

E-MAIL AS A VIRAL MARKETING TOOL: A RESEARCH ON EMOTIONS BEHIND E-MAIL SENDING AND RECEIVING BEHAVIOR

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ABSTRACT

Proliferation of the Internet provides new ways for consumers to acquire information on products and services from other consumers. This type of communication is regarded as similar to word-of-mouth (W-O-M) and called word-of-mouth or online word-of-mouth communication which empowers consumers. Consumers share their opinions with connected others by sending e-mails, post comments and feedbacks to websites and forums, publish online blogs, and form and join to communities on the Internet. Viral Marketing -the tactic that leverages the considerable power of individuals to influence others in their online social networks using computer aided communication media such as email, instant messaging and online chat- is therefore emerging as an important means to "spread the word" and stimulate the trial, use and adoption of products and services. The aim of this paper is to review the impact of emotions on e-mail sending and receiving behaviors of consumers to understand the mechanism of viral marketing. Following a theoretical discussion describing networks, proliferation of computer-mediated communication, the viral marketing concept, and increasing power of consumers, the results of a survey on emotions behind e-mail sending and receiving behaviors of individuals which is conducted online are evaluated. The findings demonstrate the emotions behind consumers' "spread the word" and share information with others by e-mails.

Keywords: *Viral Marketing, Word-of-Mouse Communication, Computer-Mediated Communication, Online Social Networks*

VİRAL PAZARLAMA ARACI OLARAK E-POSTA: E-POSTA ALMA VE GÖNDERMENİN GERİSİNDEKİ DUYGULAR ÜZERİNE BİR ARAŞTIRMA

ÖZET

İnternetin yaygınlaşması, tüketicilere ürün ve hizmetler hakkında diğer tüketicilerden bilgi edinmenin yeni yollarını sunmaktadır. Bu tür iletişim ağızdan ağza iletişimin bir türü olarak görülmekte, ağızdan fareye ya da çevrimiçi ağızdan ağza iletişim olarak adlandırılırken, tüketicilere de güç

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Burcu Selin Yılmaz

kazandırmaktadır. Tüketiciler, bağlantıda oldukları bireyler ile görüşlerini e-posta gönderme, web sitelerine ve forumlara yorumlar ve geribildirimler gönderme, çevrimiçi bloglar oluşturma ve internette topluluklar kurma ve onlara katılma yolu ile paylaşmaktadır. Tüketicilerin çevrimiçi sosyal ağlarında yer alan bireyleri e-posta, anlık mesaj ya da çevrimiçi sohbet gibi bilgisayar destekli iletişim ortamları yoluyla etkileme güçlerini artırma taktiği olarak tanımlanabilecek viral pazarlama, bir konu hakkındaki bilgilerin etrafa yayılmasını ve ürün ve hizmetlerin denenmesi, kullanılması ve benimsenmesini sağlayacak önemli bir araçtır. Bu çalışmanın amacı, tüketicilerin e-posta gönderme ve alma davranışlarının gerisindeki duyguları inceleyerek viral pazarlamanın işleyişine açıklık kazandırmaktır. Ağlar, bilgisayar destekli iletişim, viral pazarlama kavramı ve tüketicilerin artan gücü üzerine teorik bir tartışmanın ardından, tüketicilerin e-posta alma ve gönderme davranışlarının gerisindeki duygular üzerine çevrimiçi yürütülen araştırmanın sonuçları değerlendirilmektedir. Araştırma sonuçları, tüketicilerin bilgiyi yayma ve diğer bireylerle e-posta aracılığıyla bilgiyi paylaşma davranışlarının gerisindeki duyguları ortaya koymaktadır.

Anahtar Sözcükler: *Viral Pazarlama, Ağızdan Fareye İletişim, Bilgisayar Destekli İletişim, Çevrimiçi Sosyal Ağlar*

INTRODUCTION

In the knowledge society, online social networks and analysis of online social networks become very important tools to understand the complexity and exchange patterns of markets. Online social networks are increasingly considered as an important tool stimulating the adoption and use of products and services.

The dissemination of the Internet allows consumers to share their opinions on and experiences with products and services with other consumers through electronic word-of-mouth (eWOM, word-of-mouse) communication. This type of communication is regarded as similar to word-of-mouth (W-O-M) and called word-of mouse or online word-of-mouth communication which empowers consumers. People share their opinions with connected others by sending e-mails, post comments and feedbacks to websites and forums, publish online blogs, and form and join to communities on the Internet.

Today companies could promote their products and services through persuasive messages designed to spread online, from person to person. Companies create branded internet materials or websites that consumers enjoy sharing with their online contacts, usually by e-mail.

E-Mail as a Viral Marketing Tool: A Research on Emotions behind E-Mail Sending and Receiving Behavior

Johnson (2001: 18) suggests that the viral marketing phenomenon is a form of emergent behavior – the movement from lower level rules to higher level sophistication. The power of today's consumers leads brand communication, meaning, and adoption to occur from the ground up. Small low-level events, such as interactions among a few customers, could result in higher-level intensity such as development of brand communities and therefore, emergent behaviors can affect the ability to position a product (Dobele, Toleman and Beverland, 2005: 144).

SOCIAL NETWORKS IN MARKETING

Granovetter (1985) suggested that markets in modern societies were embedded in social networks where relationships based on trust were required as an essential element in market exchange. Today, social networks and analysis of social networks become very important tools to understand the complexity and exchange patterns of markets (Ansell, 2007).

The Social Capital – Social Networks Relationship

Social capital is defined as "an instantiated informal norm that promotes cooperation between two or more individuals" (Fukuyama, 2001: 7). Coleman (1988) has brought the term social capital into wider use in recent years. The economic function of social capital is to decrease the transaction costs associated with formal coordination mechanisms like contracts, hierarchies, bureaucratic rules, etc. (Fukuyama, 2001: 10). Social capital is often seen as a function of network qualities, norms of reciprocity and trust (Pigg and Crank, 2004: 60). Social capital contains five main themes: networks, reciprocity, trust, shared norms, and social agency (Onyx and Bullen, 2000). Social networks comprise social capital which facilitates collective action (Wall, Ferazzi, and Schryer, 1998; Woolcock, 2001). Networks, norms, and trust as features of social organization facilitate coordination and cooperation for mutual benefit (Putnam, 1993: 36).

Social environment or the first form of social capital which is defined as the ability of information to flow through a community and form the basis for action can be considered as a mechanism describing how information may reinforce certain types of behaviors (Coleman, 1990; Minniti, 2005). Annen (2003) suggests that networks which facilitate information exchange among people based on relationships

direct people toward cooperative behavior. It is argued that certain qualities of social networks such as diversity and extensiveness are related to social capital (Flora, 1998).

The social capital of a group in a social network is considered as aggregation of social capital of all individuals "which can be defined as the set of features that describe the ability of cooperation between people" (Kazienko and Musiał, 2006: 419).

