

# Trends and preferences of Internet participants: Differences between SNS users and non-users

**C. Lorenzo-Romero\***

*Department of Marketing  
Faculty of Economics and Business  
University of Castilla-La Mancha  
Carlota.Lorenzo@uclm.es*

**E. Constantinides**

*School of Management and  
Governance  
University of Twente*

**M. Alarcón-dei-Amo**

*Department of Marketing  
Faculty of Economics and Business  
University of Castilla-La Mancha*

*\*Corresponding author*

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## ABSTRACT

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The staggering growth of online social networking and the potential of Social Networking Sites as marketing channels has become an issue of attention and interest by commercial organizations. This explorative study provides the basis for understanding the nature and behaviour of users of these sites. Based on a national sample, this paper investigates the demographics, profiles and behaviour of participants of Social Networking Sites in The Netherlands. The paper compares the online behaviour of users and non-users of SNS and reveals that the first category of networked citizens is much more active on most types of online activities. Furthermore the study identifies the profile of the average participant in online social networks, identifies preferences and reveals ways that online citizens are engaged with this particular form of social media. The findings provide a better understanding of the importance of the Social Networks for the digital citizen and present useful facts to marketers eager to integrate these media into their marketing approaches and strategies; they also present researchers of human behaviour with interesting insights on the role of the online social networks as platforms of social interaction and communication.

**Keywords** – Social Networking Sites, Trends and preferences of users, online marketing strategy

One of the important developments in the Internet domain over the last 5 years is the explosive growth of the Social Media; applications based on online publicly generated content (Constantinides, Lorenzo and Gomez-Borja, 2008). One type of Social Media namely the online social networks commonly known as Social Networking Sites (SNS) are today part of the everyday life for hundreds of millions of people worldwide and particularly of the young ones (Jones, 2002; Ellison, Steinfield and Lampe, 2007; Lenhart & Madden, 2007; Subrahmanyam, Reich, Waechter and Espinoza, 2008). Online social networking is an area attracting the particular attention of marketers due to the enormous popularity of these sites and their potential as marketing communication and interaction channels (Constantinides et al., 2008)

SNS are web applications belonging to a large category of interactive online applications commonly known as Social Media (Kaplan & Haenlein, 2010). Like most other Social Media (blogs, online communities, online forums etc) the SNS are applications based on user generated content and allow the creation, editing, multiplication, sharing and dissemination of information. SNS also allow users to establish online social networks (Constantinides et al., 2008; On, Sisic, Ross, Simmering, Arseneault and Orr, 2009) and provide tools allowing users to find friends or acquaintances online. Users can also get in touch with other users based on their profile characteristics and individual preferences and build new relationships with persons with whom they share common interests. Next to one-to-one relationships SNS allow users to

create special interest groups enabling interaction on interpersonal or intergroup level (Barker, 2009).

The purpose of online social networking is mostly social rather than professional: a recent report from ComScore Media Metrix (2010)<sup>1</sup> suggests that interaction through virtual social networks has become one of the most popular and engaging activities across the Web: In December 2009 nearly 4 out of 5 of the US Internet users visited a SNS. These activities now account for 11% of all time spend online in the US, making it one of the most popular online activities. SNS like Facebook (500 mil users), MySpace (130 mil users), Qzone (200 mil users) and Twitter (150 mil users) are leading examples of the thousands of online networks attracting hundreds of millions of users and serving a variety of needs of the wired public.

#### PURPOSE OF THE ARTICLE

The rate of adoption of the Social Media by the public but also by businesses is growing. In a report published in November 2010 eMarketer<sup>2</sup> estimates that 80% of the US businesses with more than 100 employees will use social media tools for marketing purposes in 2011; this percentage will increase to 88% in 2012 and similar trends are observed in many countries or territories. It is obvious that the social media and the SNS in particular have attracted the interest of business strategists and marketing practitioners.

Press articles, research papers and special journal issues around the subject are also increasing. Yet despite the growing interest of researchers in the use of social media applications as part of the Marketing strategy (Gómez, 1998; Ghauri, Lutz and Tesfom, 2003; Constantinides & Fountain, 2008; Mangold & Faulds, 2009; Kim, Jeong and Lee, 2010) little academic attention has been so far placed on the nature and behaviour of the online SNS user. This article presents the finding of an explorative study aiming at providing a basic understanding of the social networking market by identifying the demographics and the

specific ways people are using the SNS. The article also analyzes the differences between users and non-users of online social networks; specifically the study is examining the social networking user in The Netherlands looking to the total population of Internet users rather than only the SNS users or a specific market segment.

The purpose of this article is to obtain a first picture of the online activity of the online networked public when engaged in SNS-related activities as the basic step in the direction of understanding the behaviour of this category of consumers. The study addresses some basic issues of the online behaviour of SNS users by giving an answer to the following question: What are the distinctive profiles of SNS users in The Netherlands and what are their main behavioural characteristics? The findings provide useful insights in the demographics, interests, behaviour and motives of the online networked consumer and identify a number of future research directions. It also provides practitioners with basic but essential information as to the behaviour of networked Internet users, as starting point of engaging SNS as part of their marketing strategy.

#### PROBLEM INVESTIGATED: WEB 2.0 AND SOCIAL NETWORKING SITES

The term Web 2.0 was introduced by O'Reilly (2005) as the new stage in the Internet evolution referring to a collection of online applications sharing a number of common characteristics: "The Web as a platform, Harnessing of the Collective Intelligence, Data is the Next Intel Inside, End of the Software Release Cycle, Lightweight Programming Models, Rich User Experiences". The Web 2.0 has been defined in the literature in different ways (Needleman, 2007; Coyle, 2007; Anderson, 2007; Swisher, 2007; Craig, 2007; Birdsall, 2007). Constantinides & Fountain (2008) describe the Web 2.0 as an online interactive platform consisting of three components: The Application Types (i.e. five categories of Web 2.0 applications)<sup>3</sup>, the Social Effects and the Enabling Technologies.

