Chapter XIII
When Is a Duck Not a Duck? When It Is a Euro! Trust–Based Marketing Communications in Virtual Communities

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ABSTRACT

This chapter tries to evaluate the effects of the propagation of a trust-based marketing message through selected below-the-Web technologies, which are those particular types of information technologies different from Web sites—such as e-mails, discussion lists, BBSs, newsgroups, forums, peer-to-peer, IRCs, MUDs and MOOs—that allow for the creation of virtual communities. A preliminary experiment on informal marketing communications, carried out over 12,000 accesses to below-the-Web communities and regarding the proposal to use the term "Ducks" for "Euros" in view of its similarity with the term "Bucks" for dollars, showed that below-the-Web technologies can be an appropriate tool for building trust among participants when four conditions for the existence of virtual communities are met: (a) a minimum level of interactivity; (b) a variety of communicators; (c) a virtual-common-public space; and (d) a minimum level of sustained membership.

INTRODUCTION

In the present economic environment, characterized by global competition, an increasing level of complexity, and a growing interconnection and interdependence, companies must manage new technological requirements for achieving success on the marketplace (Morgan & Hunt, 1994). On one hand, the Internet and digital technologies provide a powerful means for information searching and propagation without limits of time, place, and costs, as well as an effective tool for the development of computer-mediated communications (CMCs)—that is, those task-related and interpersonal exchanges of messages through electronic media that involve the use of computers (Hoffman & Novak, 1996) and which encourage the spread of new forms of relationships and social networks.

CMC technologies have a positive impact on two fundamental dimensions of communication: content and relation (Pastore & Vernuccio, 2004). As regards to content, new technologies make available multimedia differentiated mailings of a large mass of users, reducing the trade-off between reach (the dimension of the potential market) and richness (the product differentiation), and promoting online strategies for customized product positioning. As regards to relation, new technologies allow various types of communications—such as one-to-one, one-to-many, many-to-one, and many-to-many—encouraging users to play an active role in contents' generation.

In this way, the Internet offers the opportunity to accomplish socialization processes of content production and consumption activities, thus allowing companies to establish trusting computer-mediated relationships with their customers and allowing consumers to spontaneously express their expectations and desires. On the other hand, today's global marketplace gives firms no option but to face the growing level of competition through the modification of unilateral relationships in long-lasting trust-based multilat-

eral relationships with markets (Castaldo, 2002; Urban, 2003). In the newly connected economy, the environmental complexity changes itself in its relational-based articulation, which needs *trust* as a fundamental resource to govern and regulate market relationships: companies are induced to develop partnerships and strategic networks with those economic parties which contribute to the generation of a corporate value—suppliers, customers, governments, and even competitors. In order to manage competition, individuals and corporations need to cooperate and work together (Morgan & Hunt, 1994); consequently, the creation, development, and maintaining of trust is a requirement for building durable and collaborative relationships (Sultan et al., 2002).

CMC technologies offer companies new opportunities to establish and nurture trust-based communications, allowing them the development of a multichannel strategy on the Internet. In particular, below-the-Web CMC technologies, that is those particular types of information technologies different from Web sites, such as e-mails, discussion lists, and so forth, and their cyberspace, that is the electronic place created by a computer system or by a computer network in which they are, represent the means by which companies and consumers can develop below-the-Web communities. By connecting a large number of computers worldwide, the cyberspace eliminates distances and creates a new place rich in information resources made available through computer networks.

The present chapter tries to evaluate the effects of the propagation of a trust-based marketing message through selected below-the-Web technologies, pursuing both a theoretical and an operational purpose. From a theoretical point of view, it tries to prove that such technologies—as a result of perceived competence and goodwill—are better able than Web sites to develop trust among members, since they generate *virtual communities* (Jones, 1997; Ridings, Gefen & Arinze, 2002). From an operative perspective, this study tries to verify,

in a preliminary experiment concerning over 12,000 accesses to below-the-Web communities, their suitability for communicating trust-building messages to different users all over the world. Results of the experiment show that below-the-Web communities are indeed appropriate tools, using a minimum amount of resources, to build trust among their participants.

Below-the-Web Technologies and Communities

The taxonomy of below-the-Web technologies, which consider alternative CMCs to Web sites, is discussed, discriminating among them by considering the timing of messages. Specifically, in "asynchronous communications," members of the community exchange information without the contemporaneous presence of communicators, reading their messages and replying in different times (Baym, 1995), using technologies such as e-mail, discussion lists, BBS, newsgroups, forum, and peer-to-peer (Adams, Toomey, & Churchill, 1999). Whereas, in "synchronous communications," members of the community are online at the same time, interacting in real time, reading messages, and replying immediately (Baym, 1995), using technologies such as Internet Relay Chats (IRCs), Multi-User Dungeons (MUDs), and Multi-Object Oriented (MOOs).

E-mails consist of text-based electronic messages which are sent out over the Internet, generally from one single individual to another, or to small groups, allowing the establishment of a simple one-to-one interaction. E-mail, which can enclose photos, sound clips, video clips, computer files, or computer programs, is the most widespread form of Internet communication (Coon, 1996; Kollock & Smith, 1999).

Discussion lists are delivery lists where users discuss a particular topic: every single message transmitted to a group address is automatically copied and sent to all the e-mail addresses on a list, generating a flux of contents from and to each user

and allowing the formation of discussion groups when users transmit a series of messages and responses to the list (Kollock & Smith, 1999).

BBSs (also known as conferencing systems) are "private" computers (hosts) accessible only to a specific category of users, who exchange opinions and ask for information on technical matters (Rafaeli, 1986). They allow participants to perform functions such as downloading software and data, uploading data, playing games, reading news, and exchanging messages with other users. While e-mail and discussion lists are "push" media, in which messages are transmitted to individuals without them necessarily doing anything. On the contrary, BBSs are "pull" media, in which individuals must choose groups and messages they intend to read and actively demand them (Kollock & Smith, 1999).

