Revista Latina de Comunicación Social # 069 – Pages 195 to 212
Funded research | DOI: 10.4185/RLCS-2014-1007en | ISSN 1138-5820 | Year 2014

How to cite this article in bibliograhies / References

P Parra, AJ Gordo, SA D'Antonio (2014): "Social research applied to social networks. A methodological innovation for the analysis of Facebook Likes". *Revista Latina de Comunicación Social*, 69, pp. 1195 to 212.
http://www.revistalatinacs.org/069/paper/1008_UCM3/11pen.html
DOI: 10.4185/RLCS-2014-1008en

Social research applied to social networks. A methodological innovation for the analysis of Facebook Likes

Pilar Parra [CV] [ID] [Google Scholar] Universidad Complutense de Madrid (UCM) Spain / pparra@cps.ucm.es

Ángel J. Gordo [ID] [Google Scholar] Universidad Complutense de Madrid (UCM) Spain / ajgordol@cps.ucm.es

Sergio D'Antonio [CV] [ID] [Google Scholar] Universidad Complutense de Madrid (UCM) Spain / sergiodantonio@ucm.es

Abstract
Introduction. Facebook is already part of our social imaginary. Its notoriety has grown exponentially in the Age of Big Data. This article illustrates some of the ways in which social networks might function as a major resource of information for social research. These possibilities are illustrated through the case study of groups of people who drive under the influence of alcohol and drugs. **Method**. This study is based on quantitative and qualitative tools: a short online survey questionnaire made accessible through Facebook, which allows the obtaining of quantitative primary data, and the qualitative analysis of the Facebook Likes (215,232) of the survey participants (n=1,437). **Results**. The analysis shows that three risk groups (high, medium, low) can be differentiated among participants based on their driving patterns under the influence of alcohol and drugs and on the basis of the life styles, which they reflect through theirFacebookLikes, and of classical structural variables. In particular, the high-risk group exhibits preferences and tastes that are closer to social discontent and resistance, and it is the group with the lowest educational level and the highest rate of casual employment. **Conclusions**. This research study shows the usefulness of social networks in the socio-demographic and cultural characterisation of risk groups, which must be a preliminary step to the design and dissemination of prevention and awareness-raising campaigns.

Keywords
Consumption; Facebook; Likes; sociocultural model; road safety.

Contents

Translation by **CA Martínez Arcos**, Ph.D. (Universidad Autónoma de Tamaulipas)

1. Introduction

The crisis of the dotcom companies at the end of the 20th century favoured the transition from the Web 1.0 to the Web 2.0, and the parallel emergence of a new market logic in which users have become producers and consumers of their own contents and products (Jenkins, 2008; O'Reilly, 2007; Lankshear *et al*., 2012). This new logic and communicative architecture generated a huge amount of public and privatedata that is easily available for research.

To this day, research on social networks has privileged the statistical analysis of digital audiences and trending topics through applications like Google Analytics and Shared count. Most of these analytical applications facilitate the statistical treatment of datawithout examining in depth the contexts of production and social meaning of data.

This article presentsa research method that combines and complements the data obtained through classical procedures, such as the survey technique and multivariate statistical analyses, with new data extracted fromsocial networks.This study is based on a survey carried out for the Spanish Directorate General of Traffic (DGT) to examine in depth the socio-cultural profiles of people who drive under the influence of alcohol/drugs. The method used in this study included the design of a survey questionnaire made accessible via Facebookand the extraction of qualitative information available on the Facebook profiles of the survey participants. The questionnaire allowed us to obtain demographic data and specific information about the participants'level and frequency of alcohol/drugs consumption and driving habits. Participants were asked for their permission to access medium-level information registered in theirFacebook profiles, which allowed us to know their cultural, leisure and consumption preferences, through the analysis of their Facebook likes.

The objective of this study is to provide methodological and analytical guidelines that can contribute to the better understandingof the data produced on social networksas a preliminary step to the design and dissemination of awareness-raising and prevention campaigns in relation to, in this case,road safety.

2. Facebook and Likes

As it happened with the first social technologies (instant messaging, P2P, VoIP, etc.), in the European Union,Spain is the country with the highest amounts of time spent on the Internet and, in particular, on the social networks, with an average of 49 minutes per day (Porter Novelli Iberia, 2012). Within the social networks, Facebook is undoubtedly one of the greatest exponents. Of the18

monthly million users Facebook has in Spain, 12 million access it dailythrough computers and mobile phones. In addition, the share of Spanish users that access Facebook via mobile phones (45%) exceeds the world's average (Ciberp@is, 2013).

In the fourth report of the Observatory of Social Networks, Facebook is described as "a network difficult to leave" (The Cocktail Analysis, 2012). Active users feel that there are "too many reasons to be there (all personal contacts, all the features and content, all access pointsin other media, etc.), and people would lose too much if they stopped using it"**[1]**. In the Spanish context, Facebook is hardly threatened by Twitter and the mobile application WhatsApp. The fifth report of the Observatory of Social Networks (The Cocktail Analysis, 2013) confirms Facebook users' decreasing spontaneous behaviour and increasing pragmatism: Facebook is more and more used to contact other people and less and less to post information on the walls. Despite this loss of spontaneity, Facebook is still "the absolute reference, the social network par excellence..." (The Cocktail Analysis, 2013).

Facebook's massive worldwide penetration coincided with the emergence of the Likebutton in February 2009. This option allows users to easily express their preferences in relation to news, music, sports, film, photos, or any commercial product. It also increases the clicks of websites by 150-500% (Peyton, 2012).

