

BLOGS: FROM COMMUNICATIVE TO CONNECTIVE ARTEFACTS

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1 Introduction

Social software is a concept that has gain momentum since 2002. However, it is a controversial term; there is not consensus about its meaning. While some programmers, developers and academics use the concept to refer to any communication technology on the Internet (chats, blogs, wikis, mailing lists, etc.) others use it to refer only to more recent communication technologies such as blogs, wikis, etc.¹. This last group considers that social software has distinctive properties if compared with previous communication technologies on the Internet.

In an attempt to sum up differences with previous communication technologies Clay Shirky, one of the evangelist and foster of the term says that ‘social software’ refers to „new things”, Shirky says that with social software „we are not just getting new tools but are getting combinatorial complexity, as with the spread of the del.icio.us tagging pattern from feature to infrastructure” (Shirky, 2004). It was in a summit in 2002 that Shirky used the concept for the first time, thought its history can be traced back to the 1990ies and beyond (Allen, 2004). Ross Mayfield, another important evangelist of social softwares, „define(s) Social Software as software that adapts to its environment rather than requiring the environment to adapt to it. Reason being, software is rarely executed without a social context” (Mayfield, 2005: 121).

This paper assumes the controversy on social software as a starting point for analyzing blogs. I will argue that blogs are not only communication technologies but connective artefacts. Connections are not established only by an exchange of text and images, but they are established and maintained among blogs (and bloggers) through hyperlinks, feeds, trackbacks, and several other mechanisms. I will argue that the socio-logic, the social logic, of blogs is different from the logic of more traditional communication technologies such as chat, MUD, mailing list, etc because connections involve a continuous process of delegating tasks and competencies to mechanisms.

2 Doing ethnography among bloggers

Doing ethnography on the Internet has always been a difficult task. The first virtual ethnographies limited their analysis to the interactions in the screen, so researchers focused their attention in analyzing the exchange of text and images (Eichhorn, 2001) that took place.

While traditional communication technologies allowed this ethnographical approach, blogs and other types of social software forced us to adopt a different approach in ethnographies of/through the Internet. I have constructed my field as asituated, not located in any specific site (Hine, 2000), neither in the cyberspace nor in any offline site. My field has been developed following the proposal of George Marcus (1995) of constructing the field of research by following people and things. This approach has led me in the preliminaries stages of my research to open my own blog and to read and follow others blogs. But it has led me too to attend a number of blogs formal and informal meetings for the last six months.

I have focused my fieldwork in the research of very intensive bloggers from the Spanish Speaking Blogosphere. Active bloggers that write everyday, for more than a year, that not only use the blog platform but use another services and mechanism that they incorporate to their blogs. And the most important issue, bloggers that think of blogs not just as a tool, but as a way of being (Markham, 2003), that is to

say, people that not only write blogs but recognized them as 'bloggers'. This paper presents some results of this ongoing ethnography.

Infrastructure: „Studying the boring things”

A fundamental part of my ethnographic work has been focused in analyzing the mechanisms and devices that are used in the blogging practice. These mechanisms are part of what I called the blog infrastructure. Infrastructure is commonly understood as a system of substrates (railroad, pipes and plumbing, etc.) that form the unnoticed and invisible background that sustains our activities. Blog infrastructure refers to all the material elements that make possible bloggers to develop their practices. It is composed of all the material elements that are part of the blog platform, that is, the software program that is used to write blogs.

I have become interested in the blog infrastructure after finding in my fieldwork that some small mechanisms and devices that are taken for granted are essential for the blogging practice. Empirical data has shown how important are in the blogging practice mechanisms and devices such as permalinks, trackbacks or feeds. I follow the original proposal done by Susan Leigh Star of „studying the boring things”, infrastructure, because „in information infrastructure, every conceivable form of variation in practice, culture, and norm is inscribed at the deepest levels of design” (Star, 1999: 389). These boring and unnoticed things are, however, a fundamental element in blogging practices. Many mechanisms and devices have been incorporated in the blog infrastructure along the years, and they have deeply shaped blogging practices, as for instance RSS feeds, comments, readers' statistics, blogroll, etc.

3 From text to connections

3.1 Conversations in the Blogosphere

Virtual communities have been for long time the paradigm for the study of human groups on the Internet. It has been based in three interrelated elements: community, settlement and culture. In this framework, a virtual community was usually identified and associated with a virtual settlement like a chat, a mailing list or a MUD. As Quentin Jones (1997) has proposed „the existence of a virtual settlement is proof of the existence of a related virtual community“. These virtual settlements were conceived as shared spaces (a chat channel, a mailing list, etc.) where interactions through text and images allow emerging a share culture.