Newsgroups consist of virtual discussion groups on specific interests in which messages are stored in a central location. Users can access by going to a particular newsgroup site through the Internet (e.g., Usenet, a world-wide distributed discussion system which consists of a set of newsgroups with names classified hierarchically by subject), or a specific Internet Service Provider (ISP), that is a commercial service that sells access to the Internet to individuals (e.g., AOL (America OnLine)) (Blanchard, 2004).

Forums are information interchanges containing messages on specific or general themes allowing individuals to post messages and comment on other messages. They are hosted on a newsgroup, online service, or BBS (Anderson & Kanuka, 1997). Forums differ from Newsgroups in the fact that additional software is generally necessary to participate in a newsgroup or a newsreader, while visiting and participating in a forum normally does not require additional software beyond the Web browser.

Peer-to-peer (P-to-P or P2P) networks are distributed network architectures in which clients share a part of their own hardware resources, such as processing power, storage capacity, or

network-linked capacity. Shared resources are directly accessible by other participants, without passing intermediary entities; they make accessible content offered by the network, such as file sharing containing audio, video, data ,or anything in digital format, and real time data, for instance telephony traffic (Schollmeier, 2002).

IRCs (Internet relay chats), which were first formed in 1988 by a researcher in Finland as a text-based way of chatting, are multi-user communication systems through which individuals can hold real-time online conversations (Menichella, 2000). Discussions of various topics are structured into different channels, each of them hosts a discussion on a particular subject with different participants which take part in real-time discussions. Users can join numerous channels at once by selecting a nickname, which allows them to communicate with each another (Coon, 1996).

MUDs (multi-user dungeon) and MOOs (multi-object oriented) are text-based virtual realities which allow several users a contemporaneous navigation in a large hypertext aimed at playing, communicating, socializing. They are basically online interactive role-playing games, which users can access through Telnet, a computer program/ protocol, which allows different types of Internet connected computers to communicate with each another (Coon, 1996; Kollock & Smith, 1999).

These below-the-Web technologies allow personal communications through the computer, creating new opportunities for real-time "chatting" among geographically dispersed individuals, and supporting social relations and below-the-Web communities. The construct of below-the-Web community is strictly connected to the notion of the "virtual community." Rheingold (1993), who first coined the term virtual communities, defined them as "social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in

cyberspace" (p. 5). Below-the-Web communities differ from virtual communities simply for the reason that the former ones include aggregations that occur through digital technologies different from traditional Web sites. Below-the-Web communities offer several advantages beyond traditional Web sites both to companies and consumers. Companies can propagate their brand images, provide information on product and service characteristics, obtain feedback, and gather useful information about the development and the improvement of existing products, and the launch of new ones. Consumers can find information they need and get in touch with companies using a simple e-mail, reducing the fear of being identified or being obliged to reply to potentially embarrassing questions (Antognazza & Moeder, 1999). Moreover, below-the-Web communities can exist and provide information about products and services even if companies do not intend to propagate any news, do not have a website, or are not informed about them. They are valid tools for creating value for consumers and companies should consider them in their communication strategic planning.

THE CONSTRUCT OF TRUST IN BELOW-THE-WEB COMMUNITIES

Trust has been studied in many research fields (Sultan et al., 2002), leading to different definitions, devoid of a universally accepted conceptualization. By considering common grounds in management and marketing literature, trust can be treated as a cognitive construct which denotes the ability of a counterpart to maintain assumed obligations towards a particular trustor; it indicates the conviction that the trustee—characterized by distinctive elements, such as motivations, competences, and values—will behave in conformity with the trustor's expectancies (Castaldo, 2002). Trust, therefore, is a construct similar to "attitude"

(Fishben & Ajzen, 1975). That is, essential elements of trust and attitude, such as overall beliefs, feelings, values, and personal competences, have an influence on the intention (or willingness) to act, and, consequently on the behavior which, in turn, is coherent with the decision to trust.

The importance of trust is relevant in the Internet context (Reichheld & Shefter, 2000; Urban, Sultan, & Qualls, 2000), and in virtual organizations (Handy, 1995). Consequently, it is crucial to examine processes by which trust can be stimulated and encouraged both within companies and between companies and individuals. The nature and certain features of online contacts, for instance, the lack of face-to-face communications and visual cues and the ease with which members are able to hide personal traits (i.e., gender, age, occupation), may obstruct trust development. Conversely, the opportunity to share common interests and create intimacy and a cooperative interaction may encourage the development of trust in online communications (Ridings et al., 2002; Shankar, Sultan, & Urban, 2002). Considering the existing literature concerning online trust (Fukuyama, 1995; Handy, 1995; Ridings et al.; Urban et al., 2002; Zuboff, 1988), it is possible to assert that two of the main conditions for the creation of trust in below-the-Web communities are: (a) perceived competence (Butler, 1991; Gabarro, 1978; Jarvenpaa, Tractinsky, Saarinen, & Vitale, 1999; Mayer, Davis, & Schoorman, 1995; Sheppard & Sherman, 1998), and (b) perceived goodwill (Bhattacherjee, 2002; Mayer et al., 1995).

Perceived competence is the first condition for the creation of trust. It is the trustor's perception that the trustee possesses skills, ability, and knowledge needed to accomplish specified actions in order to achieve the expected performance or behavior (Castaldo, 2002; Mayer et al., 1995). This condition is appropriate in the context of below-the-Web virtual communities since they are usually means of linking people with common

specialized reciprocal interest, life experience, professional occupation, or resource-sharing habits and are related to members' abilities concerning their mutual questions, encouraging information exchange, and knowledge sharing (Bhattacherjee, 2002; Ridings et al., 2002). Professional below-the-Web communities allow participants to exchange their qualified competences and knowledge such as working cultures, problem solving techniques, professional values and behaviors.

