

# Appropriations of Fotolog as Social Network Site: a Brazilian Case Study

Raquel Recuero  
(PPGL/UCPel)

**Abstract:** In this paper, we discuss how Fotolog is appropriated by Brazilian users as a social network site (boyd & Ellison, 2007) rather than a photosharing site. We explore the emergent practices of identity and sociability observed in a case study of 18 fotologs observed in their publications and comments during one month (December, 2007), which are further categorized and discussed. Our study resulted in the description of several common practices in those fotologs which characterize the use of Fotolog as a social network site. We finish by discussing how the observed appropriations can influence social networks on Fotolog, and how can those appropriations reflect users needs.

**Keywords:** Fotolog. Identity. Sociability. Social Network Sites.

## 1. Introduction

Photo sharing sites are usually studied as places where users can express themselves (Cohen, 2005), share narratives (McDonald, 2007) and emotions (Vronay, Farnham & Davis, 2001). Research on the subject also seem to have a strong focus on how these practices are similar to the 'Kodak Culture' described by Chalfen (1987), comparing the old photographic practices to the new digital ones (Frohlic et al, 2002; Kirk et al, 2005). In this paper, however, we argue that these sites can be perceived as social places also, by focusing on **how fotolog is appropriated as a social network site** by Brazilian users and the social practices created and developed as a result.

We begin the paper by discussing how Fotolog is appropriated as a social network site (boyd & Ellison, 2007) rather than as a photo sharing site (McDonald, 2007) or as a photoblogging site (Cohen, 2005). We argue that Brazilians use Fotolog primarily to (1) build a profile and create an identity and (2) interact with other users and share social connections. Thus, Fotologs can help users create identities through self-expression based on a discourse built upon images and text; and maintain social relationships through social presence between mediated discourses (Counts & Fellheimer, 2004).

In order to investigate how fotologs reflect those appropriations, we studied in depth 20 fotologs, analysing (a) how identity is constructed through the image and texts discourse (posts) and (b) how conversation with other fotologgers takes place within comments in photos. The observed fotologs were chosen by randomly picking among the most recently updated fotologs in Brazil. Data published on these fotologs were collected during the period of one month (December, 2007). For each fotolog, we kept track of the posted photos and associated text, the comments made by other users and other fotologgers tagged as "Friends" and "Groups". We directly observed 1583 comments and 242 photos and texts and analyzed and classified their content.

## 2. Fotolog as a Social Network Site

Fotolog was created in 2002 by Scott Heiferman and Adam Seifer, and has more than 14 million users uploading more than 350 million new pictures each day. Users from Latin America compose the majority of users in Fotolog. Brazil is the third country in number of users (behind Chile and Argentina) with more than 3.4 million users from which 50% are under 24 years old. We argue, in this paper that Fotolog was appropriated by Brazilian as a social network site. In order to discuss this, we must explain how it works.

Fotolog can be viewed a photo sharing system by the system mechanism. Each user can create an account and create a fotolog. Each fotolog has a unique nickname, which composes the fotolog's URL. Each published photo appears in the center of the fotolog's main page, with a caption. To the left, there is an archive of the six previously published photos, order chronologically (the most recent at the top), with the published date in evidence. Below this list, there is a link to an archive containing the older photos, where it is possible to see all photos published by the user. On the right of the main page, there is a list of six "friends", which are users in the fotolog system, that are added by the user; this list is ordered by how recently they have updated their fotologs (the most recently updated is on the top). Below the list, there is a link to all added friends. Further below, still on the right side of the page, there is a space for the user to add external links. Above the main photo there are the fotolog title and a link to a description of the fotolog owner. At last, below the main photo, there is a space for visitor's comments. The comments space can be open (anyone can comment), moderated (only fotolog users can comment) or closed (no comments are accepted).

There are two basic types of fotolog accounts. The standard account is free, but imposes a limit of one photo per day and 20 comments per photo. The "gold" account is paid and, in addition to not having the standard account's limits, it also allows for a more detailed customization of the fotolog. When compared to other photo sharing services, such as Flickr, Fotolog is a very simple system, offering a very basic set of tools for users.

As we argued, the study of this type of photo sharing sites is often focused on the context of the published images (Cohen, 2005; Sibilia, 2005), with the process of producing and publishing photos (Miller & Edwards, 2007) or even with stories told through images (Vronay, Farnhan & Davis, 2001). However, few studies are concerned with studying these sites not as simple photo sharing sites, but also as a social space, where social networks can be created and maintained. In this paper, we argue that Fotolog is appropriated by Brazilians as a place composed fundamentally by social interaction and exchanges, becoming a social network site. The definition given by boyd & Ellison (2007) is used here as the concept of a social network site.

*We define social network sites as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site.*

Fotolog can be understood as a social network site<sup>1</sup>, since it allows its users to create an individual public or semi-public profile, which is uniquely identified through a nickname. The system also allows for a user to build a friends list and view other users' lists. Additionally, fotologs also offer a space for interaction between users, by allowing photos to be commented, which allows social exchanges and the second perception of a social network associated to each fotolog.

