

# No hotel in D.C.

## Surfing Web 2.0 and your couch (Reality 2.0): lessons from CouchSurfing community

Francesco Bolici

OrgLab - DIAM  
Cassino University  
Cassino, Italy

francesco.bolici@eco.unicas.it

**Abstract**—*CouchSurfing.com (CS) is an online non-profit network that connects travelers with locals in over 230 countries around the world. The project was launched in 2004 and presently there are more than one million of registered CouchSurfers. CS community is a nexus of online and face to face relationships where most of the Web 2.0 and social networks peculiarities become crucial: trust, participation, open access, network externalities, privacy, security, etc. This is a first, brief, in progress and interpretative analysis of the CS system based on a participatory observation study started in August 2008.*

**Keywords**—*component; CouchSurfing; distributed social networks; web 2.0; collective intelligence; network effects.*

### I. INTRODUCTION

“This is not an article, just some thoughts” [1], about the evolution of social networks in the Web 2.0 era. The analysis is inducted from a set of episodes collected participating in the CouchSurfing (CS) community during the last year.

A social network (SN) is a set of actors -nodes (individuals or organizations)- that are connected together by one or more social structures -relationships-. Lately the media started to adopt the word SN for representing all those online systems (e.g. Facebook, Twitter, LinkedIn, etc.) that facilitate the communication and the exchange of (personal) information between actors. The diffusion of this systems among people is so capillary that, if someone asks which are the social networks we belong to, likely our first answer will be Facebook or Flickr rather than our university, sport team or the company we work for. However the systems that support, facilitate and sometimes enable online social networks could have rules, procedures, paths of interaction, and coordination mechanisms different from off line social networks. The channel through which the relationships are managed and the information exchanged can influence the social structure itself as potential consequence of the famous sentence “the medium is the message” [2]. This is particularly possible for a channel (the Web) that has already shown its potentialities in changing the past reference frameworks for several domains (way of communicating, doing business and marketing, organizing a trip or search for information, etc.) and that seems to have started another change with the concept of Web 2.0 (this concept of web as a participatory platform will be discussed in

the next section). Thus it becomes relevant to study the online social networks, their main characteristics and their evolution.

The aim of this paper is to explore the question: what are the important factors to consider in online social networks? What are the crucial aspects that the members of a Web 2.0 social network will face? I'm not claiming in any way that this brief article can provide some exhaustive and conclusive answers to those questions. This paper is merely meant to provide direct examples of the life in a Web 2.0 community and to identify its crucial factors, providing a possible frame for future in depth analysis and potential generalizations.

This paper is structured as a series of lessons I have learnt. The next section briefly describes the research setting and how the episodes inside the CS community have been observed and analyzed. Section III outlines three essential lessons I learnt joining CS. Section IV discuss the main factors emerging from the CS system and proposes some areas for further researches.

### II. RESEARCH SETTING AND DATA COLLECTION

#### A. Online Social Networks: CouchSurfing

The assumption of this work in progress is that different medium, influencing actors' behavior and the communication itself, often produce diverse network structures even within a similar set of people [2]. Thus, online social networks could present different characteristics, processes, rules compared to those networks mainly based on face to face relationships (colleagues, family, members of our music band or players of the basketball team, etc.). Sometimes the distinction between virtual and physical worlds could be fuzzy (virtual meetings at work; the visit of someone interested in buying that old chair you posted on craigslist or ebay), and the boundary can also be less clear with the diffusion of the so called Web 2.0.

Despite the dispute around the origin of the term [3, 4], Web 2.0 is now commonly defined as a set of principles: web as platform; participation in the content production (user-content production); online collaboration; openness; huge amount of information, etc. [5]. Web 2.0 systems as Facebook or Twitter are changing the way in which people communicate, relate and sometimes meet. There are also voices rising up for stressing a critical perspective on this new web model [6]. A potential risk of the Web 2.0 expansion is

that users will start to be focused on the “wondrous effects” of technology and the systems itself, forgetting the ideas and the content embedded in them [7]. Moreover as the Web 2.0 will be spread around, it will become easier to take the design of those systems simply as they are without recognizing the externalities and lock in effects that they can have.

