

**AN EMPIRICAL STUDY  
OF THE  
RECREATIONAL-  
EXPRESSIVE AND  
REFERENTIAL ROLES  
OF THE CELL PHONE  
AMONG YOUNG  
STUDENTS AND  
THEIR POTENTIAL  
APPLICATIONS TO  
ADVERTISING**

**ESTUDIO EMPÍRICO SOBRE  
LAS FUNCIONES LÚDICO-  
EXPRESIVAS Y  
REFERENCIALES DEL  
TELÉFONO MÓVIL POR  
PARTE DE LOS JÓVENES  
DISCENTES Y SUS  
POTENCIALES  
APLICACIONES A LA  
PUBLICIDAD**



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## RESUMEN

El móvil se ha convertido en un medio de adquisición de contenidos persuasivos, establecimiento de relaciones y acceso a la información, por lo que resulta de sumo interés analizar su uso por parte de los jóvenes durante su tiempo de aprendizaje. Al respecto, los objetivos de esta investigación son: Obtener datos porcentuales sobre la distracción que supone el uso del móvil para los discentes, definir sus hábitos respecto a aspectos lúdicos y responsabilidades de estudio en su vida personal y académica, e identificar las tendencias lúdico-expresivas y referenciales. Se ha determinado analizar el discurso español vertido en Twitter. Para ello, se ha utilizado una metodología cuantitativa y cualitativa, con una herramienta de extracción de patrones lingüísticos que permite obtener categorías de significado. La muestra era de 10.000 mensajes en español, procedentes de perfiles de jóvenes, con palabras clave tales como "móvil" y "estudiar" en todas sus posibles derivaciones. La recogida de datos se ha realizado entre el 30 de mayo y el 6 de junio de 2014, coincidiendo con la etapa de comienzo de exámenes. Finalmente, se ha discutido sobre las potenciales aplicaciones de la investigación al campo específico de la publicidad como una posible solución a las necesidades actuales de las marcas, que deben buscar formatos participativos considerando los aspectos lúdicos de los discentes.

### Palabras clave

*Celular / teléfono móvil; jóvenes estudiantes; la movilidad; los docentes; los discentes; las funciones recreativas, roles expresivos; roles referenciales; los exámenes.*

## ABSTRACT

The cell phone has become a means of finding persuasive content, making friends and accessing information. For this reason it is of great interest in analyzing its use by young people during their formative years. Regarding this point, the objectives of the research are: to obtain percentage data on the distraction cell phones cause among students; to define their habits re fun activities and their study responsibility in their personal and academic lives; and to identify leisure-expressive and referential trends. It was decided to analyze the Spanish discourse found on Twitter. To do so, a quantitative and qualitative methodology was used, with a linguistic pattern extraction tool which allows us to obtain categories of meaning. The sample was 10,000 tweets in Spanish, with key words such as "cell" and "study" and all possible derivatives. The data were gathered between 30 May and the 6 June 2014, which coincides with the start of the exam period in Spain. Finally, the potential applications of the research to the specific field of publicity and advertising is discussed as a possible solution to the current needs of the brands, which have to find participative formats taking into account the students' leisure trends.

### Keywords

*Cell / mobile phone; young students, mobility; teachers, learners; recreational roles; expressive roles; referential roles; examinations.*

## **1. Introduction**

A high percentage of students consider the cell phone to be an integral means of communication in their study habits, although many of them believe it to be a distraction. The symbolic dimension of this new means of communication must, firstly, be studied because of its influence on the recreational-expressive and referential roles of the students (García-Galera & Monferrer-Tomás, 2009) and, secondly, because of the responsibility of societal actors on this issue.

## **2. Objectives**

To make an in-depth study of young people's habits and customs regarding their use of the cell phone during study time and examination periods.

## **3. Material and Methods**

In June 2014, Sentisis, a company that carries out content analysis of the social media in Spanish, in collaboration with Tuenti Móvil (the virtual mobile operator focusing on data), analyzed the Twitter conversations of the under-35s on the use of the cell phone as associated with the examination period. Among other conclusions, this study revealed that 33% of the conversations mentioned the "distraction" caused by the cell phone during study hours.

