Netnography: Evolution, Trends, and Implications as a Fuzzy Front End Tool

Team 4:

Benjamas Siriwannangkul Jeremy Provenzola Emy Loanzon Manar Al mallak

ABSTRACT: Since its inception in 1995, the practice of Netnography has undergone notable shifts from its most fundamental premises and assumptions to its procedures and applications. Through a study and evaluation of a timeline of relevant literature, this paper explores the elements that have evolved since 1995, what has caused such shifts to take place, and what the future of Netnography may look like and its implications for the product development process as a Fuzzy Front End tool. The analysis revealed that Netnography is effectively applied during Phases 1 and 2 of the Fuzzy Front End. Although Netnography may prove valuable in the opportunity identification phase, particularly given the relative ease with which it can be used to identify lead users, it is not a sufficient tool to replace conventional FFE tools. Its evolution is found to be directly related to the respective evolution of computer-mediated communications and the online infrastructure. Since 1995, Netnography has expanded to include more automated and passive applications and will continue to evolve as a tool as long as the online consumer environment and respective behaviors continue to change.

ETM 543: FRONT END MANAGEMENT OF NPD FALL 2011: DR. JETTER DECEMBER 8, 2011



TABLE OF CONTENTS					
١.	Introduction				
١١.	Research Methodology				
III.	II. Conceptual Framework of Netnography				
IV.	IV. Survey of Literature				
۷.	. Analysis and Discussion				
	A. Netnography as a Tool in the Fuzzy Front End (FFE)		12		
		1. Netnography's Role in Idea Generation and Concept Development	12		
		2. Netnography Compared with Conventional FFE Methodologies	14		
		3. Shortcomings of Netnography as an FFE tool	18		
	B. Evolution of Netnography		19		
		4. The Impact of Evolving CMCs and ICTs on Netnography	19		
		5. Trends (Past to Present)	21		
		6. Anticipated Future Trends	25		

VI. Conclusion

LIST OF FIGURES

Figure 1: Fuzzy Front End Stages	13
Figure 2: Past to Present Trends – Conceptual Framework	22
Figure 3: Past to Present Trends – Research Methods & Tools	23
Figure 4: Past to Present Trends – Ethical & Privacy Standards	25
Figure 5: Past to Present Trends – Application Tools	25
Figure 6: Anticipated Future Trends – Methodology	26
Figure 7: Anticipated Future Trends – Data Collection	27
Figure 8: Anticipated Future Trends – Strategies	28
Figure 9: Anticipated Future Trends – Areas of Study	28
Figure 10: Citations of Netnography by Geographical Area	28
Figure 11: Distribution of Internet Users by World Regions in 2011	29
Figure 12: Anticipated Future Trends – Regional Development	30
Figure 13: The Evolution of Netnograhy	32

29

INTRODUCTION

Netnography is a particular method of observational ethnography used for researching consumer behavior online, the significance of which has naturally increased significantly over the previous decade (Kozinets, 1998; Kozinets, 2010). Facebook currently boasts of over 800 million active users (Facebook, 2011). Consider this compared to the population of the largest city in the world, Tokyo, Japan, at 32 million people and the population of the US around 320 million people (World Atlas, 2010; US Census, 2011). Imagine if a new product development team could consolidate every resident of the Tokyo metro region for the purpose of gaining insight into their consumer behaviors or perceptions. Furthermore, imagine if the same team could quickly index and organize such a population by various metrics and demographics. This example is obviously far-fetched and impractical; however, consider that there is the equivalent of 25 Tokyo metro populations on Facebook alone. This number of 800 million is indicative of an increasingly digital global culture in which individuals find themselves voluntarily posting information to the World Wide Web every day. Every individual online entity represents a potential source of valuable data and information for those inquisitive enough and properly equipped to obtain it (Kozinets, 1998). To a new product development team eager to develop a successful new product by gathering and evaluating candid consumer behavior will certainly be intrigued by the potential implications of Netnography.

BRIEF HISTORY

In order to best understand the practice of Netnography, one must understand its background and origins. In 1998, Robert V. Kozinets defined Netnography as "a new qualitative method devised specifically to investigate the consumer behavior of cultures and communities present on the Internet" (Kozinets, 1998). Kozinets at the time went on to explain that the premise and methods of Netnography are at their most basic levels derived from traditional techniques applied in cultural anthropology (Kozinets, 1998). Specifically, the use of interpretive anthropology, or ethnography, has been a useful tool for the study of people groups for over a hundred years and is generally identified by its use of participant observation (Ellen, 1984). As communities have transformed and adapted to their changing environments over time, so have the tools used to study and gather empirical data on communities, societies, and cultures (Ellen, 1984). Specifically, the advent of the World Wide Web as a mainstream consumer activity, the impact of which has been likened to the interstate highway system, has demanded an evolutionary reflection in the tools used to study such people groups; hence, the introduction of Netnography (Jones, 1995). The Internet has had an increasing impact on the social behaviors and interactions of humans, and will likely continue to do so (Kozinets, 1998). In response to this phenomenon, Kozinets coined the term "Netnography" as an ethnographic tool to be applied to cyber cultures interacting across computer-based media (CMC) (Kozinets, 1998). Although the basis of Netnography is heavily rooted in cultural anthropology, the practice has been applied nearly exclusively as a marketing research tool, as suggested by Kozinets' use of the "consumer behavior" reference in his definition (1998). This is an important distinction from traditional ethnography in that while both gather empirical data; the practice of Netnography at its origin had the specific aim to contribute to consumer market research (Kozinets, 1998). This distinction will prove critical as it has likely played a substantial role in the evolution of Netnography from its inception in 1995.

GOALS OF THE RESEARCH

The objective of this report is to identify, understand, and discuss the evolution of Netnography and its application as a Fuzzy Front-End tool. A cursory review of the relevant literature suggests that Netnography, in many regards, is practiced and applied substantially differently now in 2011 than it was when first formally identified in 1995. In order to achieve this analysis, the report will specifically address the following topics.

First, an analysis of Netnography and its place in the Fuzzy Front End (FFE) will be discussed. Netnography is generally regarded as a useful method to understand consumer behaviors and perceptions; however, its application in the FFE does not appear to be widespread. This analysis will identify what role Netnography could effectively play in the fuzzy front-end. This discussion will also identify the elements that set Netnography apart from conventional FFE methodologies including its advantages and disadvantages. The internet presents a historically unique environment for social and cultural interactions. This unprecedented context is reflected in Netnography as an innovative tool for understanding such dynamics.

Secondly, this report will demonstrate the effect that the evolving medium has had on the tool. A review of the evolution of Computer-Mediated Communications (CMCs) and Information Communication Technologies (ICTs) will explore how the changing infrastructure has directed some of the evolution of Netnography.

Next, an evolutionary timeline of Netnography will be constructed using various papers, reports, case studies, and current applications over the course of time. In order to fully understand the developing intricacies of Netnography over time, the taxonomy table and its respective timeline will consider the evolving trends of Netnography with respect to the following four factors:

- 1. Conceptual development and premise of Netnography
- 2. The research methodologies and tools used in the practice of Netnography
- 3. Ethical and privacy standards and how theory has compared to application
- 4. The application of Netnography, particularly across multi-disciplinary fields

Finally, informed speculation on the future directions and advancements in the field of Netnography will be presented. As opposed to a simple snapshot of Netnography, an evolutionary review of the theory and practice of Netnography will allow an opportunity to, in a sense, accurately extrapolate and assess the future of Netnography.

SIGNIFICANCE OF THE STUDY

This study will assist new product development managers in anticipating what may be a critical tool in future FFE applications. In turn, this information may be used in order to best understand the culture and needs of their customers in the virtual environment. Additionally, a glimpse of the future of Netnography should allow technology managers to prepare for the inevitable evolution of Netnography that has yet to take place allowing future managers to be best positioned to apply relevant and effective Netnographic practices as the medium and discipline continue to evolve. Furthermore, there is significance to the study as a contribution to the growing research on Netnography, both as an FFE research method and a consumer education tool. Although there is a great deal of literature on the use and applications of Netnography, there has not yet been a thorough, "big-picture" review of the practice. This review is certain to provide insight into Netnography as a disciplined approach to exploring online communities.

SCOPE AND LIMITATIONS OF THE STUDY

The scope of this paper is limited to the period of 1995 to the present. Although the internet and other computermediated communications have been around longer, 1995 is when the term "Netnography" was first coined. This is indicative of a time that online interactions were rapidly increasing in usage and the particular methods used to gather information of such interactions were first being understood to require a unique set of practices, procedures, and guidelines.

The research for this paper is limited in part by the proprietary nature of many of the analytical tools currently being implemented by practitioners. The tools are being used in highly competitive markets such as search

engines, social networks, and online marketplaces. For this reason, this paper will not focus much attention on particular methods of analysis; but rather, the material will focus on procedural and conceptual trends.

II. RESEARCH METHODOLOGY

The current study selected technology and marketing research studies with the key words: "Netnography" and "Online ethnography" through scientific databases such as Compendex and Business Source Premier, academic literature, company information (such as Netbase, Hyve), whitepapers, journals, articles and case studies. Reviewing related databases of academic and business journals enabled the current investigation on Netnography to address the following questions:

- How is Netnography defined? How is it different from related concepts?
- Are their core methods and tools that all online ethnography approaches share?
- Who uses online ethnography to learn about customer needs? What are the results? How are results relevant and useful for product development?
- Are there accepted standards or best practices for online ethnography?
- Have the methods and reach of online ethnography changed through Twitter and Facebook versus older online media, such as discussion forums and review sites? (Jetter, 2011)

The questions above are addressed throughout the context of the paper. The literature review includes several case studies which illustrate the applications of Netnography from 1995 to present. All case studies addressed in the paper are representative of trends in Netnography at certain periods of its early development to the present. The case studies demonstrate its prevailing concepts, research methodologies and tools, ethical and privacy standards, and applications in various disciplines, at a particular phase in its development. These studies will be used to propose future direction and advancements of Netnography in later sections.

In the survey of literature, a taxonomy table is presented as a useful method to organize all the ideas and connect the literature together with the same set of criteria. The taxonomy table helps illustrate the evolution of Netnography since 1995 when the term "Netnography" was first defined.

III. CONCEPTUAL FRAMEWORK OF NETNOGRAPHY

DEFINITION

Netnography is defined in terms of a product and a process. As a product, Netnography is "a written account of online cyber-culture, informed by the methods of cultural anthropology" (Kozinets, 1997). However, most citations related to Netnography rarely used it as a product. Most researchers have known it as a process. As a process, Netnography is a qualitative method devised specifically to investigate the consumer behavior of cultures and communities present on the Internet (Kozinets, 1998). Put simply, Netnography is a method to analyze the interactions and behaviors of online communities (Lee-Kim, 2007). Netnography as a process is the subject of this report.

Netnography is a combination of Internetwork and ethnography (Kozinets, 2011). Kozinets states that Netnography is a "new qualitative research methodology that adapts ethnographic research techniques to study the cultures and communities that are emerging through computer-mediated communications" (Kozinets, 2002). Thus, we can say that Netnography is ethnography in an internet or technologically networking form. Kozinets applied anthropology and methods of ethnography together in order to address a wide range of questions about markets and consumers. Netnography is an excellent resource for the seasoned qualitative researcher and a useful entry point for the newcomer to qualitative research (Bowler, 2010). Kozinets proposed several characteristics of Netnography which are applied from foundations of Ethnography as follows:

- 1) Naturalistic: Netnography follows social expression to its online appearances.
- 2) Immersive: Netnography draws the researcher into an engaged, deeper understanding.
- Descriptive: Netnography seeks to convey the rich reality of contemporary consumers' lives, with all of their hidden cultural meanings as well as their colorful graphics, drawings, symbols, sounds, photos, and videos.
- 4) Multi-method: Netnography combines well with other methods, both online and off, such as interviews and videography. Like all methods, Netnography often works even better when triangulated with other sources of insight. For example, complement Netnography with targeted surveys to validate the replicability of findings.
- 5) Adaptable: Netnography moves effortlessly from newsgroups to blogs, wikis, virtual worlds, social networking sites, podcasting and mobile online/offline communities, and whatever else the future has in store. (Kozinets, 2010)

ASSUMPTIONS

Netnography is a method based on the assumptions to 1) preserve stories of social media; 2) maintain naturalistic of voice of consumers; 3) portray rich cultural and communal contexts; 4) reveals deep meaning and identity (Kozinets, 2011). Its method has been used mostly for internet-based marketing research. Kozinets proposed that Netnography will be a useful method for three general types of studies, in three types of ways: 1) as a methodology to study "pure" cyber cultures and virtual communities; 2) as a methodological tool to study "derived" cyber cultures and virtual communities; and 3) as an exploratory tool to study general topics (Kozinets, 1998). Netnography helps researchers to listen in on web conversations in order to learn about what actually drives consumers and understand the inner nature of consumer behavior (Bartl, 2009). Netnography is assumed to produce more valuable data for any studies based on internet than traditional methods such as face-to-face and telephone interviews. Kozinets further states "In an information-drenched society, Netnography offers an extremely easy way to gather data" and because "the methodology continues to develop; it is possible that the Netnographic technique may evolve to become a useful tool of twenty-first century consumer research" (Kozinets, 1998).