The research setting of this paper is the Couchsurfing.org community. CS is “is an international non-profit network that connects travelers with locals in over 230 countries and territories around the world. Since 2004, members have been using [CS] system to come together for cultural exchange, friendship, and learning experiences. Today, over a million people who might otherwise never meet are able to share hospitality and cultural understanding. CouchSurfing members share hospitality with one another. [...] ‘Surfers,’ or travelers, are able to participate in the local life of the places they visit. We also give more people the chance to become travelers, because ‘surfing’ lowers the financial cost of exploration.” [8].

CS is an online social network because it represents a set of actors connected by a specific relationships: the interest in traveling, sharing experiences, understanding different cultures, visiting places with some local person and sometimes... lowering the travel expenses.

Thus, CS is part of the large set of online SN as Facebook, Twitter, QQ, MySpace, etc. However there are some crucial differences between CS and the others SNs. In Facebook (and most of the other online social networks) the nodes connected to an individual are often her/his friends in the “real” life and thus s/he uses the system as alternative communication channel to the traditional ones. In other contexts, e.g. an Open Source development project, members are not interested at all in the identity of the others but only in their contribution to the common aim (most of the time they do not ever meet and they may know each other only by their nicknames). Instead CS is neither a network of already existing friendships, or a community of people that cooperate without any need or will to know each other. CS represents a context where each member mostly interacts with unknown members in order to have the opportunity to meet them and to share their experiences (and couch). From this point of view, CS represents almost a unique online social network system, creating relationships between people that do not know each other with the aim to introduce themselves in the real life.

### B. Data Collection

This article represents a preliminary analysis of the CS community as first step of a more articulated research project. This research phase is based on a participatory observation research strategy. Thus this analysis is inductive and focused on generating preliminary and in progress theoretical insights from a direct participation in a Web 2.0 community. Following an emergent strategy, I collected data from multiple episodes of the CS community and then analyzed them through an iterative process of data examination and comparison with existing frameworks.

Data collection was exploratory in nature and included direct participation and review of the CS website. Since

August 2008 till September 2009 I have conducted a participatory observation of the community and in details I have:

- surfed 8 couches in three different countries (Italy, USA, France);
- met 13 CSers around the world, sharing the couch or “having a coffee” (in the CS slang it means that the local person show her/his city to the visiting CS without hosting her/him);
- joined 3 CS events (with an average of 50/60 CSers);
- added 11 friends in my CS contact list (it implicitly recognizes a certain amount of reciprocal trust with them);
- found that 2 of my “real” friends were already part of the community;
- joined 3 interest groups (“Rome”, “CS Roma – BookSharing”, and “Roma – SOS Last Minute CouchRequests”);
- received 2 vouching (a person can be vouched only by a CSer with a good reputation inside the community, and only if they think s/he is a reliable CSer);
- received 243 and sent 308 emails;
- received 11 CS requests (people that asked to surf my couch) since returned to Rome (thus in a 3 months period);
- and my profile have been visited 346 times.

I choose to collect data by becoming an active member of the community for two main reasons: 1. the process of becoming part of the community, knowing its rules, processes, tricks etc. provides an enormous amount of tacit knowledge and direct experience that cannot be acquired through other data collection techniques; 2. being a CSer avoids or minimizes the risk to influence or drive the behavior and the answers of the other CSers (the so called Hawthorne effect [9,10]). Those points are consistent with the crucial reasons for choosing a participatory observation approach [11,12].

The most important limit of this research strategy consists in the degree of involvement (and thus of objectivity) that the researcher should have into the studied community. As suggested by past researches, I tried to keep notes of the informal discussion with the other CSers, to update a diary of my experience, to store all the emails and other communication exchange I had with the other CSers. Other possible limitation of this strategy consist in the researcher, unsystematic gathering of data, and reliance on subjective measurement.

