Interactions Between a Web Site and Its Customers: 
A Relationship Building Approach

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Abstract

This research makes a case for treating an electronic commerce web site as a social actor and argues that IT-enabled support for personalization systems and virtual communities has a significant impact on the perceived communication characteristics of a web site. This research studied the impact of two communication characteristics – adaptiveness and connectivity of a web site. Adaptiveness indicates the extent to which a web site adapts itself to support the needs of its customers whereas connectivity refers to the ability of a web site to link potential customers with other visitors. Further, synthesizing research from communication, media choice and technology adoption literatures, this thesis proposes social presence as the experiential construct and perceived usefulness as the utilitarian construct that will mediate the relationship between communication characteristics of a medium and customer loyalty.

A survey and a laboratory experiment were conducted to test the linkages proposed above. The survey showed that while adaptiveness impacted on both social presence and perceived usefulness, connectivity had an impact only on social presence and an insignificant impact on perceived usefulness. Social presence did not influence perceived usefulness while both social presence and perceived usefulness had a significant impact on customer loyalty. By filtering Amazon.com real-time, the lab experiment was conducted to specifically study the causal impact of a web site’s support for personalization and virtual communities.

Support for personalization had a strong impact on adaptiveness, whereas support for consumer reviews had strong effect on connectivity. Interestingly, support for
personalization had a weaker, but significant effect on connectivity and support for consumer reviews had a similar effect on adaptiveness. Data from the experiment was also analyzed using mediation analyses as well as partial least square analysis to show that the general pattern of results observed were consistent across methods thus improving the confidence in the research model proposed.

This research by proposing social presence as a crucial experiential predictor of customer loyalty has addressed an important gap that exists in our current understanding of web users' behavior. It also makes a key contribution by empirically showing that a web site's support for IT-enabled personalization and virtual communities do have a significant impact not only on the perceived communication characteristics, but also on customer loyalty through social presence and perceived usefulness.
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1. Introduction

The last few years has seen an explosion of e-commerce and a preponderance of websites for selling products and enhancing corporate image. Even though the initial hype surrounding the dot.com industry has given way to more modest realities (Gartner 2000), shopping on the Internet is here to stay and will grow. In spite of the major emphasis on reaching customers via web presence, the art of web design has remained just that... an art. Most of the design guidelines for generating web interfaces concentrate predominantly on facilitating efficient communications between the user and the website. We argue that a second dimension of information exchange that emphasizes the relationship-based aspects of communication, such as, creating a positive company image, trust, and a favorable browsing experience, becomes more important in a virtual environment as the web interface is the key contact point between an organization and its customers for e-commerce related activities. Though researchers have attempted to address and understand how the emergence of new media with multiple capabilities impacts on the way a firm sells its products on-line, the interesting research questions in this area span several fields that still need significant research.

In the past few years, there has been considerable research done on what makes an e-commerce site successful. A wide range of predictor variables – such as interactiveness of the web site (Ghose et al. 1998; Palmer 2002; Zhu et al. 2002), navigation and content (Davern et al. 2000; Lohse et al. 1998; Palmer 2002), information control (Ariely 2000), interactive decision aids (Haubl et al. 2000), download times and responsiveness (Dellaert et al. 1999; Voss 2000; Weinberg 2000), and even background color and
pictures (Mandel et al. 1999) – have been investigated in the e-commerce context. Most of these studies look at the effect of the aforementioned predictor variables on several important issues such as customer's overall satisfaction, trust, loyalty, decision quality and intention to buy/re-visit the web site. Hoffman and Novak (Hoffman et al. 1996) investigated flow as an experiential construct that positively correlated with a compelling on-line experience for fun, non-work related activities.