Netnography has been used in the fields of marketing and consumer behavior to examine a number of topics and consumer groups, including:

- Analysis of the coffee community (Kozinets, 2002)
- Cross-cultural ambivalence in wedding planning (Michelle R. Nelson, 2005)
- Analysis of cross consumer online-communication about cosmetic surgery (Langer and Beckman, 2005)
- Brand management of iPod Nano (Close, 2009)
- Brand study of Johnson and Johnson's Listerine brand (Kozinets, 2010)
- eWOM motivations in virtual pet communities (Pursiainen, 2010)
- The fun culture in seniors' online communities (Nimrod, 2010)
- Utilizing Online Communities as source of Innovation in the Cosmetics Industry (Bartl, 2009)
- Study to uncover the underlying dimensions of customer experience with resort brands (Ismail, 2009).

As presented in a webinar by Dr. Kozinets (2011), Netnography has been used in variety of organizations both high and low ends, such as American express, Campbell's, MERCK, eBay, Adidas, BMW, etc. Netnography is also very useful method for new product development process especially in the first two phases of the FFE stage, which will be discussed in greater detail.

BASIC METHODOLOGY

The main objective of Netnography is to study consumers' interaction in the online social world (Kozinets, 2011). Netnography's methodology requires an immersive combination of cultural participation and observation, resulting in the researcher becoming "for a time and in an unpredictable way, an active part of the face-to-face relationships in that community" (Maanen, 1988). The methodology proposed is based on the goals to 1) survey people and ask them about their behavior 2) track and trace online behaviors and click streams 3) set up online focus groups, panels, and artificial communities 4) code, catalog and categorize data. All these ideas nurture the six formal steps of Netnography as follows:

- <u>Research planning</u> step includes the importance two areas: First, the researcher needs to understand when and how to combine ethnography with Netnography. To clarify, ethnography uses data gathered through in-person or face-to-face cultural interactions, while Netnography uses data gathered through online interactions. Second, the researcher needs to understand the differences of the online social environment, in order to appropriately and consistently guide the adaptation of ethnographic techniques (Kozinets, 2010). To simplify, researcher need to answer the basic questions such as "How do I find the appropriate online forum? (Lee-Kim, 2007)"
- 2. <u>Making cultural Entrée</u> step includes formulation of research questions and identification of appropriate online community for a study (Kozinets, 2010). Dr. Kozinets suggests activities to construct and focus research questions appropriate for Netnography and offers guidelines for writing broad research questions to guide qualitative inquires as follows: 1) ask one or two central questions followed by no more than seven related sub-questions 2) relate the central question to the specific qualitative strategy of inquiry 3) begin the research questions with the words "what" or "how" to convey an open-ended and emergent research design 4) focus on a single phenomenon or concept 5) use exploratory verbs such as "discover", "understand", "explore", "describe", or "report" 6) use open-ended questions, and 7) specify the participants and the research site for study. To simplify, researchers need to answer the basic questions such as "How do I choose my guiding questions? (Lee-Kim, 2007)"
- 3. <u>Data collection</u> in Netnography typically is in textual form, which consisting of downloaded files of newsgroup postings, transcripts of MUD or IRC sessions, and email exchanges. There may also be some picture files (photographs and artwork) and sound files (Kozinets, 1998). Netnography is participant-observation research, and the data can take three forms: 1) data the researcher directly collects; 2) data generated through the capture and recording of online community events and interactions; and 3) data the researcher sketches as field notes (Kozinets, 2002). Dr. Kozinets proposed two types of data collection: 1) researcher directly copy and paste or download the written communication among participants from the computer-mediated communications of online community; 2) researcher describes, reflects upon, and analyzes what he or she observing during the research process interpretation. To simplify, researchers need to answer the basic questions such as "What kinds of data do I collect? (Lee-Kim, 2007)"
- 4. <u>Analysis and interpretation</u> step includes classification, coding analysis and contextualization of communicative acts (Kozinets, 2010). Dr. Kozinets introduces grounded theory and inductive coding procedures for this step (Kozinets, 2010). He also presents principles of analyzing qualitative data as follows: 1) Proceed systematically and rigorously (minimize human error); 2) Record process, memos, journals, etc.; 3) Focus on responding to research questions; 4) Appropriate level of interpretation appropriate for situation; 5) Time (process of inquiry and analysis are often simultaneous); 6) Seek to explain or enlighten; 7) Evolutionary/emerging.

- 5. <u>Ensuring ethical standards</u> To ensure ethical standards, researchers should: 1) fully disclose his or her presence, affiliations, and intentions to online community members during any research; 2) ensure confidentiality and anonymity of informants; 3) seek and incorporate feedback from members of the online community being researched; 4) take a cautious position on the issue of whether the online environment is a private or public medium; 5) contact community members and obtain their permission (informed consent) to use any specific postings that are to be directly quoted in the research; 6) employ member checking by presenting some or all of the final research report's findings to the people who have been studied in order to solicit their comments.
- 6. <u>Research representation or Member checks</u> Langer and Beckman (2005) suggest including presentations of some or all of the final research report's findings to the people who have been studied in order to solicit their comments. Dr. Kozinets (2002) also stated that member checks are particularly useful in Netnographic research because they allow researchers to gain new knowledge that can deepen understandings otherwise based solely on observational online data. Because member checks are typically conducted after data collection and analysis has ended, member checks also help researchers address some of the ethical issues encountered in Netnographic methods, "while still preserving the value of unobtrusive observation." To simplify, researchers need to answer the basic questions such as "Am I ready to wrap up? (Lee-Kim, 2007)"

TOOLS

For research planning step in the methodology, Kozinets used search engines such as Yahoo and Alta Vista, then followed relevant home pages and their links, frequently visiting relevant UseNets, lurking and wandering, reading, downloading, writing reflective ethnographic field notes, and investigating the entire phenomenon while attempting to gain a cultural insider's perspective (Kozinets, 1998). Over 10 years, search engines are still useful tools for finding the appropriate site to collect data. Some also can categorize and analyze data in general. He also suggested that search engines, such as Technorati, Twitter Search, and Google, including Google Groups, Google Trends, and Google Social Search, can be used to conduct data for Netnographic processes (Kozinets, 2010). Google social search is useful tool to conduct data such as websites, blogs, and other content, including images that's shared by or created by researcher's connection, relevant articles from researcher's Google Reader subscriptions, profiles of social sites like Twitter and Flickr, web content that has been recommended or shared by others using the +1 button (Google Social Search, 2011). Researchers can gain benefits with Google Trends, 2011). Google analytics is also a useful tool to analyze data in promising to give researcher rich insights into website traffic and marketing effectiveness. It also monitors data, then report significant changes to researcher (Google Analytics, 2011).

Social Networks are a great way to get information and see what's going on in a particular online community. Social networking sites are also the great resources for the Entrée step and data collecting step. Marketers perceived that contents on social networking sites can be fruitful in the business world. Public opinions and recommendations on social networking sites, such as Facebook, Twitter, or Google+, can shape business strategies as well as social trends. A Netnographer can monitor and conduct data through useful features of social networking sites such as the Share and "Like" buttons on Facebook; "Retweet" and Trend keywords on Twitter; and "+1" and "Share" buttons on Google+. These features amplify word-of-mouth marketing. What people are chatting, posting, sharing, liking, retweeting affect consumers' decisions and marketing directions. As presented in Red Bridge Marketing (Red Bridge Marketing, 2008), marketers and researchers may gain benefits over social networks as follows: 1) Increase product and brand awareness. Sharing feature on these sites work as electronic word of mouth which help company widen its opportunities to let people know its brand; 2) Increase web traffic. Link sharing that people pass wall-by-wall enable more people to enter product sites; 3) Improve Search Engine Optimization. Red Bridge Marketing stated that "The more links to your content, the higher your ranking in search engine results"; and 4) Increase customer loyalty. Consumer can promote product and service by using 'Like' and '+1' feature to show their loyalty toward the brand. Moreover, they can also join page of that particular product or services; 5) Increase success of new product launches. Consumer can give their feedback, feeling and recommendation toward brand and service which can spark new ideas for innovation process as well as useful to improve products and services (Red Bridge Marketing, 2008) .

Nowadays people around the world are more willing to share their thinking and feeling on social networking site as well as their file on file sharing sites such as YouTube, Mediafire, 4shared, Filetube. Even though most file sharing on Mediafire, 4shared and Filetube sites are usually regarded as illegal files, the number of views and downloading illustrate its popular. For example, the most popular song in that particular time will usually be a popular keyword searched though a search engine as well as a frequently viewed video on YouTube and also a popular downloaded file on 4shared. Recently, YouTube has become a popular site to review products, especially Apple products. Before people decide to buy products, they search information about it through search engine sites such as Google or Yahoo, and then compare the product to others through reviews on YouTube. Thus, number of views and voting affect consumer's decision as well as comments below that video. Researcher and Netnographer can conduct feedbacks and customers opinion through comments below video posted. These data usually are useful for Netnography in brand management.

Instead of collecting data from discussion boards, Netnographers can gather content, include status, comments, photos, and videos from social networking sites. To illustrate the idea of gathering data from social network, Intel has launched a new Facebook application called "the Museum of Me." Museum of Me is an application that compiles all contents from user's Facebook profile and illustrates all of them as a visual of user's social life (Murphy, 2011). Even though Intel did not intend to imitate the concept of Netnography, the application followed similar methods with Netnography.

The challenges of analyzing social networking contents are extracting the real needs and gaining insight the freedom of thought of users via contents posted or shared on their profile. Henning discussed that , the main challenge of Netnography lies in the adoption and adaptation of gathered data (Henning, 2011) . Netnographers need to have skills to interpret consumer thought as well as deeply understand consumers' language. To succeed in this process, companies should give staff the freedom to bring in their own ideas. Second, researchers need to include stakeholders throughout the process to reduce their likelihood of rejecting external ideas. Third, the research team needs to invite people in the online community to participate in workshops to exchange their ideas as well as engage staff. Because contents are online, easily accessed, and global, social networking sites are one of good resources for conducting data in Netnographic process. However, ethics and copyright infringement may become issues in the future (Henning, 2011).

Data analysis and research software are helpful tools for analysis and interpretation step of Netnography methodology. Kozinets mentioned that interpretation process can be help by computer assisted qualitative data analysis software such as NVivo and ATLAS (Kozinets, 2002). NVivo is one of qualitative research software that can be used with the Netnography method. The software proposes to help users to work with unstructured information like documents, surveys, audio, video and pictures and present them in spreadsheets and database table, which are further useful in analysis process (NVivo, 2011). ATLAS.ti is qualitative research software, which tightly integrated suite of tools that support analysis of written texts, audio, video, and graphic data. The integration of its tools is designed to perfectly support the work flow of the qualitative researcher. It promises to

manage, extract, compare, explore, and reassemble meaningful segments of large amounts of data in flexible and creative, yet systematic ways (ATLAS.ti, 2011).

A recent survey conducted by American Express OPEN Small Business Search survey of small businesses reports that among small businesses who conduct some form of online marketing, two-thirds (66%) say that new customers find them through search engines/Internet, compared to 82% who say word of mouth is still the main source where new customers find them (American Express OPEN Small Business Search Marketing Survey, 2011). Since the Internet is an efficient way to access consumers, it opens opportunities for several kinds of studies for researchers, especially for Netnographers. The developments in Computer-Mediated Communications (CMCs) and Information and Communication Technologies (ICTs) have tremendous impact on Netnography. Technological developments are good indicators in predicting areas of growth in Netnography. Both topics will be discussed in detail later in 'Netnography's evolution' section.

KEY PLAYERS

Three major groups involved in the Netnographic process are researchers, community members, and managers of companies.

Most researchers in Netnographic process are purely observational, in which the researcher is a specialized type of lurker (Kozinets, 2010). However, other researchers have emphasized a more participative approach, in which the researcher fully participates as a member of the online community. Netnography maintains the values of traditional ethnography through providing a "Geertzian" sense of "thick description" through the "immersion" of the researcher in the life of the online culture or community (Kozinets, 2010). Netnography requires the researcher to investigate the range of pertinent cultural activity occurring in online social spaces (Kozinets, 2010).