One of the pioneeringresearch studies on Facebookwas carried out by Kosinski and his team from the University of Cambridge (Kosinski M, 2013). These researchers designed an app, named MyPersonality, to obtain information from participants through a questionnaire and to obtain access to theirFacebook profile data. The app was launched in June 2007 and by October 2011 nearly 7.5 million people had filled out the questionnaire. Of the total number of participants 40% gave the app permission to access their Facebook likes information, and this allowed researchers to make 36million associations between users and their expressed preference. The text that appears on the cover of this web application, however, sounds more like a warning:

> This wiki is aimed at researchers, although you're welcome to look around and see what we do. We also encourage you to try http://www.YouAreWhatYouLike.com which predicts your personality based on your Facebook Likes. **[2]**

The analysis of the questionnaire answers was related to respondents' Facebook Likes. However, given the vast dispersion of the data obtained, the team of researchers decided to exclude users with low activity in the wall and the Likes with a frequency under 100. Among the conclusions, the researchers stressed thatFacebook Likes allowed them to predict the age, gender, and ideological orientation, as well as sexual orientation and the use of addictive substances (Kosinski, 2013).

2.1. Social networks, social research and cultural practices

The statistical treatment of the number of clicksprovides valuable data, but is far from providing qualitative and contextual information aboutthe people who visit the websites. From this point of viewFacebookLikes are a privileged element insofar as they offer information about users' life styles and habits.

Unlike other types of information that we share online, like the information included in our profile (relationship status, sexual orientation, etc.), the Likes are more immediate and less reflective and,

therefore, closer to "natural" interactions. Therefore, we consider that the uses and consumption choices associated with the Like option respond to the cultural characteristics and the position that individuals occupy in the social space.

Cultural anthropologist Mary Douglas (1998: 96) proposes that"choosing objects and goods is to choose between cultures, choosing one and repudiating the others". According to Douglas, conflict is implicit in every choice since different cultural trends constitute distinctive ways of organising, and each of them is defined in controversy with the others. Meanwhile Pierre Bourdieu (1988) deals with the aesthetic disposition as a distinctive expression of a certain position in the social space in which the academic level (in addition to economic and social capital) can shape different types of relations with the culture and lifestyles.

Tastes and consumption preferences are part of larger processes that operate as a "brand" to define the socio-economic and cultural position. It is not surprising therefore that the Likeoption opened an increasingly hegemonic space in the social networks halfway between the act of sharing and the expression of individual preferences. In this way the Likeoption has moved theindividual expression of a feeling from the personal sphere to the discursive domain of the public sphere. Facebook Likesare now actions rather than feelings, actions of group identities, brand actions, and therefore deeply social and material actions (Peyton, 2012).

3. Case study: the relevance of Facebook Likes

The case study presented hereis part of a research study carried out for the Spanish Directorate General of Traffic (DGT). The overall objectives of said study were to identify the socio-demographic, economic and employment characteristics of peoplewho drive under the influence of alcohol or drugs, and to better understand their cultural, leisure and consumption preferences based on a method that incorporates the use of Facebook (Gordo *et al*., 2012).

The analysis focuses on three dimensions: the socio-economic characteristics of the population groups (age, gender, employment status –which in this case is indicative of the economic status- and cultural level); the levels of alcohol and drugconsumptionof Spanish drivers; and the tastes and preferences expressed on Facebook profiles.

The data on the socio-economic characteristics and drug/alcohol consumption level and driving habits of participants were obtained through a self-administered online questionnaire. On the other hand, the data about participants'tastes and preferences were obtained, with their prior consent, from their Facebookprofiles, in particular, from their list of Likes.

This methodological design required the use of tools to obtain and process data with specific characteristics. Thesetools are describe in the following section in relation to the three main stages of research work: a) creation of the self-administered voluntary-response survey questionnaire and its administration through a purpose-created Facebookapp; b) the application of the questionnaire through the development of a purpose-created ad campaign and; c) the creation of the databases.

a) Online questionnaire and purpose-createdFacebookapp

An online questionnaire delivered through the Facebook platform (a Facebook app) was used to collect data. This questionnaire included three blocks of short questions that aimed to establish the socio-economic profile of respondents, their driving patterns and consumption frequency of psychoactive substances (alcohol, marijuana, hashish, amphetamines, ecstasy and drugs).

The use of the online questionnaire had to deal with two main aspects: first, to convince Facebook users to participate in the survey and, second, to obtain participants' permission to use their Facebook profile information.

Figure 1: Campaign app's advertising

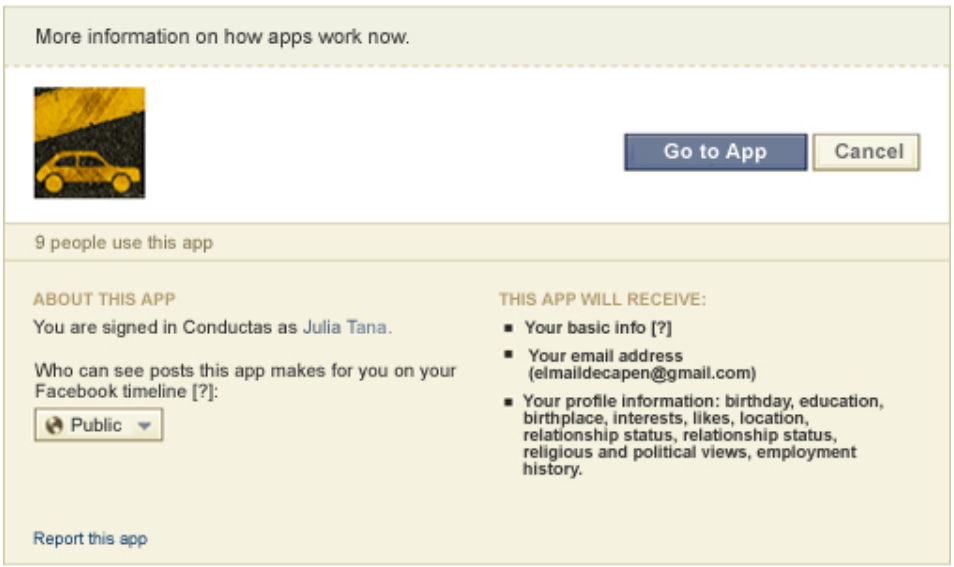

Figure 2: Facebook's information window showing the datausers accept to share with the app

To convince Facebook users to participate in the survey we designed the campaign "What is your car for you?". The procedure was as follows: Facebook users received on their Facebook profile the campaign ad/app named "What is your car for you?" (Figure 1). When users clicked on the ad they were taken to a page that informed them that by accessing to the app they would give access to their Facebook profile information: "this application will receive your basic information, your e-mail address, and your profile information" (Figure 2).

