

The linguistic-cognitive essence of virtual community

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Abstract

One of the objectives of the so-called cyberpragmatics is to determine the inferential strategies of contextualisation which Internet users perform when they produce and interpret other users' messages. Leaving aside a static view of context, according to which communicative exchanges take place in a pre-determined spatial-temporal location, today's view of context is much more dynamic, of inferential nature, and which starts immediately after the linguistic input has been decoded. Besides, there are multiple sources from which the inferential system can gather information, whose activation is guided by the general search for relevance to which human minds are constantly geared. In previous research, this dynamic view of context has been useful in order to explain communicative strategies such as the ones taking place in chat rooms or through e-mails. In this paper, our attention will be focussed on strategies of contextualisation which are intended to form and stabilise the user's thoughts on virtual community. Again, it will be shown that dynamic strategies of contextualisation are needed so that stable information on community can be not only stored in the user's mind, but also shared with other users who belong to the same community. The key to this on-going and negotiated storage of information on community membership lies in sustained communicative interactions in a sufficiently lasting time span.

Key words: virtual community, cognitive community, cyberpragmatics, epidemiology of representations, networked individualism

Resumen

La esencia lingüístico-cognitiva de comunidad virtual

Uno de los objetivos de la ciberpragmática es determinar las estrategias inferenciales de contextualización que llevan a cabo los usuarios de Internet cuando producen e interpretan los mensajes de los demás usuarios. Dejando atrás una visión estática del contexto, según la cual los intercambios comunicativos tienen lugar en lugares predeterminados temporal y espacialmente, la visión del contexto que se tiene hoy en día es mucho más dinámica, de corte inferencial, y cuya influencia comienza inmediatamente después de la decodificación del mensaje.

En anteriores investigaciones, esta visión dinámica se ha aplicado a estrategias comunicativas como las que tienen lugar en los *chats* o en los mensajes de correo electrónico. En este artículo, esta visión

se centrará en las estrategias de contextualización que tienen como fin la formación y estabilización de los pensamientos de los usuarios en torno a la comunidad virtual. De nuevo, se comprobará que son necesarias las estrategias dinámicas de contextualización no sólo para que se establezca la información comunitaria, sino también para que los demás usuarios compartan una visión concreta de la comunidad. La interacción reiterada en el tiempo es la clave para entender esta diseminación de las ideas comunitarias en el grupo de usuarios de Internet que forman una comunidad.

Palabras clave: comunidad virtual, comunidad cognitiva, ciberpragmática, epidemiología de las representaciones, individualismo en red

Introduction

This article is about virtual community, addressed from a cognitive-pragmatics point of view, and as a development of the general project of analysis of computer-mediated communication which I started back in 2001 with my book *Ciberpragmática* (Cyberpragmatics in English, see Yus, 2001a, 2001b). A central premise in this book was that human beings are biologically geared to obtaining the most relevant information in the utterances which they interpret and that this biological quality always applies, regardless of the communicative medium and the type of input that has to be processed by the human mind. Therefore, on paper there should be no difference in the way we interpret utterances in face-to-face communication, jokes, literary works, e-mails and even messages to mobile phones. What does change is the range and richness of contextual information which is readily available for the human mind to undertake this interpretive task (Yus, 2003). Undoubtedly, face-to-face communication is one of the richest environments for human interaction, whereas Internet normally exhibits a more limited transmission of contextual information, a sort of bottle-neck filtering due to the narrow bandwidth used when exchanging written messages.

Within cyberpragmatics, accessibility to context is predicted by the Internet user and the receiver has to look for contextual information in such varied resources as long-term encyclopedic knowledge, short-term information from previous utterances in the interaction, etc. The search for relevant contextual information is both a dynamic and, especially, a mental task for Internet users, according to the cyberpragmatic picture of Internet communication (see figure 1).

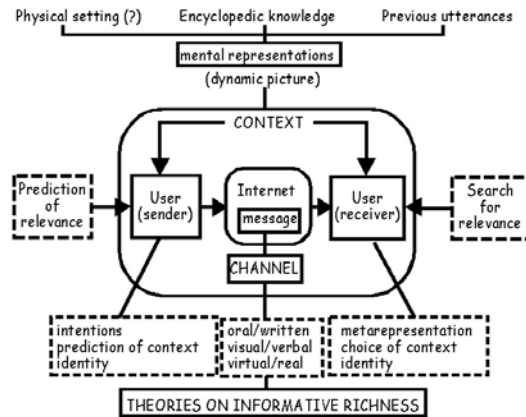


Figure 1. Main issues in cyberpragmatics (Yus, 2001a, 2001b).

There is no doubt that context accessibility is essential in any type of communication in order to turn the incomplete information that reaches the addressee into presumably the sender's intended interpretation. Indeed, it is clear that all utterances, including the ones sent through the Internet, are less informative than the actual thoughts that the speaker or sender wants to communicate with them (see Yus, 2002a: 144). The addressee's task is to "fill in the blanks," as it were, in order to turn the schematic input into full-fledged interpretations. Therefore, within pragmatics, and also within cyberpragmatics, context is never a taken-for-granted, static ingredient of communication, but dynamic and situation-specific information that is accessed by the human mind while interpreting verbal messages and nonverbal behaviours. Context used to be a static notion, given beforehand, and inside which the utterance was simply inserted in the search for an interpretation. Today, as pictured by pragmatic approaches such as relevance theory (Sperber & Wilson, 1986/95), the starting point is precisely decoding the utterance, the first stage in a relevance-oriented search for the adequate contextual information which will help the hearer to reach an interpretation (hopefully matching the intended one). In a parallel way, I will point out later in this article that part of the on-going debate on the pros and cons of virtual community lies precisely in an anachronic view of community as static and located within a clearly bound physical area, instead of treating it as dynamic, under constant negotiation and maintained through sufficiently lasting communicative interactions, a picture in which the virtual/real dichotomy is no longer needed because community is removed from an "anchoring" physical location and addressed in more convenient cognitive terms.

