CONTEXTUAL GAPS AND PERCEPTION OF PRIVACY WHEN USING FACEBOOK: MULTIPLE SELVES – A FRIEND VS. A CONSUMER

by

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(Under the Direction of Bryan H. Reber)

ABSTRACT

As social networking sites (SNSs) have become another medium to communicate with publics, many communicators have focused on more effective ways to approach and interact with customers. With such an idea, many researchers have paid attention to the site users' perceptions of the company and their privacy concerns. However, not only is a SNS a useful tool for corporate communication, but also it is a social interaction sphere with friends, family, and even strangers. Thus, although a SNS has shed light on a promising corporate communication sphere, there are few studies that consider both contexts – organization-to-public communication and peer-to-peer communication, as a rising field for new research. Therefore, this study aims to look at both contexts in the same SNS to

provide more useful insights to scholars and practitioners in order to communicate with publics more efficiently with regard to Facebook users' multiple selves and perception of privacy concerns. Through this framework, the present study seeks to create a strategy for minimizing customers' privacy concerns and negative perceptions when they communicate with a company, as corporations adjust to a more ideal self presentation for effective communication. To accomplish this goal, the present study conducted a survey using two contexts— peer-to-peer communication and organization-to-public communication each with a brief situation scenario. Participants tended to have higher privacy concerns when they have lower boundary permeability, lower linkage with others, and higher ownership of their privacy. In terms of contexts, the subjects showed high sensitivity to the current context when they have lower boundary permeability, lower linkage with other, and higher ownership that all led to higher privacy concerns.

INDEX WORDS: Facebook, Multiple-selves, Privacy Management Theory (PMT), Boundary Management Rules, Corporate communication, Public relations, Peer-to-peer communication

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DEDICATION

This thesis is dedicated to my Lord, God almighty who provides me with His strength at each step along the way. It is also dedicated to my family: my respected grandmother, Back Soon Woo, my loving parents, Gyu Eon Han and Yong Mi Jung, and my only sister, Hee Jung Han.

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CHAPTER 1

INTRODUCTION

According to Burson-Marsteller (2010), of the *Fortune* Global 100 companies, 65% have active Twitter accounts, 54% have Facebook fan pages, 50% have YouTube video channels, and 33% have corporate blogs. This indicates that many companies are using social media more than ever, allowing both publics and corporations to easily communicate through social media channels. When people log in to Facebook and "like" a specific page created by a company, they can easily get news released by the company and communicate to the company whatever they wish without leaving the Facebook environment.

Additionally, *The Social Network*, directed by David Fincher in 2010, showed us how powerful social media are in terms of spreadability and overlapped human networks among media users. News can be spread fast and widely in a social network site (SNS); the human network in social media is overlapped, so the news one reports may eventually return to him or her. Thus, if the uniqueness of social media is applied strategically, such advantages could work for efficient corporate communication between organizations and publics and could affect organization-public relationships.

However, in opposition to increasing approachability and accessibility, privacy concerns disturb our trust. Because people have no idea of how their personal information is used, this uncertainty sometimes causes them to worry about their valuable data. R. Chen (2011) also asserted that criticism of privacy violation has accelerated rapidly, accompanied by the popularity of SNSs. Such concerns are explained by the public accessibility to users' personal information, including sharing and collecting of information by third parties, identity theft or use of the information for phishing (Hogben, 2007).

To solve the potential concerns for privacy by customers, personalized strategy has become more important to PR practitioners in the environment where communication opportunities with publics have increased. The FTC (Federal Trade Commission) (2000) reported that consumer-oriented commercial websites that collect personally identifiable information from or about consumers online would be required to comply with the four widely-accepted fair information practices: 1) notice – how information is collected, what it is, and how it is used; 2) choice – authority to choose how consumers' personally identifiable information is used beyond the use for which the information was provided; 3) access – websites would be required to offer reasonable consumer access to the information a website collected about them, including a reasonable opportunity to review information and to correct inaccuracies or delete information; and, (4) security – websites would be required to take reasonable

steps to protect the security of the information they collect from consumers. This means that the organization should respect the authority of private information controlled by consumers or publics. Although some scholars (Roper, 2005; Sallot, 2002) assert that it is impossible to conduct perfect two-way symmetric communication between publics and organizations, organizations need to make an effort to minimize the expectancy gap between publics and organizations regarding anticipated benefits by using the website as publics provide a certain degree of private information.

As an effort to examine how consumers use the media, what they want to receive or gain in that usage, and what influences them to change or determine their attitudes toward the companies with which they communicate in terms of privacy and media use patterns, many studies have been conducted and tapped previously untouched areas to draw more concrete pictures of what is happening in the changing media (Bansal & Chen, 2011; Child, Pearson, & Petronio, 2009; Cugelman, Thelwall, & Dawes, 2008; Flavián & Guinalíu, 2006; Gilpin, 2010; Li, 2011; Metzger, 2007; Thakur & Summey, 2005; Tyma, 2007; Wu, Hu, & Wu, 2010; Yang & Lim, 2009).

Particularly, privacy issues have dealt with various academic fields as follows:

Communication Studies applies Privacy Management Theory (PMT) and Communication Boundary Theory (CBM) by Petronio (1991) discussing

communicative behaviors against privacy concerns. Such a perspective has moved its communicative environment to computer-mediated-communication (CMC), and the theory has extended its area into online group communication (Tyma, 2007) and marketing communication (Metzger, 2007; Rifon, LaRose, & Lewis, 2007). In addition, Dwyer, Hiltz, and Passerini (2007) applied Social Exchange theory to explain the process of information exchange regarding private information and its corresponding rewards. Meanwhile, Gilpin (2010), Yang and Lim (2009) and Vorvoreanu (2006) studied trust and privacy issues in terms of organization-public relationships.

Meaningful research has been done in the areas of trust and privacy in online media, laying the foundation for its own area of scholarship. However, even though several studies discussed privacy issues, there are few interdisciplinary bridges, especially within the public relations field. In addition, the previous studies tend to focus on effective ways of delivering useful news and answering consumers' questions without addressing the uniqueness of media platforms. Social media themselves are unique spheres where multiple contexts are integrated for friendship, business, mobilization, and so forth. In these settings (SNS) an organization can present itself as either a person or an organization.

Thus, the purpose of this study is threefold. First, the present study aims to fill the gap between different academic fields in theory development. That is, given various theories and concepts – Communication Privacy Management

Theory (CPMT), Communication Boundary Theory (CBT) (Petronio & Caughlin, 2006), Grunig's *Normative* model (Grunig, 2001), multiple selves (McConnell, 2011), and contextual integrity (Nissenbaum, 2004)/ gaps (Hull, Lipford, & Latulipe, 2010) — from other social science areas to public relations, this study makes an effort to reverse centrifugal momentum to the centripetal direction, making meaningful results converge. Next, the current study seeks to examine extensive possible variables that could affect privacy management in online media, such as degree of communication boundary and multiple selves. In doing so, this study provides a useful cue to understand consumers' perception of privacy concerns in organizational communication spheres opening to publics, as compared to general communication contexts as an ordinary self communicating with Facebook friends. Third, the goal of this study is to give insight for practitioners into what should be considered when they set a plan for relationship building and an effective communicative strategy in respect to public relations to minimize the perception gap between organizations and publics regarding privacy concerns.

For this, the present study assumes two communication contexts – corporate communication as a consumer and interpersonal communication as a Facebook friend. A survey for college students aims to examine how managed personal communication boundaries affect privacy concerns and how different contexts affect perception of the degree of privacy concerns with different self-

identities.

CHAPTER 2

THEORETICAL BACKGROUND

As mentioned above, the present study seeks to focus on communication privacy management and communication boundaries, privacy concerns, and multiple selves in SNS. In this section, given that the previous studies are discussed, a conceptual background will be presented and will lead to research questions and hypotheses for this study.

Multiple Selves

Multiple Selves

The "self" is conceptualized as a schema that organizes self-referent memories — both semantic and episodic -- as well as guiding the processes and categories of self-referred information (Kihlstrom & Cantor, 1984; Markus, 1977, 1980). Our identities tend to be linked to multiple roles when we interact with others in different online contexts. The self is a dialectical self, interacting with others (Fivush & Buckner, 1997).

McConnell (2011) mentioned the multiple self-aspects framework (MSF) in Figure 1, and conceives of the self-concepts as context-dependent. He pointed

out five principles of the self: 1) the self is a collection of multiple, context-dependent self-aspects; 2) self-aspects are associated with personal attributes, which become more accessible when the self-aspect is activated and vice versa; 3) overall affect reflects the evaluation of one's self-aspects weighted by their accessibility, and thus feedback about a self-aspect will affect general affective states to the extent that the information has implications for one's evaluation of that self-aspect; 4) feedback about a self-aspect influences evaluations of other self-aspects that share greater attribute associations; and 5) the impact of information pertaining to a specific attribute on overall affect increases as the number of self-aspects associated with the attribute increases (p. 5).

In other words, as Rachel's multiple selves show in Figure 1, one has multiple self-aspects and plays roles differently, depending on each situation.

Multiple Selves on Facebook

Facebook

According to Facebook (2011), Facebook reaches over 750 million active users. It is one of the most popular social networking sites (SNSs). boyd and Ellison (2007) defined SNSs as "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections" (p. 211) within the system. SNSs have attracted

hundreds of millions of users.

In particular, Facebook develops technologies that facilitate the sharing of information through a social graph, the digital mapping of people's real-world social connections (Facebook, 2011). Moreover, the main characteristics of a site like Facebook is to connect participants' profiles to their public identities, using real names and other real-world identification signs such as pictures, videos or e-mail addresses in order to enable interaction and communication between real-world subjects (Dumortier, 2009).

Facebook Environment: Contextual Integrity vs. Contextual Gaps

As mentioned above, the present study seeks to focus on privacy-related issues within social media. In other words, the current study looks at how publics have managed their private information when they need to make a decision whether to share it. This study also examines how publics perceive their privacy concerns differently, depending on publics' privacy boundaries resulting from privacy management. In this part, to help with extending such an idea, conceptual and theoretical backgrounds will be discussed.

Communication Privacy Management (CPM) and Communication Boundary (CBM)

Petronio (2002) proposes a conceptual and theoretical framework in her articulation of Communication Privacy Management (CPM), arguing that individuals depend on a rule-based boundary system when deciding whether to disclose private information. These rules are dynamic since they can change, grow, or remain stable for periods.

Privacy Management Theory (PMT) seeks to explain the regulation and control of the disclosure of private information to others by recourse to a rule-based management system that aids decisions about the way privacy boundaries are regulated (Berger, 2005). The more specific Communication Privacy Management Theory (CPMT) is a practical theory constructed to permit applications that give us an opportunity to understand daily problems and events that people encounter (Petronio & Caughlin, 2006). Along the same line, Communication Boundary Theory (CBM) suggests that one needs a specific boundary of private information and shares the private information with others within the permitted range of boundary rules (Petronio, 1991).

The theory proposes three iterative processes for boundary management (Petronio, 2002). The first process, boundary rule formation, includes the seeking of information and rules development to regulate when and under what circumstances people will reveal rather than withhold personal information;

whereas the second process, boundary coordination, refers to the negotiation of privacy rules between parties through the setting and maintenance of boundary linkages, boundary ownership rights, and boundary permeability. The third process, boundary turbulence, might result from differences in privacy rules between parties through privacy rule violations or deficient boundary coordination. Boundary turbulence refers to the dynamic process of maintaining and negotiating boundaries to manage personal disclosures.

These perspectives are supplemented by six propositions. In other words, individuals have their own boundary rules and their communication privacy management is operated under six propositions of CPM (Child, et al., 2009). Proposition 1: From a behavioral perspective, CPM argues that people believe their private information belongs to them. Proposition 2: Because people believe that they own their private information, they also believe that they have the right to control the flow of that information. Proposition 3: In order to control the flow of private information, people develop and use privacy rules based on criteria important to them. The theory stipulates rule-based factors that impact the management of both individual privacy boundaries (cultural, gendered, motivational, contextual, and risk-benefit ratio criteria) and collective privacy boundaries (permeability, ownership, and linkage rules). Proposition 4: When individuals grant access to their private information through disclosure or other means, that information enters into collective ownership, which represents an

extension of the privacy boundary. Within that collective ownership, the discloser expects an acceptance of responsibility for the information. Proposition 5: Once the information becomes co-owned and collectively held, the parties negotiate collectively agreed upon privacy rules for third-party dissemination. These rules may be explicit or implicit within the conversation about private information.

CPM posits the existence of three main types of privacy rules. *Permeability rules* help to determine how much (breadth and depth) information others can know. When people want a significant amount of control over private disclosure, they create boundary structures that reduce the possibility of information leakage or they establish boundaries with low permeability possibilities. Negotiations of *ownership rules* guide the co-owners in determining how much control they have over the co-owned private information. Ownership rules capture the extent to which the original owner of private information assumes that co-owners have control to make independent decisions about further disclosure of private information. Thus, ownership rules are negotiated to grant others accessibility to private information. Finally, *linkage rules* for private information consider who else can know the information. Linkage allows others to be included in the collective privacy boundary.

Proposition 6: Given that people do not consistently, effectively, or actively negotiate privacy rules for collectively held private information, there is a possibility of *boundary turbulence*. Boundary turbulence occurs when violations,

disruptions, or unwanted mistakes are made in the way that co-owners control and regulate the flow of private information to third parties (e.g., Petronio, 1991, 2002, 2006, 2007; Petronio & Durham, 2008).

The boundary is managed by a certain rule and its management system. Once the individual forms a boundary rule, he or she uses it for a particular event. The rule usage may become ritualized or routinized and is sometimes difficult to change. If the rule is shared, it is co-owned, but if there is a conflict between co-owners, they may go through turbulence in the relationship. The levels of openness are not fixed and can be controlled if needed (Petronio, 2000).

For this reason, Petronio (1991) explained four motivations for revealing private information: (1) to express feeling or thought; (2) to clarify oneself; (3) for social validation to receive confirmation about his/her self-esteem; and, (4) social control. That is, both by internal and external factors, the individuals attempt to control their private information.

Communication Management in Online Media

Studies about privacy management have recently become more actively discussed. The reason is the current trend of using new media frequently for communication campaigns. As individuals increasingly use the Internet as a tool of communication with others, many websites ask people to disclose private information to some degree. As much time as people spend using the Internet,

understanding how publics manage their private information has become more important than ever before.

Metzger (2007) described people who use the Web environment just as they do in face-to-face situations. That is, people are equally or even more concerned about exposure of private information in the online environment. Tyma (2007) explored the online social community in terms of privacy boundaries. Seeing the levels of openness through the personal information setting, Tyma (2007) tried to identify the privacy and boundary rules of the community. Meanwhile, Child, et al. (2009) developed the measurement scale of privacy management controlled in various ways. The study also focused on how college students manage tensions between balancing the need for contact and the need for privacy.

Based on such logic of privacy management, understanding the mechanism of privacy management for consumers is important in the perspective of corporate communication. Thus, Petronio's (2002) Communication Privacy Management (CPM) framework has been used to understand how people decide to disclose private information in offline settings and also to understand and address the tension between disclosure and privacy by examining how and why people decide to reveal or conceal private information within the e-commerce context. With this perspective, the CPM approach means that the online users have control over which private details are broadcast to the audiences

(Coopamootoo & Ashenden, 2011a).

With such an idea, Coopamootoo and Ashenden (2011b) studied the principles of Communication Privacy Management (CPM) through semiotic inspection to examine online privacy mechanisms. In other words, the study examined whether several popular websites appropriately interact with consumers to encourage them to participate in corporate communications. They found that privacy as a communication process breaches many of the principles of CPM and concluded that this might explain why end-users do not interact with online privacy mechanisms effectively. Meanwhile, Metzger (2007) focused on the consumer side and confirmed that online consumers do erect boundaries around personal information and form rules to decide when to reveal information that is consistent with CPM theory. On the other hand, Rifon, et al. (2007) focused on the organizations' side and analyzed the privacy statements of 200 e-commerce sites to examine the process of boundary maintenance, categorizing the CPM.

Contextual Dynamics on a SNS, Facebook

Now the discussion regarding privacy management will be narrowed down to one specific social networking site (SNS) – Facebook.