Finally, after clicking on Go to App users were taken to the online questionnaire, which was made available through Facebook and was designed in line with Facebook'saesthetics, as shown in the upper side of the image below. This page was hosted on the servers of Social Noise, a partner in the development of this research project (Figure 3).

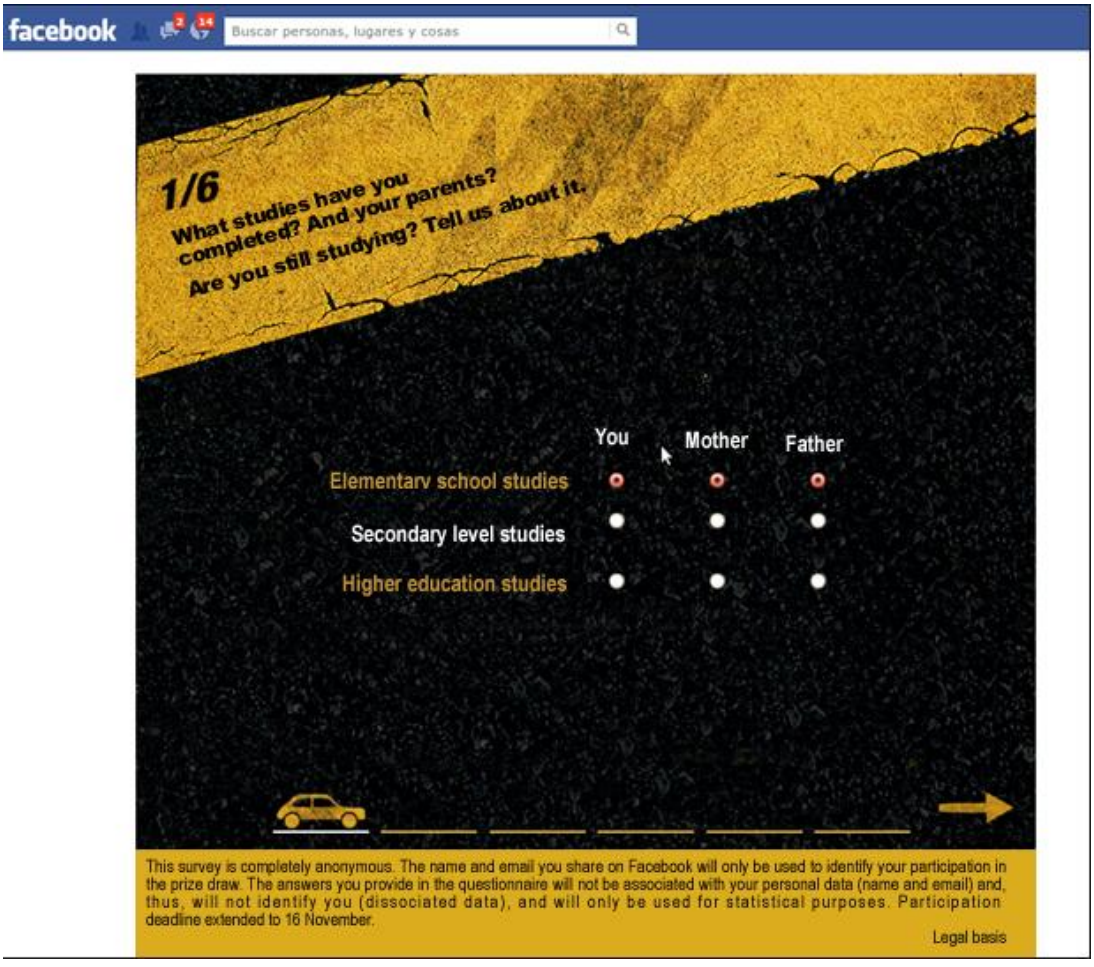

Figure 3: Screenshot of the questionnaire embedded inFacebook

All the pages of the app highlighted that the information provided by users would be treated anonymously and that their answers were collected exclusively for statistical purposes and would not be associated with their personal data (name and email). To ensure users' anonymity, as stated in the

legal basis of the draw, participants' derived andpersonal data (name and email) were put in a database that was only used for the draw, while the rest of the data (survey answers and the Facebookprofile data) were put in a different database disconnected from the previous one.

b) Administration of the questionnaire

The administration of the online questionnaire and the recruitment of the target audiencewere based on Facebook'stargetinglogic. When Facebook sells user data for targeted advertising it offers a specific number of variables through which advertisers can define target groups for theiradvertising messages (Figure 4). These variables are the following:

Variable	Definition of variable
Age	Allows choosing from specific age ranges, if desired.
Gender	Allows choosing from Men, Women, or all genders.
Interests	Allows thetargeting of users based on their interests, provided users have shared that information.
Relationship Status	Allows from choosing users who are single, in a relationship, married, committed, unspecified or in any of the previous categories.
Languages	Allows choosing users according to their language(s).
Education	Allows choosing from four usergroups: Anyone, In High School, In College, and College Grad. In the two last cases, advertisers can specify universities.
Workplaces	Allows choosing users according to theirworkplaces.

