

Mobile phone use among university students from Isfahan (Iran) and Malaga (Spain). Comparative study in the social and academic field.

The work presents a comparative analysis of mobile phone use by university students from two universities, a group from Isfahan (Iran) and another from Málaga (Spain). To do this, two groups of young people (90 students from the University of Isfahan and 108 students from the University of Málaga) responded to an online survey translated to Farsi, which analyzed several of the items. The data indicate that the presence and use of the mobile is very widespread among the young population. Nine students out of ten keep the mobile on forever. Although differences are observed in the use of applications, times, etc., and in the case of the students of Isfahan it seems to be used more frequently in almost all sections (social networks, informal chat, photographs, etc.) than its Equals of Spain. The results confirm the strong implantation of the mobile phone in the social life of young people but not so much as an academic or professional resource of the same.

Keyword: social media and students, use of mobile phone in academic field, comparative uses among groups of differences countries.

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1. Review general of the implantation of the mobile phone in the present society and in the youth.

Nobody uses smartphones more than us: Spain's leadership in the smartphone market has strengthened in Europe. A 87% of the active phone lines in Spain are used by smartphones.

Consumers now show more dependency for their smartphones: 40% of people look at the screen of their phones more than 50 times a day while 70% use their phone in the first half hour after waking up. Young people are still more "wired" than older people, 95% of them have a smartphone.

According to a study by the Protegeles center (2014), the access to Information and Communication Technologies (TIC) is taking place at younger ages. 30% of Spanish 10 year olds have a mobile phones. When they turn 12, almost 70% of them own one, 83% of 14 year old teens use their smartphones. The use of these technologies is actually showing at younger ages, children from 2 to 3 years access their parent's terminals regularly, using different apps as: games, coloring apps and cartoon TV channels.

As reported by the INE 2017 (Spain's National Institute of Statistics) children from 10 to 15 years tend to use Information and Communication Technologies more and more. 92,4% of them use the computer, 95,1% of them use the Internet and 69,1% of them use mobile phones.

In respect of mobile phones, 25% of 10 year olds use them although 45,2% of 11 year olds use them, when they are 12 a 75%, at 13 years a 83,2%, at 14 years a 92,8% and at 15 years a 94%. Since there are 14, 9 of 10 kids have a phone.

These pieces of information indicate that these devices are present always and from a very young age in every teen and adult life.

As reported by Digital News Report: datum from 2017 confirms by all means this tendency, and for the first time mobile phones have overtaken computers as main devices for consulting digital news. (47% vs 46%)

Also we can notice prominent differences depending on the age of the survey respondents. The mobile phone is the main device used for the majority of people under the age of 44, while computer popularity increases as people get older. The personal computer is the main device used by the 71% of people over 65 years of age.

2. Description of the instrument, application of the online survey and the sample of both groups of students.

This work started after an initial contact held in March 2017 in a visit to the Faculty of Education of Isfahan. For several academic courses my students from the Faculty of Education answered a brief survey online about the use of mobile phone. The survey was structured in several sections with 31 semi-open questions.

To compare how the students, from Malaga and in Isfahan Education Faculties, use phones the original survey was translated and adapted to Farsi and a group of students from the Faculty of Education were invited to respond. Subsequently the data were transferred to a database to analyze them with the PSPP statistical package from a free software.

In this work we presented some of the answers of several items related to the general use and to the use in the academic work of the university. The two samples correspond to students enrolled in the 2016/17 academic year. From the university of Isfahan are included 90 students and from the university of Malaga 118 students enrolled in to two courses of the 1st year of the grade of Education.

As can be seen in the profile of teachers' students, women (figure 1) are more frequent, fact that is very common in education reaching in some countries higher levels, close to 100%, especially in the infant-school degree. As we progress to higher levels of the Education system women have less presence, especially in the case of the university, although if we look at the differences between different faculties the percentages vary.

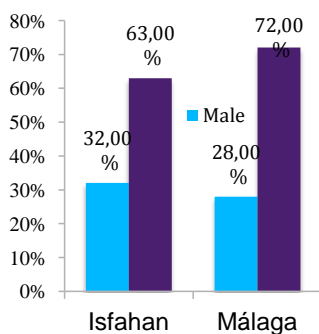


Figure 1

3. Presentation of results in several sections

3.1. General and specific use of the mobile (time, applications, etc.)

Another common element to be treated in this topic is some habits in the use of the cell phone. For example, in relation to having the phone off (figure 2). Virtually nine out of ten students never turn it off and, depending of the cases, the cell phone could be “on” 24 hours.