<sup>1</sup> ComScore The 2009 U.S. Digital Year in Review, February 2010, [http://www.comscore.com/Press\\_Events/Presentations\\_Whitepapers/2010/The\\_2009\\_U.S.\\_Digital\\_Year\\_in\\_Review](http://www.comscore.com/Press_Events/Presentations_Whitepapers/2010/The_2009_U.S._Digital_Year_in_Review)

<sup>2</sup> eMarketer, December 9, 2010, How many marketers are using social Media? <http://www.emarketer.com/Article.aspx?R=1008092>

<sup>3</sup> These are the Web Logs (blogs), the Online Communities, the Social Networks / Social Networking Sites, the Online Forums and the Content Aggregators

The Application Types are commonly labelled as “Social Media”: These are online environments allowing direct contact, networking, interactive communication between online users and the posting, editing and dissemination of user generated content (Constantinides & Fountain, 2008).

The importance and popularity of the Social Media as marketing tools and communication channels is growing (Deighton & Kornfeld, 2009) and field studies provide evidence that these can influence the consumer behaviour<sup>4</sup>. According to a recent Forrester Research report<sup>5</sup> the Social Media domain has become an important tool of Interactive Marketing and commercial budgets spend on Social Media marketing are growing at the cost of other forms of interactive and traditional marketing; in the US funds directed to social media are expected to grow from \$716 million in 2009 to \$3.1 billion in 2014. According to a recent report of Outsell advertisers in the US plan for the first time to spend more money in online advertising than print<sup>6</sup>.

Social Networking Sites are defined in different ways in the literature; user participation. Creation and exchange of user generated content are common in these definitions (Tredinnick, 2006; Constantinides et al., 2008). Boyd & Ellison (2007) define the SNS “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”. Boyd & Ellison (2007) argue that the term “Social Network Sites” is more appropriate than the term “Social Networking Sites” and these terms should not be used interchangeably; they argue that the term “Networking” emphasizes relationship initiation that for all intents and purposes is not among the priorities of users of these applications. Beer (2008) rejects this argument questioning the analytical value of such a distinction as making the terrain more difficult to deal with. According to Beer

(2008) the term “Network” is not appropriate since it could imply the inclusion of web applications not necessarily aiming at social networking<sup>7</sup>. The authors of this paper adopt the view of Beer (2008) and the acronym SNS will refer to the term Social Networking Sites in this paper.

A common aspect of SNS is their capacity to bring together and connect people with similar demographics, interests, ideas, hobbies, educational, professional or social backgrounds. Participants of SNS can meet online peers they know or do not know and invite them to join their list of contacts. Depending on the application these lists are labelled with a variety of terms: “contacts”, “friends”, “followers”, “connections” and “fans” are some of the more common terms used. SNS allow different forms of interactions between the network participants. Instant messaging, voice communication, micro-blogging or discussion forums are some of the options. The network participants can create and share content in the form of information, comments, product reviews, news, opinions, messages, photos, videos, etc.

One of the advantages of SNS is that they allow people to meet virtually and create online communities without any geographical limitations. Furthermore many SNS allow the creation of sub-networks (or groups) for bringing together people sharing very specific interests within the main networking site. As an example the business social network LinkedIn ([www.linkedin.com](http://www.linkedin.com)) allows members to create and join unlimited special interest groups within the site. One of such online sub-group is the “E-Marketing Association Network” with more than 200.000 members (January 2010).

Regarding the types of SNS a 2007 research paper of FaberNovel<sup>8</sup> identifies four categories of Social Networking Sites depending on the participants’ objectives: Online Communities (goal: socializing), Business Networks (goal: career and business opportunities), Online Matchmaking (goal: “soul mate”), and Alumni

<sup>4</sup> <http://www.cmbinfo.com/news/press-center/social-media-release-3-10-10/>

<sup>5</sup> Forrester (2009), US Interactive Marketing Forecast 2009 to 2014, by Shar van Boskirk, [http://www.forrester.com/rb/Research/us\\_interactive\\_marketing\\_forecast%2C\\_2009\\_to\\_2014/q/id/47730/t/2](http://www.forrester.com/rb/Research/us_interactive_marketing_forecast%2C_2009_to_2014/q/id/47730/t/2)

<sup>6</sup> [www.outsellinc.com](http://www.outsellinc.com)

<sup>7</sup> Interestingly, as it will be discussed later, the findings of this study support the view that typical networking-related motives such as making new friends / making new contacts and building professional relations are not perceived as the highest priority motives of SNS users of such sites (Figure 7).

<sup>8</sup> <http://www.fabernovel.com/news/research-paper-social-network-websites>

Networks (goal: getting back in touch). Gillin (2009) provides a different classification of SNS including nine different types: General Purpose Networks, Vertical Networks, Social Bookmarking, Recommendation Engines, Social Shopping, Horizontal Networks, Photo / Video sharing, Virtual worlds and Mobile Networks.

## RESEARCH STRATEGY FOLLOWED: METHODOLOGY

The study is based on a national survey conducted in the autumn of 2009 in The Netherlands. This country is an appropriate market for research on Internet-related issues due to high penetration of the web and the experience / sophistication of Internet users; according to the 2009 European commission's Digital Competitiveness Report<sup>9</sup> 83% of the Dutch are regular internet users – connecting to the internet at least once a week - and 74% of the population has access to broadband connection. In both aspects The Netherlands is ranking number 1 in the European Union.

The sample size was 517 Internet users including social networking sites users and non-users: 400 and 117 respectively. To obtain the final sample we used a non-probability method by quota sampling, to ensure that the various subgroups of the target population are represented in the sample with regard to gender, age and region of residence (see Table 1). The field work was conducted in October 2009. An online questionnaire to the panel of Internet users was used for this study.

From a methodological perspective, information obtained was treated statistically using univariate (descriptive statistics) and bivariate (contingency table) analysis of the data. To test whether there is any relationship or association between being user or non-user of SNS, and the different uses of the Internet in general and Web 2.0 in particular, we will use the Chi-square test of independence.

The chi-squared test of independence is used when you have two nominal variables, each with two or more possible values. It is used to determine whether there is a significant null

hypothesis is that the relative proportions of one variable are independent of association between the two variables. The the second variable. In our study, the null hypothesis is that to be or not to be user of SNS is related to the different behaviour on the Internet and Social Web.

## RESULTS

### Uses of the internet and adoption of Web 2.0 tools

In our study, we can see that most of the sample participants are experienced Internet users, regardless of whether or not they are SNS users<sup>10</sup>. Specifically 59% of SNS users are Internet users for 8 years or more, while among non-users this figure is 64.1%.