In a related work, McDonald (2007) analyzes photosharing as visual conversational tools, showing how people build social interaction through imagetic discourses. Likewise, the comment space of fotologs can contain similar interactional spaces, like those enumerated by De Moor & Efimova (2004) in weblogs. The authors showed that weblogs are capable of supporting different types of conversations between authors and readers, which end up becoming authors themselves. These interactions can often only be followed by readers that perceive the social network in which the weblog is inserted, since not always the threads are referenced, as we showed in a previous work when discussing webrings (Recuero, 2003). Fotologs provide similar interaction features, as we argued in a previous work (Recuero, 2007). They can be used to build profiles (pages that represent actors) and allow for these actors to interact with each other and perceive their social networks

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<sup>1</sup> A social network is composed by a set of actors and their connections (Degenne and Forsé, 1999).

through their profiles. Such appropriations are linguistics appropriations, using text and images to express a “self” through the computer and establish conversations through this space.

### 3. Methodology

In order to analyse the mechanisms used by Fotolog users to build identity and socialize with other users, we selected randomly a group of fotologs to be studied. This group was composed of randomly picked fotologs that appeared in the main page of Fotolog, which show random recently updated fotologs<sup>2</sup> for each geographic area. For this work, we chose 20 fotologs maintained by Brazilian users. Each fotolog was tracked for a month, in December 2007, and the following subjects were observed:

- a) Elements of construction: photos, texts, page layout, features used to build identity.
- b) Elements of interaction: comments, commenters, frequency of comments and actions taken by the user to create interactions.

We analysed a total of 242 photos and 1583 comments during the study<sup>3</sup>. Table 1 summarizes the obtained data. The observed fotologs are identified only by numbers in order to protect the authors’ privacy. Although data was observed in Portuguese (Brazilian fotologs), the data, in this paper was translated to English.

**Table 1: Gathered data**

Fotolog	Number of photos	Number of comments	Number of “Groups”	Number of “Friends”
1	19	33	0	32
2	23	77	0	60
3	24	33	5	19
4	5	4	2	28
5	9	28	0	64
6	8	142	13	93
7	3	5	0	2
8	24	171	8	206
9	15	96	15	359
10	10	60	9	43
11	3	45	2	118
12	31	465	0	92
13	4	0	0	0
14	6	79	2	33
15	7	15	1	12
16	23	197	2	101
17	17	12	0	21
18	5	61	0	40
19	6	60	0	11
20	0	0	7	151
<b>Total</b>	<b>242</b>	<b>1583</b>	<b>66</b>	<b>1485</b>

We will now discuss what was qualitatively and systematically observed within this fotolog, exploring the social network site aspects: identity and sociability.

### 4. Appropriation of Fotolog as a Social Network Site

From what has been observed on the selected fotologs, we discuss the mechanisms used by users to build representations of themselves and to create sociability spaces.

<sup>2</sup> Such method is naturally biased towards fotologs that are updated often, discarding fotologs that are never updated.

<sup>3</sup> Observed fotologs are represented in this paper by their numbers (1, 2, 3...). Commenters’ fotologs are represented by letters (A, B, C...).

## 4.1 Fotologs as an Identity Space

One of the first appropriations of a fotolog is to transform it, from a simple place to upload photos into a personal space, representing the individual. Authors such as Sabilia (2005) and Lemos (2002), for instance, show how some weblogs dealt with aspects of “self construction” or “self narration”. The authors show how the perception of a weblog as a narrative, through an instantiation of the Other, is essential for a communicative process to be established.

Döring (2002) analysed the phenomenon of identity building on the Internet through personal webpages. For the author, personal websites are individual appropriations of the cyberspace, as a permanent self construction, in line with post-modernism.

*Common to concepts such as ‘patchwork identity’, ‘narrative identity’, ‘multiple self’, ‘dynamic self’, and ‘dialogical self’ is a focus on constructedness, change and diversity. Precisely these aspects are to be found on personal home pages: The home page is always ‘under construction’; it can be regularly updated to reflect the latest self-conceptions.*

As noticed by Döring, there is a permanent process of identity building in the cyberspace. This process appear not only on private personal websites, such as fotologs and weblogs, but also on spaces such as profiles in sites such as Orkut and Myspace (boyd, 2006). These appropriations work as a presence of the self in cyberspace, a private space that is also, at the same time, public. To exist in the cyberspace, one needs to be “seen”. It is necessary to become part of this networked society, appropriating the cyberspace and building a “self” there. Boyd and Herr (2006) reached similar conclusions when studying Friendster profiles, showing that such construction is not an exclusive characteristic of weblogs or personal websites.