Figure 4: Facebook' audience targetingvariables

With the combination of these data Facebook provides an estimated number of the users that meet the selected socio-demographic criteria. In particular, when the target audience of the message is Spanish people over 18 years of age, Facebook informs that, at that time, the target audience reached 16,284,860 people. If the target audience of our advertising message were married people over 18 years of age, then the target audience of the sample would be reduced to 2,184,060 people (figures 5 and 6).

Figure 5: Targeting by age

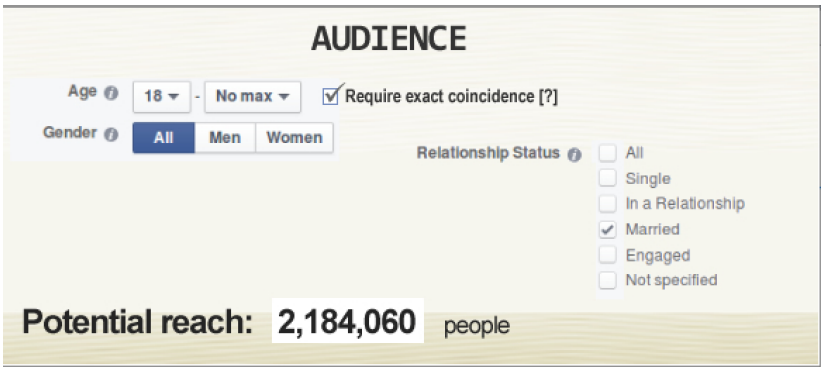

Figure 6: Targeting by age and relationship status

The Facebook platform also indicates the price that must be paid for each time a user clicks on the ad, known as cost per click bid, which ranges from $0.32 to $0.75 USD in the example shown in Figure 7.

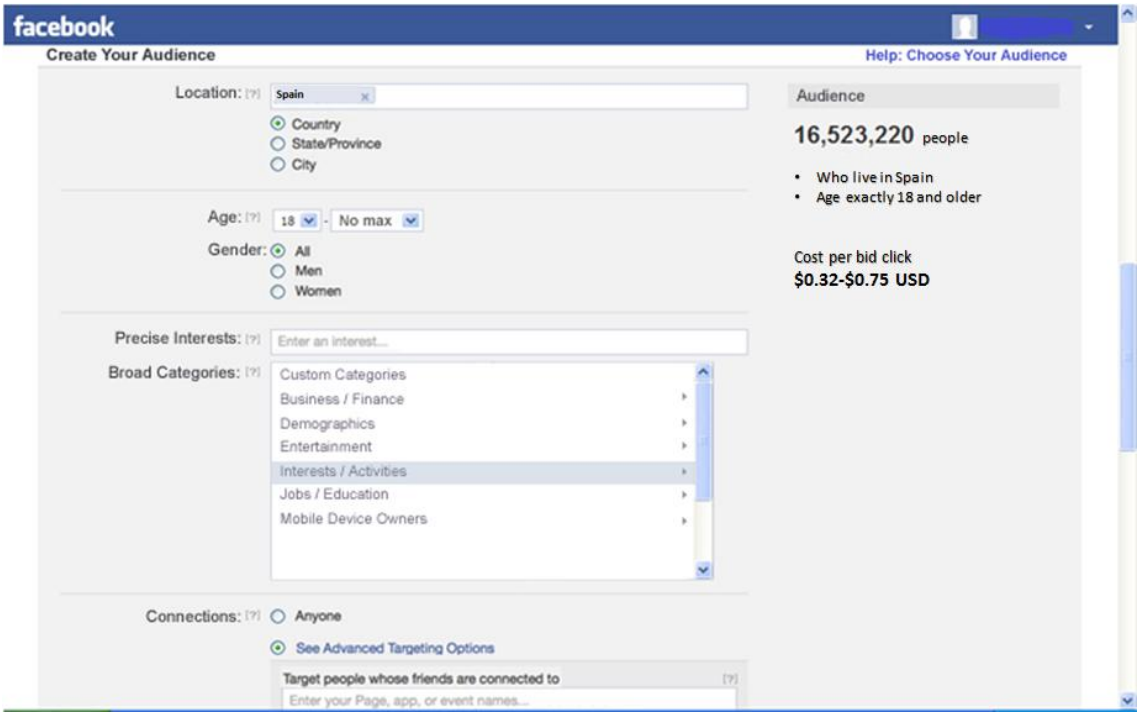

Figure 7: Targeting options on Facebook

The dissemination of ads included in the campaign was developed on the basis of thegender, age and consumption habits of the main risk groups of people who drive under the influence of alcohol/drugs in Spain. This was based on the analysis of the main official statistics and reports. **[3]** The following figure summarisesthe resulting profiles (Figure 8).

Funded research | DOI: 10.4185/RLCS-2014-1007en | ISSN 1138-5820 | Year 2014

Drivers
Who use ALCOHOL
PROFILE 1: 18-24-year-old men
PROFILE 2: 25-29-year-old men
PROFILE 3: 45-64-year-old men
PROFILE 4: 25-44-year-old women
PROFILE 5: 18-24-year-old women
Who use DRUGS (POLY-CONSUMPTION)
PROFILE 6: 18-24-year-old men
PROFILE 7: 25-34-year-old men
PROFILE 8: 18-24-year-old women
PROFILE 9: 35-49-year-old men and women

Figure 8: Risk profiles

Based on the socio-demographic characteristics of the identified profiles we created different ads that included the slogans of the campaign and images of the prizes that users could win.In order to achieve greater participation the ads were adapted to the different profiles in terms of vocabulary, theme, form of communication, and choice of prizes. For example, the following figure shows the ad used to target the group of 25-34-year-old men (Figure 9).