Analyzing the frequency of accessing Internet from different locations and devices we found that there is only relation between being SNS user or non-user and accessed via the home computer and mobile phone with a higher frequency of access by SNS users. Specifically, 56.8% of SNS users access several times a day from home, and 5.5% several times since the mobile phone, while 40.2% of SNS non-users access several times a day from home, and 1.7% every day or almost every day since the mobile phone.

The use of the Internet has increased mainly at the cost of time spent watching television (52.6% of Internet users), studying (40.8%), doing nothing (40%), walking, going out with friends, spending time with the partner (38.9%), listening to the radio (19.1%), going to the cinema (12.6%), sleeping (11.6%), finding information in libraries, catalogues, etc. (11.4%), working (9.3%), reading (5.8%) and doing sport (5.2%). In most of these activities the percentage of users who have reduced the time spent on these activities is higher for SNS users than non-users. However, there is no relationship between being SNS user or non-user, and the activities that they are engaged for shorter time to the detriment of the Internet.

There are many different Internet options which can be used by the user to obtain

<sup>9</sup> [http://ec.europa.eu/information\\_society/newsroom/cf/itemlongdetail.cfm?item\\_id=5146](http://ec.europa.eu/information_society/newsroom/cf/itemlongdetail.cfm?item_id=5146)

<sup>10</sup> Tested by chi-square test of Independence.

Table 1: Sociodemographic data of Dutch sample studied (%)

		SNS users	SNS non-users	TOTAL
GENDER	Male	43.0	56.4	46.0
	Female	57.0	43.6	54.0
AGE	From 16 to 24 years	19.0	2.6	15.3
	From 25 to 34 years	29.0	6.8	24.0
	From 35 to 44 years	23.0	23.9	23.2
	From 45 to 54 years	14.5	23.9	16.6
	From 55 to 64 years	10.5	33.3	15.7
	From 65 to 74 years	4.0	9.4	5.2
PROVINCE	Groningen	3.5	3.4	3.5
	Friesland	5.8	3.4	5.2
	Drenthe	1.5	2.6	1.7
	Overijssel	5.0	5.1	5.0
	Gelderland	11.3	11.1	11.2
	Utrecht	8.8	9.4	8.9
	North-Holland	15.8	12	14.9
	South-Holland	11.8	15.4	12.6
	Zeeland	1.5	2.6	1.7
	North-Brabant	15.3	16.2	15.5
	Limburg	6.0	6.8	6.2
Amsterdam, Rotterdam, 's-Gravenhage	10.8	9.4	10.4	
Flevoland	3.3	2.6	3.1	
REGION	District 1 - 3 large cities	10.8	9.4	10.4
	District 2 - rest west	32.8	33.3	32.9
	District 3 - north	10.8	9.4	10.4
	District 4 - east	19.5	18.8	19.3
	District 5 - south	22.8	25.6	23.4
	Small towns	3.5	3.4	3.5

information (such as Web 1.0 based activities) or to generate content (based on Web 2.0 applications). Figure 1 show the frequency by which different Internet users (differentiating between SNS users and non-users) use various Internet tools, which are used principally to obtain information or communicate.

It is observed that as a rule (with the exception of e-mail) a substantial percentage of SNS non-users never use these Internet options. There is more frequent use of different tools by the SNS users, except for consulting wikis, network file transfer (FTP), alerts subscription and consult distribution lists.

The varying frequency of use of certain Internet tools, depends on being SNS user or non-user: These are the peer-to-peer (P2P) file sharing, consult blogs, participation in chats,

instant messaging, consult alerts subscription and distribution lists. Only the last two activities are done with greater frequency by SNS non-users (see Table 2).

The frequency of use of e-mail, watching and listening to files via the Internet, consulting forums for information, reading reviews about products, news, snooping, etc., network file transferring (FTP), consulting wikis, visiting web sites using avatars (virtual characters) helping site visitors, and making phone calls over the Internet (using Skype or other applications) does not depend on being SNS user or non-user. We must emphasize that all these applications showed in Figure 1 refer to a participation in which the user simply receives information and does not generate content.