Facebook

According to Facebook (2011), Facebook reaches over 750 million active users. It is one of the most popular social networking sites (SNSs). boyd and Ellison (2007) defined SNSs as "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections" (p. 211) within the system. SNSs have attracted hundreds of millions of users.

In particular, Facebook develops technologies that facilitate the sharing of information through a social graph and the digital mapping of people's real-world social connections (Facebook, 2011). Moreover, the main characteristics of a site like Facebook are to connect participants' profiles to their public identities, using real names and other real-world identification signs such as pictures, videos, or e-mail addresses in order to enable interaction and communication between real-world subjects (Dumortier, 2009).

Facebook Environment: Contextual Integrity vs. Contextual Gaps

There are several different views that define the Facebook environment. Some scholars think that Facebook is a de-contextualized context (Dumortier, 2009) and regard the sphere as a contextually integrated place. The concept, *Contexual Integrity* is defined by Nissenbaum (2004). It is a measure of how

closely the flow of personal information conforms to context-relative informational norms. Contextual integrity is violated when these norms are breached. In this context, the flow of information of a certain type (attributes) about a subject (acting in a particular capacity/role) from a sender (possibly the subject, acting in a particular capacity/role) to a recipient (acting in a particular capacity/role) is governed by a particular transmission principle. For example, when a behavior appropriate with a close friend in a bar is conducted in public or at work it violates contextual norms of appropriateness. In the same way, if my boss comes to know information that was originally intended for my girlfriends, it violates contextual norms of distribution.

On the other hand, other scholars see the sphere as an extension of offline identities (boyd & Ellison, 2007). The various connections and extended networks that are present offline help us to define our online identities as fluctuating individuals. We have different friends and social circles in which we engage, therefore, depending on the specific environment, we may vary the person we portray. boyd and Ellison (2007, p. 13-14) signify this by acknowledging our friends and connections in online social networking sites are used for contextual purposes, as it enables us to envision a virtual audience, which we use to help define our online selves, activities, and behavior. This audience already exists in offline extended social networks.

Thus, even though the SNSs are a sphere where every relationship is

integrated at the same time, if we think of them as extensions of offline relationships, media users are still concerned about the original relationships and controlling their multiple selves depending on each relationship and condition.

Multiple Selves on Facebook

On Facebook, self-construct may be crucial because it has many spaces and functions to present various self features such as an expression of self using a profile page, connection with Facebook friends, and real-time interaction through updated news of the friends on the website (Harter, 1999; Valkenburg, Peter, & Schouten, 2006). In other words, Facebook offers a space simultaneously for a great deal of self-expression and multilateral interactions.

As Figure 1 shows, Facebook includes many different contexts at the same time, and Facebook users operate their multiple selves depending on the interaction conditions. Because each context has different norms, Facebook users may have trouble integrating and distributing their multiple selves when they post identical words on Facebook that are available to their friends equally. For example, when Facebook users communicate with their friends, they play a role as a friend self and they can control the level of openness because they own their private information. In contrast, if Facebook users communicate with a company, they become consumers and the right to control private information depends on

the corporation. Such a contextual difference in terms of level of openness including availability of private information may affect the determination of privacy boundary levels of publics.

Privacy on Facebook

Privacy concerns on Facebook

Protecting privacy in the face of increasing privacy concerns has occurred simultaneously with the development of storage technologies and digital networks. Among many issues, exchanges between Internet users and corporations providing information about corporate services, products, events, and so on have been a focus for both practitioners and scholars (Dinev & Hart, 2004). According to Merriam-Webster (2011), *privacy* means the quality or the state of being apart from company or observation or freedom from unauthorized intrusion. That is, it includes the preference or right of a person who wants to protect himself or herself from others as much as he or she desires.

Classically, Smith, Milberg, and Burke (1996) developed the measurement scales for individuals' privacy concern and Culnan and Armstrong (1999) modified it for the electronic world. Koufaris and Hampton-Sosa (2004) mentioned that since the early years of commercial use of the Web, customers have been reluctant to buy online due to their concerns about privacy and security.

However, trust, the reputation of the company, and the purpose of information provision caused a reduction in customers' concern regarding their privacy and security. Recently, Fogel and Nehmad (2009) designed a measurement scale for online privacy concern that includes social networking sites (SNS) and urged that an SNS should inform potential users regarding risk taking. Additionally, the authors commented that privacy concerns are potentially relevant and important concerns that should be evaluated before individuals sign-up and create an account on a SNS.

In addition, the previous research has examined the relationships between privacy concern and other variables. For example, as antecedents to privacy concern, Dinev and Hart (2004) investigated perceived vulnerability and perceived control. The two factors are regarded as constructs for privacy concerns and confirmed the validity of the variables in the study. Bansal and Chen (2011) also divided privacy concerns into three dimensions: collection, secondary use, and improper access. Here, *collection* means collecting too much information on users, *secondary use* is usage of the user information for other purposes without the users' approval, and *improper access* includes unauthorized access to the user information. The authors assumed privacy concern as a contributory variable relationship between types of websites and trust. The research showed that strong support for the role of concerns was related to *improper access* in trust formation.

In addition, Chen and Barnes (2007) mentioned "perceived risk" as

similar to “privacy concern” and used it for the four major categories of determinants for consumers’ online initial trust. It was found that perceived privacy is an important antecedent to online initial trust, and it related to the purchase intention. Similarly, Metzger (2004) proposed a model of online information disclosure. Concern for online privacy was applied as an independent variable for trust of website and prior online disclosure. The result revealed that differences in online information disclosure depend on the characteristics of Internet users and the type of information requested by commercial websites. Thakur and Summey (2005) also tested predictors of online activity. In their research model, personal security concern included disclosure of credit card information, disclosure of financial record, and disclosure of personal information. Personal security concern was assumed as an independent variable leading to usage and non-usage of websites, and it was found that there are significant relationships among variables.

Privacy Management and Privacy Concerns on Facebook

As mentioned before, privacy concerns can be differentiated by managing one’s own privacy boundaries. Lewis, Kaufman, and Christakis (2008) tested personal privacy in SNSs like Facebook and MySpace. The results showed that if their friends and roommates disclosed certain information, it was more likely for respondents to have private profiles; gender and the level of online activity also

affected the privacy setting.

Meanwhile, Preibusch, Hoser, Gürses, and Berendt (2007) argued that the privacy options offered by SNSs do not provide users the flexibility they need to handle conflicts with friends who have different conceptions of privacy; they suggest a framework for privacy in SNSs that they believe would help resolve these conflicts. While SNSs already use some privacy functions and have their own privacy policies, these are still centered around the individual, although SNSs clearly take into account network effects. If, for example, one user reveals data about himself, as well as a list of his friends, this"network" information could lead to revelations that had not been intended by his friends. Such leaks can prove bothersome or disastrous for individual users. In addition, these users may lose trust in the SNS and leave, which in turn creates problems for the operators of the site and the marketing initiatives considering using the site.

With regard to privacy boundary management, Margulis (2011) mentioned that publics achieve desired levels of privacy and disclosure through the use of privacy rules. However, effective boundary management might fail. For example, there can be boundary turbulence because a co-owner feels no obligation to protect the discloser's private information. Although privacy turbulence is not caused by co-owners, the Facebook environment itself, in which multi-selves co-exist, can be one reason because of its complexity concerning Facebook users' privacy management. In other words, Facebook has multiple

aspects of selves in each relationship so that it may be more difficult to manage them through a single manipulation of privacy settings. Such a failure links to the different levels of privacy concerns.

Privacy Concerns and Relationship Building

If we think about the existence of multi-selves in the contextual characteristics of Facebook, there are many different simultaneous relationships. Moreover, privacy management does not simply involve a personal behavior, but it includes its effects on building and keeping a relationship with others. In terms of organizational communication, public relations practitioners who are in charge of media management or online communication are required to pay attention to the needs of target audiences. Not only does privacy concern in online communication affect decisions about the initial stage of participation for media users and whether they are willing to communicate with the involved company or not, but it also influences formation of the media users' personal image and attitude toward the company over the long run.

Theoretically, Grunig (2001) proposed a model[1] to pursue *excellence* in

[1]Grunig's model is composed of four boxes: (1) Press agentry/publicity model (One-way communication) uses persuasion and manipulation to influence audience to behave as the organization desires, (2) Public Information model (One-way communication) uses press releases and other one-way communication techniques to distribute organizational

relationship management for both an organization and its key publics with mutual benefit. Ledingham and Bruning (1998) and Wood (2000) also defined the relationship management dimensions — trust, openness, involvement, investment, and commitment — and differentiated media users as those who would sign up with a new provider or were undecided as to what they would do. That is, it is possible to link trust, openness, commitment, investment, and involvement to the relationship between organizations and publics. Moreover, these factors are closely related to privacy concerns and impression formation toward the organization by consumers or publics. In accordance with such an idea, Gilpin (2010) investigated several online channels (press room, blog, and Twitter) that contribute to image construction. As the channels that let publics communicate with organizations easily increase, publics are more concerned about which one is better - if the individual should disclose his/her information for the predictable benefits provided by the organizations or not. In respect to the organizations, trust formation and building long-term relationships are the pivotal factors to win favor for publics. Kovar, Burke, and Kovar (2000a, 2000b) also found that the web assurance increases online purchase intentions, and when the websites that require

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information. Public relations practitioner is often referred to as the "journalist in residence", (3) Two-way asymmetrical model (Two-way communication) uses research to understand the public and then persuasion and manipulation to influence public to behave as the organization desires, and (4) Two-way symmetrical model (Two-way communication) uses communication to negotiate with publics, resolve conflict, and promote mutual understanding and respect between the organization and its public(s).

personal information of customers are used only with the permission of the customer, trust in the website increases, and the customers are more interested in using the web.

Therefore, how publics manage their private information and how it is differentiated under contexts such as peer-to-peer communication and corporate communication are critical and need to be studied for corporate communication practitioners to make effective plans with appropriate strategies. Therefore, the present study focuses on how different communication boundaries and self-identities on Facebook affect publics' privacy concerns. Ultimately, the current study aims to understand the balance and the control of publics' privacy boundary rules, to maintain and improve the relationships between corporations and publics in the long run.

CHAPTER 3

HYPOTHESES

Until now, this study has discussed how private information is managed by individuals and how it can be applied to Facebook with multi-selves in simultaneous relationships.

Basically, individuals think that they own the authority to manage and to control their private information as a part of themselves (Child, Pearson, & Petronio, 2009). Privacy Boundary is managed by certain rules, which have their own management system. Once the individual forms a boundary rule, he or she uses it for a particular event. If the rule is shared, it is co-owned, but if there is a conflict between co-owners, they may go through turbulence in the relationship. The levels of openness are not fixed and can be controlled if necessary (Petronio, 2000). As Child, Pearson, and Petronio (2009) noted, the boundary rule includes *permeability, ownership,* and *linkage*. When individuals share their information with others, they manage their boundary by using these three concepts, yet their own privacy concerns are not always successfully minimized. Therefore, the current study will scrutinize how privacy management mechanisms are changed by incorporating a different self on Facebook, resulting in varied levels of privacy concerns. This research will help corporate communicators understand the

characteristics of SNS users and implement more effective ways to approach their publics in SNS.

Moreover, the present study proposes two hypotheses (six sub-hypotheses). The purpose of the study is to understand the publics' perception of privacy in a social media environment, Facebook. At the same time, this study seeks to provide useful insights for practitioners to determine whether they should become more public or private in social media.

H 1. Depending on different communication boundary management (CBM), Facebook users will have different privacy concerns.

H1a: When communication boundary permeability is low, Facebook users will have high privacy concerns.

H1b: When communication boundary ownership is low, Facebook users will have low privacy concerns.

H1c: When communication boundary linkage is low, Facebook users will have high privacy concerns.

H 2. Depending on individual communication boundary, there will be significant difference in privacy concerns between two conditions: an ordinary self (communicating with Facebook friends) and a consumer self (communicating with organizations).

H2a: When communication boundary permeability is low, a consumer self will have higher privacy concerns than a friend self.

H2b: When communication boundary ownership is high, a consumer self will have higher privacy concerns than a friend self.

H2c: When communication boundary linkage is low, a consumer self will have higher privacy concerns than a friend self.

CHAPTER 4

RESEARCH METHOD

Based on the above literature review and theoretical framework, the present study is designed to examine privacy boundaries and privacy concerns for users on Facebook, related to users' to multiple selves. In particular, corporate communication is the major frame of this study. The two different contexts – peer-to-peer communication (PC) and corporate communication (CC) were tested to determine whether Facebook users perceive and manage their privacy concerns in the different contexts. Prior to the main study, a pilot test was conducted to get feedback and deal with any unexpected problems that could occur. Then, the main study took place through an online survey-based procedure.

Pilot Test

The pilot test was conducted with the same questionnaires as the main study to determine whether there were any difficulties in understanding the questions and visual displays in the online setting. Purposive sampling on Facebook was used to recruit participants. The researcher sent a message to friends and let them join the survey (See Appendix A, p.74).

By receiving answers and comments from the pilot group (Male $N = 14$, Female $N = 7$), the errors or ambiguities of meanings in each item were corrected. The visual display characteristics, such as the font types, the font sizes, and orders of the items, were edited as well.

Furthermore, stimuli appropriateness was considered by respondents. On this point, it was not determined whether the stimuli really reflected what we want to measure because two contexts (PC and CC) are definite. Instead, to test whether the stimuli affect the selection of answers and whether the mood statuses after presenting stimuli were equal, an *emotional scale* (Lorr & Wunderlich, 1988) for both conditions was measured, applying a Likert 5-point scale, with endpoints 1 (positive adjectives) to 5 (negative adjectives). *Attitude-toward-brand* (Tseng, 2009), consisting of five questions with a Likert 5-point scale, with endpoints 1 (negative adjectives) to 5 (positive adjectives) for the CC condition was included as well. In terms of *attitude toward brand,* because this study applies to a certain brand, Apple, the applicants' attitudes were evaluated to see if they were in the extreme.

As a result of analyzing differences between the two conditions in terms of mood, no significant difference was found (PC [M] = 2.83, [SD] = .51, CC [M] = 2.74, [SD] = .40, $t(12) = .352$, $p = .73$). Levene's test concluded that equal variances were assumed, $F(2, 12) = .986$, $p = .340$. The results of mood scale showed the appropriateness of the stimuli for consideration in the main study.

Additionally, the mean value of *attitude toward brand* for the CC condition was 3.74 (N = 7, SD = .39). These results confirmed the initial validity.

Main Study

To conduct the main test, two undergraduate classes – a political science class and a public relations class – were contacted. An announcement regarding the purpose of the study, the procedures, the length of the survey, the online survey address, the deadline, and the researchers' contact information were provided to all participants. All participants were assigned to an evenly randomized context between the PC context and the CC context.

Participants

In order to assess individuals' privacy boundaries and privacy concerns on Facebook, an online survey was conducted with 398 undergraduate students recruited from the University of Georgia in the United States. The sample groups were from two different social science classes (political science and public relations) and participants received extra credit as a reward for participation in the experiment. Subject participation was completely voluntary. Prior to data collection, the Institutional Review Board (IRB) approved the study and its procedures. According to a website analyzing the Facebook socio-demographics data (http://apps.facebook.com/facebookers/) and another Facebook monitoring

site, CheckFacebook.com (http://www.Checkfacebook.com), the United States has the greatest number of Facebook users in the world (*n* = 155,892,160, 03/07/2012). The gender ratio between male and female is 45 to 55, and the largest age group is 18-24 year olds (24.0%). Thus, the participants in this study are verified as an appropriate sample. Among the total responses (*n* = 398), those who did not fully complete the answer sheet and those who do not have or use Facebook were excluded from the final lists.

Overall, the final sample consists of 383 participants (See Table 1). The average age of participants was approximately 20 years old (*M* = 19.67, *SD* = 1.41). The sample is 75.2 % female (*n* = 288) and 24.5% male (*n* = 95). The sample was diverse in terms of ethnicity/race with White/Caucasian as the largest proportion of the sample (301 participants, 78.6%) followed by African American (32, 8.4%), Asian (21, 5.5%), Hispanic (7, 1.8%), and Multiracial and others (22, 5.7%). According to the United States Census Bureau in 2010 (http://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf), the percentage of Whites in the United States is 72.4%, African American 12.6, Asian 4.8%. The sample is further subdivided into Hispanic and non-Hispanic so that the ratio of Hispanic was 16.3% of the total. Among participants, freshmen comprised 36.6% (*n* = 140), sophomores 33.7% (*n* = 129), juniors 18.0% (*n* = 69), seniors 9.7% (*n* = 37), and others 1.6% (*n* = 6).