My cell phone is always o

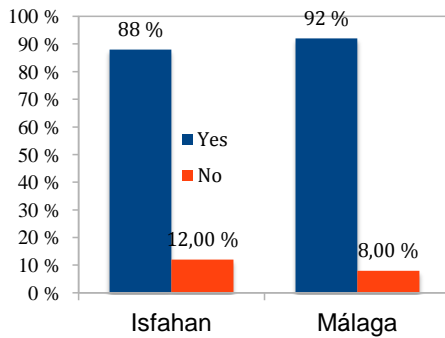


Figure 2

If we observe in what moments the cell is "canceled" we can see that it happens in places and situations very determined. We lists the responses In table 1

When you turn off your cell phone? Indicate in which moments you turn off or not the mobile

	I never delete it	I turn it off in class	I turn it off when I study	I turn it off in places not allowed	I turn it off when I sleep
Isfahan	37,66%	1,30%	,00%	40,26%	20,78%
Málaga	44,04%	,00%	11,93%	29,36%	14,68%
Total	41,40%	,54%	6,99%	33,87%	17,20%

Table: nº 1

According to a report by Dirtendia (2015) the amount of time that people are connected to the Internet from the mobile has increased significantly in the last two years. If in 2012, 28% of Spaniards connected to the Internet for a maximum of 15 minutes a day, today more than the half connects daily for more than half an hour, and 1 in 10 is hooked to their mobile phone during more than four hours a day.

Differences between students indicate that Isfahan's group is more respectful of the rules and turn off their mobile phone in non-permitted places. However, the students of Malaga turn off their mobile when they are studying on the contrary of their colleagues of Isfahan.

Smartphone users prefer to use apps instead of browsing websites. The data show that almost 90% of the time the users are connected on their mobiles from applications. For this reason, the strategy of the companies to be present in the mobiles needs to have more information about the habits of the users. Something that they get by offering free applications that send information of the activity of the users.

The telephone has become an essential object in the world, till the level that the British company SecurEnvoy in 2011, after conducting a study of this topic in the United Kingdom, coined the term nomophobia to define the irrational fear to leave home without a mobile phone. Its consequent antonym is that of nanophilia. The term is an abbreviation of the English expression "no-mobile-phone-phobia" fear of not having mobile. In their study, SecurEnvoy found that two-thirds of the population (66%) were afraid of losing or being without their mobile phone (Garcia-Martinez & Fabila Echaury, 2014)

Point to where you access the Internet mainly

Students	Through a Wi-Fi center / school / other	Through my data plan	I connect where I find free Wifis	Other options
Isfahan	50.65%	40.26%	1.30%	7.79%
Málaga	31.53%	60.36%	3.60%	4.50%
Total	39.36%	52.13%	2.66%	5.85%

Table: n° 2

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Other differences between the two groups correspond to internet access. It seems that due to a greater extension of the networks and the offer in data and voice of the communications companies, the Malaga group access through its network of data and less of other networks or places. (Table n° 2). In turn it can also indicate a greater availability for telephone expenses that parents generally assume within the plans of the operators that include television, internet, etc. The purchase in the section of "communication" is done for the whole family and under that formula the operators compete to gain market share. In some cases, in Spain it is cheaper to subscribe to a package (telephone, television and internet), than to hire a single service.

4. Presence in social networks

A worldwide phenomenon that has grown exponentially has been the emergence of the so-called social networks whose extension and dissemination through all countries and populations is patent. They are hundreds of millions distributed among several dominant companies of the sector. Young people are their main client although the greater / lesser presence of them has evolved over time.

In our research we observe trends that some studies point out. For example, the growth of Instagram versus Facebook due to the change of preferences in young people. It seems that Facebook is used mainly by older people, just like the habit of watching television. Table n° 3

If you are in any social network (Facebook, Tuenti, etc.,) please order of preference:

	First option	Second option	Third option
Isfahan			
Málaga	44 (42%) Instagram 34 (32%) Facebook 19 (18%) Whatsapp 7 (6%) Twitter	37 (39%) Instagram 33 (35%) Facebook 22 (23%) Twitter 2 (2%) Snapchat	24 (35%) Twitter 19 (28%) Facebook 12 (17%) Snapchat 7 (10%) Instagram 2 (3%)Whatsapp (5%) Other

Table: n° 3

In the case of Spain according to the INE's 2017 survey, the participation in social networks such as Facebook, Twitter or Youtube is a common practice for 67.7% of Internet users. The most participatory are students and young people from 16 to 24 years (90%). Women are more active on these platforms than men, with 70% versus 65.2%. In the table nº4 we can see how young people spend a lot of time on social networks

How much time a day do you consider that you use messaging and social networking applications, like WhatsApp, Twitter, Snapchat, Instagram, Facebook, Line, Skype ...?