The Impact of ICTs on Social Networks

The network focus existing in studies on social capital, in which all uses refer to more or less dense interconnecting networks of relationships between individuals and groups, attract the attention of ICT (information and communication technologies) researchers to the subject due to the parallel nature of social network (Portes, 1998; Putnam, 1993; Woolcock, 1998; Pigg and Crank, 2004). The relationships in today's society which are recognized to exist in networks of kin, friends, professional colleagues, and other community members are created mostly online (Müller, 1999; Rheingold, 2000; Pigg and Crank, 2004). These relationships sometimes are continued in physical space, so new forms of offline and online involvements are created (Müller, 1999; Rheingold, 2000). It is stated that online interaction as supplements to physical local relationships increases social capital, and high Internet usage is associated with increased participation in organizations (Hampton and Wellman, 1999; Wellman et al., 2001; Pigg and Crank, 2004).

Since networked computers become more ubiquitous in all around the world, digital social networks, which create a basis for interaction, are becoming important for many people's work and leisure. The acceptance of social networks by a wide range of users makes social networks become a focus of researchers and practitioners in marketing (Preibusch, Hoser, Gürses, and Berendt, 2007).

The impact of ICTs has been seen in the changing mechanisms of trust, institutions, value systems, networks, and information access (Tuomi, 2003). In today's society, the power of connecting people has been rising (Li and Bernoff, 2008). Customers are writing about products and services on blogs or talking about brands on Twitter and Facebook (Li and Bernoff, 2009). This interest could easily be turned into opportunities and profit by companies.

The impact of the World Wide Web together with e-mail facilitates information seeking and dissemination (Stromer-Galley, 2003; Williams

E-Mail as a Viral Marketing Tool: A Research on Emotions behind E-Mail Sending and Receiving Behavior

and Trammell, 2005). Interactivity as an essence of web-based communication provides Internet users the opportunity to control their access through the use of hyperlinks, to contribute a site, and to go beyond passive exposure (Williams and Trammell, 2005). As suggested by social information processing theory, social networks provide information to individuals and cues for behavior and action (Tinson and Ensor, 2001). Online social networks are being regarded as an increasingly important source of information affecting the acceptance and use of products and services.

The social, cultural and educational dimensions of sociocultural animation –a framework containing people centered practices and methodologies directed at activating or mobilizing a group or a community- for ICT offer a milieu for the development of the concept termed “viral marketing” (Godin, 2001; Goldsmith, 2002; Foth, 2006).

People in social networks share common interests and have similar tastes. This feature of social networks determines whether a product could be accepted by member of social network or not (Rosen, 2000). When a sizeable plurality of a social network begin using a product, product becomes more valuable due to positive network externalities (Haruvy and Prasad, 2001; Van Hove, 1999; Alkemade and Castaldi, 2005).

When individuals in a group differ in how dependent their own decisions are on others’ decisions, the dynamics of collective action reflect a “bandwagon effect,” since individuals commit to action only after they observe that others have already committed (Chiang, 2007: 48).

Today, broadband connections combined with user generated media -blogs, podcasts, videos and other free and readily available tools- offer to consumers the opportunity of having voice by the help of Web 2.0social media to shape public perceptions of products and services (McConnell and Huba, 2007). Individuals and online communities have a power to shape culture and consumer preferences.

The buying decision of consumers based on their own preferences and the decisions of other people in social networks. If companies have enough knowledge on consumer characteristics and social network structures, more effective and efficient advertising strategies could be adopted (Alkemade and Castaldi, 2005).

VIRAL MARKETING

Recently, biological viruses have been joined by two other types: computer viruses and viral marketing. These three types of viruses depend on networks to spread. Viruses can spread through contact and without networks they cannot affect anyone except for the original host (Boase and Wellman, 2001).

It was the 1940s when the idea of commercial viral marketing campaigns was introduced (Rosen, 2000). In viral marketing information is transmitted more accurately and efficiently to people, since, unlike information coming from other sources, people have more enthusiasm to receive messages from their connected others. Studies on communication diffusion (the study of Katz and Lazarsfeld in 1955 called *Personal Influence: The Part Played by People in the Flow of Mass Communications*) and knowledge sharing in a group (the studies of Coleman, Katz and Menzel in 1957 -The Diffusion of an Innovation among Physicians-, in 1959 -Social Processes in Physicians' Adoption of a New Drug, and 1966 - Medical Innovation: A Diffusion Study) dated back to 1950s (Boase and Wellman, 2001; Yair, 2008).

Online social networks are increasingly being considered as an important tool stimulating the adoption and use of products and services. Viral Marketing –the tactic of ‘creating a process where interested people can market to each other’ is therefore emerging as an important means to ‘spread the word’ and stimulate the trial, use and adoption of products and services (Subramani and Rajagopalan, 2002: 3).

The dissemination of the internet facilitates interconnectivity of consumers. The Internet provides an environment for voicing opinions, complaints, and recommendations on brands, products, or companies (Chatterjee, 2001). Customers can “spread the word” and share information with others by e-mails, online forums, newsgroups, blogs, and customer reviews (De Bruyn and Lilien, 2008). The interconnectivity also allows the dissemination of negative word of mouth (Shankar, Smith, and Rangaswamy 2003: 160).

Dellarocas (2003) suggests that the word-of-mouth differs from traditional word-of-mouth in three ways: (1) the low cost and large communication capabilities offered by the Internet make this type of communication to disseminate on an unprecedented scale, (2) the operation and process could be easily controlled and monitored, (3) new challenges may arise due to volatility of online identities and multiple interpretations resulted from subjectivity of information.

**E-Mail as a Viral Marketing Tool: A Research on Emotions behind
E-Mail Sending and Receiving Behavior**

Table 1: Emotions and Mechanisms behind Viral Marketing

Mechanism(s)	Source of Explanation
Entertainment, amusement, irritation	Splash of Paint: People are directed to the company's Internet site by entertaining, amusing, and/or irritating them.
Fun, quirk, amusement; specific and relevant to the person	Claritas: Viral marketing campaigns should be funny, quirky, or amusing, or something that is very specific and relevant to the individual customer.
Fun, humor, excitement (jokes, games)	Fabulous Bakin' Boys: Its website supports the muffin products with flash animation sites, fun, jokes, as well as games that people can download and forward to their friends.
Emotional elements	Internet strategies must have high levels of emotional content including interactivity, the ability to involve other people, chat rooms, and the creation of online community.
Nature of the industry; online tenure of the audience; topic	Sage Marketing and Consulting Inc.: The success of viral marketing is dependent upon (1) the nature of the industry that the company is in; (2) the online tenure of the audience; and (3) the topic. People are more likely to pass on information about products like entertainment, music, Internet, and software.
False, deliberately deceptive information; popularly believed narrative, typically false; anecdotal claims; junk	So-called 'urban legends and folklore' can be organized as (1) false, deliberately deceptive information; (2) popularly believed narrative, typically false; (3) anecdotal claims, which may be true, false, or in between; and (4) junk. Such stories are frequently forwarded to friends, family, and colleagues.
Coolness, fun; unique offer	Virgin Atlantic: Customers pass on the message when they think it is cool or fun, or if the offer is second to none.
Violence, pornography, irreverent humor	Clark McKay and Walpole Interactive: The messages drawing highest response rates are those that have elements of violence, pornography, or irreverent humor
Comic strips, video clips	Comic strips and video clips grab the attention of people, who then forward the content to their friends.
Contests and humor; important advice	Contests and humor are important elements in successful campaigns, which can also be successful if they have important advice for customers.
Controversy	A company gains publicity when the media writes about controversy on its website, and competitors will have to deal with the company. But such word-of-mouth marketing can be dangerous because dissatisfied customers are more likely to share their negative experiences than satisfied customers.
Fun, intrigue, value; offer of financial incentives; need to create network externalities	People pass on messages if they find the product benefits to be fun, intriguing, or valuable for others; if they are given financial incentives for doing so; or if they feel a need to create network externalities.