Judith Donath (1999) argues that the perception of the Other is essential for human interaction. She shows that, in the cyberspace, due to the absence of information tht usually exist in face-to-face communication, people are judged and perceived by their words (p.26). These words legitimized by social aggregation, build the perception individuals have of social actors. It is needed, thus, to put faces, information that create individuality and empathy, in the cyberspace’s usually anonymous information. This is a requirement for communication to take place. Those issues are important because they make evident that a weblog must identify, somehow, the individual behind it, so as to give clues for social interaction. In the same way, fotologs can also be built as spaces of the “self”. In fotologs, the following strategies are used for that purpose.

### 4.1.1 Published photos

An expressive majority of the published photos in the observed fotologs are related to the owners of the fotolog. Those are photos where the owner is shown or other people and objects, closely related to the owner are shown (friends, family, things he or she likes or dislikes). This strategy is essential so as to let the fotolog to be recognized by visitors as a personal space, a space that narrates part of its owner. In this sense, fotologs are akin to personal websites as observed by Döring (2002).

Published photos could be classified in 6 classes (Table 2):

- a) **Personal photos:** those are photos where the fotolog owner is the central subject. He or she can appear alone or with other individuals. Photos of parts of the body (a tattoo, for example), where it is obvious that they belong to the fotolog owner, also fit on this class, as well as drawings and caricatures. Therefore, in this class all photos of the owner himself or representations of himself are included.
- b) **Photos of objects:** those are photos of objects. When objects appeared in a photo, an association with the owner’s personality could be clearly made in some way. For instance, such photo could be of something the owner owns or identifies himself with.

- c) **Photos of animals:** when animals appeared in photos, they were usually pets that belonged to the fotolog owner or to close relatives.
- d) **Photos of landscapes:** these photos are often associated with a text where the fotolog owner exposes some thought.
- e) **Photos of friends:** this category refers to photos where the fotolog owner does not appear, but his or her friends do. This type of photo is somewhat rare, showing a preference towards photos where the owner appears. A typical case is when it is some friend's birthday and his or her photo is put as homage.
- f) **Other:** any other photos that appear only occasionally fit this class, such as comic strips, cartoons, television images etc.

**Table 2: Numer of photos in each class**

Fotolog	Personal	Object	Animals	Friends	Landscape	Other
1	18	0	1	0	0	0
2	23	1	0	0	0	0
3	19	1	0	0	0	5
4	5	0	0	0	1	0
5	9	0	0	0	0	0
6	8	0	0	0	0	0
7	2	0	0	0	1	0
8	24	0	0	0	0	0
9	12	1	0	0	0	2
10	8	0	0	0	0	2
11	3	0	0	0	0	0
12	30	0	0	1	0	0
13	4	0	0	0	0	0
14	6	0	0	0	0	0
15	7	0	0	0	0	0
16	23	0	0	0	0	0
17	10	0	1	6	0	0
18	5	0	0	0	0	0
19	0	1	0	0	1	4
20	0	0	0	0	0	0
<b>Total</b>	<b>214</b>	<b>4</b>	<b>2</b>	<b>7</b>	<b>3</b>	<b>12</b>

As it is possible to observe, photos where the owner appear directly or indirectly are the overwhelming majority. Most of these photos are the so-called “ego-shots”(Figure 1) photos where the owner appears alone and that are taken by him or herself. Another common behavior, found in 17 of the fotologs, is the use of tools to digitally enhance the photography. These tools range from adjusting the image's tone (in order to make the photo match in tone with the fotolog design template), use of funny effects and insertion of frames to correcting imperfections, create artistic elements or even alter the background and the general context.



**Figure 1: ego shot**

Such behaviors are evidence that the photos are being used as elements of personalization, as defined by Döring (2000) e Donath (1999). They purposefully give up the anonymity of the Internet by doing so. This could be justified by Donath (1999) proposal, where the perception of an individual in the cyberspace is essential to elicit interaction. Therefore, by publishing photos of themselves, fotolog owners would be building a personal and customized space, showing others that there is a “someone” to interact with.

Another observed feature of such photos is a certain amount of seduction intention. No one published a careless photo of him or herself. Most photos seem to be carefully prepared, so as to enhance the best elements of the owner appearance, in order to elicit visitors to leave a comment on the fotolog.

#### 4.1.2 Nickname Usage

Another strategy to build a profile is related to how users choose a nickname in the system. Each user chooses a nickname that identifies uniquely an URL for a fotolog. When users write comments on other fotologs, this nickname is used to identify the writer. The nickname creates a link with the fotolog owner, allowing for others to identify the user as a unique individual. Interestingly, when a user creates a second fotolog (and thus, chooses a new nickname), he or she will make great efforts to recreate the previously existing link, so as to regain the previously formed social network and all the perceptions already created.