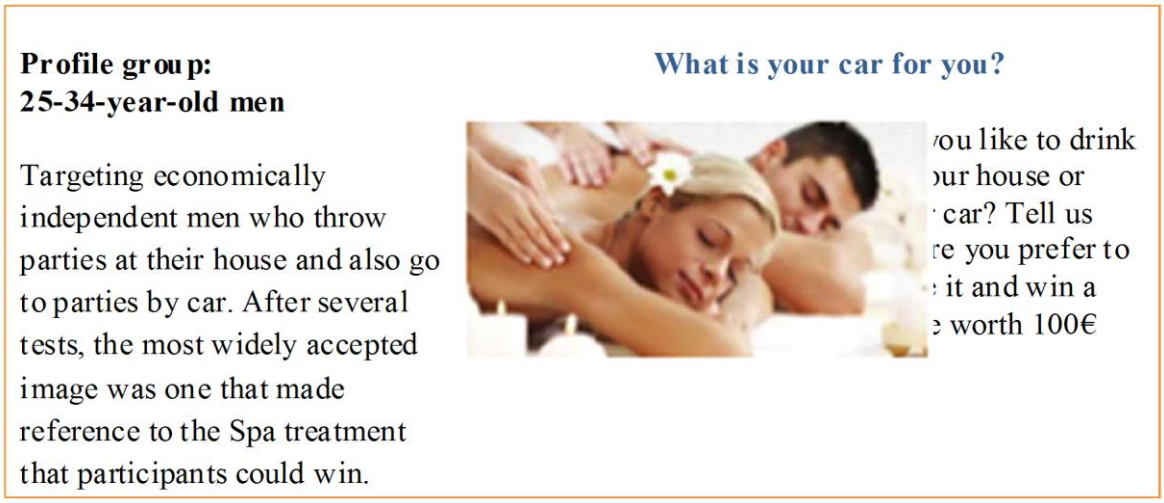

Figure 9: Example of advertisementused in the campaign

The campaign was active from 1 to 16 November 2012. The final sample included a total of 1,437 people with a sampling error of +/-2.5% and a confidence level of 95%. Although 2,087 people accessed the survey, only 1,437 were taken into account in the final sample. This is because users could click on the ad and give permission to access their data, but fail to complete the survey.

c) Creation of databases

The information obtained during the fieldwork was stored in various tables and databases according to the following scheme.

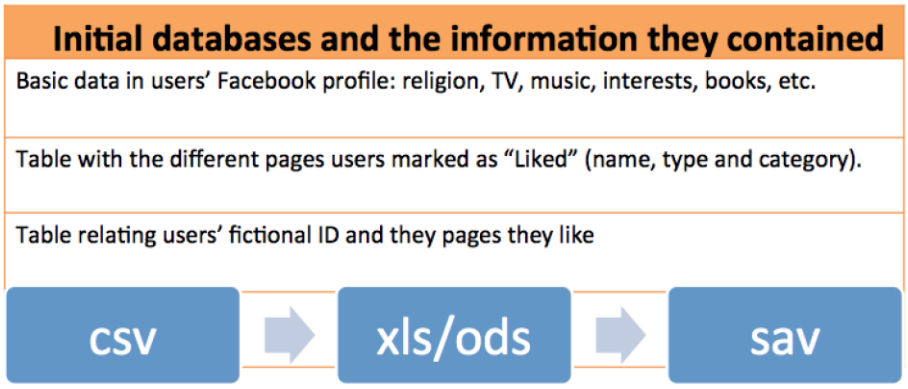

Figure 10: Data obtained from Facebook

For each of these tables (Figure 10) we produced a comma-separated values file (csv), which facilitated the first analysis inspreadsheetsoftware (Microsoft Excel©[xls] and LibreOffice3.6 [ods]) due to its abilities for the purification of fields and creation of new variables. The option of unifying all information in a single file was little operational given the volume of the data and the research objectives. Therefore, two data files were created and later imported to the PASW Statistics© (sav).

The first file includedthe answers to the questionnaire and the basic information corresponding to users' profiles, with the exception of theLiked pages. For its development, we firstly unifiedthe information on educational and employment and then standardised the file containingusers' basic information. Finally, after a debugging process, we unifiedthe basic data, the questionnaire responses, the education and employment information through users'fictitious IDs for their subsequent import to the PASW Statistics package (Figure 10).

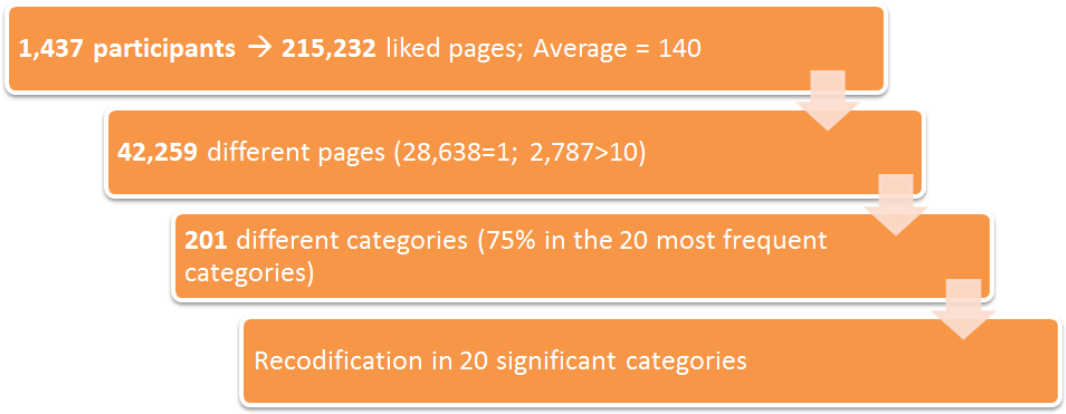

Figure 11: Summary of Liked pages and categories of analysis

The second file included the users' Liked pages. The huge size of the file forced us to reduce the data without reducing their informative potential. Therefore, we initially produced a file with users' Liked pages, their IDs, and the names and categories of those Liked pages. Subsequently, we added two fields corresponding to the gender and membership mixture (risk groups, which are discussed below)

of the associated ID. The added fields allowed us to delete information from people who had not completed the survey. This initial data debugging was of great valuable for the subsequent analysis and the reduction of data since the total number of Liked pages obtained from the sample of 1,437 users amounted to 215,232, with an average of 140 Likes per participant.