Source: (Lindgreen and Vanhamme, 2005: 126).

The goal of viral marketing is to employ consumer-to-consumer (or peer-to-peer) communications to propagate information about a product or service in order to make product or service be adopted by the market more rapidly and cost effectively (Krishnamurthy, 2001). Viral marketing can be identified as making use of e-mail as an online word-of-mouth

referral to transmit company’s message from one client to other potential clients. It is a strategy that encourages people to forward the message to other people on their e-mail lists or tie advertisements into or at the end of messages (Dobele, Toleman, and Beverland, 2005: 144).

Viral marketing is described as “the process of getting consumers to pass along a company’s marketing message to friends, family, and colleagues” (Laudon and Traver, 2001: 381). After a short time, a huge network is created where information about the company and its products and services is disseminated among consumers like a virus (Lindgreen and Vanhamme, 2005). For example, the message of Hotmail –Microsoft’s free web-based e-mail service- (Get Your Private, Free E-Mail at <http://www.hotmail.com>) spread to 11 million users in only 18 months (Van der Graaf, 2004; Lindgreen and Vanhamme, 2005; Lodish, Morgan and Kallianpur, 2001). Amazon, that introduced one of the first examples of viral marketing, offered its customers to recommend books to their friends, and the messages received by friends of Amazon’s customers were not from Amazon, but from their friends.

It is suggested by Sweeney (2007) that the message from someone known is considered more trustworthy, more likely to be opened and paid attention. Therefore, by using this type of advertising, Amazon benefit from advantages of viral marketing. Another famous viral marketing campaign is that of The Blair Witch Project where the budget for the movie’s release was just \$2.5 million, but the movie grossed over \$245 million in worldwide box office sales (Lindgreen and Vanhamme, 2005; Mohr, 2007).

Table 2: Emotions behind Viral Marketing

Emotion and Explanation	Behavior	Physiological Response
<p>Surprise Generated when something (product, service, or attribute) is unexpeted or misexpected.</p>	<ul style="list-style-type: none"> • Facial expressions like opened eyes and mouth, and raised eyebrows. • Cessation of on-going activities. • Sudden and involuntary focusing on the surprising product, service, or attribute. • Heightened consciousness of the surprising product, service, or attribute. • Subsequent curiosity/exploratory behavior. • Increase in the ability to retain in memory the surprising product, service, or attribute. 	<ul style="list-style-type: none"> • Changes in heart and respiration rates. • Increase in skin conductivity and neural activation. • Different cortical response wave patterns.

**E-Mail as a Viral Marketing Tool: A Research on Emotions behind
E-Mail Sending and Receiving Behavior**

<p>Joy Expressed when a goal has been achieved, or when movement toward such an achievement has occurred. Also, joy is caused by a rational prospect of owning what we love or desire.</p>	<ul style="list-style-type: none"> • Facial expression of joy is the smile. • Happy people are more helpful and cooperative. • Often energetic, active, and bouncy. • Prompts the person to aim for higher goals. 	<ul style="list-style-type: none"> • Wanting, hoping, or desiring to have an object when it is not present. • Loving or liking the object when it is already present.
<p>Sadness Experienced when not in a state of well-being, which is most often derived from the experience of a fearful event.</p>	<ul style="list-style-type: none"> • No longer wishes for action, but remains motionless and passive, or may occasionally rock to and fro. • Often, focus is turned more toward the self. • Trying to solve the problem at hand. • Refuging from the situation. 	<ul style="list-style-type: none"> • Crying or whimpering.
<p>Anger Response to personal offense (an injustice); this injustice is in that person's power to settle.</p>	<ul style="list-style-type: none"> • Attacking the cause of the anger through physical contact and verbal abuse. • Anger is extremely out of control (e.g., rage) and freezing of the body can occur. 	<ul style="list-style-type: none"> • Raised blood pressure ('blood boils') • Face reddening. • Muscle tensioning.
<p>Fear Experienced when people expect (anticipate) a specific pain, threat, or danger.</p>	<ul style="list-style-type: none"> • A system is activated, bringing the body into a 'state of readiness'. • Escape and avoidance. • Facial expression as 'oblique eyebrows' and resulting 'vertical frown'. 	<ul style="list-style-type: none"> • Internal discomfort (butterflies in the stomach). • Muscle tensioning. • Increased perspiration and heart rate. • Mouth drying out.
<p>Disgust Feeling of aversion that can be felt either when something happens or when something is perceived to be disgusting.</p>	<ul style="list-style-type: none"> • Facial expressions like frowning. • Hand gestures, opening of the mouth, spitting, and, in extreme cases, vomiting. • Distancing from the situation, this by an expulsion or removal of an offending stimulus, removal of the self from the situation, or lessening the attention on the subject. 	<ul style="list-style-type: none"> • Decreased heart rate. • Nausea.

Source: (Dobele et al., 2007: 300).

Emotions behind message forwarding behavior are divided into six by Dobele et al. (2007) and the impact viral marketing campaigns on consumers are evaluated based on these six primary emotions:

- **Surprise:** This emotion is generated when something unexpected happens. This emotion was employed by Amazon's Weapon's of Mass Destruction Campaign which offered a fake error page to customers containing links directed them to

Burcu Selin Yilmaz

Amazon's website. 30% of people who visited the fake error page clicked on the links to Amazon's homepage –above the average banner click-through rate of 4.7% (Gatarski, 2002).

- **Joy:** This emotion is linked to helpfulness, cooperation, desire, and liking. Viral marketing campaigns based on joy have a big impact. The campaigns such as Pepsico's milk drink offering called Raging Cow -exploited humor-, Honda Accord -employed idealism- and Motorola V70 -utilized financial incentives to elicit joy- are important examples. Honda created a two- minute promotional movie and the viral marketing campaign started with 500 e-mails sent to employees of Honda and its agencies. Within the one week the website visited by 2,779 users, after three weeks the number had reached to 35,000. Three years after the campaign launch, almost 4.5 million people had seen the short movie. DeBeers' Tria Game campaign and The Body Shop's Invent Your Scent campaign in Turkey could be considered as an example for joy (and partly surprise) based campaigns.
- **Sadness:** This emotion is used to encourage support or sympathy for a campaign. This type of viral marketing campaigns is mostly preferred by NGOs and charitable organizations for donations of money or other aid. Sadness has an important social unction that it can strengthen social bonds.
- **Anger:** This emotion is usually used by NGOs or pressure groups to encourage support for a cause, especially when there is a situation of injustice. Public and private organizations may benefit from this type of viral marketing campaigns when they seek support from the public and lead them to take action. TEMA Foundation's campaign on preventing sell of forest fields could be considered as an example.
- **Fear:** This is an emotion that encourages action. This type of campaign, like Rock the Vote campaign to encourage young Americans to register to vote by employing startling and graphic images portraying issues such as rape, abortion, and capital punishment, employ some fearful facts to raise awareness and to lead people to take action.
- **Disgust:** This emotion is felt when people confront something harming their soul, or a threat of that kind. This type of campaigns, like e-Tractions' electronic Christmas card campaign –an animated card showing a snow scene where a snowman's

E-Mail as a Viral Marketing Tool: A Research on Emotions behind E-Mail Sending and Receiving Behavior

eats one of the characters in the scene and explodes-, does not appeal to everyone equally.