Hello Dani!!!  
This is my new fotolog... add me!  
Kisses, Carla

In a similar way, it is common for some users to comment using another account (due to a shared computer at home, for example). When doing that, they will always sign the comment with the nickname so as to let the fotolog owner know who is commenting.

fotolog 1 @ said:  
/fulaninha too lazy to unlog

The above is an extraction of a comment written in a fotolog. A nickname, accompanied by a link to the commenters' fotolog, can be seen at the beginning of the comment ("*fotolog1*"). Marlow (2004) observed that links are used as a form of identification in weblogs and argued that links could be used to infer social ties between individuals. The shown comment is also signed with a different nickname ("*fulaninha*"), which is a case where the actual commenter ("*fulaninha*") was using a different account at the time she decided to write (in the comment she says that she is too lazy to log off and log in again with her username, thus the need to sign with the proper nickname). Several fotologs allow only comments from other fotologgers, disabling the possibility of receiving anonymous comments. This feature was added later in the system, due to users' requests, since anonymous comments were often offensive.

#### 4.1.3 Text associated to photos

Fotolog allows for a short text to follow each uploaded photo. This text forms another way to make the fotolog more personal. In the same way as done with photos, most texts mention the author explicitly in some way. Several fotologs are used as personal diaries, where the owner tells what they have been doing. In the text below, for example, accompanied a photo where the subject could be seen giving someone a goodbye hug.

Byyyeeee mah  
I'll after put the videos on the youtube so you can see Love  
And I'll send all the pictures to your email... and I will everything... hehehe  
I don't want to talk. I wrote everything I wanted you to know, I hope you read and keep  
everything inside your pudding head heheh  
See you soon sister  
Thanks for everything! Really Love you  
No words...

We can see that the text is directed to the friend and that actor seems to be saying goodbye to this friend. The text is very personal, which makes evident the actor's feeling at the moment.

Another common practice is publishing music lyrics as a way to express feelings and thoughts. The text can also contain games or jokes that are propagated through the network, often called *memes*<sup>4</sup>. As an example, we cite the game called “The curse of Frank the Rabbit”, where users were “cursed” by other users and were incited to publish an image of Frank the Rabbit<sup>5</sup> and, with it, six “secret confessions” and a list of six different users to be cursed. The game was interesting because the confessions are meant to be personal, creating a channel for users to know a little more about each other.

Regarding the texts associated to photos, we divided them into themes in order to better quantify their presence:

- a) **Personal text:** this theme contains texts that are about the author him or herself. This includes reports about daily activities, general thoughts and feelings.

Test today... I think I did well

- b) **Lyrics and poems:** these are texts that contain or are entirely composed of music lyrics or poems, which may be related to the author’s thoughts.

Song for missing someone - coldplay. I’ll see you soon

- c) **Scraps and messages:** these are texts targeting a specific individual or group of individuals, including advertisement of parties, invitations to go to places etc.

These days here have been great but would have been better if you were here

- d) **No text:** some authors publish photos without an associated text. We included here texts containing only an emoticon or a single character. We did not, however, include texts that explicitly mentioned that the author did not want to publish a text with the photo. Those were considered personal texts.

- e) **Comments about the photo:** the text refers to the photo, in order to comment or explain it.

I will miss this guysss :~

- f) **Mememes:** this class includes texts that are diffused through the actors of a network by copy, such as jokes and games.

8 aleatory things about me  
 - I used to practice judô  
   - I study guitar  
   - I have a blue guitar  
 - I Love someone Who doesn’t Love me back  
   - I Love RDB  
   - I have a fake (zuuda)  
 - My favourite color is blue  
   - I’m stubborn

**Table 3: Text categories<sup>6</sup>**

Fotolog	Personal	Lyrics & Poems	Scraps and messages	No text	Comments	Meme

<sup>4</sup> Term created by Richard Dawkins (2000). See Recuero (2006) for more details.

<sup>5</sup> A character of the movie “Donnie Darko”

<sup>6</sup> Texts were allowed to belong to more than one class.

1	11	1	3	2	13	0
2	20	5	11	0	4	0
3	19	0	18	0	23	1
4	5	0	2	0	5	0
5	6	0	7	0	8	0
6	6	1	7	0	3	1
7	2	2	1	0	0	0
8	10	3	15	2	9	0
9	11	1	10	0	4	0
10	7	2	9	0	6	0
11	3	0	3	0	1	0
12	26	4	32	0	10	0
13	4	2	1	0	2	0
14	4	2	1	0	2	0
15	7	1	7	0	0	0
16	23	0	22	0	0	1
17	11	15	9	0	7	0
18	3	1	3	0	2	0
19	3	4	6	0	4	0
20	0	0	0	0	0	0
<b>Total:</b>	<b>181</b>	<b>44</b>	<b>167</b>	<b>4</b>	<b>99</b>	<b>3</b>

One of the first things we can observe from the quantification presented in Table 3 is that it is very rare for fotolog owners to publish photos without an associated text. Therefore, Fotolog is not only about images, but is equally a textual experience. We could observe that that a large fraction of the texts were comments, scraps or personal messages. This is because texts usually mention the published photo, the author’s mood and some message to friends, like leaving hugs and kisses. In a general way, observed fotologs are focused in telling something personal, sending messages to individuals (friends, girlfriend and boyfriend, mostly) or commenting on the published photo (but always in an indirect way – e.g. “me and Jane. Love you :\*)”). Memes were rarely seen as were photos without text. Interestingly, often text and photo are not related in any direct way – i.e. the text would not mention the photo’s content. In many cases, the photo was used only as a “carrier”, a way for the text to be published.

