VIRTUAL COMMUNITIES AND FEELINGS OF INFLUENCE: FOUR CASE STUDIES

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Abstract- With more than one third of the world's population online, the Internet has become part of modern living. Online, communities of people aggregate, sharing common interests, ideas, and feelings over the Internet. In this article we focus on such online communities, so-called virtual communities (VCs), and investigate how people in VCs experience influence, a dimension of Sense of Community (SOC). Main research questions are: "Do users have some influence over what the VC does?", and "Does the VC have some influence over what users do?". We used Porter's typology of VCs to select four case studies; a social VC ("GSCAI"), a professional VC ("Diarioclown"), a non-profit VC ("AZALEA") and a commercial VC ("F&G") and conducted 49 in-depth qualitative interviews with their members. Our results show the positive effects but also the limits of VCs in supporting feeling of influence (FOI). VCs can be cost-effective and powerful tools to support people's sense of influence, and – to a broader extent – sense of community. Nevertheless VCs can also "destroy" or "damage" a group. On a theoretical level, our study points to the applicability and usefulness of Porter's typology for studying contemporary online virtual communities.

Keywords- Virtual Communities, Web 2.0, Online Communities, Sense of Community, Feelings of Influence, Qualitative Research, Multiple Case Study.

I. INTRODUCTION

In this article we focus on the role of VCs in supporting "feelings of influence" (FOI), which is, according to McMillan and Chavis [1], a dimension of Sense of Community (SOC). In this introduction, we will describe the four VCs that were selected as research subjects. The next sections of this article will theoretically unpack the concepts 'virtual community' and 'sense of community'. In section 4 and 5 the case selection procedure as well as our methodology is described. Finally, we present our results followed by a short discussion and conclusion.

We selected four case-studies (see further) from two different digital platforms: the "social" and "professional" VC are enabled by Yahoo! Groups, the "non-profit" and "commercial" VCs use Facebook. In 2001 84% of web users connected with an online group [2] and now the amount of people involved in web 2.0 has increased1. "Yahoo! Groups" began as an email list service named "eGroups" in 1997 and was acquired by "Yahoo!" in 2000. Today, "Yahoo! Groups" counts 100 million users and six million groups. "Facebook" is the most popular social network site (SNS) worldwide, as well as in Europe and in Italy. Through a cross-sectional analysis which also takes into account different types of respondents, we explore and describe how VCs and users influence each other and how users experience the role played by the VC in their group activities.

The main features of the four VCs that were studied

are summarized in Table 1.

Table 1 – Virtual Communities investigated

	GSCAI	Diarioclo	AZAL	F&G
	social	wn	EA	commer
		profession	non-pr	cial
		al	ofit	
establis	Over 4	Over 4	4 years	Over 4
hed	years	years	4 years	years
platfor	Yahoo!Gr	Yahoo!Gr	Facebo	Faceboo
m	oups	oups	ok	k
open/cl	close	close	open	open
ose			- F	-F
member	49	11	> 2000	> 600
S	77	11	× 2000	> 000

"GSCAI" is a speleological group located in Rome and functions as the case study for a social VC. The group does activities (explorations, visits) which requires planning (equipment, travel etc.). In order to manage this, they set up an online group called "GSCAI" on "Yahoo! Groups" where they make decisions and share reports about their explorations, describing in detail what they did. Expert members "retired" from group activities, keeping exclusively in touch with other members via the VC, so called "sleepers", read the online messages and sometimes give suggestions. In January 2012 the group split.

"Diarioclown" (professional VC) is a group created by therapists located in Rome working as "clown therapists". They work as a duo at hospitals (usually one male and one female), and try to change the energy of the young patients (most often children) from fear and depression to a positive emotional state. In their online group, "Diarioclown", they communicate only "professional" messages such as

¹ Data taken by Pew Internet & American Life Project, retrieved 20 January 2015, from http://www.pewinternet.org/data-trend/social-media/social-media-use-by-age-group/.

the weekly shifts division and daily reports. In January 2012, this group also broke up and subsequently four members decided to move to another job place.