Perceived goodwill (or benevolence) is the expectation that a trustee will intend to do good to the trustor, beyond its individual intention, and even though the trustee is not obliged to cooperate and is not compensated for it, the trustee generally responds with a collaborative behavior with the purpose of giving support and care (Bhattacherjee, 2002; Mayer et al., 1995). Benevolence establishes faith and altruism, diminishing uncertainty and the tendency to defend opportunistic behaviors (Bhattacherjee, 2002). Benevolence is important in below-the-Web virtual communities for the reason that positive reciprocation is a fundamental element of a community. While for many Web sites and e-commerce environments, forecasting user expectations for conceiving or delivering benevolent services is problematical or expensive (Bhattacherjee), in below-the-Web communities contributing to prosocial motives and generous duties has been observed empirically (Wasko & Faraj, 2000). In the online context, perceived goodwill is also associated with integrity, which can be defined as the expectation that the trustee will behave accordingly with socially accepted principles of honesty or a series of values accepted by the trustor, for instance, telling the truth and giving realistically demonstrated information (Ridings et al., 2002). Integrity is relevant in the context of below-the-Web virtual communities since it is the acceptance of norms of reciprocity, strictly related with benevolence, which let a community develop.

THEORETICAL FOUNDATION

We hypothesize that trust can be nurtured and supported particularly through the use of below-the-Web technologies, through the creation of virtual communities. From a theoretical point of view, such information technologies—thanks to perceived competence and goodwill—are better able than Web sites to develop trust among their participants, because they allow for the creation of below-the-Web virtual communities. They are defined by Jones' (1997) theory of the virtual settlement, that is a cyberspace, with associated information technologies, which verifies the following four conditions: (a) a minimum level of interactivity, (b) a variety of communicators, (c) a virtual-common-public space, and (d) a minimum level of sustained membership. This goal is reached by evaluating how the various below-the-Web technologies verify the four requirements for the development of a virtual settlement and of its related community.

Jones' (1997) Virtual Communities

Jones (1997) stated that virtual communities are more than just a series of CMC messages. As a sociological phenomenon, they do not merely correspond to their cyberspace, nor to their members' interactions, nor to their population of users. Rather, Jones (1997) differentiated between a community and its cyberspace, which constitutes the *virtual settlement*, that is between a social aggregation and its medium or platform, in which participants interact (Lechner & Schmid, 2000). A virtual settlement is defined as a virtual place symbolically delineated by a particular subject, and within which a considerable part of CMC technologies takes place, allowing people to interact (Jones, 1997).

Jones (1997) specified that for a cyberspace, with associated CMC technologies, to be considered a virtual settlement, it needs to satisfy the following four requirements: (a) a minimum

level of interactivity, (b) a variety of communicators, (c) a virtual-common-public space where a significant portion of a community's interactive CMCs occurs, and (d) a minimum level of sustained membership. Drawing on Fletcher's (1995) theory, Jones (1997) maintained that the existence of a virtual settlement (and the occurrence of its requisites) implies the presence of a connected community. Thus, the virtual settlement is a precondition for the emergence and existence of a virtual community, and the existence of a virtual settlement is evidence of the existence of an associated virtual community (Jones, 1997).

A Minimum Level of Interactivity

Multidisciplinary literature considers three essential conceptual views of interactivity (Tremayne, 2005): structural, perceptual, and process. The first approach defines interactivity a "characteristic of a medium" (Lombard & Snyder-Duch, 2001; Roehm & Haugtvedt, 1999) or an intrinsic part of new media (Heeter, 1989; Rust & Varki, 1996). It is considered as a multidimensional construct that needs to be investigated through an analysis and a categorization of its features or dimensions (Sohn & Lee, 2005). That is, the characteristics of the communication environment that make it interactive.

The second approach assumes that interactivity is a "perceptual variable that involves communication mediated by technology" (Bucy, 2004, p. 377), that is whether or not users perceive the communication environment to be interactive. Numerous authors used experimental design to examine perceived interactivity (Chung & Zhao, 2004) or developed appropriate attitudinal or emotional scales for its measurement (Jee & Lee, 2002; McMillan, Hwang, & Lee, 2002).

The third approach considers interactivity as a process (the actual activity of interacting) of message exchange. Rafaeli (1986), who is the most cited proponent of this approach, defines interactivity as "an expression of the extent that

in a given series of communication exchanges, any third (or later) transmission (or message) is related to the degree to which previous exchanges referred to even earlier transmissions" (p. 111). He describes it as a variable attribute of a communication setting that indicated how reciprocal a specific exchange is. Interactivity, thus, is a process that relies on participants. Therefore, it cannot be characterized as a feature of the medium, but rather as a quality of the communication process (Rafaeli & Sudweeks, 1997).

Jones (1997) pointed out the importance of interaction as a necessary condition for a series of CMC messages to demonstrate the existence of virtual communities. So, interactivity is the prerequisite of communication in which simultaneous and continuous exchanges take place. In a real community the relationship occurs through face-to-face communication, whereas in the virtual one, new technologies offer auxiliary instruments to interact in the group, ensuring the same possibilities of reaction (Rafaeli & Sudweek, 1997). Thus, interactivity can be considered a fundamental measure of group social dynamics as it can facilitate the sociality of a group, highlighting the links within it.

A Variety of Communicators

The presence of a variety of communicators is a requisite strictly related to the condition of interactivity, as a single person in contact with another one through CMC technologies does not produce an interactive relationship. Therefore, any possible interaction between a user and a database is excluded from virtual communities (Jones, 1997). This requisite is also discussed by many authors (e.g., Ko & Kim, 2003) when considering the necessary dimensions for a sense of virtual community. For example, people who feel a sense of belonging, people who influence other participants, and people who experience the state of "flow" during virtual communication. Generally the number of communicators in CMC

technologies is higher than in real communities, thanks to their ease of access.

Furthermore, Porter (2004) considers virtual communities according to their population interaction structure: virtual communities as computer-supported social networks (CSSNs), virtual communities as small groups or networks, and virtual communities as virtual publics. According to the type of CSSNs and publics, members can have strong, weak, or stressful social ties in virtual communities. Strong ties are a consequence of regular and supportive communication among socially connected participants; weak ties are a consequence of expressly supportive and reciprocal contacts, even though members are socially and/or physically distant; stressful ties are anti-social communication (e.g., flaming, spamming) (Wellman, Salaff, Dimitrova, Garton, Gulia, & Haythornthwaite, 1996). Small-group-based virtual communities are characterized by strong ties and socially close relationships among participants; weak and likely stressful ties typify networked-based virtual communities. Members are geographically and socially dispersed and directed at the utilitarian advantages of a community, and relationships are frequently of brief extent and propelled by functional needs.

