more generic way, subjective norms can be defined as the individual's perception that his or her influencers, either directly or indirectly, will favour performing or not performing a particular behaviour (Lin and Ding, 2003). Subjective norms will capture the impact of social influences in our model of HSN loyalty.

2.5 Attitude as a precursor to HSN loyalty

Attitude is an important construct to consider in any study related to brand loyalty, not only because it is "the single most indispensable construct in social psychology" (Petty *et al.*, 1997:610) but also because it is particularly and closely related to brand loyalty.

In Dick and Bassu's (1994), Mellens *et al.*'s (1996) and Wang's (2007) studies, "attitudinal loyalty" is even conceived as a form of brand loyalty.

Attitude is a construct with both a personal and an object-related dimension and can be defined as an association between an object and its evaluation by an individual (Blascovich *et al.*, 1993). Indeed, attitude may be affected by internal factors, as prior personal attitudes, as well as by exogenous factors, such as the information available (Glasman and Albarracín, 2006).

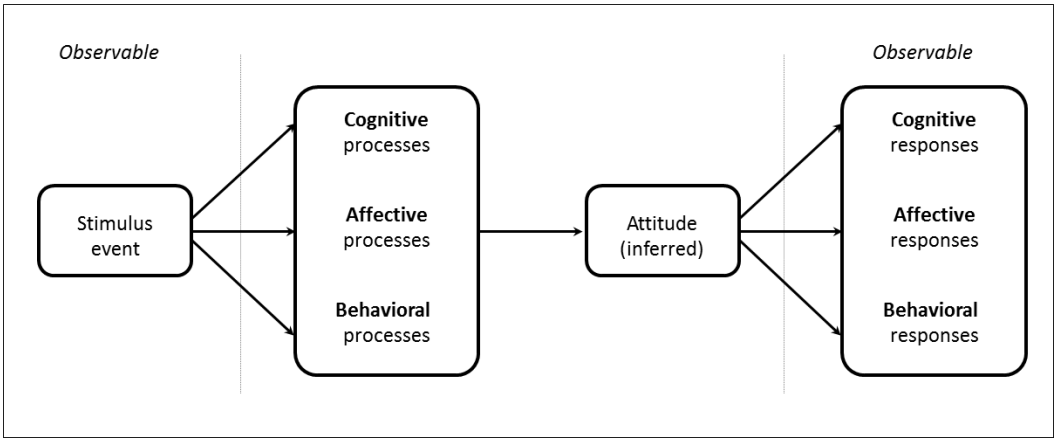
Regarding its personal dimension, attitude is a psychological construct (Ostrom, 2014) related to personality traits, such as spontaneity (Keller *et al.*, 2002). Accordingly, attitude can be defined as a mental representation that is affected by experience and directly influences an individual's behaviour (Breckler and Wiggins, 2014). Likewise, Ronis *et al.* (2014) conceived attitude as a personal factor that, in addition to other situational and interpersonal factors, affects an individual's behaviour. This relationship between attitude and behaviour, already posited by Ajzen and Fishbein (1980) in their theory of the reasoned action, is also present in Ajzen's (2002) theory of planned behaviour.

Attitude towards an object is defined as what the individual "thinks and feels about someone or something" (Petty *et al.*, 1997:610). Attitude depends on internal factors, such as the individual's personality (Ostrom, 2014) or the personal relevance of the object (Campbell and Wright, 2008), as well as on external elements, like usage experiences (Oskamp and Shultz, 2014), information available, repetition (Zajonc, 1968), and usefulness of the object (Childers *et al.*, 2001). Thus, attitude towards an object is a concept that, even depending on internal factors, can be formed, so businesses often work on the promotion of positive attitudes towards their products or brands (Campbell and Wright, 2008).

Businesses might promote positive attitudes towards the brand in its three components (Teo *et al.*, 2003; Oskamp and Shultz, 2014): cognitive, formed with conscious thoughts about the brand, e.g. "Facebook has many possibilities"; affective, i.e., feelings formed without conscious thoughts, e.g. "I like to use Facebook"; and behavioural, related to actions to undertake, e.g. "I access Facebook every chance I get".

Attitude is a mediating non-observable construct that helps to explain the relationship between other constructs. In any of its three components (cognitive, affective and behavioural), attitude may be affected by external stimuli. Even being a non-observable variable, it will have an impact on observable responses, which again might have cognitive, affective, and behavioural components (see Figure 28).

Figure 28. Attitude mediating process



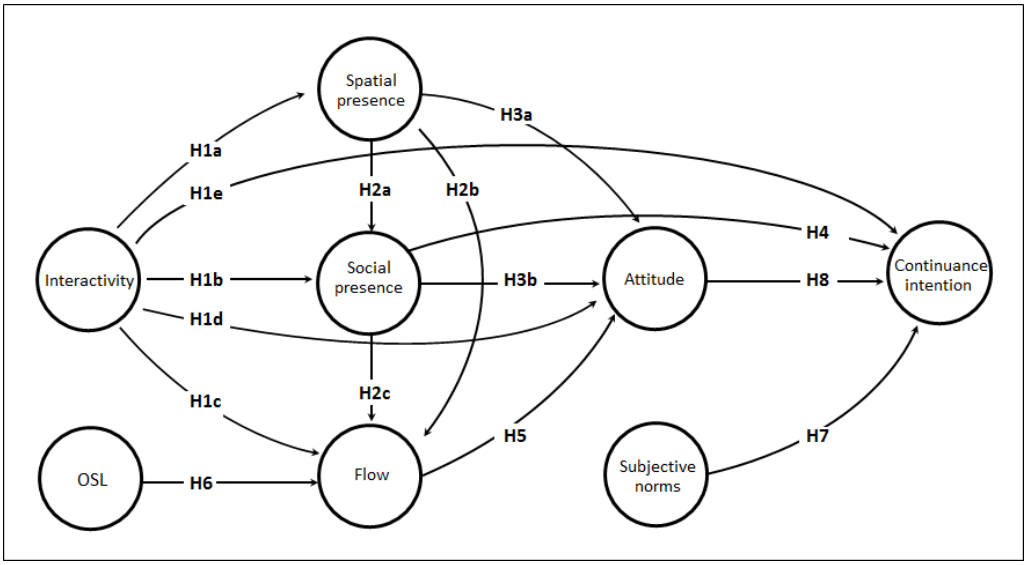
Source: Oskamp and Shultz (2014).

Attitude is one of the key consequences of the consumer's perception on his or her experiences with a product or service in any environment, including online (Childers *et al.*, 2001). Fishbein and Ajzen (1975) defined attitude in terms of feelings (both positive or negative) about the value proposition of a product, a store, or a brand. This definition has been well accepted in marketing and consumer behaviour (MacKenzie and Lutz, 1989; Lyong, 1998; Chi *et al.*, 2011) and is adopted in this study.

2.6 Conceptual model and research hypotheses

All the constructs in our conceptual model (see Figure 29) have been selected for their potential relevance to explain loyalty behaviours towards a HSN, as revealed by the previous critical analysis of the literature. In this section, the presumed relationships and interplay among these constructs are theoretically examined, and their contribution towards HSN loyalty explored.

Figure 29. Conceptual model and research hypotheses



Source: own elaboration.

2.6.1 The effects of interactivity

Interactivity is conceived in our study from the point of view of users and defined as the user's perception of the bi-directionality and responsiveness of the HSN environment and their control over it. Floridi (2005) criticised the considerations of some previous studies about the relationship between virtual presence and interactivity because one subject could be present in a remote environment by being a property-bearer and/or being a source of interaction; i.e. one subject could have properties in the remote environment and be present without any interaction at all. Nevertheless, the relationship between interactivity and presence (either social or spatial), was soon revealed in early studies on virtual presence. For instance, Sheridan (1992) noted that the interactivity between the user and the technological virtual environment is a determinant of spatial presence, and so did IJsselsteijn *et al.* (2000) who explored a set of antecedents of spatial presence.

Welch *et al.* (1996) studied experiences of virtual presence among users involved in a virtual automobile driving task and found that the higher the interactivity of the environment, the more enhanced the feeling of presence. In fact, when there is no interaction (for instance, in non-interactive television experiences), the user could only get to feel spatial presence as a spectator, but never as an actor (Kim and Biocca, 1997). Tu (2002) conducted a study on the dimensions of social presence and discovered interactivity as one of its components, as it involved two-way interactions and immediate communications. Even more, for Lim *et al.* (2015), interactivity could make a difference in terms of presence feelings, which is evident in comparing the experiences of virtual presence in traditional TV with mobile TV and allows users to interact by sharing data and comments, search additional information, and keep connected with other users. McCreery *et al.* (2015) examined various factors that come into play in World of Warcraft game experiences and found that interactivity technological features increase socio-spatial perceived interactivity and, consequently, social presence experiences. Mollen and Wilson (2010) observed a relationship between interactivity and spatial presence in their studies about e-learning and online marketing. Moon *et al.* (2013) showed that the interaction with an avatar (either a salesperson or a peer consumer) is key to eliciting social presence among users of an online retailer. Sukoco and Wu (2011) examined user experiences in advergames of a scooter brand and reported a positive influence of interactivity on a user's feelings of presence (either spatial or social).

As noted by Novak *et al.* (2000), a potential link between interactivity and spatial presence might be favoured by the responsiveness and the speed of the online interactions, which are two important facets of interactivity. This is because responsiveness and speed afford realism or vividness, which, in turn, facilitates spatial presence (Steuer, 1992). Steuer (1992) also considered interactivity as an antecedent of spatial presence. Wirth *et al.* (2007) included interactivity in their model of spatial presence and conceived it as one of the media factors that help to build presence feelings.

Furthermore, the bi-directionality of (interactive) online communications invites users to think that interactivity helps to enhance the feelings of social presence (Fortin and Dholakia, 2005). Connected to this is the user-to-user interactions provided by HSNs like Facebook, which offer social cues and thus trigger a sense of social presence (McMillan, 2006).

The high interactivity of HSNs like Facebook is one of the keys of their success (Monnes, 2015): they become virtual spaces where individuals feel they take part and interact with peers. As in real realms, users find HSNs as appropriate environments where they can build social relationships, strengthen relationships, and form "memories, experiences and imagination" (Tonkiss, 2005:3).

Keeping in mind this reasoning, we included in our model a positive relationship between interactivity and virtual presence, either spatial or social.

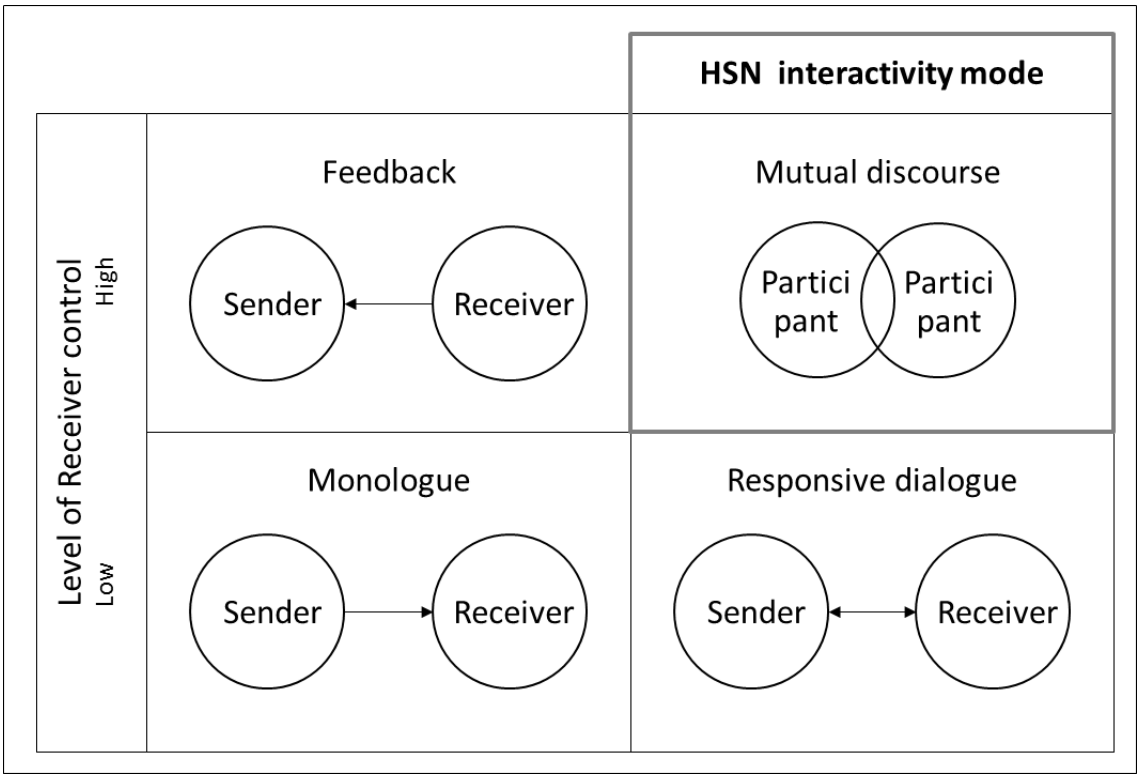
Hypothesis 1a: Interactivity positively affects spatial presence

Hypothesis 1b: Interactivity positively affects social presence

Flow experiences emerge when individuals are involved in highly demanding activities and they face challenges that require them to use their personal skills at full capacity. They may be less likely to reach flow states in non-interactive environments because they offer less challenges (Novak *et al.*, 2000). Conversely, it is reasonable to assume that interactivity will positively influence the emergence of flow.

Moreover, highly interactive virtual environments allow users to feel in control of their actions online (McMillan and Swang, 2002; Teo *et al.*, 2002), which in turn triggers flow (Choi *et al.*, 2007; Rodríguez-Ardura and Meseguer-Artola, 2016). The sense of control is commonly believed to be a key determinant of flow (Csikszentmihalyi, 1975; Pace, 2004). This leads us to hypothesise that interactive HSNs like Facebook (see Figure 30), in which interactivity and the sense of control are high, facilitate flow experiences.

Figure 30. Models of user-to-user interactivity. HSN mode



Source: McMillan (2006).

The link of interactivity with flow has been detected in various environments. Chang and Wang (2008) and Huang *et al.* (2007) observed a relationship of interactivity with flow for generic user experiences in computer-mediated environments. Faiola *et al.* (2012) analysed user experiences in Second Life and reported an interactivity-flow connection. They claimed that, thanks to the interactivity of the game, users "lost their sense of time, while feeling a heightened sense of pleasure, or what has been considered the gamers' optimal experience." Fiore *et al.* (2005) studied user experiences on retailer's websites and found that the interactivity of the interface favoured the emotional pleasure. Hoffman and Novak (1996) suggested that computer-mediated environments empower consumers to demand more interactivity and rich online interfaces, which in turn elicit flow. Mollen and Wilson (2010) also proposed interactivity as an antecedent of flow. Consistently with this we hypothesise:

Hypothesis 1c: Interactivity positively affects flow

Interactivity is a construct empirically associated with favourable attitudes towards the brand (Mollen and Wilson, 2010). The relationship between interactivity and attitude has been widely studied for internet advertising. Sundar and Kim (2005) analysed user reactions to webpages with commercial adverts and detected that the ads' interactivity facilitated a positive attitude towards the advertised brand. Other studies such as Macias's (2013) analysed factors involved in a brand website's interactions and found

that interactivity positively affects user attitudes towards the brand and their involvement with the product. Likewise, Shim *et al.* (2013) found a positive effect of interactivity on the attitude towards a brand's advertising in their study of internet protocol television.

Coyle and Thorson (2001) analysed user experiences in websites and detected a positive influence of interactivity on attitude. Kim *et al.* (2015) also found a positive relationship between these two constructs for smartphone usage, as interactivity impacts predicted attitudes. Yoo *et al.* (2010) confirmed the relationship between attitude and perceived consumption value in online shopping environments. Campbell and Wright (2008) also found a positive effect of interactivity on attitude in their study about online advertising. Sukoco and Wu (2011) indeed endorsed this positive relationship, as they discovered that highly interactive advergames elicit positive attitudes towards the advertiser's brand. Chung and Zhao (2004) analysed various factors that favour positive attitudes towards an online retailer and detected an influence of interactivity on a user's positive attitude towards the website.

The positive impact of interactivity on attitude, observed in empirical research, seems to be logical because highly interactive environments make experiences more compelling (Mocholí *et al.*, 2006), and this will result in higher user satisfaction (Ballantines, 2005) and a more positive attitude towards the environment (Coyle and Thorson, 2001; Lee, 2005). Consistent with this, we expect to find a positive relationship between interactivity and attitude towards the continuing usage of a HSN.

Hypothesis 1d: Interactivity positively affects attitude.

Albeit not extensively studied, the connection of interactivity with continuance intention has been explored by some studies. For example, Kim *et al.* (2015) detected a positive effect of interactivity on continuance intention among smartphone users, Cyr *et al.* (2009) discovered that perceived interactivity influenced e-loyalty, and similarly Chang and Chen (2008) confirmed the impact of interactivity (conceived as a part of perceived quality of the interface) on e-loyalty. It has been revealed that, ultimately, users prefer interactive environments and that interactive features positively impact user behaviours online (Steckel *et al.,* 2005) and increases their satisfaction (Ballantines, 2005). This invites us to think that a brand's efforts to meet user preferences when it comes to interactivity, increase their satisfaction and have a positive impact on continuance intention. Consequently, we expect to find a positive relationship between interactivity and continuance intention.

Hypothesis 1e: Interactivity positively affects continuance intention.

2.6.2 The effects of spatial presence, social presence and flow

The distinction between spatial and social presence has been poorly studied, so the relationship between spatial and social presence is still unknown. An exception to this is the study by Gooch and Watts (2015), who relates spatial presence, or "being there" feelings with social presence, i.e., a sense of "being with."

In off-line environments, it has been found that closeness to other people is desirable in social interactions (Hagemeyer *et al.*, 2013). This can be extended to online environments because human interactions often reflect real social connections (McCreery *et al.*, 2015). Thus, it seems reasonable to think that the feeling of being placed in an HSN environment, via a sense of spatial presence, precedes "being together" feelings. Therefore, that potential positive effect has been included as a hypothesis in our model.

Hypothesis 2a: Spatial presence positively affects social presence

The relationship between presence and flow has been detected in some previous studies like Lee and Chen's (2010) and Huang *et al.*'s (2007) online purchase experiences. Keng *et al.*'s (2015) study on the sense of virtual community connected spatial presence features with escapism, online product experiences, and flow (operationalised as immersion). Also, Nah *et al.* (2011) found that virtual presence helps to elicit flow states (operationalised as enjoyment) in their comparison of 2D and 3D virtual environments. Stavropoulos *et al.* (2013:1944) studied a range of factors that influence the internet abuse among youth and found that "telepresence significantly increases the effect of flow." Similarly, Faiola *et al.* (2012) observed a positive relationship between flow and presence in their study of user experiences in Second Life.

The direct relationship between presence and flow is easy to explain since presence experiences (either social or spatial) virtually take users to a new environment in which they can interact with other users (Rodríguez-Ardura, 2016). This virtual encounter will facilitate the user's absorption in the virtual environment so they will likely forget the immediate, physical environment surrounding them (Rodríguez-Ardura, Meseguer-Artola, 2016) and lose track of time (Pace, 2004). All of these are typical features of flow experiences. In fact, the distorted perception of time is a feature of the flow states that is also inherent to both spatial presence and social presence feelings (Faiola *et al.*, 2012). This lets us hypothesised that the relationship between spatial and social presence and flow might be detected in HNS user experiences as well.

Hypothesis 2b: Spatial presence positively affects flow

Hypothesis 2c: Social presence positively affects flow

Even though it has not been explored until now in the context of SNS usage, some studies have found a relationship between virtual presence (spatial and social) and attitude for other online contexts. Klein (2003) reported a relationship between spatial presence and attitude for a user's exposition to online advertising. Moon *et al.* (2013) found a direct effect of social presence on attitude when studying shopping experiences with avatars. Lim *et al.* (2015) detected an increase of positive feelings towards a TV channel when social presence experiences were triggered in a social TV. Mollen and Wilson (2009) also detected a positive influence of spatial presence in consumer attitudes online.

As mentioned above, the individuals' attitude towards an object depends on their personality as well as on external factors such as usage experiences (Oskamp and Shultz, 2008). Although Stringer's (2003) study could not reveal a direct impact of virtual presence on positive outcome variables, the connection of presence feelings with satisfactory user experiences has been reported in other studies (e.g. Hoffman and Novak, 1997; Stavropoulos *et al.*, 2013, Steuer, 1992; Tu, 2002). Also, the more satisfactory the experiences are, the more favourable the user's attitude will be (e.g. Leng *et al.*, 2011; Glasman and Albarracín, 2006). Consequently, we expect to detect a relationship between (spatial and social) presence and attitude towards a HSN.

Hypothesis 3a: Spatial presence positively affects attitude

Hypothesis 3b: Social presence positively affects attitude

Cyr *et al.* (2007) suggested that social presence has a positive effect on loyalty for B2C environments, whilst Lim *et al.* (2015) found a direct and positive impact of social presence on loyalty for SNS communications in live television broadcasting. Nah *et al.* (2011) detected that virtual presence experiences (broadly defined) have a positive impact on behavioural intention and then on loyalty. The positive influence from social presence towards continuance intention was revealed in HSN studies such as Cheung *et al.*'s (2011) about Facebook user experiences. As revealed in Tu's (2002:34) study on online learning, "a lack of social presence will lead to a high level of frustration, an attitude critical." This leads us to think that the capability of an environment to create a sense of "being with" other people will enable loyalty behaviours.

It is notable that the abovementioned studies refer particularly to social presence as an antecedent for continuance intention and do not consider a similar possible impact of spatial presence. Similarly, we propose that evoking senses of "being in" would not be enough of a motivator to favour continuance intention. Conversely, we state that only the incentive for users of "being with" social peers could serve as an effective motivator for continuance intention. This could be explained in terms of Ajzen's (2002) theory of planned behaviour (see Figure 27), which states that the individual's behaviour is led by three main beliefs: (1) the expected consequences of that particular behaviour, namely behavioural beliefs; (2) the factors which could favour or hinder the behaviour, namely control beliefs; and (3) the normative beliefs, which relates to the expectations of other people regarding that behaviour. Consequently, the incentive of 'being with' other persons in the virtual environment will endorse the normative beliefs, as that behaviour will intrinsically be socially accepted. And this accomplishment of the need for social recognition will serve as an incentive to continue utilising the environment, i.e. the HSN in our case.

Consequently, we have not considered in our model the relationship between spatial presence and continuance intention; only the relationship between social presence and continuance intention has been included as a hypothesis.

Hypothesis 4: Social presence positively affects continuance intention

Flow literature has identified various positive consequences of flow, including positive attitude. For example, Korzaan's (2003) study among undergraduate college students revealed a positive relationship between flow and attitude, not only in a direct way but also mediated by the exploratory behaviours elicited by flow states. Likewise, Hsu and Lu (2004) found a strong relationship between flow and attitude for online games. Similar results were obtained by Sánchez-Franco and Roldán (2005) for website usage.

Choi *et al.* (2007) also reported a direct relationship between flow and a positive attitude when they analysed e-learning usage among Korean e-learners. Lee (2010) also focused on e-learning experiences and obtained similar findings: a direct and positive impact of flow on attitude towards the e-learning environment. Lin *et al.* (2005) studied the reactions of a sample of students towards a web portal. They took into account a range of experiential elements, such as perception, confirmation and satisfaction, and found a positive relationship between these elements and perceived playfulness, which is closely related to flow. Other studies, like Trevino and Webster's (1992) and Roca *et al.*'s (2006) have endorsed a positive relationship between flow and attitude.

In view of these previous findings, we expect to find a positive relationship between flow and attitude for the HSN context. This is because flow states are optimal, highly pleasant experiences (Csikszentmihalyi, 1993) so they will more likely improve user attitudes. This relationship might be particularly strong in HSNs, as users employ these SNSs mainly for non-utilitarian but hedonic purposes. Consequently, we have included the positive effect of flow on user attitudes as a hypothesis in our model.

Hypothesis 5: Flow positively affects attitude

2.6.3 The impact of OSL on flow

There is evidence, although very little, about the positive relationship between OSL and flow. Woszczynski *et al.*, 2002 studied the factors that trigger playfulness in computer interactions and found that individuals with high OSL were more likely to reach flow states. In addition to this, Keng *et al.* (2015) examined user performance in social and information virtual-product experiences and discovered that high OSL individuals experienced more flow than low OSL individuals.

The argument states that online consumers who feel high levels of OSL wish to enhance stimulation to desired levels and that individuals who score higher on OSL are more likely to have autotelic personality traits (Csikszentmihalyi, 1975). In turn, online consumers with autotelic traits tend to search for new challenges more, which is at the heart of the flow states (Hoffman and Novak, 1996). This seems to be a feasible rationale because high OSL traits are closely related to exploratory behaviour (Wahlers *et al.*, 1986), and studies like Mun's *et al.* (2011) on professional baseball spectators, revealed that exploratory behaviour is closely related to flow states. On the basis of this, we expect to find a positive influence of OSL on flow individual's experiences on a HSN.

Hypothesis 6: OSL positively affects flow

2.6.4 The impact of subjective norms on continuance intention

Social pressure can act as a motivator for repurchasing behaviours (Ajzen and Fishbein, 1980) and loyalty (Oliver, 1999) towards a product. This relationship has been detected in various contexts, including SNS environments. In their analysis of e-learning experiences, Roca *et al.* (2006) found that subjective norms, understood as the combination of interpersonal and external influences, lead to higher satisfaction, which in turns prompts higher continuance intention. Cheung *et al.* (2011) and Cheung and Lee (2010) reported a positive influence of subjective norms on continuance intention of using Facebook. Kim (2011) in his Cyworld usage experience study found that the expectation-confirmation model should be completed by including subjective norms in order to better explain continuance intention. Similar results were obtained by Baker and White (2010) after analysing Australian SNS user experiences. They concluded that an extended theory of planned behaviour should include social norms to explain the formation of continuance intention. All these findings suggest a direct relationship between subjective norms and continuance intention, which we also expect to detect in HSN contexts.

Hypothesis 7: Subjective norms positively affects continuance intention.

2.6.5 The impact of attitude on continuance intention

The relationship between attitude and loyalty or continuance intention has been observed not only in online consumer experiences (Rodríguez-Ardura, 2006) but also for SNSs. For instance, Currás-Pérez et al (2013) detected a positive influence of attitude on SNS continuance intention among Spanish users. So did Lorenzo-Romero *et al.* (2011), who endorsed a positive relationship between attitude and continuance intention in their study about Dutch SNS users. Similarly, Leng *et al.* (2011) found that attitude is the most impactful factor affecting usage intention in SNSs.

The relationship between user attitudes towards an online environment and their intention to continue using it is “obvious and also essential for behavioral models” (Lorenzo-Romero *et al.*, 2011:173), and has been widely observed in online environments and SNS studies. Because HSNs are a particular case of SNSs and online environments, we expect to find this positive relationship. We hypothesise that within HSNs contexts, attitude exerts a positive influence on continuance intention.

Hypothesis 8: Attitude positively affects continuance intention.

Chapter 3

Methodology and Results

3 Methodology and Results

This chapter describes in detail the methodology used to carry out our study, as well as the different steps taken to validate the model, and finally the results obtained, which allow us to test the hypotheses posed.

The chapter is divided into two main sections: Methodology, in which we will explain all the stages involved in the research process; and Results, which will describe the model validation process, and the decisions about the hypotheses according to the empirical information obtained.

3.1 Methodology

This section is divided into three subsections: sample size and sampling method, data collection, and measurement scales.

3.1.1 Sample size and sampling method

Even though the number of items per construct has an effect on the reliability of the model, sample size is the most important factor to consider in order to improve the fit (Iacobucci, 2010). Therefore, it was necessary to ascertain that our sample size was large enough to achieve good fit. For this purpose, we took Westland's formula (2010) to calculate the minimum size of a sample according to the complexity of the model, namely: $n \geq 50r^2 - 450r + 1100$, r being the ratio of items to constructs. As our model has eight latent variables defined by a total of 22 indicators (see section 3.1.3 Measurement scales),

$r = 22/8 = 2.75$, so

$n \geq 241$ observations.

In accordance with this result, our fieldwork needs to raise at least 241 valid observations (i.e., responses to our questionnaire) to reach the minimum threshold.

We did not have direct access to the entire target population of our study. This is because Facebook does not provide the type of information we would need about its membership[6]. This prevents us from utilising a probability sampling method, as it would require prior knowledge of the sample frame (Deming, 1960). Added to this, it was necessary to gather a relatively large number of responses. In these cases, it is interesting to apply snowballing techniques, based on the individual's social networks, whose use in "non-probabilistic samples can increase the sample size and its representativeness" (Baltar and Brunet, 2012:57). Therefore, we decided to apply a

6 Facebook Terms of Use explicitly state: *'We do not give your content or information to advertisers without your consent'*. Available on Facebook.com

snowballing research technique, which "consists of identifying respondents who are then used to refer researchers on to other respondents" (Atkinson and Flint, 2001:1).

The first step of the sampling procedure consisted of identifying a number of members that could be directly located by the researcher (Babbie, 2011). In our study we took our own Facebook friends as the initial group. They were asked to complete the questionnaire. The second step required every initial respondent to provide some other Facebook members among their own friends, so the "snowball" effect came into play. In order to further increase the number of responses, our list of friends was completed by accessing different Facebook user groups, including them in the initial snowball wave.

3.1.2 Data collection

The fieldwork was carried out from February to April 2014. We used a self-administered online questionnaire, which was made available in three languages (English, Spanish and Catalan) and implemented using a commercial online survey tool: SurveyMonkey. The questionnaire was composed of 125 questions, grouped into 9 sections. Three of the sections were reserved and will be employed in future investigations, and the remaining six were used for the purpose of this study.

The questionnaire is still available at: https://goo.gl/gbaa0M (see Figure 31). The complete questionnaire in the three languages can be seen in Appendix I.

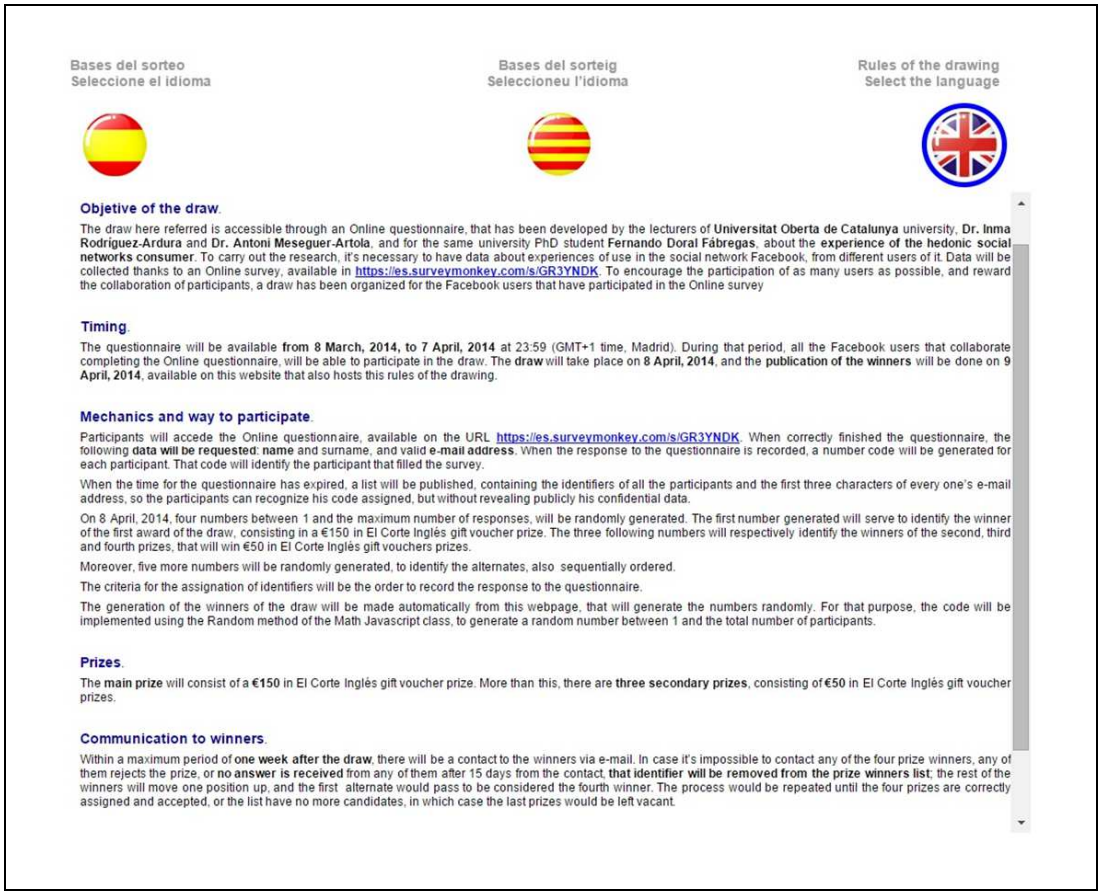
Figure 31. Homepage of the online questionnaire

In order to encourage the participation of as many Facebook users as possible, a draw was organised. This draw was particularly designed to help overcome the participants' possible reluctance to provide new participants, as has been detected in some other studies (Beauchemin, González-Ferrer, 2011).

The rules of the draw and other details were hosted on a webpage (http://www.fdoral.esy.es) created for this purpose (see Figure 32 to Figure 34). The main prize was a €150 El Corte Inglés gift voucher; and there were also three runners-up prizes, each one consisting of a €50 El Corte Inglés gift voucher. The winners were selected randomly in April 2014.

The funding for the draw was provided by the Internet Interdisciplinary Institute of the Universitat Oberta de Catalunya, via the Resident Researcher's Programme[7].

