Can We Get Around Rural Isolation?
Adolescents and Mobile Telephones in Rural Areas:
A Case Study of Galicia

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This article presents the findings of research examining a group of secondary school students from an agricultural district in rural Galicia, Spain. Research methods used include quantitative and qualitative techniques such as participant observation. The authors analyze to what degree and for what purpose rural adolescents communicate via mobile telephones and if gender accounts for any significant differences in this usage. Our findings show that rural adolescents are indeed avid users of mobile telephones and suggest that because of this they are getting around the physical inaccessibility and inherent isolation of rural communities.

Keywords: mobile telephone, text message, adolescents, digital divide, rural isolation

Introduction

In Spain, 53% of households were connected to the Internet in 2011, a rate below the EU average of 56%. According to Méndez and Rodríguez (2011), in Spain there are still large differences between rural and urban regions in the use of communication technologies. This was particularly true in Galicia, a historical region with strong rural traditions located in the northwest of the Iberian Peninsula, in which only 40% of families were connected to the Internet. According to the Instituto Nacional de Estadística (INE) of the Spanish Government for 2011, mobile telephone usage is strongly established there, with an average of 1.1 mobile telephones per capita. In Spain, access to the Internet via mobile telephones is widespread, and it is third in European usage rates after Norway and Sweden (Orange Foundation, 2012). However, in Spain, access to high-speed networks through mobile telephone is not possible in rural areas located away from the main communications networks that run near motorways

and railway lines. In the case of Galicia, INE data for 2011 show lower rates of mobile Internet access and lower rates of household Internet access than the national average. In this context, we ask how Galician rural teenagers use mobile telephones to overcome their geographical isolation and what gender differences may exist in this regard.

The isolation of rural communities has been a recurring topic (Copus, 2001). Rural adolescents have never had the same ready access to means of communications as have their urban counterparts because the arrival and spread of innovations and technology to rural areas has always lagged behind cities (Cairncross, 1997; Warf, 2012). Likewise, because of the physical distances and low population densities involved, face-to-face communication has also been limited. Rural isolation plays a large role in explaining why social relationships and communication have always been different in rural and urban areas (Cairncross, 1997; Kalantaridis, 2006). But now we are currently witnessing a new process in which rural adolescents participate substantially in mobile communications, and it is possible that future rural economic development might be shaped less by low rates of accessibility and isolation (Friedman, 2006). Conventional landline telephones were slow to arrive in Galician towns and villages, but our findings show that mobile telephone usage is spreading quickly and with it comes a greater possibility of overcoming the geographical and social isolation and inaccessibility inherent in rural areas.

In a study of Spanish university students by Gordo López (2006), the Internet is seen as a channel of participation and expression, a culture of easy and instantaneous communication readily accessible to young adults and adolescents. In this study, we observe that mobile telephones and text messages also constitute vital elements in the socialization process of secondary school students in rural Galicia. Interesting questions arise as to the extent this technology contributes to bridging the digital divide between rural and urban communities, how and for what purpose it is used, and its relationship to conventional off-line means of communication.

This article presents the findings of research carried out on a group of secondary school students from the district of Santa Comba, an agricultural region found in the interior of A Coruña, Galicia. The fieldwork was conducted during two weeks in March 2011. Our objective was to examine mobile telephone usage among rural adolescents and determine if and to what extent gender accounted for any significant differences in usage, particularly in text messaging. Our research methods include quantitative and qualitative techniques as well as participant observation in group work sessions held in the students' school. Our findings show that mobile communications technology is fully deployed in this rural community.

How Do Today's Adolescents Communicate?

Mobile telephone technology is the most widespread technology used by adolescents today and the one with the greatest functional impact (Martínez, Miguel, & Tortajada, 2009). In a gender comparison, 73% of adolescent Spanish girls have a mobile telephone compared to 64% of adolescent

boys.[2] Mobile telephones have been the focus of both quantitative and qualitative studies on the use of technology by adolescents and the implications this has on the shaping of gender identity. In this study, we analyze the influence of mobile telephones on the shaping of gender identity among adolescents in a rural community and gender differences in the linguistic functions that text messages serve for boys and girls.

The literature on information and communications technology (ICT) points to a persistent digital divide in terms of gender (Castaño, 2008; Katz, 2003; Ochaita, Espinosa, & Gutiérrez, 2011; Wajcman, 2006). Mobile telephones possess a special set of attributes that make them particularly appealing to females, especially adolescents (Ling, 2008). Ling (2004) and Chen and Katz (2009) talk about the mobile telephone and its personal nature as an extension of social life, its role in the formation of identity, its influence in reshaping the temporal and spatial rhythms of social interactions, and its powerful ability to serve as a socializing agent and facilitator of familial and social ties. In addition, there are important factors related to intimacy, privacy, and safety (Castells, Fernández-Ardevol, Qiu, & Sey, 2007; Chen & Katz, 2009; Inkinen, 2008; Katz, 2003; Katz, 2006; Ling, 2008; Martínez et al., 2009; Pertierra, 2006). There are also aspects that adolescents find appealing, including mobile telephone's accessibility, text messaging, multifunctionality (i.e., numerous applications that can be downloaded), and entertainment possibilities (Katz, 2003; Ling, 2004). One must also add that parents, likewise, contribute to usage as they use mobile telephones as a way of keeping tabs on their children. According to a study by the Instituto Nacional de Tecnologías de la Comunicación (INTECO) and Orange Foundation (2010), 88% of Spanish parents are reassured knowing they can contact their children on their mobile telephone. But surprisingly, children do not feel they have any less freedom or privacy in their personal relationships just because their parents can readily contact them. In fact, 69.6% of adolescents think that having a mobile telephone grants them more, not less, autonomy. Adolescents on the road to adulthood are typically involved in a complex and often confusing process of identity formation; they thus place far greater social importance on friends than they do on family (Naval & Sádaba, 2005). In this sense, mobile telephones are a way to communicate with their social network of peers, free from parental control (Ling, 2002).

