# 8. Conclusion: Prospects for cyberpragmatic research





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Cyberpragmatics: Internet-mediated communication in context

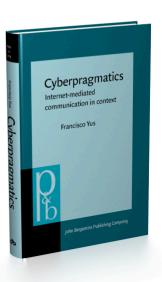
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## Conclusion: Prospects for cyberpragmatic research

In the last few years, some *cyber-media* designed for Internet-mediated interactions have changed very little. This is the case of e-mail or text-based chat rooms. However, other *cyber-media* have changed considerably, and new forms of interaction and socialization on the Net have emerged and consolidated. Several of these novel and traditional forms of Internet-mediated communication (among them blogs, web pages, social networking sites, *Twitter*, avatar-mediated interactions in 3D virtual worlds, and instant messaging) have been analysed in this book from pragmatic perspectives, especially those of cognitive pragmatics and relevance theory. This approach is principally interested in tracking down the users' intentions when communicating on the Net, in analysing *cyber-genres* as public evidence of users' underlying communicative intentions, and in predicting certain inferential strategies intended to interpret information and messages on the Internet. These three possible research areas are influenced by the qualities of the different discourses on the Net and by the availability of contextualization that users are offered by the medium.

Internet has changed a lot and has changed us a lot in recent years. The impact of this network of nodes in the daily lives of citizens in advanced societies has been enormous in the first decade of the 21st century and this impact will continue in ensuing years when, again, some current forms of Internet-mediated interactions will become obsolete (e.g. the traditional newsgroup, almost extinct nowadays) while new options of interactions will emerge and become popular. In any case, future *cyberpragmatic* research envisages a series of analytical goals or challenges, and pays special attention to a number of factors that will affect virtual communication and language use on the Internet in the near future. Some of them are summarized below.

#### The oral/written and visual/verbal dichotomy 1.

At the beginning of the popularization of online interactions, the kind of discourse exchanged among users was predominantly textual, but in recent years the options for the contextualization of messages with the support of nonverbal information (visual and vocal) have increased enormously. Currently, interactions in chat rooms offer the option of using a camera (web cam) and voice. Videos are easily uploaded on YouTube, and users can engage in phone-enabled conversations on the Internet (e.g. Skype), etc.

From cyberpragmatics, following the theoretical assumptions of relevance theory (Sperber & Wilson 1986, 1995), it is assumed that there are no differentiated ways of processing information or obtaining, from the addresser user's message, the intended interpretation in a particular context. Humans have a biologically rooted cognitive ability to pay attention to what hypothetically can be more relevant (the cognitive principle of relevance) and a cognitive tendency to enable the processing of information as soon as the communicative intention of the speaker is detected, since according to the communicative principle of relevance all ostensively communicated utterances carry the presumption of their eventual relevance. This processing always follows the same pattern of enrichment of coded information (i.e. the schematic logical form) to obtain or assess, in parallel, an explicit interpretation and/or an implicit or implied interpretation (i.e. *implicature*), together with a parallel selection of as much contextual information as necessary to obtain such interpretations. By default, it is assumed that one interpretation of all the possible interpretations that an utterance has in a particular context, offers the best balance between the interest it arouses (in the form of *cognitive effects*) and the mental effort required to process it, and the addressee will invariably tend to choose that interpretation as the most relevant one. This pattern of inferential strategies leading to an interpretive choice is applied to the interpretation of all kinds of utterances or written (and typed) messages, whether in situations of physical co-presence (face-to-face conversations) or in Internet-mediated interactions. There is therefore no difference between the inferential steps taken to turn spoken utterances into meaningful interpretations in physical scenarios and the way typed messages are processed in online interactions.

However, this choice of interpretations based on ranked balances of cognitive effects and mental effort can be altered by the discursive qualities and availability of contextual information that underlies the production of the utterance or message on the Net. The same information can be processed more or less easily depending on the context and the qualities of the medium, which can influence the estimation of relevance and the very choice of an interpretation. Wilson (2002) offers the following illustrative example:

Imagine exactly the same information being presented, first in a clearly printed form; second as a faint photocopy; third as an illegible handwritten scrawl; fourth translated into a language you read only with difficulty. Each of these versions will demand different amounts of effort from you. Though they carry exactly the same information, you will have to work harder to retrieve it from one version than from another, and this may affect your willingness to attend to it at all (and your intuitions of how relevant it is).