Idealising community

In a way it is understandable that people tend to romanticize the term “community.” Human beings have always based their evolutionary success on their ability to create fruitful social gatherings and build up common ties within a physically recognisable area. One of the reasons why the sitcom “Cheers” was so successful was the fact that it portrayed the idyllic picture of American people interacting positively in a specific place, a pub, typically intended for social gatherings. Bauman (2003) has recently written about the need we have of community, how nice living in community is supposed to be and how community is a ‘warm’, cosy and comfortable place to live. He writes that community is like a roof under which we shelter in heavy rain, like a fireplace at which we warm our hands. In the community, we can relax, we are safe, there are no dangers looming in dark corners. In a community, we all understand each other well, we may trust what we hear, we are safe most of the time, we are never strangers to each other.

Early definitions of community do emphasize this essential ingredient of shared space, but as we move on in the evolution of urban communities, the elements of interaction and reciprocity have acquired an increasingly central role. Indeed, if community was only a matter of bringing people together in one specific area, the inhabitants of closed-up urban complexes such as the ones typically found in Western societies, sheltered spaces sometimes even with shopping centres inside them, would be more prone to community building than the huge amount of residential houses that can be found in the suburbs of big American cities, to take an example.

In reality, physical proximity is no guarantee that profitable community ties will arise. Normally, a certain level of interaction and commitment is also necessary. In fact, many dictionaries (for instance Random House and Webster) include both physical location and interaction or commitment in their definitions of community. These were also mentioned by Hillery (1955) when she examined 94 different definitions of community that were found in the literature in an effort to identify the intersecting features, and she eventually found three attributes that most definitions had in common. The first one was the need for a number of people who have to be involved in social interaction. The second one was that community requires a geographic area. And finally, the third most frequently mentioned attribute was that

community involves people who have common ties of some kind. Similarly, Gusfield (1975) distinguished two major senses of “community”: on the one hand, the territorial sense, relating community to the village, town, or city in which it exists, and on the other hand, the relational sense, about the quality or character of the social relationships, without reference to location.

More recently, other researchers have emphasized the decreasing importance of physical location and the increasing importance of social relationships and network ties in today’s society. The research collected in Wellman (1988) would be an example. He suggests three common ways to understand how communities have developed with the absence of location as a key aspect in this evolution. The first way is a pessimistic one called Community Lost. The large scale social changes, mass society, urbanisation and an increasing bureaucracy reduce the possibilities to create and maintain communities. Only formally organised meetings are possible. The second one is the opposite: Community Saved. Irrespective of external changes in society people create communities in those forms that the technical and social changes allow. The third one is called Community Liberated. Communities are created without need of any reference to geographical boundaries and maintained thanks to better means of transport and communication systems. This refers to communities based on common, often specialised interests, normally with weaker ties between people instead of strong relations such as the ones found in small villages. Internet would belong to this de-located area of social interaction. It is not surprising, then, that most definitions of virtual community either do not mention the need of location or tend to re-interpret it in virtual terms.

The lack of convenient physically-shaped boundaries for the community and the lack of contextually rich face-to-face interactions within it are also at the heart of the ongoing debate between the utopians and dystopians of life in virtual communities. This is an open debate which deserves more space than I have here (see Yus, 2001a: 53-57 for discussion). Besides analysts who argue for and against the term virtual community, other analysts support a view of differentiation and stress their complementing role, rather than pursuing a simple comparison between off-line and virtual communities, which is a much more fruitful line of research in my opinion.

However, the point I would like to emphasize is the fact that the comparisons between types of community that can be found in the bibliography are often based

upon uneven criteria. Normally, what is compared is, on the one hand, an idyllic view of off-line community in which everybody shares a common physical space within which they build up social capital, common interests and commitment. And, on the other hand, the gloomy picture of the asocial Internet users, isolated inside their houses and with no profitable relationships other than the ones built up with the computer keyboard.

In reality, things are not so black-or-white. I agree with Barry Wellman that Internet communications and community networks built up inside them are simply one more step in the evolution of urban societies, which have tended more and more to an indifference towards the physical place and also evolved to links of interest with other people regardless of where they are. According to this picture of the evolution in community building and human relationships within communities, today's tendency in the Western world is towards loosely-bounded and fragmentary ties. Rather than having to blend into the same group as those who are around them, each person has his or her own "personal community" inside a grid of networked individualism. Besides, technological developments and the popularisation of computer networks are now in a process of growing feedback: just as dispersed social networks demand the use of computer-mediated social connections for their maintenance, the development of Internet favours the evolution of societies from social spaces to cyberspaces.

As can be seen in figure 2 (adapted from Wellman, 2001), the nineteenth century was characterised by door-to-door communication. People walked to see other people, and the community was compact. Wellman talks about relationships that happened within the gates of the community, rather than across them, with neighbours at walking distance. In the so-called "neighbour community" everybody knew each other and walked to see each other.

But in the mid-nineteenth century and especially during the shift to the twentieth century and with the rise of industrialisation, an important transition took place towards place-to-place community relationships. This transition was made possible with developments in both transport and communication, moving people away from a compact group gathered in a single physical space to contacts between people in different places and to multiple social networks.

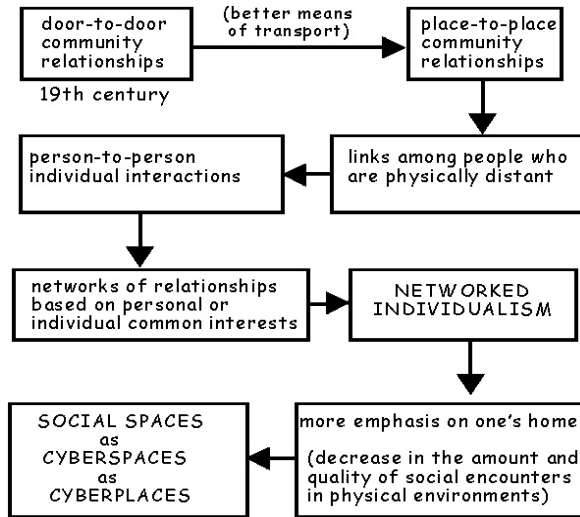


Figure 2. The evolution towards cyberplaces according to Wellman.