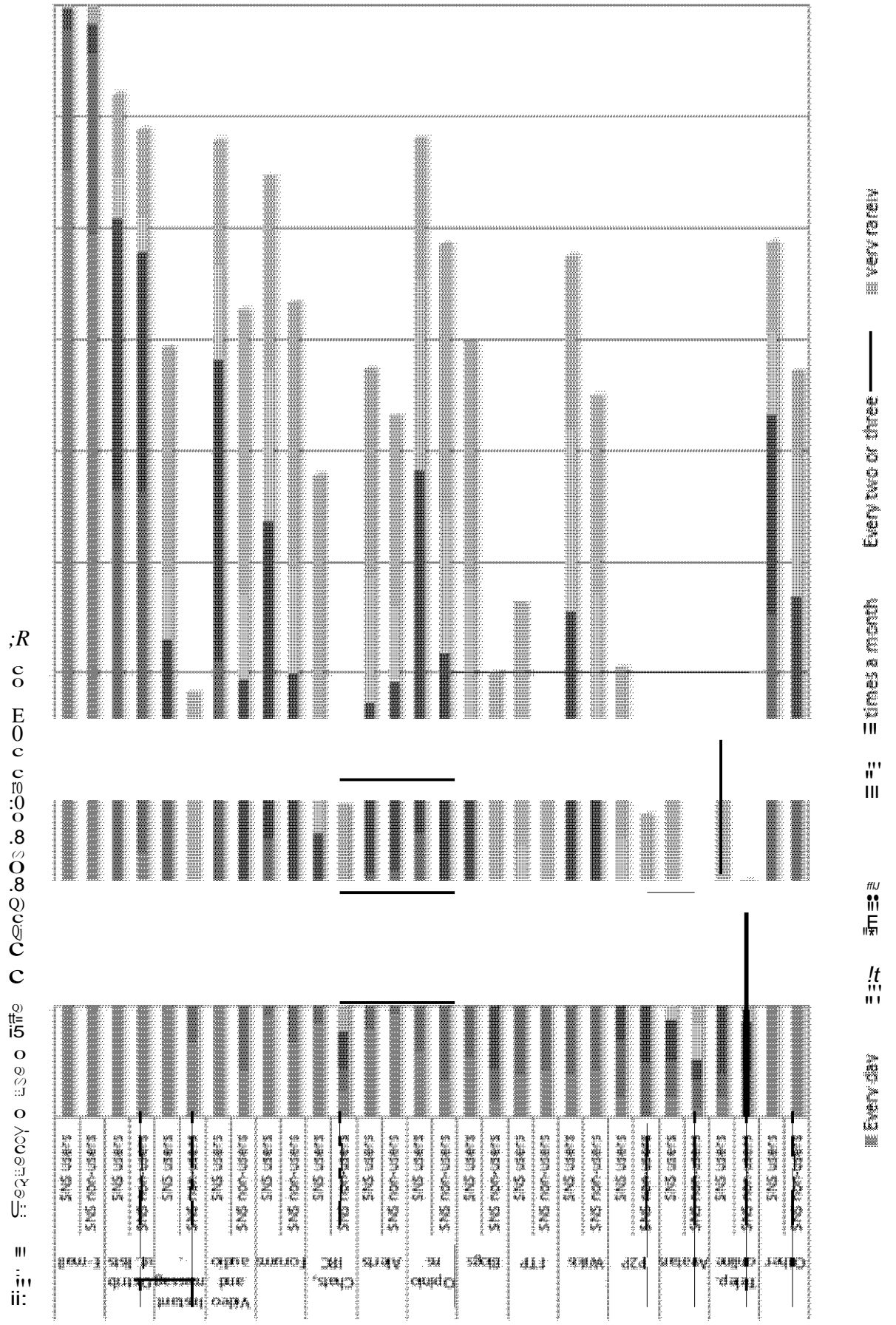


Table 2: Frequency of use of different Internet tools to obtain information and Chi-square test of independence

		Frequency of use						Chi-squared	p-value
		Every day	Several times a week	Several times a month	Every two or three months	Very rarely	Never		
E-mail	SNS non-users	79.5%	16.2%	2.6%	0.0%	1.7%		0.264	
	SNS users	85.3%	12.5%	1.8%	0.0%	0.3%	0.3%		
Distribut. lists	SNS non-users	23.9%	32.5%	21.4%	3.4%	7.7%	11.1%	1.767	
	SNS users	21.5%	35.0%	24.3%	3.8%	7.5%	8.0%		
Instant messag.	SNS non-users	6.8%	8.5%	0.9%	3.4%	18.8%	61.5%	43.593	
	SNS users	19.0%	14.3%	9.8%	5.8%	20.5%	30.8%		
Video, audio	SNS non-users	4.3%	13.7%	21.4%	7.7%	25.6%	27.4%	41.073	
	SNS users	12.5%	28.8%	26.8%	8.5%	11.3%	12.3%		
Forums	SNS non-users	6.8%	12.8%	20.5%	9.4%	23.9%	26.5%	12.863	
	SNS users	9.3%	15.8%	28.5%	13.8%	17.3%	15.5%		
Chats. IRC	SNS non-users	2.6%	1.7%	3.4%	0.0%	20.5%	71.8%	36.377	
	SNS users	8.5%	8.8%	8.3%	3.8%	28.5%	42.3%		
Alerts	SNS non-users	9.4%	12.8%	17.1%	6.8%	17.1%	36.8%	2.787	
	SNS users	8.0%	14.0%	15.3%	11.3%	18.8%	32.8%		
Opinions	SNS non-users	3.4%	13.7%	24.8%	12.8%	23.9%	21.4%	18.675	
	SNS users	6.0%	19.5%	32.8%	17.0%	12.8%	12.0%		
Blogs	SNS non-users	1.7%	2.6%	6.8%	6.0%	23.1%	59.8%	43.040	
	SNS users	5.5%	9.5%	20.8%	12.3%	21.8%	30.3%		
FTP	SNS non-users	4.3%	6.0%	4.3%	2.6%	17.1%	65.8%	6.833	
	SNS users	4.0%	7.0%	7.8%	5.8%	21.8%	53.8%		
Wikis	SNS non-users	4.3%	10.3%	19.7%	12.8%	17.9%	35.0%	9.904	
	SNS users	4.0%	16.0%	25.5%	16.3%	15.8%	22.5%		
P2P	SNS non-users	0.0%	5.1%	5.1%	5.1%	12.0%	72.6%	9.679	
	SNS users	2.0%	5.0%	11.8%	6.3%	15.5%	59.5%		
Avatars	SNS non-users	0.9%	2.6%	1.7%	3.4%	12.8%	78.6%	3.597	
	SNS users	2.0%	3.3%	3.5%	3.8%	17.0%	70.5%		
Telep. online	SNS non-users	1.7%	2.6%	4.3%	0.9%	12.0%	78.6%	9.796	
	SNS users	2.0%	2.0%	8.8%	4.8%	17.0%	65.5%		
Other	SNS non-users	18.8%	17.2%	10.9%	12.5%	7.8%	32.8%	6.879	
	SNS users	20.8%	24.5%	17.9%	7.5%	8.0%	21.2%		

Figure 2 shows the frequency of user participation in various Web 2.0 applications (social media) in active ways i.e. generating content. It reveals that the percentage of Internet users, both SNS users and non-users, who generate online content, is much lower than the percentage of “passive” Internet users. Despite the fact that a higher percentage of SNS users than non-users are contributing online content the findings indicate that the greater or lower use of content-creating applications is not related to whether one is a SNS user, except in the case of participants in forums, blog publishers and those contributing blog comments (see Table 3). Specifically the main activities carried out by a greater number of Internet users, regardless of the frequency of use, are to express opinions and valuations

about products, news, curiosities, etc. (71%) and to participate in forums (54.9%), followed by creation and/or sending files through the Internet (39.1%), sending messages to distribution lists in communities or groups (38.3%), providing comments to blogs (32.5%), to designing and/or adapting products or services through the Internet (24%), adding content to their own blog (22.4%), and contributing content in wikis (15.7%).

#### Adoption and use of social networking sites

In this section we analyze the level of adoption of SNS by its user and the use of these, as well as the motivations that lead individuals to participate in online social networks.