Figure 32. Rules of the draw (English version)



Bases del sorteo
Seleccione el idioma

Bases del sorteig
Seleccioneu l'idioma

Rules of the drawing
Select the language

Objetive of the draw.

The draw here referred is accessible through an Online questionnaire, that has been developed by the lecturers of **Universitat Oberta de Catalunya** university, **Dr. Inma Rodríguez-Ardura** and **Dr. Antoni Meseguer-Artola**, and for the same university PhD student **Fernando Doral Fábregas**, about the **experience of the hedonic social networks consumer**. To carry out the research, it's necessary to have data about experiences of use in the social network Facebook, from different users of it. Data will be collected thanks to an Online survey, available in https://es.surveymonkey.com/s/GR3YNDK. To encourage the participation of as many users as possible, and reward the collaboration of participants, a draw has been organized for the Facebook users that have participated in the Online survey

Timing.

The questionnaire will be available **from 8 March, 2014, to 7 April, 2014** at 23:59 (GMT+1 time, Madrid). During that period, all the Facebook users that collaborate completing the Online questionnaire, will be able to participate in the draw. The **draw** will take place on **8 April, 2014**, and the **publication of the winners** will be done on **9 April, 2014**, available on this website that also hosts this rules of the drawing.

Mechanics and way to participate.

Participants will accede the Online questionnaire, available on the URL https://es.surveymonkey.com/s/GR3YNDK. When correctly finished the questionnaire, the following **data will be requested**: **name** and surname, and valid **e-mail address**. When the response to the questionnaire is recorded, a number code will be generated for each participant. That code will identify the participant that filled the survey.

When the time for the questionnaire has expired, a list will be published, containing the identifiers of all the participants and the first three characters of every one's e-mail address, so the participants can recognize his code assigned, but without revealing publicly his confidential data.

On 8 April, 2014, four numbers between 1 and the maximum number of responses, will be randomly generated. The first number generated will serve to identify the winner of the first award of the draw, consisting in a €150 in El Corte Inglés gift voucher prize. The three following numbers will respectively identify the winners of the second, third and fourth prizes, that will win €50 in El Corte Inglés gift vouchers prizes.

Moreover, five more numbers will be randomly generated, to identify the alternates, also sequentially ordered.

The criteria for the assignation of identifiers will be the order to record the response to the questionnaire.

The generation of the winners of the draw will be made automatically from this webpage, that will generate the numbers randomly. For that purpose, the code will be implemented using the Random method of the Math Javascript class, to generate a random number between 1 and the total number of participants.

Prizes.

The **main prize** will consist of a **€150** in El Corte Inglés gift voucher prize. More than this, there are **three secondary prizes**, consisting of **€50** in El Corte Inglés gift voucher prizes.

Communication to winners.

Within a maximum period of **one week after the draw**, there will be a contact to the winners via e-mail. In case it's impossible to contact any of the four prize winners, any of them rejects the prize, or **no answer is received** from any of them after 15 days from the contact, **that identifier will be removed from the prize winners list**; the rest of the winners will move one position up, and the first alternate would pass to be considered the fourth winner. The process would be repeated until the four prizes are correctly assigned and accepted, or the list have no more candidates, in which case the last prizes would be left vacant.

[7] Rodríguez-Ardura, Inma (Director). "e-Commerce Business: An Analysis of Pricing Strategies and Competition, and Underlying Processes in Online Consumption Experiences". Resident Researcher's Programme. Sponsor: Universitat Oberta de Catalunya, Internet Interdisciplinary Institute. 01/09/2012 - 31/07/2013.

Figure 33. Rules of the draw (Spanish version)


Bases del sorteo
Seleccione el idioma

Bases del sorteig
Seleccioneu l'idioma

Rules of the drawing
Select the language

Bases del sorteo

Objetivo del sorteo.

El sorteo al que aquí se hace referencia es accesible mediante un cuestionario online, que ha sido desarrollado por los profesores de la **Universitat Oberta de Catalunya**, **Dra. Inma Rodríguez-Ardura** y **Dr. Antoni Meseguer-Artola** y por el doctorando por la misma universidad, **Fernando Doral Fábregas**, acerca de la **experiencia del consumidor en las redes sociales hedónicas**. Para llevar a cabo la investigación se necesita disponer de datos de experiencias de uso en la red social Facebook, de diferentes usuarios de dicha red social. Los datos serán recogidos mediante una encuesta online publicada en https://es.surveymonkey.com/s/GR3YNDK. Con el objetivo de incentivar la participación del mayor número de usuarios, y premiar además la colaboración de los participantes, se ha organizado un sorteo entre los usuarios de Facebook que hayan participado en la encuesta online.

Periodo.

El cuestionario estará disponible **desde el día 8 de marzo de 2014** hasta las 23:59 (horario GMT+1, Madrid) del día **7 de abril de 2014**. Durante ese período, todos los usuarios de Facebook que colaboren completando el cuestionario online, podrán participar también en el sorteo. El **sorteo** tendrá lugar el día **8 de abril de 2014**, y la **publicación de los ganadores** estará disponible el día **9 de abril de 2014** en esta misma página web en la que están publicadas estas bases.

Mecánica y modo de participación.

Los participantes accederán al cuestionario Online, disponible en la dirección **https://es.surveymonkey.com/s/GR3YNDK**. Al finalizar correctamente el cuestionario completo, se pedirán los siguientes **datos de identificación: nombre y apellidos y dirección válida de correo electrónico**. Asimismo, al almacenar la respuesta al cuestionario, se asignará a cada una un código numérico. Dicho código numérico identificará al participante que rellenó la encuesta.

Al finalizar el período del cuestionario, se publicará un listado con los identificadores de todos los participantes, acompañados de los tres primeros caracteres de la dirección de correo electrónico, para que los participantes puedan conocer con cierto grado de certeza su identificador asignado, pero sin llegar a revelar sus datos confidenciales en público.

El día 8 de abril de 2014 se generarán aleatoriamente cuatro números comprendidos entre 1 y el máximo número de respuestas recogidas. El primero servirá para identificar al ganador del primer premio del sorteo, que consistirá en un importe de 150 euros en cheques regalo de El Corte Inglés. Los tres números generados a continuación identificarán a los participantes segundo, tercero y cuarto, que ganarán cada uno un premio consistente en 50 euros en cheques regalo de El Corte Inglés.

Además se generarán cinco números que identificarán a los suplentes, también ordenados secuencialmente.

El mecanismo de asignación de identificadores a los participantes será por orden de registro de su respuesta al cuestionario online.

La generación de los números ganadores de los premios de sorteo se hará automáticamente, desde esta misma página web, que generará los números aleatoriamente. El código se implementará con el método Random de la clase Math de Javascript, para generar un número aleatorio entre 1 y el número total de participantes.

Premios.

El **premio principal** consiste en un importe de **150 euros en cheques regalo de El Corte Inglés**. Además hay **tres premios secundarios** consistentes en un importe de **50 euros** en cheques regalo de El Corte Inglés.

Comunicación a los ganadores.

En un período máximo de **una semana después del sorteo** se contactará con los cuatro ganadores de los premios mediante correo electrónico. En el caso de que no se

Figure 34. Rules of the draw (Catalan version)


Bases del sorteo
Seleccione el idioma

Bases del sorteig
Seleccioneu l'idioma

Rules of the drawing
Select the language

Bases del sorteig

Objectiu del sorteig.

El sorteig al qual aquí es fa referència és accessible mitjançant un qüestionari online. Ha estat desenvolupat pels professors de la **Universitat Oberta de Catalunya, Dra. Inma Rodríguez-Ardura** i **Dr. Antoni Meseguer-Artola**, i pel doctorand per la mateixa universitat, **Fernando Doral Fàbregas**, per estudiar **l'experiència del consumidor en les xarxes socials hedòniques**.

Per dur a terme la investigació es necessita disposar de dades sobre les experiències d'ús de Facebook, de diferents usuaris d'aquesta xarxa social. Les dades seran recollides mitjançant una enquesta online publicada en **https://es.surveymonkey.com/s/GR3YNDK**. Amb l'objectiu d'incentivar la participació del major nombre d'usuaris, i premiar la col·laboració dels participants, s'ha organitzat un sorteig entre els usuaris de Facebook que hagin participat en l'enquesta en línia.

Període.

El qüestionari estarà disponible **des del dia 8 de març de 2014 fins** les 23:59 (horari GMT +1, Madrid) del dia **7 de abril de 2014**. Durant aquest període, tots els usuaris de Facebook que col·laborin completant el qüestionari online podran participar en el sorteig. El **sorteig** tindrà lloc el **8 de abril de 2014**, i la **publicació dels guanyadors** estarà disponible el **9 abril 2014** en aquesta mateixa pàgina web en la qual estan publicades les bases.

Mecànica i manera de participació.

Els participants accediran al qüestionari en línia, disponible a l'adreça **https://es.surveymonkey.com/s/GR3YNDK**. En completar adequadament i íntegrament el qüestionari, **es sol·licitaran dades d'identificació: nom i cognoms i adreça vàlida de correu electrònic**. Així mateix, al emmagatzemar la resposta al qüestionari, s'assignarà a cada persona un codi numèric. Aquest codi identificarà el participant que va omplir l'enquesta.

En finalitzar el període del qüestionari, es publicarà un llistat amb els identificadors de tots els participants, acompanyats dels tres primers caràcters de l'adreça de correu electrònic, perquè els participants puguin conèixer amb cert grau de certesa l'identificador assignat, però sense arribar a revelar les seves dades confidencials en públic.

El dia 8 de abril del 2014 es generaran aleatòriament quatre nombres compresos entre 1 i el màxim nombre de respostes recollides. El primer servirà per identificar el guanyador del primer premi del sorteig, que consistirà en un import de 150 euros en xecs regal de El Corte Inglès. Els tres nombres generats a continuació identificaran als tres participants, els quals guanyaran - cadascun d'ells - un premi de 50 euros en xecs regal de El Corte Inglès.

A més es generaran cinc números que identificaran als suplents, també ordenats seqüencialment.

El mecanisme d'assignació d'identificadors als participants serà per ordre de registre de la seva resposta al qüestionari en línia.

La generació dels números guanyadors dels premis del sorteig es farà automàticament, des d'aquesta mateixa pàgina web, que generarà els números aleatòriament. El codi s'implementarà amb el mètode Random de la classe Math de Javascript, per generar un nombre aleatori entre 1 i el nombre total de participants.

Premis.

El **premi principal** consisteix en un import de **150 euros** en xecs regal de El Corte Inglès. A més hi ha **tres premis secundaris** consistents en un import de **50 euros** en xecs regal de El Corte Inglès.

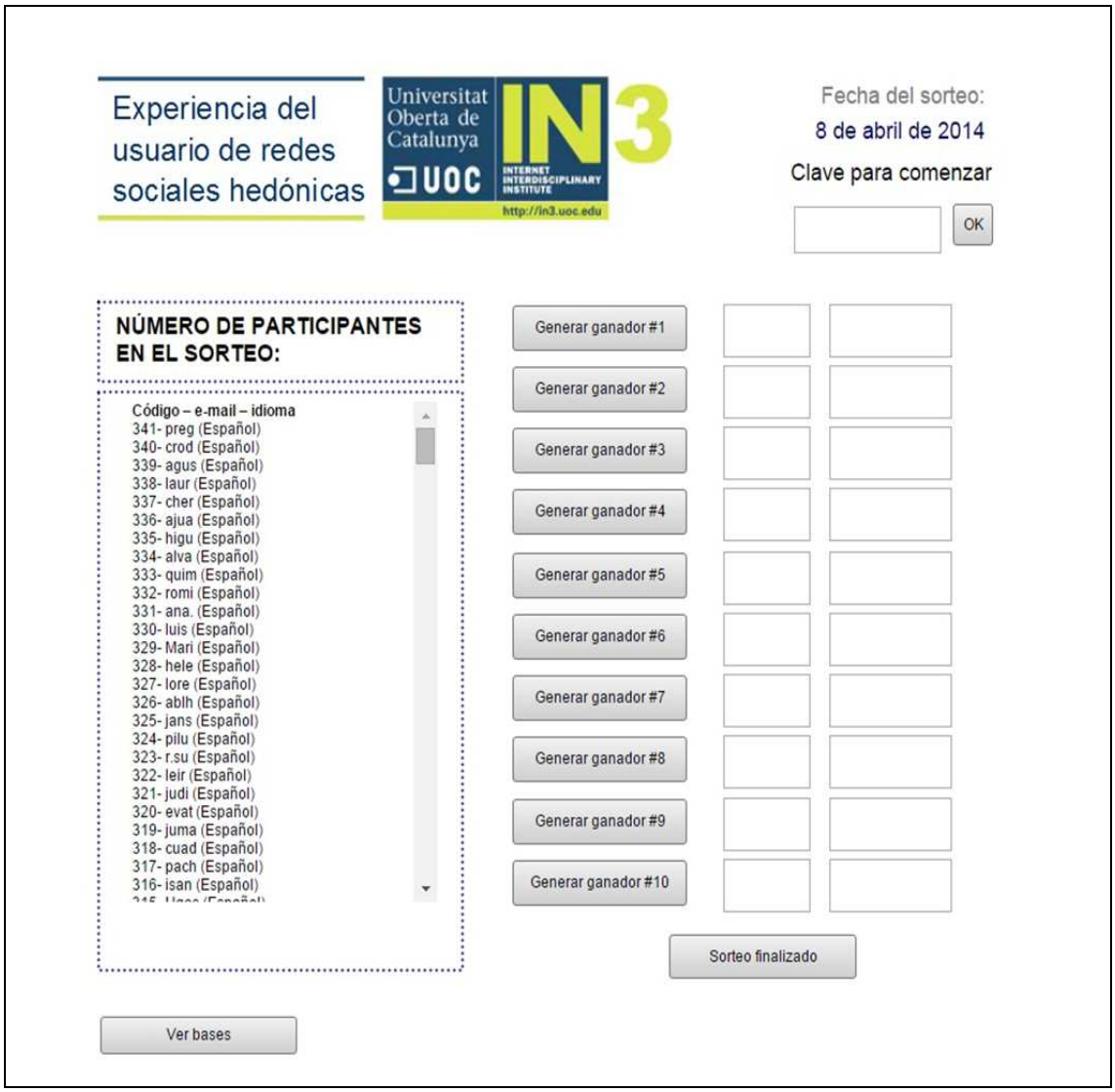
Comunicació als guanyadors.

En un període màxim d'**una setmana després del sorteig** es contactarà amb els quatre guanyadors dels premis mitjançant correu electrònic. En el cas que no es pugui

The process of selecting prizewinners was recorded and disseminated on the webpage

http://www.fdoral.esy.es. This webpage has not been available since February 2015, but the recording is still available on https://goo.gl/Jmxi1G (see Figure 35).

Figure 35. Random selection of prizewinners



With the draw as an incentive, we decided to look for a second source of responses: a Facebook community dedicated to sharing practices and helping Facebook user groups. We posted a message asking for help with our research, and announcing the possibility of winning different prizes. As before, every respondent was asked to inform their Facebook contacts about the survey, in order to continue the snowball effect.

Figure 36. Message posted on Facebook users group

A total of 755 users participated in the survey, although only 416 of them reached the final part of the online questionnaire. A subsequent refinement of the database built on these 416 questionnaires allowed us to detect missing data.

Missing data is quite a common issue in survey designs (De Leeuw, 2001), especially when using online surveys (Stanimirova *et al.*, 2007) and long questionnaires – as was our case. Missing data could represent a problem, as it increases the bias in the results of the analysis (Gorelick, 2006). Furthermore, having incomplete records requires the application of estimation methods (Haziza and Rao, 2005), which add the possible error of selecting a wrong method (Yuan and Lu, 2008). In some cases, missing data might be an unavoidable issue, as it could indicate the existence of a non-random problem (Hair *et al.*, 2010:45), such as a bad questionnaire design or response patterns related to the profile of the respondents (Munoz and Lesser, 2006).

Several techniques have been developed to remedy the issues associated with missing data. Depending on the reason for the missingness, three mechanisms can be applied: missing completely at random, where missingness is not related to either the observed or the missing values; missing at random, where missingness depends on observed values but not on the missing ones; and missing not at random, where missingness depends only on the missing values (Yuan and Lu, 2008).

In our study, however, the extent of missing values was very limited (only 1.3% of the questions were not answered), so the missing data problem could even have been ignored. Despite this, we decided to remove from the initial database all the cases with missing responses. No pattern was detected between either the missingness and the observed values, or the missingness and the missing values, which showed that missingness was random. Therefore, removing cases with missing items should not have resulted in “biased parameter estimates in subsequent analyses” (Wilson and Lueck, 2014:1), so we discarded all the incomplete records.

After discarding all the cases containing missing responses, the resulting sample consisted of 371 valid records for analysis. As seen previously in this section, our target size was 241 observations at least, which means that our sample size greatly surpasses the recommended minimum threshold. This allowed us to maintain the decision to discard the records that were not completely valid.

The profile of the sample can be seen in Table 1, indicating a majority segment composed of Spanish women, 35 to 44 years old and highly educated. By criteria, the most frequent gender by far was women (64% women vs. 36% men), the most frequent education level was clearly university (65%), and the most populated age group was 35 to 44 years old (40.6%). The sample was composed almost completely of Spanish respondents (95.6%). Although there are more abrupt differences between segments, it is basically aligned with the general user Facebook profile description proposed by SproutSocial in its study of Facebook Usage (2015), which identifies highly educated women aged 18 to 29 years old as the most frequent user profile. The biggest difference from the standard profile is found in the age criterion, probably due to the average age of the first snowballing layer, composed of the researcher's contacts, whose age approximately coincides with that of the first group.

Table 1. Profile of the sample

Variable	**Scale**	**Percentage value**
Gender	Male	36.0 %
	Female	64.0 %
Level of education	None	1.4 %
	Primary	2.4 %
	Secondary	31.2 %
	University	65.0 %
Age*	18 to 24	9.8 %
	25 to 34	25.4 %
	35 to 44	40.6 %
	45 to 54	22.7 %
	Over 55	1.6 %
Nationality	Spanish	95.6 %
	Others	4.4 %

* Under 18 was a non-valid answer.

In our sample, the most frequent segment was composed of university-educated women aged 35 to 44 (18.1% of the total sample) and 25 to 34 (11.6%). The next segment (10.5%) was composed of university-educated men aged between 35 and 44.

3.1.3 Measurement scales

To develop our questionnaire we firstly identified scales from previous relevant studies which had operationalized the constructs we were interested in analysing. We took only the scales that previously had been validated empirically; and then we adapted those scales to the context of our study. Thirdly, we translated the scales into Spanish and Catalan, so that we could distribute the questionnaire in three languages: English, Spanish and Catalan.

The scale to measure OSL was taken from a study by Steenkamp and Baumgartner (1993), who shortened a previous version of the change seeker index to analyse the OSL in consumers' exploratory behaviours. For our research we took into consideration three items from the original 7-item questionnaire, whose values rank from 'completely false' to 'completely true' in a 7-point Likert-type scale.

Interactivity scale was adapted from McMillan and Hwang's proposition (2002), in their study about interactivity based on consumers' perceptions. It is a 7-point Likert-type scale, which varies from 'completely disagree' to 'completely agree'. We selected three out of the 18 items from the original questionnaire.

Flow and spatial presence were measured using scales adapted from a Novak, Hoffman and Yung study (2000) about flow in online experiences. They are both 7-point Likert scales, which rank from 'completely disagree' to 'completely agree'. For our study we took three out of their seven original items for spatial presence, and maintained all the three original items for flow.

Social presence scale was adapted from a study by Kreijns, Kirschner, Jochems and Van Buuren (2004) about asynchronous learning environments. We took three out of their five original items, and adapted their 5-point scale ranging from 'not applicable at all' to 'totally applicable' into a 7-point Likert from 'completely disagree' to 'completely agree'.

Attitude scale was adapted by taking three of the four proposed items from a study about online shopping behaviour by Childers, Carr, Peck and Carson (2001), who in turn adapted their scale from Bruner and Hensel (1996). It is a 7-point semantic differential, varying from extremely negative (1) to extremely positive (7).

Subjective norms 3-item scale was taken from a study about response in web-based surveys conducted by Bosnjak, Tuten and Wittman (2005), who took one item from a Chang study about moral behaviour (1999). It is a 7-point Likert scale, in which we transformed the original extremes of 'extremely improbable' to 'extremely probable' into 'completely disagree' to 'completely agree'.

Continuance intention scale was taken from Moon, Kim, Choi and Sung's study about avatar-based virtual shopping experiences (2001). It is a 7-point Likert, in which we transformed the original 'improbable - probable' ranking into 'completely disagree - completely agree'.

The nature and origin of the measurement scales included in the questionnaire are shown in Table 2.

Table 2. Measurement scales

Construct	Adapted scale	Source
OSL	(OSL1) I am continually seeking new ideas and experiences. (OSL2) I like continually changing activities. (OSL3) When things get boring, I like to find some new and unfamiliar experience.	Steenkamp and Baumgartner (1995)
Interactivity	(INT1) Pages and resources in Facebook which I explore load quickly (INT2) Facebook facilitates two-way communication (INT3) Facebook gives me the opportunity to talk back	McMillan and Hwang (2002)
Spatial presence	(SP1) After using Facebook, I feel like I come back to the "real world" after a journey (SP2) Using Facebook creates a new world for me, and this world suddenly disappears when I stop browsing (SP3) When I use Facebook, my body is in the room, but my mind is inside the world created by the websites I visit	Novak *et al.* (2000)
Social presence	(SOP1) When I have conversations in Facebook, I have my communication partner in my mind's eye (SOP2) When I have conversations in Facebook, I feel that I deal with very real persons and not with abstract anonymous persons (SOP3) Conversations in Facebook can hardly be distinguished from face-to-face conversations (SOP4) I could get to know someone that I met only through Facebook	Kreijns *et al.* (2004)
Flow	(FL1) I have experienced flow on Facebook (FL2) Most of the time I use Facebook I feel that I am in flow (FL3) In general, how frequently would you say you have experienced 'flow' when you use Facebook?	Novak *et al.* (2000)
Attitude	Facebook is... (ATT1) Bad/good	Childers *et al.* (2001)

	(ATT2) Poor/Excellent (ATT3) Not worthwhile/worthwhile	
Subjective norms	(SN1) Most people who are important to me think I should use Facebook. (SN2) Most people whose recommendations I like to comply with think I should use Facebook. (SN3) Most people who are important to me would encourage me to use Facebook	Bosnjak *et al.* (2005) and Chang (1998)
Continuance intention	(CI1) I will use Facebook on a regular basis in the future (CI2) I will frequently use Facebook in the future (CI3) I will strongly recommend others to use Facebook	Moon and Kim (2001)

3.2 Results

Our model was analysed using SEM (structural equation modelling), which is highly recommended because it "allows researchers to present and test their theoretical models about phenomena studied in their substantive domain on the basis of their hypothesized relationships" (Merchant *et al.*, 2013:408). It also offers potential advantages over linear regression models when analysing path diagrams that involve latent variables with multiple indicators (Gefen *et al.*, 2011). This is because SEM utilizes various types of models to depict relationships among observed variables, aimed at providing a quantitative test of a theoretical model proposed and hypothesized by the researcher (Schumacker, Lomax, 2010). Moreover, SEM-based approaches provide the researcher flexibility to verify model relationships among multiple variables, construct unobservable latent variables, measure model errors for observed variables, and test theoretical models against empirical data (Chin, 2013).

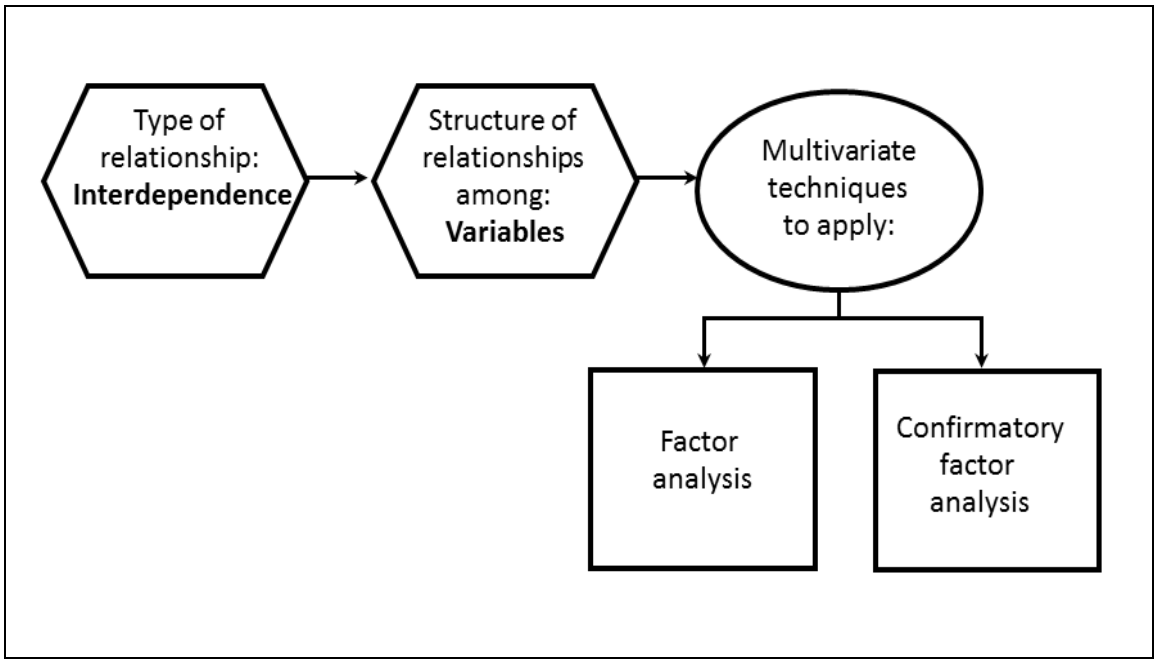
Our model has been tested using SPSS Statistic 22.0 and AMOS 22.0, combined with an Excel statistical package for the computation of some specific indices. Model estimation was done using the maximum likelihood method for estimating parameters, which, in fact, is the most utilized estimation method in SEM software packages (Hair *et al.*, 2010).

In line with SEM approach, the analysis of our model started with the revision of the measurement, then the structural model, and finally the validity of the hypothesized relationships. Consequently, the following sections contain the explanation of the measurement and structural models, and finally the revision of the hypothesized relationships.

3.2.1 Measurement model

Measurement model has been assessed according to Hair *et al.*'s (2010) recommendation (see Figure 37).

Figure 37. Multivariate method to apply



Source: adapted from Hair *et al.* (2010)

It firstly involves analysing the overall fit of the items taken to define each construct (factorial analysis), followed by the construct validity analysis (confirmatory factor analysis), which in turn consists of two different analyses: convergent and discriminant. Every stage of the analysis process is detailed below in its corresponding section: factorial analysis and construct validity.

3.2.1.1 Confirmatory factor analysis

As a first step, a factorial analysis was performed so as to assess the factor loading of each item. Factor loading is an indicator of the extent to which the item helps define its corresponding construct. It must be significant, i.e. its value must surpass the minimum cut-off 0.5, or ideally 0.7 (Hair *et al.*, 2010). It is important to check if the factor loading for an item is high enough to help define its corresponding construct, but not high for any other unexpected construct. Thus, the loading of each item's own construct must be high enough to define the latter, and the loading of any other construct must be low enough to not define any other. The result of the exploratory factor analysis can be seen in Table 3.

Table 3. Factor analysis results

	1	2	3	4	5	6	7	8
SP1	**0.845**	0.065	0.027	0.031	0.121	0.081	0.090	0.035
SP2	**0.846**	0.127	0.036	0.046	0.088	-0.029	0.103	0.064
SP3	**0.834**	0.052	0.071	0.039	0.093	-0.006	0.232	0.111
SOP1	0.137	0.109	0.175	0.016	0.043	0.015	0.084	**0.870**
SOP2	0.063	0.134	0.174	0.062	-0.042	0.156	0.024	**0.807**
SOP3	0.397	0.156	0.075	0.017	0.063	0.064	-0.081	**0.088**
SOP4	0.130	0.122	0.219	0.039	0.149	-0.016	-0.034	**0.418**
FL1	0.357	0.058	0.131	0.081	0.139	0.045	**0.854**	0.151
FL2	0.513	0.115	0.106	0.075	0.086	-0.001	**0.672**	0.018
FL3	0.444	0.119	0.098	0.111	0.094	0.106	**0.755**	-0.014
INT1	0.035	0.151	**0.834**	0.104	0.001	0.107	0.012	0.041
INT2	0.040	0.128	**0.856**	0.093	0.089	0.121	0.025	0.059
INT3	0.081	0.208	**0.800**	-0.019	0.045	0.109	0.087	0.060
ATT1	0.067	**0.792**	0.115	0.013	0.066	0.162	0.060	0.044
ATT2	0.076	**0.753**	0.125	0.023	0.102	0.007	0.004	0.067
ATT3	0.098	**0.817**	0.137	0.003	0.114	0.067	0.026	0.038
OSL1	0.023	-0.027	0.048	**0.854**	0.069	0.041	0.089	-0.022
OSL2	0.087	-0.062	0.102	**0.833**	0.099	0.114	0.072	-0.008
OSL3	0.051	-0.015	0.026	**0.800**	0.064	-0.068	-0.015	0.005
SN1	0.152	0.091	0.100	0.112	**0.887**	0.104	0.007	-0.012
SN2	0.169	0.153	0.089	0.112	**0.891**	0.053	0.015	0.011
SN3	0.156	0.174	0.091	0.062	**0.889**	0.091	0.115	-0.020
CI1	0-.022	0.305	0.263	0.079	0.107	**0.800**	0.054	0.106
CI2	0.036	0.304	0.216	0.071	0.140	**0.823**	0.034	0.101
CI3	0.066	0.505	0.165	-0.040	0.260	**0.576**	0.081	0.065

As can be seen, nearly all the items have an acceptable factor loading, which suggests that all of them properly help define the construct they belong to, and not any other. There are only three items with an insufficient loading, namely SOP3 and SOP4 from social presence (0.088 and 0.418, respectively), and CI3 from continuance intention (0.576). These three items were called into question and eventually removed from the model. The total variance explained by the eight components is shown in Table 4.

Table 4. Total variance explained

	Eigenvalue*	% variance	Cumulative %
1	6.148	27.944	27.944
2	2.977	13.531	41.475
3	2.352	10.692	52.166
4	2.046	9.300	61.467
5	1.408	6.402	67.868
6	1.234	5.607	73.476
7	1.121	5.093	78.569
8	1.008	4.684	83.253

* Only components with significant eigenvalue (over 1.0) were considered.

The result of the factor analysis, after the lowest factor items were discarded, is presented in tables Table **5** and Table **6**. Again, eight significant components (eigenvalue over 1.0) are identified. In this case the correspondence between components and constructs was: 1- spatial presence; 2- subjective norms; 3- interactivity; 4- flow; 5- OSL; 6- attitude; 7- continuance intention; 8- social presence.

Table 5. Factor analysis results after low loading items were discarded

	1	2	3	4	5	6	7	8
SP1	**0.861**	0.123	0.036	0.162	0.037	0.050	0.038	0.050
SP2	**0.823**	0.094	0.069	0.202	0.054	0.113	-0.032	0.077
SP3	**0.779**	0.095	0.071	0.329	0.038	0.055	-0.030	0.135
SOP1	0.119	0.041	0.146	0.105	-0.001	0.094	0.016	**0.856**
SOP2	0.053	-0.031	0.120	0.039	0.038	0.089	0.180	**0.850**
FL1	0.285	0.133	0.103	**0.845**	0.078	0.030	0.050	0.169
FL2	0.430	0.083	0.097	**0.778**	0.054	0.093	0.005	0.031
FL3	0.355	0.088	0.083	**0.850**	0.102	0.095	0.126	-0.002
INT1	0.024	0.030	**0.869**	0.051	0.100	0.135	0.153	0.082
INT2	0.009	0.119	**0.894**	0.063	0.081	0.104	0.121	0.109
INT3	0.058	0.063	**0.807**	0.118	-0.027	0.176	0.126	0.111
ATT1	0.073	0.081	0.115	0.084	-0.013	**0.772**	0.261	0.061
ATT2	0.075	0.106	0.143	0.025	0.009	**0.867**	0.049	0.085
ATT3	0.090	0.138	0.151	0.065	-0.025	**0.833**	0.127	0.061
OSL1	-0.013	0.082	0.042	0.110	**0.875**	-0.027	0.050	0.004
OSL2	0.075	0.096	0.090	0.084	**0.876**	-0.041	0.111	0.009
OSL3	0.049	0.051	0.010	-0.015	**0.874**	0.041	-0.061	0.028
SN1	0.147	**0.919**	0.070	0.048	0.107	0.077	0.109	0.000
SN2	0.159	**0.900**	0.069	0.078	0.101	0.129	0.082	0.027
SN3	0.146	**0.886**	0.080	0.136	0.049	0.135	0.080	-0.007
CI1	-0.013	0.124	0.243	0.081	0.051	0.240	**0.873**	0.121
CI2	0.049	0.159	0.200	0.067	0.057	0.219	**0.887**	0.113

Table 6. Total variance explained after low loading items were discarded

	Eigenvalue*	% variance	Cumulative %
1	3.896	16.232	16.232
2	2.646	11.023	27.256
3	2.465	10.271	37.526
4	2.374	9.891	47.417
5	2.373	9.886	57.303
6	2.309	9.620	66.923
7	1.791	7.464	74.388
8	1.588	6.616	81.004

* Only components with significant eigenvalue (over 1.0) were considered.

As can be seen in Table 6, the eight components account for the largest part of the variance: as much as 81%.

3.2.1.2 Construct validity analysis

Once the factor loadings have been checked, the next step aims to assess the internal reliability of the self-reported constructs. For this purpose, two types of validations should be carried out: convergent and discriminant (Heinz *et al.*, 2011).