Consumer groups or members in online communities can be categorized into four major categories: 1) Tourists, members who lack strong ties to the group, and maintain a superficial or passing interest in the consumption activity (Kozinets, 1999). Tourists are in the forum to get information (Lee-Kim, 2007); 2) Minglers, members who maintain strong social ties, but are only perfunctorily interested in the central consumption activity (Kozinets, 1999). To simplify, minglers are socially active but only somewhat interested in the forum's information (Lee-Kim, 2007); 3) Devotees, members who maintain a strong interest in the consumption activity, but have few social attachments to the group (Kozinets, 1999). Devotees are loyal to consumption, but not too committed to the community. They can be involved in several groups on the same topic (Lee-Kim, 2007); 4) Insider, members who have strong social ties to the group and maintain a strong interest in the community. They have the most influence and can affect the consumption loyalty of other members (Lee-Kim, 2007). Kozinets highlights that devotees and insiders are the most enthusiastic, actively involved and sophisticated users. These kinds of people can provide very useful data (Kozinets, 2002).

Another group of people that also relevant to Netnographic process are managers of organizations. Managers will use information generated from the last step of Netnographic process to make any decision such as brand repositioning, extension production line, campaign development, etc. Netnography also enlightens managers on matters as follows:

- Advertising reception, alteration and interpretation
- Brand community opportunities and negotiations
- Brand perception, Brand positioning and repositioning opportunities

- Choice making, Community management, Competitive analysis, Innovation in new products and services,
- New service models for co-creation of value, Product and category usage, Segmentation forms and patterns
- Social media audits, usage, and opportunities
- Trend identification, Web-page and interface design (Kozinets, 2010)

IV. SURVEY OF LITERATURE

The unprecedented growth of online communities brought by the Internet and computer mediated communications became rich and vital grounds for consumer and market research studies. Prior to 1995, such online consumer studies were referred to as online ethnography, virtual ethnography or web ethnography (Kozinets, 2010). It was not until 1995, that Dr. Robert V. Kozinets, a professor of Marketing at the Kellogg Graduate School of Management, Northwestern University, Florida, created the term "Netnography", that this particular method of studying consumer sentiments online was given a widely accepted designation. Kozinets defined Netnography as "a new qualitative method devised specifically to investigate the consumer behavior of cultures and communities present on the Internet" (Kozinets, 1998). There have been differing schools of thought as to whether online marketing research is just a form of social ethnography. In his definitive book about Netnography in 2010, Kozinets argues that there are significant differences between conventional social ethnography and Netnography. These differences are so distinctive that Netnography itself merits its own definition and key terms, and a set of research guidelines (Kozinets, 2010).

Kozinets cites three main reasons that Netnography differs from conventional social ethnography. First, accessing online communities is different from face to face interactions "in terms of accessibility, approach, and the span of potential inclusion" (Kozinets, 2010). Second, gathering cultural data and applying analytical method on data that is in digital form is radically different from conventional ethnography. The final argument that Kozinets cites is that the ethical procedures that prevails in conventional field work do not easily apply to research on online communities.

Since Kozinets' introduction of Netnography's research paradigm and guidelines, several studies have been conducted applying these guidelines in multi-disciplinary fields, evaluating and modifying these guidelines, and in several cases, offering improvements in the basic principles and guidelines of Netnography. Samplings of these studies are presented in Table 1, "Developments in Netnography, 1995 -2011". These studies reflect the developments in Netnography's conceptual framework, methodologies, views and standards on privacy and ethics, and growing applications in multi-disciplinary fields. The discussions in this literature review will highlight the trends and contributions of the representative research studies included in the table. The table's columns indicate the timeline in Netnography's development, and the predominant themes of related studies in different time periods. The rows on the left side of the table indicate the four criteria that were used to evaluate the related research studies. These include conceptual framework, research methods and tools, ethical and privacy standards, and applications in multi-disciplinary fields.

Trends and	1995 - 1999 - Origins of	2000 -2005 - CMC technologies	2006- 2010 -	2011 and future
Themes in	Netnography	and Netnography	Netnography's	directions of
different Periods			expanding influence	Netnography
→			as a research	
			method	
Representative Studies →	1995 (Robert V. Kozinets); 1998 (Robert V. Kozinets)	2002 (Robert V. Kozinets) 2005 (Michelle R. Nelson) 2005 (Suzanne C Beckman & Roy Langer)	2009 (Braunsberger, Buckler); 2009 (Angeline Close);2010 (Belz and Baumbach);2010 (Robert V. Kozinets);2010 (Luis Torres); 2010 (Pursiainen, E);2010 (Robert V. Kozinets)	2011 (Bengry-Howell, A. et al); 2011 (Nimrod, G.) ; 2011(Alavi, Ahuja, Medury)
Conceptual framework	Kozinets developed a new method for Internet-based marketing research: Netnography. It is a ground-breaking qualitative research aimed at investigating communities in the Internet.	Emerging CMCs are influencing Netnography's assumptions about "netnographers" and their research subjects. Netnography is increasingly applied in diverse online social and cultural groups, not just on product-oriented online communities.	Netnography is the optimal method to study online communities and cultures that are always changing. Traditional research methods are costly and do not provide a holistic view of customers.	Netnography's qualitative analysis of online communities impacts other conventional research methods in diverse fields. Conventional research methods help validate Netnography's research approach.
Research methods and tools	The original Netnography steps include: 1. Research planning 2. Entrée 3. Data collection 4. Interpretation 5. Ensuring ethical standards 6. Research representation	Followed Netnography's basic steps, with some studies applying more content analyses.	Netnography is increasingly combined with statistical analyses, and data set analysis using software such as Atlasti version 5.2	Most studies follow Kozinets' original Netnography steps, but other researchers such as Bartl, Huck and Ruppert, develop their own Five-step Netnography procedure, that combines content analysis and statistical regression. Other studies use only the Entrée, Data collection and Analysis and interpretation steps from Kozinets' original methods.
Ethical and Privacy standard	Ethical concems were addressed specifying how informed consent was obtained	Implied respondent consent. Online data is viewed as publicly accessible, unless explicit measures are in place (i.e. group member requirements)	Implied Consent; Researchers as observers and active participants in online communities.	Implied consent
Applications in multi-disciplinary fields	Investigates the consumer behavior of cultures and communities present on the Internet	Consumer research, consumer education, and more social and cultural online communities	Consumer research, online political activism, sustainability groups, university research, among others	citations of netnography have mostly occurred within the disciplinary fields of marketing (47%), management (17%) and business (12%).

Table 1: Developments in Netnography, 1995 -2011

Kozinets' research on Netnography in 1995 reflects initial milestones in its development. Netnography was initially defined as an alternative method for market research in the internet with five major guidelines (Kozinets, 1995). His later studies in 1998 and 2002 considered emerging internet technologies and their impact on Netnography, specifically in the areas of ethics and privacy. Kozinets' latest contribution to Netnography's development as a viable internet research method is his book published in 2010. In "Netnography: Doing Research Online", Kozinets presents a more rigorous set of Netnography procedures, culminating with his views on future directions for Netnography as internet technologies evolve.

Langer and Beckman's 2005 research on Netnography support the major arguments presented by Kozinets. In their study, Langer and Beckman applied Netnography and content analysis on consumers' online communication about cosmetic surgery. While validating key procedures in Kozinets' Netnography guidelines, the researchers differed with Kozinets on applying ethical standards and reliability of online communication. Langer and Beckman argue that most online communities are public communication, and unless otherwise specified, researchers need not disclose their research goals to these communities. Disclosing research goals to these open access online communities may even hinder data gathering in these environments. In contrast, Kozinets recommends that Netnographers should disclose their research goals when investigating consumers' online communication, regardless if these communities are open for public access or restricted. Langer and Beckman's study also raised questions on the trustworthiness of content from online communities. Kozinets claims that "insiders" in online communities provide honest information about their discussions. However, Langer and Beckman argue that

respondents can easily hide behind their online identities, to protect their actual identities. This interaction does not necessarily guarantee that "insiders" in online communities are reliable sources of data.

As internet technologies evolve, so do online communities – and the variety of topics and issues – that they discuss. Netnography was still predominantly applied in the context of consumer market research, typified in research studies conducted to identify customers (Close, 2009) and lead users (Belz and Baumbach, 2010), promote brand recognition (Kozinets, 2010), exploring consumer motivations (Pursianen, 2010), and strengthening customer relations (Alavi, Ahuja, Medury, 2011). Although Netnography is predominantly used for consumer and market research, it became an increasingly predominant research method for online discussions in a wide variety of topics ranging from weddings (Nelson, 2005), consumer education (Sandlin, 2007), and consumer boycotts (Braunsberger and Buckler, 2009), among many others.

Recent research on the applications of Netnography has focused more on its implications on academic research. Kozinets supports promoting Netnography as an excellent qualitative research tool for studying online communities in general (Kozinets, 2010), which Torres supported in his study on research practices using internet communities in Google and Twine among others (Torres, 2010). Bengry-Howell et al. compared Netnography with other contemporary research methods, such as child-led research and other creative research methods (Bengry-Howell et al, 2011) in the field of academic research. Results confirmed that even as Netnography is gaining popularity as an internet research tool, it is primarily used in business, marketing and management. Finally, Nimrod makes a strong case for applying Netnography as the optimal research method for studying cyber-cultures (Nimrod, 201).

These studies clearly suggest that Netnography will continue to be a predominant research method for online communities. Netnography presents researchers, both in business and in academia, a valuable set of research methods for analyzing the myriad and complex human interactions in digital forms. What remains to be seen are future efforts to integrate Netnography's largely qualitative research approach with more quantitative and empirical methods. This integration could further promote Netnography as an increasingly robust and rigorous research innovation.

V. ANALYSIS AND DISCUSSION

A. NETNOGRAPHY AS A TOOL IN THE FUZZY FRONT END (FEE) STAGE

NETNOGRAPHY'S ROLE IN IDEA GENERATION AND CONCEPT DEVELOPMENT

Crawford and DiBenedetto's book, "New Products Management", identified five major phases in the New Product Development process, namely:

Phase I – Opportunity and Identification and Selection - generates new products opportunities, suggestions and changes in marketing plans.

Phase II – Concept Generation – selection of high potential products and opportunities

Phase III – Concept/Project Evaluation – evaluation of new product concepts based on technical, marketing, and financial criteria.

Phase IV – Development - involves two task categories, which are technical and marketing tasks. The technical tasks specify the design specifications and deliverables, while the marketing tasks involve the strategic plans to promote the product.

Phase V - Launch - commercializes the plans and prototypes from the previous phase (Crawford, DiBenedetto, 2008)

The Fuzzy Front End phases form the first two stages of the New Product Development (NPD) process. The Fuzzy Front End (FFE) Stage in the New Product Development process is the stage of the new product development cycle between when work on a new idea could start and when it actually starts (Reinertsen, 2000). In the context of the NPD process, the FFE phases belong to its first two stages, as shown in Figure 1 below:



Figure 1: FFE Phases in the New Product Development Process (Coates, 2011)

Phase I is the most strategic in nature, but the most difficult to define. At the foundation of this phase is the organization's core competencies – what it is that they do and how to leverage these competencies. Activities that provide input in this phase include ongoing market planning, ongoing corporate planning, and special opportunity analysis (Crawford, DiBenedetto, 2008). The goal of this phase is to identify opportunities which lead to the second phase, which is Concept Generation. Phase II focuses on "ideation" – the creation of new product ideas, usually called product concepts (Crawford, DiBenedetto, 2008). New product ideas are usually based on determining problems that people or businesses have and suggestions to address these. Once product ideas have been determined, these go through the screening processes involved in Phase III, the concept or project evaluation phase. This stage involves formal evaluations or concept tests. The results of these screening processes are product descriptions. Crawford and DiBenedetto specify that the first three phases are the ones that comprise the FFE process. The next two phases, Development and Product Launch, are where products are created and commercialized, respectively.

Netnography as a consumer research method can be applied in these different stages. However, the current usage trend for Netnography shows that most companies apply it in the first two phases of the FFE stage (Bengry-Howell, A. et al, 2011). The opportunity identification phase is the most difficult stage to define lead users and consumers may not be able to explicitly articulate what their business needs are. They may not always appreciate the implications of new and emerging technologies in their current business processes. Netnography is a powerful research method that allows researchers to observe or participate in online communities that focus on products or

services delivered by the company or its competitors. Belz and Baumbach's research on Netnography as a method to identify Lead Users leveraged Netnography's content analysis with statistical analysis. Identifying lead users is critical for a company to best position their products based on market trends. Lead users face needs that will be general in a marketplace but face them years before the majority, and they expect to gain high benefits from obtaining a solution to the needs they face (von Hippel, 1988). With the popularity of social network sites and real-time online communications, more companies are discovering that these venues are excellent in exploring lead user activities. Belz and Baumbach's study on applying Netnography to identify lead users have three significant implications for managers. First, Netnography is a far superior means to identify lead users than traditional targeted screening (Belz and Baumbach, 2010). Easy access to data, high sample efficiency, considerably low costs and external assessment of lead user status are the major benefits of Netnography cited by the researchers. Because lead users tend to express their dissatisfaction about existing products and post solutions to these, managers can view these online communities as rich sources of innovation and consumer trends (Belz and Baumbach, 2010).