In 1971 the first e-mail was created by Ray Tomlinson who wrote the 200-line program allowing a user to send a message to any computer connected to Arpanet which is the first form of the internet developed by the US Department of Defense (Green, 2006). Message developers should understand that only messages containing strong emotions –fun, surprise, fear, sadness, anger, humor, or inspiration- are likely to be forwarded (Phelps et al., 2004). Consumers are encouraged to spread viral marketing messages voluntarily if the messages (Dobele, Toleman, and Beverland, 2005:146; Green, 2006: 128; Silverman, 2001):

- capture the imagination by being fun or intriguing,
- are attached to a product that is easy to use or highly visible,
- are well targeted,
- are associated with a credible source, and
- combine technologies,
- give new insight or knowledge by sending on content or samples of a product or service,
- provide a communal good,
- seeking a political good,
- contain ideas that are easy to be tried without risk.

People who do not send messages frequently may have stronger impact since they have more targeted, personalized, and motivating approaches to sending e-mails to people in their contact lists (Phelps et al., 2004). People usually open messages from people they know. Sometimes messages from known person could be deleted if the sender is perceived as someone who sends either low quality or excessive number of messages (Phelps et al., 2004: 338).

There are certain principles in conducting successful viral marketing campaigns (Welker, 2002: 6):

- Prospects and customers of the idea are offered a technology platform providing a possibility to send a message to a majority of persons.
- There is an emotional or pecuniary incentive to participate. Ideally, niches of needs and market gaps are filled with funny ideas.

Burcu Selin Yılmaz

- Also, the recipients are facing emotional or pecuniary incentives to contact a majority of further recipients – this induces a snowball effect and the message is spread virally.
- The customer is activated as an “ambassador” of the piece of information, for instance, promoting a product, service or a company.

RESEARCH METHODOLOGY

The current study aims to examine emotions behind e-mail receiving and sending behaviors of individuals which could give an opinion for viral marketing activities of companies. The population for the research was determined based on the Internet statistics retrieved from Internet World Stats website. There are 26.5 millions of internet users in Turkey, and the number of broadband subscribers is 6 millions (Internet World Stats, 2009; Vanier, 2009a; Vanier, 2009b). The recommended sample size for a population of 26,500,000 to generate a 95% confidence interval with a margin of error of 5% would be 384 (The Research Advisors, 2006). At the end of the survey the responses received from a (random) sample of 378 were 225. This sample size constructed a 95% confidence interval with a margin of error of about 6.5%.

The survey was conducted over a 2-month period (March 2009 - April 2009). Data were collected through a questionnaire distributed by e-mail. The e-mails containing questionnaires in their attachments were sent to the chosen 14 correspondents in the researcher's e-mail address list and these people were asked to forward the questionnaire to the people in their e-mail address lists. The questionnaire was tried to be distributed as a viral message. The questionnaire consists of questions related to e-mail sending patterns of the sample (chosen randomly among the Internet-user population) and questions related to emotions behind e-mail receiving and sending behaviors of the sample prepared based on the studies of Lindgreen and Vanhamme (2005) and Dobelet al. (2007). A brief explanation on emotions was added to the questionnaire to make the respondents understand the scale clearly. In order to test the presence of differences, one way analysis of variance (ANOVA) and *t*-test were used. Cronbach's alpha was calculated to assess the reliability of the 24 items used for assessing e-mail sending and receiving behaviors of the respondents. The measure was 0.94 which suggest that the instrument is reliable (Nunnally, 1978).

**E-Mail as a Viral Marketing Tool: A Research on Emotions behind
E-Mail Sending and Receiving Behavior**

RESEARCH FINDINGS

The demographic profile and behavioral characteristic profile of respondents are shown in Table 3 and Table 4.

Table 3: Demographic Profile

		GENDER			
		MALE	FEMALE	TOTAL	
		119 (52.9%)	106 (47.1%)	225 (100%)	
AGE	≤ 20	33 (14.7%)	18 (8.0%)	15 (6.7%)	33 (14.7%)
	21 – 30	52 (23.1%)	28 (12.4%)	24 (10.7%)	52 (23.1%)
	31 – 40	79 (35.1%)	38 (16.9%)	41 (18.2%)	79 (35.1%)
	41 – 50	42 (18.7%)	24 (10.7%)	18 (8.0%)	42 (18.7%)
	≥ 51	19 (8.1%)	11 (4.9%)	8 (3.6%)	19 (8.4%)
TOTAL		225 (100%)	119 (52.9%)	106 (47.1%)	225 (100%)

Among the 225 respondents, 119 respondents (52.9%) were male and 106 respondents (47.1%) were female. All of the respondents stated that they received commercial e-mails and the number of commercial e-mails which 193 of the respondents received was more than 5 on daily basis. Only 26 of the respondents (11.6%) thought that commercial e-mails were spam while 60 of them (26.7%) sometimes considered commercial e-mails as spam. 152 of the respondents (67.6%) admitted that they liked sharing their opinions on products and services with their connected others. While 140 of the respondents (62.2%) accepted the influence of their e-mail contacts' suggestions on products and services on their decisions, 155 of them (68.9%) assumed that their opinions on products and services had an impact on their e-mail contacts' decisions.

The e-mail related behavioral characteristics of the respondents are summarized in Table 5. Most of the respondents agreed that they enjoy receiving and forwarding e-mails containing surprise and joy. When other emotions (sadness, anger, fear, and disgust) were considered, it could be seen that some of the respondents did not want to receive and forward these types of e-mails. Especially, e-mails containing disgust were considered as unfavorable to receive and forward.

Table 4: Behavioral Characteristic Profile of Respondents

Variable	N	%
<i>Receiving commercial e-mails</i>		
Yes	225	100%
No	-	-
Total	225	100%
<i>How many commercial e-mails do you receive on daily basis?</i>		
1 – 5	32	14.2%
6 – 10	121	53.8%
More than 10	72	32.0%
Total	225	100%
<i>Do you consider that all of commercial e-mails are spam?</i>		
Yes	26	11.6%
No	139	61.8%
Sometimes	60	26.7%
Total	225	100%
<i>Do you like sharing your opinions on products and services with your e-mail contacts?</i>		
Yes	152	67.6%
No	12	5.3%
Sometimes	61	27.1%
Total	225	100%
<i>Do the opinions of your e-mail contacts on product or services influence your decisions?</i>		
Yes	140	62.2%
No	14	6.2%
Sometimes	71	31.6%
Total	225	100%
<i>Do you think that you can affect the opinions of your e-mail contacts on products and services?</i>		
Yes	155	68.9%
No	15	6.7%
Sometimes	55	24.4%
Total	225	100%