Procedures

This study conducted an experiment constructed by two contexts – peer-to-peer communication (PC) and corporate communication (CC). The experiment used an online survey site, Qualtrics (http://www.qualtrics.com). This website provided self-created research functions including randomization and manipulation of survey flow. After conducting a pilot test for a week from February, 6, 2012 to February, 12, 2012, the main study was executed for two weeks from February, 15, 2012 to February, 22, 2012. Every participant was asked to visit the study's webpage (https:/qasiatrial.sia. ualtrics.com/SE/?SID=SV_b3Elx5wkvc9gLAM). The initial page presented the informed consent form, which included the purpose of the study, procedures, risk/discomforts, benefits, confidentiality, compensation, and contact information of researchers.

Contextual manipulation

To make participants answer the questions under the most natural conditions, when the participants clicked on the survey link, they were presented with a screen capture of an initial Facebook page, which was randomly assigned: some were presented with the PC context and others were presented with the CC context.

Peer-to-peer communication (PC) context

The peer-to-peer communication (PC) context is the most generally used circumstance. The stimulus was modified by a picture from "Google Image," found by searching "Facebook page." To help respondents understand the situation, the original picture was selected in consideration of how the 20-something aged college students actually use Facebook.

To adjust to the individual participants, the location was edited to the current location, "Athens" and the name was changed to "You (See p.81)." To control for the unexpected effect of the stimulus itself when the respondents answer the question, emotional status was measured.

Corporate communication (CC) context

The corporate communication (CC) context is a particular circumstance in which users "like" a company voluntarily. The stimulus was captured by Apple Corporation's Facebook page is operating (See p.84). Because the current study used an actual corporation, attitude toward brand was measured. In addition, to control for the unexpected effect of the stimulus itself when the respondents answer the question, emotional status was measured.

Measures

Question Construction

After agreeing to the informed consent form, the respondents answered the questions. The survey questionnaire consists of seven parts for the peer-to-peer communication context including questions about demographics and eight parts for the corporate communication context. The details including Internet/SNS use pattern, communication boundary (permeability, ownership, and linkage), and privacy concerns are described in Figure 2.

The survey starts with the questions regarding media use patterns. Because privacy concerns are related to media use patterns (Phelps, Nowak, & Ferrell, 2000), these patterns were measured to define the sample groups in this study. The questions about the Internet use pattern were modified from Ruzgar's (2005) survey and were ranged on a 5-point Likert scale, with endpoints 1 (never) to 5 (every time). The items for SNS use pattern were referred by Pempek, Yermolayeva, and Calvert (2009) and were also ranged on a 5-point Likert scale, which was specifically designed for this study regarding Facebook use. Next, a question about whether the respondent has a Facebook account and uses Facebook or not was asked to verify whether the participant was qualified to take part in the research.

Furthermore, as independent variables of Hypotheses 1 and 2, three factors (permeability, linkage, and ownership) were measured to scrutinize the

privacy management rules involved in communication boundaries. Measurement for communication boundaries followed Child, et al.'s (2009) items, but was modified to the Facebook environment. The close-ended questions were asked on a Likert 5-point scale, with endpoint 1 (strongly disagree) to 5 (strongly agree).

To compare the difference in the type of communications and the corresponding selves, two conditions— private and organizational communication— were randomly assigned to the respondents. The sample screen was presented first followed by the next questions regarding privacy concerns. In this part, to prove the validity and reliability of the stimuli and this experiment, a stimulus check was measured in the two contexts respectively. Mood was measured in condition #1: PC condition, and attitude toward brand and mood were asked in condition #2: CC condition. The measurement tool is adapted from Lorr and Wunderlich's (1988) study. As a result of factor analysis in the study, the three most-related factors describing "mood" by different adjectives were selected and asked. A 5-point Likert scale was used to measure subjects' mood after they were presented with the stimulus, with endpoint 1 (positive adjective) to 5 (negative adjective). On the other hand, for the CC condition, *Attitude toward brand* was asked, using Tseng's (2009) measurement tool. It also consists of a 5-point Likert scale, with endpoint 1 (negative adjective) to 5 (positive adjective).

Next, the level of privacy concerns was measured as a dependent variable. The measurement for privacy concerns was adapted from Dinev and Hart's (2004)

items and constructed on a 5-point Likert scale mimicking the communication boundary measurement. The questions were modified for each different condition and its Facebook platform.

Finally, to discriminate who participated in the survey (for the purpose of giving an extra credit as rewards), several questions asking demographic information were presented (gender, race, and age). This helped define the sample groups and also worked as a potential variable (Phelps, et al., 2000) to control the relationships between independent variables and dependent variables.

Data Analysis

To analyze the data, SPSS for Windows 18.0 was applied in this research. Firstly, demographics mentioned above with regard to the sample were analyzed by descriptive analysis. Then, questions examining media and SNS use pattern were also analyzed through descriptive analysis. Next, to test validity and reliability of this study, manipulation check between subjects and items check were conducted. Lastly, as a core analysis, hypotheses were examined through one-way ANOVAs for Hypothesis 1 and two-way ANOVAs and independent-samples *t* test for Hypothesis 2. In order to classify three concepts involved in privacy boundary rules – boundary permeability, boundary ownership, and boundary linkage into several groups by the degree of each rule, their average frequencies were analyzed. The mean value of permeability was 1.92; linkage was

2.38; and ownership was 3.57. The participants were divided into three groups by each rule. Group 1 included those subjects who have low boundary permeability, ownership, or linkage; group 2 included those subjects who have medium boundary rules regarding these three concepts; group 3 had high boundary rules.

Validity and Reliability

Validity Check

To prevent threats to validity, several factors were measured through the survey. First, because this study targets Facebook users, respondents who had accounts and used Facebook were identified. Thus, three participants were excluded from the rest of the survey. Additionally, the same way as pretest, differences in mood for all subjects were measured after being presented with the stimulus randomly assigned between the two contexts. An independent-samples t test was conducted to evaluate mood scale on the stimuli – Facebook pages in the PC and CC conditions. The test was not significant between the two conditions, $t(381) = 1.092$, $p = .275$. Here, equal variances were assumed by Levene's test, $F(2, 381) = 2.65$, $p = .104$. The mean value of PC condition was 2.92 ($n = 190$, $SD = .49$); the CC condition was 2.86 ($n = 193$, $SD = .55$). The results showed that the participants from each condition were not different in terms of mood in response to the questions. In other words, the stimuli had equal emotional impact on answering the questions regarding privacy issues. Especially for the second

condition, the CC context, *attitude toward brand* was measured with the same items as pretest, $M = 4.40$ ($n = 193$), $SD = .77$.

Reliability Check

To verify internal consistency, the alpha coefficient was computed on six constructs: mood scale (5 items), boundary permeability (BP; 6 items), boundary ownership (BO; 6 items), boundary linkage (BL; 6 items), attitude-toward-brand (ATB, 6 items), and privacy concerns (13 items). Table 2 shows the result. The range was alpha coefficients from .80 to .96. The generally agreed upon lower limit for Cronbach's alpha is .70 (MacKenzie, Podsakoff, & Jarvis, 2005), the values of the current study satisfied the cutoff.

CHAPTER 5

RESULTS

Media Use Patterns

To define the subject group of the current study, their media patterns were examined first. As shown in Figure 3 (p.66), the biggest percentages use the Internet for 4 to 6 hours (*n* = 174, 45%) and 1 to 3 hours (*n* = 172, 44.9%). Respondents answered about ten items regarding how they use the Internet (Table 3). In summary, respondents use e-mail almost every time they go online (*n* = 173, 45.2%); do research/homework/projects occasionally (*n* = 185, 48.3%); never use the Internet for part-time jobs (*n* = 187, 48.8%); chat occasionally (*n* = 172, 44.9%); read news/sports information occasionally (*n* = 137, 35.8%); sometimes watch/download entertainment (*n* = 177, 46.2%); buy products/services occasionally (*n* = 173, 45.2%); almost never play games (*n* = 156, 40.7%); and use SNSs every time they are online (*n* = 218, 56.9%).

Facebook Use Patterns

The sample group answered that they usually use Facebook for 1 to 3 hours (*n* = 219, 57.2%) as shown in Figure 4 (p.66). Additionally, they said their main connection routes for Facebook were laptop (*n* = 236, 61.6%), mobile phone

(*n* = 111, 29%), desktop computer (*n* = 32, 8.4%), and iPad/other tablet PCs (*n* = 4, 1%).

Peer-to-Peer Communication (PC) Context

In order to determine how the sample groups used Facebook in the peer-to-peer context, this study asked the participants about ten types of Facebook behaviors. As the results show in Table 4, they communicate with friends almost every time they go on Facebook (*n* = 593, 41.5%); sometimes want to know others better (*n* = 178, 46.52%); want to get contact information via Facebook occasionally (*n* = 175, 45.7%); sometimes present themselves to others through the profile section (*n* = 160, 41.8%); look at photos/videos almost every time they access Facebook (*n* = 181, 47.3%); sometimes post photos/videos (*n* = 182, 47.5%); send/receive messages via Facebook occasionally (*n* = 175, 45.7%); make/read wall posts almost every time they go on Facebook (*n* = 160, 41.8%); use Facebook to fight boredom almost every time they access Facebook (*n* = 149, 38.9%); and sometimes use Facebook for finding out about/planning events (*n* = 188, 49.1%).

Corporate Communication (CC) Context

To investigate the status quo of corporate communication by the subjects on Facebook, six questions were asked as marked in Table 5 (p.56). Of the 383

participants, 161 (42.0%) sometimes communicate with organizations via Facebook; 147 (38.4%) want to know organizations better through the communication; 143 (37.3%) get information about news/promotion/events occasionally, but some people almost never do that (*n* = 143, 37.3%); on the other many almost never give feedback to organizations (*n* = 172, 44.9%) or ask questions (*n* = 160, 41.8%). Results show that respondents usually participate in getting information about corporations, but do not often communicate voluntarily in giving feedback to or asking questions of the companies.

Communication Boundary Management

To measure boundary management rules, *permeability*, *ownership*, and *linkage* were addressed in the current study. Each concept has six questions asking its boundary management rule. Computing the average of each rule, three groups (high, medium, and low) were categorized.

The mean value of permeability was 1.92 on a 5-point Likert scale (1 – strongly disagree to 5 – strongly agree) and standard deviation (SD) was .62; the mean of ownership was 3.57 and SD was .55; the mean of linkage was 2.38 and SD was .79 (See Table 6). Based on the distribution percentage, participants were classified into the aforementioned three groups for each rule.

Permeability

A one-way analysis of variance was conducted to evaluate the relationship between boundary permeability and privacy concerns (see Tables 7 and 8). The permeability variable included three groups: high, medium, and low. The ANOVA was significant, F (2,380) = 10.74, p <001. Follow-up tests were conducted to evaluate pairwise difference among the means. Through post hoc comparisons with the groups, there were significant differences between all groups except medium and high permeability groups. Figure 6 shows the changes in privacy concerns for the three groups. As the level of boundary permeability increased, the mean of privacy concerns decreased.

Ownership

ANOVA was conducted to evaluate the relationship between boundary ownership and privacy concerns as shown in Table 9. Ownership was also divided into three groups by the level of boundary ownership measured in this study. The ANOVA was significant, F (2,380) = 8.35, p <001. Follow-up tests were conducted to evaluate the pairwise difference between groups. Through the post hoc test, each paired two groups were significantly different excluding medium and high ownership groups. As the level of boundary ownership increased, privacy concerns also increased. Figure 7 shows the changes in privacy concerns for three different levels of ownership groups.

Linkage

As shown in Table 10, the relationship between boundary linkage and privacy concerns was tested by ANOVA. The difference between groups was significant, F (2,380) = 5.18, p <05. To examine the actual difference between paired groups, follow-up tests were conducted, and it was found that the means of the low and high linkage groups were significantly different. Figure 8 describes the differences between the groups in privacy concerns. Overall, as the level of boundary linkage increased, privacy concerns lowered the same as boundary permeability.

Privacy Concerns

Privacy concerns were measured by 13 items, and the total mean value was 3.36 (SD = .56) with a 5-point Likert scale (1 – strongly disagree to 5 – strongly agree). However, the main focus was the difference in privacy concerns between two contexts: PC and CC. Table 7 is the result of examining mean difference between two conditions. In the CC condition, the subjects revealed higher privacy concerns than the PC condition (PC [n =190]: M = 3.25, SD = .56, CC [n =193]: M = 3.47, SD = .54), and there was a significant difference, t(381) = -3.93, p <001.

Contextual Difference and Boundary Management Rules

Condition, Permeability, and Privacy Concerns

To delve into privacy concerns by multiple selves in different contexts with different boundary rules, this study presented two contexts – CC and PC conditions. First of all, three levels of permeability groups were analyzed to examine privacy concerns, depending on different contexts. Table 11 shows the results of descriptive statistics and Table 12 reveals the relationships between condition, permeability, and privacy concerns. A two-way ANOVA was conducted to evaluate the effects of three permeability levels and contextual conditions on privacy concerns. The ANOVA indicated no significant interaction between condition and permeability, F (2,377) = 1.12, p >05, but significant main effects for condition, F (1,377) = 9.78, p <05, and permeability groups, F (2,377) = 8.70, p <001. However, the main effects were not the focus of this study. To compare the difference between the two contexts depending on different permeability levels, independent-samples t test was conducted, selecting each group from low to high level (See Table 13). There was only a significant difference between the two contexts on privacy concerns in the low permeability group, t(162) = -3.57, p <001. Figure 9 outlines the changes in privacy concerns by the permeability group for the two contextual conditions.

Condition, Ownership, and Privacy Concerns

Next, as a result of analyzing privacy concerns by conditions and ownership groups, there were significant differences in the main effects of conditions and ownership groups: condition – F (1,377) = 13.52, p <001; ownership group – F (2,377) = 7.97, p <001. In contrast, there was no interaction effect between condition and permeability, F (2,377) = 1.52, p >05. Table 14 displays mean and standard deviation by condition and ownership group, and Table 15 shows the result of a two-way ANOVA. Alternatively, to examine the difference in two contexts depending on the different ownership levels, independent-samples t test was conducted as shown in Table 16. In medium and high groups, there were significant differences: medium – t(165) = -3.30, p = 001; high – t(84) = -2.55, p < 05. Figure 10 describes the changes in privacy concerns by ownership groups for two contextual conditions.

Condition, Ownership, and Privacy Concerns

Lastly, the different level groups of linkage rule were tested the same as the other two rules. Tables 17 to 19 show the results of analyzing changes in privacy concerns, depending on condition and linkage level (See Figure 11 as well). Whereas there were significant differences in the main effects of the conditions and linkage groups (condition – F [1,377] = 12.05, p =001, linkage group – F (2,377) = 1.21, p <05). To examine mean difference in privacy

concerns for PC and CC contexts by three linkage groups, independent-samples *t* test was conducted. In low and medium groups, there were significant mean differences, low – $t(155) = -3.62$, $p < 001$; medium – $t(119) = -2.12$, $p < 05$.

Hypothesis Tests

Through the analyses until now, this study examined how different privacy boundary management rules affect privacy concerns with different selves adjusting to the different contexts (PC and CC condition). Given that the means of privacy concerns (DV) were analyzed by three boundary rules— permeability (IVa), ownership (IVb), and linkage (IVc) through one-way ANOVAs, Hypothesis1a, b, and c were strongly supported. That is, as participants have higher boundary permeability to others, privacy concerns decreased as shown in Table 8. Meanwhile, as privacy ownership was higher, privacy concerns increased (Table 9). Additionally, Table 10 shows higher privacy linkage led to lower privacy concerns.

Furthermore, adding one more independent variable or "condition," Hypothesis 2 was tested with three sub hypotheses. Here, independent variables are condition and three boundary rules, and the dependent variable is privacy concern. Through two-way ANOVAs as shown in Tables 12, 15, and 18, main effects and interaction effects were tested, but there were only main effects. Thus, pairing PC context with CC context included in the same levels of privacy

management rule groups from low to high, mean differences by independent-samples *t* test were examined (Tables 13, 16, and 19). Because three hypotheses or H2a-c originally assumed significant differences in all three levels of groups from low to high in terms of permeability, ownership, and linkage, H2a-c were partially supported.