The methodology of the Sentisis-Tuenti Móvil study is as follows: the study presents the analysis of social networks with a combination of statistical methods based on rules applied to the telecommunications sector. This piece of research was developed with data from the Tuenti platform; therefore we have not worked with data obtained directly from the academic area, rather with the data offered second-hand.

This study considers a sample of 10,000 Twitter messages in Spanish from Spanish profiles of people under the age of 35, which included, as key words, the noun “*móvil*” and the verb “*estudiar*” in all its verb tenses. The data was gathered between 30 May and the 6 June 2014, which coincides with the end of classes and the beginning of the exam period.

Of the initial group, 8,102 messages were analyzed, which is coverage of 81.02% of the sample. Of the 8,102 messages analyzed, 10,827 items were obtained, either as content categories or in the form of sentiments (positive and negative). This figure is greater than the total of the messages analyzed because a single message may automatically fit into more than one category.

#### **4. Theoretical framework: Young people’s study habits in a mobile context**

Young people use their cell phones to be constantly linked up, through their access, possession and use (Fortunati & Manganelli, 2002); they also use them to access information in a mobile environment. This generation learns interactively (Ramos,

Herrera & Ramírez, 2010). No time or place is out of the range of their devices, which favors the use of the telephone within a study context. The current tendency is to move from the universe of landlines to mobile phone communication networks (Cebrián, 2009).

Mobility is an advantage if it is used in a proper way, by reshaping the role of the teacher and the learner at almost every stage of education. Being connected constantly may be an educational tool, but is not always beneficial. There is a potential factor for distraction in being connected during study or class time.

During class, in the library, while carrying out group work, it is good to be connected in all and every setting. Multiple channels are chosen and complement one another. At present, multitasking has become a custom for digital natives, who send and receive messages through WhatsApp, text messages, social networks -Facebook or Twitter-, amongst others.

Compared to student habits in earlier decades, learners nowadays juggle their studies with the sensation of being connected with our friends 24/7. This includes the time spent in class. We could say that students habitually multitask. What must be analyzed are the positive and negative aspects offered by communication mobility in educational environments.

In order to deal with the current context of formal education, we must ask ourselves the following research questions: Can cognitive ability for learning, concentration and the use of skills during school hours be developed through the use of the cell phone? Will the cell phone become a distraction for the students?

Although academic studies on mobility, the use of the cell phone and digital natives have already been published, in this specific case we have found very few bibliographical references to the use of the cell phone during study hours or during examinations, either ethically and non-ethically.

The generation that receives information from digital platforms has a different attitude from that of analogical generations. At present, the users are content builders, subject creators, and gather an enormous amount of information from the sources. As students who are experts in social networking, subject to a prodigious amount of data, the present generations have to find and select educational information, development and assimilate it.

Academia must draw closer to young people and learn to analyze and interpret what they like and pursue. Only by understanding and accepting that these generations have a different relationship with the sources from that of people born before the 60s can we advance and persuade present-day students to be interested in educational content. These are generations who have grown up spending hours playing video games. The capacity for concentration has evolved in the last few decades.

Thus, it is no longer a question of searching for and finding suitable information. As Ramos, Herrera and Ramírez (2010) state, basic cognitive skills exist. The elementary ones are: approach, acquisition and recovery of information, organization, analysis, transformation and evaluation. In contrast, the higher cognitive skills may be divided as follows: problem-solving, decision-making, critical thinking and melioration.

Present-day students should be capable of using both the basic and higher skills in order to better exploit information.

Regarding group work and the new learning models, the students use their cell phones habitually do exams or to watch videos on Internet. The advantages of the devices and the interaction with other students offered by IT should be considered. One possible hypothesis is whether the use of the cell phone favors students' teamwork. There are multiple tools which can assist with academic work: the cell phone service, instant messaging and email have opened up an extraordinary communications channel between students which has allowed them to share information, discuss ideas, make decisions and distribute tasks and roles, amongst other activities (Brown, 2006).