The ability to contact people who are physically distant led to another stage in the development of social networks, this time towards person-to-person individual interactions and also to what Wellman labels role-to-role interactions. Households arose as important centres for networking, but neighbourhoods became less important. Indeed, if community is a social phenomenon and not a physical one, contemporary communities could hardly be limited to neighbourhoods. Rather, people will tend to form the typical features of communities like reciprocity, norms and commitment through phoning, writing, driving, or whatever way one can contact others.

The result of this increasing amount of person-to-person communal ties is the existence of a number of non-physical networks of relationships based on personal or individual common interest, what Wellman (2002) labels “networked individualism.” This individualism can be addressed as forming personal communities which, according to Hampton and Wellman (2001) occupy “a variety of social settings and are generally cross-cutting, loosely bounded, and fragmentary.” Social ties in personal communities “vary in intensity and are maintained through multiple communication media: direct in-person contact, telephone, mail, and more recently fax, email, chats, and Internet discussion groups.” This picture has generated both followers and critical views. For Friedland (2001), for instance, personal communities are devoid of the necessary solidarity. For him, although it is true that

some essential needs for intimacy and social support can be sustained over time and space through networks aided by communication technologies, personal communities do not, per se, sustain the kinds of social relations necessary to support the common bonds traditionally associated with community: the maintenance of public and civic life, strong forms of association, and the trust and reciprocity that make solidarity possible.

Either good or bad, it is clear for me that networking is the type of social contact which Internet, together with the current fever of mobile phones, favours and helps to maintain through cyberspace connectivity. As Wellman et al. (2002) put it, the technology affords shifting ties from linking people in places to linking people at any place. Computer-supported communication is everywhere, but situated nowhere.

Under this viewpoint, there would be a shift towards a less sharp difference between on-line and off-line community building, but there would be a difference in the way networked individualism is maintained. People no longer need means of transport to foster it, and they can stay at home or virtually anywhere and get similar results. Indeed, a typical feature of this individualism is the greater emphasis on one's household as a locus for interaction. But people in houses do not need other people in adjacent houses. People phone from their houses, send e-mails from their houses, and these houses are the ones visited, but at the same time few neighbours are known, people co-habit a place, a suburb, for instance, but do not necessarily know the other people living nearby. In other words, physical closeness does not mean social closeness.

In a way, this stage in human networks produces a reduction in the amount and quality of social encounters in physical environments, especially casual, non-profit-driven ones. Nowadays, in many urban societies people rarely get together for the sake of it in public areas, which makes casual encounters extremely difficult, and community binding out of physical closeness almost impossible. The outcome is the generation of cyberplaces where social places used to exist under door-to-door connectivity.

In this social environment Internet plays its most impressive role, providing mutual access to people scattered in physically distant areas, and favouring stay-at-homes, a phenomenon that Wellman (2001, 2002) labels glocalization, a mixture of global communications into or out of a local setting. According to Wellman (2002: 13),

“glocalization occurs both because the Internet makes it easy to contact many neighbours and because fixed, wired Internet connections root users at their home and office desks.”

Therefore, localities are still important but not necessarily dictated by physical proximity and, as I have just mentioned, perhaps the most notorious evolution here is the human retreat to their houses as locus for interaction. It is not surprising that so many closed-up urban complexes, the so-called, “common-interest developments” or CIDs, have become so popular in USA. These urban complexes are like fortified castles preventing unwanted outsiders from entering the area of home-bound security. Many Americans live in CIDs, normally exhibiting strict rules of behaviour for those living inside them and those visiting them, if they are allowed. There are CIDs for married people, for couples with children, for people earning a certain amount of money, etc. This is obviously an extreme way of showing who belongs to a community and who is outside; but even in these CIDs, the fact that people are brought together to a clear-cut physical proximity does not guarantee the formation of a profitable sense of community. Given this sociological tendency, we could say that as we move beyond the physical ideal of community into personal networks of cross-cutting interactions, there is an evident levelling of the attributes of communities, regardless of their online or off-line quality.¹

Hence, if communities on Internet are called virtual communities, we can say that off-line communities are turning more and more into “real virtualities” and that many people currently use the Internet to make this virtuality more real. I am borrowing the term “real virtuality” from Castells (1999). He intended the term to show how the Internet has entered the tissue of society to the extent that there is no virtual reality to talk about; the virtual has become real in its consequences. He writes that “it is not virtual reality, because when our symbolic environment is, by and large, structured in this inclusive, flexible, diversified hypertext in which we navigate every day, the virtuality of this text is in fact our reality, the symbols from which we live and communicate” (p. 403). This approach fits right into the quality of community that I am trying to outline.²

Therefore, Internet can also foster reciprocity relationships that are basic for the construction of social capital, whose reduction and weakening in American society Robert Putnam (2002) has recently analysed in detail. In previous research, he defined social capital as “features of social organisation such as networks, norms, and social trust that facilitate co-ordination and co-operation for mutual benefit.” Today’s way

of life in America, which isolates people with bad habits such as intense television viewing, utterly prevent the consolidation of these features, according to him.

Other authors such as Oldenberg (1991) conceptualise this decay of social capital in terms of “the declining of the third place,” after home and work, in which members of the community meet on neutral ground. He describes these third places as being “the core settings of informal public life.” In traditional communities, settings such as the pub, the church, local workers’ clubs and cinemas provided public arenas for members of the community to meet, to build up ties and to make joint decisions. But the growth of suburbs and the extension of electronic means of communication provoked a progressive reduction in the availability of these sites for interaction. This decay in human relationships within the community, this growing lack of communal reciprocity normally leads to what Scott Peck (1987) called “pseudo-communities.” Loss of social capital is indeed a breeding area for dystopians of Internet community.

Putnam (2002: 177) also doubts that computer-mediated communication can foster social capital, which may turn out to be a prerequisite for, rather than a consequence of, effective computer-mediated communication. However, Quan-Haase and Wellman (2002) argue against these doubts. For them, high levels of participation in virtual communities suggest that the Internet has become an alternative route to being involved in groups and pursuing interests. Therefore, community may now be embedded in digital networks rather than in traditional, geographically bounded groups. Moreover, online participation may intensify reciprocity and trust. In a different publication, Wellman et al. (2001) wonder whether

Putnam is only measuring old forms of community and participation, while new forms of communication and organization underneath his radar are connecting people? Some evidence suggests that the observed decline has not led to social isolation, but to community becoming embedded in social networks rather than groups, and a movement of community relationships from easily observed public spaces to less-accessible private homes.

