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Social Network Sites (SNS): do they match ? Definitions and methods for social sciences and marketing research

Abstract :

Social Networks Sites (SNS) such as Facebook, MySpace, Skyrock.com or Linkedin have become new fields of investigation for marketing. Even though the phenomenon has met with an amazing popular success, only a few scientific works have been published on this subject. This article proposes initially to evaluate the situation by a review of the experts' discourses and, then, a an analysis of the texts in core disciplines specialising in social networks analysis (mainly sociometry, anthropology and sociology). Finally this work will help us to propose a definition for SNS as a research subject and to design a methodology for marketing research.

Key-words: Social network Site (SNS), Facebook, MySpace, social network, methodology

Introduction

Web 2.0 is a recent phenomenon both for scholars, marketers and companies. Its definition remains ambiguous, as Tim O'Reilly himself (2005) declares that Web 2.0 refers to a set of principles rather than to a standard or a technology. Apart from this phenomenon, a set of websites qualified as "social media" is distinguished. They have been introduced as a new revolution as far as the relationship with consumers is concerned. Social media are considered as a crucial issue with major opportunities…and risks for brands. However the definition itself remains vague. More specifically, the notion of social media is a pleonasm[1] as media are obviously oriented towards society. The abundance of new terms (*social networking/network site or service, social media platforms...)* does not help clarification. Researchers are facing a nebula, social media being a macro-concept (Morin, 1991): a core notion requiring others to be defined. It can be identified as part of a complex phenomenon as a whole, but it is more difficult to specify it and to get a clear view of its own features.
The set called "social networks sites" (SNS) is of particular interest. The impressive growth of their audiences for the past two years has been highlighted both by the press and professionals. But, once again, the phenomenon is suffering from a lack of clear definition - SNS need to be distinguished clearly from social media - and also need a specific methodology for marketing research.

Worldwide Growth among Selected Social Networking Sites
June 2008 vs. June 2007
Total Worldwide Audience, Age 15+
Home and Work Locations
Source: comScore World Metrix

	Total Unique Visitors (000)		
	Jun-2007	Jun-2008	% Change
Total Internet : Total Audience	**778,310**	**860,514**	**11%**
Social Networking	**464,437**	**580,510**	**25%**
FACEBOOK.COM	52,167	132,105	153%
MYSPACE.COM	114,147	117,582	3%
HI5.COM	28,174	56,367	100%
FRIENDSTER.COM	24,675	37,080	50%
Orkut	24,120	34,028	41%
BEBO.COM	18,200	24,017	32%
Skyrock Network	17,638	21,041	19%

Figure 1 : World statistics for SNS (June 2007- June 2008 ; source : ComScore)

As a result, major questions remain within the business world. We read in press articles and market surveys that a few brands have had a positive experience from SNS[2] - Obama's campaign[3] on the SNS and how he was able to raise up to 600 million dollars is often given as an example - but most companies still hesitate about the strategy they should have, rather than just abandoning the idea. Ted McConnel, Interactive Marketing Manager for Procter & Gamble declared a few days ago that his company would no longer advertise on Facebook[4], causing an upheaval within the e-marketing world.
This paper aims to clarify this confused situation. This will be made possible thanks to a return to core disciplines in human and social sciences (mainly history, sociology and

[1] If some media are social, what are the other media? What does a non-social media look like ?

[2] Jupiter Research's last survey (June, 2008) refers to Intel, O2 (UK's leading provider of mobile phones) and e4 (TV channel).

[3] Observers noticed that Obama's Internet campaign was directed by Chris Hugues, co-founder of Facebook.

[4] http://www.drama20show.com/2008/11/21/pg-marketer-questions-social-media-scientology-asks-is-social-media-really-media

anthropology). By going beyond these core disciplines we will also propose a definition of SNS as a research subject, and a specific methodology for marketing research on SNS.