Netnography's non-intrusive observation method helps market researchers benefit from the information-rich environment of online communities. The following sections will discuss in detail the benefits of applying Netnography in new product development as compared with other conventional research methods.

NETNOGRAPHY COMPARED WITH CONVENTIONAL FFE METHODOLOGIES

In the early stages of the traditional product development process, businesses benefit from consumers and their knowledge of products that consumers purchase. Consumers profit from the improved products as a result of their feedback to businesses. By adding virtual components to existing methods, it is possible to benefit from current developments in technologies such as obtaining answers from "lead users" as a new way of research in customer integration (Michael, Steffen & Stephan, 2009). Virtual customers play an important role through internet or web based interactions, as they enhance the work process between customers and businesses. These web based interactions run within all stages of the innovation process (Michael, Steffen & Stephan, 2009). The process involves of different web based tools and procedures throughout the early developing process. Netnography is categorized as direct virtual customer integration research method because it obtains consumer insights from dialogs that take place in virtual communities. "These Consumer Insights can be integrated particularly into the early steps of the value creation process" (Michael, Steffen & Stephan, 2009).

Netnography fits right in the opportunity fuzzy zone through the research process when developing a product, exploring market opportunities, or during social research. Netnography fits in the initial phases of the FFE where product concepts are unclear, customer needs are undefined, while project schedules, resource plans and priorities haven't been set yet (Jetter, 2011).

In the conventional FFE methodologies identifying customer needs is one of the first steps that have to be taken. That can be obtained by collecting data through observation. For instance, the use of focus groups, surveys, and interviews are Primary source of data. (Jetter, 2011) can be considered as another way of data gathering techniques too. The succeeding paragraphs discuss some of the main research methods that are used within conventional FFE (Jetter, 2011).

Focus Groups are discussions that are prepared carefully to obtain the group members perceptions on specific field of interest. There are usually around 3-12 members who are facilitated and guided by a moderator, "who follows a predefined structure so that the discussion stays focused" (Kontio, Lehtola, and Bragge, 2004). The participants' individual characteristics are the criteria that they have been selected upon as relevant to the subject of the

sessions (Kontio, Lehtola, and Bragge, 2004). These focus groups' sessions produced information that is qualitative about the study's topic. The benefits of focus groups are that they provide honest, perceptive information, are fast to carry out, and fairly inexpensive. However, this method has weaknesses as the other "qualitative methods. These include biases which may be caused by group dynamics and sample sizes that are often small. Therefore, it may be difficult to generalize the results" (Kontio, Lehtola, and Bragge, 2004).Social acceptance, hidden agendas, and comprehension limitation are some of the drawbacks of focus groups. Nowadays, focus groups are generally used in product planning, identifying business services, market research, and other studies like usability of business systems.

More recently, focus groups have assumed an electronic an online form via the internet. The main strengths of computer mediated Group Support Systems (GSS) sessions are constructed on:

- A. The contribution that happens simultaneously and anonymously via computers
- B. Well-structured agenda (assumption.)
- C. The possibilities of analysis of multi-criteria and voting in real-time.
- D. The electronic discussions' complete and partial records.

The electronic group support systems can provide benefits for the administration of focus groups like increasing the focus group size without adding more complications for the organization of the group." (Kontio, Lehtola, and Bragge, 2004) Other benefits include anonymous insights, such as avoiding the apprehension of communication and possibility of unequal participation. The proposed ideas can be evaluated depending on the participant who propose them and on their own advantage" (Kontio, Lehtola, and Bragge, 2004).

Even though technology can mitigate some of the weaknesses of conventional focus groups,, there are some drawbacks to applying technology for focus groups. First of all, not everybody is willing or able to use computers and the internet. As far as non-verbal communication, the facial expressions and the gestures are left out when using computer media. The whole electronic work process might be not satisfy some of the people who actually like to socialize more with each other "although the results might be superior to an equivalent face-to face discussion "(Kontio, Lehtola, and Bragge, 2004). Finally, the investment in the technology requires high expertise when using GSS.

Interviews refer to "a method that can produce unedited statements from the respondents and general impressions from the interviews where the development team conducts a series of depth interviews with customers to build accurate value estimation" (Kamran, Hamid, & Vahid, 2006). That can't be done by other quantitative methods like surveys where they assume that users already know the product's value. Furthermore, interviews help the team detect the produced product affect to the model of the customer's business and to understand the value it creates (Kamran, Hamid, & Vahid, 2006).

Some of the benefits from conventional interviews according to Kamran, Hamid, & Vahid are:

- A good method to explore in-depth personal opinions, values, and beliefs
- The information are very rich in-depth
- Flexible
- Investigating is useful to unhide covered issues
- Directly targeted and focused on the topic of the case study
- Its insightfulness can provide apprehended casual assumptions.

On the other hand the weaknesses of interviews are:

- They can be loosely structured and biased
- Sometimes they can be time consuming and the responses are hard to interpret
- Skilled-Interviewers are required which can be expensive too
- Respond bias
- "Inaccuracies due to poor recall and Reflexivity-respondent gives what interviewer wants to hear." (Kamran, Hamid, & Vahid, 2006)

As with other traditional research methods in FFE, interviews have assumed online formats. Online group interviews can be conducted but this time via internet or within the use of web-based or video phone conferencing; which can be described as a "group of interactions that can stimulate unplanned reactions." (Kamran, Hamid, & Vahid, 2006) New ideas can now be grouped as these are offered by online interview participants. Even though technology can reduce some of the process weaknesses of conventional interviews, there are some weaknesses. In online interviews, participants have shorter time to speak and as individuals participants may hide or be passive "often an artificial 'performance mentality' as clients view behind one-way mirror." (Kamran, Hamid, & Vahid, 2006)

A survey is a "method of gathering information from a sample of individuals. This "sample" is usually just a fraction of the population being studied" (Fritz, 2004). Like for instance, a manufacturer conducts a survey of the market potentials prior to the introduction of the new product. While surveys can be used for different purposes, they also can be conducted in a variety of ways like by email, over the phone, or in person. Fritz listed several advantages of surveys and they are:

- In a sample study they require less time
- In a sample study they are inexpensive to implement
- they can cover a large area in the available time and money
- they are helpful to describe the characteristics of large population which other methods can't do
- they can be available in remote locations because they can be administrated by phone, mail, or email
- different and many questions can be asked regarding a specific topic (Flexibility for analysis)
- Within group studies, the collected data can be interpreted comparatively
- They can be free from specific errors (because of its standardization)

On the other hand, Fritz also illustrated the survey's weaknesses

- In a sample study the problems are connected or tied to the way the sample is chosen
- In a sample study the problems are tied to the way gathered data are used to produce the findings
- "Sampling problems can cause either bias or variance effects in survey results." (Fritz, 2004)
- Biased survey can happen because of survey non-responses (which cause the sample to be less in population representation or coverage) (Fritz, 2004)

Internet-based surveys "may be conducted by means of interactive interviews or by questionnaires designed for self-completion" (Eysenbach & Wyatt, 2002). The administration of these questionnaires can be controlled via email like using mailing lists, newsgroups postings, and within the use of online fill-in forms. Messages are typically sent out to groups that are selected when email is conducted to administer the survey. They are sent with a specific number of people, which can help calculating the response rate. However, it's hard to know who and how many participants actually read the questionnaires especially when the surveys are posted to newsgroups (Eysenbach & Wyatt, 2002). Password protected surveys or questionnaires can be placed in the web when using web-based forms, unless they were for public-open use. Some of the advantages of the web-based surveys are that the responses can be anonymous, even if the email address of the sender is revealed, and an online surveys

are very convenient for the researcher because the responses can be immediately saved in a database where they can be accessible to be analyzed (Eysenbach & Wyatt, 2002).

Some of the technical issues when using online-surveys are the usage of 'cookies,' the response time measurement, the way to prevent missing data, and the way to maximize the response rate. In addition, the ethical issues that can rise in any kind of online-based research which should not be ignored which can include "informed consent as a basic ethical tenet of scientific research on human populations," (Eysenbach & Wyatt, 2002) privacy protection, and preventing any psychological harm.

On the other hand, Netnography as a process is a qualitative method used specifically to investigate the consumer behavior of the internet present cultures and communities (Kozinets, 1998). Netnography is also used as a method to analyze the online communities' interactions and behaviors (Lee-Kim, 2007).

Table 2 illustrates a comparison between the previously reviewed conventional methods of Fuzzy Front End Research tool, which are Interviews, Surveys, and Focus Groups, as compared with Netnography. The table summarized the strengths and the weaknesses of these research methods.

FFE Research	(Strengths)	(Weaknesses)
Tool		
Interviews	-Explore in-depth personal opinions, values, and beliefs -Investigating is useful to unhide covered issues -Directly targeted and focused on the topic of the case study -Its insightfulness that can provide apprehended casual assumptions	-They can be loosely structured and biased -They can be time consuming and the responses are hard to interpret -Skilled-Interviewers are required which can be expensive too -Respond bias
Surveys	 -Inexpensive to implement -Can cover a large area in the available time and money -Helpfulto describe the characteristics of large population which other methods can't do -Available in remote locations because they can be administrated by phone, mail, or email -Many questions can be asked regarding a specific topic (Flexibility for analysis) -Within group studies, the collected data can be interpreted comparatively -Can be free from specific errors (because of its standardization) 	 -In a sample study the problems are connected or tied to the way the sample is chosen -In a sample study the problems are tied to the way gathered data are used to produce the findings -Sampling problems can cause either bias or variance effects in survey results. -Biased survey can happen because of survey non-responses (which cause the sample to be less in population representation or coverage)
Focus	-Provide honest and perceptive information	-Difficult to generalize the results
Groups	- Fast to carry out -Fairly not that expensive.	-Social acceptance -Hidden agendas -Comprehension limitation
Netnography	 - (Naturalistic) Follows social expression to its online appearances - (Immersive) Draws the researcher into an engaged, deeper understanding - (Descriptive) Seeks to convey the rich reality of contemporary consumers' lives, with all of their hidden cultural meanings as well as their colorful graphics, drawings, symbols, sounds, photos, and videos. - (Multi-method) Combines well with other methods, both online and offline, such as online-interviews and videography. Like all methods, Netnography often works even better when triangulated with other sources of insight. For example, complement Netnography with targeted surveys to validate the reliability of findings - (Adaptable) Moves effortlessly from newsgroups to blogs, wikis, virtual worlds, social networking sites, podcasting and mobile online/offline communities, and whatever else the future has in store 	Time consuming Requires a lot of patience and effort The observation can be non-intrusive The observation can be restricted to the current use of attractions, environments, products, and innovations. 'Being careful' is a critical concern Data Trustworthiness -Requires a lot of interpretation which can lead to poor Documentation

Table 2: Comparison of Conventional Research Methods and Netnography in the FFE phase

In addition to the conventional tools explored above, researchers are frequently exploring cutting edge FFE tools. For example, social networking sites are incorporating several technologies that enhance online connections and communities. One of these technologies is Radio-Frequency Identification (RFID), commonly known as Bar code technology. In 2010, the Massachusetts Institute of Technology's Media Lab launched a project that implemented RFID readers in a network of presence-based, touch-sensitive information displays in the lab (Mann, 2010). With RFID technology, information such as guest profiles, personalized content delivery, and group information sharing are automated. The integration of RFID and web-enabled technologies online show a huge potential for managers and research teams tasked with idea generation and concept development. Applying these emerging technologies with Netnographic research methods, managers and research teams could help establish connections with consumers' real life business needs and their online information in social network sites and online shopping experiences, among other information. This collection of data could provide more in-depth and validated information on what products and services could address business needs of consumers, and which emerging technologies to invest company resources in, for future growth. The application of such RFID tools shows a leap in technologically-assisted consumer research tools towards automated empathic design. Whereas Netnography observes consumers in a relatively native environment, it does necessarily observe the candid consumption of the product. For example, a Netnographic study of coffee culture will glean valuable feedback from online communities; however, the coffee is not necessarily purchased and consumed in this virtual environment. In the future, this limitation may be eliminated by technologies such as RFID in which real-time consumer behavior can be observed and analyzed digitally.

SHORTCOMINGS OF NETNOGRAPHY AS AN FFE TOOL

Even though Netnography has significant benefits over the traditional research methods as applied in the FFE phases, it has its limitations as a research method. In Kozinets' 'getting prepared' first step of completing a Netnography research project, joining a community within an online medium like forums, blogs, or a social media might make the researcher realize that it doesn't provide him with the rich-detailed data he hoped for. The researcher needs to look at other sites to get what he needs, "although he may have taken field notes for a forum he will not be using" (Lee-Kim, 2007). That as a result can be time consuming and requires a lot of patience and effort. (Note: being non-intrusive is strength of Netnography).The information observed can be very complex to analyze at first, because there a lot of mixed up and merged-in knowledge of the proposed problems and needs. The observation can be restricted to the current use of attractions, environments, products, and innovations.