### III. COUCHSURFING LESSONS

Participatory observations, and generally the qualitative methodologies, are based on the iterative influence between a phase of direct observation and a phase of analysis followed

again by another observation and so on. The aim of the data analysis is to provide a deeper insight about the problem setting and to narrow down the research questions identifying issues that have to be further investigated. Thus, the subsequent observation phase can be focused on more detailed and promising aspects of the the specific research setting. This paper, analyzing some preliminary observations, aims to identify crucial factors in CS community and thus to delineate the basis for a subsequent set of observations about Web 2.0 SNs.

The following section describes some episodes collected during my participatory observation. Grouping by those evidences I defined three lessons emerging from the CS community. The first set of episodes is related to social and interpersonal aspects as gaining and recognizing trust, how to measure the reputation into an online community and the importance of the network externalities. The second lesson is related to our inclination in disclosing our personal information into a public online space, the motivation to do it and the potential risks. The third lesson is focused on the contrasts that emerge between different members of the community, the rising of alternative projects and the difficult trade off between a large size organization and the contribution of several volunteers.

#### *A. Trust, reputation and network externalities: getting started and the invisible-gatekeeper*

Once a user decides to join the CS project, s/he has to face a first crucial task just after the login: to fill her/his profile. To create an interesting and complete profile is already a factor that will influence the relationships into the community. There are some fields easy to fill, as personal data, and other as “interests”, “personal description” or “teach, learn, share” that will take more time to be accomplished. Reading the CS guidelines is immediately clear that the profile will be extremely important for the CS community: it is your face (it is not a random event that you can also post as many pictures as you want). The importance of a well written, intriguing and clear profile will be confirmed several times during my observation (there is also a functions in the systems that allow members to point out a particular interesting profile to the attention of the whole community). From the beginning I have found natural to contact the CSers on the basis of their profile; my decision about which member to contact was a question of intriguing information, common interests and ... conformable couch. Discussing with other members about the process of looking for a couch I discovered that most of them were adopting, more or less explicitly, a similar behavior. Asking to the CSers that hosted me the reason for which they accepted my request, they often answered me that they have been interested in some parts of my profile (some times was just for the promises of cooking some pasta, some other because they were curious about my job, or about some other common interests they discovered in my profile).

Once you have completed your profile (you should modify it several times in a cyclical way in order to keep it updated and to increase the chances to obtain a positive answer to your couch requests), you immediately learn that “the silence” is the gatekeeper that will stop you outside the

community. An empty profile does a bad impression to the other CSers, the absence of picture of yourself can be suspicious, as well as the absence of positive references left from other members in your profile. Any member that get in touch with you can leave a reference to your profile (that you cannot modify or hide) describing how s/he meet you, how was your behavior, which kind of activity you did together, how many days you spent together, etc. Having no references at all (or, as I discovered later, to have left a lot of references to other persons that did not comment and reply) is a pretty difficult situation to manage, since someone should be the first one in trusting you without having any comments from the community. For this reason most of the beginners adopts one of these solutions for their first CS experience: i. they tend to host someone, since it is more difficult to be hosted that to find someone that would like to surf your couch; ii. they decide to meet other CSers for a walk, a cafe or a drink, in order to get involved into the community and to collect some good feedbacks in their profile with a lower risk (meeting people in public places) and higher chances to have a positive answer to their request; iii. if some of their friends in the real world is already a member of the CS community, they can ask them to become CS friends and to write a reference for them. Once a CSer has two or three good references everything starts to be easier, people start to trust her/him more and also asking for a couch has an higher chance to obtain a positive answer.