Therefore, although the inferential procedure we use to interpret utterances is always the same, the availability of contextual information and the attributes of the utterance or message can influence the evaluation of interpretations and how the balance between cognitive effects and processing effort is assessed while aiming at a relevant interpretation. A central goal of *cyberpragmatics* is to analyse the role of this contextualization in the interpretation of utterances transferred through the Net and will remain central in the future.

Nowadays a striking habit on the Internet challenges our conceptualization of the availability of contextual information (as tested empirically in Yus 2001b): that users do not always use the resources for vocal and visual contextualization at their disposal, which has prevented a complete popularization of the different applications for an enrichment of Internet-mediated communication with nonverbally produced information. Indeed, although instant messaging and chat rooms, for example, offer the possibility of using voice and image, many users still prefer the text typed on the keyboard and choose to enrich it with the different strategies for oralization that have been discussed in this book. Furthermore, although in avatar-mediated interactions within Second Life there is an option to use the user's voice, most users prefer text-based instant messaging or a chat application (both embedded in Second Life). One possible explanation is that the text offers users safety, control over how much information is disclosed and how much will be interpreted by the interlocutor, whereas vocal and visual nonverbal information might provide valuable information about the users that, perhaps, they are not willing to communicate explicitly. In coming years we will see if the different options for the enrichment of plain text become popular, or if typed text remains an option massively chosen by users despite this availability of richer cyber-media.

## 2. The ubiquity of the Internet

In the early years of the 21st century the Internet was still for many people something one "had to log onto," an addition outside the daily life of citizens. But with the advent of the second decade of the century, the Internet is now ubiquitous and accessible from multiple, geographically dispersed devices. For example,

once it was assumed that there was an "e-mail account / e-mail place of access" duality. A few years ago, student users would be surprised if a teacher replied to an e-mail message on a Sunday from his/her university account, immediately inferring that he had gone to his/her office on a Sunday to work. Today, with the increasing use of web-mail applications and the popularity of free e-mail accounts such as Yahoo, Hotmail or Gmail, that duality is no longer assumed. What is indeed assumed is, at least in advanced societies, that the citizen always has access to the Net by one means or another (e.g. from home, workplace, Internet café, wi-fi connection, mobile phone, tablets) and this is taken for granted in several kinds of discourse, such as advertising, which often suggests a website where more complete information about the product can be found ("for further information enter www...").

In Chapter 2, I mentioned the accurate prediction by William Gibson, who coined the term cyberspace and was the author of the cult novel Neuromancer, that in the future people would no longer pay for Internet access but, rather, would pay to get disconnected from the Net. That prediction will be confirmed in the near future. The connection will be taken for granted, in the same way as nowadays users turn on the computer with the certainty that they will be automatically connected, and the range of sources for accessibility (from mobile and fixed locations) will be multiplied to the point where, as is currently the case with television, no one will be allowed to resort to the excuse of not being aware of some information that is distributed exclusively online. Humans, more than ever, live and process information in front of the screen and through the Net. As pointed out by Lipovetsky & Serroy (2009, quoted in Grau 2010: 31), "the network of screens has transformed our way of life [...] It has become an instrument of communication and information, almost inevitable intermediary in our relationships with the world and with others. Living is, increasingly, to be attached to the screen and connected to the Net."

In this respect, 2009 was the year when there was a turning point (or tipping point, as Gladwell 2002 would call it), from a technology used by a minority of users, to a mass and ubiquitous technology. Indeed, 2009 was the year of popularization of mobile connection to the Internet through USB-enabled devices, in parallel to the widespread use of laptops and netbooks (in the summer of 2009, over 40% of users who were on holiday took their laptops to the hotel and logged onto the Internet there, either through the wi-fi connection at the hotel or through USB devices). Moreover, 2010 was the year in which smart phones became popular for Internet access. And 2011 has been the year of tablets such as the famous iPad to log onto the Net. This phenomenon of mass mobile access definitely removes users from the anchorage of their physical location when

surfing the Net. At the same time, many of these applications to access Internet via USB include the option to send text messages (SMS) to mobile phones using software that comes with these devices. The incorporation of these text messages, typical of mobile phones, to Internet communication will force *cyberpragmatics* to include them into its scope of research in the near future.

Within a pragmatic framework of analysis of interactions on the Internet, this ubiquity and the presumption of constant accessibility to the Net can result in alterations or changes in the effectiveness of virtual communication, for example with regard to the management of mutually manifest information on how to handle certain Internet protocols for interactions and use of language therein (together with inherent jargon), which are presumably conventionalized (but perhaps not for all users), or to the creation of a preliminary context upon which virtual interactions are constructed and whose source is found on the Internet. For some users, ease of access to this preliminary context may be taken for granted, but this may not be the case for all interlocutors. Moreover, the presumption of "always on, always available" will generate many problems and communicative disruptions due to the different attitudes towards the Internet and its importance in everyday life. *Cyberpragmatics* must provide a pragmatic account of all those aspects related to universal access to the Net.