1. Interpreting the speeches accompanying the development of a technology

The first aim of core disciplines is to give a critical interpretation of what is said about SNS. As far as our subject is concerned, the history of technology and sociology of innovation will allow us the opportunity of understanding the limits of current discourses on social networks.
Mattelart (1999) and Flichy's work (1997) shows how, from ways of navigating the Internet, passing via telephone, television, telegraph, or micro-computers, communication networks and technique diffusion always gave birth to ideology and utopias strongly imprinted with a technological determinism, which predict chaos and alienation or alternatively, liberation and social peace.
Social networks do not escape this tendency. The idea of a general revolution in individual practices or in the global conditions of the connections maintained between them, and the producing institutions that would be provided by the rise of the Web 2.0 are criticised : « every « new » technology leads to the production of a new imagery which, in a few words, attribute the paternity of a "new" society » (Rebillard, 2007).

By reminding ourselves how economically interested (Bourdieu, 1977;1991) these discourses can be, these works create a way to interpret them, mainly by critically interpreting :

- the large number of examples of strategy developed by firms on social network sites shown in these discourses that systematically disregard saying anything about about their results[5] ;
- the attempts of categorization of devices raising social media[6], based on the intuition and the examples, that end in the inflation of the number of categories with every new site ;
- the rules of conduct proposed to the firms[7], based on explanatory theories or methods of work largely traced by classic marketing, under their visible novelty.

As social networks are not born with the Internet, it is very instructive to return to the roots of social networks analysis (SNA) to figure out what SNS are and how they could be studied in Marketing.

2. From Social Networks Analysis to Social Networks Sites Analysis ?

There is a debate among social networks specialists as to whether the grounds of SNA should be found with Simmel's sociology (1890) or with Moreno's sociometry (1934), the second perspective being dominant – especially in the USA and among the anglo-saxon world and the first one being quite French. In any event, many different roots are seen to coincide to become modern SNA (Scott, 2000, Bakis, 1993, Mercklé, 2004).
Simmel indeed thought about a geometry of a social world. With sociometry, Moreno (1934) invents a method to analyse social relations and a way to graphically represent individuals and their relationships: the sociogram.

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[5] As a significant example : <http://www.oliviermermet.com/blog/2008/10/01/marketing-et-medias-sociaux-besoin-dexemples/>, for more examples, report to the webography we made on *Del.icio.us* : http://delicious.com/webographiersn

[6] See for example : <http://www.fredcavazza.net/2008/05/19/panorama-des-medias-sociaux/>, for more examples, report to the *Del.icio.us* webography.

[7] <http://www.espresso-interactif.com/blog/2008/05/06/pyramide-de-maslow-20/>, for more examples, report to the *Del.icio.us* webography.

Anthropology has been the second key element for SNA, with crucial works by Radcliffe-Brown (1924;1940) and Lévi-Strauss (1945;1952) around the concept of structure. Basically, Lévi-Strauss' structuralism considers the structure as a model and he clearly distinguishes it from concrete social relationships, whereas Radcliffe-Brown considers structures as social networks within a given society. This difference is fundamental and the impact of their research has been so important that today's specialists define their research as "structural analysis". Degenne and Forsé (1994) consider SNA as a structural approach for sociology. Lazega (1995;1998) focuses on "social networks and structural relationships". He states that such an approach is possible if relational dimensions can be observed systematically (i.e. with a full network). It clearly means that the required conditions for such a methodology are thus very demanding. This has a major consequence for marketing research on SNS which can be summarized as followed: given the current knowledge of SNS, such structural analysis should not be used. Otherwise, this would assume that SNS represent fully social networks of individuals. The first interviews conducted in our research project (co-authors) and the first articles published (mainly by Boyd, 2007, 2008: Boyd, Ellison, 2007) insist on differences between social networks and SNS : "digital networks will never merely map the social, but inevitably develop their own dynamics through which they become the social » (Boyd, 2008). Furthermore, it is interesting to note that research on SNS relies on ethnographic methodologies and that experts on SNA did not investigate this new field as one might have assumed[8]. The arguments developed *supra* may explain this situation.