At the same time, other studies warn against the potential harmful effects of excessive use of mobile telephones by adolescents,[3] who are generally more prone to engage in addictive behavior with ICTs because they are highly sensitive to their social environment and because this technology is so present in their lives. However, adolescent addiction to mobile telephones is currently unsubstantiated.

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2. See Instituto Nacional de Tecnologías de la Comunicación (INTECO) and Orange Foundation (2010), *Estudios sobre seguridad y privacidad en el uso de los servicios móviles por los menores españoles* [Studies on security and privacy in the use of mobile services by Spanish minors] and *Estudio sobre el uso de los smartphones en los menores* [Study on the use of smartphones in the minors]. Retrieved from http://www.inteco.es/Estudios/Estudio_moviles_menores and
http://www.inteco.es/Estudios/Estudio_smartphones_menores

3. For example, see Graner, Beranuy, Sánchez, and Castellana (2007), Qué uso hacen los jóvenes y adolescentes de internet y del móvil? [How youth and adolescents use the Internet and mobile pHone?]. In Luís Álvarez Pousa, Joám Evans Pim, Óscar Crespo Arigbay (Eds.), *Comunicación e xuventude: Actas do Foro Internacional* (pp. 71–90). León, Spain: Arco Libros.

What findings do show is that the majority of adolescents and young adults generally exhibit reasonable use of mobile telephones and the Internet, with only occasional problems. However, misuse of these technologies can have negative consequences for family relationships and academic performance.

Along with their socialization aspect—the possibility of maintaining immediate contact with one's social networks—mobile telephones have also meant a sort of liberation for adolescents from their parents. Moreover, having a mobile telephone is a way for adolescents to define their identity: Not only can they customize their mobile telephone's numerous functional features in so many ways, but they can also create their own codes of communication (Ling, 2002, 2004, 2008). During adolescence, communication with one's peers is fundamental, so much so that the role models once played by parents are played by peers, who now make up an adolescent's main point of reference (Malo, Casas, Figuer, & González, 2006). Social relationships with peers are generally more important for girls than for boys. For Ling (2002), this fact is associated with a type of presocialization, which girls undergo during adolescence for the subsequent roles they will adopt as adult women. These roles are related to the contribution women make to maintaining social and family relationships. As Martínez et al. (2009) confirm, in many cases mobile telephones are not used for actual conversation but rather as a way to search for emotional involvement or to act as a kind of virtual copresence. In other words, one seeks recognition as belonging to the group, confirmation of a long-distance social relationship, being part of the receiver's life, in short, just "being there." This is especially important for the rural adolescents in our study who, because of geographical distances and low population density, frequently cannot physically be copresent with their peers.

Many linguists have found it more appealing to deal with communication than with language and to concern themselves with all those aspects, codes, and phenomena that intervene in the communicative process. For this reason, pragmatics has gained followers among language scholars: The communicative situation surrounding the speakers—their shared understanding of the world, deductions, inferences, and implications—also forms part of the message and gives meaning to its production. We can decipher the meaning of an isolated utterance if we understand the code in which it was produced. But we are only able to understand its true meaning if we know the context and situation in which it was produced; what purpose it serves in interactions; and who used it and under what social, personal, and cultural circumstances. The formal simplification to which written language has been subjected in new channels of technological communication is a consequence of the potential that extralinguistic factors have in the construction of sense. A synthetic written language, seldom subjected to traditional conventions, can still be effective: It keeps the communicative situation in mind and is enriched by visual codes. In this way, it reflects and, in turn, shapes how new generations perceive and structure the world.

Methodology and Field Work

Our case study was conducted in a secondary school in Santa Comba, a rural agricultural district in Galicia located 35 kilometers from Santiago de Compostela (Figure 1). From a socioeconomic perspective, the region of Santa Comba exhibits the classic rural pattern of low demographic density. It has a population of 10,500 inhabitants distributed throughout dozens of farms and villages. Over the last four decades, it has undergone pronounced rural flight and has experienced demographic contraction.

Nonetheless, Santa Comba boasts highly fertile land for cattle ranching and specializes in dairy cattle and milk production. This environment has led to higher-than-average per capita income than other Galician districts and an equal or even higher income than some Galician cities (Instituto Galego de Estatistica, 2008).

We carried out our research in a public secondary school called Terra do Xallas. Our study was only possible thanks to the cooperation of the administrative and teaching staff along with that of the adolescent participants themselves, whose ages ranged from 12 to 15. Given that all the participants were minors, we obtained their parents' consent (through the school's administration) prior to initiating our research. Participant observation and data collection took place in the classroom during four intense work sessions with two focus groups. Our qualitative research method was based on participant observation techniques, with close individual and group interaction among researchers and students alike. Communicating with young adolescents is no easy task for adults outside their social circle. In light of this, we set out to establish an informal and thought provoking working relationship. We communicated the details and objectives of our research openly and clearly, thus creating an atmosphere of mutual trust. Research and data collection took place in two consecutive and complementary phases. We divided the participants into two focus groups: older adolescents (aged 14 to 15) with greater experience using mobile telephones but who were more apprehensive about publicly showing their text messages and younger adolescents (under age 14) with less experience using mobile telephones but who were more willing to share their text messages.

In the first phase of data collection, we formed a focus group to gather the opinions of 19 10th-grade students (7 boys and 12 girls), all between the ages of 14 and 15. The topics discussed included ownership of digital technologies, ability and experience using digital technologies, patterns of interaction and communication, expressions of identity, invasions of privacy, physical and emotional safety, and addictive behavior.

During the discussion, we systematically introduced information about the topics to be discussed. From there, students gave their opinions on, and subjective evaluation of, that information. These opinions and evaluations then served to initiate group dialogues and discussions. So as not to influence the participants' opinions, we strictly limited our participation in these discussions to observation. However, it is possible that our mere presence as researchers might have affected the results.