**E-Mail as a Viral Marketing Tool: A Research on Emotions behind
E-Mail Sending and Receiving Behavior**

Table 5: E-Mail Related Behavioral Characteristic Profile of Respondents

		Emotion ^{a,b}					
		Surprise (Surprising) (N=225)	Joy (Joyful) (N=225)	Sadness (Sad) (N=225)	Anger (Discouraged) (N=225)	Fear (Fearful) (N=225)	Disgust (Disgusting) (N=225)
I may consider forwarding an e-mail if the content is...							
<i>Cronbach's $\alpha=0.756$</i>							
		...surprising	...joyful	...sad	...discouraged	...fearful	...disgusting
Frequencies	Scale Value						
	1	-	-	-	13 (5.8%)	-	52 (23.1%)
	2	-	-	10 (4.4%)	14 (6.2%)	7 (3.1%)	117 (52.0%)
	3	40 (17.8%)	38 (16.9%)	42 (18.7%)	60 (26.7%)	63 (28.0%)	14 (6.2%)
	4	144 (64.0%)	146 (64.9%)	142 (63.1%)	112 (49.8%)	142 (63.1%)	24 (10.7%)
	5	41 (18.2%)	41 (18.2%)	31 (13.8%)	26 (11.6%)	13 (5.8%)	18 (8.0%)
		Mean=4.0044 SD=.60132	Mean=4.0133 SD=.59372	Mean=3.8622 SD=.69670	Mean=3.5511 SD=.97665	Mean=3.7156 SD=.61888	Mean=2.2844 SD=1.16840
I like receiving an e-mail if the content is...							
<i>Cronbach's $\alpha=0.721$</i>							
		...surprising	...joyful	...sad	...discouraged	...fearful	...disgusting
Frequencies	Scale Value						
	1	-	-	16 (7.1%)	15 (6.7%)	2 (0.9%)	50 (22.2%)
	2	-	-	48 (21.3%)	36 (16.0%)	21 (9.3%)	117 (52.0%)
	3	42 (18.7%)	41 (18.2%)	50 (22.2%)	73 (32.4%)	70 (31.1%)	16 (7.1%)
	4	139 (61.8%)	142 (63.1%)	92 (40.9%)	82 (36.4%)	124 (55.1%)	25 (11.1%)
	5	44 (19.6%)	42 (18.7%)	19 (8.4%)	19 (8.4%)	8 (3.6%)	17 (7.6%)
		Mean=4.0089 SD=.61956	Mean=4.0044 SD=.60870	Mean=3.2222 SD=1.09563	Mean=3.2400 SD=1.03734	Mean=3.5111 SD=.75066	Mean=2.2978 SD=1.15544
The content of e-mail sent to you by companies should be...							
<i>Cronbach's $\alpha=0.913$</i>							
		...surprising	...joyful	...sad	...discouraged	...fearful	...disgusting
Frequencies	Scale Value						
	1	-	-	36 (16.0%)	52 (23.1%)	36 (16.0%)	52 (23.1%)
	2	-	-	131 (58.2%)	117 (52.0%)	131 (58.2%)	117 (52.0%)
	3	41 (18.2%)	42 (18.7%)	16 (7.1%)	14 (6.2%)	16 (7.1%)	14 (6.2%)
	4	138 (61.3%)	142 (63.1%)	33 (14.7%)	24 (10.7%)	33 (14.7%)	24 (10.7%)
	5	46 (20.4%)	41 (18.2%)	9 (4.0%)	18 (8.0%)	9 (4.0%)	18 (8.0%)
		Mean=4.0222 SD=.62281	Mean=3.9956 SD=.60870	Mean=2.3244 SD=1.03793	Mean=2.2844 SD=1.16840	Mean=2.3244 SD=1.03793	Mean=2.2844 SD=1.16840
If the content of an e-mail is ... I forward it to all my contacts.							
<i>Cronbach's $\alpha=0.737$</i>							
		...surprising	...joyful	...sad	...discouraged	...fearful	...disgusting
Frequencies	Scale Value						
	1	-	-	-	13 (5.8%)	-	51 (22.7%)
	2	-	-	-	15 (6.7%)	8 (3.6%)	115 (51.1%)
	3	42 (18.7%)	31 (13.8%)	43 (19.1%)	60 (26.7%)	63 (28.2%)	19 (8.4%)
	4	141 (63.1%)	154 (68.4%)	142 (63.1%)	111 (49.3%)	135 (60.0%)	23 (10.2%)
	5	41 (18.2%)	40 (17.8%)	40 (17.8%)	26 (11.6%)	19 (8.4%)	17 (7.6%)
		Mean=3.9956 SD=.60870	Mean=4.0400 SD=.56157	Mean=3.9867 SD=.60857	Mean=3.5422 SD=.98164	Mean=3.7333 SD=.66144	Mean=2.2889 SD=1.14997

^aThe emotion scale is adopted from the study of Dobeles et al. (2007).

^bThe emotions related to received and forwarded e-mails are measured by using 5-point Likert scales (1= "strongly disagree"; 5="strongly agree").

The hypotheses of the study are given in Table 6.

Table 6: Hypotheses

H_{a1} : Gender plays a role in e-mail forwarding preferences of respondents if the content of e-mail is considered as fearful.	H_{b1} : Age plays a role in e-mail forwarding preferences of respondents if the content of e-mail is considered as fearful.
H_{a2} : Gender plays a role in e-mail forwarding preferences of respondents if the content of e-mail is considered as disgusting.	H_{b2} : Age plays a role in e-mail forwarding preferences of respondents if the content of e-mail is considered as disgusting.
H_{a3} : Gender plays a role in e-mail receiving preferences of respondents if the content of e-mail is considered as disgusting.	H_{b3} : Age plays a role in e-mail receiving preferences of respondents if the content of e-mail is considered as disgusting.
H_{a4} : Gender plays a role in respondents' evaluation of a commercial e-mail if the content is considered as sad.	H_{b4} : Age plays a role in respondents' evaluation of a commercial e-mail if the content is considered as sad.
H_{a5} : Gender plays a role in respondents' evaluation of a commercial e-mail if the content is considered as discouraged.	H_{b5} : Age plays a role in respondents' evaluation of a commercial e-mail if the content is considered as discouraged.
H_{a6} : Gender plays a role in respondents' evaluation of a commercial e-mail if the content is considered as fearful.	H_{b6} : Age plays a role in respondents' evaluation of a commercial e-mail if the content is considered as fearful.
H_{a7} : Gender plays a role in respondents' evaluation of a commercial e-mail if the content is considered as disgusting.	H_{b7} : Age plays a role in respondents' evaluation of a commercial e-mail if the content is considered as disgusting.
H_{a8} : Gender plays a role in respondents' decision on sending an e-mail to all of his/her contacts if the content is considered as fearful.	H_{b8} : Age plays a role in respondents' decision on sending an e-mail to all of his/her contacts if the content is considered as sad.
H_{a9} : Gender plays a role in respondents' decision on sending an e-mail to all of his/her contacts if the content is considered as disgusting.	H_{b9} : Age plays a role in respondents' decision on sending an e-mail to all of his/her contacts if the content is considered as fearful.
	H_{b10} : Age plays a role in respondents' decision on sending an e-mail to all of his/her contacts if the content is as disgusting.