Figure 2: Frequency of participation in Web 2.0 tools as a user generated content (%)

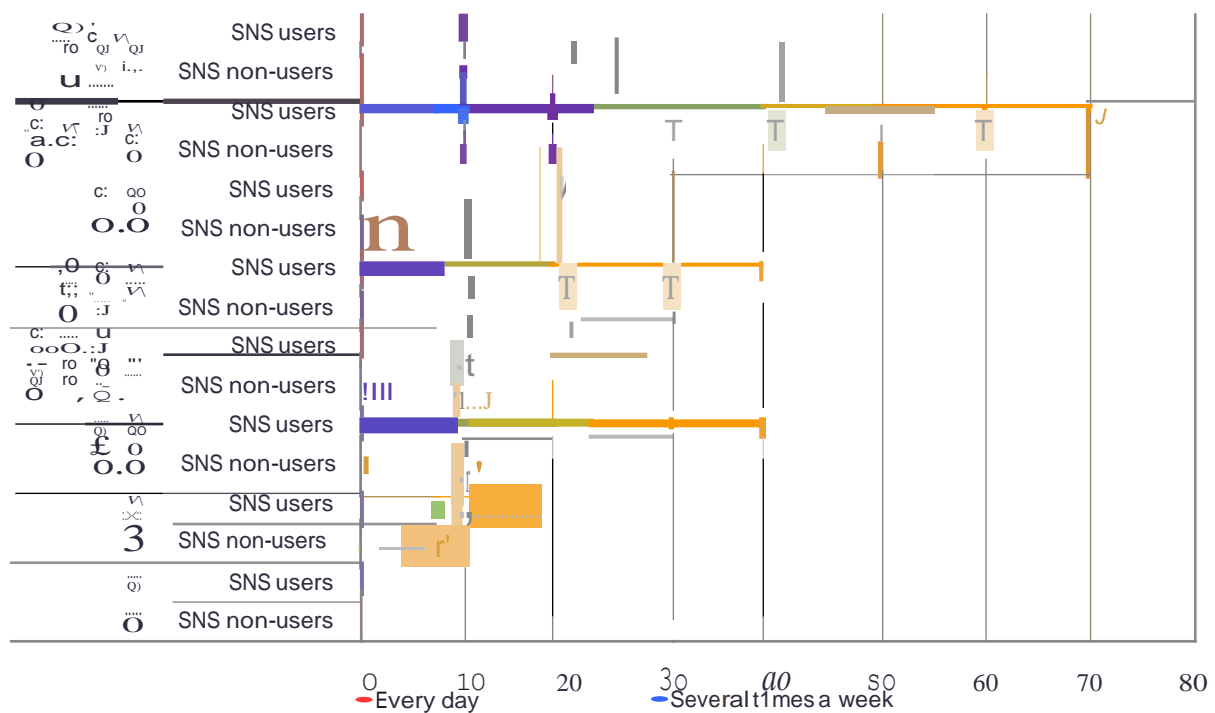
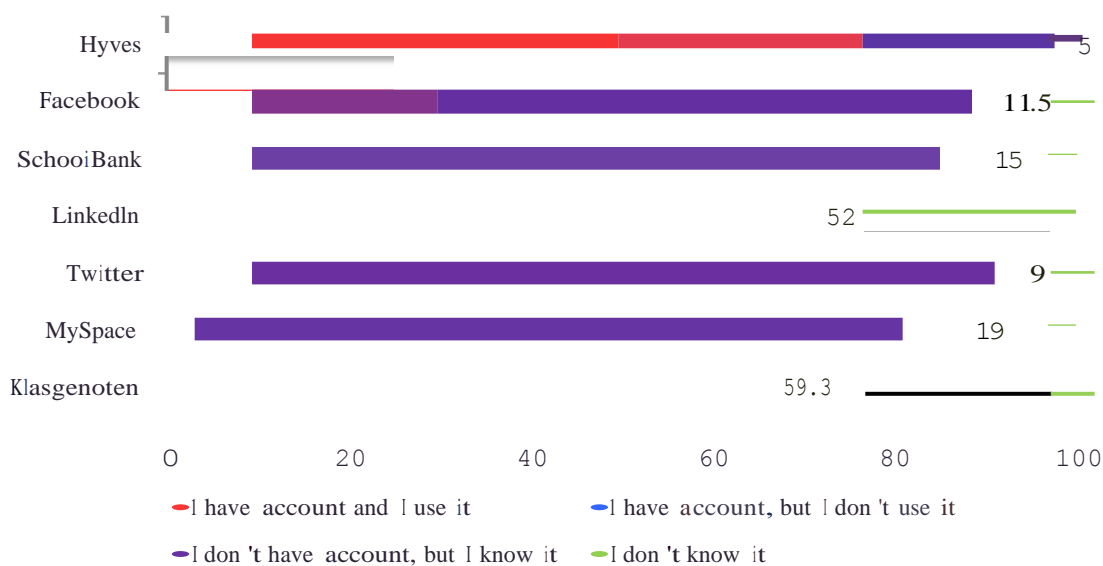


Table 3: Frequency of participation in Web 2.0 tools as user generated content and Chi-square test of independence

		Frequency of use						Chi-squared	p-value
		Every day	Several times a week	Several times a month	Every two or three months	Very rarely	Never		
Forums	SNS non-users	0.0%	3.4%	5.1%	6.8%	28.1%	55.6%	16.488	0.006
	SNS users	4.0%	7.5%	11.3%	11.0%	24.3%	42.0%		
Create/send files	SNS non-users	1.7%	5.1%	4.3%	5.1%	11.1%	72.6%	9.597	0.087
	SNS users	2.0%	6.5%	10.0%	7.3%	16.8%	57.5%		
Opinions. valuations	SNS non-users	0.9%	6.0%	17.9%	12.8%	32.5%	29.9%	2.989	0.702
	SNS users	1.5%	9.5%	15.3%	16.0%	29.0%	28.8%		
Own blog	SNS non-users	0.0%	0.0%	0.9%	0.9%	3.4%	94.9%	26.471	0.000
	SNS users	1.0%	2.3%	5.5%	6.8%	12.0%	72.5%		
Distribution lists	SNS non-users	0.0%	0.0%	2.6%	6.8%	28.2%	62.4%	5.488	0.359
	SNS users	0.5%	2.8%	4.8%	6.5%	24.0%	61.5%		
Design, adapt products	SNS non-users	0.0%	0.9%	1.7%	2.6%	7.7%	87.2%	10.683	0.058
	SNS users	0.5%	2.5%	3.8%	6.3%	14.3%	72.8%		
Other blogs	SNS non-users	0.0%	0.0%	2.6%	0.0%	8.5%	88.9%	33.748	0.000
	SNS users	0.3%	3.8%	5.3%	7.5%	22.0%			
Wikis	SNS non-users	0.0%	0.0%	2.6%	0.9%	7.7%	88.9%	4.583	0.469
	SNS users	0.3%	0.5%	1.5%	2.3%	12.5%	83.0%		
Other	SNS non-users	0.2%	0.0%	0.0%	0.0%	0.0%	99.8%	5.035	0.412
	SNS users	0.2%	0.4%	0.0%	0.0%	0.0%	99.4%		



**Figure 3:** Social networking sites most used (%)

Most SNS users (75.2%) started using a SNS over one year ago, followed by 11.2% who are users between six months and one year, 9.5% who became users between one and six months ago and a small percentage of users with less than one month experience (4%). We can argue that the use of SNS is relatively new and follows a very rapid growth.