Communities have been thought in this framework as held through the exchange of text (Thomsen, 1998) to the extent that many studies have formulated these as ‘communities of text’ (Eichhorn, 2001). So artefacts and technical devices are very often absent in these analysis, the technical is taken for granted and social phenomena are thought as dematerialized (Ito, 1999): virtual.

In the case of blogs, bloggers don’t share a common space like it is the case of chats and forums (Efimova et al., 2005). A blogs is not a shared space but a personal space. A blogger, for example, write an article (a post) and the blog platform distributes it in several ways: in the blog, by email or through RSS feeds. Readers have two options for responding: they can leave a comment, or they can write another post on the same topic if they have a blog. According to bloggers, the fundamental two-way interaction in the Blogosphere takes place following the second way: as an exchange of posts written by different bloggers in their own blogs. That is called a conversation. Conversations are a paradigmatic phenomenon in the Blogosphere, as one of my informants/correspondents says: „for me it [conversation] is something essential in blogs [...] what I mean is that blog are in essence conversations, understanding it as am exchange of posts where hyperlinks are the tool to maintain an active listening” (Fieldwork notes, November 2006).

Another blogger I have met in my ethnographic research says to his readers: „if you want to comment [something related to his blog], then, open your own blog” (Fieldwork notes, April 2006). The idea that Blogosphere is a Big Conversation (Torio, 2005) is however a discussed issue. Susan Herring et al. (2004) have shown in a study based on the analysis of links between 5.517 blogs that the Blogosphere is not a dense conversation among blogs, but that it „is partially interconnected and sporadically conversational”. I vividly experiment how debated the topic of conversation is in one of the most important meeting of bloggers held in Spain during 2006. Its was a conference that gather for one day more than a hundred people in the Polytechnic University of Madrid (Universidad Politécnica de Madrid). Of course, the conference was called ‘The Conversation’ (‘La Conversación), but in spite of its name (or because of it) some of the attendants and speakers showed a critical position to the idea that conversations were a generalized phenomenon in the Blogosphere. „We are going to speak of many things, conversations among them, which are like the Holy Trinity of bloggers”, said one of the speakers in his intervention (fieldwork notes, October 2006).

Whether it is or not an extended phenomenon, I have found in my fieldwork that conversations are very important episodes for establishing and sustaining interactions. Rich chains of arguments are elaborated in conversations. Aldo de Moor and Lilia Efimova (2004), for instance, have pointed to the importance of conversations too, and have argued that it is through conversations that a sense of community emerges among bloggers.

Conversations are not formal structures. On the contrary, groups of posts that form a conversation are not formally defined by any means. Post are informally grouped in conversations when they treat the same topic in the same time and, this is perhaps the most important aspect, when they are connected through hyperlinks. This last element, hyperlinks, is fundamental for understanding how conversations are held. Any blogger participates in conversations in his/her everyday practice just by following hyperlinks in blogs. You can read a post and follow the links to other

blogs' post. Then you can write something in your own blog and link to some of the previous posts you have read. Your post is then incorporated to that conversation.

3.2 Making inscriptions, transforming post into 'immutable mobiles'

Hyperlinks are fundamental for building conversations. So much that Rebecca Blood, a famous north American blogger says that: „I would go so far as to say that if you are not linking to your primary material when you refer to it —especially when in disagreement— [...] you are not keeping a weblog“ (Blood, 2002: 18). They are of three different types, attending to where it is located and who has elaborated it: permalinks, trackbacks and embedded hyperlinks. The first and second one are elaborated by infrastructure (permalinks and trackbacks) while the third one (embedded hyperlinks) is elaborated by the blogger when he or she is writing his/her post. Though hyperlinks are the essential mechanism of the World Wide Web, they have not been present and in use in blogs in the same way along the years.

The introduction of the permalink mechanism in the blog infrastructure radically transformed blogging practice. The permalink is a URL (Uniform Resource Locator) that allows locating precisely every post. There is a univocal relation between post and permalink: a post is associated to a permalink, and a permalink is only associated to a post. Though they are assumed as part of the blog infrastructure, it wasn't till 2000 that they were incorporated in blog platforms. As blogger Tom Coates recognizes in his blog: „there are some things that become so ubiquitous and familiar to us - so seemingly obvious - that we forget that they actually had to be *invented*. Here's a case in point - the weblog post's *permalink*“ (Coates, 2003).