The third pillar for SNA, called "Manchester School" has been qualified by Mitchell himself and Gribaudi (1988) as an anti-structural anthropology. Among these works, John A. Barnes seems to be the first one to use the notion of "social network" to qualify a set of relationships of people and social groups (1954). But the SNA will only become effective by the end of the seventies, with the creation of the INSNA[9] in 1978, two academic reviews in 1979, a forum (SocNet), relational data analysis softwares (Ucinet[10], Netdraw, Stocnet[11], Pajek[12]…). The fourth and final stage to establish modern SNA refers to mathematics with graph theory and relational matrix. The "Harvard group" around Harrison White played a major role in their systematic use to represent relational data.

Core disciplines give us a broader perception of the subject we are examining, protecting us from the eyebaths each discipline can't help to construct. As far as our subject is concerned, it helps us to pay attention, not only to technology, but also to practices consumers are developing on SNS. In this case, anthropology and sociology (mainly), once combined, allow us to construct a precise definition of SNS.

3. Help defining a precise object among a nebula of implements

Boyd and Ellison (idem) described well the technological particularities of 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

[8] Only one article has been published (very recently) in *Social Networks* (2008)

[9] *International Network for Social Network Analysis* : INSNA <http://www.insna.org>

[10] <http://www.analytictech.com/downloaduc6.htm>

[11] Open software téléchargeable sur <http://stat.gamma.rug.nl/stocnet>

[12] Certains sont téléchargeables gratuitement sur le site de l'INSNA <http://www.insna.org>

within the system. The nature and nomenclature of these connections may vary from site to site". In spite of how interesting this proposition is, it is important to observe that it still lead to several problems when used to characterize the implement one can find on Internet. Effectively, they regularly integrate the functionalities other systems have developed as long as these functionalities appear to be successful[13]. As the technology isn't essentially different, it allows these systems to improve their services and the exact problem is to find what functionality is used by Internet users in the end. The three dimensions that allowed one to differentiate becomes less efficient[14]. Consequently, no matter how appealing it may look, a definition relying exclusively on technology appears not to be sufficient. Nevertheless, it still remains extremely interesting to rely on this theoretical model, once reinforced with the inclusion of the practices and habits developing on these systems.

This can be done by putting Boyd and Ellison's definition face to face with what Pierre Levy calls "social computation"[15] : social computation builds and share in a collaborative way numerical collective memories around the world, that can deal with pictures (*Flickr*), video (*YouTube*, *DailyMotion*), music (*Bittorrent*), bookmarks (*Delicious*, *Furl*, *Diigo*), or encyclopedical knowledge (*Wikipedia*, *Freebase*). Nevertheless, Levy assimilates social computation with the whole Web 2.0. Doing so, he still includes all the kinds of systems we evocated, SNS and others, under the same definition and fails in the same issue: keeping a discrimination efficiency. According to us, whereas the idea of a collective working to construct and share different kinds of content appears to be an online activity that can often be found, we propose to restrict the application of this definition to only websites the main activity of which amounts to this computation. So do the systems evocated in the quotation. Let us add that this definition is bound not only to concern information, websites, knowledge, but also consumption goods[16]. On the contrary, SNS focus on creating and enacting the public face (Goffman, 1974) the profile, especially by showing the connection one shows with another. Internet users could then come upon these SNS without having any particular aim, that the teenagers do not hesitate in doing, so finding ways of "just hanging out" together (Boyd, 2007), whereas social computation focusses on a special interest or activity. From the systems fitting Boyd and Ellison's definition, by eliminating those which deal with social computation, we can distinguish the systems that only deal with SNS. As far as Boyd and Ellison are concerned, we hope to clarify their own thinking, knowing that they also notice this difference between a focus on interest and identity in their paper without showing it in their definition[17].

According to these different studies, we can now propose that SNS are web-based services that allow individuals to:

(1) construct a public or semi-public profile within a bounded system,

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[13] As far as the functionalities are concerned, the authors clarify that many of these web sites that can yet be included in this definition wouldn't have been categorised in this way at their conception. They incorporated the three dimensions Boyd and Ellison distinguish after having been simple forums, online communities, weblogs or instant messaging services.