As for the devices used to access to SNS, the vast majority use computers (92.8%) and a small percentage makes it through the mobile phone (0.3%); 7% of the users are connected with both devices.

Regarding the frequency of access to SNS 26.8% of the users are connected once a day, 21.3% several times a day, 6% almost every day and 9.3% several times a week. Moreover, if we compare the frequency of access SNS with the frequency of access the Internet (discussed in the previous section), the last one is much higher (almost double).

Figure 3 shows the general interest (Hyves, Facebook, SchoolBank – a school alumni site-, Twitter, MySpace and Klasgenoten – also a school alumni site) and professional (LinkedIn) SNS most used by individuals. Hyves is the most popular and best known SNS in The Netherlands followed by Facebook. In addition, the general interest SNS are more used and more known than the professional SNS.

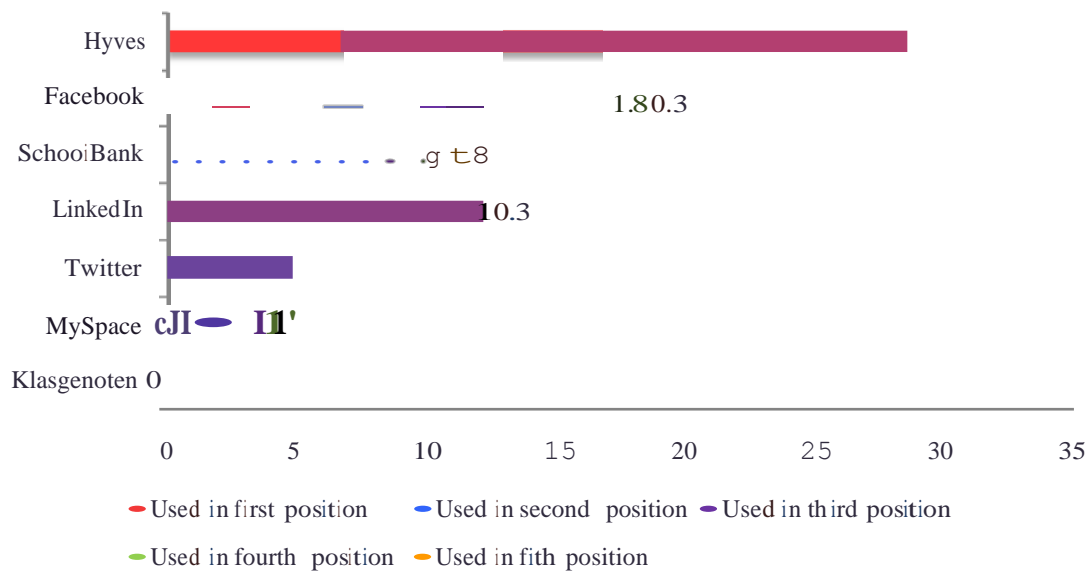
Recounting all SNS, both general interest, specialized and professional, in which each

user has an account and uses it, we can observe that 51% is faithful users of only one SNS, 24% is user of two, 11.8% of three, and 7.3% of more than three. On the other hand, 6% of users are registered in some SNS but usually they do not use it, that is to say, they are interested about SNS, but they are not active users.

Evidently, although different SNS users have accounts in multiple sites and use them all, some SNS are used more intensely. As shown in Figure 4, Hyves, besides being the SNS with most users, is also being used with the highest frequency by 20.8% of users, followed by LinkedIn (4.8%). However the SNS that is used more as a second option is Facebook (8.8%), followed by SchoolBank (8%). Otherwise, it is noteworthy that 28.5% of users found Hyves among its five most frequently used SNS, followed by Facebook (20%), SchoolBank (14.8%) and LinkedIn (12.8%).

Table 2 shows the percentages of users, divided according to age, having accounts and using various SNS. We wish to emphasize that Hyves is used by all age groups, while individuals between 55 to 74 years seem to have a strong preference for the school alumni sites SchoolBank and Klasgenoten. The higher percentage of users between 16 and 24 prefer the Hyves, this category is also including the heaviest users of Facebook and Twitter. Paradoxically the site MySpace enjoys the

**Figure 4:** Social networking sites in which users have account and they use it, ranked by highest to lowest frequency of use (%)



**Table 2:** Social networking sites used by age(%)

		From	From	From	From	From	From	TOTAL
		16 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	
General interest SNS	Hyves	90.8	84.5	67.4	56.9	57.1	56.3	73.8
	Facebook	40.8	22.4	21.7	24.1	31.0	25.0	27.0
	SchoolBank	2.6	14.7	21.7	31.0	45.2	56.3	21.3
	Twitter	9.2	8.6	5.4	1.7	2.4	0.0	6.0
	MySpace	5.3	5.2	3.3	6.9	7.1	0.0	5.0
	Klasgenoten	1.3	0.9	1.1	3.4	9.5	12.5	2.8
Professional SNS	LinkedIn	10.5	22.4	27.2	19.0	14.3	0.0	19.0