A Virtual-Common-Public Space

In Jones' (1997) theory, a virtual-common-public space denotes a symbolically delineated place, that is a virtual space shared by participants to interact and to form relationships. Considering a virtual-common-public space as an essential requirement for the virtual settlement emphasizes the definition of a community as allocated in the cyberspace (Fernback & Thompson, 1995; Smith, 1992). It "distinguishes a virtual settlement from private communication where postings are directly exchanged from an individual to another with no common virtual place" (Jones, 1997, p. 8). They do not simply correspond to a community subset, but represent a different approach to clas-

sifying cyberspace into private virtual places and public ones. Public virtual places can be defined as "places created for CMC conversations using different technologies … their value depends on the quantity of its (sic) population and on the quantity and quality of their users' contributions" (Jones, 2001, p. 1). Private virtual places, unknown to the mass of the public, allow access only through the insertion of a password. Recent studies (e.g., Blanchard, 2004) refer to CMCs as social or conceptual spaces that members feel is a place, and consider the factors which play a role in the development of a sense of place in virtual communities: the social exchanges that happen in virtual communities, and the "individual cognition of the computers' functioning, because individuals create mental models to help them understand what is going on inside the computer" (Weick, 1990, p. 14).

A Minimum Level of Sustained Membership

A group using CMC technologies is classified as a virtual community when it has a certain degree of sustained membership (Jones, 1997), which is related to the density of messages, defined as the message posting in a group per-unity of time. This condition is emphasized by describing virtual communities as "relatively stable groups of people who interact primarily over CMC and who have developed a sense of community" (Blanchard, 2004, p. 3). Sense of community can be defined as "the members' feeling of shared emotional attachment belonging, influence, and the integration of fulfillment of needs that makes the community different from simply a group of individuals" (Mcmillian & Chavis, 1986, p. 4). Membership is mainly voluntary. Usually participants search for virtual communities sharing the same interests (Wellman & Gulia, 1999), and join them on the basis of their individual interest in a sustaining membership (Blanchard, 2004).

The minimum level of sustained membership required for reaching the stability of the association between members changes according to the CMC medium. Some of them, such as IRCs and forums, produce a higher level of interactivity and of exchange density than other ones due to their structural characteristics.

Table 1. Conditions for the development of virtual communities in asynchronous and synchronous communications

BELOW-THE-WEB TECHNOLOGIES	A Minimum Level of Interactivity	A Variety of Communicators	A Virtual-Common-Public Space	A Minimum Level of Sustained Membership
Asynchronous communications (e-mails, discussion lists, BBSs, newsgroups, forums, peer-to-peer)	*High correlation between all written messages*	*Presence of more than two participants*	*Presence of a virtual delineated space*	*Active participation of each member*
Synchronous communications (IRCs, MUDs, MOOs)	*Message targeting, relatedness of message content*	*Increasing number of members, stability of nicknames*	*Presence of a virtual delineated space, free accessibility to each member*	*Active participation of each member, co-appearance of a substantial number of participants*

COMMUNITIES THROUGH ASYNCHRONOUS AND SYNCHRONOUS BELOW-THE-WEB TECHNOLOGIES

We investigated when the various below-the-Web technologies satisfy the four requirements for the existence of a virtual settlement and its related community, as stated by Jones (1997). Being a community more than a series of CMC messages, we verified when these technologies meet the attributes of a community: analogous to an archaeological perspective, cultural arti-facts—such as the characteristics of the place they occupy, and physical traces of life left and created around them by their inhabitants—were analyzed. This is summarized in Table 1. In order to show when below-the-Web technologies hold the four necessary characteristics to create a virtual settlement and its related community, we discriminated between asynchronous below-the-Web technologies, in which messages are read at a later point in time (e-mail, discussion lists, newsgroups, forums, BBSs, and P2P), and synchronous below-the-Web technologies, in which messages appear on users' screens as they are typed (IRCs, MUDs, and MOOs).

A Minimum Level of Interactivity

In asynchronous communications, conversations on particular subjects can last a considerable period of time (some weeks or months); conse-quently, the verification of a minimum level of interactivity consists in the analysis of the cor-relation degree between all written messages. In synchronous communications the degree of interactivity in a session is studied analyzing verbal messages, which allow users to "talk" to the other components of the group, and action stimulating messages, which allow users to "act out" imagined actions, and are lines of text sent by participant and describing "what he or she

is doing, or rather what his or her virtual being is doing or wishes to do, had it been given a physical body" (Liu, 1999, p. 9). Interactivity is investigated considering message directing/tar-geting and relatedness of message content. Each communication can be sent to the entire group or sub-group (untargeted), or directed to a specific individual (targeted), specifying the nickname (al-though every user can see the message). Targeted messages can be unidirectional, that is, directed but not responded to by the targeted recipient, or dyadic, that is responded to by the targeted recipient. Recognition of higher-order patterns of message directing (dyads, triads, and quadruples among others) allows specifying the intensity of within-group interaction (Liu, 1999). As regards message content, it needs to distinguish between the referring message and the referred-to message, and, consequently, messages referring to postings in the same sequence/session (within-session ref-erence) and ones referring to postings in earlier sessions (cross-session reference). Cross-section reference may indicate how long persons have been socializing and the intensity of their interest in each other people (Liu).

A Variety of Communicators

This condition is also definitely found both in synchronous and in asynchronous channels, as Jones (1997) referred to the presence of more than two participants, that is, the minimum number of users needed for any occurring interaction. Generally, asynchronous communication is char-acterized by a large number of users that allow a continuing mass interaction; in the Internet there are also users (*lurkers*) that read messages without participating actively in the conversa-tion. They cannot be considered members of the virtual community as defined by Jones (1997), as they do not establish interactive relationships (Whittaker, Terveen, Hill, & Cherny, 1998). With regard to synchronous communications, Liu

(1999) includes further conditions: an increasing number of members, in order to reject groups of very insignificant dimension; a stable virtual place (i.e., a channel) existing for a considerably long period of time, with a non-sporadic presence, and the stability of the *nickname*, because an interpersonal relationship cannot mature without recognizing individual identities, so nicknames allow participants to distinguish themselves in the mass and create a personal identity, developing a reputation within the community, and allowing them to be identified for a long period of time (Bechar-Israeli, 1995).