### 3. The consolidation of hybrid networks of interactions

In several chapters of this book and, in more detail, in *Virtualidades Reales* (*Real Virtualities*, Yus 2007b, a development of the ideas outlined in Yus 2003c and 2005b), a comparison of interactions in physical and virtual settings was carried out. In the evolution of the importance of physical vs. virtual interactions, several stages can be isolated:

1. At the beginning of the 1990s of the last century, when Internet started to become popular, Internet connections, the interactions therein and the communities that developed virtually were clearly a supplement, something fictitious and incomplete that was added to physical interactions and communities that were truly satisfactory to people and considered by everybody to be *the real scenario* of their lives. At the same time, interactions and social gatherings on the Internet were clearly limited, deficient in the quantity and quality of contextual information that was available to the few inhabitants of the Net. At that time, therefore, the only interest of Internet was the capacity to interact with users located in faraway places.

2. In this 21st century, by contrast, virtual relationships through the Internet (and mobile phones) are subject to an increasing process of materialization, a process of increasing importance in people's everyday lives, as well as a growing loss of the physical anchorage in daily interactions. Nowadays, Internet-mediated and mobile phone interactions possess a *local* and ordinary connotation, and have become essential for many users, especially for the so-called digital natives, the current generation of adolescents and young people who were born with an assumed permanent connectivity to the Net. And the ubiquity of cyber-media underlies, as a fundamental foundation, the acceleration of this unstoppable process of materialization of the virtual into everyday life.

In this sense, as has been commented upon throughout this book, interactions and communities in physical settings have undergone an evolution in which they have "virtualized" by losing their physical anchorage (as happens with mobile phones) and their presence in everyday communicative goals (a decrease in the amount of interactions and community fostering in public physical places such as bars, squares, etc.). On the contrary, virtual interactions and virtual communities are undergoing a parallel evolution into materialization or physicalization, they have become even more real than traditional physical interactions or communities. These two evolutions are currently in a process of hybridization or imbrication, a collision between increasingly virtual physical settings and increasingly real virtual settings.

3. In the next few years, the outcome of this collision will be a multiplicity of possibilities of interactions and social groupings and of several roles of technology in the formation, development and stabilization of different forms of interpersonal relationships and communal gatherings. We are undergoing a process of *physical*virtual hybridization, according to which in each person several types of interactivity co-exist forming personal networks of interaction in each person. Some of them are sustained exclusively in physical scenarios with the aid of technology. On other occasions, the Internet completely satisfies users' communicative needs, and there are multiple possibilities of physical-virtual interactions.

These personal networks of interaction and communities of geographically dispersed users may form a dense matrix of intersections in the individual as his/her unique personal anchorage within this growing range of possibilities for interaction and community in physical and virtual settings, especially at a time when both settings tend to mesh. An example is the social networking application Foursquare, which combines the attributes of social networking sites such as Facebook (e.g. profile, comments, friends and contacts) with geo-localization through mobile phone positioning (GPS): "a mobile social networking game that encourages people to 'check in' online to places they visit in the real world - bars, restaurants, Starbucks – in order to accrue points. More adventurous types, with lots of check-ins, win more points. The more places you visit, the higher you rank on a league table made up of you and your friends" (Halliday 2011).

Faced with the impossibility of resorting to easily identifiable *exogenous referents* that provide individuals with social and communal stability (limits of the neighbourhood, the street, bars, community centres...), the individual has to take full responsibility for the different physical-virtual interactions and communities in which he/she participates in or belongs to. Moreover, the individual is the only stable entity in an increasingly hybrid form of communication, to the extent that the term *local* is now applied to the user, wherever he/she is located (workplace, home, a bench in a park with wi-fi connection, a cybercafé, a chat room...). *Cyberpragmatics* should analyse the impact of this hybridization of physical-virtual interactions and communities on the language and expectations of mutuality exhibited by users in their everyday socialization on the Net.

### 4. The transference of information from the Internet to the mobile phone

As already mentioned, 2009 was a turning point in the popularization of mobile access to Internet through USB devices attached to laptops and netbooks. Moreover, 2010 was the turning point in access to Internet through mobile phones. There are currently many mobile phones with Internet access, but the ones which really provide consistent access to the Net are *smart phones*, which allow for "natural" Internet access and allow the user to take full advantage of the different forms of interaction on the Internet discussed in this book (e.g. e-mail, instant messaging, social networking sites, and Twitter). These phones are still expensive at present and the real turning point will only come with the popularization of their use. Nevertheless, the prediction is that by 2015 all phones sold will be "smart."