In the second phase, we collected, observed, and analyzed the mobile text messages of 16 seventh-grade students: 8 boys and 8 girls aged 12 to 14. To do so, students were asked to complete an open survey in which they reproduced the text messages they had sent prior to completing the survey and that were saved in the sent messages area on their mobile telephones. The students themselves chose which messages to include and reproduced the text exactly as it had been sent. In addition, they also rewrote the text as it would appear in full form using formal rules of writing.[4] We also collected data

4. All original text messages and their full-form versions are reproduced herein exactly as they appeared on the surveys without linguistic modification of any kind. The students' full-form versions demonstrate

regarding their age (all were born between 1996 and 1997), sex, language of choice, and approximate time they spend sending text messages daily. Despite the selection process explained in the methodology, we were able to analyze all the SMS generated by all surveyed in a fairly brief period of time. The fieldwork was conducted during two weeks in March of 2011.

Initially, 15 girls and 12 boys agreed to participate. Whereas the interest of the girls held steady throughout the study, boys were not as enthusiastic. Four of the male students who agreed to take part turned in blank surveys. Although we do not know exactly why, we can make the following assumptions as to the factors that might have intervened in their decision:

- They had few or no messages to share because they had to "clean them up" since their parents check their mobile telephones (as the students themselves often allege). In any case, both the participants and their parents or legal guardians were fully aware of this part of the study prior to participating in it.

- They might have doubted the autonomous nature of the survey, fearing that their teachers would recognize their handwriting.

- Masculine language used in texts may be crude, and they might not want anyone outside of their social circle to see it.

- The considerable interest that this activity generated among female students might have caused a sort of distrust among their male peers. One must wonder if boys consider texting "girly" compared to other forms of communication, which would explain their reservations about the survey. If this is indeed true, in a rural environment like the one in this study, male sensitivity to gendered roles is perhaps even greater than that of females when the boys hide their problems of isolation. In the case of some male students, our knowledge of their social and personal circumstances leads us to assume that either they do not have a mobile telephone or they lack a social network of friends with whom to exchange messages. Consequently, so as not to call attention to either situation—especially in front of their classmates—they pretended to participate but turned in blank questionnaires.

- Finally, boys and girls might text for different reasons; that is, the function text messaging serves is gender specific. Boys and girls might choose the type of ICT that best responds to their needs and communicative intentions, and these choices might differ between genders. What purposes text messaging serves for boys and girls is precisely the unknown variable in our study.

Compared to the average number of messages sent by girls (17), the average sent by boys (9) is considerably lower, and their messages are strikingly more brief as well. Consequently, our final data set consisted of 210 text messages: 136 from girls and 74 from boys.

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that they still have not internalized the formal rules of writing or, at least, that they have not taken them very seriously (especially if they are not going to be tested for it).
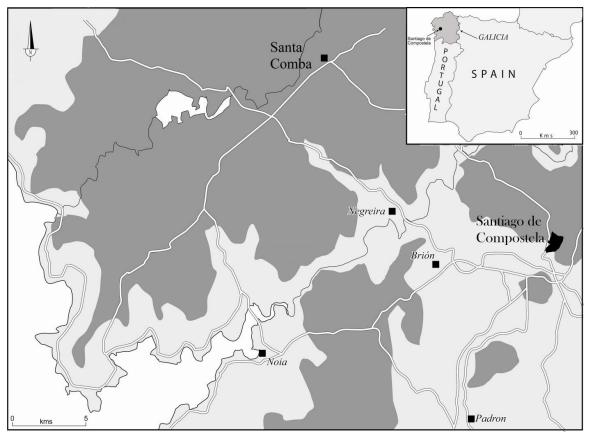
Figure 1. Location of the study area in Galicia, Spain.
Source of map: Ferrás and O'Flanagan (2012).

Adolescents Continually Connected

The findings of this study show that adolescents make use of a wide variety of mobile telephone functions. These include making voice calls, taking and downloading photos, listening to music, exchanging files, and playing games. For the majority of adolescents, mobile telephones represent an extension of their social life, a form of making their presence known and of displaying their personality to their peers. This expression of identity occurs both through the usage of the telephone as well as through the physical telephone itself, which can be customized with faceplates, ringtones, icons, and wallpapers.

For most adolescents, mobile telephones have become an everyday object fully integrated into their lives. All of the adolescents who participated in the focus groups have their own mobile telephone. They do admit, though, that in some places—such as at school—they knowingly run the risk of having the telephone taken away. The following type of comment was heard frequently among the participants: "At

school we can't have mobiles. Either you hide them really well or they get taken away from you. But everyone takes one anyway."

We observed that of all the functions that mobile telephones offer, the one used most is text messaging. However, this has more to do with an economic decision than with a personal choice. The majority of the students surveyed, especially boys, prefer calling their friends rather than making the effort to compose a text message. The following types of comments were frequently heard in the focus group discussions:

- Girl: "We send more messages, lots more, all of them."

- Boy: "I like calling better than texting, but I have to do it [text] because it's cheaper."

- Boy: "I text because it's free with my calling plan, but I call too. I prefer to call, and since I have a contract I always call."

- Girl: "That's because our parents pay for the Internet and we have to pay for our phones. If my mobile was free, I would use it more."

- Boy: "I also prefer to call. I'm really lazy; it takes me forever to type a message."

- Girl: "I'm not lazy about sending texts, but it depends on who you're talking to. There are some people you don't want to talk to, so you send them a text."

What is striking in many cases is that mobile telephones are not used to talk, per se, but rather to set up an alternative contact [5]using another technological device (on the Internet or a landline phone). Here, it is the context that gives meaning to the interaction:

- Girl: "I hardly talk on Tuenti[6]. . . you're never connected at the same time unless you say that you'll call and hang up so they know to connect, and basically when I want to set up a time to talk with people, I do this: I say, 'Give me a missed call [on my mobile] and we can talk on Tuenti.' It's easier. It's like we use our mobile to notify each other about something, but we talk on the Internet. Mobiles are for when you don't have Internet right then."

We observed that girls valued intimacy and privacy in their communications more than boys did and that mobile telephones formed an important part of this private sphere. As one girl explains,

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[5] See Simón, A. (2008). Tuenti, la competencia de Facebook hecha en España [Tuenti, facebook competition made in Spain]. In Cinco Días. Retrieved from
http://cincodias.com/cincodias/2008/04/11/empresas/1207921214_850215.html

> You can't use the Internet to actually talk; you always have to type. And if, let's say, you're talking to someone and are afraid that someone else might see you or something like that, it's better to talk on the phone.