Trust versus a person is thus recognized through a social and public process, where past experience can influence future relationships since they are publicly disclosed and are shared on the profile of every CSer. Complementary to this social and distributed trust recognition there is the “Verification” level ensured by the CouchSurfing organization itself. CS system can verify members identity and address checking the personal information on their credit card (if members allow to charge few dollars as volunteering donation to CS). Once members have authorized few dollars of donation they become verified members -a green flag is shown close to their name- and this give the guarantee that a trusted and neutral third part (CS and the credit card company) recognize their name and address. At the beginning I was thinking to register as verified member in order to assure the other CS about the veracity of my identity and my address. After a while I noticed that I was not interested in this secured system, but I was much more interested in reading the references that the community left about the specific CSer, so I decided not to proceed with my verification. Till now it has never been a problem. Among the 8 couch I surfed, only 3 are verified members.

Another interesting aspect related to social reputation and trust inside the community is represented by the “CS request replied to”. This is the average number of CS requests that a member responds to. Potential Surfers often use this to see which hosts reply to CouchSurf Requests the most often. I used a lot this indicator for selecting the potential candidates for my CS request: very often is useless to contact a member with a low ratio of replies because it is very probable that s/he is not going to answer and that s/he did not accept or fully understand the spirit of CS that consist in sharing experiences and to try to be hospital and gentle to the other people. Coherently with this mission the percentage of replies does not

decrease if you are declining a couch request, but only if you are so busy or rude to not answer at all. However some CSers find a way to keep an opportunistic behavior without decreasing this indicator value: this is the case of the “busy girl”. In december I sent some couch surf request for a big city in France. Some CSers replied some didn't (as always happen) and I easily organize my trip over there and I spent 4 nights surfing the couches of two different persons. It was a great experience but I was quite surprise when one person replied me in August 12 for a request I made 8 months before! She was quite kind (“Sorry I feel really embarrassed but I just realized I had never answered your kind request. I hope you managed to find a nice host in [omitted] and enjoyed it”) but I was wondering why she decided to answer me so late. I had a look to her profile (no wonder I completely forget about her!) and I noticed that her reply ratio was extremely low (around 22%). Checking again after few days her ratio was much higher, and at the end of August the index showed to me that she replied to the 98% of the couch request. If you are part of the remaining 2% do not worry, when the percentage will be too low she will answer to you too (hopefully someone will create a time limitation for considering the reply valid for increasing the index).

#### *B. Personal information and privacy*

In the online community the accuracy, reliability, and quantity of the shared personal information is crucial for interpersonal relationships creation and maintenance [13]. However for several reasons members can decide to hide parts of their personal details (there are six different privacy settings a member can tune). I decided not to show to the community my real name but to be known only through a nick name for a simple reason: I did not want that my students to find out what I do, where and when. At the beginning I was pretty skeptical about the nickname solution since it could be considered a not trustful sign (the large majority of CS uses the real name rather than a nick name). Lucky, I never had any complaint about it, neither by email or by face to face interaction with CSers I met. It seems, from my experience and the discussions with other CSers, that references and profile are the crucial factors on the basis of which members take their own decision about who to contact and which couch request accept.

Even if I have hidden my name, privacy issues for online social networks are crucial and sensitive. I can identify two kind of risk: 1. the first is related to the misuse of personal information done by actors that have a legitimate access to members profiles (mainly the company running the social network and the persons accepted as “friends”); 2. the second concerns the possibility for third not-authorized actors to hack the system and steal personal data. Both the problems are common to most of the information systems, but the peculiarity of Web 2.0 social networks is that in their servers an incredible amount of personal data is stored, probably bigger than in any other repository of personal information. Moreover providing links between different social social networks (Facebook, LinkedIn, CS, etc) increases the potential risks of a misuse of these data obtained mixing the information coming from the different sources. It is theoretically possible to re-build a very detailed profile of someone simply crossing

the data about her/his friends and interests (Facebook), job details and colleagues information (LinkedIn), and her/his trips and specific activities.