Thus the Internet not only provides a new means of communication, but also helps to establish new social relationships. These social relationships are often continued off-line, creating a rich mixture of online and offline interactions. And social capital can now be pictured as an effect of social interactions, online and off-line, rather than a pre-conceived requirement for the quality of these interactions. At the same time, discursive

interaction appears, more than ever, intimately related to its social uses, regardless of the medium. As Bhatia (2001: 6) correctly states, it is useless to focus on practices without integrating them to community goals and communicative purposes, or to study communicative purposes and textual products without relating them to the discursive practices of the community members and their individual concerns (see also Yus, 2002b). What I would add is, precisely, that these community practices now take place in a growingly hybrid virtual-physical environment, as will be suggested below.

Towards a hybrid space

Nowadays off-line communities exhibit a tendency towards increasingly global networks of relationships which are not necessarily tied to a specific physical location. Virtual communities, on the other hand, exhibit contrasting features: they tend more and more to local ties, instead of the typical possibility of global communications that gave Internet its appeal years ago. For instance, people tend to chat online in order to arrange meetings in physical locations later on, and often organise parties and meetings which are not going to take place very far away on a physical location.

Such “glocalized” uses of Internet require at least a symbolic construction of online space, the construction of cyberplaces of interaction that are not purely physical. Small wonder that Internet users write things like “This is a nice place to meet” when chatting online. However, it is especially social space that builds up on Internet, and with the same effectiveness in creating boundaries of communal specificity as walls in fortified offline communities. Jargons and the proliferation of acronyms and clippings in the language used on Internet are examples of how a symbolic code can aid in the identification of who belongs to a certain social space and who does not.

What is clear, in both types of community, is that the tendency nowadays is to build up social gatherings and networks based on common interest, rather than on the fact that there is an underlying sustaining co-habiting place. Several analysts have warned against this “cyber-balkanisation” that communities of interest produce. For instance, some analysts fear that virtual interactions may become too specialised. Virtual communities will tend to be so specialised that online groups will interact only in their own electronic communities, and physical communities will disappear. Other analysts like Wellman, on the other hand, underline networking through common interest as one of the key features, and not necessarily a negative one, of today’s society.

Since this tendency towards grouping based on interest is found not only in virtual communities, but also in off-line communities linked by technological advancements like mobile phones or instant messaging, there is a certain blurring of the traditional online/offline divide and a creation of a sort of “hybrid communicative space” with two main characteristics. On the one hand, on-line and off-line communities should no longer be seen as mutually exclusive social groupings, but as complementary options in today’s search for social gathering through networks. On the other hand, since communities are not tied to a physical space, an alternative inherent quality has to be looked for.

Concerning the first quality, it is clear that nowadays people do not use the Internet as an either-or option related to off-line communication, but as different means to achieve the same social goal.³ Many analysts have dealt with this issue. Wellman and Gulia (1999: 170) point out that some researchers “treat Internet as an isolated social phenomenon without taking into account how interaction on the Net fits together with other aspects of people’s lives.” Similarly, Baym (1998: 40) writes that “rather than disappearing when one logs on, the preexisting speech communities in which interactants operate provide social understandings and practices through and against which interaction in the new computer-mediated context operates.”

Given this hybridity, that is, if virtual community is becoming more and more real; if offline physical communities can nowadays be labelled “real virtualities,” and if there is a growing tendency to complementing types of communities, we can and maybe have to address communal attributes from a different point of view, which leads us to the second quality of this hybrid space: community should be addressed from a different point of view, that is, as a set of socially-connoted mental representations which are found, with more or less fidelity, in all the members of a social group with a certain similarity, and whose quality and current state is under constant re-arrangement and negotiation through repeated social interactions, often within complementing on-line and off-line connections and interactions. In other words, the proposal in this article is to abandon the virtual community vs. real community debate and embrace a new term: “the cognitive community.”

Of course, within a cognitive point of view, physical location of communities is no longer an essential issue. As pointed out above, physical reunion of people is itself problematic nowadays, tending more and more to networked individualism in different scenarios. Therefore, two aspects turn out essential in the type of analysis

of community that I am favouring: its mental, rather than physical, quality, and its non-stop updating through social interaction, rather than a static, taken-for-granted notion of community.

Undoubtedly, it is inside the minds of the members of the community where we have to look for the features of community, both in online and offline communities; those features such as norms, commitment, values, interests which makes community different from a group of people simply brought together. If we were able to look inside the minds of the people supposedly sharing a community, we would see differing mental representations which, through steady and sustained interactions, end up intersecting one another, resembling one another, forming a stable but continuously re-negotiated set of communal representations. When Baym (1995: 150) writes that “even the most mundane interactions require that people draw upon preexisting resources that have meaning within a community to create and invoke event types, identities, relationships, and norms. It is through the use of resources to invoke social meanings that culture is continually recreated and modified,” the target resource to draw upon has to be the members’ minds, rather than some pre-conceived communal construction. This mental storage of social information is especially relevant when dealing with computer-based communities which lack an embracing, as it were, physical location.⁴

In a way, the evolution in conceptions of community in general, and of speech communities in particular, has favoured this shift to a cognitive emphasis, and in my opinion one important step in this evolution was the realisation that social context is not a static, pre-conceived notion, but a dynamic and mental resource of which people make use in everyday interaction.⁵

Together with the mental quality of communities, these community-related mental representations are constantly under negotiation through social interaction. Later in this article it will be claimed that an epidemiological model of cultural spread is valid, maybe even necessary, to explain how the members of a community end up possessing similar versions of communal mental representations. Within this model it is claimed that communicative interactions are basic for the transmission and stabilisation of long-term cultural representations. But even outside this model there is a good number of references in which the role of communicative social interactions in the formation of communities is stressed.⁶

Obviously, language is not only a vehicle for interaction, but also a source for building up community boundaries. I have already mentioned in passing the typical jargons of computer texts. These are community-specific discursive features which work as inherent sources of intra-group identity and also as inter-group differentiation. Adolescents chatting on Internet explicitly display narrow codes of vocabulary choices and nonstandard transcriptions of pronunciations only available to those ‘in the gang’ or the group of peers.