As Figure 11 shows, of the total of collectedLikes, 42,259 referred to different pages, and the average frequency of Likesfor 1,437 pages was 5. Moreover, 13% of the total (28,638) corresponded to uniqueLikes and only 1% (2,787) had a frequency greater than 10. At this point, and due to the great dispersion, we noticed that75% of the pages were among the 20 most frequent Likedcategories, of the total of 201 identified categories.

4. Analysis

The analysis included two data sources: the data produced by the brief online self-administered questionnaire given to a sample of Facebookusers, and the information collected from the Facebook profiles of the survey participants. Data provided by the questionnaire included basic socio-demographic and cultural information as well as information about alcohol/drug consumptionfrequency and driving habits. On the other hand, thedata extracted from the Facebookprofiles, which were accessed with permission of users, included users' birthday, gender, religion, place of birth, place of residence, sexual orientation, relationship status, political views, interests, favourite music, TV series and shows, books, quotes, work, education, languages, number of friends, and liked pages.

For the analysis of the questionnaire answers, after the first exploratory analysis of the main variablesthrough frequency tables, wecarried out an analysis with contingency tables (cross tabulation or cross tabs). The first descriptive analysis allowed us to identify preliminary relationships and associations between the dependent variable ("consumption of alcohol and/or drugs and driving") and the independent variables ("age", "level of studies", "employment situation"). After identifying the most discriminating variables (those showing noticeable differences across groups), we carried out a targeting analysis. Targetingwas carried out with a set of techniques that fragmented the samples through a descending sequential process that delimits homogeneous groups according to the criteria of one or more response variables. Subsequently, we performed a cluster analysis (k-means) to group individuals together according to equal or similar characteristics. The three clusters (or risk profiles) were identified in this multivariate analysisaccording to the variables "consumption of alcohol/drugs and driving", "level of studies" and "casual employment":

- The low risk group, with 795 cases.
- The medium risk group with 461 cases.
- The high risk group, with 190 cases.

The final groups werecrossed with the variable "gender"and six final groups (three clusters for each gender) were obtained.

After the identification of the six risk groups we carried out their socio-cultural characterisation through the analysis of their main "like" categories. In order to detect differences and similarities between the subgroups we chose the categories with the highest frequencies and the lowest dispersion. From our perspective of analysis we were interested in detecting the most "Liked" pages

(the trends) of each risk group and subgroup, but also the relative variations with respect to the overall sample. In this way we characterised each group according to the most frequent categories within it, but also according to their more specific and particularcharacteristics with respect to the other groups. This is because the most Liked Facebook pages respond, on many occasions, to widespread and dominant consumption patterns and, therefore, do not discriminate enough. Therefore, we chose to characterise groups according to the most frequent categories within it, but also according to what made it more specific and particular with respect to the Likes of the other two risk groups (Figure 12).

	TOTAL	Low risk		Mediumrisk		High risk	
Category	%	%	DIF	%	DIF	%	DIF
Community	31.0	32.0	1.0	28.5	-2.5	33.1	2.1
Local businesses	9.7	9.8	0.2	9.1	-0.5	10.3	0.7
Companies	9.1	8.7	-0.4	9.8	0.7	8.9	-0.2
Music bands	7.1	6.8	-0.4	8.1	0.9	6.3	-0.8
Products and services	6.1	5.7	-0.4	7.0	0.9	5.6	-0.5
Food and drinks	5.2	5.2	-0.1	5.5	0.2	5.0	-0.2
Websites	4.0	4.1	0.0	3.8	-0.2	4.5	0.4
Public figures	2.6	2.5	-0.2	3.0	0.3	2.6	-0.1
Health and beauty	3.7	3.8	0.1	3.7	0.0	3.4	-0.3
Clothing	3.3	3.3	0.1	3.4	0.1	2.7	-0.6
TV	10.5	10.8	0.3	10.3	-0.2	9.7	-0.8
Cars	0.9	0.8	-0.1	1.1	0.2	0.7	-0.2
Drugs	0.0	0.0	-0.0	0.0	0.0	0.1	0.0
NGOs and similar	2.4	2.1	-0.2	2.6	0.2	2.7	0.4
Books and bookstores	1.2	1.3	0.1	1.0	-0.2	1.2	0.0
Bars and restaurants	0.7	0.6	-0.1	0.8	0.1	0.7	0.1
TOTAL	202,168	106,331		28,126			67,711

Figure 12: Like categories and mean differences (DIF) of each group with respect to the overall percentage

Figure 12 shows that the differences of the groups with respect to the general average follow a similar pattern in the high and low risk groups, which would indicate that they show similar preferences. At the same time, this figure allows us to select categories that would be relegated in the purely statistical analysis. An example of this is the categories of “music” and “food and drinks”, none of which are majority norhave big average differences among the various risk groups. However, the detailed analysis of these preferences provides information that clearly distinguishes the three groups, as it will be shown below.

4.1. Risk profiles

The consumption of the different psychoactive substances shows differences in the three identified risk profiles (high, medium and low) in terms of the socio-demographic and employment variables (average age, gender, education level, employment status, alcohol and drugconsumption) and their relation with the preferences and consumption habits (materialised in specific choices through the social networks), which are understood as indicators of the cultural patterns and lifestyles.