A Virtual-Common-Public Space

A virtual common place can be considered "public" when it is accessible to each user participating in the group (Jones, 1997). As regards asynchronous communications, private exchange of e-mails does not represent a suitable environment for the development of a community, but when members of an existing community exchange messages through a small number of e-mails, these dialogues can be considered community communications (Whittaker et al., 1998). Newsgroups cannot be considered a single virtual community, as they do not correspond to a delineated space, but to thousands of single environments. On the other hand, a single newsgroup, strictly connected to the others on the basis of the subjects discussed, can represent a virtual settlement (Jones, 1997). Discussion lists represent a below-the-Web technology suitable to the development of a virtual community when several users produce a long-lasting interactive communication (Jones, 1997). As regards synchronous communications, the attribute "public" indicates that the shared space is accessible to everyone in the community and that every participant can interact with the others, although the place is not open to everyone. A virtual community can decisively exclude some individuals from becoming a member. Furthermore, the term "public" does not indicate that

interaction between members always needs to be visible to everyone. In fact, private exchanges between participants are crucial for a relationship to develop in a community (Liu, 1999).

A Minimum Level of Sustained Membership

According to Jones (1997), sustained membership stability is related both to a qualitative dimension, which requires the presence of approximately the same group of members for a significant long period of time, and to a quantitative dimension, which requires the presence of a considerable number of active members. As regards asynchronous communication, discussion lists can hold some inequalities the frequency of messages each member sends. Although all the registered members can post, generally only a minority actively takes part in conversations (Whittaker et al., 1998). A large part of users is not linked to a specific group, but continuously searches for groups discussing matters they are interested in, but, in this way, they do not contribute to the establishment of a community relationship (Jones, 1997). With regard to synchronous communication, a minimum level of sustained membership is found when members of a community actively take part in the conversation in a particular channel, demonstrating a minimum level of participation, and not only visualizing various conversations (Liu, 1999). A group of lurkers cannot be considered a community, but a lurker can be a part of a community only if it already exists. Liu (1999) asserts that monitoring sustained membership stability does not require permanent participation of users in a channel, but the co-appearance of a substantial number of participants over a period of time, introducing the concept of sustained level of co-appearance, which has three aspects: a considerable number of clusters of participants whose co-appearance presents durable patterns, a significant size of such clusters (number of members in a co-appearance group), and long lasting patterns of co-appearance.

Since below-the-Web technologies have the potential to support the development of a trust-based below-the-Web virtual community, they increase antecedents of online trust—that is, perceived competence and perceived goodwill of participants. Goodwill and benevolence are strictly related to the conditions of a minimum level of interactivity and sustained membership. By the creation of conversations, participants give support, enhancing perception of cooperative intentions. Members who post messages in a community frequently wait for a reply. Greater interactivity is a sign of motivation to give information and support other community members; it also intensifies the reciprocal nature of relationships (Ridings et al., 2002). If outcomes are consistent with expectations, namely if the trustee has fulfilled promises made in the past, one of the prerequisites for the development of trust is reached. The existence of a below-the-Web virtual community is centered on conversations and activities between members, thus encouraging interactivity and membership reveals benevolence. In an online environment, perceived goodwill is deeply associated with integrity (Gefen, 1997) concerning the reciprocity in creating and sustaining the communities' dialogues, responding to other members or obtaining replies, and showing adherence to social norms and accepted collective rules.

AN EXPERIMENT ON THE PROPAGATION OF A MARKETING MESSAGE THROUGH BELOW-THE-WEB COMMUNITIES

To verify whether below-the-Web technologies are suitable tools for communicating a trust-based message to numerous users displaced in the Internet environment, we conducted an experiment pertaining to the propagation of a marketing message through selected below-the-Web technologies developing a virtual settlement. In particular, this study had the following three aims:

- To test whether communication of a marketing message by means of below-the-Web technologies can correspond to a trust-based, convenient, and quantifiable way to reach a considerable number of recipients
- To evaluate the level of interest aroused from the marketing message sent and, in particular, the way by which possible attention and curiosity are expressed
- To check if the proposal contained in the message was understood and appreciated by members reading it

Creation of a Trust-Based Marketing Message

The message used for the experimental manipulation was designed, structured, tested, and adapted based on characteristics of perceived competence and perceived goodwill as they relate to encouraging the development of trust. The fundamental design elements considered were: first, for sustaining competence and ability in virtual communities, transparency, high-quality content, motivation and background of senders, and access rights; second, the basic design element for supporting perceived goodwill was the comprehensible specification of the message objective (Leimeister, Ebner, & Krcmar, 2005).

In many different languages the introduction of the term "Euro" in European Union (EU) countries created and continues to cause numerous linguistic dilemmas. In our research the suggestion to assign a familiar name to this currency was advanced, with the aim of finding a familiar term that could be used in all EU countries without perplexities of its phonetics and orthography. After the selection of the word Euro for the new European currency, dated December 15, 1995, the European Council stated that the orthography of Euro had to be identical in all the official languages of the European countries and that the plural form of Euro had to be identical to

the singular one (Directive n. 1103/97, June 17th 1997), thus violating the principle of subsidiarity. According to subsidiarity, a fundamental principle of European Union law established in the Treaty of Maastricht (1992), the EU does not take action (i.e., make laws) unless it is more effective than taking action at national, regional or local level. This rule caused uncertainty and ambiguity, for the reason that, normally, in the orthography of European languages the conventional value of Latin, Greek, and Cyrillic letters is adapted to the phonetics of each different language, and furthermore the sequence of letters is adapted to the rules of pronunciation (Everson, 2001). A debate thus developed on the way by which the term Euro could be adapted to pronounced, grammatical rules, and phonetics of the European and worldwide official languages. This language uncertainty also generated ample discussions on the Internet. Numerous Usenet groups discussed this question, involving not only lawgivers and linguists, but also the public. Effectively, searching through Google Groups (a discussion group service that offers an ample archive of Usenet postings, including more than a billion messages) the terms Euro and "Euros" led to about 7,990,000 results shortly after its introduction. The proposal to substitute the term Euros, in common terms, with the new term "Ducks" was suggested, in view of its similarity to the term "Bucks," with which Americans informally call dollars (Bucks also can refer to male deer) A message with the object "Refer to EUROs as Ducks!" was therefore created for our experimental manipulation (see Appendix).