Concerning the first risk (the misuse of legally accessed information), a growing number of users start to worry about their personal data stored in companies archives. Everybody knows the problems and constraints that a users can have in trying to delete his account on Facebook. Moreover the worries about all the online social networks are reinforced by the absence of transparency about the future plan and policies for those that are basically free services provided by companies. Most of the companies running social network are not showing positive economic results, so there are doubts about their business models and the fact that what they are actually doing (providing a free service and storing an huge amount of personal information) is preceding a phase in which some of them will sell all those information. This is one of the several comments you can find online about the feeling of part of the community around this risk: “And where it's valuable, it will be bought and sold. Our social networks, searching habits, visual identifiers and personal preferences will be mercilessly sold to anyone who wants to get their hands on our particular demographic. And when your photos, your files, your email and your friends are all online, you'll have to be online - and thanks to net everywhere, like the Google San Francisco project, you'll always be able to be online. And as long as you're online, they can market to you.” [14].

In the CS term of use agreement, as in those of any other social network, there are information about members privacy (point 4 of the user agreement) and the rights on the content uploaded by the users (point 5). Reading those commas carefully there are some interesting parts that captured my user attention, as point 4.0 “If you do not wish to have your picture or information about yourself viewed by or disclosed to others, do not use our Services. We may collect certain other personal information from you that we do not post on our Site. In most cases, we do not intentionally transfer this information to unaffiliated third parties without your consent”. As user I understand that CS have to be careful in order to protect itself, but that word “intentionally” sounds very dangerous to me. Moreover the user term stands “5.1 You Grant Us a License. By submitting any content (including without limitation, your photograph) to our Site, you hereby grant us a perpetual, worldwide, non-exclusive, royalty-free license to use, reproduce, display, perform, adapt, modify, distribute, have distributed and promote such content in any form, in all media now known or hereinafter created and for any purpose.” During my last year I was using CS pretty intensively, so there are pictures, friendships relationships, personal information, and emails that are stored in the system. I always had a great experience and I never had any problem with the community or the organization running the system. They have always been very supportive and attentive to all my requests, but my first reaction as a user, carefully reading those clauses, was to wonder why they need to have the right to reuse perpetually the information I uploaded. During my observation I never collected any complain about to use of her/his personal information inside the CS community. Nobody has even introduced this topic during our discussions. At this stage of

the analysis I can propose three different explanations for the absence of privacy problem inside the community: 1. there are no privacy problems at all; 2. the users do not perceive the disclosing of their personal information as sensitive risk, maybe because they are confident and extremely used to all the Web 2.0 social networks (or because they signed but did not read the user agreement!); 3. there are some privacy issues, but the members that experimented them do not have any effective way to publicly show their thoughts and complaints.

The second risk is the danger of a potential hacking of the system and the consequent stealing of information. According to a recent study [15], there has been a significant increase in the number of Web 2.0 attacks over the first quarter of 2009. The report indicates that social networks, wikis, and community blogging services and sites are the most popular social media targets for hackers. As Web 2.0 and social media sites such as Facebook, Twitter and LinkedIn become increasingly popular for personal and professional use, hackers will continue to work harder and smarter to exploit their vulnerabilities. Attackers focus on gaining unrestricted access to the data stored on the computer to use for financial or identity theft. Cyber criminals are also known to implant malicious code by exploiting well known security weaknesses in the software installed on user's computers.

The privacy issue in online community is gaining momentum. Several companies and research teams are developing both organizational and technical solutions for ensuring a more effective solution to the problems related to the personal information shared among online SN. A promising project is PrimeLife (<http://www.primelife.eu/>), a research project financed by European Commission that is trying to address the "new privacy challenges: A first technical challenge is how to protect privacy in emerging Internet applications such as collaborative scenarios and virtual communities. A second challenge is how to maintain life-long privacy."

### *C. Managing the community: volunteering, access and forking*

The third lesson I have learnt during this first year of observation is that organizational size matters. It influences the decision making process, the needs and the constraints for coordinating the activities, the motivation to join the project and other sensitive aspects of the community life.