The high-risk group is mostly composed of young women who have an average age of 26 years, havehigher studies, and are unemployed orhave casual employment. This group frequently drives

after drinking or smoking marijuana/hashish or taking ecstasy. The high risk group also includes, although in a smaller percentage, young men most of whom have around 30 years of age, higher studies and casual employment, and drive after drinking and consuming marijuana/hashish or ecstasy.

The medium risk group is mostly composed of men who have an average age of 34 years, are employed with indeterminate work contracts, and occasionally drive after drinking and using ecstasy. This group also includes women who have around 30 years of age, havework contracts of indefinite duration, and usually do not drink before driving, but use ecstasy and drive.

Finally, the low-risk group is composed of the youngest users. On the one hand, it is composed of men who have an average age of 28 years, many of whom are unemployed or are studying, and those who work have casual employment, are uncommon drivers, and almost never drive after drinking, although they occasionally drive after taking ecstasy. This group is also composed of women who have an average age of 25 years, are mostly unemployed, and do not tend to drive after drinking alcohol, although occasionally drive after taking ecstasy.

For the identification of the socio-cultural profile of the three risk groups we took into account themost frequent pages and particularly the pages of interest of the main categories, which included "music", "food and drinks", "companies", "public figures" and "products and services". Due to space limitations and for the purposes of clarity, we will focus on illustrating the logic of our analysis through the brief examination of the first two categories: "music" and "food and drinks".

N = 14,448	SPECIFIC MUSIC	COMMON MUSIC	CHARACTERISATION
LOW RISK WOMEN	Beyoncé, Lady Gaga, Melendi	David Guetta, Rihanna, Adele	INTERNATIONAL POP
HIGH RISK WOMEN	Violadores del Verso, Guns'Roses, Red Hot Chili Peppers	Extremoduro, Pablo Alboran, Melendi	NATIONAL AND INTERNATIONAL ROCK (HARD ROCK), RAP
MEDIUM RISK WOMEN	Estopa, MalditaNerea, Lady Gaga	David Guetta, Estopa, Rihanna	NATIONAL AND INTERNATIONAL POP
LOW RISK MEN	Manu Carrasco, Maná, Sabina	Pablo Alborán, Shakira, Fito y Fitipaldis	NATIONAL POP AND ROCK (SOFT ROCK)
HIGH RISK MEN	AC/DC, Pink Floyd, Metallica	Michael Jackson, The Beatles, AC/DC	INTERNATIONAL ROCK (HARD ROCK)
MEDIUM RISK MEN	Queen, U2, ColdPlay	Queen, Pablo Alborán, Coldplay	INTERNATIONAL POP AND ROCK (SOFT ROCK)

Figure 13: Category of favourite pages:music

Music is one of the classic means use by young people to socialise and develop a differentiated identity and it may reflect more standardised cultural consumption patterns (overall consumption) and other more specific and alternative consumption patterns (consumption of subcultures or distinctive groups) (Mejías and Rodríguez, 2003).

In our research, the selection of artists with more Likes provides very similar results across the three groups in relation to international and mediations, such as Pablo Alborán, Rihanna and David Guetta (Figure 13). However, as shown in the following figure, the "specific music" category highlights differences in relation to age and the different styles.

The high-risk group shows greater preference towards international bands (like AC/DC, Pink Floyd and Metallica), but also towards artists associated with urban subcultures (like *Violadores del verso*, *Extremoduro* and AC/DC) along with a clear preference forrock music. These trends allow us tohypothesise relations between the consumptionhabits and musical preferences of this group and the social positions that are closer to alternative practicesand are distant from the global or standardised consumption habits.

In the medium risk group, men and women show predilection for international pop and rock artists. Unlike the high-risk group, this group likes artists and bands that have the most extensive and sustained careers (*Estopa*, *U2* o *ColdPlay*), which is consistent in part with the average age of this group.

Finally, the men and women from the low-risk group consumevery international and globalised pop music (like Beyoncé, Lady Gaga and Shakira). However, the men in this group show a greater preference towards national and Spanish-language music (*Manu Carrasco*, *Sabina*, *Maná*), which nonetheless are very standardised media music artists and bands of generalised consumption.

Liked "food &drinks" was another category subjected to analysis. The analysis of the distribution of this second category provided information on the consumption trends of the different risk groups and, by extension, of the potential relations with alcohol consumption and driving habits (Figure 14). The most frequent selections made by the three groups include food brands with high media presence andmarket penetration (*Kit Kat*, *Nescafé* and *Coca Cola*), along with beerbrands, mainly among men from the medium and high risk groups.

N = 10,607	SPECIFIC FOOD AND DRINKS	FREQUENT FOOD AND DRINKS	CHARACTERISATION
LOW RISK WOMEN	Starbucks, Conguitos, Pringles	Kit Kat, McDonald's, Coca Cola	YOUTH FOOD AND STANDARD SHOPS
HIGH RISK WOMEN	Red Bull, Burger King, Matutano	Coca Cola, Pepsi, Red Bull	INVIGORATING AND ENERGY DRINKS
MEDIUM RISK WOMEN	Pan Bimbo, Heineken, Coca Cola	Kit Kat, Nescafe, Coca Cola	TOP-BRAND BEERS AND COFFEE/BREAD
LOW RISK MEN	Cruzcampo, Nestlé, Bimbo	NESCAFÉ, Heinz, Bimbo	STANDARD AND YOUTH FOOD (SLICED BREAD AND KETCHUP)
HIGH RISK MEN	Amstel, Cruzcampo, Mahou	NESCAFÉ, Amstel, Donuts	POPULAR BEERS
MEDIUM RISK MEN	Cruzcampo, Sandy, San Miguel	Nescafé, Pepsi, San Miguel	BEER AND SOFT DRINKS

Figure 14: Liked pages category: food and drinks

The analysis of the 'specific preferences' shows that in the high risk group people predominatelylike drinks brands associated with sports and extreme challenges (like *Red Bull*), which are designed to help people stay awake at night and endure working hours. In addition, men from this group liked the pages of popular beer brands like *Cruzcampo* and *Mahou*. The characterisation of the alcoholic drinks liked in this group contrasts with thedrinks liked bythe men from the medium risk group, who show preference for beer brands with greater "distinction" (*Heineken*) and less alcohol (light or

Premium light *Shandy* and *Cruzcampo*), which is indicative of a more controlled consumption. Among the young men of the low risk group, the one less drink and drive habits of the three groups, the liking of beer brands is non-existent.