Convergent validation assesses the adequacy of the items used to indicate the latent constructs. For this purpose, we started by assessing internal reliability, which assesses the extent to which the different items of a particular construct yield similar results. We measured internal reliability by applying an analysis of Cronbach's alpha and item-to-total correlations for all the items and constructs. The results, which can be seen in Table 7, indicate adequate values for all the items and constructs, because all the Cronbach's alpha values surpass the minimum threshold of 0.6 (Hair *et al.*, 2010) and even 0.7 (Grande and Abascal, 2007), and the item-to-total correlation is above the minimum threshold (0.6) for all the items. This suggests the adequacy of the items taken to explain the constructs. To complete the analysis of the reliability of all the constructs, and the degree to which their items are free from random error and yield consistent results (Heinz *et al.*, 2011), two more indices must be taken: composite reliability (CR) and average variance extracted (AVE). The CR of each construct should be above the minimum threshold of 0.7 (Heinzl *et al.*, 2011), and the AVE score of each construct must be above 0.5 (Fornell and Larcker, 1981). As can be seen in Table 7, all CR values exceed 0.7 (over 0.718, in fact), and all AVE values are above 0.5 (the lowest value is 0.561, for social presence).

Discriminant validation aims to verify whether indicators of latent constructs that theoretically are supposed to be unrelated are in fact unrelated according to actual observation. To this end, we took two indices: maximum shared squared variance (MSV) and average shared squared variance (ASV). Both indices must be less than the AVE to verify the discriminant validity, and again the requirements are fulfilled for all

the constructs in our model.

As can be seen below in Table 7, all the indices involved in the first steps suggest a good adequacy of the items taken to explain all the latent constructs.

Table 7. Convergent validity and discriminant validity tests

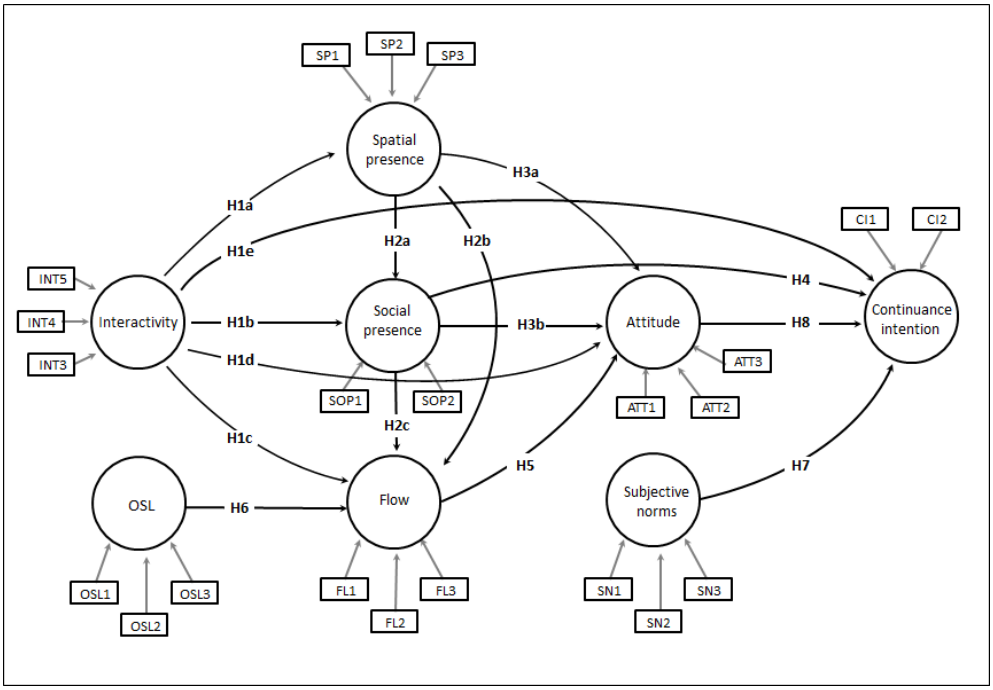
Construct	Variable	Cronbach's α	Item-total correlation	CR	AVE	MSV	ASV
Spatial presence	SP1	0.888	0.803	0.844	0.730	0.426	0.100
	SP2		0.800				
	SP3		0.758				
Social presence	SOP1	0.720	0.560	0.718	0.561	0.132	0.069
	SOP2		0.560				
Flow	FL1	0.892	0.806	0.913	0.779	0.426	0.116
	FL2		0.788				
	FL3		0.862				
Interactivity	INT1	0.872	0.766	0.878	0.707	0.212	0.093
	INT2		0.814				
	INT3		0.689				
Attitude	ATT1	0.857	0.682	0.858	0.602	0.271	0.111
	ATT2		0.671				
	ATT3		0.712				
OSL	OSL1	0.860	0.741	0.860	0.673	0.048	0.020
	OSL2		0.760				
	OSL3		0.704				
Subjective norms	SN1	0.930	0.879	0.949	0.822	0.115	0.076
	SN2		0.863				
	SN3		0.831				
Continuance intention	CI1	0.923	0.858	0.923	0.858	0.271	0.114
	CI2		0.858				

3.2.2 Structural model

In the next step, the structural model is assessed by testing, firstly, the fit indices of the model and, secondly, the validity of the hypothesized relationships. As a consequence of the assessment process, the model should be revised.

The initial model showing the items and constructs, and the hypothesized relationships among the constructs, can be seen in Figure 38.

Figure 38. Initial model on Amos



Source: own elaboration

3.2.2.1 Fit indices

There are different goodness-of-fit measures commonly used to validate the models, which can be classified into three groups: absolute fit measures, incremental fit measures, and parsimonious measures (Ho, 2006). To determine our model fit, we calculated and tested all the recommended indices in each group (Hooper *et al.*, 2008). Details of the explanation and description of each index used can be found below.

Table 8. Fit indices for the structural model

Fit index	**Value**	**Recommended cut-off values**	**Decision**
Absolute fit measures			
χ^2	506.2	The lower the better	
d.f.	236		
P-value	0.000	> 0.05	
χ^2/d.f.	2.145	< 5	Good fit
GFI	0.902	> 0.80	Good fit
AGFI	0.876	> 0.80	Good fit
SRMR	0.080	< 0.80	Good fit
RMSEA	0.056	< 0.08	Good fit
Incremental fit measures			
NFI	0.919	> 0.90	Good fit
TLI	0.947	> 0.90	Good fit
CFI	0.955	> 0.95	Good fit
Parsimonious fit measures			
PGFI	0.710	> 0.50	Good fit
PNFI	0.786	> 0.50	Good fit
PCFI	0.816	> 0.50	Good fit

a. Absolute fit indices

Absolute fit indices determine how well a hypothesized model fits the real sample, in comparison with no model (Hooper *et al.*, 2008). The fit of the model will be assessed by analysing five indices: chi-square, root-mean-square error, goodness-of-fit, adjusted goodness-of-fit, and standardized root mean square.

Chi-square (χ^2) is the likelihood ratio test that has traditionally been used to measure the fit by comparing covariances (Byrne, 1998). It is expected to be insignificant at a 0.05 threshold (Hopper *et al.*, 2008), but it is very sensitive to the sample size (Bentler and Bonett, 1980), and therefore it is recommendable to divide it by degrees of freedom (Wheaton *et al.*, 1977). Thus, I have included the index χ^2/d.f., which should range from as high as 5.0 to as low as 2.0 (Hopper *et al.*, 2008). The value of χ^2/d.f. in our model is 2.145, which gives an idea of good fit.

The root-mean-square error of approximation (RMSEA) indicates how well the model fits the population covariance matrix (Hopper *et al.*, 2008). There is no consensus on what the upper limit of the good-fit indicator should be, but recently the upper threshold has been set at 0.08 (McDonald and Ho, 2006) or 0.07 (Steiger, 2007). In our model, the RMSEA indicates a very good fit, since its value is 0.056.

The goodness-of-fit (GFI) is an index that measures how much relative variance and covariance in the sample is jointly explained by the model. It compares the hypothesized model with no model at all, and its value ranges between 0 and 1; the closer to 1, the more indicative of good fit (Byrne, 1998). Traditionally, a cut-off point of 0.90 has been recommended for the GFI (Hopper *et al.*, 2008). In our model, the GFI took a value of 0.902, which indicates a good fit.

The adjusted goodness-of-fit statistic (AGFI) is very similar to the GFI, but is adjusted for degrees of freedom (Westland, 2015). It can even yield meaningless negative values, models with an AGFI of over 1.0 being considered an almost perfect fit, and at least 0.90 being considered as a good fit (Gefen *et al.*, 2011). Like the GFI, the AGFI is more accurate for large sample sizes. In our model, the value for the AGFI is 0.876, which can be considered a good fit according to the cut-off of 0.8 (Bentler and Bonnett, 1980; Shevlin *et al.*, 2000), it closeness to the most exigent cut-off, 0.9, and the good performance of the rest of absolute indices.

The standardized root mean square residual (SRMR) is an index introduced by Jöreskog and Sörbom in 1981. It is calculated as the square root of the average of the squared residuals, residuals being the differences between observed covariances and model-implied covariances. Unfortunately, the RMR depends on the size of the covariance matrices, and therefore Bentler in 1995 introduced the standardized root mean square, in which the residuals are converted into standardized metric (Hoyle, 2012). The optimal value of the SRMR depends on the sample size, varying from 0.1 as a maximum cut-off for samples with 250 observations, to 0.07 for 500 observations (Sivo *et al.*, 2006). This suggests that the standard cut-off, below 0.08 (Hooper *et al.*, 2008), could be a good guideline for a sample size like our model (371). The SRMR value for our

model fits this cut-off exactly (0.08).

b. Incremental fit indices

Incremental indices –also called relative indices (McDonald and Ho, 2002) and comparative indices (Byrne, 1998)– measure the improvement in fit of a hypothesized model compared with a baseline model (Byrne, 2012). This group of indices is very useful, as they offer information that assists in the interpretation of χ^2, which is strongly influenced by the sample size (Miles and Shevlin, 2006). This is why incremental indices were developed and recommended as additional measures of model fit (Shmukle and Hardt, 2005). The family of incremental indices includes the comparative fit index (CFI), the normed fit index (NFI) and the Tucker-Lewis index.

The CFI is an evolution of the Bentler CFI, whereby the sample size is taken into account (Byrne, 1998). It assesses the fit of the model by comparing the χ^2 of the model to the χ^2 of the null model, resulting in a value between 0 (worst scenario) and 1. The CFI is the most commonly used incremental index, and its value is considered a good fit when greater than 0.9 (Gefen *et al.*, 2011). The value for CFI in our model is 0.955, which indicates a very good fit.

The NFI was proposed by Bentler and Bonett; and it represents the increment in fit obtained when evaluating any hierarchical step-up comparison of two models (Bentler and Bonett, 1980). This measure is calculated by comparing the model with the null model (Hooper *et al.*, 2008). NFI having shown a tendency to underestimate fit for small samples (Byrne, 1998), Bentler himself revised the NFI to include the sample size as a factor and proposed CFI. The value of NFI ranges from 0 to 1, and values greater than 0.9 are considered as good fit. In our model the value for NFI is 0.919, which gives an idea of the model's good fit.

The non-Normed fit index (NNFI), also referred to as the Tucker-Lewis index (TLI), is another index used to compare a proposed model with the null model, but unlike normed fit index (NFI), it works better for small samples and simple models; in fact, it penalizes the complexity of the models; namely, the existence of parameters that contribute minimally to an improvement in model fit (Byrne, 2012). As a disadvantage, given that it is non-normed, it can take values greater than 1, and therefore it may be more complicated to interpret (Timothy, 2010). As for the other incremental fit indices, a value greater than 0.9 –in our model it is 0.947– is considered acceptable (McDonald and Ho, 2002).

c. Parsimonious fit indices

The complexity of models affects the estimation process when calculating absolute and incremental indices; as a result, less rigorous theoretical models paradoxically might produce better fit indices (Mulaik *et al.* 1989). This is why Mulay *et al.* included degrees of freedom as a factor to be taken into account. Consequently, they created the parsimonious indices PNFI and PGFI, based on NFI and GFI respectively, by adjusting for loss of degrees of freedom. As a third index in the evaluation of our model, we have

added PCFI, which is based on CFI by adjusting it to the degrees of freedom. It is important to clarify that the behaviour of goodness-of-fit indices is not the same as that of parsimonious-fit indices, and so although the cut-off for the goodness-of-fit indices should usually be set at 0.9, it is possible to find good parsimonious normed-fit indices in the 0.50s.

The values of the parsimonious indices for the model far exceed the cut-off (0.50): PGFI = 0.710, PNFI = 0.786, and PCFI = 0.816. This indicates a good fit for our model.

3.2.2.2 Hypothesized relationships

Once all the fit indices have proved the validity of the model, the next step consists of analysing the parameter estimations to assess the validity of the hypothesized relationships among the constructs. Therefore, the specified model is to be tested to determine the extent to which the hypothesized relationships are supported by data in terms of variance-covariance (Schumacker, Lomax, 2010). For this purpose, the estimated coefficients must be examined (Rodríguez-Ardura, Meseguer-Artola, 2014). These data are shown below in Table 9, which contains information about the regression weight and significance of each hypothesized relationship in the model.

Table 9. Hypotheses and structural model path coefficients

Hypotheses and pathways			**β**	**SE**	**CV**	***p***
H1a (+)	Interactivity	→ Spatial presence	0.153	0.060	2.546	0.011
H1b (+)	Interactivity	→ Social presence	0.379	0.077	4.938	***
H1c (+)	Interactivity	→ Flow	0.188	0.067	2.824	0.005
H1d (+)	Interactivity	→ Attitude	0.259	0.048	5.374	***
H1e (+)	Interactivity	→ Continuance intention	0.282	0.069	4.104	***
H2a (+)	Spatial presence	→ Social presence	0.221	0.690	3.185	0.001
H2b (+)	Spatial presence	→ Flow	0.850	0.072	11.813	***
H2c (-)	Social presence	→ Flow	0.056	0.074	0.755	0.450
H3a (-)	Spatial presence	→ Attitude	0.051	0.056	0.907	0.364
H3b (+)	Social presence	→ Attitude	0.098	0.046	2.138	0.032
H4 (+)	Social presence	→ Continuance intention	0.156	0.064	2.420	0.020
H5 (+)	Flow	→ Attitude	0.078	0.030	2.589	0.010
H6 (+)	OSL	→ Flow	0.166	0.065	2.569	0.010
H7 (+)	Subjective norms	→ Continuance intention	0.132	0.048	2.955	0.030
H8 (+)	Attitude	→ Continuance intention	0.525	0.093	5.669	***

β: estimates; SE: standard error of the regression weight; CV: critical ratio value for regression weight; *** = 0.000.

According to these data, the following assertions can be made: *interactivity* has a positive and significant impact on *spatial presence* (β = 0.153, p = 0.011); *interactivity* has a positive and significant impact on *social presence* (β = 0.379, p = 0.000); likewise, *interactivity* positively influences *flow* (β = 0.850, p = 0.000); *interactivity* positively

affects *attitude* (β = 0.259, p = 0.000), and *spatial presence* has a positive effect on *continuance intention* (β = 0.282, p = 0.000).

Some other positive effects are: *spatial presence* on *social presence* (β = 0.221, p = 0.001); *spatial presence* on *flow* (β = 0.850, p = 0.000); *social presence* on *attitude* (β = 0.098, p = 0.032), s*ocial presence* on *continuance intention* (β = 0.156, p = 0.020); *flow* on *attitude* (β = 0.078, p = 0.010); *OSL* on *fow* (β = 0.166, p = 0.010); *subjective norms* on *continuance intention* (β = 0.132, p = 0.030); and *attitude* on *continuance intention* (β = 0.525, p = 0.000).

However, some relationships have not been endorsed by the model estimates: the *p*-value obtained for the hypothesized relationship between *social presence* and *flow* is too high (p = 0.450), so the hypothesis should be rejected. Likewise the relationship between *spatial presence* and *attitude* (p = 0.364), which should also be rejected.

The rejection of the potential connection between *social presence* and *flow*, whereas the contribution of *spatial presence* to *flow* is endorsed, could be explained by taking into consideration the nuance difference between these two types of presence feelings. The concept of spatial presence involves the feeling of 'being there', within the virtual environment depicted by the technology, and consequently it leads to the loss of awareness of the immediate surroundings –which is a key characteristic of flow episodes. Rather, social presence could imply a compelling sense of being socialising in the virtual environment (i.e., 'being with others'), which might be related to flow. However, this latter relationship seems to be weaker as expected, according to the results yielded by our empirical research.

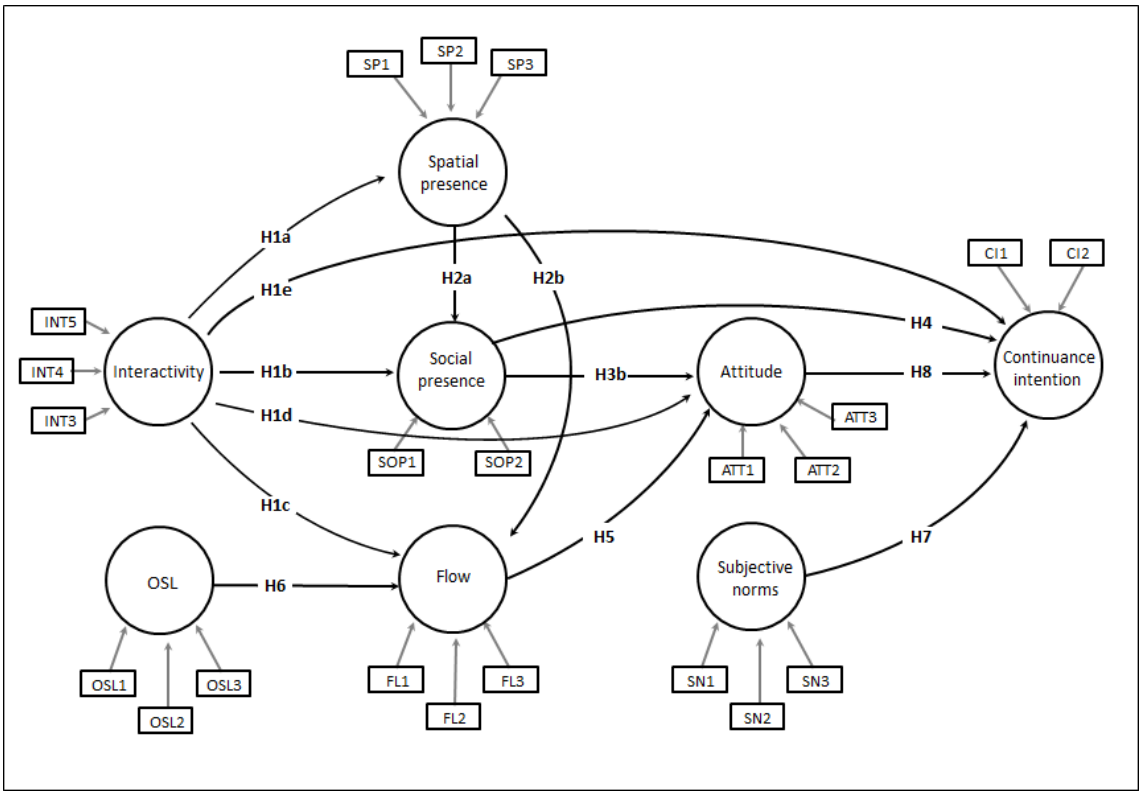
Added to this, *social presence* shows to have a positive impact on *attitude*, while *spatial presence* does not. This seems to point out that the feeling of 'being together', with friends and member of the user's personal network, significantly helps to enhance their attitude towards the HSN, whereas the place where the online encounter apparently takes place seems to be irrelevant.

3.2.2.3 Revised model

As the analysis of the hypotheses has questioned two of them (H2c and H3a), it is necessary to repeat the estimation process of the new structural model, that in which those two hypotheses do not appear.

The revised model is shown below in Figure 39.

Figure 39. Revised model



Source: own elaboration

The fit indices for the revised model are shown below in Table 10.

Table 10. Fit indices for the revised model

Fit index	Value	Recommended cut-off values	Decision
Absolute fit measures			
χ^2	397.1	The lower the better	
d.f.	236		
p-value	0.000	> 0.05	
χ^2/d.f.	1.683	< 5	Good fit
GFI	0.918	> 0.80	Good fit
AGFI	0.896	> 0.80	Good fit
SRMR	0.075	< 0.80	Good fit
RMSEA	0.043	< 0.08	Good fit
Incremental fit measures			
NFI	0.930	> 0.90	Good fit
TLI	0.965	> 0.90	Good fit
CFI	0.970	> 0.95	Good fit
Parsimonious fit measures			

PGFI	0.723	> 0.50	Good fit
PNFI	0.795	> 0.50	Good fit
PCFI	0.829	> 0.50	Good fit

Yet although the fit of the initial model was good, as can be seen the subsequent elimination of the questioned hypotheses makes the model improve in all its fit indices, whether absolute, incremental or parsimonious.

Absolute fit indices. The value of χ^2/d.f. has fallen from 2.145 to 1.683, distancing it from the upper threshold, namely 5. RMSEA has gone from 0.056 to 0.046, which also pushes the index further away from the upper threshold, namely 0.08. GFI has increased by 0.016 (from 0.902 to 0.918), bringing it closer to 1, the ideal value, and it is always above 0.9. AGFI also increases and moves closer to 1, rising from 0.876 to 0.896. SMSR has fallen below the good-fit threshold, having decreased to 0.075, whereas before it was at the limit (exactly 0.08).

Incremental fit indices. NFI and TLI should be over 0.9 to indicate a good fit, the higher the value the better. The initial values (0.919 and 0.947, respectively) have increased to 0.930 and 0.965, which indicates an improvement in the fit. Similarly, CFI, which should be over 0.95, has increased from 0.955 to 0.970. This indicates a significant improvement according to incremental fit indices.

Parsimonious fit indices. The three indices analysed (PGFI, PNFI and PCFI) should be over 0.50. The initial values, all of them indicating good fit (0.710, 0.786 and 0.816, respectively), have improved, rising to 0.723, 0.795 and 0.829.

As a result, all the hypotheses have p-values of over 0.05, which means all of them should be accepted, as can be seen in Table 11.

Table 11. Hypotheses and structural model path coefficients for the revised model

Hypotheses and pathways			β	SE	CV	*p*
H1a (+)	Interactivity	→ Spatial presence	0.152	0.060	2.534	0.011
H1b (+)	Interactivity	→ Social presence	0.406	0.074	5.475	***
H1c (+)	Interactivity	→ Flow	0.190	0.066	2.862	0.004
H1d (+)	Interactivity	→ Attitude	0.250	0.049	5.131	***
H1e (+)	Interactivity	→ Continuance intention	0.275	0.071	3.853	***
H2a (+)	Spatial presence	→ Social presence	0.231	0.067	3.430	***
H2b (+)	Spatial presence	→ Flow	0.850	0.072	11.818	***
H3b (+)	Social presence	→ Attitude	0.111	0.048	2.331	0.020
H4 (+)	Social presence	→ Continuance intention	0.157	0.067	2.360	0.018
H5 (+)	Flow	→ Attitude	0.076	0.030	2.530	0.011
H6 (+)	OSL	→ Flow	0.165	0.065	2.555	0.011
H7 (+)	Subjective norms	→ Continuance intention	0.124	0.042	2.957	0.003
H8 (+)	Attitude	→ Continuance intention	0.530	0.093	5.695	***

β: estimates; SE: standard error of the regression weight; CV: critical ratio value for regression weight; *** = 0.000.

So, once the non-confirmed hypotheses have been removed from the model, our 13 hypotheses are supported by the empirical study. Therefore, we can state that interactivity positively impacts on spatial and social presence, flow, attitude, and continuance intention; spatial presence influences social presence and flow; social presence affects attitude and continuance intention; flow positively affects attitude; OSL influences flow; and finally subjective norms and attitude impact on continuance intention.

Chapter 4

Conclusions

4 Conclusions

This chapter contains our contributions to the literature, the managerial implications of our findings, the limitations of our research, and the main directions for future research.

4.1 Contributions to research

Two main elements were taken into consideration when we designed our study; firstly, the blooming of HSNs as communication and social phenomena (Tsiotsou, 2015). Secondly, we explored the concept of retaining consumers by earning their loyalty in highly competitive environments. Our study emerged from the intersection of both elements, as it was aimed to analyse which factors can lead to continuance intention in HSNs. Our study was designed to better understand user experiences on HSNs and provide a holistic view of the factors that facilitate user loyalty towards a HSN. Based on Oliver's (1999) theoretical umbrella, we modelled the impact of experience-related factors, personal traits, and social forces on user willingness to patronise a HSN. A wider explanation of these contributions is found below.

Firstly, our study provides a holistic vision of the factors that help to favour customer loyalty using three factors from Oliver's (1999) model: personal factors (OSL), experience-based factors (interactivity, flow, social presence and spatial presence) and social factors (subjective norms). Additionally, we included attitude as a factor with both a personal and product experience component. To the best of our knowledge, our study is the only one to explore the factors favouring loyalty while taking into account the three loyalty factors proposed by Oliver. Additionally, our empirical research revealed relationships among the constructs proposed, combining the three loyalty factors. Thus, we created a model containing these constructs. Based on the existing literature, we hypothesized inter-type relationships. The model was contrasted with an empirical work, which supported our model and endorsed a majority of our hypotheses.

Our model confirms three relationships that had been revealed in previous SNS studies: (1) the positive impact of interactivity on presence, either social or spatial, which is consistent with a number of studies (e.g. Lim *et al.*, 2015; Mollen and Wilson, 2010; Moon *et al.*, 2013; Novak *et al.*, 2000; Sheridan, 1992; Tu, 2002) including in HSN literature (McMillan, 2006); (2) the relationship between subjective norms and continuance intention, revealed in previous studies (e.g. Kim, 2011; Roca *et al.*, 2006) and SNS literature (e.g. Baker and White, 2010; Cheung *et al.*, 2011; Cheung and Lee, 2010); and (3) the role of attitude in the creation of continuance intention, which is present in different online environment studies (e.g. Rodríguez-Ardura, 2006), and in SNS studies (e.g. Currás-Pérez *et al.*, 2013; Leng *et al.*, 2011; Lorenzo-Romero *et al.*, 2011).

Secondly, our study reveals the importance of interactivity in HSNs as an enabling construct that favours the majority of constructs leading to continuance intention. This influence, often found in a number of studies, had never been revealed in prior HSN studies. We are particularly referring to the following three positive impacts of interactivity: (1) flow, which was identified in non-HSN studies such as Chang and Wang (2008), Faiola *et al.* (2012), Fiore *et al.* (2005), Hoffman and Novak (1996), Huang *et al.* (2007) or Mollen and Wilson (2010); our study reveals its presence in HSN environments as well; (2) attitude, which has been widely studied (e.g. Coyle and Thorson, 2001; Kim *et al.*, 2015; Lee, 2005; Macias, 2013; Mollen and Wilson, 2010; Shim *et al.*, 2013; Sukoco and Wu, 2011; Sundar and Kim, 2005; Yoo *et al.*, 2010); and (3) continuance intention, as revealed in Ballantines (2005), Cyr *et al.*, (2009), Kim *et al.* (2015) and Steckel *et al.*, (2005).

Thirdly, our study offers new evidence, never before observed in previous HSN studies, that help to a better understanding of the contribution of flow to the formation of loyalty towards HSN environments: (1) the role of OSL as an antecedent of flow, present in studies such as Woszczynski *et al.* (2002) or Keng *et al.* (2015); (2) the positive influence of spatial presence on flow, present in studies such as Faiola *et al.* (2012), Keng *et al.* (2015), Lee and Chen (2010), Nah *et al.* (2011), Rodríguez-Ardura (2016), Stavropoulos *et al.* (2013), but, to the best of our knowledge, never before in a HSN study; and (3) the role of flow as an antecedent of attitude, likewise present in other studies (e.g. Choi *et al.* 2007; Hsu and Lu, 2004; Korzaan, 2003; Lee, 2010; Lin *et al.*, 2005; Roca *et al.*, 2006; Sánchez-Franco and Roldán, 2005; Webster, 1992), but never in other HSN studies.

Fourth, our study extends the knowledge of the effect of social presence on continuance intention. This relationship had manifested in studies such as Cheung *et al.* (2011), Cyr *et al.* (2007), Lim *et al.* (2015), Nah *et al.* (2011), and Tu (2002), but has never been studied in any HSN or SNS research.

Finally, our study has found a brand new relationship. This finding is related to the positive impact of social presence on spatial presence, which expresses that the capacity of a medium to favour 'being there' feelings, favours users' ability to feel in the company of their social contacts and 'being together.'

Our study contributes to the knowledge of the factors that improve user loyalty towards HSNs. From that point of view, four direct antecedents of loyalty have been identified, namely interactivity, social presence, attitude and subjective norms. Moreover, three indirect antecedents have been found: spatial presence, flow and OSL. All the constructs included in the model are relevant to the objectives of this study. These findings represent a valuable contribution to the knowledge of HSN consumption.

The empirical study carried out in our investigation validates two topics: the theories taken as references as well as the scales utilized. With respect to the theories and statements, revision of the bibliography manifested a number of concepts and

statements associated with the constructs used in our model. The result of our empirical study validates the majority of the stated hypotheses (13 out of 15). This serves not only to validate our assumptions, but even more to endorse the referenced theories to formulate our hypotheses. With respect to the scales utilised, the application of the methodology and the empirical work have completely reinforced the absolute validity of all the scales and their representation of each construct. Thus, all the items selected to represent our constructs successfully passed the convergent validity and demonstrated strength in explaining the corresponding construct. They also passed the discriminant validity, further demonstrating that they did not contribute to explaining non-corresponding constructs. But even more, the factor analysis yielded surprisingly accurate results: the factorial load of items were grouped in a natural way around each corresponding construct where it was possible to find out which items composed every construct just by looking at the results. In the 'interactivity' construct where two scales were combined, the factorial analysis grouped items separately, clearly revealing the combination of items around the construct. This constitutes an endorsement of the scales taken as a reference for our study, as they are strong and unequivocally endorsed by the empirical results.

4.2 Managerial implications

The study provides valuable information about the importance of each considered factor in the improvement of HSN customer loyalty. As a result, our study revealed the importance of flow, presence, OSL, interactivity and subjective norms in the building of loyalty towards Facebook. Accordingly, it would be desirable for a HSN provider like Facebook to work in four lines: favour immersive environments capable of mentally transporting users, provide highly interactive environments, increase the level of challenges available, and make the usage of the HSN socially acceptable, which should lead to a more positive attitude from users and finally an improvement of their loyalty towards Facebook. Details of each one of those lines are outlined below.

4.2.1 Favour immersive environments capable to mentally transport users

The ability to mentally transport users is vital to making them feel present in their environment where they are surrounded by their online social contacts, and in any case favour those online social contacts. This experience improves their positive attitudes and generates feelings of loyalty.

This implies a need to make the HSN user experience highly immersive. This could be problematic because there are no clear indicators for favouring immersion experiences. Usual definitions involve features such as cognitive challenges or sensory experiences (Lidwell *et al.*, 2010). Nevertheless, there are experiences that are completely sensorial with no cognitive responses (e.g. a theme park ride) and conversely completely cognitive and no sensory responses (e.g. a chess game); but both can be highly immersive.

We suggest four general design tips to enhance the HSN immersion experience: (1)

include engaging challenges such as games, entertainment or exhibits; (2) minimize distraction elements; (3) promote the feeling of control by making the surf experience adapt to user demands; and (4) maximize the stimuli that can distract users from the real world and minimize the ones that will lead them to the real world. Following this line of reasoning, HSNs such as Facebook have an area for improvement, insofar as they do not propose interactive challenges and delegate these function to the users. Thus, those users whose personal's social networks propose entertaining games and challenges are more likely to become loyal to Facebook than those ones without that type of online social networks. Besides, Facebook should balance the number and profiles of advertisers, who might potentially distract users and lead them navigate out of this particular virtual environment.

With respect to the ability to favour spatial presence related to social presence, one of the points that can be very helpful is convergence. Convergence is related to the ability of systems to converge to other similar systems that have demonstrated success while the least efficient systems become extinct. The new systems should approximate to the efficient ones that have demonstrated their optimisation. Thus, some of the tips that have proven their efficiency in off-line encounters can be applied to HSN environments. Firstly, it is important to provide users with spaces where they can feel intimate with their friends. Secondly, it is important to create a homely and comfortable environment. As in face-to-face meetings, a friendly environment can make participants feel comfortable and immersed in the experience. Thirdly, it is important to equip the environment with all the tools necessary during the course of the HSN encounter. Thus, there should be "places" where attendants can share information, others where they can converse, where they can exchange, remember, project, and all the general purposes involved in in-persons meetings. Moreover, there should be ornaments aimed at improving the look and feel of the environment while keeping a non-formal aspect where norms are not too restrictive. Additionally, finding and suggesting common points for all the participants is highly recommended. This will improve the environment and make the experience more immersive. Finally, favouring their feedback, will make participants feel more comfortable and valued.

All these tips will improve the HSN experience for users, so they will more likely feel immersed and transported to a life-like encounter. Therefore, this will favour closer ties between users and the HSN. HSNs such as Facebook are continuously improving their interfaces, and consequently their online environments are being become more and more comfortable; they have easier to use advanced functionalities, which facilitate the user's interaction. Services such as the pictures uploading, messaging service, self-created multimedia productions are currently improving user's experiences.

4.2.2 Provide highly interactive environments

Providing highly interactive environments involves the creation of a high-speed response environment that is easily controllable by users in order to interact with their contacts. This has four effects: (1) facilitation of social virtual encounters; (2) more pleasant experiences; (3) improved user attitude towards the HSN; and (4) construction

of customer loyalty. These four effects give a good idea of how the creation of highly interactive environments will help HSNs to forge relationships with their users. For this purpose, the following three factors must be taken into consideration.