For the majority of the participants, mobile telephones are indispensable to communicate with their peers, not because they can actually say things but because they can maintain contact with each other. Mobile technology is thus seen as an extension of their body; it is never switched off and goes wherever they do. They need to be continually connected:

- Boy: "You take your mobile out of your pocket, and that's it. You always have it with you, and you don't have to be writing when you don't have time."

- Girl: "You take your mobile everywhere. You just grab it and go."

In this sense, using a mobile telephone has more to do with being connected than with the message itself. This gives mobile communication a phatic-appellative function: the caller appeals to the receiver to make his/her presence known while the caller is simultaneously making his/her own presence known. Observe the following comments:

- Boy: "But it's like lots of times, okay, you can think about what you're going to say, but you talk just to be talking; you say silly things just because it's free and you want to use up the messages you've got left [referring to the free message offers by mobile phone companies], and so you write 'Hey! What's up?' and you send it to different numbers."

- Boy: "It depends. Sometimes you call someone and you have to talk the whole time because there are some really boring people out there. You give them your life story, and they don't tell you a single thing. You can call and then not say anything. I'd rather talk on the phone than send a text . . . but talk about something. There are also things that you're embarrassed to talk about on the phone and you end up sending a text. Besides, my parents don't even know how to read texts."

We also observed that only on rare occasion do mobile telephones constitute an invasion of privacy. In fact, it is precisely because their parents can reach them at any time on their mobile telephones that adolescents feel they actually have more freedom of movement and independence.

- Girl: "Since I have my mobile, I feel more independent."

- Girl: "I don't feel like my parents control me more. They don't call me so much, and besides, if I want to arrive a little late, I call them, and that's it. It's better."

- Boy: "It's like, besides, say you want to stay out a little longer, you can let them know at home, and everything's okay. If you don't have your mobile, you have to go home."

- Boy: "Yeah, you can call your parents collect. I don't know . . . Okay, Okay, if you're going to go out with friends, you call so they come pick you up, or you even let them know where you are, that you're on your way, or that you're going to get home late."

As this last statement shows, mobile telephones often provide reassurance and peace of mind since adolescents can always be located by their relatives or for their own safety should they need help or assistance. This view is held more widely by girls:

- Boy: "You're more relaxed because if anything happens at home, they call you and let you know, and then when you get home, on top of it all, they let you have it [laughter]."

- Girl: "I feel safer. I know that if something happens to me I can call my parents so they can come and get me."

In addition, we observed that boys and girls admit to having a certain degree of anxiety when they are without their mobiles. This anxiety, however, is more pronounced for girls, who show far greater dependence on their telephones. In fact, mobile telephones even become a kind of appendage of their body:

- Girl: "At home I don't have coverage anywhere, but I have to have my mobile on me, or I leave it lying somewhere, but it has to be there."

- Girl: "I would die! Without a mobile I just can't live. It's as if they had cut off my arm."

- Boy: "I don't have much coverage either, but I do have it [mobile]. To send texts, I look for a place with coverage, but I don't like being so dependent on it and checking it nonstop like some people, or always checking your pocket just to see if it's there."

- Boy: "If they take my mobile away from me, it's no big deal. There are bikes to go places, or running, or on your scooter . . . no problem."

Analyzing the Functions of Text Messages

The independent variable underlying this study is the role of gender in the construction of identities and gender differences in the mobile text messages. Along with gender, and as a dependent variable that might be influenced by it, we analyzed the linguistic function predominant in each message—that is, for what purpose and with what intention it was produced:

FUNCTION	INTENTION
Appellative	To solicit information or to form requests, instructions, and commands
Expressive	To express feelings and emotions
Phatic	To initiate, maintain, or end communication

Representative   To verify external circumstances

Other variables were also incorporated to determine to what degree they interacted with gender, the linguistic function, or both:

a.   the use of the vocative mood, with a distinction being made between its absence and the use of the denotative and affective vocatives; [7]
b.   the use of the imperative mood for instructions, requests, and commands;
c.   the use of interrogatives;
d.   explicit greetings in the message;
e.   explicit leave-takings in the message; and
f.   the presence of politeness formulas.

Regarding the time that adolescents spend text messaging per day, from the data collected in the surveys, we observed notable differences between boys and girls. Only one of the eight girls spent less than one hour per day texting, whereas only one of the eight boys spent an hour or more. If we assume that the time spent text messaging is directly proportional to the number of messages sent, then we would expect to have seen more messages from the one masculine subject mentioned than from the rest of his male peers. However, he provided only eight messages while the average for the other male participants was nine each.

For adolescents, text messaging is a comfortable, affordable, and quick system that requires little time or money investment. But it does have its limitations: One cannot maintain lengthy and complex exchanges of any substance because of the frequent turn-taking required to do so. But complex communications do not, however, seem to be the function adolescents seek. In fact, sometimes text messages are used, especially by boys, to redirect contact to an Internet chat room. In this way, text messages are used to meet in another communicative space—equally technological but more dynamic—as evidenced by the following messages in the sample:[8]

- RU gona cnnct 2day Are you going to connect today? [*Oxe vas contrte Hoxe vas conectarte*?] This is the only message in our sample from a girl.

- RU on Tuenti? Are you on Tuenti? [*Cnectste ao ;) Conéctaste ao Tuenti*?]

- Gona cnnct & 9:30 I'm going to connect at 9:30 [*Voume conetar as* 9:30 *Voume conectar ás* 9:30]

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7. *Vocative* is the word or expression used to indicate the person or thing being addressed.
8. All English translations of the text messages and their full-form versions used herein are faithful to the originals (to the degree that the special language used in text messaging allows) and have not been edited for grammatical or linguistic accuracy.