In order to understand the context in which knowledge is acquired and used, we propose a taxonomy which allows for research advancement. This classification proposes the establishment of two concepts:

- Ethical<sup>1</sup>.
- Non-ethical.

What defines and limits a student's ethical behavior is defined by the use of the tool within a formal educational environment (that is, explicitly permitted by the teachers).

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<sup>1</sup> Ethics, from the Greek, deals with the search for a good "way of being" or the wisdom of an action. Thus, ethics is part of philosophy, that which disposes practical existence following the representation of Good.

The non-ethical classification is when its use is considered to be outside the conventional rules established within the teaching environment (what is colloquially known as “cheating in exams”, “passing notes between classmates without the teacher’s permission”, “consulting notes during an examination without permission”, “accessing certain Internet sources during the examination”, etc.)

Apart from the above, the brands are interested in the use young people make of cell phones, both in their leisure time and during the acquisition of formal learning. Advertisers are interested in every moment of the day. Consumer habits and customs are the object of study by market research companies. Young people move quickly and, sometimes, the advertisers’ studies barely have time to adapt to market needs, as young people, particularly digital natives, have become a constant challenge for the telecommunication companies.

The set of variables related with the young people who study are: habits, customs, different uses of the cell phone (taking photographs, finding information, recording videos, chatting and listening to music, among others); all this knowledge allows the brands to understand digital natives better, and groups them in *clusters*<sup>2</sup>; this knowledge, through the use of avatars, allows the brands to predict student behavior in the short and medium term. In this way, the brands can personalize communications to a great extent when they are found in digital environments.

We must not forget that the concept of “young people” has changed fundamentally in the last few decades. As Bourdieu (2002) stated, division by ages is arbitrary. The

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<sup>2</sup> Cluster from the definition of the occupational category of the subjects, or those who share a set of similar variables which makes them a homogeneous group.

author suggests that division by ages is directly related with the years spent in education before joining the labor market, thus having access to power. The meaning of the term “young” is essential in limiting the present research.

#### **4.1. Social networks to keep in mind for education**

The world of education must keep in mind that the generation who are at school or at college spend much of their free time on the social networks<sup>3</sup>. It is some time since teachers became aware of the importance of Web 2.0 in students’ lives. In the field of education, several actions have been carried out with social networks. We would like to highlight, amongst others, those carried out by or Nuñez and García-Guardia at the Complutense University of Madrid. The research work was done by putting new energy into a university subject by using Facebook, more specifically by the creation of a micro-site by Professor García-Guardia. The research results led to the following conclusions:

1. The use of social networks by digital natives demands that lecturers/professors should introduce new technologies fit for the languages they use in their teaching. This means verifying whether improving their motivation and contrasting it with traditional techniques will be of assistance.

2. Fluent, constant communication was established, and produced great interactivity between the students on the professors.

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<sup>3</sup> According to De Haro (2010), the social networks are structures composed of people or other human entities that are connected by one or more relationships which may include friendship, work relations, economic exchanges or any other interest in common.

3. The micro-sites on the social networks have an institutional image.

4. The contents of the social network micro-site are very similar to those of newsletters: most of them are long lists of news regarding events occurring in the academic area in an institutional tone.

5. Although the students thought that the use of Facebook would be good for their learning processes before they used it, their interaction with this tool was not so positive (in the case of the University of Stanford, the students are allowed to access contents for learners through the mobile web, Iphone, Ipod touch, and Blackberry).

6. 40 % of the students consider that the social network improves interaction amongst users

7. The students believe that Facebook is a better tool for their distribution of documents once they have used it, compared to their earlier feeling before using it, when they considered that the virtual campus was better.

8. In general, although the two must be improved, a high percentage of students believe that social networks are of assistance for classes, but they would have to be better adapted to the subject matter.