"AZALEA" is a non-profit association located in Rome that supports a cat center where they host, feed and cure abandoned cats. They use various Social Network Sites (SNSs), but most of their activity is targeted at a Facebook fan page, which is used for the purposes previously described and in order to "check" the "adoptions", periodically asking adopters to share pictures of the adopted cat.

"F&G" is a Caribbean dance style school in Rome. "F&G" also organizes events not always related to dancing and music providing great opportunities for social interactions and fun to its members on a regular basis. "F&G" has a Facebook fan page in order to disseminate news about its activities (e.g. changes in lessons schedules, special events...).

II. VIRTUAL COMMUNITIES

In order to understand the "VC" concept we need to take into account both its elements: "community" and "virtual". There is not a consensus regarding the community concept. Contemporary sociologists represented it as a symbolic construction [3], a pseudo-community [4] or an imagined community [5]. The virtual was conceptualized as something which exists without being there, therefore, without space-time coordinates [6]. Many scholars refer to the Rheingold's VC definition as a social aggregation that emerges online when enough people carry on public discussions and with sufficient human feeling [7]. He inscribes VCs into the "Net", which lets people stay together [7] on a common interest [8]. The typology chosen for the case selection takes into account five attributes of virtual communities: purpose (content of interaction, the specific focus of discourse); place (extent of technology mediation of interaction, so where interaction occurs either completely virtually or only partially virtually); platform (design of interaction, it can be synchronous or asynchronous communication, as well as both), population (pattern of interaction, it takes into account group structure and type of social ties) and profit model (return on interaction, this refers to whether a community creates tangible economic value). The cases selected can be considered VCs because they incorporate these four attributes and, more specifically, with regards to the attribute "place", the minimum set of conditions required to label a cyber-place with associated group-CMC (Computer-Mediated Communication) as a virtual settlement is satisfied [9].

III. SENSE OF COMMUNITY

Community can be seen in different ways depending on the representation chosen; when people learn within a community it can be labeled community of practice (CoP) [10, 96], that can be represented as a social container of competences which constitutes the basic building block of a social learning system [11, 229]; when people stay together for a common goal they can be considered a community of interest (CoI). Despite the kind of social aggregation, SOC is an important element of community which McMillan and Chavis define, basing on a previous McMillan's work, as a feeling that members have of belonging and at the same time a shared faith to be together [1]. Moreover they divide this concept in four different dimensions: membership; influence; integration and fulfillment of needs and shared emotional connection [1]. The second dimension is related to cohesiveness, because: "Influence of a member on the community and influence of the community on a member operate concurrently [...]" [1, 12]. "Influence" is seen as a bidirectional concept [1, 11] as influence can be exerted from individuals to the group [12], or vice versa, from the group to the members of the VC as well as simultaneously [13, 239-240]. Emotional contagion occurs in groups [14] and offline activities can have an impact on the influence in a VC [15, 3]. In order to understand how this dimension of SOC works in VCs we asked respondents to describe how they experience influence over what the VC does as well as how the VC has influence over what they do. In-depth interviews enabled us to gain a deep understanding of how this influence takes shape online and offline.

IV. CASE SELECTION

Porter's typology of VCs (Fig. 1) is a classification system for multi-disciplinary research on VCs which uses two categorization variables: establishment type and relationship orientation [16]. This typology was chosen for the case selection because its categorization is exhaustive and applicable on the empirical level. From a theoretical viewpoint the focus was on a "social", a "professional", a "non-profit" and a "commercial" VC. From a practical viewpoint, VCs were also selected because they were mainly composed by members located in Rome.



Fig. 1 - Porter's typology of Virtual Communities [16]

The first-level categorization element of the typology (member initiated or organization sponsored VC) was hard to apply "on the field", so the second-level categorization drove the case selection. This second-level categorization element, relationship orientation, describes the type of relationship fostered

amongst members. Based on this criteria the selected cases were: "GSCAI" as "social" (they have a hobby in common), "Diarioclown" as "professional" (they work together), "AZALEA" as "non-profit" (they support a non-profit organization) and "F&G" as "commercial" (they are customers of a dancing school).