All the participants stated that they used Galician in both spoken and written communication, but in a few cases they used Spanish instead. These cases are noteworthy in that Spanish is used for fixed congratulatory formulas or expressions with expressive value (indicated below in bold) and always by female participants, as seen in this example (we have not taken into account cases of lexical interference):

- *"**Feliz Cumpleaños**! **Prdn** x ir atrasd a flicitcion pro nte kdei sn sldo" "**Feliz Cumpleaños**! **Perdón** por ir atrasada a felicitación pero onte quedei sen saldo."* [**Happy Birthday**! Sry 4 l8 wsh bt yday outa minutes **Happy Birthday**! **Sorry** for the belated wish, but yesterday I was out of minutes.]

On occasion, Spanish is also used to express affection: *"**Tqmmm**! + k ndie n mnd!" "**Te quiero mucho**! Más que nadie no mundo."* [**Lysssm** Mre than any1 n the wrld! → **Love you sooo much!** More than anyone in the world.]

I.   *The "Function of the Message" Variable*

The first problem when analyzing the function of messages is the lack of a context—a concrete conversational situation in which to interpret the message—for the communicative exchange itself. Given the way in which we obtained our sample, reconstructing a hypothetical dialogue (necessarily brief and simple) to which each message might contribute a part is impossible. The writing in text messages is radically altered because what is of interest to the sender is the context of the dialogue, why and for whom the message is produced, and what the cheapest way to do it is, both economically and linguistically. Consequently, the sender only needs those formal rules of language (and not very many at that) that guarantee that his or her intention is understood.

And what is this intention? Sometimes it is clearly to open or close an exchange, its function thus being phatic:

- Hi sweet <3. Hru. Hi sweetheart. how are you. [opening] *Oa mi vda. K tl. Hola mi vida. Qué tal.*

- Ciao ksz!! Ciao kisses!! [closing] *Xau bks*!! *Chau bicos*!!

But a greeting does not always indicate this intention. There are messages in which the sender uses a greeting to request something of the receiver. In this case, the message has an appellative function:

- Hi wen u cum cn u brng me d cam cord plz → Hi when you come can you bring me the camera cord please *Oa cando veñas podesme taer o cabl da camar porfa. Ola cando veñas podesme traer o cable da camara porfa.*

There are messages that solicit information and thus have an appellative component, but the sender's true intention seems to be to open a dialogue, a communicative exchange with the receiver. That being the case, the predominant function is then phatic, as in the following message:

- WU hon Dd U C Madri Barsa What's up hon did you see Madrid Barsa [Barcelona]

Here it seems unlikely that the sender is looking for a strict yes/no reply to his question. This initial message, which opens the communication process, aims for a longer exchange and serves as the incitement for it. This desire to talk is sometimes much more explicit, as in "CM Call me." Here, the boy informant urges the receiver to open up a communicative exchange through a more dynamic channel of communication that favors interaction.

The same thing does not occur in the following messages where the sender's main intention is to request information, the messages thus having a predominantly appellative function:

- Cn u tell me the ans 2 exc 5 p 94 sci plz. Can you tell me the answer to exercise 5 on page 94 in Science please.

In this case, two politeness formulas are used: "Can you tell me" and "please."

- Ru goin 2 Sntiag? Plmk hon, ksz Are you going to Santiago? Please let me know hon. Kisses

We can also ask if the presence of politeness formulas is significantly related to the appellative function of the message. We will address this issue later in this study.

There are indeed numerous messages formulated as questions that request information but whose intention in the communicative context of the text message we interpret as being mostly phatic: to stimulate or incite an exchange, confirm a presence, or reaffirm a social relationship:

- WRU&? Where are you at?

- WRUD What are you doing?

- WRUDN What are you doing now?

Messages consisting of only a greeting have this same function, sometimes openly stated by the sender:

- WUP What's up?

- HRU qt? How are you cutie?

- Wuzup hud what's up how ya' doing

- Hu howzit goin Hey you how's it going

- Hwu? Lemeno plz I'm brd Hey what's up? Let me know please I'm bored.

Although the dividing line between the appellative and phatic functions generated the greatest number of doubts and difficulties in this study, on occasion there are other lines that are equally blurred.[9] There are two possible reasons for this:

1. There is a combination of various functions in a single message, sometimes because economy extends to turn-taking itself. Observe these examples:

- Dd u buy a gft 4 Noelia? Lmk. I alrdy dd. Did you buy a gift for Noelia? Let me know. I already did.

- WRUD? Dd u knw dat *sobakiyo* iz d bgst :&) n cls? What are you doing? Did you know that *Sobaquillo* is the biggest pig in class? ["Sobaquillo" is a dismissive nickname of a classmate. "Sobaquillo" means a small armpit].

- WRUD sista? Wan2 C a MoV. mm& 5 n frnt of d apt. What are you doing sister? Do you want to see a movie? Meet me at 5 in front of the apartment.

- Hlo Luchi! 2Day u cnt come cuz I'm nt home, sry. lY. :-) Hi, Lucía! Today you can't come because I'm not home, sorry. Love you (smiley face).

2. There is an absence or misuse of end punctuation that, although not a problem for the participants in the dialogue, impedes our understanding of the text. We cannot assign a function to the following message because the period creates ambiguity:

- Dyk whuz gonna b & d Montouto fstvl. Do you know who's going to be at the Montouto festival.
  Had the message been punctuated correctly to reflect the sender's intention, there would be no doubt as to its function. Observe:
  Expressive: Do you know who's going to be at the Montouto festival!
  Appellative: Do you know who's going to be at the Montouto festival?

The same thing happens in the following message because sometimes in Galician, the only element that distinguishes between the referential and appellative functions is the end punctuation used.

- *Ims a csa da Cultura para acbr o trbllo de Roma*. *Imos a casa da Cultura para acabar o traballo de Roma*.
  Referential: *Imos á casa da Cultura para acabar o traballo de Roma*. [We're going to the Casa da Cultura to finish the paper on Rome.]
  Appellative: *Imos á casa da Cultura para acabar o traballo de Roma*? [Shall we go to the Casa da Cultura to finish the homework on Rome?]

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9. We have coded these cases as nonapplications because it is impossible to assign a sole linguistic function to them.