CS is growing fast and several changes have been made since its origin in 2004. The community has a volunteering base but in the last years several people have been hired to completely dedicate their efforts to the system. This situation generated some tension between people having different plan for the organization. After 2007 some active members of the CS community lunched the blog "OpenCouchSurfing" stating "We believe in the spirit of CouchSurfing, of creating a better world through understanding. We believe this purpose is best served by a truly Open Organisation, one that is representative of the CouchSurfing community as a whole. We believe information should flow freely through an Open Organisation." and then writing that since CS is mainly leaded by only on person, they want to raise "awareness to those who

care about what they are donating to and volunteering for, and [to point] those who care to more open and free alternatives such as BeWelcome, Crash at Mine or NoseRub" [16]. BeWelcome was lunched in 2007 and it is run by the organisation BeVolunteer, which is a registered non-profit organisation in France. BeWelcome was founded by former volunteers of Hospitality Club, another hospitality exchange network and were later joined by ex-volunteers of Couchsurfing. These volunteers share the vision of a network that is based on principles of transparency, openness and horizontality. In 2009 it reached 7000 members (versus more than one million of the CS community) [17]. There are several minor differences between those systems, but the main concepts are exactly the same: to host, to be hosted and to share experience and culture. The crucial difference is in the governance mechanisms: the access (open vs private), the attitude versus coordination and decision mechanism (more ore less horizontal), and the position versus the development of the system and the community (only volunteering contribution vs a mixed model). At this stage of the analysis I am not interested in reaching an understanding about the causes of the tensions between the different volunteers that lead to the fork of the project. The aim in introducing this issue is to show what can happen during the life of a Web 2.0 community.

In the life cycle of every organization a rapid growth can bring some internal tensions regarding the future strategies, the internal reorganization of the decision making process and coordination mechanisms, etc. It is possible to make a comparison between the forking dynamic that leaded to the creation of BeWelcome and other forking episodes happened in other virtual communities, mainly in open source projects [18]. While the organizational size becomes larger, there is a tendency to centralize part of the decisions (gaining efficiency), to build a team of professional workers rather than just rely on volunteer contributions (firm vs market advantages [19]) and to reconsider the access policy to the information. These tensions often push a minority of active contributors to investigate the possibility to reconsider their roles asking not only to contribute but also to have a more active role in the decisions about the community evolution. The need for a more open project and community is often frustrated by technical difficulties (larger is the community more difficult and costly are all the horizontal coordination mechanisms) or the clash between different perspectives about the community evolution and business model. As consequence another project is lunched: this will be very similar to the original one, it will embed some rules for assuring a more open model and than it will try to attract users. While a definitive balancing between open or private models is still not reached, it is possible that in domains where the network externalities are crucial, the community with an larger number of users will dominate and the others comers could disappear or preserve their role only in a restricted niche.

### IV. PRELIMINARY FINDINGS AND FURTHER RESEARCH STEPS

This paper represents the preliminary analysis of the first phase of a research program on CS as a Web 2.0 social network. Through one year of participatory observation I had

the chances to reach a better understanding of the rules, behaviors and norms inside this community.

At this stage I identified three lesson I learnt from the participatory observation and that can be potentially useful for future studies or as dimensions of analysis for the following phases of my research program.

The first lesson concerns the importance of trust in online communities. It is important to consider the differences in creating a neutral and centralized system for assuring trust and reputation (CS verification system) or to enable the social and distributed control of members on other members (cross references).

The second lesson is focused on the sensitiveness and the amount of personal information people disclose online. Privacy issues are becoming more and more sensitive and often SN can represent a potential risk for personal privacy.

The third lesson is about the forking dynamics in growing virtual organization and the more common reasons for reaching that point: different perspective on access and decision mechanism. This issue can be also easily generalized to those cases in which a company attempts to mobilize volunteers but then botches up the relation with the community, offering them no real power of participation and considering them merely as free labor

All these (and other) aspects can be considered only lessons that need to be re-analyzed in depth. A further phase of the research project is starting and it will be focused on lesson one and two.

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