In the second step 'Collecting data' of the Netnography process, being careful is a critical concern. This may cause the researcher to lose time, and a good potential source of data. "The minute you sound like a researcher, you will lose potential opportunities" but at the same time staying under cover might raises ethical problems (Lee-Kim, 2007).

In the 'data analysis' step, it's important to differentiate among devotees, key-members and temporary users or tourists. These groups can be referred to as "socially superficial" (Lee-Kim, 2007), since they are in the medium to get information only. The trustworthiness of online forums, blogs, social media, and technical websites as a source for critical data need to be taken in consideration.

Poor documentation through the analytical based decisions on the later phases of the Netnography process may require a lot of interpretations. This is an issue that is less significant in the other Fuzzy front end research tools where a researcher can use interviews to help interpret those observations (Jetter, 2011).

Netnography may not fit in the traditional approach of having people who are available to test, describe a product and its use, to inform the interviewer about their needs. This can be considered a problem for the other research methods in the FFE phases because consumers might don't even know what their needs are (Jetter, 2011).

Netnography, like other research methods, can be poorly implemented if the project is not planned or designed well. (Note: the other limitations mentioned are also true of other research methods, these are not specific to just Netnography)

B. EVOLUTION OF NETNOGRAPHY

THE IMPACT OF EVOLVING CMCS AND ICTS ON NETNOGRAPHY

When Dr. Kozinets introduced Netnography as a research method in 1995, the Internet was still an emerging technology. Internet technologies can be divided into two layers - Information and Communication Technologies (ICTs), and Computer Communication Technologies (CMCs). ICTs include the internet and any technological device (Kozinets, 2010). Dial-up, DSL, WiFi and Broadband services are examples of ICTs. The rapid developments in the Information and Communication Technologies (ICTs) in the 1990s had major impacts in Netnography. The method of accessing the internet influenced the development of online communities, and the growth of Netnography as an online research method.

CMCs included electronic mail and specialized networks, connected through the internet, Bitnet and Usenet connections (Kozinets, 1998). These online communities were often referred to as virtual communities, and were observed to form cultures and drew participants with common interests. By today's standards, the ICTs and CMCs in the early 1990s are very rudimentary. Access to the Internet was primarily available using slow and expensive Dial-up Access and Integrated Services Digital Network (ISDN). Eventually, the term "virtual communities" evolved into cyber culture, which describes cultures created in the internet (Kozinets, 1998). Along with the theoretical framework for Netnography, Kozinets introduced five major steps in applying Netnography in studying online communities.

CMCs can be broadly categorized as having two structural properties, namely synchronous or asynchronous (Jones, 1998). In his book about CMCs, Jones defined synchronous CMCs where all participants are "online simultaneously and read and respond to one another immediately" (Jones, 1998). Examples of synchronous CMCs are Multi-User Domains or Dungeons (MUDs) and Internet Relay Chat (IRC). On the other hand, with asynchronous communication, participants "need not be online simultaneously and read and respond to other participants at different times" (Jones, 1998). Newsgroups and mailing lists are examples of asynchronous CMCs. Netnography in the mid to late 1990s can be characterized as tentative and exploratory. Data gathered from Netnography during this period include downloaded files of newsgroup postings, transcripts of Multi-User Dungeons (MUD) or Internet Relay Chat (IRC) sessions, and electronic mail (Kozinets, 1998). A growing number of internet-based groups were focusing on product and brand marketing. Kozinets promoted the importance of Netnography in market research, since it provides a qualitative method to explore the virtual community and consumer experiences around a brand or a product.

By the late 1990s, Digital Subscriber Lines (DSL) and Broadband services were being offered by Internet Service Providers (ISPs). These technologies enabled online users to access the internet faster and at relatively affordable rates. According to Internet World Statistics, the world population with internet access increased from 36 million in 1995 to 248 million in 1999 (Internet Growth Statistics, 2011). The year 1997 saw the introduction of the first social network site – sixdegrees.com (Boyd and Ellison, 2007). Social Network Sites (SNS) are "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system" (Boyd and Ellison, 2007). In the late 1990's, SNS were at their infancy and far from being a global phenomenon. The late 1990's to the early 2000s saw the growth of internet forums centered on products, brands, and services such as computers, sports, music, and travel, to name a few examples. Marketing firms such as Cyveillance, NetCurrents and Bizrate.com surveyed consumer feedback on several products and services simultaneously. Studies that applied Netnography during this period focused mainly on consumer and market research. There is a growing trend in Netnography for market researchers applying this method to be

aware of the limitations of the online medium and technique in gathering information about consumer communities.

By 2004, Web 2.0 technologies enhanced Social Networking Sites (SNS), Wikis, and other user-centered technologies were introduced. The new wave of SNS offered profile-centric services, soliciting broader audiences with their user-generated content (Boyd and Ellison, 2007). As Facebook and Twitter become more dominant in the social media space, Netnography's qualitative research approach was increasingly being integrated with more empirical and quantitative research models. Beckman and Langer combined Kozinets' Netnography methods with quantitative analysis in their study of cosmetic surgery customers (Beckman, et al. 2005). A study of consumer motivations behind an organized boycott of Canadian Seafood Industries employed statistical models with Netnography's content analysis (Braunsberger, et al., 2009). In 2010, Belz and Baumbach conducted a study using Netnography with statistical analysis to identify lead users for consumer products (Belz, et al., 2010).

The timeline of the development of CMC technologies and its impact on Netnography as a research method can be summarized in Table 3 below:

	Launch Dates of ICTs and CMCs					
	1990-1998	1997	1997 - 2001	2001 - 2003	2004 - present	
Information and	Emergence of the Internet and World	DSL, Broadband,	LAN, DSL, Broadband, Dial-	WiFi, Internet Cafes,	Wireless Internet	
Communications	Wide Web, Dial-up Access, ISDN	Dial-up Access,	up Access, ISDN	LAN, DSL	providers, Mobile	
Technology (ICT)		ISDN			Broadband, Satellite	
					Internet, WiFi, Internet	
Company and the stand	Construction MUD- MOO- UseNat	First Casial Mardia	Community To do with	Control Notice of City	Cates, LAN	
Computer Mediated	Synchronous-MUDs, MOUs, UseNet	First Social Media	Community loois with	Social Network Sites	Web 2.0 technologies such	
Communication (CMC)	Groups, IRCs ; Asynchronous - Mailing	Site -	profiles and publicly	(SNS) that leverage	as Social Networking Sites	
	lists, newsgroups, Usenet groups,	Sixdegrees.com	Acientriande, Plack Planet	members business	(SNS), WIKIS, among	
	Builetin Boards	(menus lists);	Asidninenus, BlackPlanet.	tribo pot Friendstor	others; SNS become	
		ICO Buddios	and professional services	LinkedIn MySpace	offoring nicho sorvicos -	
		ICQ Buddles	and professional services.	Linkeum, wyspace	MySnace FaceBook	
					Twitter Orkut (Brazil)	
					Mixi (Janan) Beho (LIK	
					New Zealand, Australia)	
			Online Marketing firms such		Organizations	
			as Cyveillance, NetCurrents		(i.e.businesses,	
			and Bizrate.com surveyed		governments, educational	
			consumer feedback on		institutions) leverage SNS	
			several products and services		to be visible in the	
					internet, and retain and	
					attract online communities	
Netnography 1995 - Kozinets introduces		Netnography's source data: Textual, posted		Netnography's source data: Textual, posted		
Development Timeline	Netnography; Source data: Textual,	messages, archived entries and email, increasing messages, onlii number of online images. Netnography's video and audit application is extending beyond consumer and acceptance not		messages, online imag	images, increasing number of	
	archived entries, emails. Netnography			video and audio. Netnography has broader acceptance not only in market and business		
	was primarily used for market and					
	consumer research	market research to social, personal and cultural research, but also in academia, s		cademia, science, and other		
		motivations of members of online communities fields as well				

Table 3: The Development of CMCs and its impact on Netnography (Jones, 1998); (Boyd & Ellison, 2007)

The huge popularity of social media sites such as Facebook, and Twitter implies more room for development in Netnography. The explosion of potential data for marketing and research has never been greater. Google and Facebook are already leading the trend to automate data gathering and collection from user-created content in SNS through social indexing software tools. These trends signify corresponding advancements in Netnography's approach to data collection, framework development and analytical techniques.

Getting to know customers and their business needs in order to translate these into product ideas and concepts is a critical goal of Fuzzy Front End (FFE) techniques. Netnography is becoming more accepted as an effective marketing and consumer research tool in the FFE stage of new product development.

The next section discusses the trends in four different areas- conceptual framework, research methods and tools, ethics and privacy standards, and applications in different fields that helped shape Netnography's development.

2. TRENDS (PAST TO PRESENT)

A preliminary review of the relevant literature, in addition to anecdotal evidence of current practices, suggested that there have been prominent shifts in both the theory and practice of Netnography. In order to effectively identify the presence of this phenomenon, the taxonomy chart in the Survey of Literature was constructed as already described. The taxonomy chart includes a combination of academic papers, case studies, and reports ordered chronologically from 1995 until present. However, there are certain aspects to the practice of Netnography that is typically not found in such resources for reasons explained in the "Limitations" portion of this report such as proprietary practices. Maintaining the rough definition of Netnography as a method "to investigate the consumer behavior of cultures and communities present on the Internet," there are many Netnographic practices taking place on the Internet today that have had little academic interest in the literature (Kozinets, 1998). This includes social networking players such as Facebook and Google+, as well as the prolific online shopping site Amazon.com. For the purpose of obtaining a true understanding of the full scope of Netnography practices taking place today, examples from these players will be used in this section. However, this data will often come in the form of anecdotal evidence or intentionally vague statements buried in the "Terms and Agreements" of a particular site. Regardless of its nature, this information will still prove valuable for the purpose of understanding how organizations are obtaining and using "consumer behavior of cultures and communities present on the Internet" for marketing purposes.

Another interesting variable to consider in this section is the presence and influence of Robert Kozinets throughout the development of Netnography. Kozinets is largely regarded as the leading influence in Netnography (this is evidenced by much of the literature holding Kozinets' writings, methods and procedures as the standard) and has maintained a continuous presence throughout its evolution. Whereas much of the literature will provide insightful snapshots into the practices being applied, Kozinets will represent a string of continuous feedback. To further the analogy, much of the literature will provide snapshots whereas Kozinets' writings will provide running footage.

Developments taking place over time are certainly unlikely to be linear or uniform; however, the objective of this section is to extract the apparent trends in the evolution of Netnography and present them in a simplified manner. Each subsection will be followed with graphics expressing a number of perceived trends in concepts, assumptions, and practices. These comparisons will not necessarily be mutually exclusive, contradictory, or definitive; rather, some may be subtle shifts with potential implications to the future of Netnography which will be discussed further in section 5.4.

CONCEPTUAL FRAMEWORK

The conceptual framework of Netnography was reduced to three simple inquiries: What is the perceived benefit of Netnography over traditional ethnography tools, what are the assumptions underlying the theory of Netnography, and what specific data is observed. Netnography began under the assumption that there would be tremendous value in studying online communities with momentous implications for marketing due to the *volume of content* in online interactions and its ease of accessibility to observers (Kozinets, 1995). However, it quickly became evident that the interactions themselves were of a different nature than information gleaned from traditional ethnography practices. Practitioners found that consumers were more candid and less inhibited in discussions (Kozinets, 2002) & (Beckman, 2005) leading to a previously unperceived advantage of Netnography in that the *nature of the content* was unique. Furthermore, around the same time practitioners were finding that the

consumer interactions being observed were increasingly more influential to others as consumers grew more likely to seek feedback from online forums than they once were (Kozinets, 2002). In 2010, Mark Zuckerberg announced the introduction of Open Graph at Facebook's F8 Conference which allowed developers to apply "like" buttons outside the confines of Facebook. The tool will be discussed further; however, the benefit of the Open Graph was to create a "frictionless" environment in which consumers simply click the mouse which produces valuable information to developers and marketers (Schonfeld, 2010).

Netnography began by observing chat rooms and newsgroups (Kozinets, 1995) and slowly progressed to forums, websites, and blogs. Whereas the information initially sought by Netnography methods was textual in nature, the introduction of the Open Graph (and Google's competing application of the +1 button), researchers are gaining information regarding consumer browsing habits and behaviors. This information is highly dependent on the volume of use, but also makes use of candid consumer behavior. In a sense, these practices combine advantages of Netnography found throughout its development in that they capitalize on the availability of tremendous volumes of data as well as the online habits and behaviors; however, the rich textual information is generally lost.