Shopping can be a high involvement activity. A major obstacle to consumers buying online is the inability of most of the shopping sites to engage the users cognitively as well as emotionally. Our research takes a relational rather than a transactional approach and argues that web sites (and hence organizations) can cultivate and develop meaningful and rich relationships with its customers especially for B2C activities. In this era of new retail, shoppers have become guests, shopping has become an experience and malls have become entertainment centers with communities. Realizing the value of “shopping as experience”, many on-line stores have begun efforts to enhance the positive experiences (e.g. increasing their involvement, enhancing their positive feelings) for their customers. This research will specifically investigate the effect of two such efforts: personalization and support for virtual communities.

1.1 Research Objectives
This research makes a case for treating the web site as a social entity and proposes the construct Social Presence (SP) to capture the relational aspect of the communication between a web site and its visitors. This research focuses on social presence in a specific context – online shopping. The objectives of this research is to investigate specifically the
effect of web sites' support for personalization systems and virtual communities on the perceived communication characteristics of the media, and to investigate if and how social presence mediates the relationship between specific communication characteristics of the media and a user's evaluation of the web site. To accomplish this objective, the thesis reviews previous research work to show that communication characteristics of a medium are perceived, and can vary within that medium, depending on how the medium is configured. This research also proposes social presence (SP) as the construct of choice to capture the relational aspect of communication between a web site and its visitors. Social presence refers to the degree to which a medium allows a user to establish personal connection with other users (Short et al. 1976).

Chapter 2 reviews the theoretical work on communication characteristics of the media and argues that enabling technologies used to configure a web site will have an impact on the communication characteristics of the media. It also briefly introduces the general research model proposed by this research that acts as a roadmap for the rest of the thesis. Chapter 3 then introduces the theoretical work that supports our contention that a web site can be treated as a social entity. It further reviews the work done on social presence and lays the groundwork for the development of the research model proposed in Chapter 3. Chapter 4 further expands on this general research model and fully develops the specific hypotheses to be tested in this research. Chapter 5 discusses the research methodology and the results for Study 1, while Chapter 6 discusses the research methodology and the results for Study 2. Chapter 7 concludes the thesis by reviewing the salient findings of
this work, discusses the significance of the findings and explores further avenues of research suggested by the results of this thesis.
2. The Interplay Between Communication Characteristics of the Media and Interface Design Decisions

2.1 Communication Characteristics of the Media

In the past two decades, many theories of media choice and effects (Daft et al. 1986; Dennis et al. 1999; Fulk et al. 1993; Short et al. 1976; Walther 1992) have developed a set of media characteristics and investigated their impact on media choice and media use. The early theories (Daft and Lengel, 1986; Short, Williams and Christie, 1976) on media choice and use viewed these media characteristics as invariant and assumed that all these characteristics are salient to the individual. The latter theories (Fulk and Boyd, 1991; Walther, 1992; Dennis and Valacich, 1999) acknowledged the impact of social influence and recognized media characteristics as perceived characteristics. Table 1 reviews the list of communication characteristics of media that have been developed earlier.

**Table 1: Media Characteristics Developed in Previous Research**

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<tr>
<td>a) <strong>Immediacy of Feedback</strong>: The extent to which a medium allows users to give rapid feedback on the communications they receive.</td>
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<tr>
<td>b) <strong>Multiple Cues</strong>: The number of cues - such as text, verbal cues or non-verbal cues – available through which information can be communicated.</td>
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<tr>
<td>c) <strong>Language Variety</strong>: The range of meaning that can be conveyed with language symbols (numeric information to natural language).</td>
</tr>
<tr>
<td>d) <strong>Personal Focus</strong>: The extent to which a sender can personalize the message to suit the needs and the current situation of the receiver.</td>
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Multiple Addressability: The extent to which a message can be forwarded to several persons at the same time.

Externally Recorded Memory: The extent to which a message can be stored for further processing.

Concurrency: The capacity of media to support distinct communication episodes without distracting from any other episodes that may be occurring simultaneously.