Permalinks make of a blog post quite a different object from an intervention in a chat or an exchange of messages in a newsgroup. The post is transformed when a permalink is inscribed in it: „it's that each post is a discrete object -- with its own link -- within the context *of* a page“, says a blogger in a comment to Coates. Inscription is a concept used in the Actor-Network Theory (ANT) for

understanding how scientist and engineers work in their laboratories to build entities that they later will use in their argumentations. Inscription refers to „all the types of transformations through which an entity becomes materialized into a sign, an archive, a document, a piece of paper, a trace” (Latour, 1999: 306).

Inscriptions are, for instance, the graphic that describes the composition of a soil, the temperature data of a substance that have been registered, or the string of letters representing the DNA amino acids of a gene, etc. The concept of inscription helps us to understand how a piece of text confers strength and power to their makers. While a gene composed of chemical amino acids is difficult to transport and combine, a sequence of letters (the inscription) is very easy to articulate and mobilize in chains of argumentations that scientist and engineers elaborate for strengthening their positions, make claims, deploy arguments, etc. In a similar way, permalinks and other inscriptions are used by bloggers to transport and articulate posts. They are used to strengthening their positions, making others to reinforce them by linking their blogs, making other reading their blogs, etc.

But permalink is not the only inscription in a post. Post are multiple inscribed objects. Every post has clearly defined different elements: title, body of text, permalink, a category under which it has been classified, date, author’s name, the number of trackbacks (and a link to them) and the number of comments that the post has received (and a link to them). But a permalink not only make of a post an individual object. It add stability to the posts: „permalinks allow users to bookmark full articles at a URL they know will never change, and will always present the same content”, according to the glossary in the WordPress blog platform (<http://codex.wordpress.org/Glossary>); and it allows locating precisely where the post is, so that it can be easily referenced: „for the first time it became relatively easy to gesture directly at a highly specific post on someone else's site and talk about it. Discussion emerged” (Coates, 2003).

The introduction of permalinks transforms post in ‘immutable mobiles’, a concept used in the ANT by Bruno Latour in order to explain how scientist and engineers can execute control at distance. An ‘immutable mobile’ „have the properties of

being mobile but also immutable, presentable, readable and combinable with one another” so that it can be translated and articulated in new and different ways (Latour, 1990: 26). Actually, almost any text on the Internet is mobile (only as an exception, some encrypted texts or objects protected by some mechanisms are not mobile): they may be easily copied and distributed; but properties of different texts (and digital objects such as images, video, etc.) are not the same. They are the result of relations that the text maintains with other entities. Once a post become an individual object and is multiply inscribed, it can reach new readers (human or non-humans) in new ways. And so it happens. Blogs become not only accessible from a web browser but they can be reached through email, feed desktop readers or web aggregators.

3.3 Making assemblages, maintaining the post flow

Once they become individual objects and are inscribed in multiple ways, posts are not only very easy to transport but they are very easy to articulate. That means that post can be used, distributed, associated, and group in multiple ways. They can be group by categories or by date of publication; they can be distributed through email, feeds, WWW browsers, online aggregators, etc; they can be aggregated in planets, or they can be mobilized through embedded hyperlinks, etc.

Through the circulation of post and links bloggers connect different entities (human and non-humans; readers, planets, aggregators, etc.) around his/her blog. Feed readers, for instance, allow readers to subscribe to blogs. From the very subscription instant onwards, instead of a human reader opening his/her browsers and asking for the blog’s URL, it is the feed reader (a non-human reader) which will do this task. Blog planets get connected to blogs when this are aggregated (to the planet). Planets are a type of portal-like that are built using feeds from blogs. When a blog is aggregated to a planet the latest post of the blog will appear on it.

Hyperlinks, post, and other mechanisms such as feeds, mailing posts distribution, etc. are used to assembly human readers and non-human artefacts (planets, aggregators, etc.). Blogger’s practice becomes then a work of making assemblages,

aggregating heterogeneous entities composed of human and non-humans. But there are many differences in the dimension of assemblages. Social network analysis has shown that links are not equally distributed among blogs, on the contrary, large groups of blogs show a recurrent non-uniform pattern of hyperlinks distribution called free-scale network. This network pattern is characterized by a few nodes that are widely connected while the rest of nodes are scarcely connected. This is the pattern found by Tricas-García and Merelo-Guervós (2004), for instance, in the analysis of a big group of blogs of the Spanish Blogosphere, the same that Bachnik et al. (2005) found in the Polish Blogosphere or Kumar et al. (2003) found in an analysis of 25.000 blogs.

But it is not the direct connections that a blogger elaborates (links he/she includes in his/her blog, feed he/she is subscribed to, etc.) what gives a measure of the dimension of the assemblage that the blogger has elaborated. On the contrary, the embedded hyperlinks that other bloggers have elaborated, that is, inbound hyperlinks of a blog, are the bases for measuring the dimension of an assemblage. All the work devoted by a blogger to get interested readers and bloggers (that will get subscribed, or will reference it through hyperlinks) is translated into a network of inbound hyperlinks.