Figure 2 below simplifies these trends. Whereas the initial advantage of Netnography was found to be in the sheer volume of data easily available online, it has evolved to acknowledge the uninhibited nature of the information in conjunction with the volume. Furthermore, whereas the information being sought in 1995 was generally textual in nature, it has expanded to follow the "virtual" behavior of consumers. The term "virtual" in this context is used to specify behavior taking place in the online environment. For example, using "like" or "+1" buttons creates a log of websites visited and marked as favorable by a consumer.

ADVANTAGE OF NETNOGRAPHY

Volume of data \rightarrow Uninhibited + Volume of Data

INFORMATION SOUGHT

Textual \rightarrow "Virtual" Behavioral

Figure 2: Past to Present Trends – Conceptual Framework

RESEARCH METHODS & TOOLS

Reviewing the literature, it appears that the formal procedures of Netnography have not deviated heavily from the formal procedures identified in 1995; however, the interpretation of the procedures has evolved. Since, there have been faint calls for flexibility and customization to the Netnography procedures, but what is seen in the case studies is that practitioners themselves are taking the liberty to abandon the rigidness of the procedures. Most notably, the role of the observer has grown progressively more silent. Whereas originally the silence was a tool as to keep from biasing consumer discourse (Kozinets, 1995), the presence of the observer was still disclosed and often engaged with the subjects through posing questions and inquiries (Kozinets 1998, 2002). However, the observer has grown more passive and detached over time (Beckman, 2005), (Pursianien, 2010), and (Nimrod, 2011). Similarly, accountability for the data has appeared to slip along the same timeline. The original procedures required a step for "member checks" in which the findings were presented to the subjects for review prior to publication. This would allow for increased accountability as well as an opportunity for further feedback from participants. Over time, this step has either been diminished or eliminated entirely. In some cases, this was out of concern that the feedback would be more guarded in the case of sensitive topics and would thereby compromise the data (Beckman, 2005). In other cases, the step was apparently considered too onerous and unnecessary. This diminished role of member checks likely occurred in sync with the increasingly passive role of the observer.

For the purpose of maintaining a manageable scope, this paper does not specifically address the process of data analysis; however, there is at least a superficial evolution of the tools and types of analyses performed over time. For some insight, the particular nature of data emphasized was classified as either qualitative or quantitative. Although the simple question of "qualitative vs. quantitative" did not reveal a great deal of evolutionary information, coupled with the tools used for analysis reveals some small insights. For example, from the beginning Netnography has emphasized the qualitative data found online textual packets; however, there has been a quantitative presence throughout. The emphasis on quantitative data has appeared to gain more traction when one considers the increased emphasis of statistical analysis tools for analyzing data as opposed to the early tools heavily used revolving around content analysis, interpretive analysis, and contextualization. Furthermore, as suggested above, the Open Graph tools being applied by Google and Facebook are decidedly quantitative tools used to understand and connect with consumer behavior. This is also the case with Amazon.com's "Frequently Bought Together" algorithm that suggests additional products to consumers viewing a related product (www.Amazon.com, 2011). This is not to suggest that content analysis is disappearing. Consumers signing up for a popular Gmail e-mail account must agree to Terms and Conditions explicitly allowing Google to browse, or "data mine," the textual information in e-mail exchanges that allows Google to customize online advertisements to each user. This is a largely qualitative tool for content analysis.

In short, figure 3 below the role of the observer has disengaged from the participants. Kozinets refers to this distinction as "Autonetnography" in which the observer is actively engaged to "Observational Netnography" in which the practitioner is invisible (Kozinets, 2010). Next, although theory has remained rigid in its protocol, in practice many practitioners are customizing their applications. The nature of the data obtained and analyzed has trended from an emphasis on the qualitative to the quantitative, as confirmed by the more recent emphasis on statistical analysis tools over content analysis.

ROLE OF THE OBSERVER

Engaged Participant (Autonetnography) \rightarrow Invisible (Observational Netnography)

PROCEDURAL ADHERENCE

 $\mathsf{Rigid} \rightarrow \mathsf{Flexible}$

NATURE OF DATA

Qualitative \rightarrow Quantitative

ANALYSIS TOOLS

Content Analysis → Statistical Analysis

Figure 3: Past to Present Trends – Research Methods & Tools

ETHICAL & PRIVACY STANDARDS

In many regards, Netnography appears to have undergone substantial shifts in how ethical and privacy standards play a role both in theory and in practice. Individual privacy online has long been a subject of debate, and by some accounts is already regarded as a misnomer (Lohr, 2010). However, Kozinets propagated a highly conservative approach to ethics and privacy at the inception of Netnography. In fact, in his formal procedures, Kozinets specifically uses terms such as "trustworthy" and "ethical" which imply an inherent and fundamental commitment to high standards regarding ethical and privacy concerns (Kozinets, 1998). These highly deliberate procedures were manifested from a "better safe than sorry" mentality intended to gain the trust of the very subjects on whose

active participation Netnography would be entirely dependent (Reid, 1996). Furthermore, trustworthy and ethical guidelines would certainly help to lend credence to a new and somewhat revolutionary ethnography tool.

Specifically, the discussion regarding online privacy has evolved over time. According to Kozinets (2002), "In a major departure from traditional face-to-face methods like ethnography, focus groups, or personal interviews, "Netnography" uses information that is not given specifically, and in confidence, to the marketing researcher." Given this ambiguity in the public vs. private debate, Netnography would apply the better-safe-than-sorry mentality and implement four specific ethical research procedures:

- 1) The researcher should fully disclose his/her presence, affiliations, and intentions to online community members during any research
- 2) The researcher should ensure confidentiality and anonymity of informants; and
- 3) The researcher should seek and incorporate feedback from members of the online community being researched. ...
- 4) [Require] the researcher to contact community members and obtain their permission (informed consent) to use any specific postings that are to be directly quoted in the research (Kozinets, 2002)

In practice, however, as shown by the taxonomy table, many of these safety measures have either diminished or disappeared entirely. Observer disclosure, as previously shown, has declined heavily or is only cryptically disclosed in onerous Terms of Agreements type documents. As discussed early, the opportunity for participant feedback is largely lost with the elimination of member checks. Finally, the concept of member consent has displayed a strikingly distinct transformation from its roots. Whereas Kozinets specified the need to acquire informed consent from members, the practice has turned to an assumption of implied consent. The original concerns for privacy of information have given way to a mentality that assumes that if information can be found freely without the use of passwords, than it is regarded as public information (Nelson, 2005), (Beckman, 2005), and (Close, 2009). Some of this transformation may be attributed to consumers' willingness to voluntarily provide seemingly endless data and information since the advent and emergence of social networking sites such as Facebook, Google+, and Twitter. Perhaps the effect of these networks on Netnography, which are essentially data depositories, is a diminished concern regarding poisoning the well. In short, privacy concerns appear to have little impact on the user base of sites like Facebook, as evidenced by its current base of over 800 million active users, meaning the "well" will likely remain resilient and well stocked regardless of the actions of the practitioners (Facebook, 2011).

The elimination of member checks, as described earlier, presents another discussion regarding ethical research. Although the elimination of such a procedure is not explicitly unethical, it presents a scenario in which the standard for ethical research is reduced. Particularly when evaluating qualitative data, the standard of "trustworthiness" of data is equivalent, or at least analogous, to a "validity" standard regarding empirical data (Wallendorf, 1989). When a step to ensure trustworthiness is bypassed, the researcher is effectively presenting potentially less reliable results by reducing the level of accountability for such results. To be clear, Kozinets himself has not abandoned the theoretical need for member checks (Kozinets, 2010); however, a review of the case studies has shown that the role of member checks in practice has diminished considerably over the evolution of Netnography (Beckman, 2005) and (Sandlin, 2007). The reason for this development could be related to the cost or time required of member checks or in some cases the concern that that member checks would in fact compromise the data in the case of sensitive topics (Beckman, 2005).

Figure 4 below summarizes the trends regarding ethical and privacy standards. Initially, researchers would err on the side of caution and obtain informed consent from participants; however, the trends have exposed the practice of quietly gathering data without the "participants" knowledge or consent. The idea is that information available on the web may be regarded as public. As explained earlier, observers have grown less engaged with participants,

which in turn have had a parallel effect on disclosure. In cases that participants may be vaguely aware of an observer, researchers are not necessarily actively explaining their intent or affiliations leading to ambiguous disclosure practices. Finally, applying member checks and ensuring trustworthiness of data comes with a cost that is often circumvented in favor of expedient results.

MEMBER CONSENT

Informed \rightarrow Implied

OBSERVER DISCLOSURE

Explicit → Ambiguous

TRUSTWORTHINESS OF DATA

Deliberate Accountability (Theory) \rightarrow Expedient Results (Practice)

Figure 4: Past to Present Trends – Ethical and Privacy Standards

APPLICATIONS IN MULTI-DISCIPLINARY FIELDS

Following the series of developments in Netnography already discussed, one would expect this evolution to be reflected in its applications; however, this does not necessarily appear to be the case. At its most fundamental roots, Netnography is an ethnographic application "adapted to the study of online communities" (Kozinets, 2002). Ethnography, in turn, is a cultural and social anthropology tool (Willigen, 2002). However, from its beginning Netnography appeared to be almost entirely applied for marketing and consumer research purposes. Although the nature of the study will naturally fluctuate with each application, the ultimate objective in nearly every case is to reach or gain insight into a particular consumer group. For this reason, there appears to be no fundamental shift in the purpose of Netnography or its application to multi-disciplinary fields.

There is; however, a trend in divergent methods being spawned from Netnography roots. For example, various tools are being developed and implemented to perform automated content analysis of various media forms increasingly found in the online environment. Specifically, terms like "videography" and "blogography" are terms that begin to surface in reference to tools or methods designed specifically for unique forms of online media. These divergent tools are likely to increase and evolve as the medium evolves as was discussed earlier. Hence, figure 5 shows a trend of tools and practices designed to observe textual discourse has grown to emphasize a variety of different analysis tools for different forms of media such as online video and pictures.

APPLICATION TOOLS

Observing Textual Discourse → Multiple Divergent Methods

Figure 5: Past to Present Trends – Applications in Multi-Disciplinary Fields

C. ANTICIPATED TRENDS

METHODS & TOOLS

For the future Netnography, researchers or marketers will still use the original steps of Netnography but more applied and combine it with other methods. (Kozinets, 2011) presented that most publication applied the steps that Kozinets outlines and claimed to be following his method. As (Jawecki, 2011) said, "Netnography and other

observational approaches will gain in importance, but new communication channels may require the adoption of social media analysis tools." Thus, the more applied method will be used with the original Netnography or Autonetnography as Kozinets later proposed the new Netnography method.

Dr. Kozinets (2010) proposed "Computationally assisted Netnography", which is the applied mode of Netnography. This method adds the careful use of software tools to the protocols of the Netnographic process in order to assist researchers in the following tasks:

- **Sourcing**, which allows the researcher to scan the online environment for relevant and interactionoriented mentions of brands, categories, product usage situations, and markets. Good tools will allow for a breadth and variety of sites. The more the better.
- **Tracking**, which provides some context to the data so that relevance and cultural insight can be judged. They will also provide source information (preferably hyperlinked), so that the data can be usefully traced to its source.
- Marking, which allows the researcher to write and save their own notes and observations on top of the data set.
- **Collecting**, which facilitates the archiving and collection of sets of data in ways that organize it without losing the subtlety of its cultural condition.
- **Reducing**, which reduces large amounts of the data in order to build them into coherent insights. Strong tools will be flexible, subtle, and adaptable.
- Visualizing, which presents unexpected insights when researchers using different types of analysis.
- **Pervading**, which allows the researcher to be on top of the dynamic, ever-unfolding, naturally-occurring situation that is online interaction. Real-time consumer insights inform better and better strategic decisions.

By the way, the computational software tools can be most useful in the selection, data collection, and data analysis stages of the Netnographic research process (Kozinets, 2010). This mode of Netnography has never been cited outside (Kozinets, 2010), even most recent researchers already follows Computationally assisted Netnography's methodology applied and combine Netnography with other tools or methods. This mode can be replace the term Netnography or Autonetnography in the future because it better illustrates characteristics of applied Netnography methodology. Computationally assisted Netnography mode clearly shows that research software and tools can be used to assist Netnographic processes.

METHODOLOGY

Autonetnography \rightarrow Computationally assisted Netnography

Figure 6: Anticipated Future Trends - Methodology

Netnography has one character that it combines well with other methods, both online and off[line], such as interviews and Videography (Kozinets, 2010). Typical Netnography mostly collect data in textual form, which "consisting of downloaded files of newsgroup postings, transcripts of MUD or IRC sessions, and e-mail exchanges." Kozinets stated that "In the near future, they may also include digital recordings of teleconferenced gatherings" (Kozinets, 1998). Videography came from video plus ethnography. This type of ethnography can transform data collection process, in which researcher and marketer gather data in visual and audio form instead of textual form. As Peneloza and Cayla state "Visual images allow us to go beyond talk and text about what consumers do to provide a more holistic account of consumption behavior," visual and audio can better express consumer's behavior and feeling than comment and discussion on board (Peneloza and Cayla, 2006).