Dennis and Valacich, (1999) – Media Synchronicity Theory: Refined List of Media Characteristics

Immediacy of Feedback: The extent to which a medium allows users to give rapid feedback on the communications they receive.

Symbol Variety: The number of ways in which information can be communicated. This subsumes ‘multiple cues’ and ‘language variety’ developed by Daft and Lengel (1986).

Parallelism: The number of simultaneous conversations that can exist effectively. Similar to ‘concurrency’ developed by Valacich et al., (1993) and ‘multiple addressability’ developed elsewhere (Please see Dennis and Valacich (1999) for constructs they looked at before arriving at this list of characteristics).

Rehearsability: The extent to which the sender can rehearse or fine-tune the message before sending. This similar to ‘editability’ developed elsewhere.

Reprocessability: It is the extent to which a message can be reexamined or processed again within the context of the communication event. This is similar to ‘externally recorded memory’ developed by Sproull (1991).

Burgoon et al., (2000): Burgoon et al., (2000) identified an extensive set of properties intrinsic to Face-to-Face (FtF) communication that might be retained, supplemented, amplified or suppressed in HCI and CMC formats. They further argued that those properties individually and/or collectively would account for observed differences in cognitions, communications and outcomes observed across mediated and non-mediated, human-human and human-computer interaction. These properties are:

Modality: The extent to which a medium can support symbol variety to present
rich information (similar to symbol variety).

b) **Synchronicity**: Whether the interaction occurs in real-time or with a time delay (similar to immediacy of feedback).

c) **Contingency**: The extent to which a person’s queries and responses are dependent on the prior responses of the participating entity (some similarities to ‘personal focus’).

d) **Participation**: The extent to which senders and receivers are actively engaged in the interaction.

e) **Identification**: The extent to which the participants are fully or partially identified or anonymous.

f) **Mediation**: Whether the communication format is mediated or not.

g) **Propinquity**: Whether the participants are in the same location or geographically dispersed.

h) **Anthropomorphism**: The degree to which the interface simulates or incorporates humanlike characteristics.

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**Dov Te’eni (2001): The Three dimensions of Media Richness**

a) **Interactivity**: The potential for immediate feedback from the receiver. It is manifested by simultaneous, synchronous, and continuous exchange of information (some similarities to ‘immediacy of feedback’).

b) **Adaptiveness**: The potential to personalize a message to a particular receiver (similar to ‘personal focus’).

c) **Channel Capacity**: the potential to transmit a high variety of cues and languages (similar to ‘multiple cues’, ‘language variety’ and ‘symbol variety’)

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Most of these characteristics, with the exception of those by Burgoon et al., are in some way associated with media richness theory. As Dennis and Kinney (Dennis et al. 1998) pointed out, media richness theory has, in the past, been confused with media characteristics.
While a few studies have attempted to measure media richness by asking about cues, feedback, language, and personal focus, this is a serious confound. Cues etc., are theorized to affect richness; they are not part of richness. Media richness is defined as “the ability of information to change understanding within a time interval” (Daft and Lengel, 1986, p.560)

Dennis and Kinney (1998) persuasively argue that researchers may benefit by examining fundamental characteristics of media (such as immediacy of feedback and not media richness) to understand performance effects. We agree with Dennis and Kinney (1998) and use ‘media characteristics’ as a starting point in our research model. This research does not attempt to investigate nor apply media richness theory in the web-shopping context. Rather, this research seeks to portray web site as a valid social actor and attempts to characterize the relationship that emerges between a web site and its visitors.

Dennis and Valacich (1999) argued that the communication capabilities of the same medium could vary depending on the way it is configured. Previous research has also shown that media characteristics are perceived (by the user) and the characteristics that are salient to a particular individual may not be salient to others. Thus, we argue that it is more appropriate to use the term ‘perceived communication characteristics’ rather than ‘media characteristics’. This research would be focusing on the impact of some of these perceived communication characteristics within the same medium and not across media.