9. The main problem we find is that there is a shortage of possibilities when it comes to uploading audiovisual material and documents together with the important role of the professor in energizing the web. This is what the students expect of the professor. We need to convince the students to interact with the web from a participative perspective.

10. The social networks offer tools to back up classes, but they are not the most suitable tool on their own, they are a complement to a whole series of tools. The use of their characteristics offers an extra value.

11. Schools must indispensably provide IT structures which help to facilitate the introduction of “digital native languages” in order to break with the students’ idea of the social networks as mere pastimes. In the case of schools of communication, the social networks will be used in the work the students will have to do, and they must be aware of this so that they work in class with the tools which they will later use in their professional careers (Nuñez & García-Guardia, 2011).

## 5. Results

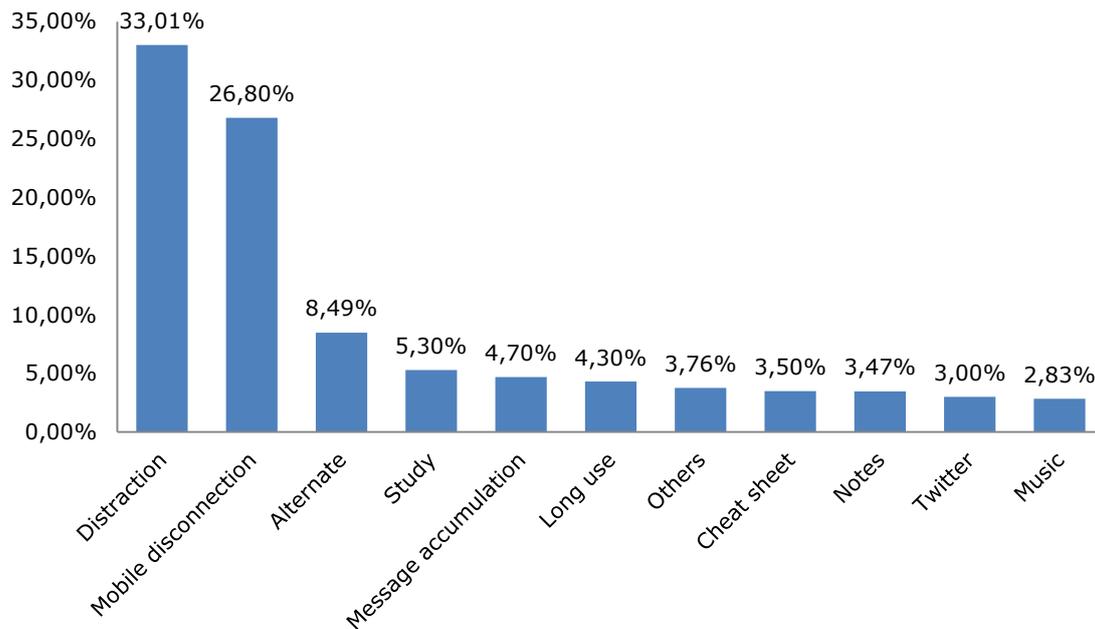
The study has analyzed and interpreted the data obtained from the research carried out by Tuenti Móvil on contents published on Twitter in different situations:

- The use of the cell phone while studying (for example, at home).
- The use of the cell phone in study hours (in class).
- The use of the cell phone during examinations.

When carrying out this study, Sentisis used its linguistic pattern extraction tool which obtains polarity and categories of meaning based on said patterns. In this way, five relevant categories were obtained from the actions the students carried out on their cell phones during the examination period and were published on Twitter:

distraction (33%), disconnecting cell phones (26.8%), prolonged use (4.3%), tweeting (3.3%) and crib sheets (3%).