We can conclude, then, that social interaction is an essential requirement for the formation and stabilisation of virtual communities. It is a minimum level of interactivity what allows us to exclude some types of computer-mediated communication from the category virtual community. For example, if subscribers to an e-mail list are not able to hold interactive discussions with other subscribers, this could not be considered a virtual community. Similarly, Klang and Olsson (1999) regard interaction as a key requirement of virtual community since it shows the user’s active membership:

If a member does not communicate his membership may be questioned. The level of participation depends upon the traditions in the different virtual communities. To be a member of a virtual community is to be committed and active on a voluntary basis. The activity criteria effectively excludes those who hover around the periphery of the community only observing but not communicating from being seen as members.

Updating the mental quality of community

Let us now try to describe the way in which the mind of the Internet user updates and stores mental representations on community. In a nutshell, we can say that the human mind undertakes two important tasks when receiving information from other users through computer-mediated communication. One task deals with the actual interpretation of computer-mediated texts, whereas the other is devoted to processing and updating background social information and, as a sub-set of this information, the one referred to the current state of single or multiple community memberships.

Indeed, there is growing evidence that the mind has different domains which are in charge of different input and output data (see Sperber & Wilson, 2002; Carston, 2002). On the one hand, the inferential mental system is typically biased towards processing incoming data from ostensibly communicated information. The

inferential system forms an independent system geared to the maximisation of the relevance obtained in the information extracted from human communication. On the other hand, there is a social mental system devoted to processing and storing socially-connoted information, for instance, norms of behaviour, rules of politeness, cultural artifacts, encyclopedic knowledge on one's society, etc. Both systems, the inferential one and the social one, can be treated as autonomous domains dealing with and activated by a specific type of information. In other words, the characteristics of the input data influence the activation of one domain or the other. However, often the same linguistic input triggers the activation of both the inferential system (in order to get the small-scale appropriate interpretation of the utterance) and, at the same time, the social system, in an attempt to improve the current quality of the user's background knowledge on socially-connoted information.

Besides, a preliminary distinction can be made according to whether these autonomous systems, inferential and social, are universal or culture-specific. On paper, social and grammatical faculties depend on a culture-specific environment in which they develop, the result being the acquisition of the pattern or patterns of the shape of that community and the linguistic patterns with which the members of the community interact inside it. But, undoubtedly, the inferential system is autonomous, universal, typically human, regardless of which community the person belongs to and regardless of specific cultural habits.

However, as recently pointed out by Escandell-Vidal (2004), despite the intuition that the mental social system should never be universal, given its culture-specific quality, recent research shows that a specific mental system underlies the formation and stabilisation of social categories, a mental system which is found in all human beings. Hence, the social system would exhibit both a universal and a culture-specific side. In Escandell's words:

the social ability is, on the one hand, a universal device for social categorisation designed to produce a set of representations on social relations and interaction; the system is 'tuned' to the cultural settings, but the device itself is universal. On the other hand, the social ability can also be understood as the set of representations generated by the system, their content being determined by the culture-specific input data.

Normally, this resulting set of representations leads to a store of background social information which, to a greater or lesser extent, is shared by all the members of a

community. This picture is not of replication of social information in all the members, but of intersecting social features in the minds of all these members creating a cross-cutting shared background of social information which can then be used as a preliminary starting point in the acquisition of further social information. Information on the current state of a community could be assessed and updated in a similar fashion, with repeated interactions strengthening the mental representations that lead to stabilised communal beliefs.

What I am aiming at, then, is a picture of community, either off-line or virtual, as a cognitive phenomenon, which I label “cognitive community,” with a set of social features found, with higher or lesser resemblance, in the minds of other members of the community, and which are not only triggered by repeated communicative interactions, but also strengthened, re-shaped, erased, re-structured, etc. as an inevitable and necessary effect of repeated communication sustained through a reasonable time span. And obviously it is not necessarily tied to a ‘physical’ gathering of people. The cognitive community is found in people’s minds, not in the fact that the setting for interactions is on-line or off-line.

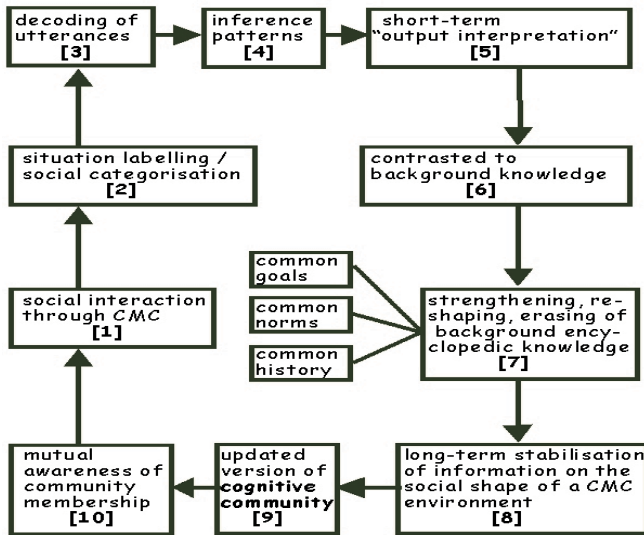


Figure 3. Steps in the formation of cognitive communities (first version).

This picture of cognitive community, which is summarised in figure 3, predicts a first step [1] in the process of cognitive community building in which an environment is

created where a reasonable amount and quality of social interaction is maintained. This quality of interaction leads to an increasing set of socially-connoted representations which are useful for situation labelling and social categorisation in step [2] and which, like Bourdieu's "habitus," form a cumulative internalised knowledge of cultural practices. These practices themselves influence the shape and choice of future actions. It comes as no surprise that social schemas, norms and expectations have been underlined in pragmatics as a key component influencing the comprehension of utterances in conversational interaction. Let us say, then, that the Internet user has a set of social schemas made of readily accessible mental representations which precede and which, in their stereotypical quality, influence the way the Internet user addresses the forming and the processing of particular sets of linguistic data.