1. Users must feel that the interface interacts with them. For an interface to be interactive, it must provide the users the chance to (1) listen; (2) think; and (3) speak, metaphorically speaking (Crawford, 2002). Thus, users can receive (namely "listen") a message, think about their response, and communicate (namely, "speak") that response. A correctly designed interface in terms of interactivity must provide all three features, otherwise it will be a non-interactive interface. The internet or more specifically a HSN can provide all three possibilities. Other media, for instance books or movies only "speak" but do not "listen" and have limited possibilities for interactivity. Below are some guidelines for implementing those three aspects in taking advantage of HSN possibilities.

Speaking. The environment must be able to communicate with the user, using the two available channels: visual and auditory. Visual features must be optimised in order to show high definition interfaces where "that output capacity of the display match the input capacity of the eye" (Crawford, 2002:21). This involves the need to adjust parameters such as the pixel definition, frame rate, colours and animations. Moreover, the use of motion will improve the interactivity features of the medium. There are six animations that can be perceived by the human eye: (1) translation, making objects move before the users' eyes; (2) expansion/contraction of the objects shown, which will produce a closer or farther distance impression; (3) brightening/dimming, which produces an equivalent effect to expansion/contraction; (4) vibration, with small regular movements; (5) rotation, which will be more truthful for 3D objects; and (6) facial animation that can be easily identifiable by human vision.

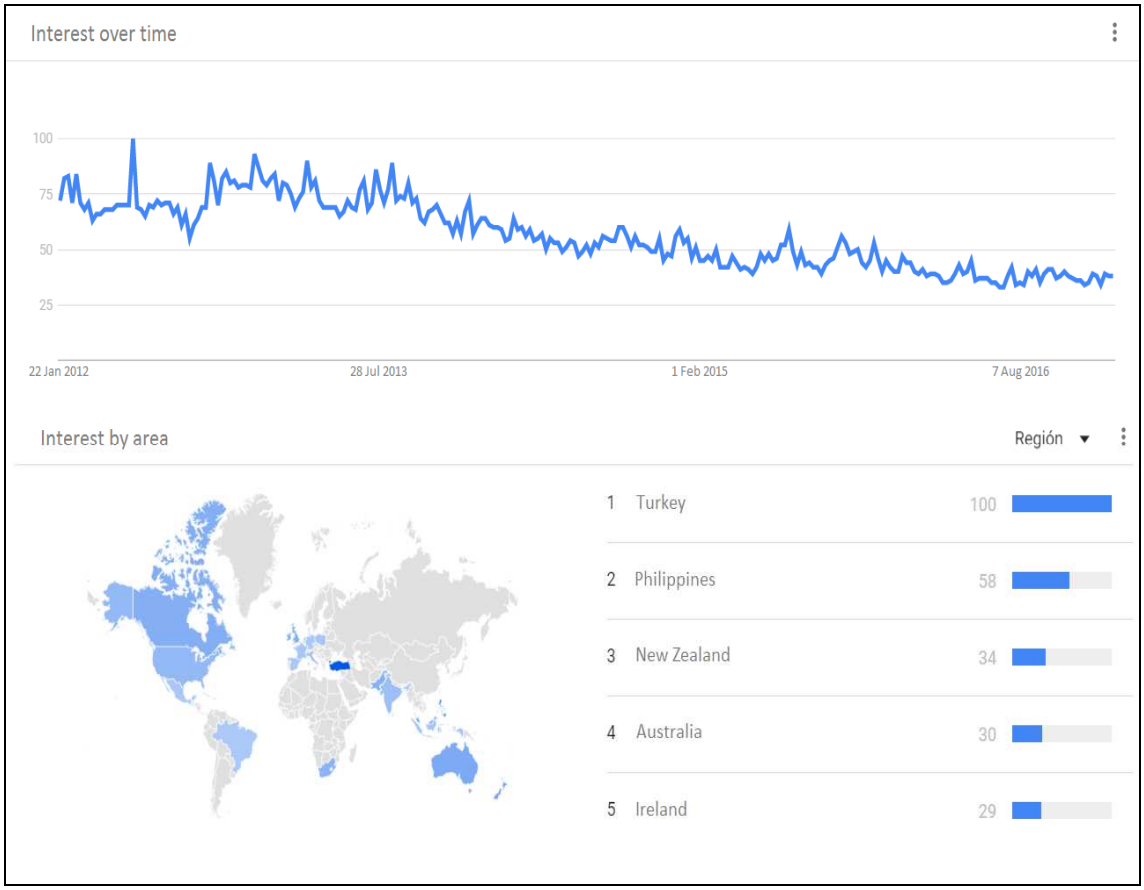
Listen. Sound output can be utilised in an extensive way to not only reproduce existing sounds or music, but suggest messages. Thus, there can be a code for different sounds that the user can perceive as warnings such as danger, standby, readiness, etc. Moreover, sound devices can play real sounds, which opens a wide range of possibilities and feelings brought by music and sounds; it must be noted that playing music requires a non-interactive experience as the receptor will not participate in the reproduction. Similar consideration must be applied to a full video playing. Although it offers a high quality message, it usually involves a passive attitude from the receiver and does not favour interactivity.

Think. The concept of responsiveness was deeply studied in the chapter 2 theoretical background and conceptual model sections. It is related to the coherence in the communication process between the two parties in that process, i.e. in this case the user and the environment represented by its interface. This will require the system to be able to “think” and respond in a logical way according to the conversation with the user. This involves the concept of “anthropomorphising” which gives human features to the environment so the user can interact with it in a close relationship. For that purpose, the designer of the HSN must start from the premise that in every non-direct

interpersonal communication, there is an interface between the parties, and even so they are able to ignore this interface to eventually feel they are interacting directly with a person on the other side. For instance when two persons are having a telephone conversation, each one of them is not physically interacting with the other person, but with their respective telephones. Nevertheless, they understand that the device allows them to stay in contact with their partner and can ignore its existence. Similarly, in the designing process of the system, in this case the HSN, the possibility of anthropomorphising must be kept in mind. This can be achieved by letting the user know that the system understands and responds consequently, i.e. it "thinks." Good ideas include asking for confirmation, displaying assertive messages indicating that the order was processed, or informing the status of the request or command from the user. These ideas can make the user feel understood. One more element that helps to improve the responsiveness of a system is the feedback loop which is defined as "a relationship between variables in a system where the consequences of an event feed back into the system as input, modifying the event in the future" (Lidwell *et al.*, 2010:92). This implies taking into account past interactions in order to prepare the system to better respond to a user's future behaviours. This will make users feel like the other side of the interface is a human-like being with whom they can actively interact. This will foster feelings of interactivity of the environment. At this regard, HSN such as Facebook could adopt a more proactive role by interacting with users. For example, the current version of Facebook barely interacts itself with users, and delegates the weight of the interaction to user-to-user initiatives. Providing the Facebook-to-user interaction might be particularly useful to users with smaller personal's social networks, who otherwise will not perceive Facebook as an interactive environment.

2. The response time must be short, as the speed in the response is a crucial factor for any online environment (Ryan and Valverde, 2003). Thus, all the elements that could slow down the user interface of a HSN should be removed. For that purpose, there are some technical issues that must be taken into consideration, such as removing intensive or conflicting plugins, optimizing the code, making pages cacheable, using asynchronous loading when possible, or optimizing the images. In fact Facebook has lately been concerned about its speed; fortunately users have noticed this improvement according to Google Trends (Owoki, 2015). Thus, the term "Facebook slow" has been less and less searched by users over the last five years (see Figure 40). Moreover the most concerned users are by far concentrated in Turkey and Philippines where the slowdown could be due to reasons beyond Facebook's responsibilities. This lets think that Facebook has successfully worked in the improvement of its user-response speed.

Figure 40. Google trends- Search "Facebook slow"

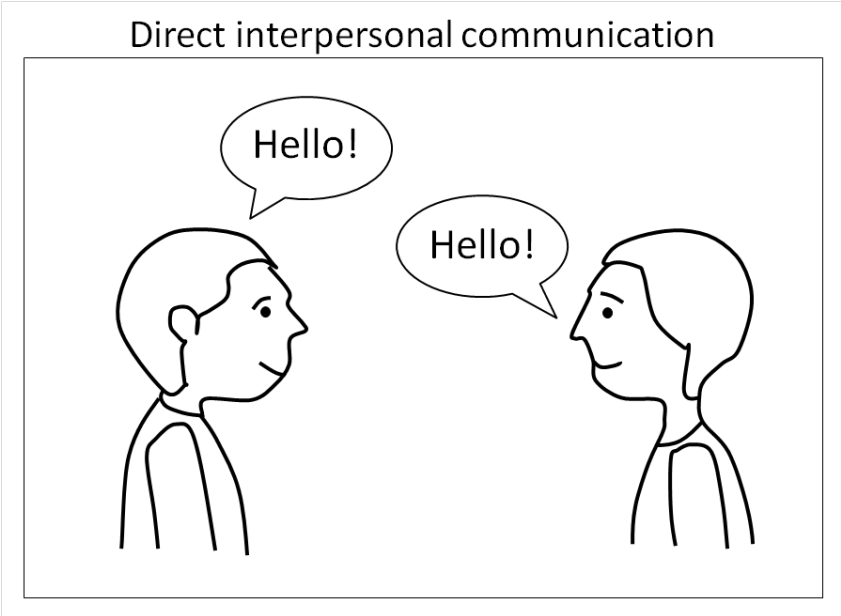


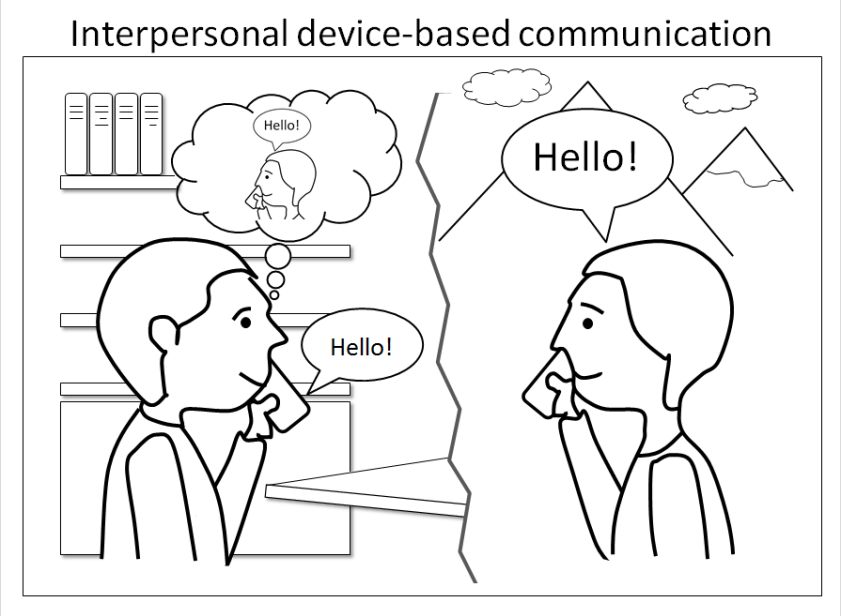
Source: Google trends (https://www.google.es/trends/explore?q=facebook%20slow).

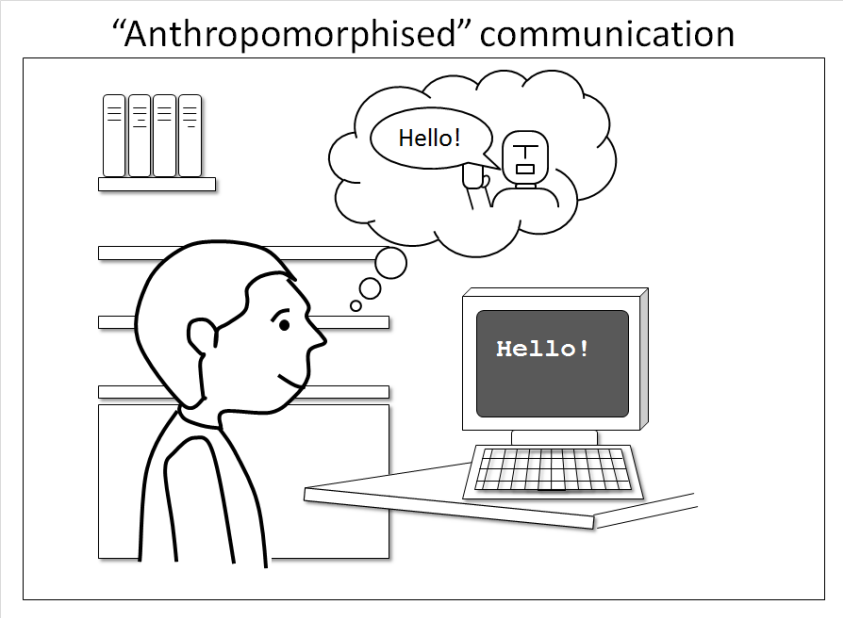
3. People on the other side. The idea of anthropomorphising as suggested above is a key feature for interactivity. This may be an ambitious objective for non-user-to-user environments where the system will be forced to simulate and provide all the human-like responses. Nevertheless, HSNs offer an added advantage in that they provide a meeting point for human encounters. Thus, it will not be necessary to simulate human reactions as they can come from real human users. Accordingly, HSNs must provide nimble and rapid interfaces, allowing users to interact with one another with no delay to their own response time. In all other non-user-to-user functionalities, the interface should be anthropomorphised like any other internet environment.

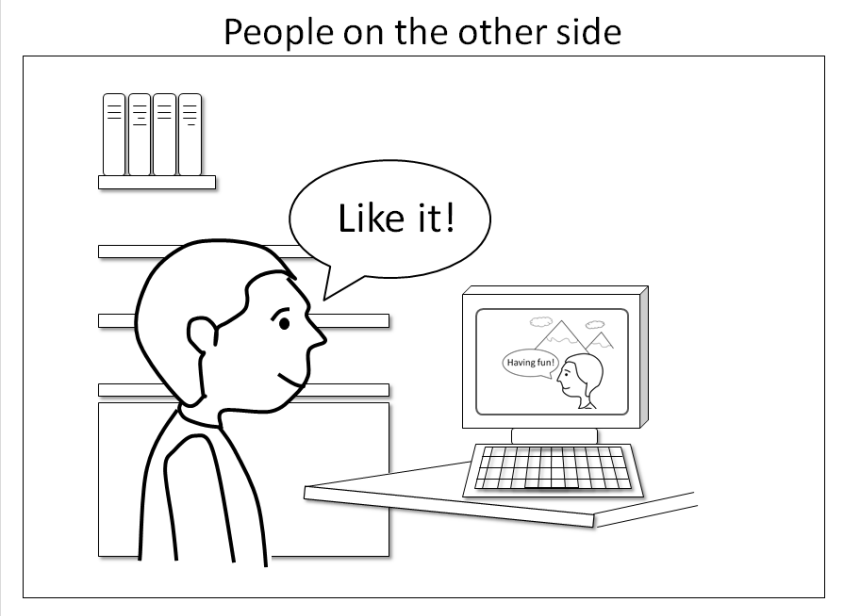
Figure 41 reflects the concepts associated with interactivity in the design of HSN interfaces.

Figure 41. Concepts associated with interactivity in the design of HSN









Source: own elaboration.

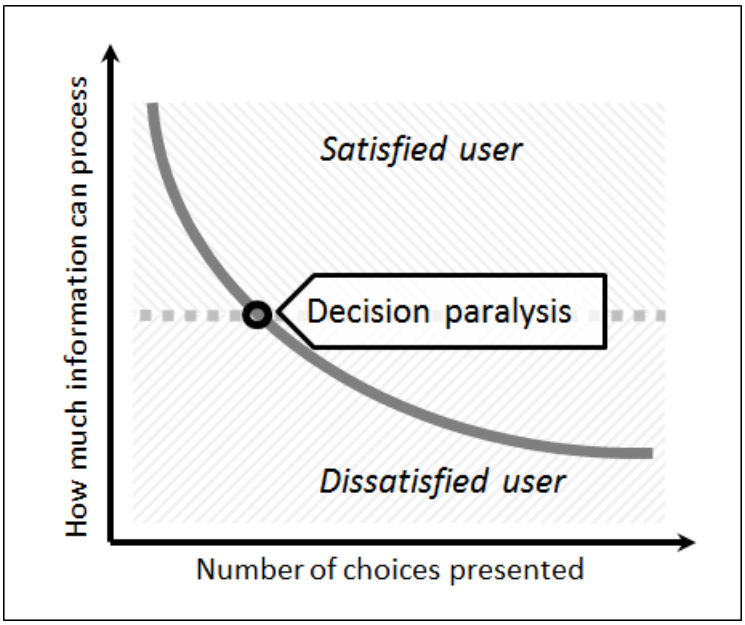
4.2.3 Increase the level of the challenges available

As seen in the chapter 2 theoretical background and conceptual model, individuals tend to look for experiences according to their OSL. Thus, if the HSN is able to offer more challenging experiences, this will attract high OSL individuals who will more likely reach flow states and will derive more satisfactory experiences.

One of the most important factors for an environment to be challenging for its users is to offer a large number of options during the experience, which will be led by different decision-making processes. Nevertheless, Hick's law (1952) must be taken into consideration because an excessive number of options in every decision-making

process will result in dissatisfied users who are affected by "decision paralysis" (Simpson, 2013).

Figure 42. Decision paralysis



Source: Simpson (2013).

The environment must offer a sufficient but not excessive number of options in every decision-making process. If options are too small, it may result in monotonous and boring experiences, and if they are too large, it may cause dissatisfaction and offer a less friendly interface. Therefore, in the design of a HSN, it is necessary to group functionalities so they can be shown in a staggered manner and all possibilities are not shown all at once.

While it is true that the “decision paralysis” would be different for each user, it is better to tailor the HSN for challenge-seeking users. In the case of Facebook, as mentioned above, it could adopt a more proactive stance in order to offer additional challenges apart from those proposed by the users.

4.2.4 Make the HSN socially acceptable

The search for social acceptance is a need inherent to all human beings (Maslow, 1943). In HSN consumption, two aspects come into play in that regard: (1) the social acceptance or subjective norms favour the usage of new users (e.g. Ajzen and Fishbein, 1980; Bauer *et al.*, 2005; Bosnjak *et al.*, 2005; Kim, 2011; Lapinski and Rimal, 2005); and (2) as a still emergent experience, HSN usage is also affected by direct network externality (Peres *et al.*, 2010). Network externalities can be either indirect or direct. Indirect network externality refers to the phenomenon that exists in some emergent innovative products or services where its usage is conditional to the existence of other complementary products or services. For instance, televisions or consoles in their early stages were affected by indirect network externalities because their growth depended

on the existence of other elements, namely TV shows, and videogames for consoles. Indirect network externality also exists when the utilisation of any product or service depends on the existence of other users. This phenomenon particularly applies to network innovations like telephony since its use only makes sense if there are other users to communicate with. The same indirect network externality is present in the spread of HSN usage, which depends on the concurrent use of other users.

An additional implication of social acceptance is that it impacts the expectation effect. The expectation effect is related to the way a user's expectations influence their perceptions and behaviours. The expectation effect has different manifestations such as the halo effect, Pygmalion effect, Rosenthal effect or placebo effect. Positive opinions about HSN usage may encourage new users to approach its consumption with a better predisposition and will consequently generate better user experiences and more satisfied users. This does not seem to be a weak point for Facebook, if we bear in mind the number and growth of active users.

4.3 Limitations of the study

There are four main limitations to our study: the definition of continuance intention, the limited number of inter-type relationships, the definition of personal factors, and the sampling method.

Along with our research, the definition of the construct 'continuance intention' does not necessarily correspond to some other studies. The concept 'continuance intention' is poorly defined. In fact, most of the studies involving continuance intention (e.g. Bao, 2016; Moon *et al.*, 2001; Sällberg and Bengtsson, 2016; Zhou, 2013) do not define it and consider it a self-explanatory concept. However, there are some nuances that would be necessary to differentiate concepts, such as continuance intention, repurchasing, repeating intention, repatronising, or loyalty.

In our case, we have considered for all purposes 'continuance intention' and 'loyalty' as equivalent terms. This deserves a revision of those two concepts. Loyalty and continuance intention are very close (Erciş *et al.*, 2012). The first definition, taken from the most cited loyalty-related article, is from Oliver (1998:34) and defines loyalty as 'a deeply held commitment to rebuy or repatronise a preferred product/service consistently in the future.' This definition places loyalty very close to repatronise and continuance intention, with the only nuance of 'commitment' involved. Likewise, Dick and Basu (1994) built their definition of loyalty based on repurchasing behaviour, but in this case 'attitude' was the nuance that made the difference. Then, it will be necessary to contrast the concept 'loyalty' with the one we considered for 'continuance intention'.

As mentioned above, no studies take the time to define what 'continuance intention' is and what nuances it involves apart from repurchase or repatronise intentions. Even so, the underlying concept can be deduced by looking at the operationalisation. In our case, we took Moon *et al.*'s (2001) study as a reference for the operationalisation of 'continuance intention.' This concept included three considerations: (1) whether the

user will continue using Facebook on a regular basis in the future; (2) whether the user will frequently use Facebook in the future; and (3) whether the user will strongly recommend others to use Facebook. This conceptualisation involves not only a repetitive behaviour but also a favourable attitude focused on the third consideration. The only study, to the best of our knowledge, that studied continuance intention and loyalty separately is Choi *et al.* (2013), which considers continuance intention as a manifestation of loyalty, together with 'word of mouth.' This clearly reinforces our identification of continuance intention and loyalty where 'word of mouth' from Moon *et al.* (2001) is reflected in the third question in our operationalisation.

Considering the above definitions, the concepts 'loyalty' and 'continuance intention' in our study seem to be tantamount; Oliver's definition is extremely close to 'continuance intention,' and our consideration of that construct also includes attitude, which connects both concepts even more. As a result, we considered 'continuance intention' and 'loyalty' as equivalent terms in our study.

The second limitation of our study is the small number of non-experience factors. This limits the number of relationships between different factors. It would be particularly interesting to explore relationships between personal and product-experience factors. This is a weakness in our model, so much so that our study includes a unique relationship of this nature: OSL-flow.

This gap is particularly relevant for personal factors. Where social implications seem to be enough represented by subjective norms, personal factors can definitively be completed by including more constructs in the model. It would be very helpful to characterise the profiles of the users who would be more likely to achieve presence feelings and flow states that would result in stronger loyalty. In this regard some possibilities were taken into consideration.

Firstly, we considered including in our model Friedman and Rosenman's (1974) classification of A and B types, which states that a personality A individual could be summarised as 'aggressively involved in a chronic, incessant struggle to achieve more and more in less and less time' (Friedman and Rosenman, 1974:84-85) whereas individuals with a B personality could be defined as persons 'rarely hurried by the desire to obtain a wildly increasing number of things or participate in an endless growing series of events in an ever-decreasing amount of time' (Friedman and Rosenman, 1974:85).

Then we took a second model into consideration: Goldberg's (1990) five factors model of personalities. This model offers a wider range of profiles where individuals are classified according to five personality traits: neuroticism, extraversion, openness to experiences, agreeableness, and conscientiousness.

Thirdly, we assessed the adequacy of using Brandler and Grinder's (1979) primary representational system (PRS) as a criterion for classifying consumer profiles. PRS was proposed in Brandler and Grinder's neuro-linguistic programming (NLP) model, and serves to classify individual personalities according to their learning style. They state

that 'the map is not the territory' (Lankton, 1980:25), which means that every individual learns by internally representing the world (his 'map') which doesn't necessarily correspond to the world itself (the 'territory'). PRS models involve the existence of three main personality types based on how the individual maps reality: visual (V), auditive (A), and kinaesthetic (K). Visual individuals tend to encode outer perceptions in terms of images; auditive ones majorly use internal dialogue and sounds, while kinaesthetic predominantly employ tactile and proprioceptive sensations and emotions. Individuals typically use all three processing models to understand reality and build their internal 'maps,' but in most cases there will be a predominant model that characterises the individual's PRS.

The inclusion of PRS or any of the other two personality classification models would have involved three main challenges: (1) the operationalisation of the constructs inserted, which is uncertain. As in the current model all the constructs have been operationalised in terms of 7-point Likert-type scales. This is unclearly applicable to none of the three models proposed, whose inclusion would require an operationalisation effort; (2) the increase in the number of relationships of the model, and consequently hypotheses of the study, which in fact is already as big as 15 hypotheses, and could have been doubled, depending on the operationalisation of the constructs inserted and relationships proposed; (3) fit of the model due to the two challenges mentioned above. The greater the number of items, constructs, and relationships, the more difficult the fit of the consequent model. Bearing in mind that our model is already more complex than most of the studies analysed, it probably would not have admitted such a large number of new constructs and relationships.

This same argument also applies to the inclusion of one more product experience constructs: satisfaction. This is because satisfaction is closely related to the constructs considered in our study. In fact it is regularly present in online continuance intention studies as a clear antecedent of loyalty. (e.g. Bowen and McCain, 2015; Chang and Chen, 2008; Chen *et al.*, 2011; Currás-Pérez *et al.*, 2012; Homburg and Giering, 2001; Kim *et al.*, 2015; Martensen *et al.*, 2000; Roca *et al.*, 2006; Shankar *et al.*, 2002; Van Riel *et al.*, 2001; Vázquez-Carrasco and Foxal, 2002; Wang, 2003; Yoo *et al.*, 2010). Its inclusion could have explored its relationships with the rest of our product experience constructs, i.e. flow, social presence, spatial presence, and interactivity, as well as attitude.

The inclusion of those or any other personal and product experience constructs could have opened the possibility of exploring more interplay relationships between those types of constructs; in our study, only the relationship between OSL and flow was explored.

The third limitation of our study is related to the definition of "personal" factors. We took the three types of factors from Oliver (1999:42), who stated that the "loyalty is supported by the convergence of product, personal and social factors". In his paper, he explained what social and product experience based factors involve. Moreover, he defined personal factors as all those ones that allow the individual to protect from

external influences, but did not deepen what features, traits or sub-factors it could involve. Even if other studies have revealed that factors such as the demographic characteristics have an impact on the online consumers behaviour and attitudes (Cristóbal-Fransi *et al.*, 2014), in our study, we have only considered personality factors in order to explain how personal factors help to build loyalty.

The fourth limitation of our study is related to the characteristics of our data collection method and the resulting sample. As mentioned above, we utilised a self-administered online questionnaire. This brings advantages such as (Casas-Anguita *et al.*, 2003): the absence of the pollsters' bias, the access to any person regardless of the distance, and the possibility for the respondents to choose the optimum moment to complete the survey. Nevertheless, it also involves a disadvantage: the higher probability of quitting when the questionnaires are long. This was exactly our case: a questionnaire composed by as many as 125 questions, which required up to 20 minutes to be completed. Even if the utilisation of internet as the channel for the registration of the questionnaires favours interaction and improves the respondents' attitude (Suárez-Vázquez *et al.*, 2009), the number of uncompleted questionnaires was high (339 out of 755). For a such an extensive questionnaire, probably another collection method (e.g., personal-interview questionnaire) would have increased this ratio -but would have also increased the cost as well as involved time and space limitations. Although we consider that our data collection method is the most adequate having into consideration all the overall characteristics of our questionnaires, it is necessary to remark the limitations that its selection involves. With regard to the sample, there is a little bias in terms of the age of the respondents, probably due to the age of the first snowball layer, although it does not seem to affect the results, since the rest of the characterisation variables yielded a structure of segments coincident with the general Facebook user profile.

Considering all the statements above, we can summarise them by saying that our most significant limitations are the conceptualisation of our main concept, continuance intention; the limited selection of constructs, which restricts our understanding of the factors that favour continuance intention in HSN environments; and the focus on personality factors, which constrains the general consideration of 'personal' factors.

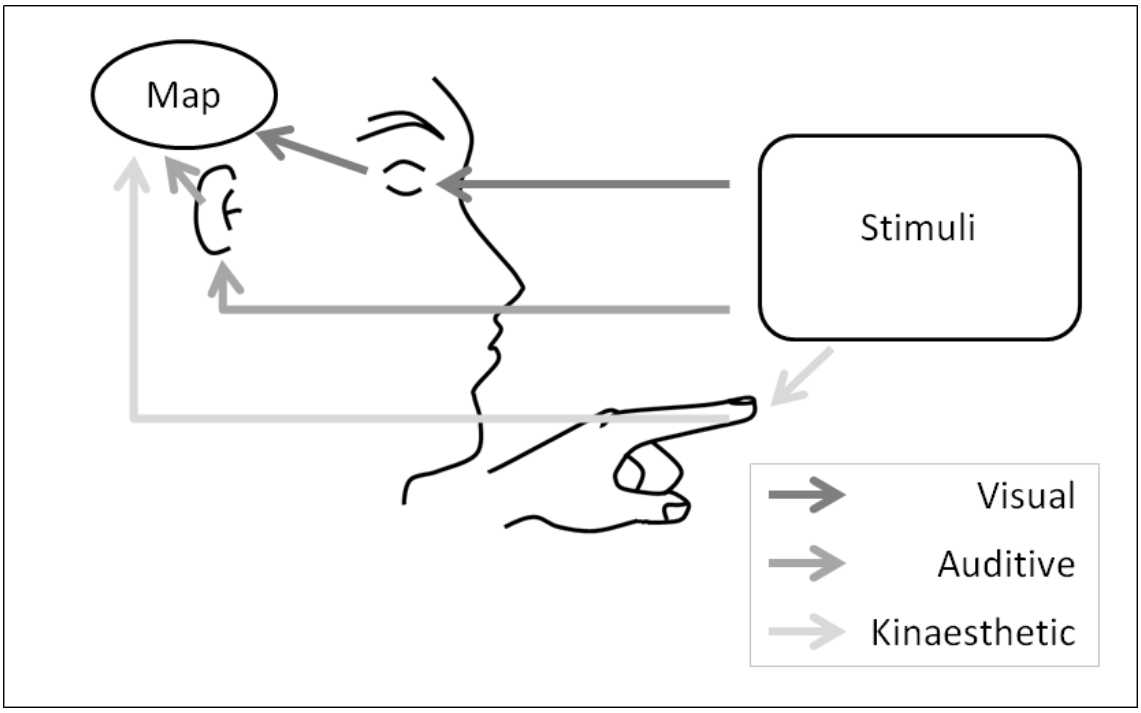
4.4 Directions for future research

The most immediate research direction consists of the inclusion of more personal factors in our model in order to consider a greater variety of antecedents and to better understand the consumers who will most likely patronise HSNs.

Of the three characterisation models, namely Friedman and Rosenman's (1974) A and B classification, Goldberg's (1990) five factors, and Brandler and Grinder's (1979) PRS, the last model seems to be the best option for two reasons. Firstly, it includes a right amount of different personality types, unlike a simple A and B classification or as many as the five factors model. This is interesting because the operationalisation of the factors would probably involve the inclusion of different constructs for each type,

which will bring a higher complexity to the model. Secondly, the PRS model has been previously utilised as a personality classification model in online and presence studies. In fact, Slater *et al.* (1994) explored the link of PRS with the feelings of presence, revealing a significant correlation between PRS and the rate of presence reported. Conversely, to the best of our knowledge, the A and B and five factors models have never been utilised in online presence studies to classify individual personalities. This suggests that the PRS model is the best complement to classifying individual personalities, which involves the need for a deeper analysis of that model to assess its adequacy and possible practical implementation.

Figure 43. Brandler and Grinder's (1979) primary representational system (PRS)



Source: own elaboration.

Brandler and Grinder proposed to use the PRS model for therapists in order to connect to their clients more effectively. For that purpose, they proposed some attempts to identify the different personalities (V, K, A) using methods which thereafter have not been conclusively proven, like the movement of eyes or the use of predicates. Predicate matching is a technique proposed by Brandler and Grinder (1979) that suggests that every person has a preference in the use of predicates in his sentences, depending on his PRS. Thus, visual persons would tend to use verbs like 'see' while auditive persons would prefer some others like 'hear' and kinaesthetic ones would use verbs like 'feel' (Elich *et al.*, Miller, 1985). Therapists and counsellors should connect more easily with their clients if they use the predicates according to their clients' PRS. In fact, Grindler and Bandler asserted that 'If you want your client to understand and trust you, you have the choice of matching predicates' (Lichtenberg and Moffitt, 1994:544). On that basis, studies by Beale, Lange, Dorn or Petroski (Heap, 1988) did not obtain clear results regarding the relationship between the subjects' PRS and their use

of predicates, or in any case the effectiveness of the predicates matching for counsellors (Goldin and Doyle, 1991). Other studies indicate that a large majority of individuals preferably use kinaesthetic predicates. Conversely, Heap (1988) identified some other studies that have resulted in positive correlations between predicates and some indicators about imagery, such as Birholtz's, O'Leary's or Wilimek's. After early studies on eye movements like Ehrlichman and Weinberger (1978), which suggests a relationship between eye movement and personality exists, the majority of studies such as those studied by Heap (Thomason, Arbuckle and Cady, Beale, Radosta or Petroski) concluded no support for the NLP assertions on eye movements. Wiseman *et al.* (2012) demonstrated a lack of effectiveness of NLP assumptions about eye movements to detect lies. Elich *et al.* (1985) tested both methods (use of predicates and eyes movements) with no effective results that supported Bandler and Grinder's proposal. Most of the aforementioned studies had several shortcomings (Einspruch and Forman, 1985): Beale, Birholtz, Thomason, Arbuckle and Cady, Lange, Radosta made design and methodological mistakes, whereas Dorn failed to consider stimulus-response associations and Wilimek failed to understand NLP as an approach to therapy.