CHAPTER 6

DISCUSSION

According to an article released by *The Wall Street Journal* (Raice & Angwin, 2011), "Facebook Inc. agreed to a 20-year privacy settlement with the U.S. government that would require the company to ask users for permission before changing the way their personal information is released." As functions on Facebook have become more complicated, there is more likelihood that Facebook will disclose users' private information through secondary sources regardless of one's direct agreement. Such a case shows why users are likely to worry more than before as they use social networking sites and their online and offline relationships become more complicated. As evidence, "Privacy" itself is a link at the bottom of the Facebook page display.

Following rising interest regarding "privacy," the current study conducted an online survey, presenting a randomly assigned condition between the two contexts: peer-to-peer communication and corporate communication. Through this research, many findings were revealed. Media use patterns, firstly, showed that using the Internet is definitely a significant part of our lives because respondents sampled who are in their 20s spend more than one to six hours on

the Internet each day, with much of that time spent on social networking activities. In comparing Facebook use patterns simultaneously, it is possible to use Facebook as a multi-taking activity because the survey respondents answered that they use Facebook for 1 to 3 hours, the same time spent using the Internet. Meanwhile, respondents noted that they were likely to actively respond to friends' postings but were unlikely to respond to corporate postings. It means that in a corporate communication context, the subjects observe corporate postings, but do not interact with them.

The tests regarding three privacy management rules (permeability, ownership, and linkage) showed their relationships with privacy concerns. Overall, permeability and linkage showed a similar tendency in contrast to ownership. As the respondents have higher permeability and linkage, they tend to have fewer privacy concerns compared to others. On the other hand, ownership goes in the opposite way; if the respondents have higher ownership than others, they probably have higher privacy concerns than others. These are all about hypotheses 1a to c.

To extend this logic, this study compared two contexts with sample independent variables and one dependent variable. Because privacy concerns depending on the different levels of privacy management rules change identically in two contexts— CC and PC, it was impossible to have interaction effects. In other words, the graphs showed a parallel shape, not a cross pattern between two

contexts.

The *t* tests analyzing two contexts with different levels of management rule groups gave us more meaningful results. In Tables 13, 16, and 19, it was determined that the degree of sensitivity led to whether one would consider one's current context or not. That is, when respondents have lower permeability, linkage, and higher ownership rules defined by one's own control, contexts became an issue. The difference in contexts was derived from those conditions.

In summary, when participants needed to share their private information with others, they considered how much they should allow others to coordinate their private information. It led them to manage their privacy boundaries. As a result of managing those boundaries, the participants set a certain level of permeability, linkage, and ownership. However, handling participants' privacy boundaries under the privacy management rules (i.e., permeability, linkage, and ownership) does not mean they freed themselves from privacy concerns. Decisions about those boundaries should be regarded as being based on personal attitudes toward privacy. Therefore, this study tried to deal with the relationships between privacy management rules and privacy concerns to determine how individuals' privacy management behaviors are connected to privacy concerns.

Specifically, organizations need to focus on publics who have lower permeability and linkage because those publics tend to worry about violation of their privacy issues. These practices can be achieved by social media

practitioners as they monitor publics' media use patterns and privacy boundary management behaviors. These findings help organizations approach publics more effectively because they show that organizations should give publics minimized invasions of privacy. However, the task of managing so many publics at the same time for practitioners may be regarded as an unfeasible plan. Nonetheless, practitioners need to keep in mind the fact that considering a corporate reputation management in the long run will be better than focusing on short term benefits based on utilitarianism ultimately.

The results regarding various contexts in which publics communicate with others should help organizations understand how privacy concerns vary by publics in specific contexts and are defined by one's privacy boundary management behaviors. In this study, the results showed that when participants communicated with corporations, they tended to have higher privacy concerns. Additionally, the participants who have higher ownership, lower permeability, or lower linkage are likely to be affected by the contextual factor.

Theoretical Implications

This study contributed to public relations scholarship in several ways. First, applying Petronio's (2002) Privacy Management Theory (PMT) often discussed in Communication Studies, this study tried to extend the range of research in the field of public relations. In communication studies, the contexts

applied to privacy management were mostly everyday life (Petronio, 2000) and health communication contexts (Yep, 2000). Thus, given that this study reflected the principle of PMT that states privacy boundary varies by contexts, two contexts (peer-to-peer and corporate communication contexts) were studied to examine privacy issues in public relations.

Furthermore, this study tried to move media contexts away from the previous media such as websites and blogs to social media. Child, et al.'s (2009) blog privacy management measurement items were modified for this study and adjusted to the social media context. Not only did this study elaborate on the former study in terms of each factor's appropriateness within a proposed model (Child, et al., 2009), but it also extended the media contexts; it added social media, currently regarded as the most frequently used online media (Madden & Zickuhr, 2011). Fully 65 % of adult internet users now use a SNS, up from 61% one year ago.

Finally, such a contextual difference in a SNS led to the consideration of a multiple-selves concept. Kim, Kim, and Nam (2010) mentioned the self-construal construct in social media because the media include an expression area for a self using profile page, connection with "friends" online, and real-time interaction by updated news of "friends" in the websites. That is, Facebook users should consider self-expression and simultaneously multilateral interactions in co-existing multi-contexts. Thus, this study designed an adjusted research setting

using a multiple-selves concept and following the characteristics of a SNS or Facebook and the SNS users.

Practical Implications

Under the lists of upcoming events in PRSA website (http://www.prsa.org/Search?q= social%20media), it is not difficult to figure out how many training programs and seminars have been held for PR practitioners. That is, building more effective operation strategies in SNSs is one of the hottest issues today. At this point, this study has two important implications for practitioners: PR ethics and customized strategies. Here, the main issue is how PR practitioners can plan to win favor from publics within the boundary of the PR Code of Ethics (http://www.prsa.org/AboutPRSA/Ethics/CodeEnglish/index.html) and accomplish their ultimate goals. The Code states:

> *"SAFEGUARDING CONFIDENCES: Core Principle Client trust requires appropriate protection of confidential and private information. The intent of this principle is to protect the privacy rights of clients, organization, and individuals by safeguarding confidential information."*

* Public Relations Society of America (PRSA) Member Code of Ethics (2011)

Therefore, practitioners should build their strategies with ethical respect for publics the same as organizations concern their private information. This research investigated that point in order to minimize unexpected concerns and obstructions for practitioners when they execute their tactics in social media.

At the same time, this study advises the necessity of creating customized strategies when practitioners approach consumers. As Hypothesis 2 revealed, how to approach and manage consumers primarily depends on the individual privacy management rules. As they are more sensitive to such private boundary management rules, consumers tend to be aware of their contexts. It requires practitioners to make systematic strategies in SNSs; they need to consider the characteristics of the users including privacy boundary and the following privacy concerns. Besides, the comparison between two contexts – PC and CC implies that corporations need to consider contextual factors, so they should try to test which approach is more effective. As an initial trial, this study tried to determine whether corporations should be an individual self such as in peer-to-peer context or a corporation self in the corporate communication context. This study showed that when more sensitive privacy boundary managers were in the corporate communicate context, they tended to be more concerned about the violation of their private information rather than the peer-to-peer context.

The practitioners can apply these findings toward building strategic guidelines; when corporations want to communicate with publics on a social

medium such as Facebook, it is required to approach them in a personalized way through social media replies, e-mail newsletters, birthday cards, and offers based on the previous purchases. Additionally, practitioners should manage publics' profiles through monitoring their media use patterns and privacy boundary management behaviors.

Limitations and Future Research

Notwithstanding the implications mentioned above, this study has several limitations as well. Although this study examined the relationships among four independent variables (condition and three boundary rules: permeability, ownership, and linkage) and a dependent variable or privacy concern, the effect sizes measuring the strength of their relationship were small as marked in Tables 8 – 10, 12,15, and 18. It is a weakness in the result of the ANOVAs in this study.

In addition, because it's a very initial stage of privacy-related research in PR studies using social media, generalization has not been supported fully. Particularly, because this study presented one stimulus in each context, it was difficult to exclude the covariate, such as brand attitude. While this study used *Apple* which is a brand that Facebook users have comparatively positive attitude toward, unfamiliar brands or other brands that consumers think negatively toward could result in a different degree of privacy concerns. That is, this study observed an identical situation without considering differences in attitude toward the

company. Furthermore, actual affects of strategic variations such as when a company identifies itself as an individual or a company has not been proved yet.

Meanwhile, although this study recruited participants from two classes considering gender bias, the ratio of the sample has still that problem. Additionally, the degree of familiarity among "friends" lists and the degree of familiarity with corporations needs to be considered as well because not all friends are best friends; all companies are not favorites. Furthermore, friend groups can be analyzed by another variable, such as gender, to judge whether the boundary levels are more sensitive for Facebook users. For example, the research could focus on changes in the level of privacy concerns when female users communicate with same sex friends versus with opposite sex friends. In the case of the corporate communication context, multiple brands can be applied to this study. As a related theory, the FCB-grid model proposed by Ratchford (1987) can be applied; the model has a descriptive system including two dimensions affecting purchase decisions: high/low involvement and thinking/feeling. The degree of involvement means the personal importance and attention value of a product category as defined by Zaichkowsky (1985), and thinking versus feeling depends on the process involved in making purchase decisions. The model suggests that depending on the types of the products, the strategic points should be designed differently. This type of categorization allows the examination and definition of multiple brands. Finally, because the present study examined the social medium

Facebook only, the attitude toward Facebook also plays a role as a covariate, so other media should be considered together.

Consequently, this study suggests future studies as follows: To generalize and elaborate this study, repeated and implemented studies are required. Particularly, other brands need to be applied under the same manipulation. Classification of friends lists and their following contexts can be another stimulus. Next, actual measurement of effects is required in the long term from planning to evaluation. Meanwhile, because this research is a first trial in the PR area, exploring other variables and extending the relationships are asked for scholars. For example, the characteristics of media users and media use patterns measured in this study can be targets of analysis for the future. For another follow-up study, it is possible to observe practical privacy management pattern in SNSs depending on privacy management rules those subjects who have different levels of permeability, ownership, and linkage.

Furthermore, comparing with other SNSs such as Twitter, or other media like blogs or websites can be an additional research idea. Because Facebook itself works as a covariate, this research can be discussed with PR practitioners and SNS corporations' managers as well. At the same time, differences in perception regarding privacy concerns and the current systems between publics and practitioners should be considered. Other age groups can be an additional source to examine a generation gap on perception of privacy issue and involved social

media use. Finally, although this study investigated the responses by Facebook users, their actual activities should be observed and analyzed to fill the void in privacy research regarding social media.

Meanwhile, with such efforts to develop this study for future, practitioners need to think about themselves in respect of the importance of privacy issues of publics. In the opposite side of the corporate strategies for encouraging publics to participate in the active communication, the corporations may intend to use their publics' information in purpose of their benefits. In other words, corporations need to consider if they more focus on the immediate benefits, not the relationship building for long run. Corporations should keep in mind the ethical facet of public relations.

In conclusion, the ultimate goal of corporations in practicing public relations is building, maintaining, and recovering publics' trust toward the corporations. At this point, Roloff's (1981) social exchange theory implies what strategies practitioners should take through balancing their information sharing. In the case of SNSs, the benefits of communicating with others, participating in a technology trend and networking may all be worth the cost of sharing private information. Thus, based on the theory, corporations are required to make an effort to build their positive image and to approach publics in a customized way as far as they want to communicate with publics and share publics' precious private information. Because the communication sphere is getting bigger and freer

through social media, corporations should understand what publics want. Specifically, corporations need to consider if there are potential obstructions that make publics unwilling to communicate with them and what makes publics disclose or not. Therefore, continuous efforts to approach publics and meet their needs are required for both practitioners and scholars in public relations in regards to privacy issues. For these reasons, given that this study deals with privacy issues within social media, this study has worthwhile implications.

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APPENDICES

TABLES

Table 1: Demographics of the Participants

		Frequency (*n*)	Percent (*%*)
Gender	Female	288	75.2
	Male	95	24.8
Grade	Freshman	140	36.6
	Sophomore	129	33.7
	Junior	69	18.0
	Senior	37	9.7
	Above	6	1.6
	Missing	2	.5
Race	Caucasian	301	78.6
	African American	32	8.4
	Asian	21	5.5
	Hispanic or Latino	7	1.8
	American Indian/Alaska Native	1	.3
	Biracial or multiracial	15	3.9
	Others	6	1.6
Age		*M* = 19.67	*SD* = 1.41
	Total	383	100

Table 2: Reliability Statistics

	Numbers of Items	Cronbach's Alpha based on Standardized Items
Mood Scale	5	.85
Boundary Permeability	6	.80
Boundary Ownership	6	.83
Boundary Linkage	6	.84
Attitude-toward-brand	6	.96
Privacy Concerns	13	.85

Table 3: Media Use Patterns of the Subjects *Frequency (%)

Purpose of Using the Internet	Never	Almost never	Sometimes	Almost every time	Everytime I'm online	Missing data
E-mail	1 (.30)	3 (.80)	60 (.15.7)	173 (45.2)	146 (38.1)	0 (0)
Research/ homework/ projects	3 (.80)	15 (3.9)	185 (48.3)	157 (41.0)	22 (5.7)	1 (.3)
Part-time jobs (Extra work)	187 (48.8)	90 (23.5)	81 (21.1)	20 (5.2)	1 (.3)	4 (1.0)
Chat	28 (7.3)	82 (21.4)	172 (44.9)	72 (18.8)	27 (7.0)	2 (.5)
Reading news/ sports information	18 (4.7)	79 (20.6)	137 (35.8)	112 (29.2)	36 (9.4)	1 (.3)
Watching/downloading entertainment	3 (.8)	27 (7.0)	177 (46.2)	134 (35.0)	41 (10.7)	1 (.3)
Buying products	10 (2.6)	100 (26.1)	235 (61.4)	31 (8.1)	5 (1.3)	2 (.5)
Searching for products/services	14 (3.7)	67 (17.5)	173 (45.2)	110 (28.7)	18 (4.7)	1 (.3)
Playing games	106 (27.7)	156 (40.7)	94 (24.5)	21 (5.5)	5 (1.3)	1 (.3)
SNSs	0 (0)	2 (.5)	36 (9.4)	127 (33.2)	218 (56.9)	0 (0)
Total	383 (100)					

Table 4: General Facebook Use Patterns of the Subjects *Frequency (%)

Purpose of Using Facebook	Never	Almost never	Occasionally /sometimes	Almost every time	Everytime I'm online	Missing data
Communicating with friends	0 (0)	11 (2.9)	88 (2.0)	593 (41.5)	124 (32.4)	1 (.3)
Getting to know people better	15 (3.9)	79 (20.6)	178 (46.5)	76 (19.8)	28 (7.3)	7 (1.8)
Getting contact information	31 (8.1)	122 (31.9)	175 (45.7)	40 (10.4)	13 (3.4)	2 (.5)
Presenting oneself through FB profile	28 (7.3)	98 (25.6)	160 (41.8)	66 (17.2)	27 (7.0)	4 (1.0)
Looking at photos/videos	0 (0)	13 (3.4)	97 (25.3)	181 (47.3)	91 (23.8)	1 (.3)
Posting photos/videos	10 (2.6)	56 (14.6)	182 (47.5)	93 (24.3)	40 (10.4)	2 (.5)
Sending/receiving messages	1 (.3)	28 (7.3)	175 (45.7)	125 (32.6)	54 (14.1)	0 (0)
Writing/reading wall posts	2 (.5)	21 (5.5)	129 (33.7)	160 (41.8)	70 (18.3)	1 (.3)
Entertainment	4 (1.0)	18 (4.7)	82 (21.4)	149 (38.9)	129 (33.7)	1 (.3)
Getting information on /planning events	3 (.8)	34 (8.9)	188 (49.1)	124 (43.4)	33 (8.6)	1 (.3)

Total	383 (100)

Table 5: Facebook Corporate Communication Patterns of the Subjects *Frequency (%)