	I never use this type of applications	Less than 1 hour per day	Between 1 and 3 hours a day	More than 3 hours a day
Isfahan	1,27%	,00%	45,57%	53,16%
Málaga	,00%	4,59%	37,61%	57,80%
Total	,53%	2,66%	40,96%	55,85%

Table: nº 4

WhatsApp is used to find, read, view, share or comment on news from 26% to 32% between users in Spain and YouTube, from 19% to 26%, according to Digital Report (2017). Facebook is still the most popular service to interact online with the news (47%), despite accumulating three years of decline. Twitter drops to 18%. The youngest (30% between 18 and 34 years) are on Twitter (18%) and drive Instagram (6%), which is the fifth most popular network.

Certain Social Networks begin to notice their years of online presence and are affected by the generational change, so that young people as well as distinguish clothes for people older or with more youthful style, also discriminate and prefer now Instagram against Facebook.

5. Use in the academic field and others aspects

When you ask students if they use their smartphone to assist their studies, answers aren't very different from each other. We have chosen some representative answers but some predominate over others:

- "I search for information."*
- "I search web pages where I can find the information I need."*
- "I usually use it to search for the meaning of words I don't know."*
- "I use it to look over my emails from the university and to access the campus."*
- "I use it when I need to find some information like: synonyms, word meanings..."*

The majority of the answers are about "searching" and "information". In fact almost half of the students pointed out those terms. Others show interest for specific terms and word meanings and to a lesser extent the access to email and the virtual campus is indicated.

Thus, with the mobile phone you can access to the great dictionary of terms and content that is hosted on the network, immediately and without major impediments. We get 94 answers in this question. Among all the word "information" appears in 44 replies. To a lesser extent, it refers to "e-mail". In summary, the relationship with his

studies at the university and the mobile refers to processes of searching to complete contents or to consult the dictionary.

Excessive or improper use of mobile phones can be a problem especially in school spaces, as shown by the Pew Research Center, through the Pew Internet and American Life Project (2010) of the United States shows that many schools prohibit the use of cell phones, and despite this, 65% of students attend classes bringing them daily, and 43% of students report that they use the device during class at least once per day. Harman & Sato (2011) warn of the possibility that the level of use of cell phones can have a significant effect on academic performance.

A study of the use of mobile phones among university students in Alicante (2011) indicates that most students also use the mobile for other applications such as "alarm-alarm" (86.2%), "taking pictures" (70.2%), "Listening to music or radio" (61.4%) and the "agenda" (54.8%). It should be remarked that the least service used by the population surveyed is "chatting" since only 14% uses it.

However years later the develop of certain applications has led to an intensive use of contacts by those apps.

General use of cellular / mobile. Point to the extent to which you use it for certain services according to 0, "Nothing", up to 5, "Almost all the time"

	Isfahan	Málaga	Chi-cuadrado Pearson
Make calls	↑		.000
Receive calls	↑		.000
Download games		↑	.000
Download music	↑		.000
Download photos and videos	↑		.000
Post photos on Facebook, internet, etc.	↑		.000
Play with mobile / mobile games	*	*	.110
Check email		↑	.000
Take photos Record videos	↑		.000
Listen to music	↑		.000
Internet access	↑		.000
Participate in social networks (Facebook, etc	↑		.000

Table: nº 5

Table 5 shows how in most of the activities in the network the group of Isfahan spends more time than his colleagues in Malaga. The symbol “↑” indicates significant differences due to greater use.

The time spent on social networking is a symptom of an addiction on the part of young people?

6. Mobile addicts?

According to Pedrero et al (2012), there is no consensus to define mobile addiction. When variables related to socialization have been studied, the results are conflicting. If for some authors the mobile is an instrument that facilitates the creation and maintenance of social networks, increasing social capital, for others its use enhances isolation and feelings of solitude. It is possible that the current boom in mobiles and their capacity to increase their use in the population (especially the most vulnerable groups) are the product of a specific moment of technological development and market dynamics. Some authors suggest that we face the "addiction of the 21st Century" (Ahmed, Qazi and Perji, 2011). But it is also possible that it is a real revolution in the processes of interpersonal communication, for which the previous paradigms lack of explanatory capacity.

In previous research in the early 2000s (Granett et al, 2006; Valor, 2004) with university students there are no problems with the use of the cellphone or addiction, something that seems to have changed in recent years with the new communication and the expansion of digital contact modes among young people.

However, more detailed studies with the variable gender indicate substantial differences. (Choliz, 2009; Nasrallahi, S. et al, 2015; Yassimi-Nejad, P. et al, 2012; Pourrazavi, S. et al, 2012). So women use it to be more in touch with their friends, families, etc. and males for games and entertainment in general.

A report on European countries (2012) already indicates addictive Internet behaviors (CAI). Addictive Internet Behavior (CAI) is defined as a pattern of behavior characterized by loss of control over Internet use. This behavior potentially leads to the isolation and neglect of social relationships, academic activities, recreational activities, health and personal hygiene.