The test results given in Table 7 demonstrates that age and gender play a role in determining e-mail sending and receiving behaviors, and the respondents' perceptions of commercial e-mails according to emotions which an e-mail reflect. The respondents gender and age determine how e-mails containing emotions of sadness, anger, fear, and disgust are perceived and whether they are treated as favorable or favorable by the respondents. In summary, hypotheses a1-a9 and hypotheses b1-10 are supported.

**E-Mail as a Viral Marketing Tool: A Research on Emotions behind
E-Mail Sending and Receiving Behavior**

Table 7: Respondents' Demographic and Behavioral Characteristics and Attitudes towards E-Mail Sending and Receiving

Characteristics	Factors	T-Tests			F value	p-value	
		Categories	N	Mean			SD
Gender	<i>E-mail forwarding preference (fearful)</i>	Male	119	3.4874	0.59469	30.348	0.000
		Female	106	3.9717	0.54261		
	<i>E-mail forwarding preference (disgusting)</i>	Male	119	2.7731	1.28510	75.527	0.000
		Female	106	1.7358	0.69422		
	<i>E-mail receiving preference (disgusting)</i>	Male	119	2.7815	1.28327	82.189	0.000
		Female	106	1.7547	0.65917		
	<i>Content of commercial e-mails (sad)</i>	Male	119	2.7563	1.17146	108.997	0.000
		Female	106	1.8396	0.55441		
	<i>Content of commercial e-mails (discouraged)</i>	Male	119	2.7731	1.28510	75.527	0.000
		Female	106	1.7358	0.69422		
	<i>Content of commercial e-mails (fearful)</i>	Male	119	2.7563	1.17146	108.997	0.000
		Female	106	1.8396	0.55441		
	<i>Content of commercial e-mails (disgusting)</i>	Male	119	2.7731	1.28510	75.527	0.000
		Female	106	1.7358	0.69422		
<i>Forwarding an e-mail to all contacts (fearful)</i>	Male	119	3.3950	0.59970	29.724	0.000	
	Female	106	4.1132	0.50371			
<i>Forwarding an e-mail to all contacts (disgusting)</i>	Male	119	2.7815	1.24981	62.880	0.000	
	Female	106	1.7358	0.69422			
		ANOVA					
Age		Categories	N	Mean	SD	F value	p-value
	<i>E-mail forwarding preference (fearful)</i>	≤ 20	33	3.9394	0.34816	3.592	0.007
		21 – 30	52	3.8077	0.52537		
		31 – 40	79	3.7215	0.73269		
		41 – 50	42	3.5714	0.59028		
		≥ 51	19	3.3684	0.59726		
		≥ 51	19	3.3684	0.59726		
	<i>E-mail forwarding preference (disgusting)</i>	≤ 20	33	3.2121	1.63473	10.156	0.000
		21 – 30	52	2.5000	1.26025		
		31 – 40	79	2.1392	0.93004		
		41 – 50	42	1.7619	0.61721		
		≥ 51	19	1.8421	0.68825		
		≥ 51	19	1.8421	0.68825		
	<i>E-mail receiving preference (disgusting)</i>	≤ 20	33	3.2121	1.63473	10.200	0.000
		21 – 30	52	2.5000	1.26025		
		31 – 40	79	2.1772	0.87354		
		41 – 50	42	1.7857	0.64527		
		≥ 51	19	1.7895	0.71328		
		≥ 51	19	1.7895	0.71328		
	<i>Content of commercial e-mails (sad)</i>	≤ 20	33	3.0909	1.40008	7.839	0.000
		21 – 30	52	2.4615	1.19577		
		31 – 40	79	2.1899	0.86344		
		41 – 50	42	1.9048	0.57634		
		≥ 51	19	2.1053	0.45883		
		≥ 51	19	2.1053	0.45883		
<i>Content of commercial e-mails (discouraged)</i>	≤ 20	33	3.2121	1.63473	10.156	0.000	
	21 – 30	52	2.5000	1.26025			
	31 – 40	79	2.1392	0.93004			
	41 – 50	42	1.7619	0.61721			
	≥ 51	19	1.8421	0.68825			
	≥ 51	19	1.8421	0.68825			
<i>Content of commercial e-mails (fearful)</i>	≤ 20	33	3.0909	1.40008	7.839	0.000	
	21 – 30	52	2.4615	1.19577			
	31 – 40	79	2.1899	0.86344			
	41 – 50	42	1.9048	0.57634			
	≥ 51	19	2.1053	0.45883			
	≥ 51	19	2.1053	0.45883			
<i>Content of commercial e-mails (disgusting)</i>	≤ 20	33	3.2121	1.63473	10.156	0.000	
	21 – 30	52	2.5000	1.26025			
	31 – 40	79	2.1392	0.93004			
	41 – 50	42	1.7619	0.61721			
	≥ 51	19	1.8421	0.68825			
	≥ 51	19	1.8421	0.68825			
<i>Forwarding an e-mail to all contacts (sad)</i>	≤ 20	33	4.3030	0.58549	7.233	0.000	
	21 – 30	52	4.0962	0.66449			
	31 – 40	79	3.9747	0.55411			
	41 – 50	42	3.8571	0.47223			
	≥ 51	19	3.4737	0.61178			
	≥ 51	19	3.4737	0.61178			
<i>Forwarding an e-mail to all contacts (discouraged)</i>	≤ 20	33	3.9394	0.60927	3.107	0.000	
	21 – 30	52	3.5577	0.95821			
	31 – 40	79	3.3924	1.06720			
	41 – 50	42	3.6905	0.97501			
	≥ 51	19	3.1053	0.99413			
	≥ 51	19	3.1053	0.99413			
<i>Forwarding an e-mail to all contacts (disgusting)</i>	≤ 20	33	3.2121	1.63473	10.473	0.000	
	21 – 30	52	2.5000	1.24460			
	31 – 40	79	2.1519	0.87835			
	41 – 50	42	1.7619	0.61721			
	≥ 51	19	1.8421	0.68825			
	≥ 51	19	1.8421	0.68825			

Note: Only significant factors at p<0.05 are shown.

CONCLUSION

This study was designed to investigate (1) impact of emotions on consumer's e-mail receiving and sending behaviors and (2) impact of gender and age on their e-mail related behaviors.

The results show that emotions play a significant role on individual's e-mail receiving and sending behaviors. E-mails containing "surprise" and "joy" were determined as the most preferable e-mails to be sent and received. E-mails containing "sadness", "anger," and "fear" were also sent to connected people –the reason behind this behavior is possibly to act responsibly since these types of e-mails have messages to warn people, to make pressure on people to take action, to encourage people for donations etc. However, these types of e-mails were mostly seen as "not preferable" in commercial campaigns. E-mails considered as "disgusting" were preferred by young males to be sent and received.

Age and gender were observed to play an important role on individual's e-mail sending and receiving behaviors. The studies of Wiedmann, Walsh and Mitchell (2001) and Wood (2005) consider the role of gender in referral behavior. However, more empirical studies are needed to identify the impact of gender in referral behavior. The research conducted by Dobele et al. (2007) suggests that gender has an impact on referral behavior. The findings of survey also demonstrate the impact of gender on e-mail sending and receiving behavior.