Table 1 also demonstrates the inter-relatedness of these ‘communication characteristics’ across taxonomies. For example, synchronicity is quite similar to immediacy of feedback. Modality is similar to symbol variety and multiple cues. Even the characteristics
developed within the same theoretical framework seem to be interrelated. For example, manipulating multiple cues would have an effect on immediacy of feedback (Dennis et al. 1998) as audio/video cues inherently tend to give some immediate feedback when compared to pure text.

This research also introduces connectivity – the ability of a medium to bring together people who share common interests or goals - as one of the communication characteristics to the list of properties summarized in Table 1. While constructs similar to adaptiveness have been defined and used in previous research under various labels (Table 1 – personal focus, contingency, adaptiveness), connectivity is introduced as a media characteristic for the first time in this research. One of the major objectives of this research is to investigate the impact of personalization and support for consumer reviews. This research argues that adaptiveness and connectivity are the pertinent communication characteristics impacted by IT-enabled personalization of web sites and support for consumer reviews and thus the focus of this research would be restricted to these two communication characteristics. Consistent with the spirit of the definitions in Table 1, we define adaptiveness as the ability of a medium to adapt itself based on the requirements and the situation of the user.

Connectivity is the extent to which and the ease with which individuals who share common goals and interests find each other. This characteristic is one of the more important qualities that distinguish Internet\(^1\) from other traditional media as this allows

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\(^1\) This research views Internet as the physical network of networks; World Wide Web, e-mail, ftp and other programs as applications that use Internet.
spontaneous relationships to be developed among spatially and temporally distributed participants. While Face-to-Face (FtF) communication may have many advantages over computer mediated communication (some of which can be overcome as participants get to know each other over time), FtF communication has a decided disadvantage over other communication formats vis-à-vis connectivity. The ease with which web as a medium amplifies and supplements this often overlooked characteristic, could partially help offset some other limitations that web may face in facilitating relationships among entities.

While organizations recognize the importance of supporting team members working in different locations using different media and are willing to invest time and resources to acquire associated group support systems, individuals who share a common affinity for the music of ‘Miles Davis’ may not be willing to do the same if this would cost them too much money and time. But, the advent of Internet has made it very easy for individuals who share common interests to come together on-line. Usenet newsgroups were the earliest examples of such groups and the World Wide Web now makes it even easier to form sophisticated virtual communities. Web sites can act as conduits through which such relationships can be forged. Sometimes, these interactions are transactional in nature (a user browsing through a recommendation by another user who bought the same product). Other times, the relationship blossoms over a period of time (virtual communities at Yahoo.com, MSN.com). In short, the Internet in general and the World Wide Web in particular, has made this quantum leap from ‘virtual teams’ to ‘virtual communities’ possible. This research argues that if a social actor (including a web site) helps another social actor (visitor to a web site) connect with others who share similar
interests or goals (virtual community), then this would foster a positive relationship between those actors (web site and the visitor to that site).

2.2 Impact of Technologies Used and Interface Design Decisions Made

Companies are beginning to employ a wide variety of technologies to build meaningful relationships with their customers, in anticipation of the emergence of web interface as a major point of contact between companies and customers. While web interface may not be the only point of contact that customers use, companies are aware of the advantages of using the web to cater to the needs of the customers as much as possible. This concept of self-service by customers runs the whole gamut right from the pre-purchase stage all the way to the post-purchase stage (Cenfetelli et al. 2003). This concept of ‘self-service’ not only reduces costs for the company, but also increases customer satisfaction by addressing the transactional as well as the relational needs of the customer. The personalization systems used by several leading B2C retailers such as Amazon.com and Landsend.com are excellent examples of customers’ transactional and relational needs being met especially at the pre-purchase stage.