Perhaps the best review of the existing studies on NLP was done by Witkowski (2010), where 401 articles were studied in terms of methodology applied and results obtained. In general, there is a lack of studies that undoubtedly assert NLP's methodology and clinical efficiency. Similarly Tosey and Mathison (2010) analysed some NLP reviews like Heap (1988) and Einspruch and Forman (1985), and suggested that the existing empirical research cannot support definitive conclusions (positive nor negative) about NLP.

The PRS classification has been widely used in different studies, some of them very similar to ours, such as presence and imagery investigations by Slater *et al.* (1994 and 1998), Schubert *et al.* (2001), or Skinner and Stephens (2010). In other studies it is the subject who describes himself in terms of V/K/A personality, such as Thompson *et al.* (1985) or Hecht and Reiner (2007). Particularly, one of the most utilised questionnaires about V/A/K and learning styles was developed by Chislett and Chapman (2005). It has been used in a number of studies: Anu and Mena (2012) utilised it in their studies of undergraduate medical students, Hamtini *et al.* (2011) in their investigation of adaptive educational hypermedia systems among students, Ballance (2008) and Cummings and Ballance (2011) in the assessment of computer stress among students, Vaishnav (2013) utilised it in his study aimed at finding relationships between learning styles and academic achievements, Sandars and Homer (2008) in their study about the engagement with reflective learning among net generation students, and Shaughan and Graham (2012) in their study about communication components inventory.

The classification proposed by the NLP model in three main types (visual, auditive and kinaesthetic) has been often used in different kinds of studies, providing significant information on the characterisation or correlation of variables. The validity of NLP (Lichtenberg and Moffitt, 1985) seems to only be assured when investigations are well designed; in these cases the non-adequacy of the model can be correlated to the way it has been applied, such as trying to identify the receptor according to its use of the

predicates. Conversely, its validity can be assumed for the classification of individuals in terms of mental representation of the outer stimuli because individuals generally demonstrate a preferred representational system, which is detected mostly among a clinical population.

At this point, we do not intend to open a debate about the general use of NLPs since it has received mixed responses from the academic psychology and counselling community (Slater *et al.*, 2013). An interesting facet of the model is its classification based on the representation systems of the individuals, namely PRS, which can be very useful in the human-computer interaction since visual, auditive and kinaesthetic are the three major sensory channels. For instance, haptic senses are meaningfully linked to a K personality factor and visual and auditive to V and A respectively.

The experience of presence includes all three kinds of stimuli because there is a visual and sound environment added to the physical sensations from the place where the subject is physically located, like the chair where he is sitting, regardless of haptic experiences. Thus, the displayed environment should be ideally created using elements from every sensory modality.

The above discussion definitively suggests that the utilisation of PRS as a model to characterise HSN customer personalities would be highly valuable and enriching for a study like ours.

The continuation of our study will elaborate on our main objective, which is to contribute to the knowledge of HSN and the factors that favour its continuance intention, with presence and flow as central references.

References

References

Ajzen, Icek (2002). "Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behaviour". *Journal of Applied Social Psychology*, vol. 32, issue 4, pp. 665-683.

Ajzen, Icek; Fishbein, Martin. *Understanding attitudes and predicting social behavior* (1980). Englewood Cliffs, NJ: Prentice Hall.

Akin, David L.; Minsky, Marvin L.; Thiel, E. D.; Kurtzman, C. R. (1983). "Space applications of automation, robotics and machine intelligence systems (ARAMIS), phase 2. Volume 1: telepresence technology base development". *NASA-CR-3734-3736.*

Al-Debei, Mutaz M.; Al-Lozi, Enas; Papazafeiropoulou, Anastasia. (2013). "Why people keep coming back to Facebook: explaining and predicting continuance participation from an extended theory of planned behaviour perspective". *Decision Support Systems*, vol. 55, issue 1, pp. 43-54.

Alarcon-del-Amo, Maria-del-Carmen; Lorenzo-Romero, Carlota; Gomez-Borja, Miguel-Angel; Mondejar-Jimenez, Juan-Antonio (2012). "Web 2.0 tools in retailing: benefits of their use and reasons for not using them". *The International Business & Economics Research Journal*, vol. 11, issue 13, pp. 1463-1470.

Ameen, M. Al-Agaga; Khalil, Md Nor (2012). "Factors that influence e-loyalty of internet banking users". *International Journal of Electronic Commerce Studies*, vol. 3, issue 2, pp. 297-304.

Anderson, Kelley C; Knight, Dee K.; Pookulangara, Sanjukta; Josiam, Bharath (2014). "Influence of hedonic and utilitarian motivations on retailer loyalty and purchase intention: a Facebook perspective". *Journal of Retailing and Consumer Services*, vol. 21, issue 5, pp. 773-779.

Atilgan, Eda; Aksoy, Safak; Akinci, Serkan (2005). "Determinants of the Brand Equity: A Verification Approach in the Beverage Industry in Turkey". *Marketing Intelligence & Planning*, vol. 23, issue 2/3, pp. 237-248.

Atkinson, Rowland; Flint, John (2001). "Accessing hidden and hard-to-reach populations: snowball research strategies". *Social Research Update*, vol. 33, issue 1, pp. 1-4.

Babbie, Earl (2011). *The basics of social research*. Bellmont (CA), Wadsworth.

Back, Ki-Joon; Parks, Sara C. (2003). "A brand loyalty model involving cognitive, affective, and conative brand loyalty and customer satisfaction". *Journal of Hospitality & Tourism Research*, vol. 27, issue 4, pp. 419-435.

Backman, Sheila J.; Crompton, John L. (1991). “Differencing between high, spurious, latent and low loyalty participants in two leisure activities. *Journal of Park and Recreation Administration*, vol. 9, issue 2, pp. 1-17.

Bakker, Arnold B. (2005). “Flow among music teachers and their students: the crossover of peak experiences”. *Journal of Vocational Behavior*, vol. 66, issue 1, pp. 26-44.

Ballantine, Paul W. (2005). “Effects of interactivity and product information on consumer satisfaction in an online retail setting”. *International Journal of Retail & Distribution Management*, vol. 33, issue 6, pp. 461-471.

Baloglu, Seyhmus (2002). “Dimensions of customer loyalty: separating friends from well wishers”. *The Cornell Hotel and Restaurant Administration Quarterly*, vol. 43, issue 1, pp. 47-59.

Baltar, Fabiola; Brunet, Ignasi (2012). “Social research 2.0: virtual snowball sampling method using Facebook”. *Internet Research*, vol. 22, issue 1, pp. 57-74.

Baker, Rosland; White, Katherine M. (2010). “Predicting adolescents’ use of social networking sites from an extended theory of planned behaviour perspective”. *Computers in Human Behavior*, vol. 26, issue 6, pp. 1591-1597.

Bao, Zheshi (2016). “Exploring continuance intention of social networking sites: an empirical study integrating social support and network externalities”. *Aslib Journal of Information Management*, vol. 68, issue 6, pp. 736-755.

Bassili, John N.; Smith, Marilyn C. (1986). “On the spontaneity of trait attribution: Converging evidence for the role of cognitive strategy”. *Journal of Personality and Social Psychology*, vol. 50, issue 2, pp. 239-245.

Batinic, Bernard; Appel, Markus (2013). “Mass communication, social influence, and consumer behavior: two field experiments”. *Journal of Applied Social Psychology*, vol. 43, issue 7, pp. 1353-1368.

Bauer, J. M.; Durakbasa, N. M.; Bas, G.; Guclu, E.; Kopacek, P. (2015). “Telepresence in education”. *IFAC-PapersOnLine*, vol. 48, issue 24, pp. 178-182.

Beauchemin, Cris; González-Ferrer, Amparo (2011). “Sampling international migrants with origin-based snowballing method: new evidence on biases and limitations”. *Demographic Research*, vol. 25, 103-104.

Bentler, Peter M. and Bonnett, D.G. (1980). “Significance tests and goodness of fit in the analysis of covariance structures”. *Psychological Bulletin*, vol. 88, issue 3, pp. 588-606.

Berlyne, Daniel E. (1960). *Conflict, arousal, and curiosity*. New York (NY), McGraw Hill.

Berlyne, David E. (1963). “Motivational problems raised by exploratory and epistemic behaviour”. In *Psychology: A Study of Science, vol. 5*, ed. Sigmund Koch, New York (NY), Mc Graw-Hill, pp. 284-364.

Bhattacherjee, Anol (2007). “The formation of online trust”. In Lee, In; *E-Business Models, Services and Communications*. Hershey, IGI Global.

Biocca, Frank; Harms, Chad; Burgoon, Judee K. (2003). “Toward a more robust theory and measure of social presence: review and suggested criteria”. *Presence: Teleoperators & Virtual Environments*, vol. 12, issue 5, pp. 456-480.

Biondo-Salomão, Ana Cristina (2015). “Rethinking the cultural component in language teaching and language teacher education”. *DELTA: Documentação de Estudos em Lingüística Teórica e Aplicada*, vol. 31, issue 3, pp. 781-800.

Blascovich, Jim; Ernst, John M; Tomaka, Joe; Kelsey, Robert M. (1993). “Attitude accessibility as a moderator of autonomic reactivity during decision making”. *Journal of Personality and Social Psychology*, vol. 64, issue 2, pp. 165-176.

Bosnjak, Michael; Tuten, Tracy; Wittmann, Werner W. (2005). “Unit (non) response in web-based access panel surveys: An extended planned behavior approach”. *Psychology & Marketing*, vol. 22, issue 6, pp. 489-505.

Bourdeau, Brian L. (2005). *A new examination of service loyalty: identification of the antecedents and outcomes of an attitudinal loyalty framework*. [Doctoral thesis]. Tallahassee (FL), Florida State University.

Bowen, John T.; McCain, Shiang-Li C., (2015), “Transitioning loyalty programs”. *International Journal of Contemporary Hospitality Management*, vol. 27, issue 3, pp. 415-430.

Bowen, John T.; Shoemaker, Stowe (1998). “Loyalty: a strategic commitment”. *The Cornell Hotel and Restaurant Administration Quarterly*, vol. 39, issue 1, pp. 12-25.

Boyd, Danah M.; Ellison, Nicole B. (2008). “Social network sites: definition, history, and scholarship”. *Journal of Computer-Mediated Communication*, vol. 13, issue 1, pp. 210-230.

Breckler, Steven J.; Wiggins, Elizabeth C. (2014). “On defining attitude and attitude theory: one more with feeling”. In Pratkanis, Anthony R.; Breckler, Steven J.; Greenwald Anthony G. *Attitude structure and function*. New York (NY), Psychology Press.

Bretz, Rudy; Schmidbauer, Michael (1983). *Media for interactive communication*. Beverly Hills (CA), SAGE.

Bridges, Eileen; Florsheim, Renée. (2008). “Hedonic and utilitarian shopping goals: the online experience”. *Journal of Business Research*, vol. 61, issue 4, pp. 309-314.

Browne, Kath (2005). “Snowball sampling: using social networks to research non-heterosexual women”. *International Journal of Social Research Methodology*, vol. 8, issue 5, pp. 37-60.

Burgoon, Judee K.; Bonito, Joseph A.; Bengtsson, Bjorn; Ramírez, Artemio JR.; Dunbar, Norah E.; Miczo, Nathan (1999). “Testing the interactivity model: communication process, partner assessments, and the quality of collaborative work”. *Journal of Management Information Systems*, vol. 16, issue 3, pp. 33-56.

Byrne, Barbara M. (1998). *Structural equation modeling with LISREL, PRELIS and SIMPLIS*. Mahwah (NJ), Lawrence Erlbaum Associates.

Byrne, Barbara M. (2009). *Structural equation modeling with AMOS. Basic concepts, applications and programming*. 2nd edition. New York (NY), Routledge.

Byrne, Barbara M. (2012). *Structural equation modeling with Mplus. Basic concepts, applications and programming*. New York (NY), Routledge.

Camillo, Angelo A., Di Pietro, Loredana (2014). “Social media and its effect on consumer loyalty: firm satisfaction on social networks”. In Christiansen, Bryan; Yildiz, Salih; Yildih, Emel (eds.). *Handbook of research on effective marketing in contemporary globalism*. Hershey, IGI Global, pp. 195-212.

Campbell, Damon E.; Wright, Ryan T. (2008). “Understanding the role of relevance and interactivity on customer attitudes”. *Journal of Electronic Commerce Research*, vol. 9, issue 1, pp. 62-74.

Carter, Brandon (2015). “Customer loyalty statistics: 2015 edition”. Available at http://blog.accessdevelopment.com/customer-loyalty-statistics-2015-edition [2016/05/21].

Casas-Anguita, J; Repullo-Labrador, J. R.; Donado-Campos, J. D. (2003). “La encuesta como técnica de investigación. Elaboración de cuestionarios y tratamiento estadístico de los datos (I)”. *Atención Primaria*, vol. 31, issue 8, pp. 527-538.

Catledge, Lara D; Pitkow, James E. (1995). “Characterizing browsing strategies in the world-wide web”. *Computer Networks and ISDN Systems*, vol. 27, issue 6, pp. 1065-1073.

Chan, Christopher (2012). “Marketing the academic library with online social network advertising”. *Library Management*, vol. 33, issue 8/9, pp. 479-489.

Chang, Hsin Hsin; Wang, I. Chen (2008). “An investigation of user communication behaviour in computer mediated environments”. *Computers in Human Behavior*, vol. 24, issue 5, pp. 2336-2356.

Chang, Man Kit (1998). “Predicting unethical behavior: a comparison of the theory of reasoned action and the theory of planned behavior”. *Journal of Business Ethics*, vol.

17, issue 16, pp. 1825-1834.

Chang, Ya Ping; Zhu, Dong Hong (2012). "The role of perceived social capital and flow experience in building users' continuance intention to social networking sites in China". *Computers in Human Behavior*, vol. 28, issue 3, pp. 995-1001.

Cheung, Christy M. K.; Lee, Matthew K. O. (2010). "A theoretical model of intentional social action in online social networks". *Decision Support Systems*, vol. 49, issue 1, pp. 24-30.

Cheung, Christy M. K.; Chiu, Pui-Yee; Lee, Matthew K. O. (2011). "Online social networks: Why do students use Facebook?". *Computers in Human Behavior*, vol. 27, issue 4, pp. 1337-1343.

Chi, Hsinkung; Yeh, Huery Ren; Yang, Yating (2011). "Applying theory of reasoned action and technology acceptance model to investigate purchase behavior on smartphone". *Journal of International Management Studies*, vol. 6, issue 3, pp. 1-11.

Childers, Terry L.; Carr, Chsistopher L..; Peck, Joann; Carson, Stephen (2001). "Hedonic and utilitarian motivations for online retail shopping behavior". *Journal of Retailing*, vol. 77, issue 4, pp. 511-535.

Chin, Wynne W. (2013). "The partial least squares approach to structural equation modeling". In Marcoulides, Georges A.; *Modern methods for business research*. New York (NY), Psychology Press.

Chiu, Chao-Min; Cheng, Hsiang-Lan; Huang, Hsin-Yi; Chen, Chieh-Fan (2013). "Exploring individuals' subjective well-being and loyalty towards social network sites from the perspective of network externalities: The Facebook case". *International Journal of Information Management*, vol. 33, issue 3, pp. 539-552.

Choi, Duke H.; Kim, Soung H.; Kim, Jeoungkun (2007). "ERP training with a web-based electronic learning system: the flow theory perspective". *International Journal of Human-Computer Studies*, vol. 65, issue 3, pp. 223-243.

Chung, Janine; Tan, Felix B (2004). "Antecedents of perceived playfulness: an exploratory study on user acceptance of general information-searching websites". *Information & Management*, vol. 41, issue 7, pp. 869-881.

Chung, Hwiman, Zhao, Xinshu (2004). "Effects of perceived interactivity on web site preference and memory: role of personal motivation". *Journal of Computer-Mediated Communication*, vol. 10, issue 1, pp. 0-0.

Cialdini, Robert B. (2001). *Influence. Science and practice*. 4th ed. Needham Heights (MA), Allyn & Bacon.

Cialdini, Robert B; Goldstein, Noah J. (2004). "Social influence: compliance and conformity". *Annual review of psychology*, 2004, vol. 55, issue 1, pp. 591-621.

Coyle, James R.; Thorson, Esther (2001). "The effects of progressive levels of interactivity and vividness in web marketing sites". *Journal of Advertising*, vol. 30, issue 3, pp. 65-77.

Crawford, Chris (2002). *Art of interactive design: A euphonious and illuminating guide to building successful software*. San Francisco (CA), No Starch Press.

Cristóbal-Fransi, Eduard; Daries-Ramón, Natalia; Baldomar, Juan Pablo (2014). "Segmentación de los e-consumidores: un estudio aplicado a partir de las perspectivas de uso de Internet". *Cuadernos de gestión*, vol. 14, issue 1, pp. 33-55.

Csikszentmihalyi, Mihaly (1975). *Beyond boredom and anxiety* (1st. ed.). San Francisco (CA), JosseyBass.

Csikszentmihalyi, Mihaly (1975). *Flow: the psychology of optimal experience*. New York (NY), Harpe Perennial

Csikszentmihalyi, Mihaly (1977). *Beyond boredom and anxiety* (2nd. ed.). San Francisco (CA), JosseyBass.

Csikszentmihalyi, Mihaly (1982). "Towards a psychology of optimal experience". in L. Wheeler (ed.), *Review of psychology and social psychology*, pp. 13-36. Beverly Hills (CA), Sage Publications.

Csikszentmihalyi, Mihaly (2005). "The secrets of happiness". *The Times*, vol. 17, issue 12.

Csikszentmihalyi, Mihaly; LeFevre, J. (1989). "Optimal experience in work and leisure". *Journal of Personality and Social Psychology*, vol. 56, issue 5, pp. 815-822.

Cui, Nan; Wang, Tao; Xu, Shuang (2010). "The influence of social presence on consumers' perceptions of the interactivity of web sites". *Journal of Interactive Advertising*, vol. 11, issue 1, pp. 36-49.

Currás-Pérez, Rafael; Ruiz-Mafé, Carla; Sanz-Blas, Silvia (2013) "Social network loyalty: evaluating the role of attitude, perceived risk and satisfaction". *Online Information Review*, vol. 37, issue 1, pp. 61-82.

Cyr, Dianne; Hassanein, Khaled; Head, Milena; Ivanov, Alex (2007). "The role of social presence in establishing loyalty in e-service environments". *Interacting with Computers*, vol. 19, issue 1, pp. 43-56.

Cyr, Dianne; Head, Milena; Ivanov, Alex (2009). "Perceived interactivity leading to e-loyalty: development of a model for cognitive-affective user responses". *International Journal Human-Computer Studies*, vol. 67, issue 10, pp. 850-869.

De Leeuw, Edith (2001). "Reducing missing data in surveys: an overview of methods". *Quality & Quantity*, vol. 35, issue 2, pp. 147-160.

Deming, W. Edwards (1960). *Sample design in business research*. New York (NY), Wiley and Sons.

Dholakia, Ruby R.; Zhao, Miao; Dholakia, Nik; Fortin, David (2001). "Interactivity and revisits to websites: a theoretical framework". *American Marketing Association. Conference Proceedings*, vol. 12.

Dichristopher, Tom (2015). "Why Facebook's ad revenue can keep growing: Analysts". *CNBC.com*. Available at: http://www.cnbc.com/2015/11/05/why-facebooks-ad-revenue-can-keep-growing-analyst.html [2017/03/25].

Dick, Alan S.; Basu, Kunal (1994). "Customer loyalty: toward an integrated conceptual framework". *Academy of Marketing Science*, vol. 22, issue 2, pp. 99-113.

Dunlop, Michael. "24 Rules I Follow When Creating Successful Websites". *Income*. Available at http://www.incomediary.com/24-rules-for-successful-websites [2017/01/21].

Elam, Joyce J.; Mead, Melissa (1990). "Can software influence creativity?". *Information Systems Research*, vol. 1, issue 1, pp. 1-22.

Emerson, Richard M. (1954). "Deviation and rejection: an experimental replication", *American Sociological Review*, vol. 19, issue 6, pp. 688-693.

Engeser, Stefan (2012). "Comments on Schiefele and Raabe (2011): flow is a multifaceted experience defined by several components". *Psychological Reports: Mental & Physical Health*, vol. 111, issue 1, pp. 24-26.

Erdoğmuş, İrem E.; Cicek, Mesut (2012). "The impact of social media marketing on brand loyalty". *Procedia-Social and Behavioral Sciences*, vol. 58, pp. 1353-1360.

Erciş, Aysel; Ünal, Sevtap; Candan, F. Burcu; Yıldırım, Hatice (2012). "The effect of brand satisfaction, trust and brand commitment on loyalty and repurchase intentions". *Procedia - Social and Behavioral Sciences*, vol. 58, pp. 1395-1404.

Faiola, Anthony; Newlon, Christine; Pfaff, Mark; Smyslova, Olga (2012). "Correlating the effects of flow and telepresence in virtual worlds: enhancing our understanding of user behavior in game-based learning". *Computers in Human Behavior*, vol. 29, issue 3, pp. 1113-1121.

Finneran, Christina M.; Zhang, Ping (2005). "Flow in computer-mediated environments: promises and challenges". *Communications of the Association for Information Systems*, vol. 15, issue 1, pp. 82-101.

Fiore, Ann Marie; Jin, Hyun-Jeong; Kim, Jihyun (2005). "For fun and profit: hedonic value from image interactivity and responses toward an online store". *Psychology & Marketing*, vol. 22, issue 8, pp. 669-694.

Fishbein, Martin; Ajzen, Icek (1975). *Belief, attitude, intention and behavior: an introduction to theory and research*. Reading (MA), Addison-Wesley Pub. Co.

Floridi, Luciano (2005). "The philosophy of presence: from epistemic failure to successful observation". *Presence: Teleoperators and virtual environments*, vol. 14, issue 6, pp. 656-667.

Fornell, Claes; Larcker, David F. (1981). "Evaluating structural equation models with unobservable variables and measurement error". *Journal of Marketing Research*, vol. 18, issue 1, pp. 39-50.

Fortin, David R.; Dholakia, Ruby R. (2005). "Interactivity and vividness effects on social presence and involvement with a web-based advertisement". *Journal of Business Research*, vol. 58, issue 3, pp. 387-396.

Fowler, Harry (1965). *Curiosity and exploratory behavior*. New York (NY), Macmillan.

Fraering, Martin; Minor, Michael (2013). "Beyond loyalty: customer satisfaction, loyalty, and fortitude". *The Journal of Services Marketing*, vol. 27, issue 4, pp. 334-344.

Garaigordobil, Maite; Berrueco, Laura (2011). "Effects of a play program on creative thinking of preschool children". *The Spanish Journal of Psychology*, vol. 14, issue 2, pp. 608-618.

Gefen, David; Rigdon, Edward E.; Straub, Detmar (2011). "An update and extension to SEM guidelines for administrative and social science research". *MIS Quarterly*, vol. 35, issue 2, pp. iii-A7.

Gentile, Chiara; Spiller, Nicola; Noci, Giuliano (2007). "How to sustain the customer experience: an overview of experience components that cocreate value with the customer". *European Management Journal*, vol. 25, issue 5, pp. 395-410.

Geçti, Fatih; Gümüş, Niyazi (2014). "Investigating the Facebook applications and their impact on customer loyalty in the Turkish mobile telecommunication industry". *International Journal of Business and Management*, vol. 9, issue 5, pp. 195-207.

Ghani, Jawaid A. (1995) "Flow in human computer interactions: test of a model". In Carey, Jane M. (Ed.), *Human Factors in Information Systems: Emerging Theoretical Bases. New Jersey* (NJ), Ablex Publishing, pp. 291-311.

Ghani, Jawaid A.; Deshpandeb, Satish P. (1994). "Task characteristics and the experience of optimal flow in human-computer interaction". *The Journal of Psychology: Interdisciplinary and Applied*, vol. 128, issue 4, pp. 381-391.

Gigone, Daniel; Hastie, Reid (1993). "The common knowledge effect: Information sharing and group judgment". *Journal of Personality and Social Psychology*, vol. 65, issue 5, 959-974.

Glasman, Laura R; Albarracín, Dolores (2006). "Forming attitudes that predict future behavior: a meta-analysis of the attitude-behavior relation". *Psychological Bulletin*, vol. 132, issue 5, pp. 778-822.

Goldberg, Lewis R. (1990), "An alternative 'description of personality': the big-five factor structure", *Journal of Personality and Social Psychology*, vol. 59, issue 6, pp. 1216-29.

Gommans, Marcel; Krishnan, Krish S.; Scheffold, Katrin B. (2001). "From brand loyalty to e-loyalty: a conceptual framework". *Journal of Economic and Social Research*, vol. 3, issue 1, pp. 43-58.

Gooch, Daniel; Watts, Leon (2015). "The impact of social presence on feelings of closeness in personal relationships". *Interacting with Computers*, vol. 27, issue 6, pp. 661-674.

Gopichandran, Vijayaprasad; Wouters, Edwin; Chetlapalli, Satish Kumar (2015). "Development and validation of a socioculturally competent trust in physician scale for a developing country setting". *BMJ Open*, vol. 5, issue 4, pp. e007305.

Gorelick, Marc H. (2006). "Bias arising from missing data in predictive models". *Journal of Clinical Epidemiology*, vol. 59, issue 10, pp. 1115-1123.

Grande Esteban, Ildefonso; Abascal Fernández, Elena (2007). *Fundamentos y técnicas de investigación comercial*. 9ª edición. Pozuelo de Alarcón, Esic Editorial.

Grant, Don; O'Neil, Kathleen; Stephens, Laura (2009). "Pluralistic ignorance among assembled peers", *Sociological Perspectives*, vol. 52, issue 1, pp. 59-79.

Gray, Katherine; Krogh, Kristian; Newsome, David; Smith, Victoria; Lancaster, Donald; Nestel, Debra (2014). "TelePresence in rural medical education: a mixed methods evaluation", *Journal of Biomedical Education*, vol. 2014, pp. 1-8.

Gray, Peter H.; Meister, Darren B. (2004). "Knowledge sourcing effectiveness". *Management Science*, vol. 50, issue 6, pp. 821-834.

Gremler, Dwayne D.; Brown, Stephen W. (1996). "Service loyalty: its nature, importance, and implications". *Advancing Service Quality: A Global Perspective*, vol. 5, pp. 171-181.

Grinblatt, Mark; Keloharju, Matti; Ikäheimo, Seppo (2008). "Social influence and consumption: evidence from the automobile purchases of neighbors". *The Review of Economics and Statistics*, vol. 90, issue 4, pp. 735-753.

Gu, Rui; Oh, Lih-Bin; Wang, Kanliang (2016). "Multi-homing on SNSs: The role of optimum stimulation level and perceived complementarity in need gratification". *Information & Management*, vol. 53, issue 6, pp. 752-766.

Gummerus, Johanna; Liljander, Veronica; Weman, Emil; Pihlström, Minna (2012). "Customer engagement in a Facebook brand community". *Management Research Review*, vol. 35, issue 9. pp. 857-877.

Ha, Hong-Youl; Janda, Swinder; Muthaly, Siva K (2010). "A new understanding of satisfaction model in e-re-purchase situation". *European Journal of Marketing*, vol. 44, issue 7, pp. 997-1016.

Hafstrom, Jeanne L.; Chae, Jung Sook; Choung, Young Sook (1992). "Consumer decision-making styles: comparison between United States and Korean young consumers". *The Journal of Consumer Affairs*, vol. 26, issue 3, pp. 146-158.

Hagemeyer, Birk; Neyer, Franz J.; Neberich, Wiebke; Asendorpf, Jens B. (2013). "The ABC of social desires: affiliation, being alone, and closeness to partner". *European Journal of Personality*, vol. 27, issue 5, pp-442-457.

Hair, Joseph F. Jr.; Black, William C.; Babin, Barry J.; Anderson, Ralph E. (2010). *Multivariate data analysis, 7th edition*. Upper Saddle River (NJ), Prentice Hall.

Hallowell, Roger (1996). "The relationships of customer satisfaction, customer loyalty, and profitability: an empirical study". *International Journal of Service Industry Management*, vol. 7, issue 4, pp. 27-42.

Häubl, Gerald; Trifts, Valerie (2000). "Consumer decision making in online shopping environments: the effects of interactive decision aids". *Marketing Science*, vol. 19, issue 1, pp. 4-21.

Havlena, William J; Holbrook, Morris B. (1986). "The varieties of consumption experience: comparing two typologies of emotion in consumer behavior", *Journal of Consumer Research*, vol. 13, issue 3, pp. 394-404.

Haziza, David; Rao, J.N.K. (2005). "Inference for domains under imputation for missing survey data". *The Canadian Journal of Statistics*, vol. 33, issue 2, pp. 149-161.

Heeter, Carrie (1989). "Implications of new interactive technologies for conceptualizing communication". In Salvaggio, Jerry L.; Bryant, Jennings (Eds.), *Media use in the information age*. Hillsdale (NJ), Erlbaum.

Heeter, Carrie (1992). "Being there: the subjective experience of presence". *Presence: Teleoperators & Virtual Environments*, vol. 1, issue 2, pp. 262-271.

Heinzl, Armin; Buxmann, Peter M.; Wendt, Oliver; Weitzel, Tim (2011). *Theory-guided modeling and empiricism in information systems research*. Berlin, Springer Verlag.

Held, Richard; Durlach, Nathaniel (1991). "Telepresence, time delay and adaptation". In Ellis, Stephen R. *Pictorial communication in virtual and real environments*. London, Taylor & Francis.

Heskett, James, L. (2002). “Beyond customer loyalty”. *Managing Service Quality*, vol. 12. issue 6, pp. 335-357.

Hick, William E. (1952). “On the rate of gain of information”. *Quarterly Journal of Experimental Psychology*, vol. 4, issue 1, pp. 11-26.

Hinterseer, Peter, Hirche, Sandra, Chaudhuri, Subhasis, Steinbach, Eckehard; Buss, Martin (2008). “Perception-based data reduction and transmission of haptic data in telepresence and teleaction systems”, *IEEE Transactions on Signal Processing*, vol. 56, issue 2, pp. 588-597.

Hirschman, Elizabeth C.; Holbrook, Morris B. (1982). “Hedonic consumption: emerging concepts, methods, and propositions”. *Journal of Marketing*, vol. 46, issue 3, pp. 92-101.

Hirschmann, Elizabeth C. (1989). “Interpretation and reinterpretation in theory construction and application: the views of some prominent consumer behaviour theorists”. *Advances in Consumer Research*, vol. 16, issue 1, pp. 653-658.

Ho, Li-An; Kuo, Tsung-Hsien (2010). “How can one amplify the effect of e-learning? An examination of high-tech employees’ computer attitude and flow experience”. *Computers in Human Behavior*, vol. 26, issue 1, pp. 23-31.

Ho, Robert (2006). *Handbook of univariate and multivariate data analysis and interpretation with SPSS*. Boca Raton (FL), CRC Press.

Hoffman, Donna; Novak, Thomas P. (1996). “Marketing in hypermedia computer-mediated environments: conceptual foundations”. *Journal of Marketing*, vol. 60, issue 3, pp. 50-68.

Hoffman, Donna; Novak, Thomas P. (1997). “A new marketing paradigm for electronic commerce”. *The Information Society*, vol. 13, issue 1, pp. 43-54.

Hoffman, Donna; Novak, Thomas P. (2009). “Flow online: lessons learned and future prospects”. *Journal of Interactive Marketing*, vol. 23, issue 1, pp. 23-34.

Holbrook, Morris B.; Hirschmann, Elizabeth C. (1982). “The experiential aspects of consumption: consumer fantasies, feelings and fun”, *Journal of Consumer Research*, vol. 9, issue 2, pp. 132-140.

Holt, Cheryl L.; Clark, Eddie M.; Roth, David L.; Crowther, Martha; Kohler, Connie; Fouad, Mona; Foushee, Rusty; Lee, Patricia A.; Southward, Penny L. (2010). “Development and Validation of an Instrument to Assess Perceived Social Influence on Health Behaviors”. *Journal of Health Psychology*, vol. 15, issue 8, pp. 1225-1235.

Homburg, Christian; Giering, Annette (2001). “Personal characteristics as moderators of the relationship between customer satisfaction and loyalty - An empirical analysis”. *Psychology & Marketing*, vol. 18, issue 1, pp. 43-46.

Homburg, Christian; Koschate, Nicole; Hoyer, Wayne D. (2006), “The role of cognition and affect in the formation of customer satisfaction: a dynamic perspective”. *Journal of Marketing*, vol. 70, issue 3, pp. 21-31.

Hooper, D., Coughlan, J. and Mullen, M. R. (2008). “Structural equation modelling: guidelines for determining model fit”. *The Electronic Journal of Business Research Methods*, vol. 6, issue 1, pp. 53-60.

Horvath, Karl; Lombard, Matthew (2010). “Social and spatial presence: an application to optimize human-computer interaction”. *PsychNology Journal*, vol. 8, issue 1, pp. 85-114.

Hoyle, Rick H. (2012). *Handbook of structural equation modeling*. New York (NY), Gilford Press.

Hsieh, Ya-Hui; Lin, Yi-Chun; Hou, Huei-Tse (2016). “Exploring the role of flow experience, learning performance and potential behavior clusters in elementary students' game-based learning”. *Interactive Learning Environments*, vol. 24, issue 1, pp. 178-193.

Hsu, Ching-Lung; Lu, Hsi-Peng (2004). “Why do people play online games? An extended TAM with social influences and flow experience”. *Information & Management*, vol. 41, issue 7, pp. 853-868.

Huang, Li-Ting; Chiu, Chen-An; Sung, Kai; Farn, Cheng-Kiang (2007). “Revisiting the antecedents of flow experience in different on-line communication environments”. *Proceedings of ECIS 2007*, pp. 50-61.

Iacobucci, Dan (2010). “Structural equations modeling: fit Indices, sample size, and advanced topics”. *Journal of Consumer Psychology*, vol. 20, issue 1, pp. 90-98.