The message contained the essential elements encouraging competence and ability. In particular, it displayed: transparency of senders (name, address, and e-mail address, and function of senders are clearly specified in the message); transparency of purpose of the message (the goal of linguistic experiment aimed to measure the spread of a new term in the Internet community is clearly indicated in the message); transparency of feedback pro-

cedures (the chance of adhering to the proposal, substituting the term Euro with the term Ducks is plainly specified). The quality of the content was testified by the numerous and recent debates on the introduction of the term Euro in the European Community. Motivation and background of senders were clearly indicated in the message. The precise explanation of information concerning identification, purposes, and activities of senders were specified. Access rights regard interaction with senders and other members; the asynchronous exchange of information was encouraged within Forums, Newsgroups, and discussion lists (i.e., Yahoo Groups), and through the indication of the sender e-mail address. The message also includes the basic element for supporting perceived goodwill in virtual communities. The intentions and objectives of the research were clearly declared in the message and the absence of commercial aims was declared.

Selection of Below-the-Web Technologies and Message Recipients

The alternative between synchronous and asynchronous below-the-Web technologies, to be chosen for sending the message, led to the choice of the latter. The reasons were that asynchronous technologies allow each community member to read the messages the member wants, regardless of whether the member is connected or not. Furthermore, all responses to messages can be visualized and studied. So, among below-the-Web asynchronous technologies, e-mails, Forum, Newsgroups, and discussion lists (i.e., Yahoo Groups) were used to carry out the experiment.

The selection of specific message recipients was done separately for each different below-the-Web technology, taking into account their perceived competence on the theme of the message and their perceived goodwill in taking part in the community, as described below. With regard to e-mails, a sampling plan was carried

out to gather 12,300 e-mail addresses for the experiment. Subjects were selected on the basis of the message content, considering their technical competencies. Specifically, recipients were economic and financial academicians, and financial operators having an e-mail address published on the Internet. Identification of population units was done using two different methods for the e-mail address search, one for academicians and the other for financial operators. Initially, identification of the academic population having economic and financial competencies was accomplished using the directory of the web *links* of the most important universities in the world, obtainable from the Italian Ministry of University and Scientific Technological Research website, and from the University of Bologna website. The sample contained: several e-mail addresses of Italian university professors of Economics, Management, and related subjects, which were published on their university Web sites, for instance LUISS (Libera Università degli Studi Sociali, Rome) and Bocconi University; numerous e-mail addresses of European and worldwide Universities and Schools of Management professors of Economics, Management, and related subjects, for example Cambridge, Oxford, Harvard, and Yale. Secondly, the identification of financial operators' e-mail addresses was undertaken through a double search on Google (www.google.com) considering both *finance* and *bank* as key-words and analyzing the Web sites included in the first one hundred pages. This technique allowed us to find financial and economic private e-mail addresses of operators, institutions, and companies. Forums were selected on the basis of an inquiry carried out on the Google search engine. The most renowned Forums on financial Web sites and their links to other notable financial sites were identified, especially in the U.S., Great Britain, France, Germany, and Italy. Newsgroups were chosen on the basis of a survey accomplished within the Google Group search engine: two searches were carried out using two different key-words, the first one focused on the

Usenet groups considering financial subjects, and the second one on those concerning European and linguistic general themes. Discussion lists were selected among Yahoo Groups containing conversations on financial topics: after selecting the "Finance" category, ten groups were selected on the account of subjects, number of components, and estimated likelihood to receive a feedback from users visualizing the message.

Procedure

Transmission of the marketing message was preceded by a pilot study. An online pretest was carried out in order to test the content and functionality of the trust-based marketing message, and to record eventual negative reactions to such a non-requested communication. The message with the object "Refer to EUROs as Ducks!" (see Appendix) was sent to 50 e-mail addresses to test the message wording. The message was then transmitted, by means of asynchronous below-the-Web technologies—specifically, e-mail, forums, newsgroups, and discussion lists. According to the antispamming law, the message was sent to directory components containing about 12,300 e-mail addresses, by means of a software—Gammadyne Mailers©—allowing forwarded messages in real time to a considerable number of users. The message was also sent to 50 selected forums. Most of them required a user registration; consequently, only a restricted category of financial operators really interested in the community and inclined to give their personal data could read the message. Two hundred messages concerning the currency name were sent to 35 European newsgroups, selected among those dedicated to linguistic discussions, financial problems, and European themes. In some of the 35 groups the message was not published because moderators, having to read and select a massive quantity of messages, slackened procedures for publication, and some of them rejected the message defining it off-topic. Furthermore, with regard to discussion

lists, a Yahoo group labeled "Euro_as_ducks" was created: its description contained the same proposal enclosed in the message. Table 2 highlights the summary of opinions and thoughts of those taking part in various debates.

Analysis and Results

Collected data, which included both replies to e-mails and discussions generated within forums, newsgroups, and discussion lists, were first examined with the purpose of studying reactions and effects and afterward classified on the basis of observations and remarks to the proposal. Although the message merely required using the term "Ducks" in Web communications, further observations and remarks gushed from

a specific interest to this theme, expressed by recipients replying to the message. The debate rose within several forums, discussion lists, and, in particular, in Newsgroups where linguistic discussions on the term "Euro" dated back to 2000. Numerous replies to e-mails demonstrated that the proposal, even though everybody did not accept it, produced curiosity and interest towards the experiment. Table 2 highlights the summary of opinions and thoughts of those taking part in various debates.