Purpose of Corporate Comm.	Never	Almost never	Occasionally /sometimes	Almost every time	Everytime I'm online	Missing data
Communicating with organizations	19 (5.0)	102 (26.6)	161 (42.0)	77 (20.1)	23 (6.)	1 (.3)
Getting to know organizations better	28 (7.3)	131 (34.2)	147 (38.4)	62 (16.2)	13 (3.4)	2 (.5)
Giving feedback to organizations	71 (18.5)	172 (44.9)	99 (25.8)	33 (8.6)	7 (1.8)	1 (.3)
Asking questions regarding products/services	130 (33.9)	160 (41.8)	59 (15.4)	23 (6.0)	8 (2.1)	3 (.8)
Getting information on news/promotions /events	42 (11.0)	143 (37.3)	143 (37.3)	41 (10.7)	11 (2.9)	3 (.8)
Total	383 (100)					

Table 6: Mean and Standard Deviation (SD) of Three Boundary Management Rules (*Permeability*, *Ownership*, and *Linkage*) and Categorized Three Groups (Low, Medium, and High)

		Permeability	Ownership	Linkage
Low*		164 (42.8)	130 (33.9)	152 (39.7)
Medium*		110 (28.7)	167 (43.6)	108 (28.2)
High*		109 (28.5)	86 (22.5)	123 (32.1)
Total	Mean**	1.92	3.57	2.38
	SD	.62	.55	.79
	N	383 (100)		

**frequency (%)* ***5-point Likert scale with endpoint 1 (strongly disagree) to 5 (strongly agree)*

Table 7: Mean, Standard Deviation (SD), and Independent-Samples *t* Test between PC and CC Conditions

Condition	N	Mean	SD	t*	df*	Sig (2-tailed)*
PC	190	3.25	.56	-3.93	381	.000
CC	193	3.47	.54			

*equal variances assumed by Levene's Test for Equality of Variances, F (2, 381) = 0.39, p > 0

Table 8: The Relationship between Boundary Permeability and Privacy Concerns; the Results of a One-way Analysis of Variance (ANOVA)

Group	N	Mean	SD	F	df	Sig	Eta Squared	Difference Group
Low	164	3.51	.52	10.74	2, 380	.000	.05	Low/Medium, Low/High, and Medium/Low groups
Medium	110	3.30	.51					
High	109	3.21	.60					

*equal error variances assumed by Levene's Test of Equality of Error Variances, F (2, 380) = 1.31, $p > 0$

Table 9: The Relationship between Ownership and Privacy Concerns: the Results of One- way ANOVA

Group	N	Mean	SD	F	df	Sig	Eta Squared	Difference Group
Low	130	3.22	.55	8.35	2, 380	.000	.04	Low/Medium, Low/High, and Medium/Low groups
Medium	167	3.39	.56					
High	86	3.52	.52					

*equal error variances assumed by Levene's Test of Equality of Error Variances, F (2, 380) = .199, $p > 0$

Table 10: The Relationship between Linkage and Privacy Concerns: the Results of One-way ANOVA

Group	N	Mean	SD	F	df	Sig	Eta Squared	Difference Group
Low	157	3.45	.53	5.18	2, 380	.006	.03	Low/High group
Medium	121	3.36	.54					
High	105	3.23	.60					

*equal error variances assumed by Levene's Test of Equality of Error Variances, F (2, 380) = 0.74, $p > 0$

Table 11: Descriptive Analysis of Condition, Permeability, and Privacy Concerns

Condition	Permeability Group	N	Mean	SD
PC	Low	69	3.34	.49
	Medium	61	3.23	.51
	High	60	3.17	.65
CC	Low	95	3.63	.51
	Medium	49	3.38	.51
	High	49	3.26	.54

Table 12: Two-way ANOVA between Condition, Permeability, and Privacy Concerns

	Df	F	Sig.	Partial Eta Squared
Model	5	7.25	.000	
Condition	1	9.78	.002	.025
Permeability Group	2	8.70	.000	.044
Condition*Permeability	2	1.12	.327	.006
Error	377			

*equal error variances assumed by Levene's Test of Equality of Error Variances, F (5, 377) = 1.24, $p > 0$

Table 13: Mean, Standard Deviation (SD), and Independent-Samples *t* Test between PC and CC Conditions by Permeability Groups

	Condition	N	Mean	SD	t	df*	Sig (2-tailed)*
L	PC	69	3.34	.49	-3.57*	162	.000
	CC	95	3.62	.51			
M	PC	61	3.23	.51	-1.50**	108	.136
	CC	49	3.38	.51			
H	PC	60	3.17	.65	-.819***	107	.414
	CC	49	3.26	.54			

*equal variances assumed by Levene's Test for Equality of Variances, F (2, 162) = 0.00, $p > 0$

** equal variances assumed by Levene's Test for Equality of Variances, F (2, 108) = 0.06, $p > 0$

***equal variances assumed by Levene's Test for Equality of Variances, F (2, 107) = 1.30, $p > 0$

Table 14: Descriptive Analysis of Condition, Ownership, and Privacy Concerns

Condition	Ownership Group	N	Mean	SD
PC	Low	69	3.18	.58
	Medium	81	3.25	.56
	High	40	3.37	.51
CC	Low	95	3.26	.52
	Medium	49	3.53	.52
	High	49	3.65	.49

Table 15: Two-way ANOVA between Condition, Ownership, and Privacy Concerns

	df	F	Sig.	Partial Eta Squared
Model	5	6.95	.000	
Condition	1	13.52	.000	.035
Ownership Group	2	7.97	.000	.041
Condition*Permeability	2	1.52	.221	.008
Error	377			

*equal error variances assumed by Levene's Test of Equality of Error Variances, F (5, 377) = .53 $p > 0$

Table 16: Mean, Standard Deviation (SD), and Independent-Samples *t* Test between PC and CC Conditions by Ownership Groups

	Condition	N	Mean	SD	t	df*	Sig (2-tailed)*
L	PC	69	3.18	.58	-.77*	128	.441
	CC	61	3.26	.52			
M	PC	81	3.25	.56	-3.30**	165	.001
	CC	86	3.53	.52			
H	PC	40	3.37	.51	-2.55***	84	.013
	CC	46	3.65	.49			

*equal variances assumed by Levene's Test for Equality of Variances, F (2, 128) = .164, $p > 0$

** equal variances assumed by Levene's Test for Equality of Variances, F (2, 108) = 0.06, $p > 0$

*** equal variances assumed by Levene's Test for Equality of Variances, F (2, 84) = .060, $p > 0$

Table 17: Descriptive Analysis of Conditions, Linkage, and Privacy Concerns

Condition	Linkage Group	N	Mean	SD
PC	Low	72	3.29	.52
	Medium	62	3.26	.54
	High	56	3.19	.62
CC	Low	85	3.59	.50
	Medium	59	3.46	.51
	High	49	3.28	.57

Table 18: Two-way ANOVA between Condition, Linkage, and Privacy Concerns

	Df	F	Sig.	Partial Eta Squared
Model	5	5.48	.000	
Condition	1	12.05	.001	.031
Linkage Group	2	4.63	.010	.024
Condition*Permeability	2	1.21	.299	.006
Error	377			

*equal error variances assumed by Levene's Test of Equality of Error Variances, F (5, 377) = .94, $p > 0$

Table 19: Mean, Standard Deviation (SD), and Independent-Samples *t* Test between PC and CC Conditions by Linkage Groups

Condition		N	Mean	SD	t	df*	Sig (2-tailed)*
L	PC	72	3.29	.52	-3.62*	155	.000
	CC	85	3.59	.50			
M	PC	62	3.26	.54	-2.12**	119	.036
	CC	59	3.46	.51			
H	PC	56	3.19	.62	-.724***	103	.471
	CC	49	3.28	.57			

*equal variances assumed by Levene's Test for Equality of Variances, F (2, 128) = .164, $p > 0$

** equal variances assumed by Levene's Test for Equality of Variances, F (2, 119) = .264, $p > 0$

***equal variances assumed by Levene's Test for Equality of Variances, F (2, 103) = .211, $p > 0$

FIGURES

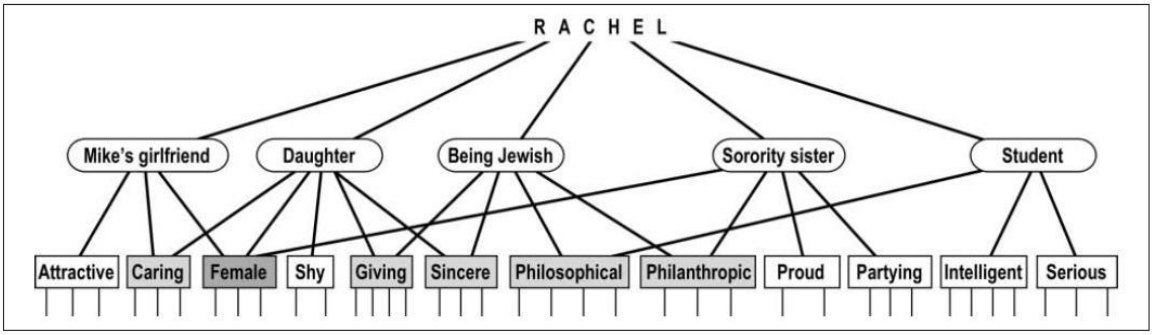


Figure 1. Hypothetical self-concept for a person named Rachel with five self-aspects (the ovals) and associated attributes (the rectangles)
Note: Shaded attributes are those associated with more than one self-aspect.

Figure 1. An Example of Multiple Selves (McConnell, 2011)