V. METHODOLOGY

From 22nd February, 2012 to 16th June, 2013 49 in-depth qualitative interviews were collected with an average length of 90 minutes. Respondents were divided in three subgroups: "B" (Beginner users, less than 1 year of membership); "A" (Average users, from 1 to 2 years of membership); "E" (Expert users, from 2 to 4 years of membership).

For the analysis of the interviews we used a deductive coding methodology on the transcripts of the interviews. Deductive coding encompasses three coding phases [17]. In the first phase descriptive codes are assigned to text snippets based on predefined areas of interest, whether factual, thematic or theoretical in nature [18, 86]. Using literature on Network Society [8] and Networked Individualism [19] as our theoretical background, we focused on FOI dimension of SOC to assign codes describing the website usage and feelings of influence experienced by the VCs' members. We also coded the type of respondents in order to understand whether the duration of membership to the VC played a role. Next, interpretative coding took place, digging deeper into the meaning of the descriptive codes. Using an exploratory-descriptive logic moving towards an analytical generalization [20], at the end we examined the parallels, differences and oppositions between the descriptive and interpretative codes, we assigned pattern codes. At the end thematic analysis was done.

VI. RESULTS

Generally there is a positive effect of VCs on FOI in the four cases studied. More specifically we observed that VCs:

- support involvement and participation in group activities;
- give a sense of well-being ("non-profit" and "commercial" VCs);
- give emotional support ("non-profit" VC).

On the other hand our research also showed that VCs can:

- increment the manifestation of discontent ("social" and "professional" VCs);
- increase quarrels because of the reduced non-verbal cues in computer-mediated communication ("social" VC).

In "GSCAI" respondents clearly expressed that the

VC had a strong positive effect on the common activities of the group. Online reports and coordination messages show the group to be "alive" and enhance the "attraction" of the members to the group and its activities. A respondent described this process: "It is good because when an exploration is done one member, or everyone who joined, post an online report about it and this enables everyone to share in the exploration, even the members who didn't join... they let you imagine the atmosphere and their experiences" [male, beginner, 27 years]. The VC incites users to join during to weekend explorations, also "last minute", because they are informed about them in real time. Moreover, the VC also supports participation in decision making.

In "Diarioclown" reports are a very important source of information for the team members (e.g. on specific situations at various medical departments), strongly influencing their job: "The day before we work at the hospital I read the reports written by who was there before me. So if they wrote something happened which is good to know, we can be ready for what we'll find the next day, this is possible thanks to the report written by who was there before us" [male, expert, 44 years]. These reports also constitute an important element of the monthly supervision meetings.

In "AZALEA" members receive useful information to support the non-profit association (fund-raising, co-operation...) and join the meetings; they also support each other together with the volunteers of the association. Members of this VC are aware of the influence the VC exerts on them (but it is not very easy for them to evaluate their impact on the VC). More specifically, less experienced in pet care users are more positively influenced by the VC with regard to their emotional state and their relationship with their pets, because receiving useful tips for the health care of their cats lets them understand better how to solve their problems. This also reduces the anxiety caused by "uncertainty" of diagnosis. "When I am on Facebook in the evening and I see I have got notifications I realize, I mean I see who wrote something, I always check notifications from Azalea, also to watch cats. [...] they also helped me without knowing it, I mean, writing something, making me understand why she [the cat] does it that way" [female, average, 24 years]. Literature suggests that informational support of VCs is effective [21, 374] -[22, 582-583]. More experienced in pet care users still experience feelings of influence.