IJsselsteijn, Wijnand A.; de Ridder, Huib; Freeman, Jonathan; Avons, Steve (2000). “Presence: concept, determinants, and measurement”. *Proceeding of the SPIE, Human Vision and Electronic Imaging International*, V. 3959-76. Presented at Photonics West - Human Vision and Electronic Imaging V, San Jose, CA, 23-28 January, pp. 520-529.

Jacoby, Jacob (1971). “A model of multi-brand loyalty”, *Journal of Advertising Research*, vol. 11, issue 1, pp. 25-31.

Jacoby, Jacob; Kyner, David B. (1972). “Brand loyalty vs. repeat purchasing behaviour”. *Journal of Marketing Research*. Vol. 10, issue 1, pp. 1-9.

Jacoby, Jacob; Chestnut, Robert W. (1978). *Brand loyalty: measurement and management*. New York (NY), Wiley.

Jiang, James J.; Klein, Gary (2009) “Expectation confirmation theory: capitalizing on descriptive power,” in *Contemporary Theoretical Models in Information Systems*, Dwivedi, Y. K.; Lal, B.; Williams, M.D.; Schneberger, S. L.; Wade, M. eds., Hershey (PA),

IGI Global, pp. 384-401.

Johnson, Grace J.; Bruner, Gordon C. II; Kumar, Anand (2006). "Interactivity and its facets revisited". *Journal of Advertising*, vol. 35, issue 4, pp. 35-52.

Kalinauskas, Marius (2014). "Gamification in Fostering Creativity". *Socialines Technologijos*, vol. 4, issue 1, pp. 62-75.

Kasolowsky, Naomi (2014). "Maintaining customer loyalty". *Marketing Insights*, vol. 26, issue 1, pp. 18-19.

Katona, George (1965). *Análisis psicológico del comportamiento humano*. Madrid, Rialp.

Kemp, Simon (2016). "Digital in 2016". *We Are Social*. Available at: http://wearesocial.com/uk/special-reports/digital-in-2016 [2017/03/25].

Keng, Ching-Jui; Pao, Chien-Hua; Ting, Hui-Ying; Chang, Nai-Yun (2015). "Impact of machine and interpersonal virtual experience combinations on sense of virtual community: the moderating roles of optimum stimulation level and motives for reading customer articulations". *Journal of Electronic Commerce Research*, vol. 16, issue 1, pp. 34-55.

Kellar, Hannah; Treadwell, Thomas W.; Kumar, V. K.; Leach, Evan S. (2002). "The personal attitude scale-II: a revised measure of spontaneity". *The International Journal of Action Methods*, vol. 55, issue 1, pp. 35-46.

Keller, Kevin L. (2008). *Strategic Brand Management: Building, Measuring and Managing Brand Equity*. Third Edition. New Jersey (NJ), Pearson Prentice Hall.

Keng, Ching-Jui, Chien-Hua Pao, Hui-Ying Ting, and Nai-Yun Chang (2015). "Impact of machine and interpersonal virtual experience combinations on sense of virtual community: the moderating roles of optimum stimulation level and motives for reading customer articulations". *Journal of Electronic Commerce Research*, vol. 16, issue 1, pp. 34-55.

Kennedy, Mary Susan; Ferrell, Linda K; LeClair, Debbie Thorne (2001), "Consumers' trust of salesperson and manufacturer: an empirical study". *Journal of Business Research*, vol. 51, issue 1, pp. 73-86.

Kim, Byoungsoo (2011). "Understanding antecedents of continuance intention in social-networking services". *Cyberpsychology, Behavior and Social Networking*, vol. 14, issue 4, pp. 199-205.

Kim, Minkyoung; Chang, Younghoon; Park, Myeong-Cheol; Lee, Jongtae (2015). "The effects of service interactivity on the satisfaction and the loyalty of smartphone users". *Telematics and Informatics*, vol. 32, issue 4, pp. 949-960.

Kim, Taeyong; Biocca, Frank (1997). “Telepresence via television: two dimensions of telepresence may have different connections to memory and persuasion”. *Journal of Computer-Mediated Communication*, vol. 3, issue 2, pp. 1-24.

Kincaid, D. Lawrence (2004). “From Innovation to social norm: bounded normative influence”, *Journal of Health Communication*, vol. 9, issue 1, pp. 37-57.

Klein, Lisa R. (2003). “Creating virtual product experiences: the role of telepresence”. *Journal of Interactive Marketing*, vol. 17, issue 1, pp. 41-55.

Korzaan, Melinda (2003). “Going with the flow: predicting online purchase intentions”. *Journal of Computer Information Systems*, vol. 43, issue 4, pp. 25-31.

Kothari, C. R. (2004). *Research methodology: methods and techniques*. Delhi, New Age International.

Koufaris, Marios; Hampton-Sosa, William (2002). “Customer trust online: examining the role of the experience with the Web-site”. *Department of Statistics and Computer Information Systems Working Paper Series, Zicklin School of Business*, New York (NY), Baruch College.

Kuss, Daria J.; Griffiths, Mark D. (2011). “Online social networking and addiction-a review of the psychological literature”. *International Journal of Environmental Research and Public Health*, vol. 8, issue 9, pp. 3528-3552.

Laufer, Deanna (2015). “2016: CX leaders will adopt agile, insight-led innovation to fuel customer obsession”. Available at http://blogs.forrester.com/deanna_laufer/15-11-11-2016_cx_leaders_will_adopt_agile_insight_led_innovation_to_fuel_customer_obsession [2016/05/10].

Lapinski, Maria K.; Rimal, Rajiv N (2005). “An explication of social norms”, *Communication Theory*, vol. 15, issue 2, pp. 127-147.

Lee, Ming-Chi (2010). “Explaining and predicting users’ continuance intention toward e-learning: an extension of the expectation-confirmation model”. *Computers & Education*, vol. 54, issue 2, pp. 506-516.

Lee, Sang M.; Chen, Liqiang (2010). “The impact of flow on online consumer behavior”. *Journal of Computer Information Systems*, vol. 50, issue 4, pp. 1.

Lee, Sik-Yum; Zhu, Hong-Tu (2002). “Maximum likelihood estimation of nonlinear structural equation models”. *Psychometrika*, vol. 67, issue 2, pp. 189-210.

Lee, ThaeMin (2005). ”The impact of perceptions of interactivity on customer trust and transaction intentions in mobile commerce”. *Journal of Electronic Commerce Research*, vol. 6, issue 3, pp. 165-180.

Leng, Goh Say; Lada, Suddin; Muhammad, Mohd Zulkifli; Ibrahim, Ag Asri Hj Ag;

Amboala, Tamrin (2011). “An exploration of social networking sites (SNS) adoption in Malaysia using Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB) and intrinsic motivation”. *Journal of Internet Banking and Commerce*, vol. 16, issue 2, p. 1-27.

Lidwell, William; Holden, Kritina; Butler, Jill (2010). Universal principles of design (2010). Beverly (MA), Rockport Publishers.

Lim, Joon Soo; Hwang, YoungChan; Kim, Seyun; Biocca, Frank A. (2015). “How social media engagement leads to sports channel loyalty: Mediating roles of social presence and channel commitment”. *Computers in Human Behavior*, vol. 46, pp. 158-167.

Lin, Cathy S.; Wu, Sheng; Tsai, Ray J. (2005). “Integrating perceived playfulness into expectation-confirmation model for web portal context”. *Information & Management*, vol. 42, issue 5, pp. 683-693.

Lin, Chieh-Peng; Ding, Chern G. (2003). “Ethical ideology, subjective norm, and peer reporting intentions using an individual-situation moderator”. *Asia Pacific Management Review*, vol. 8, issue 3, pp. 311-336.

Lin, Long-Yi (2010). “The relationship of consumer personality trait, brand personality and brand loyalty: an empirical study of toys and video games buyers”. *Journal of Product & Brand Management*, vol. 19, issue 1, pp. 4-17.

Liu, Yuping (2003). “Developing a scale to measure the interactivity of websites”. *Journal of Advertising Research*, vol. 43, issue 2, pp. 207-216.

Liu, Yuping; Shrum, L. J. (2002). “What is interactivity and is it always such a good thing? Implications of definition, person and situation for the influence of interactivity on advertising effectiveness”. *Journal of Advertising*, vol. 31, issue 4, pp. 53-64.

Lombard, Matthew; Ditton, Theresa (1997). “At the heart of it all: The concept of presence”. *Journal of Computer-Mediated Communication*. vol. 3, issue 2.

Lorenzo-Romero, Carlota; Constantinides, Efthymios (2011). “Consumer adoption of social networking sites: implications for theory and practice”. *Journal of Research in Interactive Marketing*, vol. 5, issue 2-3, pp. 170-188.

Lyong Choong (1998). “The theory of reasoned action applied to brand loyalty”. *Journal of Product & Brand Management*, vol. 7, issue 1, pp. 51-61.

Macias, Wendy (2003). “A beginning look at the effects of interactivity, product involvement and web experience on comprehension: brand web sites as interactive advertising”. *Journal of Current Issues and Research in Advertising*, vol. 25, issue 2, pp. 32-44.

MacKenzie, Scott B; Lutz, Richard J. (1989). “An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context”. *The Journal*

of Marketing, vol. 53, issue 2, pp. 48-65.

Mahatanankoon, Pruthikrai (2007). "The effects of personality traits and optimum stimulation level on text-messaging activities and m-commerce intention". *International Journal of Electronic Commerce*, vol. 12, issue 1, pp. 7-30.

Malone, Thomas W.; Lepper, Mark R. (1987) "Making learning fun: a taxonomy of intrinsic motivations of learning". In Snow, Richard E.; Farr, Marshall J. (eds.) *Aptitude, learning, and instruction, conative and affective process Analyses.* Hillsdale (NJ), Lawrence Erlbaum, pp. 223-253.

Mander, Jason (2016). "WhatsApp and Facebook have Highest Usage Frequency". *Globalwebindex.com*. Available at: https://www.globalwebindex.net/blog/whatsapp-and-facebook-have-highest-usage-frequency [2017/03/25].

Mapes, Stephen (2007). "Experiential Marketing as a Wundt(erful) Experience". *Design Management Review*, vol. 18, issue 2, pp. 69-77.

Martensen, Anne; Grønholdt, Lars; Kristensen, Kai (2000). "The drivers of customer satisfaction and loyalty: cross-industry findings from Denmark". *Total Quality Management*, vol. 11, issue 4-6, pp. 544-553.

Martínez-López, Francisco J.; Martínez, Francisco J.; Luna-Huertas, Paula (2006). "Motivations for consumption behaviours on the web: a conceptual model based on a holistic approach". *International Journal of Electronic Marketing and Retailing*, vol. 1, issue 1, pp. 3-20.

Martocchio, Joseph J.; Webster, Jane (1992). "Effects of feedback and cognitive playfulness on performance in microcomputer software training". *Personnel Psychology*, vol. 45, issue 3, pp. 553-578.

Maslow, Abraham H. (1943). "A theory of human motivation". *Psychological Review*, vol. 50, issue 4, pp. 370-396.

Mathwick, Charla; Rigdon, Edward (2004). "Play, flow, and the online search experience". *Journal of Consumer Research*, vol. 31, issue 2, pp. 324-32.

Matzler, Kurtz; Bidmon, Sonja; Grabner-Kräuter, Sonja. (2006), "Individual determinants of brand affect: the role of the personality traits of extroversion and openness to experience", *Journal of Product & Brand Management*, vol. 15, issue 7, pp. 427-34.

McCreery, Michael P.; Vallett, David B.; Clark, Cynthia (2015). "Social interaction in a virtual environment: examining socio-spatial interactivity and social presence using behavioral analytics". *Computers in Human Behavior*, vol. 51, pp. 203-206.

McDonald, Roderick P; Ho, Moon-Ho Ringo. (2002). "Principles and practice in reporting statistical equation analyses". *Psychological Methods*, vol. 7, issue 1, pp. 64-82.

McMillan, Sally J. (2006). “Exploring models of interactivity from multiple research traditions: users, documents, and systems”. In In Lievrouw L. and Livingstone S. (eds.), *The Handbook of New Media: Updated Student Edition*, London, SAGE Publications, pp. 163-181.

McMillan, Sally J.; Hwang, Jang-Sun. (2002). “Measures of perceived interactivity: an exploration of the role of direction of communication, user control, and time in shaping Perceptions of Interactivity”. *Journal of Advertising*, vol. 31, issue 3, pp. 29-42.

Mellens, Martin, Dekimpe, Marnik G., & Steenkamp, Jan-Benedict E. M. (1996). “A review of brand-loyalty measures in marketing”. *Tijdschrift Voor Economie En Management*, vol. 41, issue 4, pp. 507-533.

Melnyk, Valentyna; Van Osselaer, Stijn M. J.; Bijmolt, Tammo H. A. (2009). “Are women more loyal customers than men? Gender differences in loyalty to firms and individual service providers”. *Journal of Marketing*, vol. 73, issue 4, pp. 82-96.

Merchant, William R.; Li, Jian; Karpinski, Aryn C; Rumrill, Phillip D. Jr. (2013). “A conceptual overview of structural equation modeling (SEM) in rehabilitation research”. *Work*, vol. 45, issue 3, pp. 407-415.

Meyer, Christopher; Schwager, Andre (2007). “Understanding customer experience,” *Harvard Business Review*, vol. 85, issue 2, pp. 116-26.

Miles, Jeremy .N.V.; Shevlin, Mark (2006). “A time and a place for incremental fit indices”. *Personality and Individual Differences*, vol. 42, issue 5, pp. 869-874.

Miller, Karen A. (1988). “Intrinsic motivation and self-determination in human behavior”. *Contemporary Sociology*, vol. 17, issue 2, pp. 253-253.

Minsky, Marvin (1980). “Telepresence”. *Omni*, vol. 2. issue 9, pp. 45-51.

Mirvis, Philips H. (1991). “Flow: the psychology of optimal experience”. *Academy of Management Review*, vol. 16, issue 3, pp. 636-640.

Mishra, Sita; Prasad, Sai (2014). “Exploring linkages between socio-demographic factors and customer loyalty in India”. *Management & Marketing*, vol. 9, issue 1, pp. 13-26.

Mocholí, José A.; Esteve, José M.; Jaén, Javier; Acosta, Raquel; Xech, Pierre Louis (2006). “An emotional path finding mechanism for augmented reality applications”. In Harper, Richard; Rauterberg, Matthias; Combetto, Marco (Eds.), *Entertaining Computing ICEC 2006*. Berlin, Springer.

Mollen, Anne; Wilson, Hugh (2010). “Engagement, telepresence and interactivity in online consumer experience: reconciling scholastic and managerial perspectives”. *Journal of Business Research*, vol. 63, issue 9, pp. 919-925.

Monnes, Shari (2015). “The anatomy of a successful Facebook post”. *Hubspot*. Available

at: https://blog.hubspot.com/marketing/anatomy-of-al-facebook-post#sm.000sulqvz12n0fklxst1d9gwhw8xc [2016/12/15].

Moon, Jang Ho; Kim, Eunice; Choi, Sejung M.; Sung, Yongjun (2013). “Keep the social in social media: the role of social interaction in avatar-based virtual shopping”. *Journal of Interactive Advertising*, vol. 13, issue 1, pp. 14-26.

Morgan, Robert M.; Hunt, Shelby D. (1994). “The commitment-trust theory of relationship marketing”. *The Journal of Marketing*, vol. 58, issue 3, pp. 20-38.

Morrison, Kimberlee (2015). “91% of retail brands use two or more social media channels”. Adweek.com. Available at: http://www.adweek.com/digital/yesmail-retail-brands-social-media-channels/ [2017/03/25].

Mulaik, Stanley A.; James, Larry R.; Van Alstine, Judith; Bennett, Nathan; Lind, Sherri; Stilwell, C. Dean (1989). “Evaluation of goodness-of-fit indices for structural equation models”. *Psychological Bulletin*, vol. 105, issue 3, pp. 430-445.

Mun, Sunho; Ha, Jaehyun; Choo, Na-Young; Kim, Jongback; Han, Keunsu; Kim, Seok-Ju (2011). “Influence of flow experience on exploratory behavior and future attendance”. *Research Quarterly for Exercise and Sport*, vol. 82, issue 1, pp. A-79.

Munoz, Breda; Lesser, Virginia M. (2006). “Adjustment procedures to account for non-ignorable missing data in environmental surveys”. *Environmetrics*, vol. 17, pp. 653-662.

Nah, Fiona Fui-Hoo; Eschenbrenner, Brenda; DeWester, David (2011). “Enhancing brand equity through flow and telepresence: a comparison of 2D and 3D virtual worlds”. *MIS Quarterly-Management Information Systems*, vol. 35, issue 3, pp. 731-747.

Nakamura, Jeanne; Csikszentmihalyi, Mihaly (2002). “The concept of flow”. *Handbook of Positive Psychology*, pp. 89-105.

Novak, Thomas P.; Hoffman, Donna L. (1998). “Measuring the customer experience in online environments: a structural modeling approach”. Working paper.

Novak, Thomas P.; Hoffman, Donna L.; Yung, Y. (2000). “Measuring the customer experience in online environments: a structural modeling approach”. *Marketing Science*, vol. 19, issue 1, pp. 22-42.

Novak, Thomas P.; Hoffman, Donna L.; Duhachek, Adam (2003). “The influence of goal directed and experiential activities on online flow experiences”. *Journal of Consumer Psychology*, vol. 3, issue 1-2, pp. 3-16.

Nowak, Kristine L.; Biocca, Frank (2003). “The effect of the agency and anthropomorphism on users’ sense of telepresence, copresence, and social presence in virtual environments”. *Presence: Teleoperators & Virtual Environments*, vol. 12, issue 5, pp. 481-494.

Ogden, Michael R.; Jackson, Steve (2010). “Telepresence”. In Grant August E; Meadows, Jennifer H. (Editors) *Communication Technology Update and Fundamentals* (Twelfth Edition), Burlington (MA), Elsevier, pp. 322-341.

Oliver, Richard L. (1993). “Cognitive, affective, and attribute bases of the satisfaction response”. *Journal of Consumer Research*, vol. 20, issue 3, pp. 418-430.

Oliver, Richard L. (1999). “Whence Consumer Loyalty?”. *The Journal of Marketing*, vol. 63, pp. 33-44.

Oskamp, Stuart; Shultz, P. Wesley (2014). *Attitudes and Opinions*. Third Edition. New York (NY), Psychology Press.

Ostrom, Thomas M. (2014). “Interdependence os attitude theory and measurement”. In Pratkanis, Anthony R.; Breckler, Steven J.; Greenwald Anthony G. *Attitude structure and function*. New York (NY), Psychology Press.

Oum, Saokosal; Han, DongWook (2011). “An empirical study of the determinants of the intention to participate in user-created contents (UCC) services”. *Expert Systems with Applications*, vol. 38, issue 12, pp. 15110-15121.

Owocki, Kevin (2015). "3 tips to fix slow Facebook load times". The World as Perpetual Beta. Available at https://owocki.com/3-tips-to-fix-slow-facebook-load-times/ [2017/01/21].

Pace, Steven. (2004). “A grounded theory of the flow experiences of Web users”. *International Journal of Human-Computer Studies*, vol. 60, issue 3, pp. 327-363.

Palmatier, Robert W.; Scheer, Lisa K.; Steenkamp, Jan-Benedict E. M. (2007). “Customer loyalty to whom? Managing the benefits and risks of salesperson-owned loyalty”. *Journal of Marketing Research*, vol. 46, issue 2, pp.185-199.

Peres, Renana; Muller, Eitan; Mahajan, Vijay (2010). “Innovation diffusion and new product growth models: a critical review and research directions”. *Journal of Research in Marketing*, vol. 27, issue 2, pp. 91-106.

Petty, Richard E.; Wegener, Duane T.; Fabrigar, Leandre R. (1997). “Attitudes and attitude change”. *Annual Review of Psychology*, vol. 48, pp. 609-647.

Pine, B. Joseph; Gilmore, James H. “Welcome to the experience economy”. *Harvard business review*, 1998, vol. 76, pp. 97-105.

Pöyry, Essi; Parvinen, Petri; Malmivaara, Tuuli (2013). “Can we get from liking to buying? Behavioral differences in hedonic and utilitarian Facebook usage”. *Electronic Commerce Research and Applications*, vol. 12, issue 4, pp. 224-235.

Pritchard, Mark P.; Howard, Dennis R. (1997). “The loyal traveler: examining a typology of service patronage”. *Journal of Travel Research*, vol. 35, issue 4, pp. 2-10.

Pullman, Madeleine E.; Gross, Michael A. (2004). “Ability of experience design elements to elicit emotions and loyalty behaviors”. *Decision Sciences*, vol. 35, issue 3, pp. 551-576.

Rafaeli, Sheizf (1988). “From new media to communication”. *Sage Annual Review of Communication Research: Advancing Communication Science*, vol. 16, pp. 110-134.

Reeves, Byron; Nass, Clifford (1996). *The media equation: how people trat computers, television and new media like real people and places*. Cambridge, Cambridge university press.

Regan, Kadie (2015). “10 amazing social media growth stats from 2015”. Social Media Today. Available at: http://www.socialmediatoday.com/social-networks/kadie-regan/2015-08-10/10-amazing-social-media-growth-stats-2015 [2017/03/25].

Reichheld, Frederick F.; Sasser, W. Earl Jr. (1990). “Zero defections: quality comes to services”. *Harvard Business Review*, vol. 68, issue 5, pp. 101-109.

Reichheld, Frederick F.; Schefter, Phil (2000). “E-loyalty: your secret weapon on the Web”. *Harvard Business Review*, vol. 78, issue 4, pp. 105-113.

Reichheld, Frederick F.; Teal, Thomas (2001). *The loyalty effect*. Boston (MA), Harvard Business School Press.

Reinartz, Werner; Viswanathan, Kumar (2002). “The mismanagement of customer loyalty”. *Harvard Business Review*, vol. 80, issue 7, pp. 86-95.

Ribbink, Dina; van Riel, Allard C. R.; Liljander, Veronica; Streukens, Sandra (2004). “Comfort your online customer: quality, trust and loyalty on the internet”. *Managing Service Quality*, vol. 14, issue 6, pp. 446-456.

Richard, Marie-Odile; Chandra, Ramdas (2005). “A model of consumer web navigational behavior: conceptual development and application”. *Journal of Business Research*, vol. 58, issue 8, pp. 1019-1029.

Richard, Marie-Odile; Chebatb, Jean-Charles; Yangc, Zhiyong; Putrevu, Sanjay (2010). “A proposed model of online consumer behavior: Assessing the role of gender”. *Journal of Business Research*, vol. 63, issue 9-10, pp. 926-934.

RightNow (2010). “2011 Customer experience impact report”. Oracle Reports. Available at http://www.oracle.com/us/products/applications/cust-exp-impact-report-epss-1560493.pdf [2016/05/21].

Roca, Juan C.; Chiu, Chao-Min; Martínez, Francisco J. (2006). “Understanding e-learning continuance intention: an extension of the technology acceptance model”. *International Journal of Human-Computer Studies*, vol. 64, issue 8, pp. 683-696.

Rodríguez-Ardura, Inma; Martínez-López, Francisco J. (2014). “Another look at ‘being

there' experiences in digital media: exploring connections of telepresence with mental imagery". *Computers in Human Behavior*, vol. 30, issue 1, pp. 508-518.

Rodríguez-Ardura, Inma (2006). "Experiencias óptimas de navegación y compra en línea: una aproximación al comportamiento del consumidor en la Red a través del concepto de flujo". UOC Papers [article online], issue 3. [2016/09/01].

Rodríguez-Ardura, Inma; Meseguer-Artola, Antoni (2014). "What leads people to keep on e-learning? An empirical analysis of users' experiences and their effects on continuance intention". *Interactive Learning Environments*, vol. 24, issue 6, pp. 1030-1053.

Rodríguez-Ardura, Inma; Meseguer-Artola, Antoni (2016). "E-learning continuance: the impact of interactivity and the mediating role of imagery, presence and flow". *Information & Management*, vol. 53, pp. 504–51.

Rodríguez-Ardura, Inma; Meseguer-Artola, Antoni (2016). "Flow in e-learning: what drives it and why it matters". *British Journal of Educational Technology*.

Rodríguez-Ardura, Inma; Meseguer-Artola, Antoni; Ammetller, Gisela (2016). "How do the experiences of virtual presence and flow differ? Evidence from engineering and ICT online education". *International Journal of Engineering Education*, vol. 32, issue 4, pp. 1579-1585.

Rodríguez-Moguel, Ernesto A. (2005). *Metodología de la investigación*. Tabasco, Universidad Juárez Autónoma de Tabasco.

Rodríguez-Sánchez, Alma M.; Schaufel, Wilmar B. (2008). "Flow experience among information and communication technology users". *Psychological Reports*, vol. 102, pp. 29-39.

Ronis, David L.; Yates, J. Frank; Kirscht, John P. (2014). "Attitudes, decisions and habits as determinants of repeated behaviour". In Pratkanis, Anthony R.; Breckler, Steven J.; Greenwald Anthony G. *Attitude structure and function*. New York (NY), Psychology Press.

Rose, Susan; Clark, Moira; Samouel, Phillip; Hair, Neil (2012). "Online customer experience in e-retailing: an empirical model of antecedents and outcomes". *Journal of Retailing*, vol. 88, issue 2, pp. 308-322.

Ruiz-Mafe, Carla; Martí-Parreño, Jose; Sanz-Blas, Silvia (2014). "Key drivers of consumer loyalty to Facebook fan pages". *Online Information Review*, vol. 38, issue 3, pp. 362-380.

Ryan, Gerard; Valverde, Mireia (2003). "Waiting online: a review and research agenda". *Internet Research: Electronic Networking Applications and Policy*, vol. 13, issue 3, pp. 195-205.

Sällberg, Henrik; Bengtsson, Lars (2016). “Computer and smartphone continuance intention: a motivational model”. *The Journal of Computer Information Systems*, vol. 56, issue 4, pp. 321-330.

Sánchez-Franco, Manuel J.; Roldán, José L. (2005). “Web acceptance and usage model. A comparison between goal-directed and experiential web users”, *Internet Research*, vol. 15, issue 1, pp. 21-48.

Sapra, Geetu; Mor, Kiran (2012). “Demographic variables: optimum stimulation level”. *SCMS Journal of Indian Management*, vol. 9, issue 3, pp. 61-70.

Sartika, Dewi; Husna, Saraya Ikramina (2014). “Finding flow experience in music activity”. *International Journal of Social Science and Humanity*, vol. 4, issue 2, pp. 155-158.

Schiefele, Ulrich; Raabe, Andreas (2011). “Skills-demands compatibility as a determinant of flow experience in an inductive reasoning task”. *Psychological Reports*, vol. 109, issue 2, pp. 428-444.

Schmukle, Stefan C.; Hardt, Jochen (2005). “A cautionary note on incremental fit indices reported by LISREL”. *Methodology*, vol. 1, issue 2, pp. 81-85.

Schumacker, Randall E.; Lomax, Richard G. (2010). *A beginner's guide to structural equation modeling*. 3rd Edition. New york (NY), Routledge.

Shankar, Avi; Patterson, Maurice (2001). “Interpreting the Past, Writing the Future”. *Journal of Marketing Management*, vol. 17, issue 5, pp. 481-501.

Shankar, Venkatesh; Smith, Amy K; Rangaswamy, Arvind (2003). “Customer satisfaction and loyalty in online and offline environments”. *International Journal of Research in Marketing*, vol. 20, issue 2, pp. 153-175.

Sheridan, Thomas B. (1992). “Musings on telepresence and virtual presence”. *Presence: Teleoperators and Virtual Environments*. vol. 1, issue 1, pp. 120-125.

Shevlin, Mark; Miles, Jeremy .N.V. (1998). “Effects of sample size, model specification and factor loadings on the GFI in confirmatory factor analysis”. *Personality and Individual Differences*, vol. 25, issue 1, pp. 85-90.

Shevlin, Mark; Miles, Jeremy N.V.; Lewis, Christopher Alan (2000). “Reassessing the fit of the confirmatory factor analysis of the multidimensional students life satisfaction scale: comments on `confirmatory factor analysis of the multidimensional Students' Life Satisfaction Scale'”. *Personality and Individual Diferences*, vol. 28, pp. 181-185.

Shim, Soo In; Forsythe, Sandra; Kwon, Wi-Suk (2015). “Impact of online flow on brand experience and loyalty. *Journal of Electronic Commerce Research*, vol. 16, issue 1, pp. 56-71.

Shim, Sung-Wook; Lee, Chunsik; Kim, Dae-Hee (2011). "The antecedents of attitudes toward IPTV advertising: the role of interactivity and advertising value". *The Journal of Advertising and Promotion Research*, vol. 2, issue 1, pp. 123-161.

Shin, Dong-Hee (2010). "Analysis of online social networks: a cross-national study". *Online Information Review*, vol. 34, issue 3, pp. 473-495.

Simpson, Kate (2013). "Shake, rattle & Roll to my Magic Number: 7 +/- 2". *Tangledom*. Available at http://www.tangledom.com/shake-rattle-roll-to-my-magic-number-7-2/ [2017/28/01].

Sivo, Stephen A.; Fan, Xitao; Witta, E. Lea; Willse, John T. (2006). "The search for "optimal" cutoff properties: fit index criteria in structural equation modelling". *The Journal of Experimental Education*, vol. 74, issue 3, pp. 267-288.

Skadberg, Yongxia Xia; Kimmel, James R. (2004). "Visitors' flow experience while browsing a Web site: its measurement, contributing factors and consequences". *Computers in Human Behavior*, vol. 20, issue 3, 403-422.

Sledgianowski, Deb; Kulviwat, Songpol (2009). "Using social network sites: the effects of playfulness, critical mass and trust in a hedonic context". *The Journal of Computer Information Systems*, vol. 49, issue 4, pp. 74-83.

Solomon, Michael R. (1997). *Comportamiento del consumidor*, 3ª ed. Mexico, Prentice-Hall Hispanoamericana.

Song, Ji Hee; Zinkhan, George M. (2008). "Determinants of perceived web site interactivity". *Journal of Marketing*, vol. 72, issue 2, pp. 99-113.

Sproles, George B.; Kendall, Elizabeth L. (1986). "A methodology for profiling consumers' decision-making styles". *The Journal of Consumer Affairs*, vol. 20, issue 2, pp. 267-279.

Sproutsocial (2015). "Social media demographics to inform a better segmentation strategy". Available at http://sproutsocial.com/insights/new-social-media-demographics/#facebook [2016/01/17]

Stanimirova, Ivana; Serneels Sven; Van Espen, Pierre J.; Walczak, Beata (2007). "How to construct a multiple regression model for data with missing elements and outlying objects". *Analytica Chimica Acta*, vol. 581, issue 2, pp. 324-332.

Statista. "Daily time spent on social networking by internet users worldwide from 2012 to 2016 (in minutes)". Available at http://www.statista.com [2017/04/01].

Stavropoulos, Vasilis; Alexandraki, Kyriaki; Motti-Stefanidi, Frosso (2013). "Flow and Telepresence contributing to Internet Abuse: Differences according to Gender and Age". *Computers in Human Behavior*, vol. 29, issue 5, pp. 1941-1948.

Steckel, Joel H.; Winer, Russell S.; Bucklin, Randolph E.; Dellaert, Benedict G.; Drèze, Xavier; Häubl, Gerald; Jap, Sandy D.; Little, John D. C.; Meyvis, Tom; Montgomery, Alan L.; Rangawamy, Arvind (2005). "Choice in interactive environments". *Marketing Letters*, vol. 16, issue 3-4, pp. 309-320.

Steenkamp, Jan-Benedict E.M.; Baumgartner, Hans (1995). "Development and cross-cultural validation of a short form of CSI as a measure of optimum stimulation level". *International Journal of Research in Marketing*, vol. 12, issue 2, pp. 97-104.

Steiger, James H. (2007). "Understanding the limitations of global fit assessment in structural equation modelling". *Personality and Individual Differences*, vol. 42, issue 5, pp. 893-898.

Steuer, Jonathan (1992). "Defining virtual reality: dimensions determining telepresence". *Journal of Communication*, vol. 42, issue 4, pp. 73-93.

Straub, Marcus (2014). "Are trust and loyalty a priority at your company?". *The Business Times*. Available at: http://thebusinesstimes.com/are-trust-and-loyalty-a-priority-at-your-company [2017/03/20].

Stringer, Neil S. (2003). "The use of enhanced depth information in telepresence". [Doctoral thesis]. Guilford, University of Surrey.

Suárez-Vázquez, Ana; García-Rodríguez, Nuria; Álvarez-Álvarez, M. Begoña (2009). "La interactividad en cuestionarios autoadministrados. Influencia en la experiencia del encuestado". Cuadernos de Economía y Dirección de la Empresa, vol. 41, pp. 69-92.

Sukoco, Badri Munir; Wu, Wann-Yih (2011). "The effects of advergames on consumer telepresence and attitudes: a comparison of products with search and experience attributes". *Expert Systems with Applications*, vol. 38, issue 6, pp. 7396-7406.

Sundar, S. Shyam; Kim, Jinhee (2005). "Interactivity and persuasion: Influencing attitudes with information and involvement". *Journal of interactive advertising*, vol. 5, issue 2, pp. 5-18.

Teo, Hock-Hai; Oh, Lih-Bin; Liu, Chunhui (2003). "An empirical study of the effects of interactivity on web user attitude". *International Journal of Human - Computer Studies*, vol. 58, issue 3, pp. 281-305.

Teo, Timothy (2006). "Using structural equation modeling (SEM) in educational research: practices and issues". *IAES*, vol. 10, issue 1, pp. 49-66.

Teo, Thompson S. H.; Lim, Vivien K. G.; Lai, Raye Y. C. (1999) "Intrinsic and extrinsic motivation in Internet usage". *Omega- The International Journal of Management Science*, vol. 27, issue 1, pp. 25-37.