**Figure 1. Ranking Category**

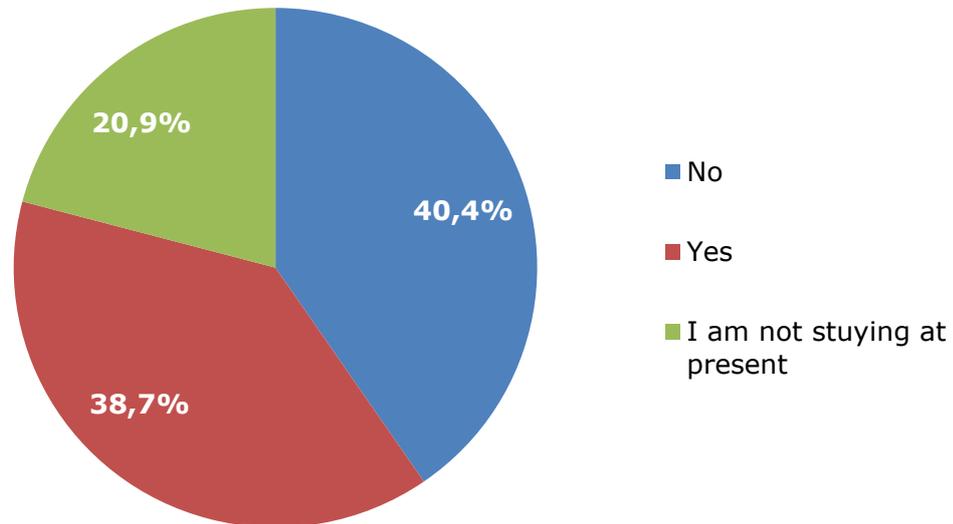


Some of the quotes by the Twitter users which have been analyzed during this study were: "Cell phone for sale. Reason: it doesn't let me study", "Typical. I start studying, I pick up the cell phone and I forget about studying...", "From now on I'm going to switch off my cell phone so I can study for the rest of the week", "I can't stop using my cell phone and study".

In other hand, the most common habits of the users on studying with a cell phone are exchanging notes with classmates (34%) or finding information on Internet (26%). Regarding the issue of whether they use their smart phones to cheat in exams, only 16% state that they do so, and the most common technique is to save crib sheets on their phones (17%).

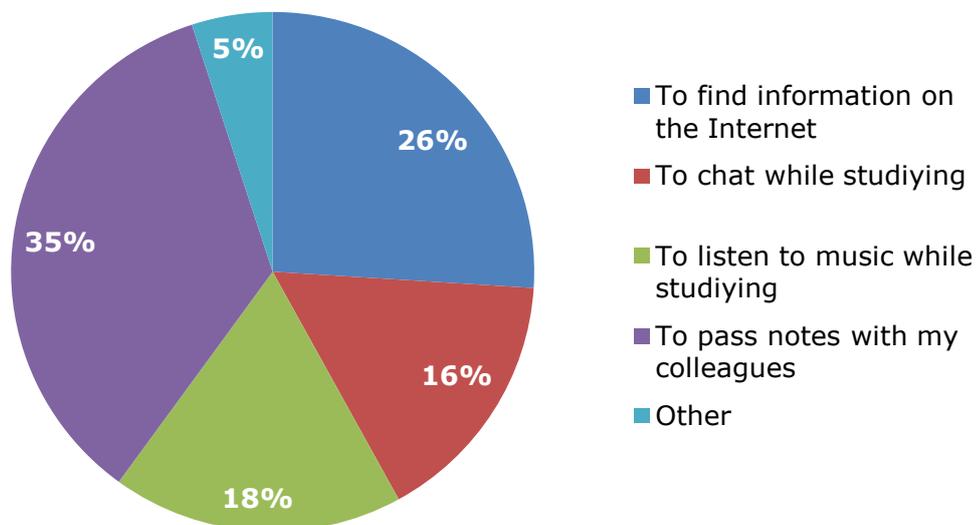
The questions asked and the results are as follows:

**Figure 2. Do you use your phone to study?**



Thus, we can conclude that the two positive and negative percentages are quite close, and that it is not a clearly defined habit.