This could provide a basis for companies which want to conduct a viral marketing campaign. In order to attract the target group by viral marketing campaign, the content should be chosen properly by taking the demographic features of the target group into consideration. However, if the content of the e-mail sent by the company conducting viral marketing campaign is "surprising" or "joyful", it could be said that the majority of the recipients exposed would enjoy the content and want to forward it to people in their contact lists.

Companies should target the imagination of the recipient when conducting viral marketing campaigns so that they could differentiate their messages from other messages that the recipient is exposed (Dobele et al., 2007). In order to understand e-mail sending and receiving behaviors of individuals and the emotions behind this, more research on consumers' reactions to different viral marketing campaigns should also be done. Last but not the least, consumers may think about forwarding an e-mail if its content has an influence on their emotions.

**E-Mail as a Viral Marketing Tool: A Research on Emotions behind
E-Mail Sending and Receiving Behavior**

REFERENCES

- Alkemaded, F. & Castaldi, C. (2005). Strategies for the Diffusion of Innovations on Social Networks. *Computational Economics*, 25(1-2), 3-23.
- Annen, K. (2003). Social Capital, Inclusive Networks, and Economic Performance. *Journal of Economic Behavior & Organization*, 50(4), 449-463.
- Ansell, C. (2007). The Sociology of Governance. In M. Bevir (Ed.), *Encyclopedia of Governance*, Sage Publications. Retrieved April 25, 2009, from the World Wide Web: polisci.berkeley.edu/Faculty/bio/permanent/Ansell,C/Encyclopedia/SOCIOLOGY%20OF%20GOVERNANCE.doc
- Boase, J. & Wellman, B. (2001). A Plague of Viruses: Biological, Computer and Marketing. *Current Sociology*, 49(6), 39-55.
- Chatterjee, P. (2001). Online Reviews: Do Consumers Use Them? *Advances in Consumer Research*, 28, 129-133.
- Chiang, Y.S. (2007). Birds of Moderately Different Feathers: Bandwagon Dynamics and the Threshold Heterogeneity of Network Neighbors. *The Journal of Mathematical Sociology*, 31(1), 47-69.
- Coleman, J.S. (1988). Social Capital in the Creation of Human Capital. *American Journal of Sociology*, 95, 95-120.
- Coleman, J.S. (1990). *Foundation of Social Theory*. Cambridge: Belknap Press of Harvard University.
- Coleman, J.S., Katz, E. & Menzel, H. (1957). The Diffusion of an Innovation among Physicians. *Sociometry*, 20, 253-270.
- Coleman, J.S., Katz, E. & Menzel, H. (1959). Social Processes in Physicians' Adoption of a New Drug. *Journal of Chronic Diseases*, 9, 1-19.
- Coleman, J.S., Katz, E. & Menzel, H. (1966). *Medical Innovation: A Diffusion Study*. Indianapolis, IN: Bobbs-Merrill.
- De Bruyn, A. & Lilien, G.L. (2008). A Multi-Stage Model of Word-of-Mouth Influence through Viral Marketing. *International Journal of Research in Marketing*, 25(3), 151-163.
- Dellarocas, C. (2003). The Digitization of Word of Mouth: Promise and Challenges of Online Feedback Mechanisms. *Management Science*, 49(10), 1407-1424.
- Dobele, A., Lindgreen, A., Beverland, M., Vanhamme, J. & Van Wijk, R. (2007). Why Pass on Viral Messages? Because They Connect Emotionally. *Business Horizons*, 50(4), 291-304.

Burcu Selin Yılmaz

- Dobele, A., Toleman, D. & Beverland, M. (2005). Controlled Infection! Spreading the Brand Message through Viral Marketing. *Business Horizons*, 48(2), 143-149.
- Flora, J.L. (1998). Social Capital and Communities of Place. *Rural Sociology*, 63(4), 481-506.
- Foth, M. (2006). Sociocultural Animation. In S. Marshall, W. Taylor, and X. Yu, (Eds.), *Encyclopedia of Developing Regional Communities with Information and Communication Technology* (pp. 640-645). Hershey, PA: Idea Group Reference (IGI Global).
- Fukuyama, F. (2001). Social Capital, Civil Society and Development. *Third World Quarterly*, 22(1), 7-20.
- Gatarski, R. (2002). Breed Better Banners: Design Automation through On-Line Interaction. *Journal of Interactive Marketing*, 16(12), 2-13.
- Godin, S. (2001). *Unleashing The Ideavirus: Stop Marketing At People! Turn Your Ideas into Epidemics by Helping Your Customers Do the Marketing for You*. New York: Hyperion.
- Goldsmith, R. (2002). *Viral Marketing: Get Your Audience to Do Your Marketing for You*. London: Pearson Education.
- Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, 91(3), 481-510.
- Green, A. (2006). *Effective Communication Skills for Public Relations*. London: Kogan Page, Limited.
- Hampton, K. & Wellman, B. (1999). Netville Online and Offline: Observing and Surveying a Wired Suburb. *American Behavioral Scientist*, 43(3), 475-492.
- Haruvy, E. & Prasad, A. (2001). Optimal Freeware Quality in the Presence of Network Externalities: An Evolutionary Game Theoretical Approach. *Journal of Evolutionary Economics*, 11(2), 231-48.
- Internet World Stats (2009). Internet Usage in Europe / Internet Users Statistics & Population for 53 European Countries and Regions. Retrieved February 25, 2009, from the World Wide Web: <http://www.internetworldstats.com/stats4.htm>.
- Johnson, S. (2001). *Emergence: The Connected Lives of Ants, Brains, Cities and Software*. London: Allen Lane/Penguin.
- Kazienko P. & Musiał, K. (2006). Social Capital in Online Social Networks. In B. Gabrys, R.J. Howlett, and L.C. Jain (Eds.), *Knowledge-Based Intelligent Information and Engineering Systems, (Lecture Notes in Computer Science, Volume 4252/2006)* (pp. 417-424). Berlin: Springer-Verlag.