Tideswell, Carmen; Fredline, Elizabeth (2004). "Developing and rewarding loyalty to hotels: The guest's perspective". *Journal of Hospitality & Tourism Research*, vol. 28,

issue 2, pp. 186-208.

Tonkiss, Frank (2005). *Space, the City and Social Theory*. Cambridge, Polity Press.

Trasorras Rene J. (2008). *The Relationship of Value, Satisfaction and Loyalty on Customer Retention in the Professional Service Sector* [Dissertation]. Fort Lauderdale (FL), Nova Southeastern University.

Trevino, Linda K.; Lengel, Robert H.; Daft, Richard L. (1987). "Media symbolism, media richness, and media choice in organizations a symbolic interactionist perspective". *Communication Research*, vol. 14, issue 5, pp. 553-574.

Trevino, Linda K.; Webster, J. (1992). "Flow in computer mediated communication", *Communication Research*, vol. 9, issue 5, pp. 539-573.

Tsiotsou, Rodoula H. (2015). "The role of social and parasocial relationships on social networking sites loyalty". *Computers in Human Behavior*, vol. 48, pp. 401-414.

Tu, Chih-Hsiung (2002). "The measurement of social presence in an online learning environment". *International Journal on E-Learning*, vol. 1, issue 2, pp. 34-45.

Turkle, Sherry (2005). *The second self: computers and the human spirit*. 20th anniversary edition. Cambridge (MA), The MIT Press.

Tynan, Dan (2016). "Facebook's journey 'only 1% done' after surge in revenue, Zuckerberg says". *Theguardian.com*. Available at: https://www.theguardian.com/technology/2016/jul/27/facebook-ad-sales-growth-quarterly-results [2017/03/25].

Unger, Lynette S.; Kernan, Jerome B. (1983). "On the meaning of leisure: an investigation of some determinants of the subjective experience". *Journal of Consumer Research*, vol. 9, issue 3, pp. 381-392.

Van Dam, Jan-Willem; Van de Velden, Michel (2014). "Online profiling and clustering of Facebook users". *Decision Support Systems*, vol. 70, pp. 60-72.

Van Riel, Allard C.R; Liljander, Veronica; Jurriëns, Petra (2001). "Exploring consumer evaluations of e-services: a portal site". *International Journal of Service Industry Management*, vol. 12, issue 4, pp. 359-391.

Vázquez-Carrasco, Rosario; Foxall, Gordon R. (2006). "Influence of personality traits on satisfaction, perception of relational benefits, and loyalty in a personal service context". *Journal of Retailing and Consumer Services*, vol. 13, issue 3, pp. 205-219.

Voiskounsky, Alexander E.; Mitina, Olga V.; Avetisova, Anastasiya A. (2004). "Playing online games: flow experience". *PsychNology Journal*, vol. 2, issue 3, pp. 259-281.

Voorveld, Hilde A. M; Neijens, Peter C.; Smit, Edith G. (2011). "The relation between actual and perceived interactivity: what makes the web sites of top global brands truly

interactive?". *Journal of Advertising*, vol. 40, issue 2, pp. 77-92.

Wagner, Tillmann; Hennig-Thurau, Thorsten; Rudolph, Thomas (2009). "Does customer demotion jeopardize loyalty?". *Journal of Marketing*, vol. 73, issue 3, pp. 69-85.

Wahlers, Russell G.; Dunn, Mark G.; Etzel, Michael J. (1986). "The congruence of alternative osl measures with consumer exploratory behavior tendencies". *Advances in Consumer Research*, vol. 13, issue 1, pp. 398-402.

Wallace, Elaine; Buil, Isabel; de Chernatony, Leslie; Hogan, Michael (2014). "Who likes you… and why? A typology of Facebook fans". *Journal of Advertising Research*, vol. 54, issue 1, pp. 92-109.

Wang, Rujian (2007). "Relationship, loyalty, and marketing- A correlation study of Taiwan hotel customers' perspectives". *ProQuest Dissertations & Theses Global*. Available at: https://0-search.proquest.com.cataleg.uoc.edu/docview/304774680?accountid=15299 [2017/02/12].

Wang, Chung-Jen; Tsai, Chang-Yen (2014). "Managing innovation and creativity in organizations: an empirical study of service industries in Taiwan". *Service Business*, vol. 8, issue 2, pp. 313-335.

Welch, Robert B., Blackmon, Theodore T., Liu, Andrew, Mellers, Barbara A.; Stark, Lawrence (1996) "The effects of pictorial realism, delay of visual feedback, and observer on the subjective sense of presence". *Presence*, vol. 5, issue 3, pp. 263-274.

Westland, J. Christopher (2010). "Lower bounds on sample size in structural equation modeling". *Electronic Commerce Research and Applications*, vol. 9, issue 6, pp. 476-487.

Westland, J. Christopher (2015), *Structural equation models. From path to networks*. Switzerland, Springer.

Wheaton, Blair; Muthén, Bengt; Alwin, Duane F.; Summers, Gene F. (1977). "Assessing reliability and stability in panel models". In D. R. Heise (Ed.), *Sociological methodology*, San Francisco, Jossey-Bass, pp. 84-136.

Williams, Frederick; Rice, Ronald E.; Rogers, Everett M. (1998). *Resarch methods and the new media*. New York (NY), The Free Press.

Wilson, Machelle D.; Lueck, Kerstin (2014). "Working with missing data: imputation of nonresponse items in categorical survey data with a non-monotone missing pattern". *Journal of Applied Mathematics*, vol. 2014, pp. 1-9.

Wirth, Werner; Hartmann, Tilo; Böcking, Saskia; Vorderer, Peter; Klimmt, Christoph; Schramm, Holger; Saari, Timo; Laarni, Jari; Ravaja, Niklas; Gouveia, Feliz Ribeiro; Biocca, Frank; Sacau, Ana; Jäncke, Lutz; Baumgartner, Thomas; Jäncke, Petra (2007). "A process model of the formation of spatial presence experiences". *Media Psychology*,

vol. 9, issue 3, pp. 493-525.

Witmer, Bob G.; Singer, Michael J. (1998). “Measuring presence in virtual environments: a presence questionnaire”. *Presence, Teleoperators and Virtual Environments*, vol. 7, issue 3, pp. 225-240.

Wood, Lisa (2004). “Dimensions of brand purchasing behaviour: consumers in the 18-24 age group”. *Journal of Consumer Behaviour*, vol. 4, issue1, pp. 9-24.

Wood, Wendy; Hayes, Timothy (2012). “Social Influence on consumer decisions: Motives, modes, and consequences”. *Journal of Consumer Psychology*, vol. 22, issue 3, pp. 324-328.

Woszczynski, Amy B.; Roth, Philip L.; Segars, Albert H. (2002). “Exploring the theoretical foundations of playfulness in computer interactions”. *Computers in Human Behavior*, vol. 18, issue 4, pp. 369-388.

Yan, Yalan, Davison; Robert M.; Mo, Chunyan (2013). “Employee creativity formation: The roles of knowledge seeking, knowledge contributing and flow experience in web 2.0 virtual communities”. *Computers in Human Behavior*, vol. 29, issue 5, pp. 1923-1932.

Yang, Taining (2012). “The decision behaviour of Facebook users”. *The Journal of Computer Information Systems*, vol. 52, issue 3, pp. 50-59.

Yoo, Weon-Sang; Lee, Yunjung; Park, JungKun (2010). “The role of interactivity in e-tailing: Creating value and increasing satisfaction”. *Journal of Retailing and Consumer Services*, vol. 17, issue 10, pp. 89-96.

Yuan, Ke-Hai; Lu, Laura (2008). “SEM with missing data and unknown population distributions using two-stage ML: theory and its application”. *Multivariate Behavioral Research*, vol. 43, issue 4, pp. 621-652.

Zajonc, Robert B. (1968). “Attitudinal effects of mere exposure”. *Journal of Personality and Social Psychology*, vol. 9, issue 2 part 2, pp. 1-26.

Zaman, Maliha; Anandarajan, Murugan; Dai, Qizhi (2010). “Experiencing flow with instant messaging and its facilitating role on creative behaviours”. *Computers in Human Behavior*, vol. 26, issue 5, pp. 1009-1018.

Zaman, Maliha; Simmers, Claire A.; Anandarajan, Murugan (2013). “Using an ethical framework to examine linkages between "going green"”. In Dawn, Medlin. “Research Practices and Information and Communication Technologies”. In *Integrations of Technology Utilization and socual dynamics in organizations*. Hershey, Information Science Reference.

Zhou, Tao (2013). “An empirical examination of continuance intention of mobile payment services”. *Decision Support Systems*, vol. 54, issue 2, pp. 1085-1091.

Zhou, Tao; Li, Hongxiu; Liu, Yong (2010). “The effect of flow experience on mobile SNS users’ loyalty”. *Industrial Management & Data Systems*, vol. 110, issue 6, pp. 930-946.

Zhou, Zhongyun (Phil); Fang, Yulin; Vogel, Douglas R.; Jin, Xiao-Ling; Zhang, Xi (2012). “Attracted to or locked in? Predicting continuance intention in social virtual world services”. *Journal of Management Information Systems*, vol. 29, issue 1, pp. 273-305.

Zuckerman, Marvin (1971). “Dimensions of sensation seeking”. *Journal of Consulting and Clinical Psychology*, vol. 36, issue 1, pp. 45-52.

Appendix 1

Questionnaire

Appendix I. Questionnaire

English version

Enhancing consumer experience in hedonic social networks through flow and presence: an empirical model of antecedents and outcomes

An academic investigation
by

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Questionnaire for Facebook users

We thank you in advance for your help filling in this questionnaire. All information you provide will remain confidential and be used, exclusively, for academic and research purposes.

The questionnaire consists of questions which should be read carefully. It is designed to be completed in 20 minutes, approximately. Please take your time because it is important that you answer all the questions thoroughly.

The questionnaire is aimed at Facebook's current adult users, who employ this social network for personal purposes. To check that your user profile is the one we look for, please first answer the following two questions:

01. How old are you? *(Please tick)*

- ☐ More than 55 years
- ☐ From 45 to 54 years
- ☐ From 35 to 44 years
- ☐ From 25 to 34 years
- ☐ From 18 to 24 years
- ☐ Less than 18 years

If you are not over 18 you don't have to continue answering the questionnaire

02. Do you access Facebook at least once a month for personal reasons? *(Please tick)*

- ☐ Yes
- ☐ No

If you do not usually access to Facebook at least once a month for personal purposes, you don't have to continue answering the questionnaire

Section 1 Your feelings of presence

In this part of the questionnaire you can find some statements about your feelings of 'presence' while using Facebook. By the term 'presence' we mean the sense of 'being there', in the virtual environment defined by Facebook, and 'being together', with other Facebook users.

Please, use the following scale to rate your level of agreement or disagreement to the statements about your presence feelings.

	Completely disagree			Neither agree nor disagree			Completely agree
1. I forget about my immediate surroundings when I use Facebook	1	2	3	4	5	6	7
2. Using Facebook often makes me forget where I am	1	2	3	4	5	6	7
3. After using Facebook, I feel like I come back to the 'real world' after a journey	1	2	3	4	5	6	7
4. Using Facebook creates a new world for me, and this world suddenly disappears when I stop browsing	1	2	3	4	5	6	7
5. When I use Facebook, I feel I am in a world created by Facebook pages and resources	1	2	3	4	5	6	7
6. When I use Facebook, my body is in the room, but my mind is inside the world created by the pages and resources I explore	1	2	3	4	5	6	7
7. When I use Facebook, the world generated by the pages and resources I explore is more real for me than the 'real world'	1	2	3	4	5	6	7
8. When I have conversations in Facebook, I have my communication partner in my mind's eye	1	2	3	4	5	6	7
9. When I have conversations in Facebook, I feel that I deal with very real persons and not with abstract anonymous persons	1	2	3	4	5	6	7
10. Conversations in Facebook can hardly be distinguished from face-to-face conversations	1	2	3	4	5	6	7
11. I could get to know someone that I met only through Facebook	1	2	3	4	5	6	7

Section 2 Your imagery and narrative transportation

Here we present a set of propositions about how you interpret the information appeared on Facebook, and the images and feelings you evoke while using this social network (for example, when you see a picture of a landscape, write to an old friend, etc.).

Please, use the following scale to rate your level of agreement or disagreement to the statements below.

While I browse pages and resources on Facebook:	Completely disagree			Neither agree nor disagree			Completely agree
12. Many images come to my mind	1	2	3	4	5	6	7
13. The mental images that come to mind are very clear.	1	2	3	4	5	6	7
14. The mental images that come to mind, form a series of events in my mind in which I am part of	1	2	3	4	5	6	7
15. I can easily picture the events on Facebook taking place	1	2	3	4	5	6	7
16. I can daydream about places, people or events that appear on Facebook	1	2	3	4	5	6	7
17. I can imagine what it would be like to visit places, meet people or experience events on Facebook	1	2	3	4	5	6	7
18. I can imagine the actual, physical characteristics of places, people or events on Facebook	1	2	3	4	5	6	7
19. I do not notice activity going on in the room.	1	2	3	4	5	6	7
20. I can picture myself in the places, scenes or stories that I visit on Facebook.	1	2	3	4	5	6	7
21. I am mentally involved in scenes or stories on Facebook while reading them.	1	2	3	4	5	6	7

	Completely disagree						Completely agree
22. After finishing stories on Facebook, I find it difficult to put them out of my mind.	1	2	3	4	5	6	7
23. Stories I read on Facebook affect me emotionally	1	2	3	4	5	6	7
24. I find my mind wandering while I read stories on Facebook	1	2	3	4	5	6	7

Section 3 Your experiences of flow

Following you can find some affirmations about the meaning of your flow feelings. The word 'flow' is used to describe a **state of mind sometimes experienced by people who are deeply involved in some activity**. One example of flow is the case where a professional athlete is playing exceptionally well and achieves a state of mind where nothing else matters but the game; they are completely and totally immersed in it. The experience is not exclusive to athletics – many people report this state of mind when playing games, engaging in hobbies, or working.

Activities that lead to flow **completely captivate a person** for some period of time. When in flow, time may seem to stand still and nothing else seems to matter. Flow may not last for a long time on any particular occasion, but it may come and go over time. Flow has been described as an intrinsically enjoyable experience.

Now you know the meaning of the flow state, think about yourself while browsing Facebook. Please read the following statements and use the proposed scales to express the situation that better fits with your own experience.

	Completely disagree						Completely agree
25. I have experienced flow on Facebook	1	2	3	4	5	6	7
26. Most of the time I use Facebook I feel that I am in flow	1	2	3	4	5	6	7

	Never			About half the time			Always
27. In general, how frequently would you say you have experienced 'flow' when you use Facebook?	1	2	3	4	5	6	7

Section 4 Your feelings connected to flow

As far as you know what is the flow state, in this epigraph there are some statements related to the feelings you may have while you are in flow.

Please use the following scale to indicate your level of agreement or disagreement on the following statements.

	Completely disagree						Completely agree
28. I am extremely skilled at using Facebook	1	2	3	4	5	6	7
29. I consider myself knowledgeable about resources and functionalities of Facebook	1	2	3	4	5	6	7
30. I know somewhat more than most users about using Facebook	1	2	3	4	5	6	7
31. I know how to find what I am looking for on Facebook	1	2	3	4	5	6	7
32. When I use Facebook there is very little waiting time between my actions and the device's response	1	2	3	4	5	6	7
33. Interacting with Facebook is quick and fun	1	2	3	4	5	6	7
34. Pages and resources in Facebook which I explore load quickly	1	2	3	4	5	6	7

Please, carry on with the following sections

	Completely disagree			Neither agree nor disagree			Completely agree
Facebook...							
35. Facilitates two-way communication	1	2	3	4	5	6	7
36. Gives me the opportunity to talk back.	1	2	3	4	5	6	7
37. Facilitates concurrent communication	1	2	3	4	5	6	7
38. Enables conversation	1	2	3	4	5	6	7
39. Encourages friends to talk back	1	2	3	4	5	6	7
40. Is effective in gathering friends' feedback…	1	2	3	4	5	6	7

Please place the number that corresponds to your feelings in the relevant box

While using Facebook...	Completely disagree 1	2	3	Neither agree nor disagree 4	5	6	Completely agree 7	
41. I am deeply engrossed in the activity								
42. I am absorbed intensely in the activity								
43. My attention is focused on the activity								
44. I concentrate fully on the activity								
45. I have the feeling that I control my actions on Facebook								
46. I feel I am autonomous on Facebook								
47. I feel I influence my actions on Facebook								
48. I feel I dominate my actions on Facebook								
49. I do not feel confused about what to do on Facebook								
50. Time seems to go by very quickly on Facebook								
51. I tend to lose track of time on Facebook								

I find that using Facebook:	Completely disagree			Neither agree nor disagree			Completely agree
52. Is important	1	2	3	4	5	6	7
53. Is relevant	1	2	3	4	5	6	7
54. Means a lot to me	1	2	3	4	5	6	7
55. Matters to me	1	2	3	4	5	6	7
56. Is of concern to me	1	2	3	4	5	6	7
57. Challenges me	1	2	3	4	5	6	7
58. Challenges me to perform to the best of my ability	1	2	3	4	5	6	7
59. Provides a good test of my skills	1	2	3	4	5	6	7
60. Stretches my capabilities to my limits	1	2	3	4	5	6	7

Section 5 You and your opinions on Facebook

	Completely disagree			Neither agree nor disagree			Completely agree
61. I love Facebook	1	2	3	4	5	6	7
62. I feel good when I use Facebook	1	2	3	4	5	6	7
63. I rely on Facebook	1	2	3	4	5	6	7
64. Facebook is a necessity for me	1	2	3	4	5	6	7

Facebook is:	Completely disagree			Neither agree nor disagree			Completely agree
65. Interesting	1	2	3	4	5	6	7
66. Fun	1	2	3	4	5	6	7
67. Exciting	1	2	3	4	5	6	7
68. Enjoyable	1	2	3	4	5	6	7

Below are some statements that represent commonly held opinions about Facebook, please take up a stance and circle one of the numbers. There are no right or wrong answers.

Facebook is…

69.	Bad	1	2	3	4	5	6	7 Good
70.	Inferior	1	2	3	4	5	6	7 Superior
71.	Unpleasant	1	2	3	4	5	6	7 Pleasant
72.	Boring	1	2	3	4	5	6	7 Interesting
73.	Poor	1	2	3	4	5	6	7 Excellent
74.	Not worthwhile	1	2	3	4	5	6	7 Worthwhile
75.	Not useful	1	2	3	4	5	6	7 Useful
76.	Dissatisfying	1	2	3	4	5	6	7 Satisfying

Section 6 You, your OSL and your reference groups

Below are some items describing people's optimum stimulation level in daily activities (in the physical world or on Facebook, it is indifferent), and the influence that other people may have in the use of Facebook. Please use the scale below to indicate whether you find each statement is a true or false description in your case.

	Completely false			Neutral			Completely true
77. I like to try new and different things rather than continue doing the same old things	1	2	3	4	5	6	7
78. I like to experience novelty and change in my daily routine.	1	2	3	4	5	6	7
79. I like a job that offers change, variety, and travel, even if it involves some danger	1	2	3	4	5	6	7
80. I am continually seeking new ideas and experiences	1	2	3	4	5	6	7
81. I like continually changing activities	1	2	3	4	5	6	7
82. When things get boring, I like to find some new and unfamiliar experience	1	2	3	4	5	6	7
83. I prefer an unpredictable way of life, full of change, to a routine one	1	2	3	4	5	6	7
84. Most people who are important to me think I should be on Facebook	1	2	3	4	5	6	7
85. Most people whose recommendations I like to comply with think I should be on Facebook	1	2	3	4	5	6	7
86. Most people who are important to me would encourage me to be on Facebook	1	2	3	4	5	6	7
87. Most people whose recommendations I like to comply would encourage me to be on Facebook	1	2	3	4	5	6	7

There are just two pages left

Section 7 Your emotional states on Facebook

Please place the number that corresponds to your feelings in the relevant box

	Completely disagree			Neither agree nor disagree			Completely agree
	1	2	3	4	5	6	7

While using Facebook I feel I am:

88. Imaginative
89. Flexible
90. Original
91. Inventive
92. Creative
93. Playful
94. Spontaneous

95. Happy
96. Contented
97. Pleased
98. Satisfied

99. Frenzied
100. Excited
101. Stimulated
102. Aroused

Section 8 Facebook usage

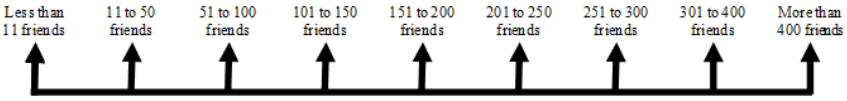
Following there are some questions about Facebook's functionalities and your usage of Facebook. Please use the answer scale to express the situation that best fits with your case.

	Completely disagree			Neither agree nor disagree			Completely agree
103. Learning to operate Facebook was easy for me	1	2	3	4	5	6	7
104. I found it easy to get Facebook to do what I want it to do	1	2	3	4	5	6	7
105. My interaction with Facebook is clear and understandable	1	2	3	4	5	6	7
106. I find Facebook to be flexible to interact with	1	2	3	4	5	6	7
107. It is easy for me to become skilful at using Facebook	1	2	3	4	5	6	7
108. I find Facebook easy to use	1	2	3	4	5	6	7
109. Using Facebook enable me to keep in touch with friends more quickly	1	2	3	4	5	6	7
110. Using Facebook improves my performance in managing my social life	1	2	3	4	5	6	7
111. Using Facebook helps me achieve my goals	1	2	3	4	5	6	7
112. Using Facebook enhances my effectiveness on keep in touch with friends	1	2	3	4	5	6	7
113. Using Facebook makes it easier to manage my social life	1	2	3	4	5	6	7
114. I find Facebook useful in my life	1	2	3	4	5	6	7
115. I will use Facebook on a regular basis in the future	1	2	3	4	5	6	7
116. I will frequently use Facebook in the future	1	2	3	4	5	6	7
117. I will strongly recommend others to use Facebook	1	2	3	4	5	6	7

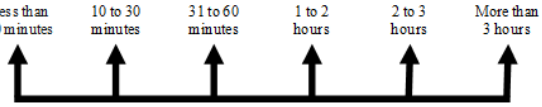
Please continue on to the final page

Please circle the interval that fits with your case

118. About how many Facebook friends do you have? .....



119. In the past week, on average, how much time per day did you spend on Facebook? .....



120. How do you usually access to Facebook?

(Please tick as many devices as you use)

☐ Computer	☐ Smartphone (iPhone, Blackberry, Samsung Galaxy...)	☐ Digital camera	☐ Music and video player
☐ Tablet	☐ iPod Touch, Samsung Galaxy Player…	☐ Game console	☐ Internet enabled TV

Section 9 Your personality and learning style

Choose in each case the option that fits the best with your personality - Only one option for each question.

121. When using a new technology device for the first time, I prefer to: *(Please tick one of the three options)*
- read the instructions ..... ☐
- listen to or ask for an explanation ..... ☐
- have a go and learn by 'trial and error' ..... ☐

122. To teach someone something I: *(Please tick one of the three options)*
- write instructions ..... ☐
- explain verbally ..... ☐
- demonstrate and let them have a go ..... ☐

123. When concentrating I:
- focus on the words or pictures in front of me ..... ☐
- discuss the problem and possible solutions in my head ..... ☐
- move around a lot, fiddle with pens and pencils and touch unrelated things ..... ☐

124. I remember things best by:
- writing notes or keeping printed details ..... ☐
- saying them aloud or repeating words and key points in my head ..... ☐
- doing and practising the activity, or imagining it being done ..... ☐

125. When anxious, I:
- visualise the worst-case scenarios ..... ☐
- talk over in my head what worries me most ..... ☐
- can't sit still, fiddle and move around constantly ..... ☐

126. I feel especially connected to others because of:
- how they look ..... ☐
- what they say to me ..... ☐
- how they make me feel ..... ☐

Section 10 Classification variables

This set of final questions ask details about you. Remember this data is confidential.

127. Are you? ..... ☐ Male ☐ Female
(Please tick)

128. What is your nationality? ..... *(Please fill in)*

129. Which is the highest level of education that you have completed? ..... ☐ None ☐ Primary education ☐ Secondary education ☐ University education

130. Do you have children? ..... ☐ Yes ☐ No

131. In case of having children, do they use Facebook? ..... ☐ Yes ☐ No

If you have any comments about this questionnaire, please feel free to write them following:

Participation in the draw

To reward your participation in our study, we have created a draw. There will be a €150 and three €50 prizes, all in El Corte Inglés gift vouchers. If you wish to participate in the draw, please insert your email address. We will utilize your email address only and exclusively to contact you if you are the winner of any prize. The competition rules are available on http://www.fdoral.esy.es.

Insert your e-mail address ..... *(Please fill in)*
(In the event you wish to participate in the draw)

Thank you for your time – Your contribution is greatly appreciated

Spanish version

Estudio de la experiencia del consumidor en las redes sociales hedónicas a través del flujo y la presencia: un modelo empírico de sus antecedentes y consecuencias

Investigación académica
de

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Cuestionario para usuarios de Facebook

Este cuestionario se enmarca dentro del proyecto de investigación acerca de la experiencia en redes sociales desarrollado por los profesores de la Universitat Oberta de Catalunya Dra. Inma Rodríguez-Ardura y Dr. Antoni Meseguer Artola en colaboración con el doctorando por la misma universidad Fernando Doral.

Te queremos agradecer de antemano que completes este cuestionario. Toda la información que nos proporciones tendrá carácter confidencial y será usada exclusivamente, con fines académicos de investigación.

Como enseguida comprobarás, el cuestionario consta de múltiples preguntas que deben ser leídas con detenimiento para poder ser respondidas adecuadamente. Ha sido pensado para ser cumplimentado en 20 minutos, aproximadamente. No te apures, y tómate tu tiempo para responder.

El cuestionario se dirige a usuarios adultos de Facebook, que usan esta red social por razones personales. Para comprobar que te ajustas al perfil de usuario que estamos buscando, por favor contesta antes a las siguientes preguntas:

01. ¿Cuántos años tienes? *(Por favor, marca con una X)*

- ☐ Más de 55 años
- ☐ Entre 45 y 54 años
- ☐ Entre 35 y 44 años
- ☐ Entre 25 y 34 años
- ☐ Entre 18 y 24 años
- ☐ Menos de 18 años

Si eres menor de edad, no tienes que continuar contestando el cuestionario

02. ¿Accedes a Facebook como mínimo una vez al mes por motivos personales? *(Por favor, marca con una X)*

- ☐ Sí
- ☐ No

Si no accedes a Facebook, como mínimo una vez al mes por motivos personales, no tienes que continuar respondiendo el cuestionario

Sección 1 Tu sensación de presencia

En esta primera parte del cuestionario encontrarás afirmaciones sobre tus posibles sensaciones de 'presencia' cuando usas Facebook. Cuando hablamos de 'presencia' nos referimos a la sensación de 'estar allí', en el entorno virtual que Facebook define o la impresión de 'estar junto' a otros usuarios de Facebook, a pesar de la distancia física que os pueda separar.

Por favor, sírvete de la escala que se recoge a continuación para expresar tu grado de acuerdo o desacuerdo con las afirmaciones sobre tus sensaciones de presencia (rodea con un círculo uno de los números).

	Completamente en desacuerdo			Ni de acuerdo ni en desacuerdo			Completamente de acuerdo
1. Cuando uso Facebook me olvido de lo que pasa a mi alrededor	1	2	3	4	5	6	7
2. Cuando uso Facebook suelo olvidarme de donde estoy	1	2	3	4	5	6	7
3. Tras usar Facebook, siento como si regresara al mundo real después de un viaje	1	2	3	4	5	6	7
4. Usar Facebook crea un mundo nuevo para mí y ese mundo desaparece de repente cuando dejo de navegar	1	2	3	4	5	6	7
5. Cuando uso Facebook, siento que estoy en un mundo creado por las páginas y recursos de Facebook	1	2	3	4	5	6	7
6. Cuando uso Facebook, mi cuerpo está en la habitación pero mi mente está dentro del mundo creado por las páginas y recursos que exploro	1	2	3	4	5	6	7
7. Cuando uso Facebook, el mundo generado por las páginas y recursos donde navego es más real para mí que el mundo real	1	2	3	4	5	6	7
8. Cuando me comunico a través de Facebook, imagino a mi interlocutor	1	2	3	4	5	6	7
9. Cuando me comunico a través de Facebook, siento que estoy tratando con personas reales y no con personas abstractas o anónimas	1	2	3	4	5	6	7
10. Las comunicaciones a través de Facebook son difíciles de distinguir de las que tengo cara a cara	1	2	3	4	5	6	7
11. Podría hacerme amigo/a de alguien a quien he conocido a través de Facebook	1	2	3	4	5	6	7

Sección 2 Tu imaginación y la transportación narrativa

Aquí te presentamos una serie de afirmaciones sobre el modo en que interpretas la información que aparece en Facebook, y las imágenes y sensaciones que evocas al usar esta red social (por ejemplo, al visualizar la fotografía de un paisaje, al escribirte con una antigua amistad, etc.).

Por favor, sírvete de la escala que se recoge a continuación para expresar tu grado de acuerdo o desacuerdo con las proposiciones (rodea con un círculo uno de los números).

Cuando navego por las páginas y recursos en Facebook:	Completamente en desacuerdo			Ni de acuerdo ni en desacuerdo			Completamente de acuerdo
12. me vienen muchas imágenes a la mente	1	2	3	4	5	6	7
13. las imágenes que me vienen a la mente son muy nítidas	1	2	3	4	5	6	7
14. las imágenes que me vienen a la mente configuran acontecimientos en mente de los que yo soy parte	1	2	3	4	5	6	7
15. me puedo imaginar fácilmente los acontecimientos que tienen lugar o se recogen en Facebook	1	2	3	4	5	6	7
16. soy capaz de imaginar historias sobre los lugares, personas o eventos en Facebook	1	2	3	4	5	6	7
17. soy capaz de imaginar cómo sería la experiencia de visitar los lugares, encontrarme con la personas o acudir a los eventos que aparecen en Facebook	1	2	3	4	5	6	7
18. soy capaz de imaginar las características de los lugares, las personas o los eventos en Facebook	1	2	3	4	5	6	7
19. apenas me percato de lo que sucede en la habitación en la que me encuentro físicamente	1	2	3	4	5	6	7
20. soy capaz de imaginarme en los lugares, escenas o historias que visito	1	2	3	4	5	6	7

Cuando navego por las páginas y recursos en Facebook:	Completa-mente en desacuerdo			Ni de acuerdo ni en desa-cuerdo			Completa-mente de acuerdo
21. me siento mentalmente involucrado/a en los relatos o escenas a los que accedo en Facebook	1	2	3	4	5	6	7
22. tras acceder a relatos o escenas en Facebook, me cuesta dejar de pensar en ellos	1	2	3	4	5	6	7
23. los relatos o escenas a los que accedo en Facebook me influyen emocionalmente	1	2	3	4	5	6	7
24. cuando accedo a relatos o escenas en Facebook dejo volar la imaginación	1	2	3	4	5	6	7

Sección 3 Tus sensaciones de flujo

Las afirmaciones que se recogen en esta sección se refieren a tus sensaciones de flujo. El concepto de 'flujo' se utiliza para describir un **estado mental que en ocasiones experimentan las personas que están profundamente concentradas en alguna actividad**. Un ejemplo nos lo ofrecen los deportistas profesionales cuando están jugando excepcionalmente bien y alcanzan un estado mental en el que solo parece importarles la competición o el juego que están practicando, de modo que se encuentran totalmente inmersos en esa actividad. El estado de flujo no es exclusivo de los atletas: muchas personas reconocen haberlo experimentado cuando se dedican a sus *hobbies* o, incluso, cuando trabajan.

Las actividades que conducen a un estado de flujo **absorben completamente a la persona** por un cierto tiempo. Cuando una persona está en estado de flujo, el tiempo parece detenerse y nada más le parece importar. Es posible que ese estado no dure mucho tiempo, y puede que aparezca y desaparezca durante la práctica de la actividad. El estado de flujo ha sido descrito como una experiencia de disfrute intrínseco.

Ahora que ya conoces qué es el estado de flujo, piensa en tus sensaciones cuando usas Facebook. Por favor, lee las siguientes afirmaciones y señala aquel número comprendido entre 1 y 7 que mejor expresa tu situación.

	Completa-mente en desacuerdo			Ni de acuerdo ni en desa-cuerdo			Completa-mente de acuerdo
25. He experimentado alguna vez el estado de flujo en Facebook	1	2	3	4	5	6	7
26. Durante la mayor parte del tiempo que uso Facebook siento que estoy en flujo	1	2	3	4	5	6	7

	Nunca			A veces			Muy fre-cuente-mente
27. Por lo general, ¿con qué frecuencia dirías que experimentas 'estado de flujo' cuando usas Facebook?	1	2	3	4	5	6	7

Sección 4 Tus sentimientos relacionados con el flujo

Ahora que ya sabes qué es el estado de flujo, en este epígrafe recogemos varias afirmaciones relacionadas con los sentimientos que puedes tener cuando estás en flujo.

Por favor, sírvete de la escala que se recoge a continuación para expresar tu grado de acuerdo o desacuerdo con las afirmaciones.