#### 4.1.4 Friends and groups

Another way to build a “self” in Fotolog is by adding other fotologs to the “friends list”, present in the main page of each fotolog. In a similar way as observed in other social networking sites (e.g. Frago, 2006), some fotologs are added to the profile with the unique purpose of consolidating an identity. There are, for example, fotologs dedicated to certain topics, such as beer, actors, labels etc. These fotologs are usually “group fotologs”, fotologs where any user can post a photo. They are attached to profiles in order for the owners to make statements – if someone adds, for example, the “beer” fotolog, a statement is being made that he or she likes beer). Adding those fotologs to the friends list allows for visitors to better understand the actors behind each fotolog, helping to build a “self” in cyberspace.

However, as seen in Table 1, not all fotologs make use of this resource – not nearly as much as observed in (Frago, 2006), for example.

#### 4.1.5 Fotolog configuration tools

Fotologs offer some customization tools for their owners. One of them is by filling an “about” form, containing personal information (e.g. age, sex, hometown) and the possibility to add a description text. This information becomes accessible by an “about” link in the profile. However, no fotolog in the observed group fully exploited this tool, only filling a few fields and choosing to use other forms of profile customization. In addition to the about link, an user can modify the fotolog title. Owners modify the title frequently, using it to express lyrics, catch phrases and mood. Another



customization possibility is the colors of the fotolog. Owners may change background and font colors. Even though this is very limited, most observed fotologs changed the default colors (and several fotologs change colors periodically).

#### 4.2. Fotologs as Social Spaces

A second aspect of understanding fotolog as a social network site is social appropriation (public network display and the system usage for creating/maintaining social ties). This use for Fotolog, as explained in the previous section, is made possible by the possibility of customization (profile construction) of fotologs. This idea is supported by Donath (1999): from this construction of the self, user are able to recognize and be recognized, creating empathy and allowing interaction. These interactions in Fotolog happen mostly through the comments space in each photo.

To study how comments are used, we collected all comments written in the observed fotologs. Table 4 shows a summary of the data collected. Comments written by the owner of the photos were not computed. Additionally, two fotologs<sup>7</sup> had their comment space closed and, thus, were unable to receive comments.

**Table 4: Summary of collected comments**

Fotolog	Number of Photos	Number of comments	Average comments per photo	Number of unique users	Maximum number of comments from a single user	Average comments per user
1	19	33	1.73	10	7	3.3
2	23	77	3.34	17	29	4.52
3	24	33	1.37	7	16	4.71
4	5	4	0.8	1	3	1.33
5	9	28	3.11	8	10	3.5
6	8	142	17.75	51	11	2.78
7	3	5	1.66	1	5	5
8	24	171	7.12	68	13	2.51
9	15	96	6.4	58	18	1.65
10	10	60	6	19	19	3.15
11	3	45	15	25	5	1.8
12	31	465	15	100	22	4.65
13	4	0	0	0	0	0
14	6	79	13.1	22	7	3.59
15	7	15	2.14	11	9	1.36
16	23	197	8.56	65	14	3.03
17	17	12	0.70	6	4	2
18	5	61	12.2	27	6	2.59
19	6	60	10	22	16	2.72
20	0	0	0	0	0	0
<b>Total</b>	<b>242</b>	<b>1583</b>	<b>6.7</b>	<b>518</b>	<b>-</b>	<b>3.05</b>

According to Table 4 we can see that there is an average of 3.05 comments per user in each fotolog. This average shows that some users write more than one comment in the same fotolog, indicating that there are a number of users that return frequently to each fotolog, making multiple comments. This average could be even higher since we did not remove from the sample comments that could be considered unsolicited messages (spam), which are typically sent only once in each fotolog by a single user. For example, for “Fotolog 8”, if we remove potential spam comments, the average goes up to 4.55 (against the measured 2.51).

<sup>7</sup> Numbers 13 and 20.

It can also be seen that some users write a disproportionately high number of comments. These users, in some cases, were responsible for the totality of comments in a fotolog. In most such fotologs it was possible to observe that these users were in fact very close to the owner (boyfriend, girlfriend, classmates etc.). In all observed fotologs, a high number of comments was strongly correlated to the quality of social tie connecting commenters and fotolog owners. A high number of comments was an evidence of a strong social tie between reader and owner. An analysis of the content of the comments also reveals that in most cases, an offline relation exists in such cases. Even though most commenters belong to the owner's social network (i.e. they are listed in the owner's friend list), not all users in the friend list comment on the fotolog, as can be seen in Table 5.