5. Discussion

This article has illustrated a number of methodological and analytical guidelines associated with the social networks. It has also proposed the applicability of this approach to address social problems, like road safety for example, from a perspective that takes into account people'ssocio-cultural differences and tensions.

One of the main strengths of this type of study is the permission granted by users to access their profile data, which offers a new range of possibilities to carry out research. From the profile data, the Likes provide data of natural occurrenceabout their habits and life styles. Their peculiarity lies in the minorreflectivity it poses in general terms when compared with the profile data. Even so, this type of analysis is complex due to the large volume and dispersion of data and the technical difficulties that this involves, as it has been exemplified throughout the text.

The fieldwork carried out with theFacebook app-questionnaire also allowedparticipants to respond in a common environment while they are surfing within the social network. Self-administered online questionnaires are less intrusive and have a lower rate of socially desirable answers and thisfavoursthe obtaining of better quality responses.

In the context of this research study presented as an applied case study, and based on the analytical guidelines, we characterised culturally the three risk groups of people who drive under the influence of alcohol/drugs. The quantitative analysis of the major socio-demographic characteristics (online questionnaire) along with the qualitative analysis of the cultural and consumption preferences (Likes) has allowed us to define the high risk group as the most exposed to negative social situations according to the relations observed between the indicators of casual employment, the lower level of studies in comparison to the other two groups, and the more distinctive likes and preferences that reflect social discontent and resistance.

These results coincide largely with the findings of other studies that also pay equal attention to the influence of socio-economic factors and the cultural differences in social mobility and road safety (Factor, 2008, 2010; Hasselberg *et al*., 2005; Lupton, 1999; Murray, 1998). Factor *et al*. (2013) has examined the differences in the perception of the legal regulations and performance among the majority and minority groups in Israel. Majority groups associate the procedures and the operation of the Justice system with the infringement of law and criminal behaviour.

However, the perception of minority groups is not related directly or indirectly with law enforcement and criminal behaviour. For these groups the regulations are not relevant, and the police and other institutions responsible for law and order, as representatives of the state, can amplify the levels of social resistance, not because they seem fair or unfair, but because they are representatives of the (hegemonic) state.

6. Conclusions

The previously described research design outlines amethodology that allows the association of two areas that are not commonly associated in the analysis of social networks: the social, demographic and situational characteristics of groups or interest groups (level of studies, average age, employment status and attitudes –in this case regarding the consumption of alcohol and/or drugs and driving–) and their leisure and consumption patterns. This design allowed us to delve into the socio-cultural characterisation of the risk groups that were previously identified through a cluster analysis of the data obtained through the online questionnaire. This design also allows us to observe and examine in depth how the different characteristics of the risk groups in terms of alcohol/drugs consumption and driving, casual employment, and level of studies, are associated with the different habits according to the preferences andlikes expressed on Facebook.

These combinations of data and the model of analysis provide additional information of the interest groups, in this case the groups of drivers who consume alcohol or drugs and drive, and are directed ultimately to establish more comprehensive and sympathetic analyses of the sociocultural tendencies and resistance around safe mobility.

The study of the socio-cultural dimensions of risk groups provides in turn data of great interest for the design of specific awareness-raising campaigns and strategies to "get to know" these same groups through their preferences and tastes, and to "communicate effectively"by using their own codes and social affinities and antagonisms.

- **Funded research:** *Acercamiento a las prácticas de consumo no disociado desde los entornos y redes sociales de pertenencia y sociabilidad* ("Critical approach to non-dissociated consumption practices in environments and social networks that encourage a sense of belonging and sociability"), funded by the Spanish Directorate General of Traffic (DGT) (reference number: 0100DGT21259). Research Plan on Road Safety and Mobility 2012.

7. Notes

[1] http://tcanalysis.com/blog/posts/las-marcas-empiezan-a-encontrar-limites-en-la-utilizacion-de-las-redes-sociales

[2] http://www.mypersonality.org/wiki

[3] The characterisation of the risk groups in alcohol consumption was based primarily on the analysis carried out by the research team of the SARTRE4 Survey (Cestac, 2012). The drug-consuminggroups (poly-drug use) wereidentified based on the study carried out by the Spanish Directorate General of Traffic (DGT) within the framework of the European DRUID-Project (*Driving Under the Influence of Drugs, Alcohol and Medicines*), based on oral fluid testing performed onconsenting participants (DGT, 2011) and the 2007-2008 Survey on the consumption of

psychoactive substances in the workplace in Spain, carried out by the Spanish Drug Observatory (2011).

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How to cite this article in bibliograhies / References

P Parra, AJ Gordo, SA D'Antonio (2014): "Social research applied to social networks. A methodological innovation for the analysis of Facebook Likes". *Revista Latina de Comunicación Social*, 69, pp. 1195 to 212.
http://www.revistalatinacs.org/069/paper/1008_UCM3/11pen.html
DOI: 10.4185/RLCS-2014-1008en

Article received on 29 December 2013. Submitted to pre-review on 3 January. Sent to reviewers on 4 January. Accepted on 15 February 2014. Galley proofs made available to the authors on 21 February 2014. Approved by authors on: 24 February 2014. Published on 26 February 2014.