In summary, we can affirm the following about the function of the text messages:

1. Although the intention behind the text message is always clear for its users, for researchers it is not obvious because it is impossible to know the communicative situation in which the message was produced. So, having the complete sequence of dialogue for each exchange would be highly useful.

2. The absence or misuse of end punctuation does not impede understanding for the people involved in the exchange because it seems to be compensated for by the context, the communicative situation, and their shared understanding of the world. Although the complete dialogues would allow us to verify to what degree ambiguity and confusion arises, none of the messages in our sample refer to any misunderstanding between sender and receiver.

3. The dividing line that has caused the most doubts is that separating (or approximating) the appellative and phatic functions in the formulation of the message. Inciting interaction, prompting a response from another, and inviting someone to make their presence known all have the double function of demanding contact and of opening a channel of communication. Consequently, a significant proportion of the messages have a phatic-appellative function.

4. It seems evident that the production of text messages generates savings both monetarily, which some informants interestingly do not fully exploit, as well as temporally. Pragmatic aspects carry crucial weight in the productivity and efficiency of these types of exchanges. Form has been lost to content because the construction of meaning depends more on the context, the situation, and the shared understanding in which it is produced than on strict formalities.

Let us now observe some examples of those messages that we could indeed clearly code according to their linguistic function and that were included in our statistical analysis. Among the first group are appellative messages that demand some kind of specific information, although their intention is to initiate a communicative exchange. The second group consists of phatic messages that control the communicative interaction, even though on occasion they take on an appellative function to communicate. See Table 1.

Table 1. Appellative and Phatic Functions of Mobile Telephones.

Appellative Function	Phatic Function
Why didn't you go to school? Let me know.	Hey what's up. Let me know please I'm bored.
Come at 17:15. can you?	What's up?
Bring the camera and don't give anything to olga in front of anybody.	What are you doing now
What do "antonela" and "nemias" want to do to me at the store ["nemias" is a nickname]	Yeah, we'd better stop I'm using up all my minutes. Ciaooo [belly laugh]
Are you going to Santiago? Please let me know hon kisses.	Abbreviate for crying out loud!!
Hi when you come can you bring me the camera cord please.	What are you doing?
Bring me the tennis balls please they're on the coffee table.	Hi Lucia. [laughter]
What's up hon did you see Madri Barsa [Madrid-Barcelona football match]	Hi beautiful! Can't talk now.
What's up did you see the film on Channel 3	Tell me something please.

Here are some of the messages coded as having a referential or expressive function:

Referential function	Expressive function
They punished me and won't let me go out	Hey sweetie! That's life! No one wanted you to go.
The English ones are on page 32 of the workbook	Sorry it's just that I'm really embarrassed
playing on the PlayStation	I love you so much! More than anyone in the world.

II.   The Correlation Between the Function of the Message and Gender

We correlated gender with the functions of the messages, which form the independent and dependent variables, respectively. To do so, we used VARBRUL computer software (Goldvarb X for Windows).[10] The findings of how these two variables interact with each other are highly significant:

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10. Goldvarb X is a software package that is widely used for quantitative studies on linguistic variation. It works with the statistical model of multiple regressions. All the VARBRUL applications are free. The one used in this study can be downloaded along with its user manual at

VARBRUL, through multiple regression analysis, reached convergence in the fifth iteration. An analysis of the cross-tabulation tables (Table 2) shows that 45.7% of the messages have an appellative function, 21.4% phatic, 17.1% representative, and 15.7% expressive. In terms of gender, the most significant differences occur with the appellative, phatic, and expressive functions: boys sent 65% of the appellative messages, compared to 34.4% sent by girls. These percentages are reversed for messages with a phatic function: 63.3% sent by girls, compared to 36.7% by boys. The expressive function is much more frequent among girls (77% compared to 23%), and the representative function is the same (50%) for both sexes. More than 140 of 210 messages analyzed used an imperative or an interrogative; 70 were from boys and 70 from girls.

In addition, we identified two basic linguistic resources used in text messages to express appellative intentions: the interrogative and the imperative (Table 3). Of the 42 appellative messages sent by boys, 32 contained an interrogative and 10 an imperative function. Cross tabulation of the variables interrogative + imperative yielded only one occasion where the two variables occur together. These results indicate that boys prefer the interrogative over the imperative. Girls sent 22 messages with an appellative function, 21 formulated with an interrogative, and 9 with an imperative, the two variables occurring in at least 9 messages. These findings thus indicate that the use of an interrogative plus an imperative for the appellative function is more frequent among girls.[11]

We correlated gender and the use of politeness formulas and their relationship to the appellative function. The statistical analysis of this variable did not yield significant results given the low number of occurrences of these formulas. It seems there is little room for courtesy in adolescents' text messages: only 11% contained expressions such as please, thanks, or a modal verb with an infinitive ("can you tell me"). Girls sent 75% of these messages.

We likewise examined if the use of the vocative was used to tone down the appellative force of the message and coded its use by differentiating between the absence of the vocative and the presence of a denotative or affective vocative. Here, the findings were equally insignificant since 80.5% of the 140 messages analyzed lack a vocative of any kind. Only 26 contained a vocative, 19 of which were affective ("cutie," "hon," "beautiful," "sexy," "sweetie") and 7 denotative (the receiver's name). There are also no notable gender differences in the use of the affective vocative (8 cases by boys and 11 by girls). Likewise, the presence of the vocative is not associated with the appellative function of the message given that of the 19 messages that contained affective vocatives, 10 were phatic, 5 appellative, and 2 expressive. The 7 denotative vocatives that appeared in the sample belong to messages with diverse linguistic functions.

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http://individual.utoronto.ca/tagliamonte/goldvarb.htm. A complete description of this application and its use in sociolinguistic research is found in Moreno Fernández (1994).

11. The use of a question mark is not always necessary to identify this function. Example: "*Despois queres vir comprar a tarde conmigo*"[Later do you want to go shopping in the afternoon with me]. The modal verb "*querer*" (want) in the second person singular is sufficient to assign an appellative-interrogative value to the utterance.

Table 2. Text Messages by Gender and Linguistic Function.