**Table 5: Commenters and Friends**

Fotolog	Number of Group Fotologs	Number of Friends	Number of Commenters
1	0	32	10
2	0	60	17
3	5	19	7
4	2	28	1
5	0	64	8
6	13	93	51
7	0	2	1
8	8	206	68
9	15	359	58
10	9	43	19
11	2	118	25
12	0	92	100
13	0	0	0
14	2	33	22
15	1	12	11
16	2	101	65
17	0	21	6
18	0	40	27
19	0	11	22
20	7	151	0
<b>Total</b>	<b>66</b>	<b>1485</b>	<b>518</b>

We can see that in the observed period, not all users listed as “friends” write comments. Only two fotologs had more comments than the number of friends in the friend list, possibly due to the high number of spam and users asking to be added to the friend list.

We also classified comments according to their content. The following categories were identified:

- a) **Assertive:** these comments are related to social support to the fotolog owner. In these comments' content, there are aspects of agreement, compliment, emotional support or sentimental disclosure with a dose of assertiveness. We also included on this category comments that expressed positive wishes and feelings towards the author (for example: “this day was very nice, indeed!”, “don't be like that, everything will be better, I'm by your side”, “the photo is beautiful!”, “love you”).
- b) **Negative:** comments whose content are depreciative or offensive towards the fotolog's owner.
- c) **Informative:** comments with information targeted to the author or other readers. For example, this can be an information about a party or a product advertisement.
- d) **Connectives:** comments asking the fotolog's owner to add the commenter to the friend list.
- e) **Conversational:** comments related to a conversation that is taking place or starting, by making reference to some fact or information that is not related to the photo, associated text or other comment (e.g. “let's go to the mall today?”).

We quantified the observed comments according to the classification above. The results are present in Table 6.

**Table 6: Classification according to comments' contents<sup>8</sup>**

Fotolog	Assertive	Negative	Informative	Conective	Conversational
1	26	0	2	0	20
2	58	2	3	1	44
3	24	1	6	0	19
4	4	0	0	0	2
5	21	0	3	0	12
6	91	6	5	19	85
7	4	0	0	0	3
8	148	0	27	36	59
9	86	0	5	25	46
10	46	2	3	4	37
11	30	0	0	2	29
12	379	7	8	7	178
14	50	0	0	14	29
15	17	1	1	4	4
16	132	1	6	16	96
17	8	1	1	1	3
18	13	0	1	0	25
19	46	0	2	0	39
<b>Total:</b>	<b>1183</b>	<b>21</b>	<b>73</b>	<b>129</b>	<b>730</b>

Based on the collected data, we analyzed the observed appropriations.

#### 4.2.1 Social Appropriation of Fotolog

We observed that most fotologs in the sample had comments on them. This fact is interesting because it shows that the comment space is relevant to the fotologs' owners. Even in the two fotologs that had their comment space closed, they were opened afterwards (after the period of data collection). To analyze these comments, we classified them according to how they are used regarding two central themes in this study: interaction and social capital.

##### 4.2.1.1 Interaction Appropriations

This category is related to the ways interactions take place and their observed regularities in the sampled fotologs.

###### a) Frequency of Commenters

The first observed category was the frequency of comments and commenters. Other authors already argued that frequency is important in weblogs' comments (Mishne & Glance, 2006) and that it can be an indicative of existing social ties (Stefanone & Jang, 2007).

According to Table 4, we can see that there is an average of 3,05 comments per user in each sampled fotolog. This average is evidence that there are recurring commenters to each fotolog. In fact, as indicated by the maximum number of comments, some actors comment with a high frequency and this was observed in all sampled fotologs. Each fotolog has a set of actors that write comments often.

###### b) Comments exchange

This practice is common to users that wish to increase their fotolog's visibility and the number of comments received (fotologs with high visibility are more likely to receive comments) (Recuero, 2006). Visibility is increased because once an owner adds a fotolog to his or her friends list, this fotolog will become discoverable to the readers of the fotolog that added it.

<sup>8</sup> Comments may fit more than one category

Fotolog G said on 12/12/07 2:35 PM ...  
You never come back to my fotolog :/

In the example above, someone that added a user to his friend list is asking why this user didn't come back, evidencing that the fotolog owner expected that the added user would return and comment. To receive many comments seems to be valuable to some fotolog owners. Therefore, they engage in activities that may lead to more visitors commenting, such as adding other users to the friend list and commenting in other fotologs. This behavior's goal is to obtain **popularity**. However, the majority of the observed fotologs did not show such behavior, as they ignored the requests of other users, choosing to retain their original social network.

It seems that one possible use of fotologs is **to maintain an offline social network**, more than to create an online social network. However, in four fotologs, we observed an active effort from the owners in order to expand the number of users writing comments in their fotologs.