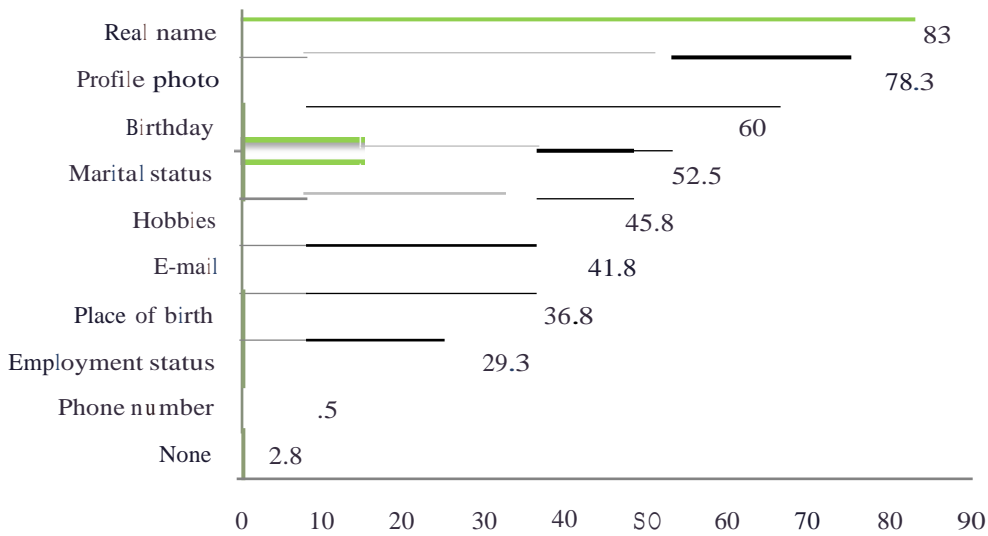
highest popularity among the users between 55 to 64 years old. Finally the professional network LinkedIn has is used mostly by users between 25 and 44 years old.

With regard to the SNS users profiles 46.5% of users have private profiles (visible only by their contacts), 22.5% have a public profile (which can be seen by anyone), 21% have a private profile in some and public profile in

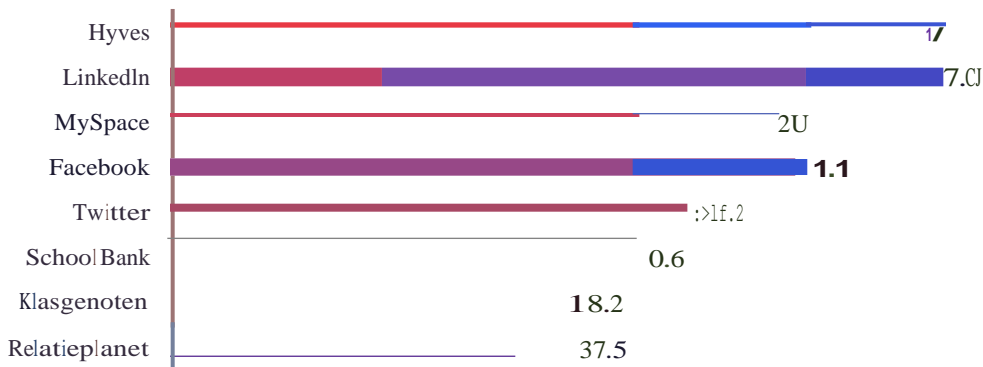
other SNS, and a small percentage don't know whether their profile is private or public.

The information most frequently included by most users in their profile is their real name (83%), a profile photo (78.3%), birthday (60%) and marital status (52.5%). Contact information like email address and phone numbers or information referred to the more

**Figure 5:** Information that users post in their profile in the social networking sites (%)



**Figure 6:** Types of contacts of SNS users



- People who they know and have contacts privately
- People they knew privately but now they only have contacts via the Internet
- People who they met online but they will likely have real contact
- People who they met online and they will never have a real contact

personal and private matters are published by smaller percentages of users (see Figure 5).

The number of contacts that each user has in the most used SNS varies. Most users (28.8%) have between 10 and 50 contacts followed by those who have more than 100 contacts (28.3%), between 51 and 100 contacts (25.5%) and less than 10 contacts (17.5%).

Figure 6 shows the different types of contacts in the main SNS of the surveyed individuals. This table refers only to users who affirmed that they had an account in SNS and used it. We can see that Hyves, LinkedIn, MySpace and

Facebook users have as their main contacts people who they know and have contact privately. Also, these SNS have a high percentage of users who have as contacts people who knew privately but now they only have contacts via the Internet. However, there is a small percentage of users who have as contacts people who they met online. Thus, we conclude that SNS are used mainly to maintain and to recover contact with past acquaintances.

In Twitter, we detect an equal percentage of users who have as contacts people who knew inside and outside of the Internet. It is logical because Twitter is not used only in contacts with friends, but also by many as a way to stay

in touch with persons or organizations that users are interested for. Therefore many of the Twitter contacts are impersonal. Moreover, in social networking like SchoolBank and Klasgenoten, most contacts are people with whom users have contacts or know them from the past, something one should expect in an alumni network.

Finally, the specialized social networking Relatieplanet, most contacts are people who they users met online but they will likely have real contact. Relatieplanet is an online dating SNS.

The main reasons that lead users to participate in SNS are found in Figure 7. SNS are used primarily in order to stay in touch with friends and acquaintances (63.5%) and for entertainment (50.3%).

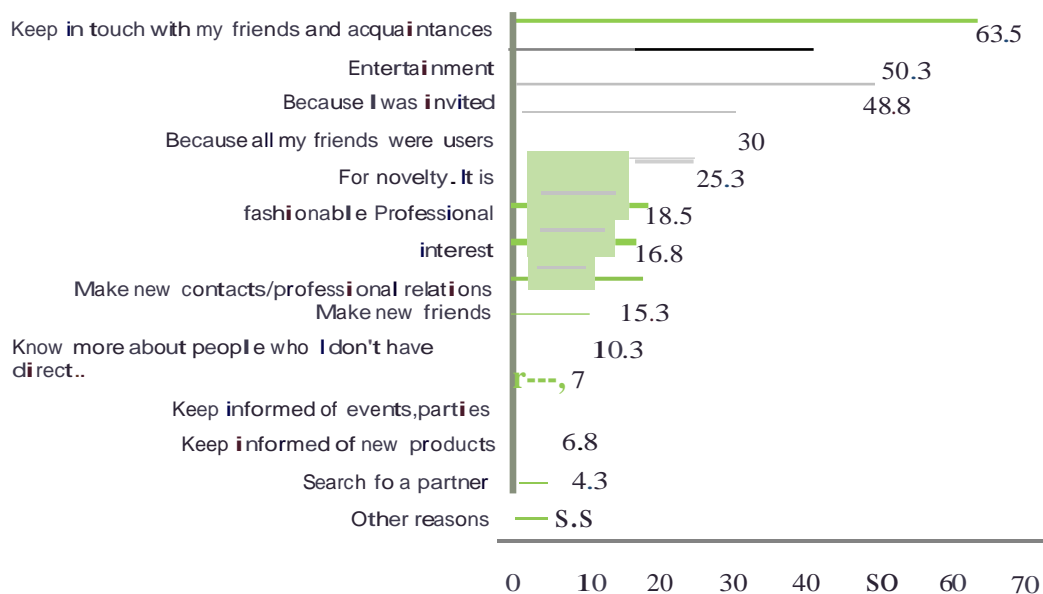
Various types of activities are carried out in SNS (Figure 8). Most popular activities are to send private messages within the website, search for friends, get information about things that interest them, share and upload photos, and send public messages posted usually in the own wall own or in other friends wall. In most categories the occasional users are the largest group. Other activities, less related to social interaction, are performed by a smaller percentage of users and with a lower frequency. In addition, we wish to emphasize that their brands and products are already

present in the talks; company advertising and publicity are objects of conversations.