The mobile phone has evolved radically since it became popular a few years ago. As summarized in Muñoz (2009), increased bandwidth of mobile Internet access has enabled the transfer of content equivalent to that obtained through the computer. Moreover, almost one third of users of the Spanish social networking site *Tuenti* access it from a mobile phone (*Tuenti-Mobile*). Iñaki Cabrera, who works for one of the companies that provide Internet access, has recently said that "the mobile phone is replacing the PC as a 'multipurpose device' for using the Net. Social networking sites and mobile phones tend to a natural symbiosis: the phone, by its nature, encourages the network effect and the possibility of sharing information in multiple formats with immediacy" (quoted in Muñoz ibid.: 24). Oscar Rodriguez, a member of another mobile company, adds that

social networks started with the PC, but their natural use, which is immediate communication, knowing what is happening in your environment at that moment and through the computer, can only be done when you're at home or at the office. Mobile phones are their natural vehicle, they give meaning to the immediacy of social networking sites. Users' virtual lives are becoming very complex - calendar, e-mail, social networks, etc. - and the mobile phone can bring together, more than any other device, all of this complexity." (ibid.)

Currently, many Internet documents to which users have access are filtered and adapted to the peculiarities of the small mobile phone screen, with many small texts linked to one another, rather than lengthy documents that the user has to scroll down manually to read on the screen. This attribute of specificity of content for mobile phones is an interesting object of study for cyberpragmatics, because the different ways of presenting information and the cutting and re-shaping of texts to adapt web content to mobile formats certainly affect the eventual balance obtained between the interest of the information (cognitive effects) and the mental effort required to process it, an effort that may increase due to the size of the mobile phone screen and may even affect the user's willingness to process the information in the first place. Again, smart phones have much larger screens and even full keyboards, minimizing the aforementioned effort.

#### The transference of content to the web 5.

In Chapter 3, I commented on two examples of discourses that were created offline and which have been transferred to the Net: the printed newspaper and the printed advertisement. As happens with mobile phones, the adaptation of the printed format to the screen entails a new segmentation and linking of chunks of information, a new accessibility to contextual information and, therefore, a chance of alterations in the way the relevant interpretation of these discourses is obtained.

In the next few years, the phenomenon of transference of content will increase parallel to increased bandwidth and improvements in the capacity of the infrastructure of Internet nodes and cables to transfer the dense information that audio and video files contain. A good example is television. It is currently common practice that, once a TV episode has been broadcast using the traditional television medium, this episode will almost immediately be available for downloading on the official television channel website. This is what happened, for instance, with the TV series Lost, whose episodes were available on the TV company's website the next day).

From a pragmatic point of view, if the episode is uploaded onto the Net without any alterations, and taking into account the quality of current screens, the processing of that episode will not differ substantially in either case, and only certain aspects will be interesting from the sociological point of view, for example analysing why young people have abandoned traditional television and prefer a television "on demand" in their most friendly environment, the Internet (Grau 2010). However, if the transference involves an adaptation of content and, especially, if the episode is complemented with an option for interactivity between the company and its users, or between users and additional contextual information, *cyberpragmatics* will, again, have an interesting object of study and the cognitive perspective may shed light on how the processing of televised information varies in each case.

## 6. The consolidation of Web 2.0, participatory culture and user-generated content

Considerable space in this book has been devoted to studying the possible consequences of the flood of information that users generate every day and the pragmatic effects of the existence of such information, as well as the problems associated with processing it. This user-generated content, sometimes involving a significant expenditure of energy which is not immediately compensated for (except for the *ambient awareness* of being part of a group and contributing positively to it), are a real challenge for a cognitive pragmatics analyst, since from this perspective we ask ourselves why an activity entailing unrewarded effort may nonetheless be relevant to the "addresser user."

This trend towards mass production of information by users, as happens with the universally-used *Wikipedia* phenomenon, will continue in the future, and *cyberpragmatics* should provide an answer to the puzzle of cognitive satisfaction that often defies the equation of "cognitive effects against processing effort" predicted by relevance theory. While we wait to see what the immediate future will bring and what new *cyber-media* will be created, in this book I have attempted to offer the reader a preparatory overview of the current state of *cyber-pragmatic* research.