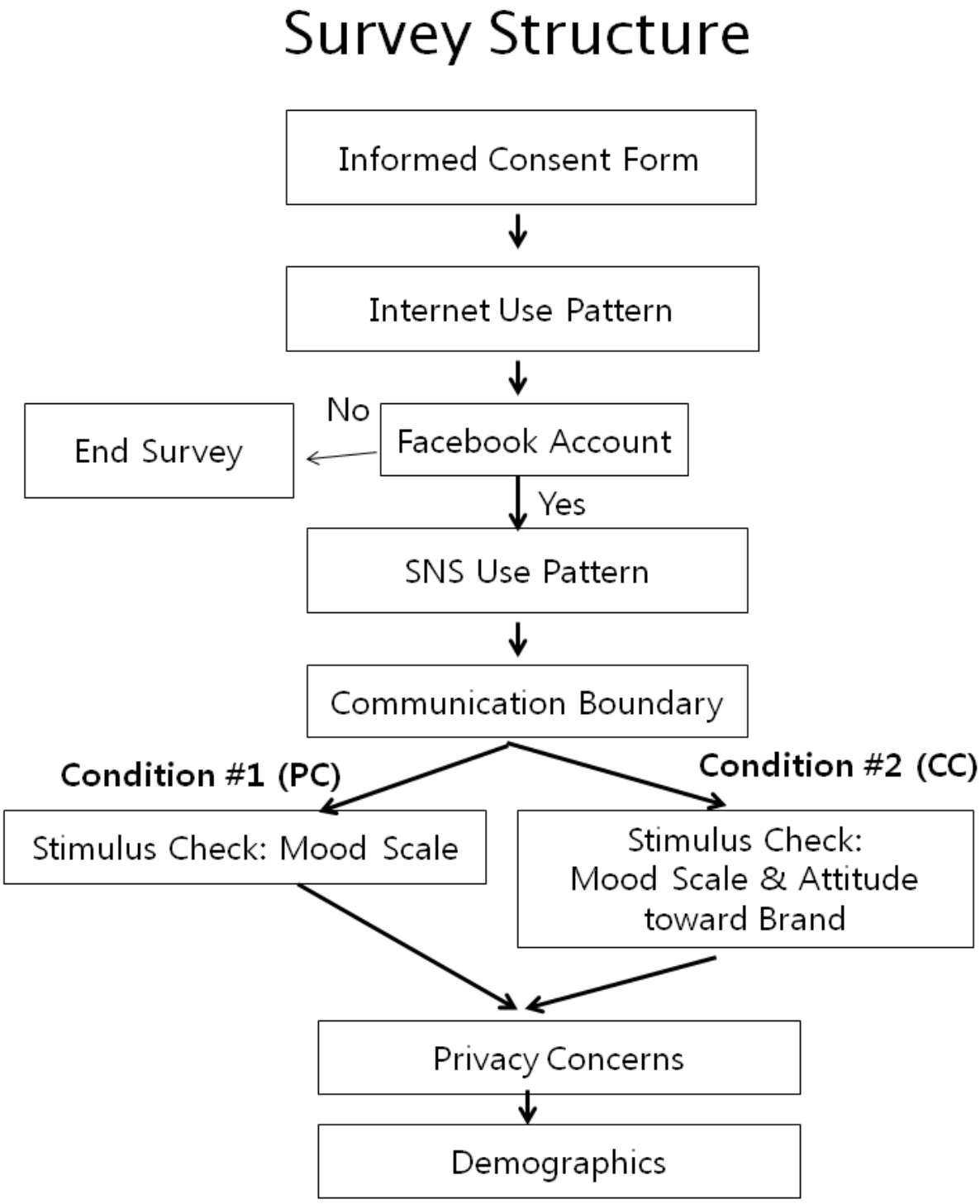


Figure 2. Survey Structure

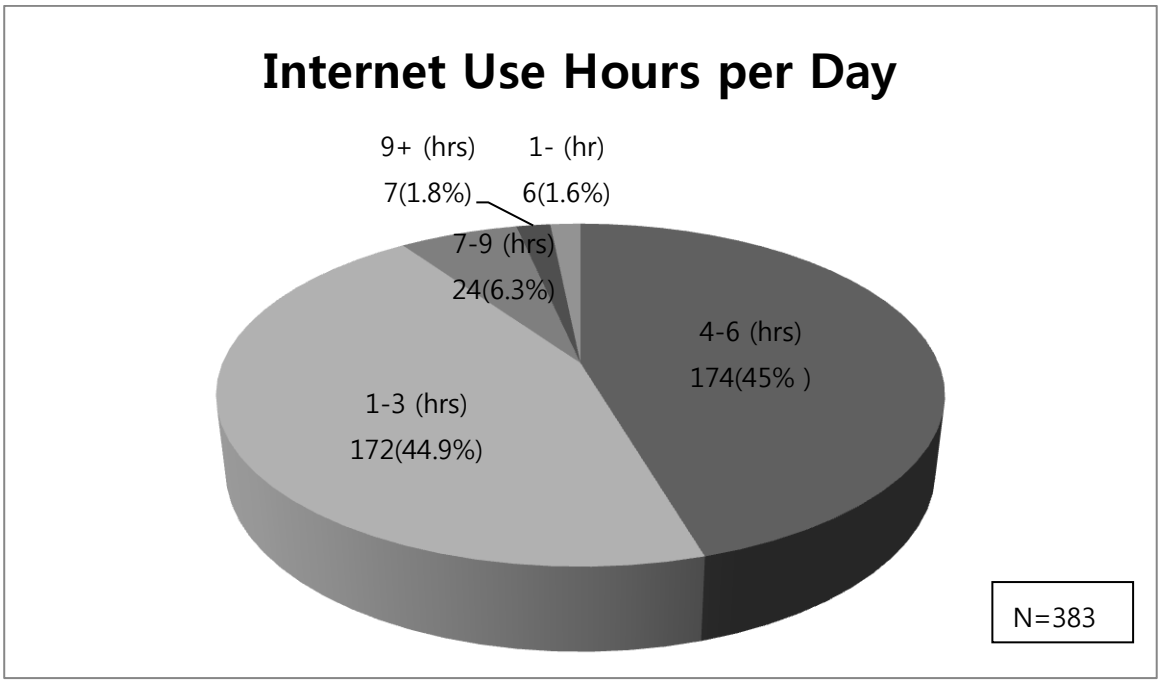


Figure 3: Internet Use Hours per Day

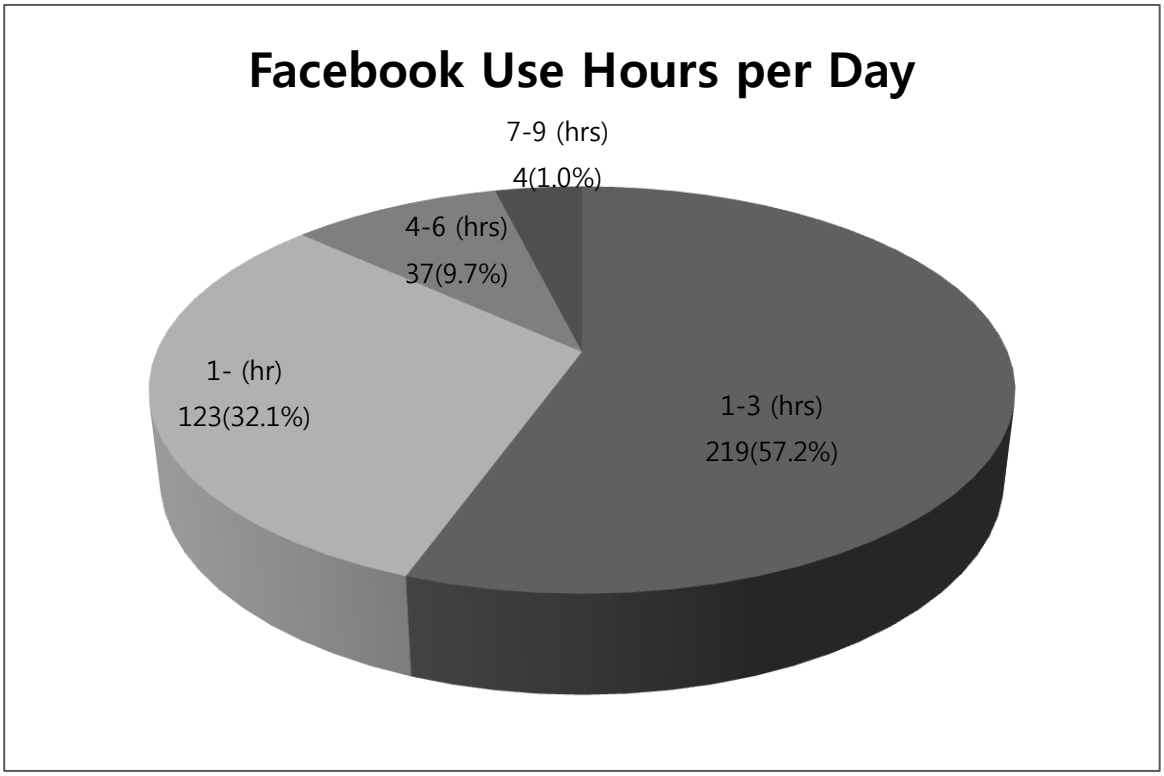


Figure 4: Facebook Use Hours per Day

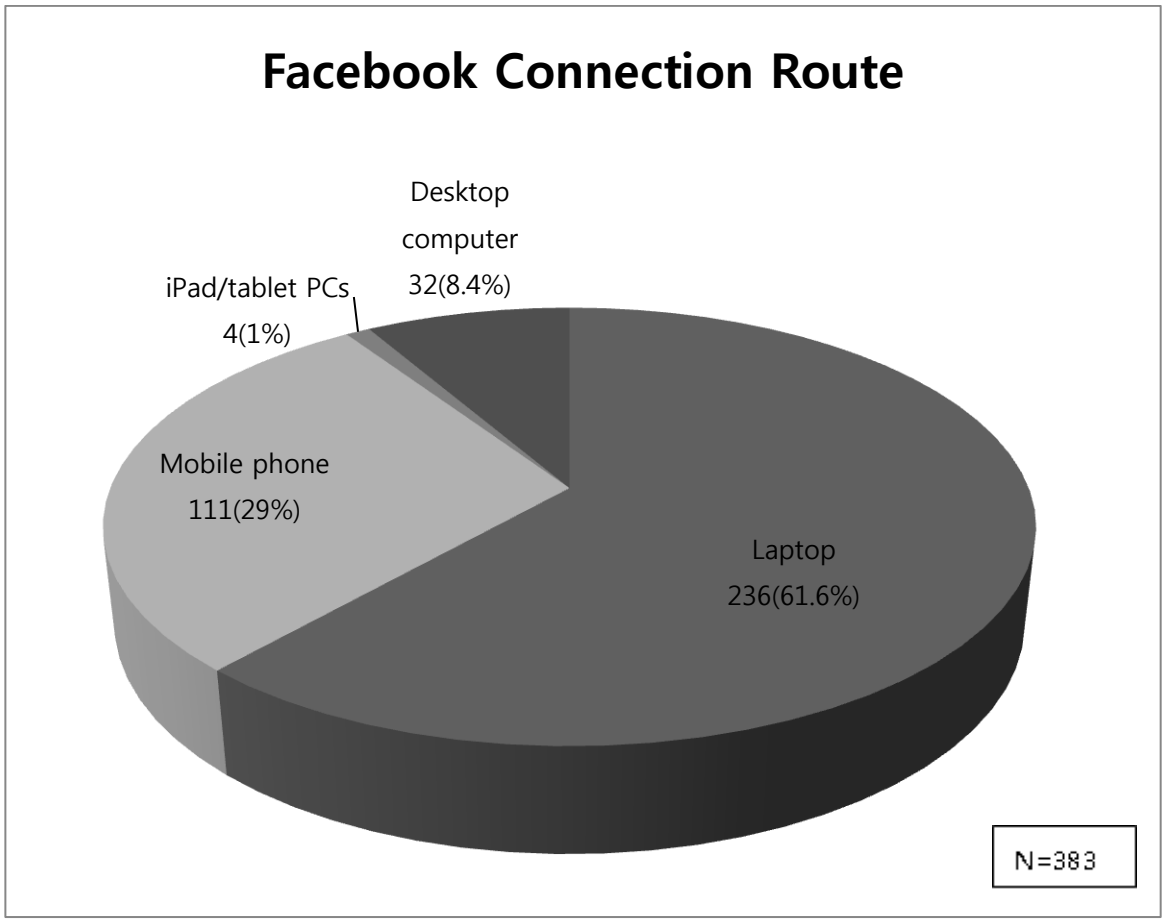


Figure 5: Facebook Connection Route

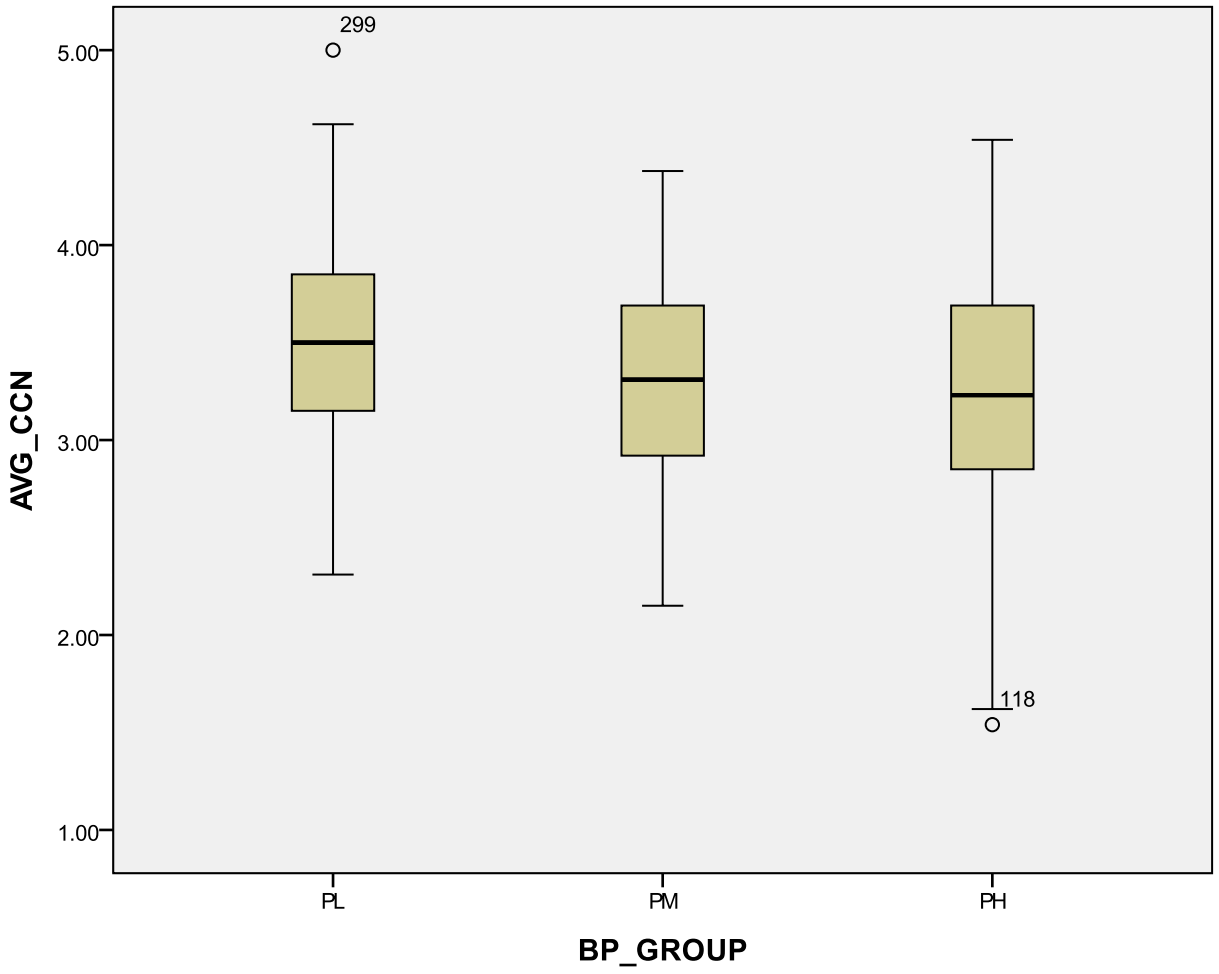


Figure 6: Changes in Privacy Concerns for Low, Medium, High Boundary Permeability Groups

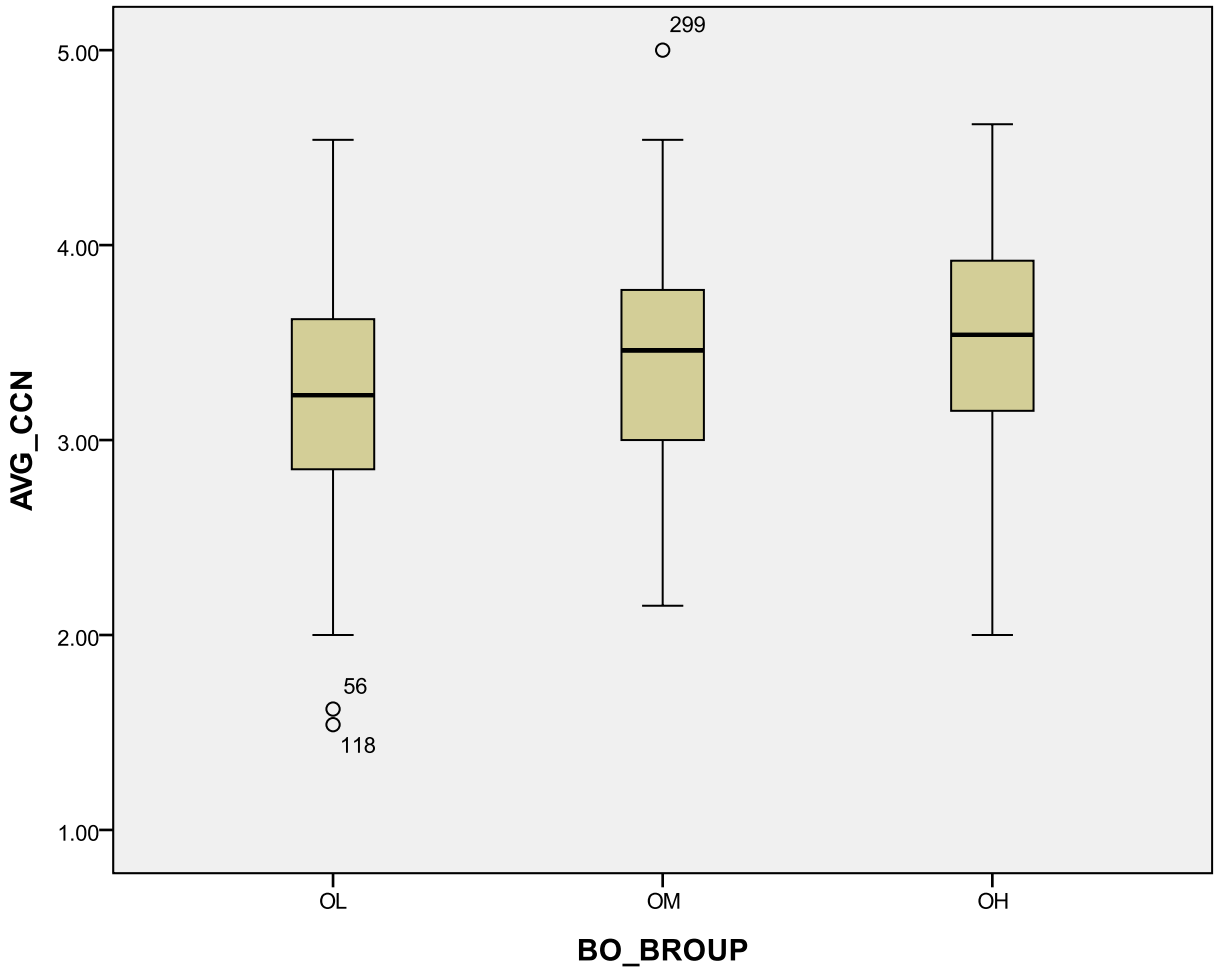


Figure 7: Changes in Privacy Concerns for Low, Medium, and High Boundary Ownership Groups

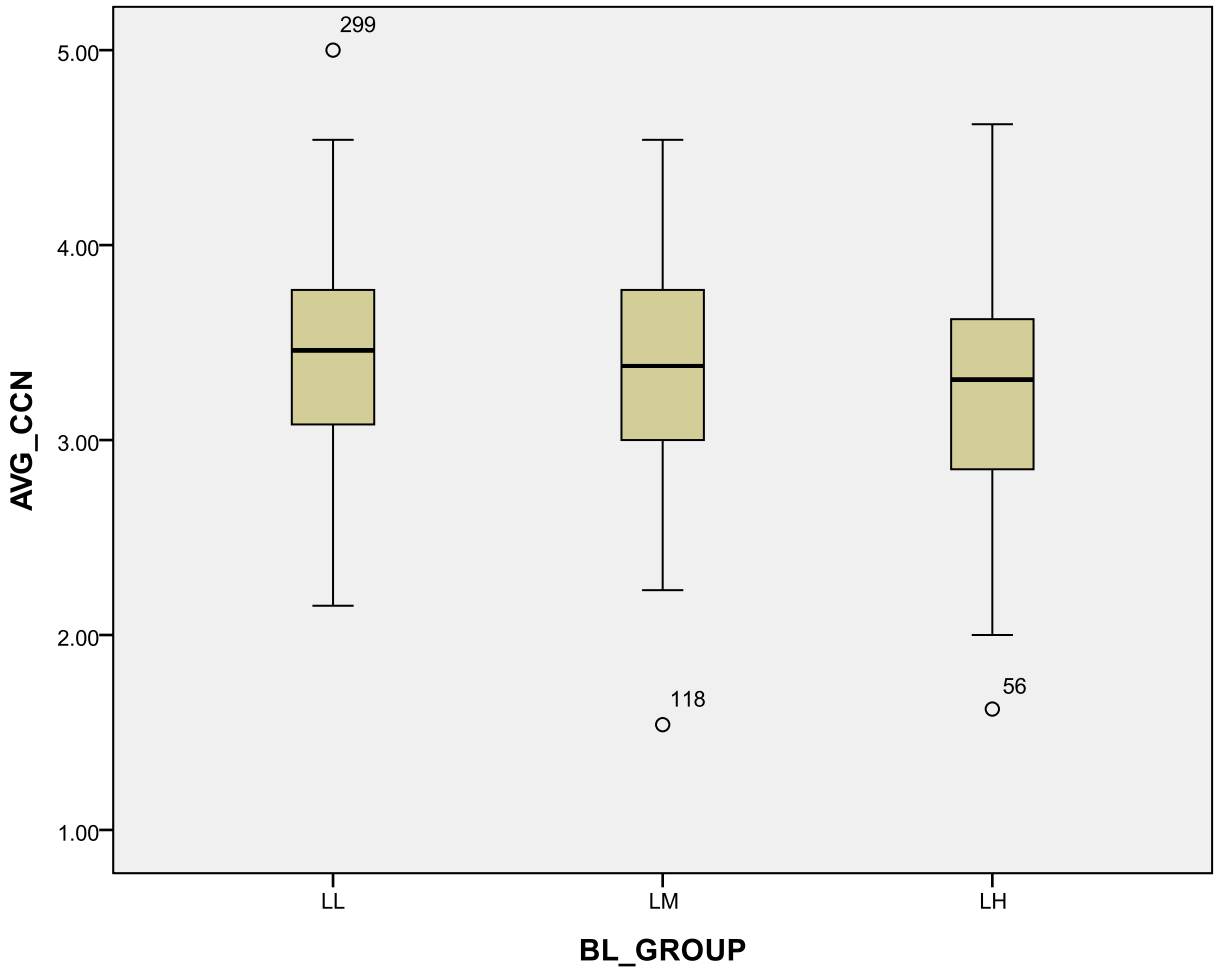


Figure 8: Changes in Privacy Concerns for Low, Medium, and High Boundary Linkage Groups