Translation is another fundamental concept in the Actor-Network Theory; it can be used to understand inbound hyperlink as an effect of the blogger practice of assembling. Translations are „all the negotiations, intrigues, calculations, acts of persuasion and violence thanks to which an actor or force takes, or causes to be conferred to itself, authority to speak or act on behalf of another actor or force” (Callon/Latour, 1981). Every time a blog post is hyperlinked, all the effort and calculation that his author has put on it are translated into an external hyperlink. A new connection conferring strength to the blog and extending its assemblage.

This unequal distribution of hyperlinks is measured by services such as Technorati, a main site that works as a hub and search engine specialized in blogs. Bloggers subscribe to Technorati and add their blogs to the database of the service. Technorati counts the inbound links of each blog and make a ranking according to

that. Technorati translates this logic of measuring the dimension of assemblage into a hierarchy of authority. For that, Technorati correlates number of links with authority, so every embedded hyperlink is considered by Technorati as a reinforcement of a blog's relevance, it doesn't matter whether the link is used to praise or criticize the blog. This is indeed a much extended belief among bloggers, as I have found in my fieldwork.

After an informal bloggers meeting that in Spain has been called 'Beers and Blogs', a high ranked blogger told me: „high position in a ranking means power” (Fieldwork notes, November 2006). Power to influence people or search engines, power because you are read or because you can point what you think is important. The dimension of the assemblage is translated by Technorati into a measure of authority, and so it proposed in its search engine. But Technorati is not the only service that does such ranking. In the last six months, similar rankings and lists have been elaborated in the Spanish Blogosphere by individual bloggers or companies; four new rankings have been added to at least other three existing ones.

4 Conclusion: Delegating and distributing competencies

Sustaining assemblages requires permanent work. Connections have to be maintained and new connections must be established in order to extend the assemblage. In any moment, readers could disappear, subscribers could move to another blog, bloggers could ignore the blog and search engines could expel it from their database. If that happens, no new interactions and no new inbound links and connections would take place.

Sustaining the assemblage requires a permanent flow of links and post. Bloggers usually apologize when they don't post or if they will not post for several days: „Low Blogging (Hard Times)” is the title of a post written by a blogger I have been following for some time (Fieldwork notes, May 2006) where he apologizes for not writing often because he has not time. It is assumed by many that they have to write and post everyday. Once a blogger reduce his/her posting rate, his blog starts to

lose visibility. At the end it will disappear slowly of the rankings, search engines and of other blogs. Technorati, for instance, take into account for its ranking only the inbound links that a blog has received in the last 180 days. Spanish TopBlogs.es ranking have a similar criterion.

Connections in blogs are durable, but the strength of an assemblage has to be maintained by the blogger and the blog infrastructure. Assemblages are sustained by mechanism such as feeds, aggregators, and trackbacks. Feeds capture readers and maintain them connected to the flow of post from a blog. A subscription to a feed means that every time the subscriber opens his/her feed reader (in his/her desktop or online aggregator), the latest post of the blog will be there.

Bloglines, an important online feed aggregator, explains how it works: „after you join Bloglines you simply search for the content you are interested in and identify the feeds you want to track. Once you „subscribe“ to those feeds (a single-click maneuver in most cases), Bloglines will constantly check those feeds for changes or additions and direct new information onto your Bloglines personal page”²². That is to say, Bloglines will check the blogs for you, and will direct their posts to you.

There is a continuous process of delegation in the practices responsible for maintaining connections. Bloggers maintain connections and sustain assemblages through a continuous process of delegating this task into other mechanisms and devices such as Bloglines, trackbacks or pingbacks. Conversations have shown, for instance, the fundamental function that trackbacks, pingbacks and permalinks have in constructing these episodes.

A blog is an artefact that is always responding when somebody opens its URL or when someone follows a hyperlink to it. The blogger is continuously sustaining connections through delegation to mechanisms that are part of the blog infrastructure: sending pingbacks or trackbacks to other blogs, feed readers, aggregators, etc. There is a continuous process of delegation built up in the blog infrastructure that allows bloggers to sustain their assemblages. And this is a fundamental dimension of many other social software. That is, the work of delegation and distribution of competencies that is inscribed in their infrastructures.

A work done by developers of this infrastructures that distributes who (the blogger or the infrastructure) is responsible for what.

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¹ See Wikipedia: ‘social software’, in URL:

http://en.wikipedia.org/wiki/Social_software.

² Bloglines.FAQ, from <http://www.bloglines.com/help/faq>.