Facebook...	Completa-mente en desacuerdo			Ni de acuerdo ni en desa-cuerdo			Completa-mente de acuerdo
28. Soy muy hábil utilizando Facebook	1	2	3	4	5	6	7
29. Sé cómo usar los recursos y funcionalidades de Facebook	1	2	3	4	5	6	7
30. Sé algo más que la mayoría de usuarios sobre cómo usar Facebook	1	2	3	4	5	6	7
31. Sé cómo encontrar lo que estoy buscando en Facebook	1	2	3	4	5	6	7
32. Cuando uso Facebook hay una espera muy pequeña entre mis acciones y la respuesta que obtengo	1	2	3	4	5	6	7
33. Interactuar con Facebook es rápido y divertido	1	2	3	4	5	6	7
34. Las páginas y recursos de Facebook con los que interactúo se cargan rápidamente	1	2	3	4	5	6	7
35. facilita la comunicación en ambos sentidos	1	2	3	4	5	6	7

Facebook...	Completa-mente en desacuerdo			Ni de acuerdo ni en desa-cuerdo			Completa-mente de acuerdo
36. me da la oportunidad de responder	1	2	3	4	5	6	7
37. facilita la comunicación simultánea	1	2	3	4	5	6	7
38. permite la conversación	1	2	3	4	5	6	7
39. anima a mis amigos/as a que contesten	1	2	3	4	5	6	7
40. es efectivo recogiendo las respuestas de mis amigos/as	1	2	3	4	5	6	7

Por favor, señala el número que corresponde con tu percepción en la casilla de la derecha.

Cuando uso Facebook…	Completa-mente en desacuerdo 1	2	3	Ni de acuerdo ni en desa-cuerdo 4	5	6	Completa-mente de acuerdo 7
41. estoy absorto/a en lo que hago							
42. estoy inmerso intensamente en lo que hago							
43. mi atención está centrada en lo que hago							
44. estoy concentrado/a completamente en lo que hago							
45. tengo la sensación de que controlo mis acciones en Facebook							
46. me parece ser autónomo/a, libre							
47. siento que influyo							
48. siento que domino							
49. sé claramente qué debo hacer							
50. el tiempo parece ir muy deprisa en Facebook							
51. tiendo a perder la noción del tiempo en Facebook							

Creo que usar Facebook:	Completa-mente en desacuerdo			Ni de acuerdo ni en desa-cuerdo			Completa-mente de acuerdo
52. es importante	1	2	3	4	5	6	7
53. es relevante	1	2	3	4	5	6	7
54. me importa	1	2	3	4	5	6	7
55. significa mucho para mí	1	2	3	4	5	6	7
56. me interesa	1	2	3	4	5	6	7
57. representa un desafío para mí	1	2	3	4	5	6	7
58. me plantea el reto de dar lo mejor de mí mismo/a	1	2	3	4	5	6	7
59. pone a prueba mis habilidades	1	2	3	4	5	6	7
60. me permite aprovechar al máximo mis capacidades	1	2	3	4	5	6	7

Sección 5 Tú y tus opiniones sobre Facebook

	Completa-mente en desacuerdo			Ni de acuerdo ni en desa-cuerdo			Completa-mente de acuerdo
61. Me encanta Facebook	1	2	3	4	5	6	7
62. Me siento bien cuando uso Facebook	1	2	3	4	5	6	7
63. Confío en Facebook	1	2	3	4	5	6	7
64. Facebook es necesario para mí	1	2	3	4	5	6	7

Solo quedan tres páginas

	Completa-mente en desacuerdo			Ni de acuerdo ni en desa-cuerdo			Completa-mente de acuerdo
Facebook es:							
65. interesante	1	2	3	4	5	6	7
66. divertido	1	2	3	4	5	6	7
67. emocionante	1	2	3	4	5	6	7
68. agradable	1	2	3	4	5	6	7

A continuación encontrarás afirmaciones que representan opiniones generalizadas sobre Facebook, por favor rodea el número que esté más cercano a tu propia opinión. No hay respuestas correctas ni incorrectas.

Facebook es…

69.	Malo	1	2	3	4	5	6	7 Bueno
70.	Inferior	1	2	3	4	5	6	7 Superior
71.	Desagradable	1	2	3	4	5	6	7 Agradable
72.	Aburrido	1	2	3	4	5	6	7 Interesante
73.	Pobre	1	2	3	4	5	6	7 Excelente
74.	Insignificante	1	2	3	4	5	6	7 Valioso
75.	Inútil	1	2	3	4	5	6	7 Útil
76.	Insatisfactorio	1	2	3	4	5	6	7 Satisfactorio

Sección 6 Tú, tu nivel de estimulación óptimo y tus grupos de referencia

A continuación se recogen varias afirmaciones que describen el nivel de estimulación óptimo cuando se llevan a cabo actividades diarias (en el mundo físico o en Facebook) y la influencia que otras personas pueden tener en la decisión de usar o no usar Facebook. Por favor, usa la escala que se proporciona para indicar si consideras las descripciones verdaderas o falsas en tu caso.

	Completa-mente falso			Neutral			Completa-mente verdadero
77. Me gusta probar cosas nuevas y diferentes en lugar de hacer las mismas cosas de siempre	1	2	3	4	5	6	7
78. Me gusta experimentar novedades y cambio en mi rutina diaria	1	2	3	4	5	6	7
79. Me gustan los trabajos que ofrecen cambios, variedad, y viajes, incluso si conllevan algún tipo de peligro	1	2	3	4	5	6	7
80. Continuamente estoy buscando nuevas ideas y experiencias	1	2	3	4	5	6	7
81. Me gusta estar cambiando de actividad continuamente	1	2	3	4	5	6	7
82. Cuando las cosas se vuelvan aburridas busco experiencias nuevas y poco familiares	1	2	3	4	5	6	7
83. Prefiero un estilo de vida poco predecible y lleno de cambios, a uno rutinario	1	2	3	4	5	6	7
84. La mayoría de la gente que es importante para mí cree que debo estar en Facebook	1	2	3	4	5	6	7
85. La mayoría de la gente cuyas recomendaciones me gusta seguir, cree que debo estar en Facebook	1	2	3	4	5	6	7
86. La mayoría de la gente que es importante para mí me animaría a estar en Facebook	1	2	3	4	5	6	7
87. La mayoría de la gente cuyas recomendaciones me gusta seguir, me animaría a estar en Facebook	1	2	3	4	5	6	7

Sección 7 Tus estados emocionales en Facebook

Señala el número que se corresponde con tu percepción en la casilla de la derecha.

	Completa-mente en desacuerdo			Ni de acuerdo ni en desa-cuerdo			Completa-mente de acuerdo
	1	2	3	4	5	6	7

Cuando uso Facebook me siento:

88. imaginativo/a
89. flexible
90. original
91. ingenioso/a e inspirado/a
92. creativo/a
93. contento/a y con ganas de entretenerme o divertirme
94. espontáneo/a y natural
95. feliz
96. contento/a
97. complacido/a
98. satisfecho/a
99. frenético/a
100. entusiasmado/a
101. motivado/a
102. apasionado/a

Sección 8 Uso de Facebook

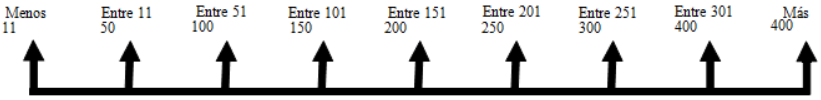
En esta sección hay preguntas sobre las funcionalidades de Facebook y el uso que haces de Facebook. Por favor, sírvete de las siguientes escalas para expresar la situación que mejor se corresponde con tu caso.

	Completa-mente en desacuerdo			Ni de acuerdo ni en desa-cuerdo			Completa-mente de acuerdo
103. Para mí fue fácil aprender a utilizar Facebook	1	2	3	4	5	6	7
104. Me es fácil conseguir que Facebook haga lo que quiero	1	2	3	4	5	6	7
105. La navegación por Facebook es clara y comprensible	1	2	3	4	5	6	7
106. La interacción con Facebook es flexible	1	2	3	4	5	6	7
107. Considero que es fácil convertirse en un usuario experto de Facebook	1	2	3	4	5	6	7
108. Me resulta fácil usar Facebook	1	2	3	4	5	6	7
109. Facebook me permite estar en contacto con mis amigos/as más rápidamente	1	2	3	4	5	6	7
110. Facebook me permite mejorar mi vida social	1	2	3	4	5	6	7
111. Facebook me ayuda a lograr mis objetivos	1	2	3	4	5	6	7
112. Facebook me permite estar en contacto con amigos/as de un modo más efectivo	1	2	3	4	5	6	7
113. Facebook me facilita la gestión de mi vida social	1	2	3	4	5	6	7
114. Considero que Facebook es útil en mi vida	1	2	3	4	5	6	7
115. Usaré Facebook regularmente en el futuro	1	2	3	4	5	6	7
116. Usaré Facebook frecuentemente en el futuro	1	2	3	4	5	6	7
117. Recomendaré el uso de Facebook a otras personas	1	2	3	4	5	6	7

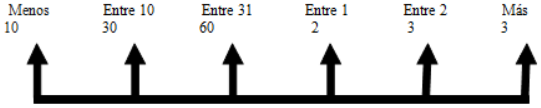
Por favor, continúa en la última página

Por favor, rodea con un círculo el intervalo que corresponda con tu caso

118. Aproximadamente, ¿cuántos amigos/as tienes en Facebook?.....



119. ¿Durante la semana pasada, de promedio, ¿cuánto tiempo al día estuviste en Facebook? .....



120. ¿Desde dónde accedes habitualmente a Facebook?
(Marca con una X tantos dispositivos como uses)

☐ Ordenador ☐ Smartphone (iPhone, Blackberry, Samsung Galaxy...) ☐ Cámara digital ☐ Reproductor de música y video
☐ Tablet ☐ iPod Touch, Samsung Galaxy Player… ☐ Videoconsola ☐ TV con Internet

Sección 9 Tu personalidad de acuerdo con tu estilo de aprendizaje

Selecciona en cada caso la opción que más encaje con tu personalidad - Solo una opción en cada pregunta.

121. Cuando utilizo por primera vez un nuevo dispositivo tecnológico, prefiero: *(Marca con una X una de las tres opciones)*
- leer las instrucciones ☐
- escuchar o pedir una explicación ☐
- comenzar a usarlo y aprender por 'prueba y error' ☐

122. Para enseñar algo a alguien: *(Marca con una X una de las tres opciones)*
- le escribo las instrucciones ☐
- se lo explico verbalmente ☐
- se lo muestro y dejo que lo pruebe ☐

123. Para concentrarme: *(Marca con una X una de las tres opciones)*
- me centro en las palabras o las imágenes que tengo enfrente ☐
- me planteo el problema y las posibles soluciones en mi mente ☐
- me muevo mucho, juego con los lápices o toco otros objetos ☐

124. Recuerdo mejor las cosas: *(Marca con una X una de las tres opciones)*
- escribiendo o consultando anotaciones y material impreso ☐
- diciéndolas en alto o repitiendo mentalmente palabras o puntos clave ☐
- haciendo o practicando la actividad, o imaginando que está hecha ☐

125. Cuando estoy angustiado: *(Marca con una X una de las tres opciones)*
- visualizo los escenarios más desfavorables ☐
- mentalmente hablo del tema que me preocupa ☐
- no puedo estar quieto, jugueteo o me muevo constantemente ☐

126. Me siento especialmente conectado a otras personas por: *(Marca con una X una de las tres opciones)*
- su apariencia ☐
- cómo me hablan ☐
- cómo me hacen sentir ☐

Sección 10 Variables de clasificación

En esta última sección se requiere que contestes a unas preguntas sobre tu persona. Recuerda que estos datos son confidenciales.

127. ¿Eres?..... ☐ Hombre ☐ Mujer
(Por favor, marca con una X)

128. ¿Cuál es tu nacionalidad? ..... *(Espacio a completar)*

129. ¿Cuál es el nivel de estudios superior que has completado?..... ☐ Sin estudios ☐ Estudios primarios ☐ Estudios secundarios ☐ Estudios universitarios

130. ¿Tienes hijos/as?..... ☐ Sí ☐ No

131. En caso de tener hijos/as, ¿usan Facebook?..... ☐ Sí ☐ No

Si tienes algún comentario, por favor, escríbelo a continuación:

Participación en el sorteo

Para premiar tu participación en nuestro estudio hemos creado un sorteo que arrojará un premio ganador de 150€ y tres premios de 50€, todos ellos en cheques regalo de El Corte Inglés. Si deseas participar, por favor indícanos tu dirección de correo electrónico; será utilizada única y exclusivamente para ponernos en contacto contigo si resultas agraciado con alguno de los premios. Puedes consultar las bases del sorteo en la página http://www.fdoral.esy.es**.**

Indícanos por favor tu dirección de correo electrónico..... *(Espacio a completar)*
(Si deseas participar en el sorteo)

Gracias por tu tiempo, ¡te agradecemos muchísimo tu aportación!

Catalan version

Estudi de l'experiència del consumidor a les xarxes socials hedòniques a través del flux i la presència: un model empíric dels seus antecedents i conseqüències

Investigació acadèmica

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Qüestionari per a usuaris de Facebook

Aquest qüestionari s'emmarca dins del projecte de recerca sobre l'experiència en xarxes socials desenvolupat pels professors de la Universitat Oberta de Catalunya Dra. Inma Rodríguez-Ardura i Dr. Antoni Meseguer Artola en col · laboració amb el doctorand per la mateixa universitat Fernando Doral.

Et volem agrair per avançat que completis aquest qüestionari. Tota la informació que ens proporcionis tindrà caràcter confidencial i serà emprada, exclusivament, amb fins acadèmics de recerca.

Com de seguida comprovaràs, el qüestionari consta de múltiples preguntes, les quals han de ser llegides amb deteniment per a poder ser respostes adequadament. Ha estat pensat per a ser complimentat en 20 minuts, aproximadament. No t'apuris, i pren-te el teu temps per respondre.

El qüestionari s'adreça a usuaris adults de Facebook, que utilitzen aquesta xarxa social per raons personals. Per a comprovar que t'ajustes al perfil d'usuari que estem buscant, si us plau contesta abans a les següents preguntes:

01. Quants anys tens? *(Si us plau, marca amb una X)*

- ☐ Més de 55 anys
- ☐ Entre 45 i 54 anys
- ☐ Entre 35 i 44 anys
- ☐ Entre 25 i 34 anys
- ☐ Entre 18 i 24 anys
- ☐ Menys de 18 anys

Si ets menor d'edat, no has de continuar contestant el qüestionari

02. ¿Accedeixes a Facebook com a mínim un cop al mes per motius personals? *(Si us plau, marca amb una X)*

- ☐ Sí
- ☐ No

Si no accedeixes a Facebook, com mínim un cop al mes per motius personals, no has de continuar contestant el qüestionari

Secció 1 La teva sensació de presència

A aquesta primera part del qüestionari trobaràs afirmacions sobre les teves possibles sensacions de 'presència' quan utilitzes Facebook. Quan parlem de 'presència' ens referim a la sensació d''estar allà', a l'entorn virtual que Facebook defineix o la impressió d''estar junt' amb altres usuaris de Facebook, tot i la distància física que us pugui separar.

Si us plau, serveix-te de l'escala que es recull a continuació per expressar el teu grau d'acord o desacord amb les afirmacions sobre les teves sensacions de presencia (encercla un dels números).

	Completa-ment en desacord			Ni d'acord ni en desacord			Completa-ment d'acord
1. Quan utilitzo Facebook m'oblido del que passa al meu voltant	1	2	3	4	5	6	7
2. Quan utilitzo Facebook acostumo a oblidar-me d'on sóc	1	2	3	4	5	6	7
3. Quan acabo d'utilitzar Facebook, sento com si tornés al món real després d'un viatge	1	2	3	4	5	6	7
4. Utilitzar Facebook crea un món nou per a mi i aquest món desapareix de sobte quan deixo de navegar	1	2	3	4	5	6	7
5. Quan utilitzo Facebook, sento que estic en un món creat per les pàgines i recursos de Facebook	1	2	3	4	5	6	7
6. Quan utilitzo Facebook, el meu cos està a l'habitació però la meva ment està dins del món creat per les pàgines i recursos que exploro	1	2	3	4	5	6	7
7. Quan utilitzo Facebook, el món generat per les pàgines i recursos on navego és més real que el propi món real	1	2	3	4	5	6	7
8. Quan em comunico a través de Facebook, imagino al meu interlocutor	1	2	3	4	5	6	7
9. Quan em comunico a través de Facebook, sento que estic tractant amb persones reals i no amb persones abstractes o anònimes	1	2	3	4	5	6	7
10. Les comunicacions a través de Facebook són difícils de distingir de les que tinc cara a cara	1	2	3	4	5	6	7
11. Em podria fer amic/iga d'algú a qui he conegut a través de Facebook	1	2	3	4	5	6	7

Secció 2 La teva imaginació i la transportació narrativa

Aquí et presentem una sèrie d'afirmacions sobre la manera en què interpretes la informació que apareix a Facebook, i les imatges i sensacions que evoques quan utilitzes aquesta xarxa social (per exemple, al visualitzar la fotografia d'un paisatge, al escriure't amb una antiga amistat, etc.).

Si us plau, serveix-te de l'escala que es recull a continuació per expressar el teu grau d'acord o desacord amb les afirmacions que es recullen (encercla un dels números).

Quan navego per les pàgines i recursos a Facebook:	Completa-ment en desacord			Ni d'acord ni en desacord			Completa-ment d'acord
12. em venen moltes imatges a la ment	1	2	3	4	5	6	7
13. les imatges que em venen a la ment són molt nítides	1	2	3	4	5	6	7
14. les imatges que em venen a la ment configuren esdeveniments a la meva ment dels que jo sóc part	1	2	3	4	5	6	7
15. em puc imaginar fàcilment els esdeveniments que tenen lloc o es recullen a Facebook	1	2	3	4	5	6	7
16. sóc capaç d'imaginar històries sobre els llocs, persones o esdeveniments a Facebook	1	2	3	4	5	6	7
17. sóc capaç d'imaginar com seria l'experiència de visitar els llocs, trobar-me amb les persones o assistir als esdeveniments que apareixen a Facebook	1	2	3	4	5	6	7
18. sóc capaç d'imaginar les característiques dels llocs, les persones o els esdeveniments a Facebook	1	2	3	4	5	6	7
19. no m'adono del que passa a l'habitació en la que estic físicament	1	2	3	4	5	6	7

Quan navego per les pàgines i recursos a Facebook:	Completa-ment en desacord			Ni d'acord ni en desacord			Completa-ment d'acord
20. sóc capaç d'imaginar-me als llocs, escenes o històries que apareixen a Facebook ..	**1**	**2**	**3**	**4**	**5**	**6**	**7**
21. em sento mentalment involucrat/ada als relats o escenes als que accedeixo a Facebook	**1**	**2**	**3**	**4**	**5**	**6**	**7**
22. després d'accedir als relats o escenes a Facebook, em costa deixar de pensar en ells	**1**	**2**	**3**	**4**	**5**	**6**	**7**
23. els relats o escenes als que accedeixo a Facebook m'influeixen emocionalment	**1**	**2**	**3**	**4**	**5**	**6**	**7**
24. quan accedeixo als relats o escenes a Facebook deixo volar la imaginació	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Secció 3 Les teves sensacions de flux

Les afirmacions que es recullen en aquesta secció es refereixen a les teves sensacions de flux. El concepte 'flux' s'utilitza per descriure un **estat mental que a vegades experimenten les persones que estan profundament concentrades en alguna activitat**. Un exemple ens l'ofereixen els esportistes professionals quan estan jugant excepcionalment bé i assoleixen un estat mental en què només sembla importar la competició o el joc que estan practicant, de manera que es troben totalment immersos en l'activitat. L'estat de flux no és exclusiu dels atletes: moltes persones reconeixen haver-lo experimentat quan es dediquen als seus *hobbies* o, fins i tot, quan treballen.

Les activitats que condueixen a un estat de flux **absorbeixen completament a la persona** durant un període de temps. Quan una persona està en estat de flux, li sembla que el temps s'atura i que no hi ha res més important. És possible que aquest estat no duri molt de temps, i pot ser que aparegui i desaparegui durant la pràctica de l'activitat. L'estat de flux ha estat descrit com una experiència de gaudiment intrínsec.

Ara que ja coneixes què és l'estat de flux, pensa en les teves sensacions quan fas servir Facebook. Si us plau, llegeix les següents afirmacions i assenyala aquell número comprés entre 1 i 7 que millor expressa la teva situació.

	Completa-ment en desacord			Ni d'acord ni en desacord			Completa-ment d'acord
25. He experimentat alguna vegada l'estat de flux a Facebook	**1**	**2**	**3**	**4**	**5**	**6**	**7**
26. Durant la major part del temps que utilitzo Facebook sento que estic en flux	**1**	**2**	**3**	**4**	**5**	**6**	**7**

	Mai			A vegades			Molt freqüent-ment
27. Generalment, amb quina freqüència diries que experimentes 'estat de flux' quan utilitzes Facebook?	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Secció 4 Els teus sentiments relacionats amb el flux

Ara que ja saps què és l'estat de flux, en aquest epígraf recollim varies afirmacions relacionades amb els sentiments que pots tenir quan estàs en flux.

Si us plau, serveix-te de l'escala que es recull a continuació per expressar el teu grau d'acord o desacord amb les afirmacions.

	Completa-ment en desacord			Ni d'acord ni en desacord			Completa-ment d'acord
28. Sóc molt hàbil utilitzant Facebook.....	**1**	**2**	**3**	**4**	**5**	**6**	**7**
29. Sé com utilitzar els recursos i funcionalitats de Facebook.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
30. Sé una mica més que la majoria d'usuaris sobre com utilitzar Facebook.....	**1**	**2**	**3**	**4**	**5**	**6**	**7**
31. Sé com trobar el que estic buscant a Facebook.....	**1**	**2**	**3**	**4**	**5**	**6**	**7**
32. Quan utilitzo Facebook hi ha una espera molt curta entre les meves accions i la resposta que obtinc	**1**	**2**	**3**	**4**	**5**	**6**	**7**
33. Interactuar amb Facebook és ràpid i divertit.....	**1**	**2**	**3**	**4**	**5**	**6**	**7**
34. Les pàgines i recursos de Facebook amb els que interactuo es carreguen ràpidament.....	**1**	**2**	**3**	**4**	**5**	**6**	**7**

	Completa-ment en desacord			Ni d'acord ni en desacord			Completa-ment d'acord
Facebook...							
35. facilita la comunicació en ambdós sentits	1	2	3	4	5	6	7
36. m'ofereix l'oportunitat de respondre	1	2	3	4	5	6	7
37. facilita la comunicació simultània	1	2	3	4	5	6	7
38. permet la conversa	1	2	3	4	5	6	7
39. anima als meus amics/igues a que contestin	1	2	3	4	5	6	7
40. és efectiu recollint les respostes dels meus amics/igues...	1	2	3	4	5	6	7

Si us plau, senyala el número que correspongui amb la teva percepció a la casella de la dreta.

Quan utilitzo Facebook...	Completa-ment en desacord 1	2	3	Ni d'acord ni en desacord 4	5	6	Completa-ment d'acord 7	
41. estic absort/a en el que faig								
42. estic immers/a intensament en el que faig								
43. la meva atenció està centrada en el que faig								
44. estic concentrat/ada completament en el que faig								
45. tinc la sensació de que controlo les meves accions a Facebook								
46. em sembla que sóc autònom/a, lliure								
47. sento que influeixo								
48. sento que domino								
49. sé clarament què haig de fer								
50. el temps sembla anar molt de pressa a Facebook								
51. tendeixo a perdre la noció del temps a Facebook								

Crec que utilitzar Facebook:	Completa-ment en desacord			Ni d'acord ni en desacord			Completa-ment d'acord
52. és important	1	2	3	4	5	6	7
53. és rellevant	1	2	3	4	5	6	7
54. m'importa	1	2	3	4	5	6	7
55. significa molt per mi	1	2	3	4	5	6	7
56. m'interessa	1	2	3	4	5	6	7
57. representa un repte per mi	1	2	3	4	5	6	7
58. em planteja el repte de donar el millor de mi mateix/a	1	2	3	4	5	6	7
59. posa a prova les meves habilitats	1	2	3	4	5	6	7
60. em permet aprofitar al màxim les meves capacitats	1	2	3	4	5	6	7

Secció 5 Tu i les teves opinions sobre Facebook

	Completa-ment en desacord			Ni d'acord ni en desacord			Completa-ment d'acord
61. M'encanta Facebook	1	2	3	4	5	6	7
62. Em sento bé quan utilitzo Facebook	1	2	3	4	5	6	7
63. Confio en Facebook	1	2	3	4	5	6	7
64. Facebook és necessari per a mi	1	2	3	4	5	6	7

	Completa-ment en desacord			Ni d'acord ni en desacord			Completa-ment d'acord
Facebook és:							
65. interessant	1	2	3	4	5	6	7
66. divertit	1	2	3	4	5	6	7
67. emocionant	1	2	3	4	5	6	7
68. agradable	1	2	3	4	5	6	7

A continuació trobaràs afirmacions que representen opinions generalitzades sobre Facebook, si us plau encercla el número que estigui més proper a la teva pròpia opinió. No hi ha respostes correctes o incorrectes.

Facebook és...

69.	Dolent	1	2	3	4	5	6	7 Bo
70.	Inferior	1	2	3	4	5	6	7 Superior
71.	Desagradable	1	2	3	4	5	6	7 Agradable
72.	Avorrit	1	2	3	4	5	6	7 Interessant
73.	Pobre	1	2	3	4	5	6	7 Excel·lent
74.	Insignificant	1	2	3	4	5	6	7 Valuós
75.	Inútil	1	2	3	4	5	6	7 Útil
76.	Insatisfactori	1	2	3	4	5	6	7 Satisfactori

Secció 6 Tu, el teu nivell d'estimulació òptim i els teus grups de referència

A continuació es recullen varies afirmacions que descriuen el nivell d'estimulació òptim quan es duen a terme activitats diàries (en el món físic o a Facebook) i la influència que altres persones poden tenir en la decisió d'utilitzar o no utilitzar Facebook. Si us plau, utilitza l'escala que es proporciona per a indicar si consideres les descripcions veritables o falses en el teu cas.

	Completa-ment fals			Neutral			Completa-ment veritable
77. M'agrada provar coses noves i diferents en lloc de fer les mateixes coses de sempre	1	2	3	4	5	6	7
78. M'agrada experimentar novetats i canvis a la meva rutina diària.	1	2	3	4	5	6	7
79. M'agraden els treballs que ofereixen canvis, varietat, i viatges, fins i tot si comporten algun tipus de perill	1	2	3	4	5	6	7
80. Contínuament estic buscant noves idees i experiències	1	2	3	4	5	6	7
81. M'agrada estar canviant d'activitat contínuament	1	2	3	4	5	6	7
82. Quan les coses es tornen avorrides, busco experiències noves i poc familiars	1	2	3	4	5	6	7
83. M'estimo més un estil de vida poc predictible i ple de canvis que un de rutinari	1	2	3	4	5	6	7
84. La majoria de gent que és important per mi creu que haig d'estar a Facebook	1	2	3	4	5	6	7
85. La majoria de les persones, les recomanacions de les quals m'agrada seguir, creuen que haig d'estar a Facebook	1	2	3	4	5	6	7
86. La majoria de la gent que és important per mi m'animaria a estar a Facebook	1	2	3	4	5	6	7
87. La majoria de les persones, les recomanacions de les quals m'agrada seguir, m'animaria a estar a Facebook	1	2	3	4	5	6	7

Només queden dues pàgines

Secció 7 Els teus estats emocionals a Facebook

Senyala el número que correspongui amb la teva percepció a la casella de la dreta.

	Completa-ment en desacord			Ni d'acord ni en desacord			Completa-ment d'acord
	1	2	3	4	5	6	7
Quan utilitzo Facebook em sento:							
88. imaginatiu/iva							
89. flexible							
90. original							
91.enginyós/osa i inspirat/da							
92. creatiu/iva							
93. content/a i amb ganes d'entretenir-me o divertir-me							
94. espontani/ània i natural							
95. feliç							
96. content/a							
97. complagut/da							
98. satisfet/a							
99. frenètic/a							
100. entusiasmat/ada							
101. motivat/ada							
102. apassionat/ada							

Secció 8 Ús de Facebook

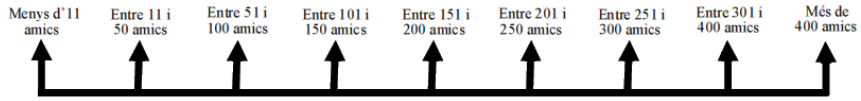
En aquesta secció hi ha preguntes sobre les funcionalitats de Facebook i l'ús que fas de Facebook. Si us plau, serveix-te de les següents escales per a expressar la situació que millor correspon amb el teu cas.

	Completa-ment en desacord			Ni d'acord ni en desa-cord			Completa-ment d'acord
103. Per mi ha estat fàcil aprendre a utilitzar Facebook	1	2	3	4	5	6	7
104. Em resulta fàcil aconseguir que Facebook faci el que vull	1	2	3	4	5	6	7
105. La navegació per Facebook és clara i comprensible	1	2	3	4	5	6	7
106. La interacció amb Facebook és flexible	1	2	3	4	5	6	7
107. Considero que és fàcil tornar-se un usuari expert de Facebook	1	2	3	4	5	6	7
108. Em resulta fàcil usar Facebook	1	2	3	4	5	6	7
109. Facebook em permet estar en contacte amb els meus amics/igues més ràpidament	1	2	3	4	5	6	7
110. Facebook em permet millorar la meva vida social	1	2	3	4	5	6	7
111. Facebook m'ajuda a assolir els meus objectius	1	2	3	4	5	6	7
112. Facebook em permet estar en contacte amb amics/igues de manera més efectiva	1	2	3	4	5	6	7
113. Facebook em facilita la gestió de la meva vida social	1	2	3	4	5	6	7
114. Considero que Facebook és útil a la meva vida	1	2	3	4	5	6	7
115. Utilitzaré Facebook regularment en el futur	1	2	3	4	5	6	7
116. Utilitzaré Facebook freqüentment en el futur	1	2	3	4	5	6	7
117. Recomanaré l'ús de Facebook a d'altres persones	1	2	3	4	5	6	7

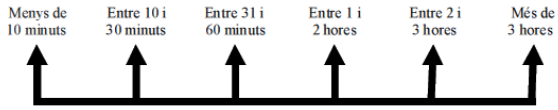
Si us plau, continua a la última pàgina

Si us plau, encercla l'interval que correspongui amb el teu cas

118. Aproximadament, quants amics/igues tens a Facebook? .....



119. Durant la setmana passada, de mitjana, quant de temps al dia vas estar a Facebook? .....



120. Des d'on accedeixes habitualment a Facebook?

(Marca amb una X tants dispositius com facis servir)

☐ Ordinador ☐ Smartphone (iPhone, Blackberry, Samsung Galaxy...) ☐ Càmera digital ☐ Reproductor de música i vídeo
☐ Tablet ☐ iPod Touch, Samsung Galaxy Player... ☐ Videoconsola ☐ TV amb Internet

Secció 9 La teva personalitat d'acord amb el teu estil d'aprenentatge

Selecciona en cada cas l'opció que més encaixi amb la teva personalitat - Només una opció en cada pregunta.

121. Quan faig servir per primer cop un dispositiu tecnològic, m'estimo més: (*Marca amb una X una de les tres opcions)*
- llegir les instruccions ..... ☐
- escoltar o demanar una explicació ..... ☐
- començar a usar-lo i aprendre per 'prova i error' ..... ☐

122. Per ensenyar alguna cosa a algú: (*Marca amb una X una de les tres opcions)*
- li escric les instruccions ..... ☐
- li explico verbalment ..... ☐
- li mostro i deixo que ho provi ..... ☐

123. Per concentrar-me, jo: *(Marca amb una X una de les tres opcions)*
- em centro en les paraules o les imatges que tinc al davant ..... ☐
- em plantejo el problema i les possibles solucions en la meva ment ..... ☐
- em moc molt, jugo amb els llapis o toco d'altres objectes ..... ☐

124. Recordo millor les coses: *(Marca amb una X una de les tres opcions)*
- escrivint o consultant anotacions i material imprès ..... ☐
- dient en alt o repetint mentalment paraules o punts clau ..... ☐
- fent o practicant l'activitat, o imaginant-me que està feta ..... ☐

125. Quan estic angoixat: *(Marca amb una X una de les tres opcions)*
- visualitzo els escenaris més desfavorables ..... ☐
- mentalment parlo del tema que més em preocupa ..... ☐
- no puc estar quiet, joguinejo o em moc constantment ..... ☐

126. Em sento especialment connectat a d'altres persones per: *(Marca amb una X una de les tres opcions)*
- la seva aparença ..... ☐
- com em parlen ..... ☐
- com em fan sentir ..... ☐

Secció 10 Variables de classificació

En aquesta darrera secció se't demana que responguis a unes preguntes sobre la teva persona. Recorda que aquestes dades són confidencials.

127. Ets? ..... ☐ Home ☐ Dona
(Si us plau, marca amb una X)

128. Quina és la teva nacionalitat? ..... *(Espai a completar)*

129. Quin és el nivell d'estudis superior que has assolit?..... ☐ Sense estudis ☐ Estudis primaris ☐ Estudis secundaris ☐ Estudis universitaris

130. Tens fills/es? ..... ☐ Sí ☐ No

131. En cas de tenir fills/es, fan servir Facebook? ..... ☐ Sí ☐ No

Si tens algun comentari, si us plau, escriu-lo a continuació:

Participació en el sorteig

Per premiar la teva participació en el nostre estudi hem creat un sorteig, el qual donarà un premi guanyador de 150€ i tres premis de 50€, tots ells en xecs regal de El Corte Inglés. Si vols participar-hi, si us plau indica'ns la teva adreça de correu electrònic; la utilitzarem únicament i exclusivament per posar-nos en contacte amb tu si guanyes algun dels premis. Pots consultar les bases del sorteig a http://www.fdoral.esy.es***.***

Indica'ns si us plau la teva adreça de correu electrònic .....
(Si vols participar en el sorteig) *(Espai a completar)*

Gràcies pel teu temps, t'agraïm moltíssim la teva aportació!