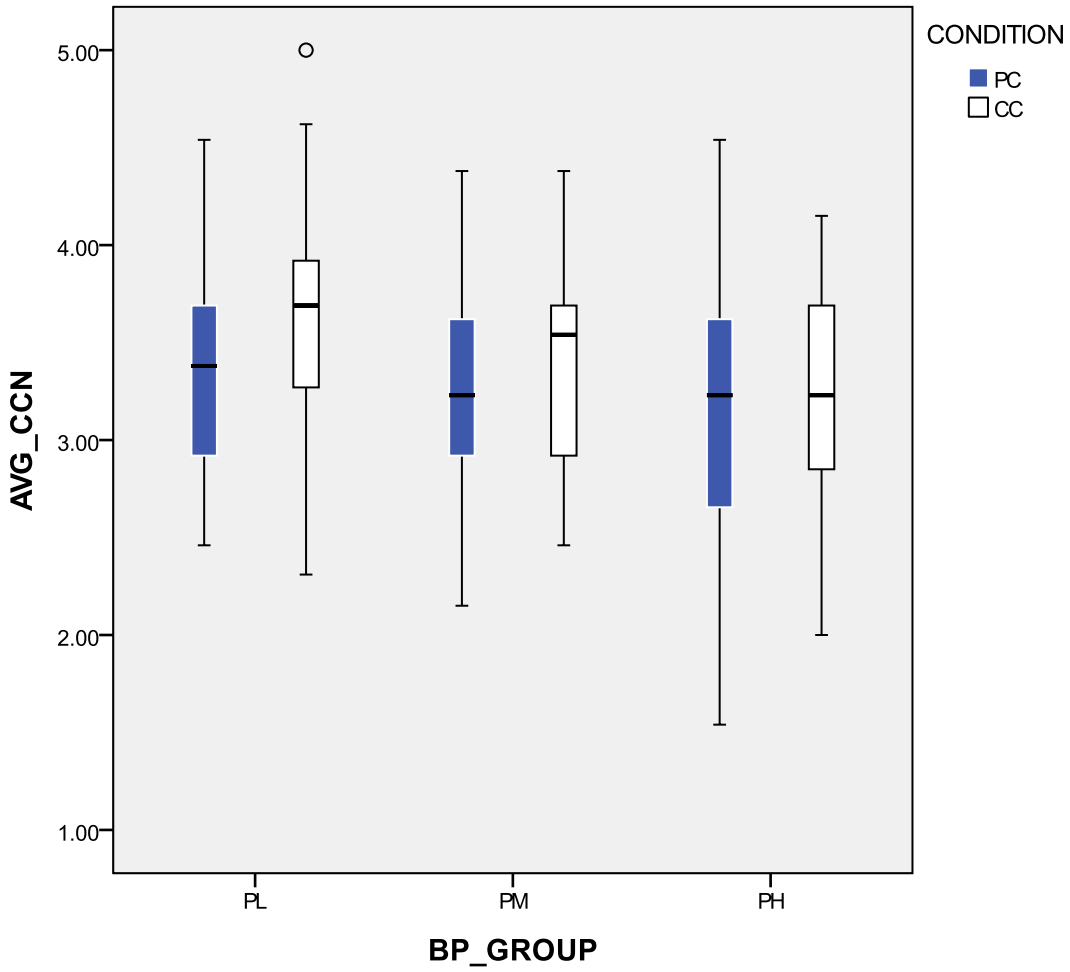


Figure 9: Boxplots of Changes in Privacy Concerns by Permeability group for PC and CC conditions

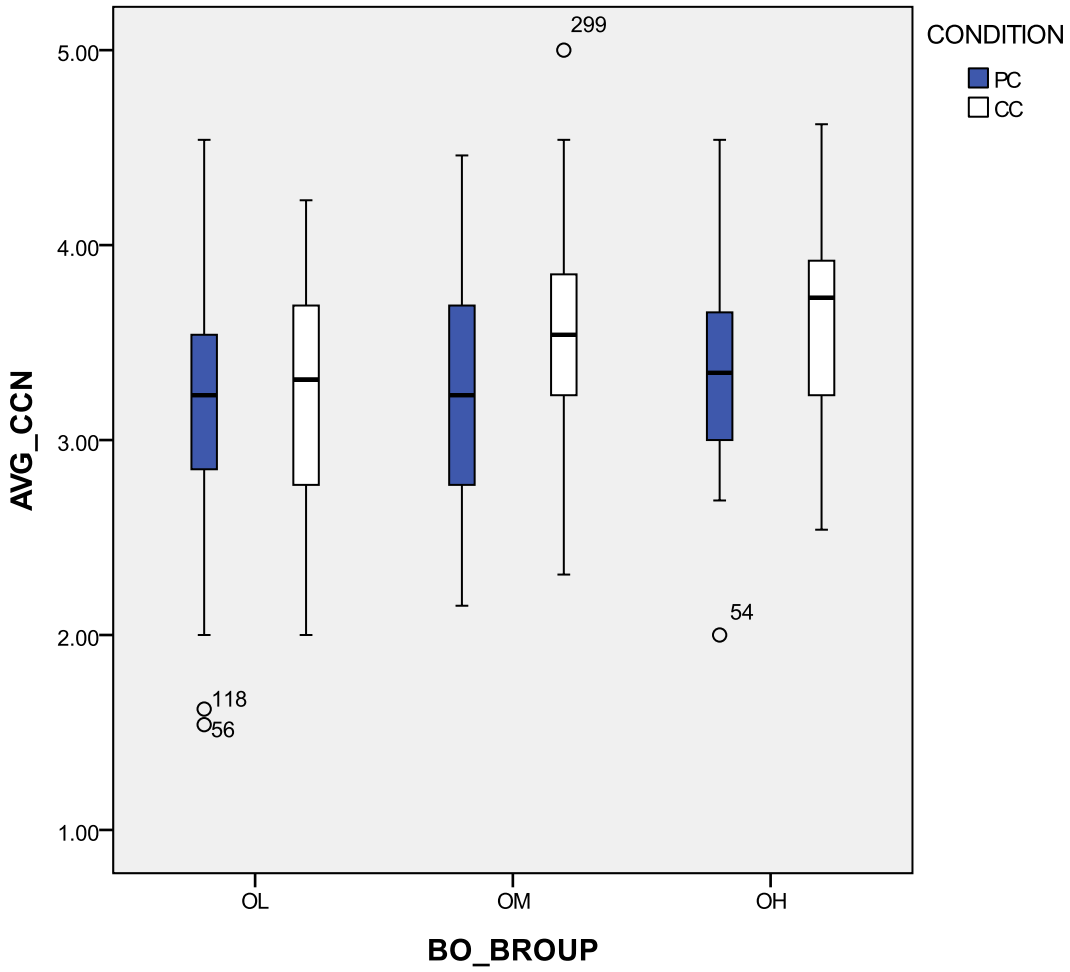


Figure 10: Boxplots of Changes in Privacy Concerns by Ownership group for PC and CC conditions

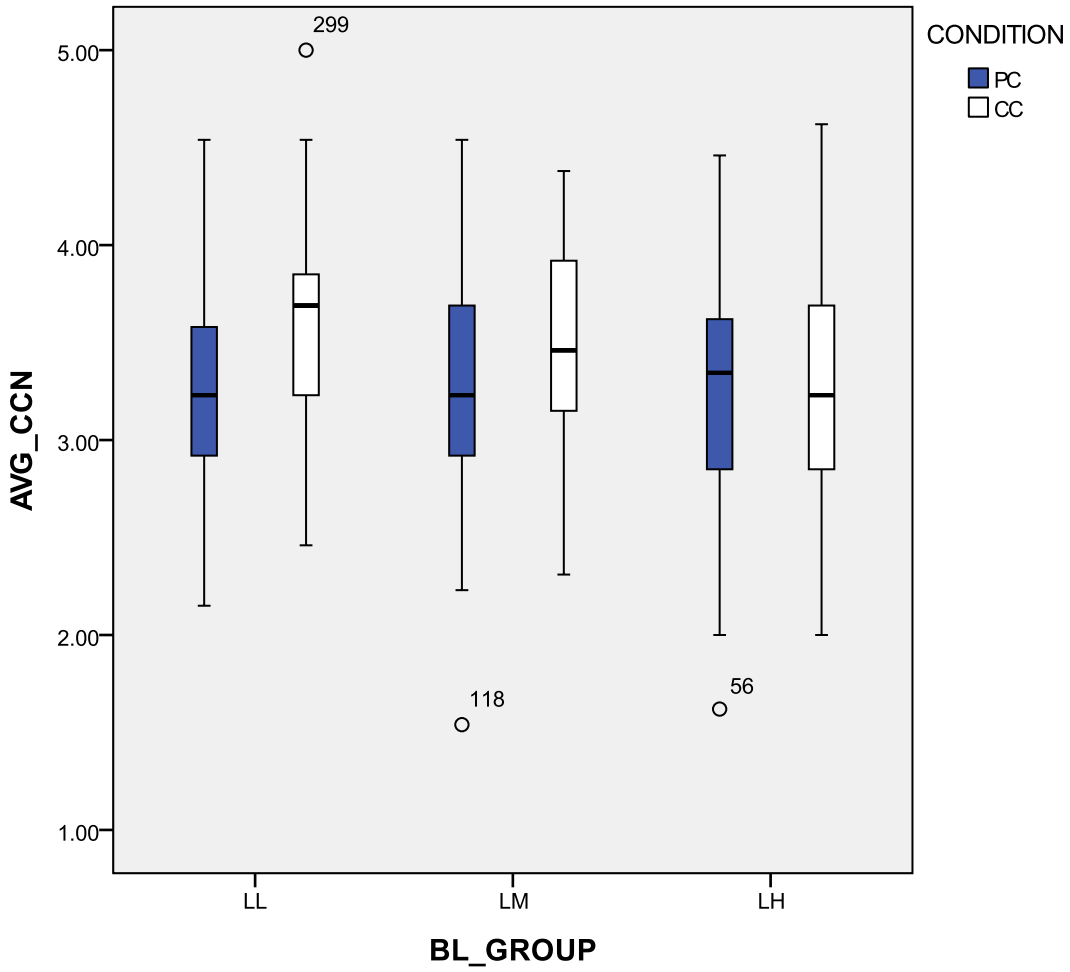


Figure 11: Boxplots of Changes in Privacy Concerns by Linkage group for PC and CC conditions

APPENDIX A

SCRIPTS FOR RECRUITING PARTICIPANTS

Pretest

Hey! If you have some time, please try to do this. It's a survey about Facebook. It's just a pilot test and is for my Thesis. Thank you. You can do this until Tuesday. But if you are busy, it's okay. https://qasiatrial.asia.qualtrics.com/SE/?SID=SV_5pSMW719oLxnCyE

Body test

Hello, My name is Kyung Jung Han, and I am a master's student in the Grady College of Journalism and Mass Communication at University of Georgia. I am working on research titled "Contextual Gaps and Perception of Privacy in Facebook" which is being conducted under the direction of Dr. Reber.

The purpose of the research is to understand the publics' perception of privacy in the social media environment and to provide useful sources for practitioners to reflect publics' characteristics and perception of social media use and related privacy concerns. You can refuse to participate without penalty or loss of benefits to which you are otherwise entitled. Your participation is voluntary. Your participation may earn you an extra credit for the course in which you sign up for the study, at the discretion of the instructor.

It will take about 10-15 minutes to complete this questionnaire. If you do not feel comfortable with a question, skip it and go on to the next question. You have the right to discontinue your

participation at any time without penalty or loss of benefits to which you are otherwise entitled.

Please complete your survey by February 29th (Wed), 2012.

If you have any questions, please contact Kyung Jung Han (hkj8546@uga.edu). Thank you.

APPENDIX B

SURVEY QUESTIONNAIRE

Informed Consent Form

Introduction
Hello, my name is Kyung Jung Han, and I am a graduate student in the Grady College of Journalism and Mass Communication at the University of Georgia. I am working on research about Facebook, which is being conducted under the direction of Dr. Bryan H. Reber.

Purpose
This study will analyze attitudes about privacy in the social media environment.

Procedures
You will be asked to read an assumed situation to help your understanding of the condition. Then, you will answer several questions corresponding to the situation.

It should take about 20 to 30 minutes to complete this questionnaire. If you do not feel comfortable with a question, skip it and go on to the next question. Closing the survey window will erase your answers without submitting them. You will be given a choice of submitting or discarding your responses at the end of the survey.

This questionnaire will be conducted via an online Qualtrics-created survey.

Risks/Discomforts
No risks or discomforts are anticipated.

Benefits
While you may not benefit directly from participation, your participation in this research project will contribute to advancing knowledge that will be helpful in developing effective organizational communication strategies for consumer behavior and psychology. Through participation, you will observe the protocol of social science research. The results of this study will be given to participants who request it.

Confidentiality
All data obtained from participants will be kept confidential and will only be reported in an aggregate format (by reporting only combined results and never reporting individual ones). All questionnaires will be concealed, and no one other than the researchers will have access to them. The data collected will be stored in the electronic research folder by Qualtrics-secure database.

Compensation
Your participation may earn you extra credit for the course in which you sign up for the study, at the discretion of the instructor.

Participation
You can refuse to participate without penalty or loss of benefits to which you are otherwise entitled. Your participation is voluntary.

You must be 18 years of age or older. You have the right to withdraw at any time or refuse to participate entirely without jeopardy to your academic status, GPA or standing with the university.

If you desire to withdraw, please close your internet browser and notify the principal investigator at this email: hkj8546@uga.edu. Or, if you prefer, inform the principal investigator as you leave.

Questions about the Research
If you have questions regarding this study, you may contact (Kyung Jung Han), at 706-255-2335, hkj8546@uga.edu.

Questions about your Rights as Research Participants
If you have questions you do not feel comfortable asking the researcher, you may contact the director of University of Georgia's Institutional Review Board (Room 629), 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602- 7411; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu

I have read and understand the statement above and agree to take part in this research project.
◎I Agree

(next)

Internet use pattern
1. How much time do you spend on the Internet daily?
(1) less than 1 hour
(2) 1-3 hours
(3) 4-6 hours
(4) 7-9 hours
(5) more than 9 hours

2. I use the Internet for_____

	never		occasionally /sometimes		every time I'm online*
(1)E-mail	1	2	3	4	5
(2)Research for homework /projects	1	2	3	4	5
(3)Extra work for part-time job	1	2	3	4	5
(4)Chat	1	2	3	4	5
(5)Reading news and sports information	1	2	3	4	5
(6)Watch/download entertainment (i.e., tv shows, music, images, etc)	1	2	3	4	5
(7)Buying products online	1	2	3	4	5
(8)Searching for products and services	1	2	3	4	5
(9)Playing games	1	2	3	4	5
(10) SNS (Twitter, Facebook, etc)	1	2	3	4	5

1-never, 2-almost never, 3-occasionally/sometimes, 4-almost every time, 5-everytime

Modified from (Ruzgar, 2005)

SNS use pattern

3. Do you have a Facebook account?
(1) yes (2) no

If YES, continue to "7," if NO, end the survey.