To receive comments, the fotolog owner must also put some effort commenting other fotologs. Those that stay a long time without commenting will often return saying they are sorry for being such a long time away.

Fotolog A said on 12/24/07 10:03 AM ...  
I finally found a space to comment! You pop girl!  
.\*

In the example above, an actor, that in the beginning of the month used to comment frequently, spent almost a week without commenting and he is explaining his reasons. He attributes the cause to the limit of 20 comments allowed per photo, which left him without space to comment. This was observed often and helps explain the data in Table 4, since frequent commenters are also those that the fotolog owner comments more often.

This practice of exchanging comments was also observed in other studies as an indicative of the quality of the social tie connecting actors in weblogs comments (Marlow, 2004) and Google's Orkut scraps (Recuero, 2005).

### **c) Conversations**

Comments written by one user are usually answered by others in his/hers own fotolog. This practice starts conversations, which must be followed in multiple fotologs. The set of comments below, for example, show fragments of a conversation taken from one fotolog:

Fotolog A said on 12/12/07 9:05 PM ...  
I miss you girl :/  
Let's go out and party someday!

Fotolog A said on 12/12/07 9:08 PM ...  
Where toooo?

Fotolog A said on 12/12/07 9:14 PM ...  
Are you online on MSN?

The fragments below are from answers to Fotolog A, present in his fotolog:

Fotolog 12 said on 12/12/07 9:05 PM ...  
Friday or saturday?

Fotolog 12 said on 12/12/07 9:10 PM ...  
Go out, drink!

Fotolog 12 said on 12/12/07 9:18 PM ...

Yep...

Such interactive exchanges are quite common. It is possible to observe that many comments are replies to other comments, like conversations that take place not in one, but in multiple fotologs.

This practice was observed to happen in a similar way by Recuero (2003), Efimova (2005) and Primo and Smaniotto (2005) in weblog groups. Such dialogues can be followed by other actors due to the trail they leave and the perception of the social network through the observation of comments (Recuero, 2003 and 2007).

#### **d) Majority of Assertive and Conversational Comments**

Finally, regarding the content of the interactions, as indicated by Table 6, we can observe that most comments are assertive. An equally large number of comments are of conversational nature, inducing the continuity of interactions. The majority of comments were both assertive and conversational in their nature, containing both compliments to the fotolog owner and invitation for the continuity of a conversation, as in the example below.

Fotolog I said on 12/25/07 5:15 PM ...  
I can't stand this anymoreeee!  
Love your Picture! :=]  
Smaaack~

Comments belonging to other categories were less observed. Most negative comments, for example, were written by the fotolog owner himself, usually putting down his own published photo (this was done possibly to incite other users to disagree and write assertive comments).

Most informative comments contained some sort of advertisement (such as party announcements). Such comments were not considered spam because, as explained, many users related to such comments, replying in a positive way to them. Connective comments, those asking the owner to add a fotolog to his or her friend list, were observed to be replied in two cases: (1) when the user seems to know the commenter beforehand or (2) when the user is willing to expand his social network and, thus, his popularity (for example, when a user has just joined the system and has few friends). In the first case, a frequent exchange of comments is started. In the second, however, comments are seldom exchanged.

#### **e) Multimodality of Interaction Platforms**

Another element observed in comments was the reference to other social network sites or other computer mediated communication systems. The most mentioned was MSN Messenger, the most popular instant messenger in Brazil. On a close second is Google's Orkut, another popular social network site in Brazil. These tools were found in the comments of most of the observed fotologs.

These comments show that there is an **interaction migration to other communication systems**, as a way to strengthen social ties. Fotologs, as interaction spaces, cannot, for example, provide for private communication, like MSN Messenger. Fotologs provide only public interaction, with inherent limitations (such as 20 comments per photo). Therefore, Fotolog is mostly used as a site to start interactions that will later migrate to other systems.

### **4.2.2 Appropriations regarding Social Capital**

The many possibilities of interaction generate practices to create, accumulate and search for social capital by the actors through their networks. Based on the analysis of interaction content (Gyarmati & Kyte, 2004), it is possible to observe the social capital utility, indicating categories observed in the sample (Coleman, 1988).

#### **a) Search for Popularity**

Search for popularity was also observed in studies of weblogs (Mishne & Glance, 2006). Fotolog users try to acquire popularity by using two basic strategies: exchanging comments and adding other users to their friend lists, as we previously explored.

In four sampled fotologs, we observed users using these strategies. These users answered all received comments and added all users that requested such addition, including users they didn't know beforehand (including spammers). In most observed fotologs, adding users to the friend list only happened after several interactions or if there was already a previous social tie. Additionally, typically comments from unknown users or spammers are not answered. However, these four fotologs acted differently, adding all users and replying all comments.

The example below shows two comments made by the same user on the same day. The first comment asks to be added to the fotolog owner's friend list; the second thanks and compliment the owner.