Step [3] refers to the arrival of linguistic input to the user's mind. At this stage, only a schematic identification of the grammaticalness of the input is detected, the so-called logical form of the linguistic input. This is the starting point of a wholly inferential task intended to turn this schematic input into full-fledged interpretations. Step [4] is the short-term inferential task of the user's mind, devoted to obtaining supposedly the most relevant interpretation of the linguistic input. According to relevance theory (Sperber and Wilson, 1986/95), this is a universal, biologically rooted aspect of human cognition, always geared to obtaining the most relevant interpretation of ostensibly communicated stimuli. The output of this short-term inferential task is a fully contextualised interpretation of the utterance in step [5].

Together with the inferential faculty, human beings are also endowed with a social faculty, which has both a universal and a culture-specific side, as I have pointed out above. The short-term interpretation of utterances is also dealt with by this social faculty, always geared to obtaining stabilised social information from the processing of discourse. In step [6], then, the information obtained from inferentially developing the schematic input from step [3] is contrasted to background encyclopedic information already stored in the user's mind. A subset of this information is socially connoted and is taken care of by the social faculty of the user's mind. The result is a strengthening, re-shaping, erasing, etc. of background knowledge in general and social information in particular in step [7]. Social information such as common goals, common norms and common history within the community are typical objects of mental negotiation through social interaction (this list of attributes is not meant to be exhaustive).

Specifically, repeated access to particular encyclopedic information when engaging in inferential processing of linguistic data, will tend to produce a sort of long-term strengthening and stabilisation of background information dealing with aspects such as the shape of the user's mental storage of social information in step [8]. A consequence is also an updated version of one background social issue: the mental picture that the user has of his or her cognitive community or communities in step [9].

Again, it is logical to assume that this updated version of community will be found, with higher or lower similarity, in all the members of the cognitive community. In other words, that there will be a step [10] of mutual awareness of community membership which will, itself, influence future interactions within the computer-mediated environment in a sort of cyclic circle.

But the important questions are: How is the shift from step [9] to step [10] produced? How do we turn individually held mental representations on community in step [9] to collective, mutually shared beliefs in step [10]? How do we turn private representations into mutual awareness of shared representations on virtual community?

Towards an epidemiology of communal representations

In order to answer these questions, an epidemiological model of cultural dissemination like the one supported by Dan Sperber in a number of publications, as most notably in Sperber (1996), is suitable, since it can explain this shift from individual thoughts to mutual collective thoughts. This model is centred upon the entertainment and spreading of cultural representations, and I think that mental representations on community membership can indeed be labelled "cultural" if we take the term in a broad sense. Therefore, on paper there is no reason why thoughts on community could not be used as an object of analysis within this epidemiological model.

The basic tenet of the epidemiological model of cultural spread is the hypothesis that mental representations, for instance thoughts and beliefs, are transmitted from one person to another through public representations, for instance utterances or written texts, with which the speaker tries to code these mental representations. And these public representations are then transformed by the audience into mental representations when these public representations are interpreted. The audience can then transform their own mental representations into public representations again,

forming a kind of “mental-public-mental-public” chained process of informational dissemination. An example would be an Internet user who thinks that a new software he has bought is very useful and decides to send an e-mail to his Internet friends in order to inform them. His friends interpret the user’s message and turn it into a roughly similar mental representation. Then, these users decide to tell others about this software in a chat room. Crucially, during this epidemiological process, the information is hardly ever duplicated, but is normally re-entertained and re-shaped each time it changes its format. Of course, one can simply forward an e-mail to other people, in which case there is duplication, but in human communication in general, duplication is a limiting case within this chained spread of information.

Some cultural representations, including the ones concerning community shape and community membership, are communicated a number of times and hence spread out in a group of people and may end up being entertained by every member of the community, stored in the users’ long-term memory and constituting the individuals’ ‘knowledge’ of community. When Sperber speaks of cultural representations, and community-bound ones would be a sub-set of them, he has in mind such widely distributed, representations. Needless to say, this does not mean that they are not subject to repeated negotiation and re-shaping in on-going linguistic interaction through computer-mediated communication.

Within an epidemiological approach, transformation is the normal outcome in this “mental-public-mental” process of information transmission, but some information on social issues like thoughts on community membership and community shape retains some stability in this process of transmission.

If we bear in mind the fact that people hold an unpredictable array of representations, beliefs, and attitudes towards beliefs, and also that people never share all their cognitive information but, rather cross-cut one another’s information, it will be easy to conclude that sustained interaction is essential to create this common ground in which not only it is clear to the users that they belong to a certain community and that this community has certain norms, goals and interests, but it is also mutually manifest that this information is shared by all of them.

Despite the likelihood of transformation in the process of transmission of communal representations, the mutual quality of these representations, backed-up by

social interactions within the virtual space of the community, provides a levelling function, a stability of their storage in the minds of the members of the virtual community. Sperber (1996: 82) writes that

talking about cultural representations means to talk about representations which are widely shared in a human group, and to explain them is to explain why they are widely shared. Different degrees of 'sharedness' imply a non-neat boundary between individual and cultural representations. Hence, the epidemiology of representations is good in making our understanding of micro-processes of transmission and macro-processes of evolution mutually relevant.

One crucial task of computer-mediated interaction is, precisely, to try and maintain both an appropriate number of cross-cutting features in all these members and most importantly, an appropriate mutual awareness of the mutuality of these features. This can now be represented in a more updated chart on cognitive community (see figure 4).

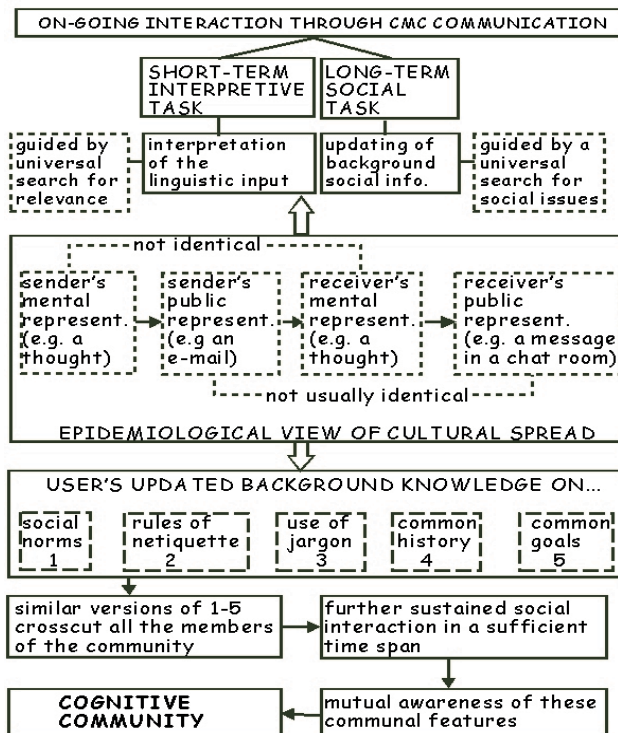


Figure 4. Steps in the formation of cognitive communities (updated version).