Linguistic Function	Girls No. (% of N)	Boys No. (% of N)	All Subjects N (% of N)
Appellative	22 (34.4)	42 (65.6)	64 (45.7)
Expressive	17 (77.3)	5 (22.7)	22 (15.7)
Phatic	19 (63.3)	11 (36.7)	30 (21.4)
Representative	12 (50)	12 (50)	24 (17.1)
Ns	70	70	140

VARBRUL output: Convergence at iteration 5; Input 0.503;
Group # 1—r: 0.497, a: 0.341, f: 0.630, e: 0.770;
Log likelihood = −98.806.

Table 3. Text Messages by Gender, Linguistic Function, and Linguistic Resource Used.

Function by Gender	Number of Messages Using an Imperative			Number of Messages Using an Interrogative		
	Not Used	Used	N	Not Used	Used	N
Appellative						
Girls	13	9	22	1	21	22
Boys	32	10	42	10	32	42
Expressive						
Girls	16	1	17	15	1	16
Boys	5	0	5	5	0	5
Phatic						
Girls	18	1	19	7	12	19
Boys	11	0	11	4	7	11
Representative						
Girls	12	0	12	12	0	12
Boys	12	0	12	12	0	12
N						
Girls	59	11	70	35	35	70
Boys	60	10	70	31	39	70

Conclusion

For the rural adolescents in our sample, mobile telephones have become an integral part of daily life, which they use primarily to exchange text messages. They feel that having a mobile telephone gives them greater independence from their parents and allows them to become socially integrated in their peer groups. Girls are more dependent on their mobile telephones than are boys, and they value the intimacy this technology allows them to have in their social relationships more as well. They also place greater value on knowing their relatives can locate them at any time and the sense of security this gives them. Although both boys and girls expressed feeling a certain amount of anxiety if they are deprived of their mobiles, girls experience this anxiety to a greater degree.

When complex communicative exchanges are what adolescents seek, text messages serve to set up a time and place to meet or to redirect interaction to another channel of communication. But even though adolescents prefer other systems of communication (such as voice calls or Internet chat rooms), they are more inclined to use mobile text messaging because it is quick and affordable. It is precisely these two features that adolescents take advantage of to be permanently connected to their peers. What is important for adolescents is to establish a mutual "being there" with their peers, that is, to verify that their friends are "there" while confirming their own presence. This explains why their text messages have a predominantly appellative, phatic, or phatic-appellative function: to solicit interaction or to open or maintain a communicative exchange. As Carmen Galán (2004) affirms,

> being informed in these new times is nothing more than constantly being online, that is, available to and locatable by everyone and for the most frivolous things. . . We no longer have to "tell things," we have "to be locatable," which is the same as saying identified. (p. 1100)

Obtaining data from female participants was much easier than from male participants; girls seem to be more inclined than boys to use mobile text messaging, or at least are more willing to share their experience. The reasons for this difference are unclear. One possibility contemplated and confirmed in this study is that boys and girls use text messaging for different reasons; therefore, it is more interesting and effective for one group than for the other. What our results reveal is that girls take particular advantage of this form of communication for expressive and phatic functions.

Working with a corpus of text messages instead of with complete sequences of dialogues greatly limits our understanding of the messages and their intentions. Only by having the sequence of turn-takings that comprise the complete communicative exchange can we begin to understand those messages whose intentions are ambiguous,[12] analyze the presence of greetings and leave-takings, detect code-

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11. Even so, in some cases we would most likely have to have access to the communicative situation and the shared understanding of the world between sender and receiver, which are highly complicated to obtain.

switching caused by external factors, and understand why punctuation has become superfluous in communicative situations that rely on writing.

It is interesting to observe where the priorities of adolescents have taken language itself. The desire for monetary savings has led to linguistic economy as well in the reduction of characters. Their ultimate objective is to send a message whose intention is perfectly clear at the lowest monetary and linguistic cost possible. Perhaps we are witnessing the creation of a new type of jargon linked to language economy in which the pragmatic factors that surround a communicative act are increasingly crucial for the message to make sense.

In short, we can argue that traditional rural isolation can be overcome thanks to the mobile telephone. Our case study in Galicia has demonstrated that the rural adolescents in our sample fully embrace this technology in order to be permanently connected, thus getting around the physical and social isolation inherent in rural communities. In the light of all these findings, and looking toward the future, we are left with interesting comparative research on urban adolescents.

References

Cairncross, F. (1997). *The death of distance*. Cambridge, MA: Harvard Business School.

Castaño, C. (2008). *La segunda brecha digital* [The second digital divide]. Madrid, Spain: Ediciones Cátedra.

Castells, M., Fernández-Ardevol, M., Qiu, J., & Sey, A. (2007). *Mobile comunication society: A global perspective*. Cambridge, MA: MIT Press.

Copus, A. (2001). From core-periphery to polycentric development: Concepts of spatial and aspatial peripheriality. *European Planning Studies*, *9*(4), 539–552.

Chen, Y.-T., & Katz, J. E. (2009). Extending family to school life: College students' use of the mobile phone. *International Journal of Human-Computer Studies*, *67*, 179–191.

Ferrás, C., & O'Flanagan, P. (2012). Small-holding and sustainable family farming in Galicia and Ireland: A comparative case study. *Norois. Environnment, Aménagement, Société*, *224*(3), 61–76.

Friedman, T. (2006). *La tierra es plana. Breve historia del mundo globalizado del siglo XXI* [The world is flat: A brief history of the 21st century]. Madrid, Spain: Ediciones Martínez Roca.

Galán, C. (2004). Qrs k ablms? En el principio era el móvil [Qrs k ablms? In the beginning was the mobile]. In M. Villayandre Llamazares (Ed.), *Actas del V Congreso de Lingüística General* [Proceedings of the V Congress of General Linguistics], (pp. 1099–1107). León, Spain: Arco Libros.

Gordo López, J. (2006). *Jóvenes y cultura messenger* [Young and messenger culture]. Madrid, Spain: Injuve.