Fotolog H said on 12/7/07 6:13 AM ...  
Add you  
Add me later, ok?

Fotolog H said on 12/8/07 7:43 AM ...  
Ook  
thankkkkks

To ask to be added to other fotologs is a strategy to increase their **visibility and popularity**. This is because friend lists are visible to the whole users' network, thus increasing the visibility of fotologs listed there. This is also a motivation to comment on any fotolog, as every comment makes visible a link to the commenter's fotolog, as observed by Efimova (2005) in weblogs.

### **b) Search for Social Support**

Table 6 shows that the majority of comments are assertive in type. Together with the common practice of exchange comments, this is evidence that there is an implicit agreement to exchange comments that offer some sort of social support to the users, as can be seen in the examples below.

Fotolog K said on 12/4/07 10:17 PM ...  
Love yooooouuu  
:\*\*

Fotolog S said on 12/28/07 1:24 AM ...  
I'll pray for you! Your problems are my own!  
Kisses

Therefore, the effort of maintaining a fotolog is associated to the maintenance of a social capital repository, an easily accessible social support tool. It is likely that this practice is central to most practices observed in the system. This is directly related to the creation and maintenance of weak ties.

### **c) Maintenance of Previously Established Social Ties**

Part of the motivation to maintain a fotolog is also related to the need to maintain previously established social ties. As shown, the content analysis of the comments made by the most frequent commenters in each fotolog shows evidence of ties that exist and were created outside fotolog. In this sense, the fotolog is acting as a space to maintain these ties, making it possible to interact with these actors on line, even when they are geographically close. The observation of multimodality of interaction tools is also strong evidence that the system is a reflection of social networks established offline (although the strategies to increase popularity also indicated that the system is used to increase someone's network) (Recuero, 2006b).

## 5. Conclusions

We conducted a qualitative analysis on appropriations of Fotolog as a social network site, from the observation of how users build a profile and use comments on each other's photos in a sample of fotologs.

From what was observed in the first part of this study, we argue that fotologs are often appropriated as a space for **personal narratives**. In this space, the construction of the self is performed by the personalization of the present languages, such as photos, associated texts, photo comments and profile customization. Photos are perceived and exposed as reflections of thought and feelings and are carefully produced for that purpose. Texts are also discourses about the "self", used as elements that allow the visitor to have a glimpse of the actor behind the site. These strategies for customization adopted by users allow for Fotolog to be appropriated as a social network site. It is customization that makes possible for interacting users to recognize and be recognized by each other, allowing for social ties to be built through interaction (Donath, 1999; Watzlavick, Beavin and Jackson, 2000). From these interactions social networks emerge, supported by computer mediated communication systems.

We also devised, through the observation and analysis of groups of fotologs, forms of appropriation regarding interaction – comment exchanges, recurring commenters, establishment of distributed dialogues and multimodality of interactions. Such elements are indicative of how fotologs are used to establish or to maintain strong ties previously created outside Fotolog. However, the use of Fotolog as a tool to increase popularity shows that it is also used to establish weak ties (Granovetter, 1973, 1983) connecting actors to other networks.

Regarding social capital appropriations, we identified the search for popularity, which indicates that popularity is a form of valuable capital to a network (Efimova, 2005), in a similar way as observed in Google's Orkut (Recuero, 2005; Fragoso, 2006) and Friendster (boyd, 2004); the search for social support, which also indicates that support is a valuable asset, that is effectively exchange in the system, in a similar way as observed in weblogs (Recuero, 2003); the maintenance of previous social ties, which indicates that Fotolog's social space helps maintaining social networks that were created outside the system, similar to the observed behavior observed in weblogs by Stefanone and Jang (2007), Marlow (2004) and Lento et. Al (2006).

We showed how users are able to build a profile using the limited fotolog's features, using particular strategies, such as: narrative of the self present in most posts, carefully produced photos to build a personal narrative, customization through the use of nicknames, photos, friend lists and links. We observed in each fotolog that most comments are made by a few recurring commenters, that establish a distributed conversation trough multiple fotologs and that often migrate to other computer mediated communication tools. Additionally, we argued that fotologs are used to maintain stronger social ties that exist outside Fotolog and that Fotolog itself is used to aggregate social support from friends through the exchange of assertive comments.

We argue that Fotolog, even though initially created as a photo sharing site, shows many characteristics of social network sites and weblogs due to how the system was appropriated by Brazilian users. This is relevant because it shows actors searching for social space on the Internet to accomplish specific tasks. For Fotolog, we observed that the system is used mostly to (i) maintain existing social networks and, to a lesser degree, increase such network and (ii) work as a repository of social support to its users, a way for users to receive from and give support to friends.

We conclude that Fotolog was appropriated as a social network site, as defined by boyd & Ellison (2007). This appropriation seems to be directly related to the users' needs for interactional spaces and personal construction on the Internet and reflects the needs of Fotolog's users.

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