This updated version of the model of “cognitive community building” incorporates the epidemiological view of mutual awareness of information on community which helps us explain the shift from step [9] to step [10] in the previous chart of cognitive community (figure 3). Social interaction activates the Internet users’ short-term interpretive task and their long-term social updating task which, in a chained mental-public-mental process of transmission through repeated interaction, leads to a mutual awareness of such community elements like the ones listed in 1 to 5: social norms, rules of netiquette, use of jargon, common history, common goals, etc. (again, the list is not meant to be exhaustive but illustrative). For proper community to exist there has to be a sufficient level of similarity of the representations held by all the members on these aspects of community.

As a result of this epidemiological process, similar versions of attributes of virtual community such as 1 to 5 cross-cut the minds of all the members of the community. Social interaction by the members of the community is essential to maintain and update the necessary mutual awareness of the fact that features 1 to 5 do cross-cut their minds, and their current quality within the normal evolution of all communities. What I have labelled cognitive community would be a set of socially-connoted mental representations which epidemiologically “infect,” as it were, the minds of all the members of the community, and which are re-negotiated and re-shaped through sustained social interactions in a computer-mediated environment. Needless to say, these basic claims apply to offline communities as well.

I am aware that this cognition-centred view of community may be criticised as hyper-individualistic. In reality, I do not think this view prevents us from dealing with community in communal terms, as long as there is an interactive way of checking the mutuality of one another’s assumptions on the state of their community. One of most popular pieces of criticism on the individualistic nature of online communities is the formation of so-called “communities of interest,” leading inevitably to a kind of hyper-specialisation of Internet communities. But this is a feature which is also found in off-line physical communities, tending more and more to networks of interest, rather than networks of physical location, as I have already mentioned.

Besides, this cognitive view does not contradict research which shows that human beings long for and look for community as part of their biological endowment, or even that social capital is re-distributed in ways that even Putnam did not foresee.

What Etzioni (1991) calls “responsive community,” loaded with commitment to help one another, is not incompatible with the formation of cognitive communities in cyberspace, but the epidemiological model simply emphasises the individual role of the members’ assessment within these communities.

By way of conclusion, Bauman says that one should never think about community. Community can only be unconscious or it will die. For him, a community about which people talk is a contradiction. I do not agree. Mental awareness of community requires sustained accessibility to the quality of these representations. Therefore, if one wants to know the current state of his/her community, either online or offline, one has got to reason about their features and also tell others about them. There is no community if people are not epidemiologically “infected” by its most typical features.

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REFERENCES

- Anderson, B. (1983). *Imagined communities. Reflections on the origin and spread of nationalism*. London: Verso.
- Aurigi, A. & S. Graham (1997). “Virtual cities, social polarisation and the crisis in urban public space.” *Journal of Urban Technology* 4(1): 19-52. [http://www.casa.ucl.ac.uk/cyberspace/graham_jut.pdf].
- Bauman, Z. (2003). *Comunidad. En busca de seguridad en un mundo hostil*. Madrid: Siglo XXI.
- Baym, N. K. (1995). “The emergence of community in computer-mediated communication” in S. G. Jones (ed.), *Cybersociety*, 138-163. London: Sage.
- Baym, N. K. (1998). “The emergence of on-line community” in S. G. Jones (ed.), *Cybersociety* 2.0, 35-68. London: Sage.
- Bhatia, V. K. (2001). “Applied genre analysis: A multi-perspective model.” *Ibérica* 3: 3-17.
- Carston, R. (2002). “Linguistic meaning, communicated meaning and cognitive pragmatics.” *Mind and Language* 17, 1-2: 127-148.
- Castells, M. (1999). “An introduction to the information age” in H. MacKay & T. O’Sullivan, T. (eds.), *The Media Reader: Continuity and Transformation*, 398-410. London: Sage.
- Delgado, M. (1999). *El animal público*. Barcelona: Anagrama.
- Erickson, T. (1997). “Why the future of the Internet has more to do with genre blending than gender bending.” Internet document. [http://www.pliant.org/personal/Tom_Erickson/genreBlending.html].
- Escandell-Vidal, V. (2004). “Norms and principles. Putting social and cognitive pragmatics together” in R. Márquez & M. E. Placencia (eds.), *Current trends in the pragmatics of Spanish*, 347-371. Amsterdam: John Benjamins.
- Etzioni, A. (1991). *A responsive society: Collected essays on guiding deliberate social change*. San Francisco: Jossey-Bass.
- Friedland, L. A. (2001). “Communication, community, and democracy: Toward a theory of the communicatively integrated community.” *Communication Research* 28,4: 358-391.
- Gusfield, J. R. (1975). *Community. A critical response*. Oxford: Blackwell.
- Hampton, K. N. & B. Wellman (2001). “Long distance community in the Network Society. Contact and support beyond Netville.” *American Behavioral Scientist* 45,3: 477-496. [<http://web.mit.edu/knh/www/downloads/HamptonWellmanABSv45n3.pdf>].
- Hillery, G. A. (1955). “Definitions of community: Areas of agreement.” *Rural Sociology* 20: 111-123.
- Jones, S. G. (1997). “The Internet and its social landscape” in S. G. Jones (ed.), *Virtual culture. Identity & communication in cybersociety*, 7-35. London: Sage.
- Klang, M. & S. Olsson (1999). “Virtual communities.” Viktoria Publications. [http://www.viktoria.se/results/result_files/50.pdf].
- Matzat, U. & H. de Vos (2000). “Online communities: Which conditions make them successful?.” Report for KNP Research, University of Groningen. [<http://www.ppsw.rug.nl/~matzat/online-communities.pdf>].