Over 21% of subjects replying to the message declared they would substitute the term Euro with Ducks, and 8.1% of them would like to receive further information on this theme. Nineteen percent of subjects replied, both by the e-mail and in the groups, using vulgar and explicit messages. They

Table 2. Summary of replies to messages

Comments on the Use of the Term "*Ducks*"	Total %
They will use the term "*Ducks*" (8.1% of them asked for further information on the research)	21.5%
They will not use the term "*Ducks*" and expressed their disagreement in an explicit or vulgar manner	19.0%
They will not use the term "*Ducks*", without motivating it	13.5%
They stated the term "*Ducks*" can be easily confused with the term *Loony*, the Canadian dollar nickname	8.1%
They will not use the term "*Ducks*" because the French translation for *duck* is *canard* (the French term for newspapers)	5.4%
They will not use the term "*Ducks*" because it has a negative meaning	5.4%
They will not use the term "*Ducks*" because they stated the importance of establishing a regional European culture, refusing to use a similar name used for the American dollar	5.4%
They will not use the term "*Ducks*" because a European language does not exist and consequently a European nickname cannot be used; a single Country could have its own nickname, actually in Germany *Euro* is already called *Teuer*, that is expensive	2.7%
They will not use the term "*Ducks*" because it is not a worthy nickname for a currency: in cricket language the word "*Ducks*" has a negative meaning because it is similar to zero	2.7%
They will not use the term "*Ducks*" for the reason that it is not linguistically correct	2.7%
They will not use the term "*Ducks*" because it is not an appropriate nickname for a currency: it also means *failure*	2.7%
They will not use the term "*Ducks*" because Euro is a single currency, whereas various kind of *Ducks* exist (black ducks, brown ducks); they indicate the negative meaning related to *failure*	2.7%
They will not use the term "*Ducks*" for the reason that it could be confused with the term "*Bucks*", especially from buyers and sellers of different currencies	2.7%
They stated that in France *Euro* is already called *Balles*, nickname of the old Franc	2.7%
They stated that in one EU state *Euro* is already called *Neuro*	2.7%

were openly unwilling to adopt the term Ducks, considering it a very singular proposal and an ironic and coarse way of communication. This is a remarkable and interesting aspect of the research that can be considered not merely anecdotal. This phenomenon could be due to anonymity, which characterizes impersonal communication, and it would be presumably excluded in other forms of interpersonal contact. Thirteen and a half percent of subjects answering the message absolutely refused the proposal, and 46% of them did not agree, giving specific reasons. In particular, the term "Ducks" was not considered an appropriate substitution for the word Euro, for many reasons: the assonance with the term "Bucks" is not considered a reasonable and legitimate motivation to change a word already used in every language. Furthermore in some comments the similarity with the term "Bucks" was the principal reason for rejecting the word "Ducks", underlining the independence of the European language from the American influence; the term "Ducks" does not derive from a specific historical or cultural context, the same as "Bucks" which is associated with Native American Indians, and Loonies, the nickname of the Canadian dollar, which derives from the Canadian loon impressed on the currency. Some comments were focused on the fact that European countries do not have a common language; therefore it could be very problematical to use a common nickname. It was also significant to know that in some regions different nicknames are used for the term Euro. In Germany it is called Teuer (expensive), in France Balles (balls) (nickname given to the old Franc), and in another European country Neuro. Other remarks also stated that different nicknames, linked to historical or cultural motivation, could emerge in the future in each single region. Further observations were focused on the fact that the term "Ducks" has a negative financial meaning, since it is used to identify a failure or a financial catastrophe. Thus from this point of view, attributing this name to a currency is not of good omen.

GENERAL DISCUSSION AND IMPLICATIONS

With regard to the first objective of the experiment—specifically, investigating whether below-the-Web technologies correspond to a trusting, convenient, and quantifiable method of contacting a significant number of recipients—the directory created by means of the e-mail addresses found on the Internet was appropriate to the communication sending, because the comments received brought new information about the proposal. Below-the-Web technologies thus allowed for the propagation of a message with a small amount of resources—more affordable than those needed for the spread of a message through traditional media—and, at the same time, contributed to enlarging the number of involved users. This exploited the low price or free of charge Internet access, making available communication and interaction of individuals, companies, and institutions situated in geographically dispersed areas.

As to the second objective—evaluating the level of interest aroused from the proposal and, specifically, the way by which attention and interest are expressed—the curiosity produced from the message sent demonstrated the desire to take part in the discussion through advice, suggestions, and opinions on the proposed subject. Even though the message did not require a reply, numerous answers were sent to the e-mail box, and within various forums, Newsgroups, and discussion lists a debate occurred, even though comments were not required. Most of the subjects replying to the message requested additional information, or was available to exchange their knowledge and personal thoughts, opinions, or launch new ideas on the issue, also demonstrating competence and goodwill. According to Ridings et al. (2002), there is a robust association between trust and desire to provide and acquire information. The transmission of the message allows for the activation of a trust-based communication flow, making

possible well-timed responses to specific issues, their evaluations and judgments, in absence of a stable organization.

Marketing implications for both customers and companies are relevant as below-the-Web communities allow:

- Customers to find what they need on products and companies, to choose freely which information they desire, in which period of time, and in how much detail.
- Companies to enhance customers' relations and trust, in various ways. They can generate data by means of: (1) systematic *online* marketing research tools—online customer panels and online customer surveys and questionnaires; and (2) unsystematic *online* marketing research—the evaluation of e-mail correspondence, feedback forms (mainly in the occurrence of complaints), newsgroups, and the evaluation of online consulting sessions (with customers permission). Companies can also make available customized information upon customers' explicit requests (information on demand), providing information on various products/services and stimulating communication—online customer advice, customer tuition in the form of web-based training, tuition and learning forums, Internet discussions, video-conferencing.

With reference to the specific content of the experiment, checking if recipients appreciated the trust-based proposal contained in the message, controversial results emerged. A significant part of subjects replying to the message (21.4%) gave a positive response, declaring to replace the word "Euro" with the term "Ducks." This result demonstrated that recipients trusted the proposal contained in the message; they had confidence both in the quality and in the content of the proposed

message (perceived competence) and revealed a willingness to adhere to it (perceived goodwill). A considerable part of recipients (19.4%) replying to the proposal declared explicitly or in a vulgar manner to be unwilling to adopt the term ducks. This result showed that, in contrast to face-to-face or verbal communication, below-the-Web technologies diminish users' psychological inhibitions in complaining, rendering them more open in voicing objections and criticisms.