4. How much time each day do you spend on Facebook?
(1) less than 1 hour
(2) 1-3 hours
(3) 4-6 hours
(4) 7-9 hours
(5) more than 9 hours

4-1. What is the main route that you use to connect to Facebook?
(1) Desktop Computer
(2) Mobile phone
(3) iPad or other tablet PCs
(4) Laptop computer
(5) other_____

4-2. I use Facebook for_____

	never	occasionally/sometimes			always *
(1)Communicating with friends	1	2	3	4	5
(2)Getting to know people better (friends or people recently met)	1	2	3	4	5
(3)Getting contact information (email, address, phone number, etc.)	1	2	3	4	5
(4)Presenting oneself to others through the content in one's profile	1	2	3	4	5
(5) Looking at photos/videos	1	2	3	4	5
(6) Posting at photos/videos	1	2	3	4	5
(7) Sending or receiving messages	1	2	3	4	5
(8) Making or reading wall posts	1	2	3	4	5
(9) Entertainment (to pass time, to fight boredom, to procrastinate, etc.)	1	2	3	4	5
(10) Finding out about or planning events	1	2	3	4	5
(11) Communicating with organizations	1	2	3	4	5
(12) Getting to know organizations better	1	2	3	4	5
(13) Giving feedback to organizations	1	2	3	4	5
(14) Asking Questions regarding products/services	1	2	3	4	5
(15) Getting information about news/promotions/events	1	2	3	4	5

1-never, 2-almost never, 3-occasionally/sometimes, 4-almost every time, 5-always

Modified from (Pempek, et al., 2009)

Communication Boundary (Child, et al., 2009)

5. Please indicate your thought about the following sentences.

	strongly disagree	disagree	neither	agree	agree strongly
(permeability)				or	disagree

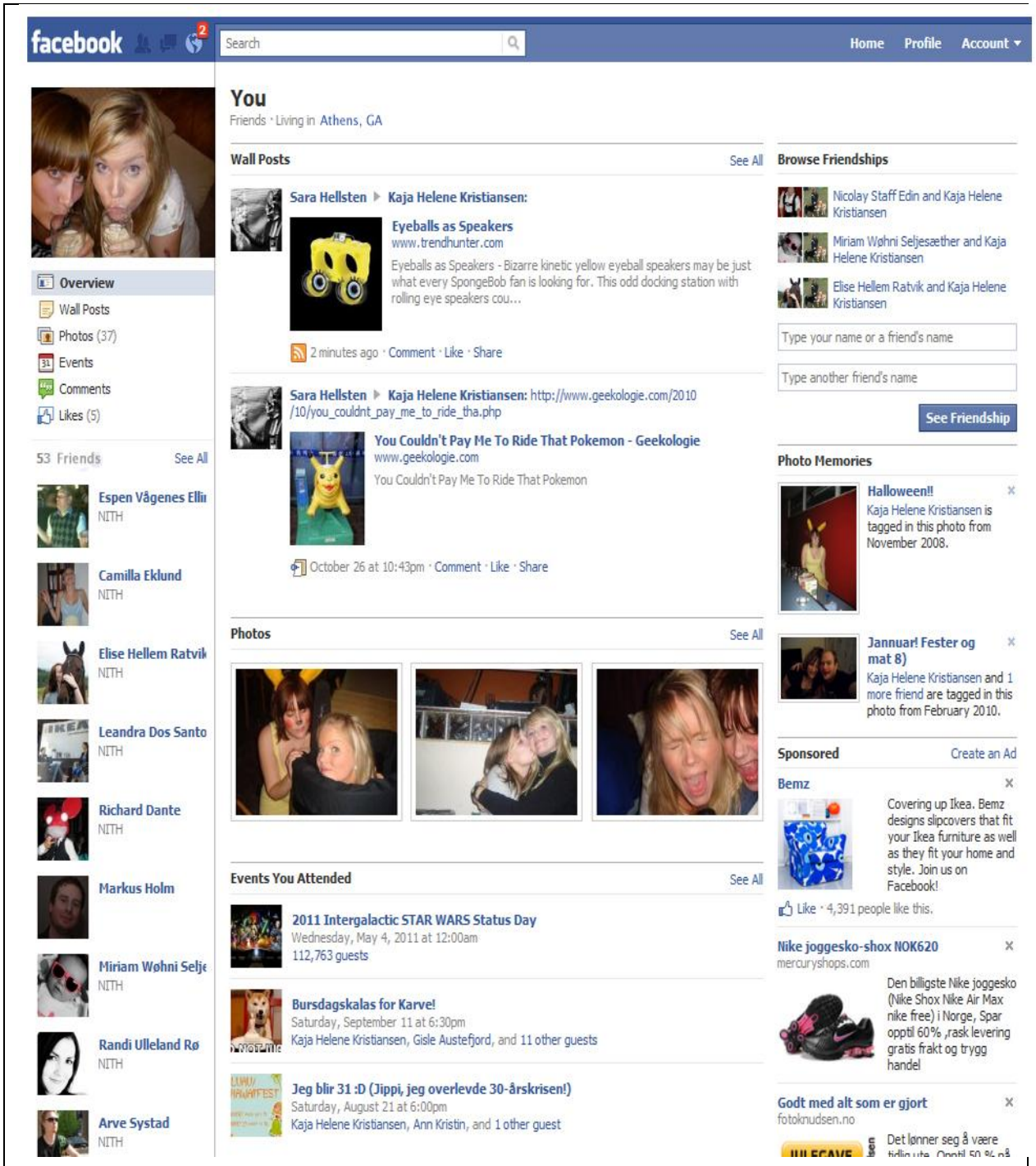
	agree				
(1) When I face challenges in my life, I feel comfortable talking about them on my Facebook wall.	1	2	3	4	5
(2) I like my Facebook wall/profile entries to be long and detailed.	1	2	3	4	5
(3) I like to discuss school/ work concerns on my Facebook wall.	1	2	3	4	5
(4) I often tell intimate, personal things on my Facebook wall without hesitation.	1	2	3	4	5
(5) I share information with people whom I don't know in my day-to-day life.	1	2	3	4	5
(6) I update my Facebook wall frequently.	1	2	3	4	5
(ownership)					
(7) I have limited the personal information posted on my Facebook profile/ posts.	1	2	3	4	5
(8) I use shorthand (e.g., pseudonyms or limited details) when discussing sensitive information on Facebook.	1	2	3	4	5
(9) If I think that information I posted on Facebook really looks too private, I might delete it.	1	2	3	4	5
(10) I usually am slow to talk about recent events on Facebook because people might talk about my postings.	1	2	3	4	5
(11) I don't post about certain topics on Facebook because I worry about who has access.	1	2	3	4	5
(12) Seeing intimate details about someone else on Facebook makes me feel I should keep their information private.	1	2	3	4	5
(linkage)					
(13) I open a Facebook profile on my wall so that other users can link to me if they have similar interests or want to be Facebook friends with me.	1	2	3	4	5
(14) I try to let people know my	1	2	3	4	5

interests on my Facebook wall, so I can be closer to others.					
(15) I post pictures to give others access through my Facebook wall.	1	2	3	4	5
(16) I post/comment on others' Facebook walls to get others to access my wall.	1	2	3	4	5
(17) I allow access to my Facebook wall to publics through friends of friends and publics.	1	2	3	4	5
(18) I regularly tag friends/check-in places to increase traffic on my Facebook wall.	1	2	3	4	5

Condition #1: Peer to Peer Communication Condition

You are sitting at a computer or holding a smart phone. You are using Facebook/ Facebook apps to communicate with your friends. Your friend's Facebook wall is set by your friend. Some people open their walls to publics, friends of friends, or friends only. However, you also have your own right to set your privacy regarding the degree of openness of your posts and personal information.

Now, you are reading the first page displaying your friends' news. Please read the Wall postings cafully.


facebook
Search
Home
Profile
Account
You
Friends · Living in Athens, GA
Overview
Wall Posts
Photos (37)
Events
Comments
Likes (5)
53 Friends
See All
Espen Vågenes Ellin
NITH
Camilla Eklund
NITH
Elise Hellem Ratvik
NITH
Leandra Dos Santo
NITH
Richard Dante
NITH
Markus Holm
Miriam Wøhni Selje
NITH
Randi Ulleland Rø
NITH
Arve Systad
NITH
Wall Posts
See All
Sara Hellsten ▶ Kaja Helene Kristiansen:
Eyeballs as Speakers
www.trendhunter.com
Eyeballs as Speakers - Bizarre kinetic yellow eyeball speakers may be just what every SpongeBob fan is looking for. This odd docking station with rolling eye speakers cou...
2 minutes ago · Comment · Like · Share
Sara Hellsten ▶ Kaja Helene Kristiansen: http://www.geekologie.com/2010/10/you_couldnt_pay_me_to_ride_tha.php
You Couldn't Pay Me To Ride That Pokemon - Geekologie
www.geekologie.com
You Couldn't Pay Me To Ride That Pokemon
October 26 at 10:43pm · Comment · Like · Share
Photos
See All
Events You Attended
See All
2011 Intergalactic STAR WARS Status Day
Wednesday, May 4, 2011 at 12:00am
112,763 guests
Bursdagskalas for Karve!
Saturday, September 11 at 6:30pm
Kaja Helene Kristiansen, Gisle Austefjord, and 11 other guests
Jeg blir 31 :D (Jippi, jeg overlevde 30-årskrisen!)
Saturday, August 21 at 6:00pm
Kaja Helene Kristiansen, Ann Kristin, and 1 other guest
Browse Friendships
Nicolay Staff Edin and Kaja Helene Kristiansen
Miriam Wøhni Seljesæther and Kaja Helene Kristiansen
Elise Hellem Ratvik and Kaja Helene Kristiansen
Type your name or a friend's name
Type another friend's name
See Friendship
Photo Memories
Halloween!!
Kaja Helene Kristiansen is tagged in this photo from November 2008.
Jannuar! Fester og mat 8)
Kaja Helene Kristiansen and 1 more friend are tagged in this photo from February 2010.
Sponsored
Create an Ad
Bemz
Covering up Ikea. Bemz designs slipcovers that fit your Ikea furniture as well as they fit your home and style. Join us on Facebook!
Like · 4,391 people like this.
Nike joggesko-shox NOK620
mercuryshops.com
Den billigste Nike joggesko (Nike Shox Nike Air Max nike free) i Norge, Spar opptil 60% ,rask levering gratis frakt og trygg handel
Godt med alt som er gjort
fotoknudsen.no
Det lønner seg å være

stimulus check (mood scale)

Next, the following sentences describe how this Facebook page affected you. There are two bipolar moods and the center means "neutral." Please check your answers.

6. After I have read this Facebook page, I feel _____

(Lorr & Wunderlich, 1988)

Elated (happy, delighted)	1	2	3	4	5	Depressed (sad, blue)
Relaxed (serene, tranquil)	1	2	3	4	5	Anxious (tense, nervous)
Confident (bold, assertive)	1	2	3	4	5	Unsure (timid, meek)
Energetic (full of pep, vigorous)	1	2	3	4	5	Fatigued (worn out, exhausted)
Good natured (affectionate, loving)	1	2	3	4	5	Bad tempered (angered, furious)

7. Now, please indicate your thoughts about the following sentences.

Privacy concerns *modified from (Dinev & Hart, 2004)*

	strongly disagree	disagree	neither agree or disagree	agree	strongly agree
(1) I am concerned that the words I post on my friend's Facebook wall – opening to others – could be misused.	1	2	3	4	5
(2) When communicating with friends on Facebook, I am concerned that private information can be misused for other purposes.	1	2	3	4	5
(3) I am concerned about becoming a Facebook "friend" with someone I don't know much well because of what others might do with my profile or posts.	1	2	3	4	5
(4) I am concerned about becoming a Facebook "friend" with someone I don't know much well because it could be used in a way I did not foresee.	1	2	3	4	5
(5) When I am on my friend's Facebook wall, I have the feeling that I am being watched.	1	2	3	4	5

(6) When I am on my friend's Facebook wall, I have the feeling that all my clicks and actions are being tracked and monitored.	1	2	3	4	5

8. I am concerned that a person could find about_____

	strongly disagree	disagree	neither agree or disagree	agree	strongly agree
(1) My birth date and place of birth	1	2	3	4	5
(2) Names and information about my family members and friends	1	2	3	4	5
(3) Telephones/places of my home/workplace	1	2	3	4	5
(4) My Email address	1	2	3	4	5
(5) My educational background	1	2	3	4	5
(6) My previous and current careers	1	2	3	4	5
(7) My preferences and philosophy (e.g., religion, political orientation, movies, books, music, and other interests)	1	2	3	4	5

Thank you for your participation. Your responses will make a valuable contribution to research on public relations education.

Condition #2: Organizational Communication Condition

Please indicate your thought about the Apple.
Attitudes toward Apple

My attitude toward Apple was _____ (Tseng, 2009)

Bad	-	Good	1	2	3	4	5
Unfavorable	-	Favorable	1	2	3	4	5
Negative	-	Positive	1	2	3	4	5
Unlikable	-	Likeable	1	2	3	4	5
Unattractive	-	Attractive	1	2	3	4	5
Unpleasant	-	Pleasant	1	2	3	4	5

You are sitting at a computer or holding a smart phone. You are using Facebook/ Facebook apps to communicate with a company **Apple** you "like" or to which you "subscribe". A corporate Facebook page is a sphere where anyone can see your posts, opening them to publics. However, you also have your own right to set your privacy regarding the degree of openness of personal information for both friends and organizations.

Now, you are reading the first page displaying the corporate news. Please read the Wall postings carefully.

http://www.facebook.com/apple#!/pages/APPLE-STORE/121795632175 (Access date: 09/05/2011)

stimulus check (mood scale)

Next, the following sentences describe about how this Facebook page affected you. There are two bipolar moods and the center means "neutral." Please check your answer.

7. After I have read this Facebook page, I feel _____

(Lorr & Wunderlich, 1988)

Elated (happy, delighted)	1	2	3	4	5	Depressed (sad, blue)
Relaxed (serene, tranquil)	1	2	3	4	5	Anxious (tense, nervous)
Confident (bold, assertive)	1	2	3	4	5	Unsure (timid, meek)
Energetic (full of pep, vigorous)	1	2	3	4	5	Fatigued (worn out, exhausted)
Good natured (affectionate, loving)	1	2	3	4	5	Bad tempered (angered, furious)

8. Now, please indicate your thoughts about the following sentences.

Privacy Concern

	strongly disagree	disagree	neither agree or disagree	agree	strongly agree
(1) I am concerned that the words I post on the corporation's Facebook page – opening to "public" – could be misused.	1	2	3	4	5
(2) When communicating with the organizations on Facebook, I am concerned that private information can be misused for other purposes.	1	2	3	4	5
(3) I am concerned about "subscribe" or "like" a corporate Facebook page, because of what others might do with my profile or posts.	1	2	3	4	5
(4) I am concerned about "subscribe" or "like" a corporate Facebook page, because it could be used in a way I did not foresee.	1	2	3	4	5
(5) When I am on a corporate Facebook page, I have the feeling of being watched.	1	2	3	4	5
(6) When I am on a corporate Facebook page, I have the feeling that all my clicks and actions are being tracked and monitored.	1	2	3	4	5

9. I am concerned that a company can find about …

	strongly disagree	disagree	neither agree or disagree	agree	strongly agree
(1) My birth date and place of birth	1	2	3	4	5
(2) Names and information about my family members and friends	1	2	3	4	5
(3) Telephones/places of my home/workplace	1	2	3	4	5
(4) Email address	1	2	3	4	5
(5) My educational background	1	2	3	4	5
(6) My previous and current career	1	2	3	4	5
(7) My preferences and philosophy (e.g., religion, political orientation, movies, books, music, and other interests)	1	2	3	4	5

The following section is to identify your participation in the survey and will not be used for any other purpose.

Personal ID (810 number identification for extra credit)
Personal ID: _____

What is your name? _____

The course for which you want extra-credit (enter only one) by completing this survey:
Course Number (e.g., ADPR 3100) _____
Name of Professor (or Instructor) _____

demographics[2]
1. What is your gender?
(1) Female
(2) Male

[2] Italics will not show in the survey sheet. It's only for describing the details and categories of items in purpose of this academic paper.

2. What is your ethnic background? Please choose one that is the most appropriate for you.
(1) Caucasian American
(2) African American
(3) Asian American
(4) Spanish/Latino/Hispanic American
(5) American Indian or Alaska Native
(6) Biracial or multiracial
(7) Other (please specify)_____

3. What year are you in the university?
(1) First year
(2) Second year
(3) Third year
(4) Fourth year
(5) Fifth year and above

4. How old are you? __

Thank you for your participation. Your responses will make a valuable contribution to research on privacy and social media.