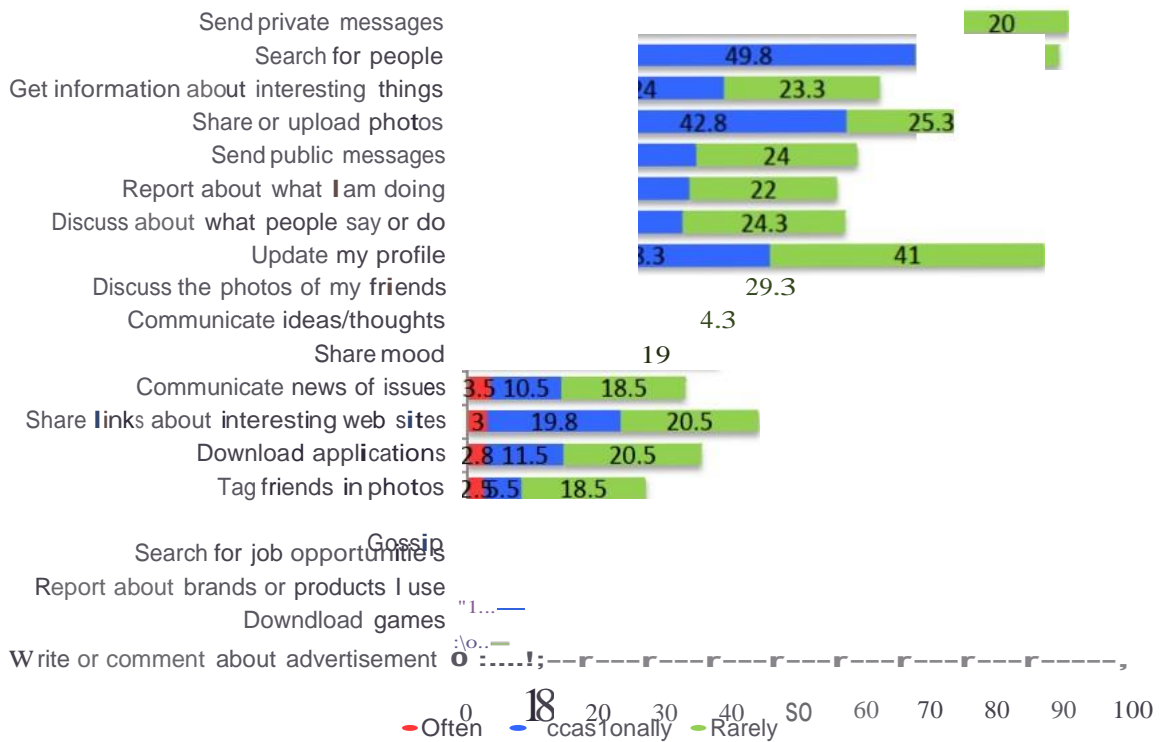
Using the Chi-square test of independence, we concluded that there is conelation between the user's age and the engagement in certain activities; discussing photos of fhends, gossiping, update of profiles, tagging friends in photos, searching for people and reporting about what they are doing. There is no conelation between the individual's age sharing or uploading photos, discussing about what acquaintances say or do, sending private or public messages, getting information about things that interest them, downloading applications, downloading games, searching for job opportunities, communicating news or issues of possible interest to others, sharing moods, sharing links about interesting web sites, communicating ideas/thoughts, repmtng about brarlds or products they use and writing or commenting about advertisement.

SNS offer multiple opportunities for companies. One of these opportunities is to advertise as brarld or as an event orgarlizer, among other possibilities. Because of this, we want to examine whether users are aware of companies' advertising in the SNS, and if they ever decided to know more about these commercials. We obtained that 27.8% of users remember seeing advertising in SNS, and only 7.8% of these users (i.e., 27.9% of total) has ever clicked on the advertisement to know more about it.

**Figure 7:** Main reasons to participate in social networking sites



**Figure 8:** Frequency of carrying out of activities in social networking sites



**CONCLUSIONS AND RECOMMENDATIONS**

Social Networking Sites (SNS) is a category of Internet applications of the second Internet generation widely known as Web 2.0. SNS are part of a larger family of web applications known as Social Media; the most important trait of the Social Media is the direct participation of final users who can use these for peer-to-peer communication as well as for creation, dissemination and editing of publicly created content. Social Networking is one of the most popular online activities attracting hundreds of millions of users. SNS are Internet services allowing the easy and unlimited creation of virtual social networks and the exchange of content (information, messages, news, files, audio, video, pictures etc.) among peers.

This explorative study aims at identifying the usage patterns of these sites among the users of Social Networking Sites in The Netherlands; the study took place in the autumn of 2009. A national non-probability quota sample of 400 users and 117 non-users of SNS users were surveyed in order to identify usage patterns and attributes of the

user vs. non user. Participants (or users) of SNS seem to be more active in the Social Web than non-users; users are more involved in file exchange, instant messaging, posting online opinions and participating in online discussions in higher percentages than non-users and with more intensity and frequency. On the basis of the findings can be argued that users of SNS are contributing more user generated content than non-users. Most users of SNS (about 75%) were already using these applications for longer than a year during the time of the survey. The analysis of the data provides information as to the detailed usage patterns of SNS, the motives of using them, the most popular social networking platforms, the intensity of use, the frequency and the types of activities users perform online. The information provides a clear picture of the social networked population in a European country with one of the higher penetration of Internet among the population. Such information is of high value for businesses that feel threatened by the increasing power of their customers but on the other hand are eager to include the Social Media and the SNS in particular into their marketing strategy.

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