(Belk and Kozinets, 2005) proposed two methods used within Videography: individual and group interviews. Videographer conducted data by directing and filming interviews from informants (Kozinets and Belk, 2006). These interviews, however, contain much more information than simply the informants story, in the form of body language, proxemics, kinesics and many other aspects of human behavior that communicate meaning (Kozinets and Belk, 2006). Videography can deliver real, intuitive and empathic understanding of informants, as the researcher is actually living with the targets and is afterwards able to analyze 'real' data. Like (Martin et. Al, 2001) stated, the deepest way of understanding customers is by bringing segments to life by, for example, finding the 'archetype' of the segment (Martin et. al, 2001). Even the term Videography and its methodology have been proposed since 2005, none of published research conducting data using Videography in Netnographic process. Recently, one research published by Viitala conducted data using Videography to support ethnographic process (Viitala, 2011). This research intended to study how daily life is planned and coordinated by conducting video interviews, and then put gathered Videographic material together in order to find key values. In the future, researcher may use Videography to conduct desired data to support Netnographic process base on methods proposed by Belk and Kozinets (Belk and Kozinets, 2005).

The combination of mobile phones, social media, and Geotracking creates a suite of products that allow researchers "just in time—just in place" feedback (Moran, 2011). In the future, pre-recruited and incentivized participants respond to simple survey questions at a certain time of day or location, delivering much deeper insights. Location-based social media also revolutionizes qualitative research, creating "just in time qual," where consumers are invited in real-time, based on their location to product parties, brief focus groups, and fun cocreation events (Moran, 2011). These new trend activities communities can usually be found in most social media sites. The speed of decision making shortens to such an extent that real-time data are dramatically more valued than periodic tracking data. Thus, Netnography have to adapt its methodology to collect data in real-time, and then analyze data short time after that. Research and analytical teams should be distributed across the globe to work the 24-hour clock to support activity such as social media monitoring. Think Insights, new release useful tool from Google, can compile real-time data from search engines, include Google and other platforms and combine these together with additional studies, Infographics, and more (Young, 2011). More specialized tools such as Real-Time Insights Finder also allows researcher to figure out what people are watching, searching for, blogging about, clicking on, and more (Young, 2011). These new release tools can be very useful for Netnographic process required real-time data.

DATA COLLECTION

Textual \rightarrow Visual and Audio

 $\mathsf{Periodic\ tracking} \to \mathsf{Real-time\ tracking}$

Figure 7: Anticipated Future Trends – Data Collection

Future Netnography may use Anticipatory customer strategies instead of marketing research, in which the methodology bases on the idea to shift from "Insight" to "foresight." Strategic foresight tools may be used in activities, such as trend watchers, social media listening posts, real-time Delphi panels, and insights communities with prediction markets (Moran, 2011), to support Netnography. As a result of this method, researcher can come up with proposed scenario, service, or products. Design and marketing strategies are built on preferred futures identified in the research. Instead of developing survey for informant, future Netnography may collect data through simulation or virtual communities, which let informant indirectly use prototype of product or service before releasing. Then, use Netnography methodology to guarantee the results by monitoring and collecting feedbacks and feeling toward prototypes.

STRATEGIES

Insight → Foresight

Figure 8: Anticipated Trends - Strategies

Netnography has mostly been used as a method for internet-based marketing research. As presented in (Kozinets, 2011), Netnography is used mostly in the marketing field and consumer behavior researches, then in business and management fields. Even though, Netnography was proposed to be used as an exploratory tool to study general topics, it is not widely used as a tool to study some general topic. For example, Netnography is currently not a popular method for woman's studies and sociology fields even though the methods support gathering sensitive data in both fields. (Langer, 2005) stated the idea that "Netnography is a suitable methodology for a sensitive research topic such as consumption of cosmetic surgery, where consumers are difficult to recruit as informants for research purposes." The study clearly supports doing Netnography in sociology fields by stating that silent observation method of Netnography "can gain deeper insight into consumers' opinions, motives, worries and concerns." This example clearly showed that Netnography can be used more for general topics.

AREA OF STUDIES

Marketing/Business \rightarrow More general topics

Figure 9: Anticipated Trends – Areas of Study



REGIONAL DEVELOPMENT

Figure 10: Citations of Netnography by Geographical Area (Andrew Bengry-Howell, et al, 2011)

Internet Users in the World Distribution by World Regions - 2011



Source: Internet World Stats - www.internetworldstats.com/stats.htm Basis: 2,095,006,005 Internet users on March 31, 2011 Copyright © 2011, Miniwatts Marketing Group

Figure 11: Distribution of Internet Users by World Regions in 2011 (Internet World Stats, 2011)

Figure 10 clearly presents that citations relevant to Netnography have mostly occurred within U.S., then Europe and UK. Netnography can extend to a broader audience in Asia in the future according to Figure 11, which showed that the percentage of internet users in Asia almost doubled the number internet users in US and European countries. In particular, China ranks number one as the country that has the most internet users in the world. Moreover, Kozinets claimed in his blog that about 23% of all internet used take place in Chinese, while about 28% is in English (Kozinets, 2011). Thus, China and country used mandarin Chinese site may become the next market for Netnography. To illustrate the point that Social media has also grown sharply in China, Whalley wrote in his blog that the Communist Party of China now offer training in social media to its members so strong (Whalley, 2011). This impacts the growth of social media within China. Like people around the world, Chinese consumers seek others' opinions before making a purchase. Netpop's research found that user-generated content, including consumer reviews, forum discussions and blog entries, influence 58% of purchase decisions in China, compared to 19% in the United States. Another survey conducted by research firm CIC, also stated that more than half of Chinese consumers surveyed said social media channels were particularly important in influencing purchases of mobile phones, consumer electronics, cosmetics and baby care products (Knowledge @ Wharton, 2009). Growth rate in social media in China is a good sign for Netnography. Because Netnography drive by social media and community, no doubt that large pool of internet users in china can generate very useful data for researches and marketing field using Netnography. The challenge of implementing Netnography in China is that social media in China very much influenced by Chinese culture and social condition.

India ranks as the third in the world's internet usage. Agence France-Presse (AFP) also claims that "At the current pace, the country will overtake the United States in less than two years (AFP, 2011). As Internet usage has grown, online shopping has climbed sharply with retail chains and consumer goods companies jumping on the Web bandwagon to lure new e-customers." Due to the fact that India is well-known country in an advancement of information and technology, researchers can find tons of lead users in India's social media and online communities. These people enlighten Netnography opportunities in India. Lead users in India can give not only feedbacks and feeling toward products and services, but also suggest possibly new features as well as recommend solutions for product and service's problems. Company using Netnography for their product and service may gain very useful information for future product improvement and new product development process. Another interesting country in Asia is South Korea. South Korea has the world's top internet download speed (AFP, 2011). It is one of the biggest markets in the world and also known as a country that internet is the most powerful as the

same as China. Its social networking sites as well as individual blog and virtual communities are very active. All these factors may help Netnography gains a lot of benefits; however, there are some challenges for doing Netnography in South Korea. Firstly, non-Korean search engines cannot break through Korean internet market. This means that western advertisers and search engines need to drastically re-work strategies to be successful in South Korea (Reform, 2010). Another challenge for western marketers, who which to succeed in internet marketing in South Korea, is that a business has not only to operate in South Korea, but must also be based there (Reform, 2010). Like China, Social media in India and South Korea are very much influence by traditional culture and social condition.

Synthesio claimed that Latin America is the second largest consumer of social media worldwide. (Synthesio, 2011). The statement is supported by data from Conscore which states that the use of social networking sites alone in South America has increased by 33% in the past 12 months (Conscore, 2010). As a result, there are about 82% of web users in Latin America who use social networks. This number is mainly attributed to consumers in certain countries like Brazil, Argentina, or Mexico, which rank in top 10 consumers of social media worldwide in less than 2 years, while others in Latin America use far less networking sites (Synthesio, 2011). Latin America also ranks second as the highest-consuming region of blogs: 61% versus a global average of 51%. In spite of the predominance of English in terms of languages online, Latin American internet users still prefer their own first language as Korean do. A Latin American consumer is therefore more likely to purchase products from a platform offering Spanish or Portuguese versions than one offering English only. These indicated that online marketing on social media in Latin America have to compete with their local market instead of international market. It also pays less attention to International brands and products. Although Latin American' online behavior is evolving, consumer maintain their cultural and regional ties, as seen in the success of Rout in Brazil or the existence of the Latin American network Sonico. Consequently, western marketers need to consider much on cultural differences when it comes to Latin-targeted digital campaign by listening and identifying the unique wants and needs of local consumers as they have to do for Asia market (Synthesio, 2011).

Social Media Marketing in the Middle East has seen enormous growth since the recent anti-government protests that have spread across the region. Demonstrators have used social media such as Facebook and Twitter to spread information, defend beliefs, organize meetings, and commemorate heroes. Even though there are less frequent protests in some area, use of social media in Middle Eastern countries becomes more common (Sathishkumar, 2011). As other regions, Middle East consumer pay more attention on social media marketing but still tie with their own culture and social. Western marketers need to understand and adapt their strategies to meet local consumer requirements as Sathishkumar suggest that if the strategy is not producing desired results, "do not be afraid to change, modify and adapt your campaign to meet the needs of users and bring better results to your company" (Sathishkumar, 2011).

As the criteria in marketing or doing research in any region using social media, western marketers need to understand regional cultures, business protocol and expected levels of formality on that particular region (Gibson, 2009). They also need to dig more about demographic of each region as well as understand culture and political standard. The better way to do these is to find a local partner in the region and ask for their feedbacks on "how your social content may need to be adapted; and then take their advice" (Gibson, 2009).

REGIONAL DEVELOPMENT

U.S. \rightarrow Asia, Latin America, Middle East

Figure 12: Anticipated Future Trends – Regional Development

VII. CONCLUSION

Netnography is a qualitative method proposed by Kozinets in 1995 in order to investigate the consumer behavior of online cultures and communities. The method is the combination between Internetwork and ethnography that adapts ethnographic research techniques to study the cultures and communities that are emerging through computer-mediated communications. It proposed to be used in three types of ways: 1) as a methodology to study "pure" cyber cultures and virtual communities; 2) as a methodological tool to study "derived" cyber cultures and virtual communities; and 3) as an exploratory tool to study general topics. The methodology consists of six following steps: 1) Research planning; 2) Making cultural Entrée; 3) Data Collection; 4) Analysis and Interpretation; 5) Ensuring ethical standards; 6) Research representation or Member checks. Since its inception in 1995, Netnography has developed along with developments in internet technologies and computer media communications. Netnography has matured as research method for online communities, expanding its reach from the fields of consumer research and business marketing to academic research, among other fields.

This study focused on Netnography's role in the FFE stages of New Product Development, which are idea generation (Phase 1) and concept development (Phase 2). Netnography appears in practice to be an effective tool to be applied in the FFE phase of product development, particularly given its ability to identify lead users. Compared with conventional research methods, Netnography is non-intrusive, enables researches to access datarich online sources, and is relatively less resource-intensive compared with interviews, surveys and focus groups. Given these strengths, the list of shortcomings suggests that Netnography is not about to eliminate the need for conventional TFE tools. Particularly, many of the weaknesses of Netnography can be mitigated by other conventional tools. For example, Focus Groups and Interviews provide the valuable face-to-face experience lacking in Netnography, and Surveys are capable of inciting specific and pointed information with well-developed questions. Naturally, these tools possess their own shortcomings. Indeed, intuition would suggest that there are perhaps optimal combinations of the tools to be used in conjunction with one another; however, this would have to be a topic considered for future research.

Regarding the evolution and future of Netnography, it is clear that Netnography's development shares a high correlation with the evolution of Information and Communication Technologies. For instance, web usage continues to grow as the friction to access the web decreases. For example, LAN allows for customers to spend more time loitering online than during the days of dial-up and per minute payment plans. Likewise, as Wi-Fi and mobile networks continue to grow in quality and availability, physical location will be a depleted concern to those accessing the web.