The 1.2% of the sample had CAI (Addictive behavior on the internet), while 12.7% had a CAI risk (13.9% CDI). Dysfunctional Internet Behavior (CDI) is understood as the total number of adolescents who present addictive behavior plus those who are at risk.

Spain, Romania and Poland have a higher prevalence of CDI, while Germany and Iceland have the lowest prevalence in the study. As for the general profile the study indicates that:

- 92% of the total sample is member of at least one Social Network (RRSS)
- 39.4% of adolescents spend at least 2 hours in RRSS on a normal day school
- The use of RRSS for more than 2 hours a day is associated with the CDI
- More girls than boys use RRSS
- Having more than 500 friends online is associated with CDI

7. Conclusions

Lorente (2002) adds an interesting concept, the "virtual brotherhood, to explain the compulsion of the young very young to use the mobile and the SMS to speak with the

vicarious brothers due to the fact of being an only child or not having brothers of the same gender. The emerging family type with one or two children is propitiating this phenomenon that implies the urgent need of the child / youth to have siblings to talk to them. In this period, the use of messaging is very intense. And the mobile is anything but mobile: it is, above all, a personal telephone.

Actually all the authors explain the Mobile-phone boom among young people supporting it on the sociological concepts of group and primary relationships, which provoke among the youth two urgent needs: identity and communication.

It is also important to note the differences between genders. In a study among adolescents about social capital (Bolaños & Sádaba, 2017), it was found that electronic resources and face-to-face contacts complement communication activities. *“According to Bourdieu (1986: 248), the person who coined the term, social capital refers to “the aggregate of actual or potential links to stabilize social relationships that are relatively formal and where there is mutual awareness and acknowledgement”. Bourdieu distinguishes between two elements of social capital: 1) social networks that permit members claim to or the ability to access distinctive resources, and 2) the quantity and quality of these relationships”.*

In the different aspects analyzed it is emphasized that having a cell phone facilitates greater social capital, but also adolescents who prefer face-to-face contacts are the ones with the most social capital. Likewise gender is important in other facets.

So they point *“ WhatsApp particularly impacts the construction of self-image via the use of mobile phones. Especially among females this is significantly related to the importance of comments received and the frequency of updating profile pictures on social networks”.*

Differences by gender and social capital are shown in other studies (Abedini, Zokai, 2009; Ahmadi, 2009; Yassimi, 2012), where differences are observed according to marital status. According to Zokai (2009) *“ the mobile phone has created a new field that Young people have had more opportunities for entertainment, communication and independence, and have helped to strengthen the agency, individuality and power of the youth by facilitating and redressing certain shortcomings in the public sphere. With such power, the mobile phone continues to operate within the framework of gender and class differentials as well as differences in the use of social capital”*

As the results showed, the general profile of both groups is quite similar. In addition the so-called globalization and homogenization of the ways of communication is extend across most of the countries. A minority turn off their mobile phones during the day, but in the rest of the groups the mobile is always present and a constant company either in their hand or in the bag.

However both the cultural roots and the technical infrastructure shade the results. The students of Isfahan speak among themselves more than their colleagues in Malaga, they also spend more time with the lots of possibilities offered by the mobile phone: taking pictures, listening music, etc. It seems that the use of mobile has more social relations and interaction with peers than the students of Malaga. Perhaps if they had

more technical possibilities and more economic capacity they would spend more time dedicated to their favourite hobbies through the mobile.

In the expansion of the system of services through the network it has been seen how little by little companies in the sector increase both bandwidth and extension to all territories and business and / or industrial needs also benefit the population in general by increasing their networks and connectivity. Although the interest is economic at the end, the general population can benefit from the issue of information and communication.

However, the academic use of an instrument of mediation for the information and knowledge should have more attention in the university space and enable both teachers and students an optimization of networks and applications for the benefit of the teaching processes and to achieve better educational results. According to Garcia (2016), "a first step of the mutations that currently has reading practices in a sector that should concern us, the university. The phenomena that are occurring in that hypothetical classroom are two: 1) fragmentation, incomplete and summarized reading, with a marked route; and 2) the illusion that the book "is" the photocopy or is the PDF, as Chartier (2009: 68) prefers to mention that under these parameters "the perception of works as works becomes more difficult" (page 140). -141).

It is said that everything that is not occupied by the school / education, will be occupied by the company (the business). Entertainment and leisure seem to be one of the distinguishing elements of today's capitalist economy, where large-scale entertainment multinationals and social networks want their customers to stay as long as possible.

The struggle for the definition of culture and knowledge is now being fought in electronic networks between powerful multinational companies and against hegemonic groups, among which, the university should be the guarantor and responsible for the promotion of knowledge and professionals involvement in social justice and sustainable development.

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