**Figure 3. What use do you make of your cell phone when studying during the exam period?**

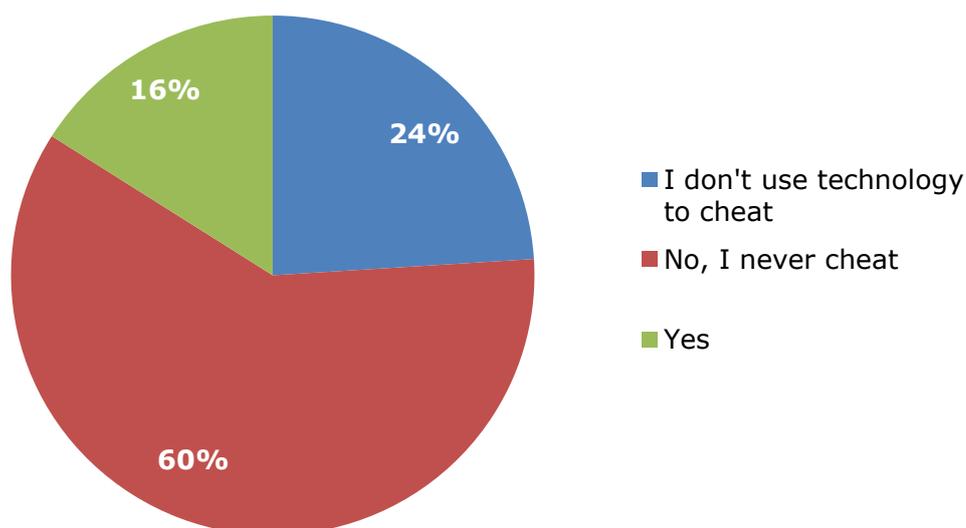


The range of uses is varied and covers expressive and leisure functions together with the acquisition of knowledge; the most common academic use is the exchange of notes. This fact confirms the consolidation of the cell phone as a teaching tool. We must underline the fact that at present the student is expected to consult sources and become a builder of contents based on these sources.

These data reflect the fact that students have integrated the cell phone into their daily life to such an extent that it even forms part of their study habits. Thus, there are four uses that stand out: 8.49% of the statements on Twitter referred to "alternating" study with intermittent queries on their smartphones, 4.7% mentioned an "accumulation of messages" from chat rooms, 5.3% referred to "study" (the smartphone as a study tool) and 3.47% talk about "notes" (the phone as a means of saving or sharing notes).

Regarding the issue of whether the smart phone is a suitable tool for study, we must stress that the answer is mainly affirmative, although this is very close to the number of those who do not use it at all. The question posed is the following:

**Figure 4. Use of smart phone to "cheat in exams"**



However, although the phone is used during exams, the answers show that their use has nothing to do with the non-ethical issues such as cheating. But we must wonder about and take into account the level of honesty in answering the questionnaire presented.

Some examples of tweets in this line have been, "Wanting to study and at a given moment my phone is chock-full of group chats. These things are not compatible", "Starting to study, looking at my phone and finding 528 chat messages", "I am a fan of people who come to the library to study with their cell phones, yes yes" or "OK, I choose to start studying, but every two minutes I'll look at my phone".

On aggregate, "distraction" and "disconnecting the phone" are the categories that generate the greatest volume of information, and "Others\*" includes the messages associated with photographs, friends or games. These data show that the use of the cell phone while studying generates a large amount of conversation on social networks, and that recognizing the content of this conversation, divided into categories, is of assistance in identifying trends amongst young people, who were the social group that make the most use of these technologies.

In short, students use their smartphones mainly to access the contents they have developed for this specific situation. It is worth considering whether it would be appropriate to set exercises during assessment tests in which the cell phone would be used as a reference tool.

## 6. Conclusions

To sum up, the cell phone is seen as a positive means of communication and access to information in the field of education.

With access to Internet during class time, the students can expand on the contents, consult information, find images, etc.

The negative uses are not those with the highest percentages, but they are noteworthy: cheating in examinations, accessing “crib sheets”, etc.

The point on which there is almost unanimous agreement is on having the phone connected during class time, but the students do realize that it may distract them during their hours of study, although a not inconsiderable group uses it in this way.

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