- Oldenberg, R. (1991). *The great good place*. New York: Paragon House.
- Peck, M. S. (1987). *The different drum: Community-making and peace*. New York: Simon & Schuster.
- Putnam, R. (2002). *Bowling alone. The collapse and revival of American community*. New York: Touchstone.
- Quan-Haase, A. & B. Wellman. (2002). "Capitalizing on the Internet: Social contact, civic engagement, and sense of community" in B. Wellman & C. Haythornthwaite (eds.), *The Internet in everyday life*, 291-324. Oxford: Blackwell.
- Sperber, D. (1996). *Explaining culture. A naturalistic approach*. Oxford: Blackwell.
- Sperber, D. & D. Wilson (1986/95). *Relevance. Communication and cognition*. Oxford: Blackwell.
- Sperber, D. & D. Wilson (2002). "Pragmatics, modularity and mind-reading." *Mind and Language* 17,1-2: 3-25.
- Watson, N. (1997). "Why we argue about virtual community: A case study of the Phish.Net fan community" in S. G. Jones (ed.), *Virtual culture. Identity & communication in cybersociety*, 102-132. London: Sage.
- Wellman, B. (ed.) (1988). *Social structures. A Network approach*. Cambridge: Cambridge University Press.
- Wellman, B. (2001). "Physical place and cyberplace: The rise of personalized networking." *International Journal of Urban and Regional Research* 25,2: 227-252. [www.amd.com/us-en/assets/content_type/DownloadableAssets/The_Rise_of_Personalized_Networking.pdf].
- Wellman, B. (2002). "Little boxes, globalization, and networked individualism" in M. Tanabe, P. van den Besselaar & T. Ishida (eds.), *Digital cities II: Computational and sociological approaches*, 10-25. Berlin: Springer. [http://www.chass.utoronto.ca/~wellman/publications/littleboxes/littlebox.PDF].
- Wellman, B., A. Quan Haase, J. Witte & K. Hampton (2001). "Does the Internet increase, decrease, or supplement social capital? Social networks, participation, and community commitment." *American Behavioral Scientist* 45: 437-456. [http://www.chass.utoronto.ca/~wellman/publications/netadd/hungarian-article2.pdf].
- Wellman, B. & M. Gulia (1999). "Virtual communities as communities: Net surfers don't ride alone" in M.A. Smith & P. Kollock (eds.), *Communities in cyberspace*, 167-194. London: Routledge.
- Wellman, B., A. Quan Haase, J. Boase & W. Chen (2002). "Examining the Internet in everyday life." Paper delivered at Euricom 2002 Conference. Nijmegen, Netherlands. [http://baserv.uci.kun.nl/~jankow/Euricom/papers/Wellman.pdf].
- Yus, F. (2001a). *Ciberpragmática. El uso del lenguaje en Internet*. Barcelona: Ariel.
- Yus, F. (2001b). "Ciberpragmática: Entre la compensación y el desconcierto." Paper delivered at the II Congreso de la Lengua Española, Valladolid, Spain, October. [http://cvc.cervantes.es/obref/congresos/valladolid/ponencias/nuevas_fronteras_del_espanol/4_lengua_y_escritura/yus_F.htm].
- Yus, F. (2002a). "El chat como doble filtro comunicativo." *Revista de Investigación Lingüística* 2, vol. 5: 141-169.
- Yus, F. (2002b). "Discourse and identity" in N.J. Smelser & P. B. Baltes (eds.), *International Encyclopedia of the Social and Behavioral Sciences*, 3728-3732. Oxford: Pergamon.
- Yus, F. (2003). "El papel del contexto en la comunicación por Internet." *Jornades del Foment de la Investigació*, vol. 7. Castelló, Spain: Jaume I University. [http://sic.uji.es/publicacions/jfi7/comnet.pdf].

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NOTES

¹ As an illustration, Manuel Delgado published in 1999 an essay on the quality of the urban way of life. Many of the issues he takes up and many of the statements he makes in his book seem to have been taken from a book on virtual communities, rather than from a book on the relationships in urban face-to-face encounters. This is because physical communities have virtualised and virtual communities have turned more real. Indeed, Delgado's quotes on how urban societies are bound to break up soon after being formed, how they are made up of strangers who protect themselves from a hostile world, of people who demand safe invisibility, are typical arguments used by dystopian researchers who argue against virtual communities, but are actually used by Delgado to characterise physical urban societies.

² As Aurigi and Graham (1997) put it, “as large cities become more fragmented physically, socially, and culturally, computer communications are seen in this view to be a potentially integrative medium, tying the disparate fragments together into new threads of public discourse, in ways that few other media can manage.”

³ Of course, there are cases in which people only belong to one type of community. This is the premise underlying the distinction between pure and embedded virtual communities suggested by Matzat and de Vos (2000) and which are further distinguished according to whether there is a single or there are several common interests within the community.

⁴ Similarly, Anderson’s (1983) famous coinage of “imagined communities” fits right into this mental picture of community. For him, communities are to be distinguished, not by their falsity or genuineness, but by the style in which they are imagined. Therefore, when determining if a certain kind of computer-mediated communication should be considered a community, it is how the participants imagine their social interactions that tests community membership.

⁵ Several analysts have also claimed that communities, virtual and off-line, are mental constructs rather than physically-bound entities. Jones (1997: 16) writes that “no longer do we, as members of the group, belong to the community, rather the community belongs to us. Our sense of identity is not only derived from our identification with the group, it is derived from our understanding of the group identity.” Besides, Watson (1997: 120) points out that “by focusing on the human act of imagination, not only does it become appropriate to use the community metaphor for describing continuous group interaction, but the judgement of community is rightly returned to the minds of the participants involved rather than their detached observers.”

⁶ Erickson (1997) has even gone as far as to claim that textual genres are the important element in community, rather than interaction. For him, virtual worlds, that is, ‘computer-mediated social interaction among large groups of people’, are better understood as participatory genres than as communities (see also Bhatia, 2001).