[14] As a piece of evidence, Boyd and Ellison carry out there research to the same problem: an impossibility to establish a distinction among all the different kinds of implement generally called "social media". In their article, one can still find an assimilation between nevertheless obviously different websites like *Facebook* and *YouTube*.

[15] <http://entretiens-du-futur.blogspirit.com/archive/2008/10/02/la-mutation-inachevee-de-la-sphere-publique.html>

[16] <http://www.capitaine-commerce.com/2008/10/01/21188-connaissez-vous-le-bookmarking-social-de-produits/>

[17] « The rise of SNSs indicates a shift in the organization of online communities. While websites dedicated to communities of interest still exist and prosper, SNSs are primarily organized around people, not interests. Early public online communities such as Usenet and public discussion forums were structured by topics or according to topical hierarchies, but social network sites are structured as personal (or "egocentric") networks, with the individual at the center of their own community » (Boyd, Ellison, 2007).

(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.
(4) base their interest mainly on these first three points and not on any particular activity[18].

A last distinction allows us to distinguish between SNS and online communities. Classical definition of a community supposed a group connected by the feeling of a shared membership, values, common practices and imagery, but also a membership exclusivity and a strong territorial anchor. Proulx, while studying online communities, maintains this definition but to some extent observes a relaxation to see the disappearance of the last two constraints (2004). He then defines online communities as the sharing of interests or practices. We are then a long way from social networks which do not deal with membership feelings, shared elements or about the perpetuity assumed by communities[19]. The virtual communities thus maintain more links with social computation. This precision allows us to raise an important point: social network sites establish composites on which communities can appear, but for all that they should never be confused with them[20].

Conclusion

Marketing research, and e-marketing in our specific case, has the opportunity to draw benefits from core disciplines, especially in human and social sciences.
In our results, we have found that experts on SNA did not focus on SNS. The main published research studies are based more on ethnographic approaches. Demanding methodology as well as ontological problems to map connections established on SNS on offline social networks clearly justify looking more closely at what social links and what practices are really appearing on these new sites. In this case, anthropology and sociology offer indepth qualitative methods to compare how technology offers opportunities that social groups will decide to use or to poach, importing old practices into these sites as well as inventing new ones as they go on using them. This ethnography of network uses can look similar to netnography, but we must understand that if this methodology is quite identifiable, netnography intrinsically deals with online communities (Kozinets, 2002; Bernard, 2004), which refer more to social computations, whereas SNS, focussing on identity production and enactment, will be better explained by everyday life practice theory (Certeau, 1984) and faces, and his enactment theories (Goffman, 1982, 1999).

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[18] Danah Boyd explicitly points this dimension in an article dealing with *Friendster* : « the dating architecture quickly proved flexible and expressive enough to support a wider range of activities than originally anticipated » (Boyd, 2008)

[19] For example, if a high-school class can be seen as a social network, it will constitute a community only if its members share more than this short-lived characteristic.

[20] Dealing with *Facebook*, the childhood friend lost sight on the page about whom we only wanted to know what it became without exchanging more than an e-mail or two will be a part of our SNS, on the other hand, we shall not participate in a virtual community. *A contrario,* groups of friends separated by the studies and surrounding *Facebook* as a way to organize events in common or to share photos constitute a very real community even before becoming a virtual. Danah Boyd illustrated a case of confusion between community and virtual network at the users of *Friendster*: « Individuals invited friends who they felt would "fit in," simultaneously interpreting, defining, and reinforcing subcultural dominance of *Friendster*. Gay men, believing *Friendster* to be a gay dating service, tended to invite other gay men. Burners invited people with similar interests. As already indicated, technical reasons limited the visibility of social networks on *Friendster* to four degrees of separation, meaning the horizon of any person's network was limited to friends of friends of friends of friends. While this limitation made it possible for participants to see most of the people that they knew, it also made the service appear more homogenous than it was. This limitation magnified perceptions that *Friendster* was a space for narrow communities of interest. » (Boyd, 2008, p. 10).

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