In "F&G" some respondents said that watching photos and reading comments on the VC, especially on special events, motivated them to join these events. In "F&G" influence is directed in both ways; members receive and give positive input from and to the group. Interacting within the VC is a sort of relaxing break for members and sometimes so intense that a respondent

told us it is noticeable via her facial expressions. As she explains her co-workers often ask her when she is online on the VC: "Are you taking a look at your group [on Facebook]? [...] You are smiling now" [female, average, 51 years]. This sense of well-being in "AZALEA" and "F&G" is enforced or amplified by events: funny moments or nice memories last longer and multiply their "effects" via "likes" or comments on Facebook. The "social" and "commercial" VCs seem to have a stronger effect or impact on those members who engage fully in the common interest.

In "GSCAI" the VC effectively supports many aspects of the group's activities but at the same also instigated confrontations because of the absence of non-verbal. perceptual cues that connote aspects of social structure to individuals. More specifically, using CMC it is not always easy to understand the interlocutor, especially when the conversation is complex: "Well, not having the person in front of you is the negative side of the VC, you have misunderstandings [...] If you want to have a complex conversation you just don't understand [...]" [male, average, 27 years]; this is even more challenging with group communication. A large majority of members said this aspect of the VC played a role in the conflict: "Actually, when you argue with a friend you try to meet him, I mean, you avoid talking on the phone because you know that by the phone you cannot properly talk to him [...]" [male, beginner, 37 years]. Furthermore respondents were less inhibited interacting online than face to face [23, 215] and this made the confrontation even harsher: "No one ever said those [bad] things right on my face, because I'm a big guy and you know..." [male, expert, 55 years]. A symptom of the intensification of the confrontation was the amount of daily emails exchanged within the group, which consistently increased. The influence of the VC is so effective in "GSCAI" that when the accounts of the so called "sleepers" were cancelled the online "confrontation" started. Mainly readers, sleepers just gave suggestions when requested. Their exclusion from the VC, after many years of absence from physical meetings and activities, instigated a sudden show of attachment to the VC.

Working with reports in the VC "Diarioclown" showed to be very useful for the members. As a "professional" group, the content is formal and managed by an administrator (the manager of the group). Before the split into two subgroups, there was a conflict which did not show itself in the physical meetings. The VC was the only "place" where symptoms of this discontent were manifested. In fact the only element of this discontent was the decision of not writing the reports thus refusing to support the group: "Look, this impatience was expressed on the VC by ceasing to write up reports. I mean, Diarioclown has faded at some point. So much that [...] we were only a few who continued to write [...]" [male, expert, 31 years].

VII. DISCUSSION AND CONCLUSION

In this article we showed how VCs are effective platforms for FOI. Results of previous research found that offline meetings/activities have an impact on FOI in VCs [15, 3]. Our study shows that online interactions can also support FOI and contradicts evidence from other research that states that feelings of influence are not predominantly present online [24, 7]. In two cases discontent was manifested and, in the VC "GSCAI" this evolved into confrontations.

conclusion. what happened offline had consequences online, and vice versa. This supports theories developed by Wellman [19] and other scholars [25] - [23], stating that a VC helps supporting the virtualization of social ties [25, 114-115]. On a theoretical level our study shows that Porter's typology can be expanded upon by adding the "main relationship orientation" within the VC (so, the online-offline orientation could be considered). Depending on the main domain of the group activities (online or offline), figures 2 and 3 show how the whole typology (Fig. 2) or a part of it (Fig. 3) could be adopted in that sense. The shifting of the VC, or its parts, could also be moved on a border of the continuum, so they could be purely online, nevertheless it could not be the opposite, because a purely offline group could not be a VC.



Fig. 2 – Possible first variation of Porter's typology

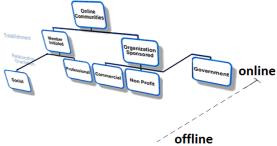


Fig. 3 - Possible second variation of Porter's typology

ACKNOWLEDGMENT

This article is based on a joint PhD thesis developed at "Sapienza" - University of Rome and at "UGent" - Gent University, titled "Virtual Communities: online and offline connections", which investigated SOC, collaboration and other aspects of digital interactions in VCs.

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