Graner, D., Beranuy, M., Sánchez, A., & Castellana, M. (2007). ¿Qué uso hacen los jóvenes y adolescentes de Internet y del móvil? [How youth and adolescents use the Internet and mobile phone?]. In L. Álvarez Pousa, J. Evans Pim, & O. Crespo Argibay (Eds.), *Comunicación e Xuventude: Actas do Foro Internacional* (pp. 71–90). León, Spain: Arco Libros.

Instituto Galego de Estatistica. (2008)*. Galicia en cifras* [Galicia in numbers]. Retrieved from http://www.ige.eu/estatico/html/gl/galicia_en_cifras/GaliciaEnCifras.htm

Instituto Nacional de Estadística. (2012). *Encuesta sobre equipamiento y uso de tecnologías de la información y comunicación en los hogares* [Survey on equipment and use of information technologies and communication in homes]. Retrieved from http://www.ine.es/jaxi/menu.do?type=pcaxis&path=/t25/p450&file=inebase

Instituto Nacional de Tecnologías de la Comunicación (INTECO) and Orange Foundation (2010). *Estudios sobre seguridad y privacidad en el uso de los servicios móviles por los menores españoles* [Studies on security and privacy in the use of mobile services by Spanish minors] *and Estudio sobre el uso de los smartphones en los menores* [Study on the use of smartphones in the minors]. Retrieved from http://www.inteco.es/Estudios/Estudio_moviles_menores, http://www.inteco.es/Estudios/Estudio_smartphones_menores

Inkinen, T. (2008). Gender and the social use of mobile technologies. From information society policies to everyday practices. In P. Uteng & T. Cresswell (Eds.), *Gendered Mobilities* (pp. 213–228). Aldershot, UK: Ashgate.

Kalantaridis, C. H.(2006). A study into the localization of rural businesses in five European Countries. *European Planning Studies, 14*(1), 61–78.

Katz, J. E. (Ed.) (2003). *Machines that become us: The social context of interpersonal communication technologies*. Piscataway, NJ: Transaction Publishers.

Katz, J. E. (2006). *Magic in the Air: Mobile Communications and the Transformation of Social Life.* Piscataway, NJ: Transaction Publishers.

Lee, C. (2003). How does instant messaging affect interaction between the genders? Retrieved from www.stanford.edu/class/pwr3-25/group2/pdfs/IM_Genders.pdf.

Ling, R. (2002). Chicas adolescentes y jóvenes adultos varones: Dos subculturas del teléfono móvil [Adolescent girls and young adult men: Two subcultures of the mobile phone]. *Estudios de Juventud*, *57*, 33–46.

Ling, R. (2004). *The Mobile Connection: the Cell Phone's Impact on Society*. San Francisco, CA: Morgan Kaufmann Publishers.

Ling, R. (2008). *New tech, new ties: How mobile communication is reshaping social cohesion*. Cambridge, MA: MIT Press.

Malo, S., Casas, F., Figuer, C., & González, M. (2006). El teléfono móvil: Disponibilidad, usos y relaciones por parte de los adolescentes entre 12 y 16 años [The mobile phone: Availability, uses and relationships by the adolescents aged 12 to 16 years]. *Estudios sobre Educación*, *10*, 55–78.

Martínez, I., Miguel, J., & Tortajada, I. (2009, December). Movilizad@s: Mujeres y comunicaciones móviles en España [Mobilized: Women and mobile communications in Spain]. *Feminismo/s*, 15–34.

Méndez, S., & Rodríguez, E. (2011). Consecuencias futuras del despertar de una generación de adolescentes digitales. Escenarios posibles [Future consequences of the awakening of a generation of digital adolescents. Possible scenarios]. *Revista de Estudios de la Juventud*, *92*, 11–36.

Moreno Fernández, F. (1994). Sociolingüística, estadística e informática [Sociolinguistics, statistics and computer]. *Lingüística*, *6*, 95–154.

Naval, C., & Sádaba, C. (2005). Juventud y medios de comunicación frente a frente [Youth facing the media]. *Revista de Estudios de Juventud*, *68*, 9–16.

Orange Foundation. (2013). *E-España. Informe anual sobre la sociedad de la información* [E-Spain. Annual report on the information society]. Retrieved from http://fundacionorange.es/fundacionorange/analisis/eespana/e_espana13.html

Ochaita, E., Espinosa, M. A., & Gutiérrez, H. (2011). Las necesidades adolescentes y las nuevas tecnologías de la información y la comunicación [The adolescent needs and new technologies of information and communication]. *Revista de Estudios de la Juventud*, *92*, 87–110.

Pertierra, R. (2006). *Transforming technologies: Altered selves—Mobile phones and Internet use in the Philippines*. Manila, Philippines: De Salle University Press.

Rice, R. E., & Katz, J. E. (2003). Comparing Internet and mobile phone usage: digital divide of usage, adoption, and dropouts. *Telecommunications Policy, 27*, 597–623.

Sankoff, D., Tagliamonte, S. A., & Smith, E. (2005). Goldvarb X. A multivariate analysis application. Retrieved from http://individual.utoronto.ca/tagliamonte/goldvarb.htm

Simón, A. (2008). Tuenti, la competencia de Facebook hecha en España [Tuenti, facebook competition made in Spain]. In Cinco Días. Retrieved from http://cincodias.com/cincodias/2008/04/11/empresas/1207921214_850215.html

Tannen, D. (1994). *Gender and discourse*. New York, NY: Oxford University Press.

Vidal Alba, D. (2003). Los mensajes de texto en el teléfono móvil [Text messaging on mobile phone]. In J.L. Girón, S. Iglesias, F.J. Herrero & A. Narbona (Eds.), *Estudios Ofrecidos al Profesor José Jesús de Bustos Tovar* [Studies offered to Professor José Jesús de Bustos Tovar]. (pp. 921–935) (Vol. 2). Madrid, Spain: Universidad Complutense de Madrid.

Wajcman, J. (2006). El tecnofeminismo [Technofeminism]. *Colección feminismos* [Feminisms collection]. Madrid, Spain: Ediciones Cátedra.

Warf, B. (2012). *Global geographies of the Internet*. Dordrecht, Netherlands: Springer.