These findings imply consumers can use the Internet and below-the-Web communities not solely to seek advices, suggestions, and opinions on product/service and brands, but also to share personal information: communities exist even if companies do not encourage them, do not know them, or even do not have a Web site (Antognazza & Moeder, 2002). Companies have to consider opportunities and threats deriving from this situation, in particular:

- Using information which allows them to develop a more intimate relationship with customers
- Offering products and services tailored to their individual expectancies and desires (Reichheld & Schefter, 2000)
- Preventing the diffusion of negative information and negative online word-of-mouth in the Internet (Urban et al., 1999)

This research confirmed the importance of below-the-Web technologies in intensifying and enlarging trusting relations between companies propagating messages through below-the-Web communities and their potential customers. The substitution of a word used in the common language was neither straightforward nor immediate; nevertheless, the analysis completed proved the existence of concrete basis for future positive evidence.

FUTURE TRENDS AND CONCLUSIONS

The present experiment on the transmission of a trust-based marketing message by means of below-the-Web communities represents a relevant but initial step toward the investigation of building trust developing computer-mediated relationships. There are numerous unexplored areas of study and prolific opportunities regarding the creation and increase of online trust. New information technologies will intensify and facilitate, in an exponential way, the use of below-the-Web technologies, allowing a considerable number of individuals and companies worldwide to use devices and services not yet designed. Thanks to multiple technologies—such as broadband, wireless fidelity, and mobile applications—billions of people will have high-speed wireless Internet access in the future and will obtain new contents and services. In particular:

- Broadband service will provide high-speed data transmissions, allowing access to numerous high quality Internet services, resources, and products, thus stimulating interactivity and membership between companies, individual consumers, businesses, and institutions. Broadband can surmount geographical and financial barriers providing access to a broad variety of educational, cultural, and recreational opportunities and resources (i.e., video, music); it can encourage companies' growth by the means of e-commerce, creating new jobs and providing access both to local and global markets. Furthermore, it will make available new telecommunications technologies, such as the voice over Internet protocol (VoIP), which allows voice and video communication using the Internet.
- Wireless fidelity (Wi-fi), a high-speed wireless technology, will connect homes and businesses—for example, cafes, hotels, airports—using a radio link through the Internet between the customer's location and the service provider's facility.
- Mobile applications, such as Next Generation 3G cellular services, provide a long-range wireless coverage for data access across wide geographic areas, assuring the maximum mobility for voice communications and Internet connectivity.

High-speed wireless technologies will work together allowing individuals and companies for mobile computing and communications worldwide, offering original and stimulating opportunities for end users, application developers, content providers, and network operators. These technologies will support the development of trust-based virtual communities. Billions of people all over the world will be encouraged to stay connected virtually anytime and anywhere (variety of communicators) and to connect wirelessly using devices and services not yet designed (minimum level of interactivity and membership), combining and matching wireless technologies and mobile platforms (virtual-common public space).

From a theoretical point of view, trust is a multidimensional construct. Future steps for a comprehensive and detailed examination should consider the process of building trust, and, in particular, the identification of elements influencing its antecedents—perceived goodwill and perceived competence. Potential factors may be the trustee's reputation, which can be defined as an expectation of individual's actions on the basis of its past behavior (Abdul-Rahaman & Hailes, 2000), and the trustor's propensity to trust. Furthermore, antecedents and consequences of trust may be different in various types of communities. Trust building elements and their effects may differ in communities of transaction, in which individuals buy, sell, or find information about products and services, in communities of fantasy, in which member explore new identities,

in communities of interest, in which individuals share common interests, and in communities of relationships, in which members develop social relations (Hagel & Armstrong, 1997). Within the same kind of community, trust can be different depending on the type of information that members get or desire to give. The area of cross-cultural and international differences in trust perceptions can also be examined, principally race, ethnicity, and culture. Antecedents of online trust may change in distinct cultural environments or may have diverse influences in high than in low context culture.

In conclusion, this experiment demonstrated that a marketing message can earn consumer trust; consequently, the Internet, and particularly below-the-Web communities, could become a new channel for trusting relationships. With reference to the first objective of the experiment, below-the-Web technologies can be considered a trusted and suitable tool for communicating and interacting with individuals, institutions, and companies all over the world. Below-the-Web communities have a high capacity of directing and targeting: trust-based messages—characterized by perceived competence and perceived goodwill—can reach particular market segments defined on the basis of the sociocultural variable and life style, of particular interests and specific competences. Considering the second objective of the research, below-the-Web communities are more effective than simple Web sites for coalescing interests and people on the Internet. Trust-based communications motivate members to participate in communities, sharing a large mass of information and allowing for the integration between content (including information from companies and consumers) and communication. Interaction makes a comparison on shared interests from a common perspective possible. Participants search and provide content, thus generating a collective competence. With regard to the third objective

of the experiment, results show that trust-based below-the-Web communities could be appreciated by participants, and they have an influence—positive or negative—on community members. Consequently, companies and institutions have to consider their potential impact, even if they do not directly insert specific information on the corporation itself, other Web sites and below-the-Web communities could contain information on their products and activities.

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APPENDIX

Marketing Message

In your electronic mail and communications, we invite you to refer to Euros (the new European currency) as "ducks". Please, call them familiarly "ducks", as you would refer to U.S. dollars as "bucks." "Ducks and bucks" could be an easy and memorable pair to be used within financial, academic, and social communities. This is a linguistic experiment carried out by a research group at the Chair of Marketing at the University of Lecce, Italy. We are measuring the spread of a new term in the Internet community. This message has no commercial aim and will be sent to you only once. We thank you in advance for promoting in your communications the use of this new word. We shall periodically check the use of this term in search engines.

Cordially,

The Marketing Research Group at the University of Lecce, Italy
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