**E-Mail as a Viral Marketing Tool: A Research on Emotions behind
E-Mail Sending and Receiving Behavior**

- Krishnamurthy, S. (2001). Understanding Online Message Dissemination: Analyzing "Send a Message to a Friend". *First Monday*, 6(5), May 2001, Retrieved April 14, 2009 from the World Wide Web: http://firstmonday.org/issues/issue6_5/krishnamurthy/index.html.
- Laudon, K.C. & Traver, C.G. (2001). *E-Commerce: Business, Technology, Society*. Boston: Addison-Wesley.
- Li, C. & Bernoff, J. (2008). *Groundswell: Winning in a World Transformed by Social Technologies*. Boston, MA: Harvard Business School Press.
- Li, C. & Bernoff, J. (2009). *Marketing in the Groundswell*. Boston, MA: Harvard Business School Press.
- Lindgreen, A. & Vanhamme, J. (2005). Viral Marketing: The Use of Surprise. In I.C. Clarke & T.B. Flaherty (Eds.), *Advances in Electronic Marketing* (pp. 122–138). Hershey, PA: Idea Group.
- Lodish, L.M., Morgan, H.L., & Kallianpur, A. (2001). *Entrepreneurial Marketing / Lessons from Wharton's Pioneering MBA Course*. New York: John Wiley & Sons.
- McConnell, B. & Huba, J. (2007). *Citizen Marketers: When People are the Message*. Chicago, IL: Kaplan Publishing.
- Minniti, M. (2005). Entrepreneurship and Network Externalities. *Journal of Economic Behavior & Organization*, 57(1), 1-27.
- Mohr, I. (2007). Buzz Marketing for Movies. *Business Horizons*, 50(5), 395-403.
- Müller, C. (1999). Networks of 'Personal Communities' and 'Group Communities' in Different Online Communication Services. Paper presented at the Exploring Cyber Society Conference, July 5-7 1999, at the University of Northumbria at Newcastle/UK. Retrieved April 14, 2009 from the World Wide Web: <http://www.socio5.ch/pub/newcastle.html>.
- Nunnally, J.C. (1978). *Psychometric Theory*, 2nd Edition. New York: McGraw-Hill.
- Onyx, J. & Bullen, P. (2000). Measuring Social Capital in Five Communities. *Journal of Applied Behavioral Science*, 36(1), 23-42.
- Phelps, J.E., Lewis, R., Mobilio, L., Perry, D. & Raman, N. (2004). Viral Marketing or Electronic Word-Of-Mouth Advertising: Examining Consumer Responses and Motivations to Pass Along Email. *Journal of Advertising Research*, 44(4), 333-348.

Burcu Selin Yılmaz

- Pigg, K.E. & Crank, L.D. (2004). Building Community Social Capital: The Potential and Promise of Information and Communications Technologies. *The Journal of Community Informatics*, 1(1), 58-73.
- Portes, A. (1998). Social Capital: Its Origins and Applications in Modern Sociology. *Annual Review of Sociology*, 24, 1-24.
- Preibusch, S., Hoser, B., Gürses, S. & Berendt, B. (2007). Ubiquitous Social Networks – Opportunities and Challenges for Privacy-Aware User Modelling. In *Proceedings of the Data Mining for User Modelling Workshop (DM.UM'07) at UM 2007, Corfu, June 2007*. Retrieved April 02, 2009, from the World Wide Web: <http://vasarely.wiwi.hu-berlin.de/DM.UM07/Proceedings/05-Preibusch.pdf>
- Putnam, R. (1993). The Prosperous Community Social Capital and Public Life. *American Prospect*, 13(Spring), 35-42.
- Rheingold, H. (2000). *The Virtual Community: Homesteading on the Electronic Frontier*, Revised Edition. Cambridge, MA: The Harvard University Press.
- Rosen, E. (2000). *The Anatomy of Buzz*. New York: Doubleday.
- Shankar, V., Smith, A.K. & Rangaswamy, A. (2003). Customer Satisfaction and Loyalty in Online and Offline Environments. *International Journal of Research in Marketing*, 20(2), 153-175.
- Silverman, G. (2001). *Secrets of Word-of-Mouth Marketing: How to Trigger Exponential Sales through Runaway Word of Mouth*. New York: AMACOM.
- Stromer-Galley, J. (2003). Diversity of Political Conversation on the Internet: Users' Perspectives. *Journal of Computer-Mediated Communication (JCMC)*, 8(3). Retrieved April 3, 2009, from the World Wide Web: <http://jcmc.indiana.edu/vol8/issue3/stromer-galley.html>
- Subramani, M.R. & Rajagopalan, B. (2002). Examining Viral Marketing - A Framework for Knowledge Sharing and Influence in Online Social Networks. Retrieved March 25, 2009, from the World Wide Web: http://www.misrc.umn.edu/workingpapers/fullPapers/2002/0212_050102.pdf
- Sweeney, S. (2007). *3G Marketing on the Internet: Third Generation Internet Marketing Strategies for Online Success*, 7th Edition. Gulf Breeze, FL, USA: Maximum Press.
- The Research Advisors (2006). Sample Size Table. Retrieved January 26, 2009, from the World Wide Web: <http://research-advisors.com/tools/SampleSize.htm>

**E-Mail as a Viral Marketing Tool: A Research on Emotions behind
E-Mail Sending and Receiving Behavior**

- Tinson, J. & Ensor, J. (2001). Formal and Informal Reference Groups: An Exploration of Novices and Experts in Maternity Services. *Journal of Consumer Behavior*, 1(2), 174-183.
- Tuomi, I. (2003). ICTs and Social Capital / Setting the Scene. Workshop on ICTs and Social Capital in the Knowledge Society, 4 November 2003. Retrieved April 26, 2009, from the World Wide Web: <http://www.meaningprocessing.com/personalPages/tuomi/articles/ICTsAndSocialCapital.pdf>.
- Van der Graaf, S. (2004). Viral Experiences: Do You Trust Your Friends? In S. Krishnamurthy (Ed.), *Contemporary Research in E-Marketing*, (Volume 1) (pp. 166-185). Hershey, PA: IGI Global.
- Van Hove, L. (1999). Electronic Money and the Network Externalities Theory: Lessons for Real Life. *Netnomics*, 1(2), 137-171.
- Vanier, F. (2009a). World Broadband Statistics: Q4 2008. Point Topic Ltd. March 2009. Retrieved March 01, 2009, from the World Wide Web: [World%20Broadband%20Statistics%20Q4%202008.pdf](http://www.pointopic.com/contentDownload/operatorsource/dslreports/world%20broadband%20statistics%20q4%202008.pdf)
- Vanier, F. (2009b). World Broadband Statistics: Q1 2009. Point Topic Ltd., June 2009. Retrieved June 15, 2009, from the World Wide Web: <http://point-opic.com/contentDownload/operatorsource/dslreports/world%20broadband%20statistics%20q1%202009.pdf>
- Wall, E, Ferazzi, G. & Schryer, F. (1998). Getting the Goods on Social Capital. *Rural Sociology*, 63, 300-322.
- Welker, C.B. (2002). The Paradigm of Viral Communication. *Information Services and Use*, 22(1), 3-8.
- Wellman, B., Haase, A.Q., Witte, J. & Hampton, K. (2001). Does the Internet Increase, Decrease or Supplement Social Capital: Social Networks, Participation, and Community Commitment. *American Behavioral Scientist*, 45(3), 436-455.
- Wiedmann, K.P., Walsh, G., & Mitchell, V.W. (2001). The Mannmaven: An Agent for Diffusing Market Information. *Journal of Marketing Communications*, 7(4), 195-212.
- Williams, A.P. & Trammell, K.D. (2005), Candidate Campaign E-Mail Messages in the Presidential Election 2004. *American Behavioral Scientist*, 49(4), 560-574.
- Wood, J.T. (2005). *Gendered Lives: Communication, Gender, and Culture*, 6th Edition. Belmont, CA: Wadsworth.
- Woolcock, M. (2001). The Place of Social Capital in Understanding Social and Economic Outcomes. Retrieved April 26, 2009, from the World Wide Web: <https://www.oecd.org/dataoecd/5/13/1824913.pdf>.

Burcu Selin Yılmaz

- Woolcock, M. (1998). Social Capital and Economic Development: Toward a Theoretical Synthesis and Policy Framework. *Theory and Society*, 27, 151-208.
- Yair, G. (2008). Insecurity, Conformity and Community / James Coleman's Latent Theoretical Model of Action. *European Journal of Social Theory*, 11(1), 51-70.