It is clear that despite the numerous trends and developments, Netnography as it was defined in 1995 is not dead. Rather, the aforementioned trends are indicative of a growing practice that will expand with a changing medium to satisfy new niches and possibilities and capitalize on new opportunities. As such, "evolution" is perhaps a misleading descriptor where as "expansion" would more effectively describe the effect that time has had on Netnography. Netnography began as a process in which the practitioner followed an established protocol and engaged with consumer groups online as a skilled observer. At one point described by Kozinets as "Autonetnography," this deliberate process still maintains a presence as a viable method for effectively gathering consumer insight from the analysis of textual discourse. What has derived from this original form of Netnography is what can best be described as a disengaged observation of consumers, or what was earlier referred to as "Observational Netnography." This practice began as a silent observation of consumer discourse; however, a variety of tools and interface changes have allowed for this observation to move beyond textual discourse and into the realm of consumer "virtual" behavior. These tools include relatively new mechanisms such as "like" and "+1" buttons in addition to other algorithms derived to track consumer behavior such as recommendations from sites such as Amazon and Netflix. Similarly to how CMCs and ICTs have played a critical role in Netnography's evolution thus far, Facebook's latest "Check In" tool may offer a glimpse into the future of Netnography.

As the discussion expands to include the future of Netnography, there is certainly a regional factor to be anticipated as it appears highly likely that Netnography will find fertile grounds to be applied more heavily on a global scale. However, perhaps more integral to the core of Netnography, is the nature of the data and the methods used to obtain and analyze it in the future. Whereas Autonetnography continues to gather and analyze valuable information by observing textual discourse, and Observational Netnography continues to observe "virtual" consumer behavior, the future of Netnography will include the ability to observe and analyze actual consumer behavior in real-time. This is a natural progression from Observational Netnography as it is currently practiced as shown below in figure 13.



Figure 13: The Evolution of Netnography

Breakthroughs in Wi-Fi, mobile networks, GPS, and hand-held mobile devices show that there is a technical capacity to track such behavior just as Facebook is attempting to do now with the "Check In" tool. The success of this particular tool has yet to be proven; regardless, the advent of such a tool now suggests that the possibility of following real-life, real-time behavior of consumers is a technological possibility.

Regarding industry pull for such a capability, the useage of RFID chips presents a clear indication that FFE researchers are searching for innovative ways to track actual consumer behavior. Applying RFID with Netnography will make it possible for researchers to observe consumers and their geographical interactions with other consumers and products, and include a space-time element in their analysis tools. In such an instance, Netnography could potentially be applied with a truly empathic design element as consumers behaving candidly and interacting with a product and their environment will be readily observable similarly to how their textual discourse and online behaviors are observable today. Furthermore, other tools gaining prominence such as automated content analysis of photos, videos, and other media will allow for even more robust and accurate simulations of consumer behavior.

VIII. REFERENCES

Alavi, S., Ahuja, V., & Medury, Y. (2011). An empirical approach to ECRM-increasing consumer trustworthiness using online product communities. Journal Of Database Marketing & Customer Strategy Management, 18(2), 83-96. doi:10.1057/dbm.2011.12

American Express OPEN Small Business Search Marketing Survey. (2011, March). American Express. Retrieved from http://media.nucleus.naprojects.com/pdf/Search_Marketing_Survey_FactSheet.pdf

Andrew Whalley. (2011, October 18). Marketing and the Social Media Space-the Netnographers environment. Retrieved from - http://royalholloway.academia.edu/AndrewWhalley/Blog/46452/Marketing-and-the-Social-Media-Space---the-netnographers-environment

Angeline Close. (2009). Netnography: Do you know where your customers are (logged on)?. Retrieved from http://www.slideshare.net/Wikonsumer/Netnography-ipod-example

Annelies Verhaeghe , & Emilie Van den Berge. (2009). Getting answers without asking question: The evaluation of aTVProgrammebasedonsocialmedia.Retrievedfromhttp://www.insites.eu/02/documents/whitepapers/04Getting answers without asking questions.pdf

Atlas.ti.(2011). Atlas.ti. Retrieved from http://www.atlasti.com/

Bartl, M. (2009, December). Utilizing Online Communities as source of Innova-tion in the Cosmetics Industry. Retrieved from http://www.michaelbartl.com/co-creation/case-study/Netnography/

Bartl, M., Hück, S., & Ruppert, S. (2009) Ethnographic Research-Community insights in the cosmetic industry. Retrieved from http://www.hyve-Netnography.de

Bengry-Howell, A., Wiles, R., Nind, M., & Crow, G. (2011). A Review of the Academic Impact of Three Methodological Innovations: Netnography, Child-Led Research and Creative Research Methods.

Boyd, d. m., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. Journal of Computer-Mediated Communication, 13(1), article 11. http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html

Braunsberger, K., & Buckler, B. (2011). What motivates consumers to participate in boycotts: Lessons from the ongoing Canadian seafood boycott. Journal of Business Research, 64(1), 96-102. doi:10.1016/j.jbusres.2009.12.008

Coates, D. (2011). Improving the Fuzzy Front End of Production Development. Retrieved from http://www.triz-journal.com/content/c090608a.asp

Demko, G. (2011, March 3). Lecture presented in ESO. HYVE.

Ellen, R.F. (1984) Ethnographic Research: A Guide to General Conduct (Research Methods in Social Anthropology) Academic Press: London.

Eysenbach, G., & Wyatt, J. (2002). Using the Internet for surveys and health research. Journal of Medical Internet Research, 4(2).

Facebook statistics (2011, October) Retrieved from https://www.facebook.com/press/info.php?statistics.

Gibson, S. (2009, September 27). Social Media Statistics and Trends for South America. Retrieved from http://www.closingbigger.net/2009/09/social-media-south-america-latin-america/

Google Analytics. (2011). Enterprise-class web analytics made smarter, friendlier and free. Retrieved from http://www.google.com/analytics/index.html

Google inside Search. (2011). Google Social Search. Retrieved from http://www.google.com/support/websearch/bin/answer.py?hl=en&answer=165228

Google Trends. (2011). About Google Trends. Retrieved from http://www.google.com/intl/en/trends/about.html

Henning, J. (2011, October 27). Review of a decade of Netnography research. Retrieved from http://www.affinnova.com/blog/bid/103589/Review-of-a-Decade-of-Netnography-Research

Hippel, V. E. (1988) *The Source of Innovation*. Oxford University Press, New York.

India Internet users top 100 million: study. (2011, November 8). AFP. Retrieved from http://www.physorg.com/news/2011-11-india-internet-users-million.html

Ismail, A. R., Melewar, T., & Woodside, A. (2010). A Netnography study to uncover the underlying dimensions of customer experience with resort brands.

Janzik, L., & Raasch, C. (2011). Online Communities in Mature Markets: Why Join, Why Innovate, Why Share?. International Journal of Innovation Management, 15(4), 797-836. Retrieved from EBSCOhost.

Jetter, A. (2011, October 13). Opportunity Idea Generation PowerPoint lecture presented in Room 201. on the Ondine Residence Hall, PSU. Portland, OR.

Jones, S. (1998). Cyber Society 2.0: Revisiting computer-mediated communication and community. Thousand Oaks, CA: Sage Publications.

Jones, S.G. (1995) Understanding Community in the Information Age.

Kamran, S., Hamid, R., & Vahid, N. (2006). The Use of Marketing Research During NPD Process. Retrieved from http://epubl.ltu.se/1653-0187/2006/09/LTU-PB-EX-0609-SE.pdf

Kontio, J., Lehtola, L., & Bragge, J. (2004). Using the focus group method in software engineering: obtaining practitioner and user experiences.

Kozinets, R. V. (1998). On Netnography: Initial Reflections on Consumer Research Investigations of Cyber culture. Advances In Consumer Research, 25(1), 366-371.

Kozinets, R. V. (2010). Netnography: Doing ethnographic research online. Los Angeles, CA: SAGE.

Kozinets, R. V. (2010, March). Netnography: The Marketer's Secret Weapon. Retrieved from http://info.netbase.com/rs/netbase/images/Netnography_WP.pdf

Lee-Kim, J. (2007, April). Netnography Simplified: A Guide to Tracking Consumers' Online Behavior. Retrieved from http://iit.edu/csl/hum/publications/pdfs/julia-intercom-07.pdf

Lohr, S. (2010, March 03) How Privacy Vanishes Online. Retrieved from http://www.nytimes.com/2010/03/17/technology/17privacy.html March, 2010. Accessed October, 2011.

Mann, L. (2010, July 27). ThingMagic RFID Technology Automates Presence Based Information Displays at MIT Media Lab. Retrieved from http://www.thingmagic.com/press-room/27-press-releases/303-thingmagicrfidtechnologyautomatespresencebasedinformationdisplaysatmitmedialab

Metro Population. (2011, December 06). Largest Cities of the World. Retrieved from http://www.worldatlas.com/citypops.htm

Moran, R. (2011). The Futures of Marketing Research. Retrieved from http://www.strategyone.com/documents/CASRO%20Presentation%20Futures%20of%20MR.pdf

Murphy, L. (2011, June 3). The New Netnography: Intel Launches The Museum of Me. Retrieved from http://www.greenbookblog.org/2011/06/03/the-new-Netnography-intel-launches-the-museum-of-me/

Nelson, M. R., & Otnes, C. C. (2005). Exploring cross-cultural ambivalence: a Netnography of intercultural wedding message boards. Journal Of Business Research, 58(1), 89-95. doi:10.1016/S0148-2963(02)00477-0

Nimrod, G. (2011). Using Netnography for studying "pure" cyber-cultures. Retrieved from www.cost-transformingaudiences.eu

Nvivo. (2011). NVivo 9 highlights. Retrieved from http://www.qsrinternational.com/products_nvivo.aspx

Pursiainen, E. (2011). Consumer motivations for providing electronic word-of-mouth in virtual pet communities. Retrieved from http://hsepubl.lib.hse.fi/FI/ethesis/pdf/12384/hse_ethesis_12384.pdf

Poynter, R. (2011, June). Robert Kozinets Webinar on Netnography. Retrieved from http://www.netbase.com/blog/general/Netnography-webinar-review-by-ray-poynter/

Red Bridge Marketing. (2008). Social Network Marketing: The Basics, red bridge marketing. Retrieved from http://www.labroots.com/Social_Networking_the_Basics.pdf

Reform. (2010, May). Reform International Search Review, Issue 3: South Korea. Retrieved from http://www.reformdigital.com/international-search-review/Issue-3-Korea.pdf

Reid, E. Informed Consent in the Study of On-line Communities: A Reflection on the Effects of Computer-mediated Social Research. Information Society, vol. 12, pp. 119-127, 1996.

Rokka, J., & Moisander, J. (2009). Environmental dialogue in online communities: negotiating ecological citizenship among global travelers. International Journal Of Consumer Studies, 33(2), 199-205. doi:10.1111/j.1470-6431.2009.00759.x

Roy, L.,& Suzanne C, B. (2005). Sensitive research topics: Netnography revisited. Qualitative Market Research: An International Journal, 8(2), 189-203.

Sandlin, J. A. (2007). Netnography as a consumer education research tool. International Journal of Consumer Studies, 31(3), 288-294. doi:10.1111/j.1470-6431.2006.00550.x

Scheuren, F. (2004, June). What is a Survey?. Retrieved from http://whatisasurvey.info/chapters/chapter4.htm

Schofeld, E. (2010/April 21) Zuckerberg: 'We Are Building a Web Where the Default is Social.' Retrieved from TechCrunch.com: http://techcrunch.com/2010/04/21/zuckerbergs-buildin-web-default-social/ April, 2010. Accessed October, 2011.

South Korea tops in Internet download speed: study. (2011, September 20). AFP. Retrieved from http://www.physorg.com/news/2011-09-south-korea-tops-internet-download.html

Synthesio. (2011, January). Social Media Statistics and Trends for South America. Retrieved from http://synthesio.com/corporate/wp-content/uploads/2011/02/synthesio-social-media-in-latin-america.pdf

The Biving Report. (2008, June 18). SEO Basics. Retrieved from http://www.bivingsreport.com/2008/seo-basics/

Torres, L., Gonzalez, H., Ojeda, J., & Monguet, J. (2011) PLEs from virtual ethnography of Web 2.0. Retrieved from http://pleconference.citilab.eu/cas/wp-content/uploads/2010/06/ple2010_submission_42.pdf

U.S. POPClock Projection. (2011, November 17). US Census Bureau. Retrieved from http://www.census.gov/population/www/popclockus.html

Viitala, K. (2011). "Differing everydays" Practices of planning and coordinating daily life Retrieved from hsepubl.lib.hse.fi/FI/ethesis/pdf/12610/hse_ethesis_12610.pdf

Wallendorf, M. & Belk, R. W. Assessing Trustworthiness in Naturalistic Consumer Research. Interpretive Consumer Research, pp. 69-84, 1989

Willigen, J. V. Applied Anthropology: An Introduction. 3rd ed. Westport, CT: Greenwood Publishing Group, 2002.

Young, R. D. (2011, November 11). , Google Releases Think Insights Trend & Research Hub for Marketers. Retrieved from http://searchenginewatch.com/article/2124559/Google-Releases-Think-Insights-Trend-Research-Hub-for-Marketers