Dennis and Valacich (1999) argue that the same medium could possess different communication capabilities depending on how it is configured. The versatility of web allows different configurations to be used to support the avowed goals of a web site. Different levels of support for these technologies and the associated web interface design decisions, will affect specific communication characteristics of the web as a medium. For example, a decision on what combination of text, images, audio and video to include,
affects the modality (symbol variety) of the medium. A decision to include instant messenger systems affects the synchronicity (immediacy of feedback) of the medium. Decisions made on the type of personalization systems (a wide variety of solutions available based on cost and sophistication required - intelligent agents, collaborative filtering, content filtering, and constraint based recommendation systems) to be used in a web site influences the adaptiveness (personal focus, contingency) of the medium; decision to include support for some form of consumer reviews will enhance the connectivity of the medium. This research specifically investigates the effect of two such IT-enabled web site design decisions made by companies: support for personalization systems and support for virtual communities.

2.2.1 Personalization Systems

Most of the technologies and tools that companies use to manage their relationship with their customers usually fall under the banner of Customer Relationship Management (CRM) System. Even though personalization is just one piece of the CRM pie, it is a very crucial piece as effective personalization significantly enhances the ability of the organization to initiate a discourse with its customers to the point where any and all of these dialogues are seamlessly integrated with the database's historical and transactional information. Based on the data stored in these databases and recent history (the pages customers viewed in the last session), web sites automatically attempt to improve their organization and presentation of content. These web sites armed with a host of appropriate tools – including intelligent agents, recommendation engines and the like –
attempt to anticipate the context of the interaction with their customers and personalize each customer’s shopping experience (Andre et al. 2002; Billsus et al. 2002).

Personalization is a process of providing special treatment to a repeat visitor to a web site by providing information and applications matched to the visitor’s interests, roles and needs (Chiu 2000; Cingil et al. 2000). Personalization is needed to successfully manage customer relationships, promote the right product the customer is interested in, and manage content. Most of the advanced personalization might require sophisticated data mining techniques and the ability to display dynamic content without seriously compromising system resources (dynamic display of content will usually mean increased download time).

There are three well-known techniques for personalization. Rules-based personalization modifies the content of a page based on specific set of business rules. Cross-selling is a classic example of this type of personalization. The key limitation of this technique is that these rules must be specified in advance. Personalization that uses simple filtering techniques determine the content that would be displayed based on predefined groups or classes of visitors and is very similar to personalization based on rules-based techniques. Personalization based on content-based filtering analyzes the contents of the objects to form a representation of the visitor’s interest (Chiu 2000). This would work well for products with a set of key attributes. For example, a web site can identify the key attributes of movies (VHS, DVD) such as drama, humor, violence etc., and can recommend movies to its visitors based on similar content. Personalization based on
collaborative filtering offers recommendations to a user based on the preferences of like-minded peers. To determine the set of users who have similar tastes, this method collects users' opinion on a set of products using either explicit or implicit ratings (Chiu 2000). Please see Figure 1 for an illustration of how a web site could use all three personalization methods to best serve the customer.

An intelligent way to make the web site adaptive is to use not only the information provided by the user (such as rating the music and of course log-in information), but also information that could be collected based on the click-stream trail left behind by the user. These two different sources of collecting information about the consumer are known as
explicit and implicit profiling. As the name implies, explicit profiling collects information about a user by directly asking him/her information about self and product likes and dislikes. This information is collected over a period of time and is stored in the customer database as a profile. Typically, the user would need to log-in in order for the web site to access the profile and provide personalized content. Even though cookies can be used to store this information on a user’s hard disk, companies prefer to use the log-in approach as this allows the web site to identify the unique visitor (cookies won’t help if the computer is shared within a family or if the customer accesses the web site from a different web site – say from the office).

Implicit profiling typically tracks the actual behavior of the customer while browsing the web site. This method of collecting information is transparent to the user. While less intrusive, this method of collecting information has implications for the user’s privacy. Typically, information is collected about the pages the consumer visited, the products he/she looked at and the time user spent on these pages. If a (brick and mortar) company has good information systems, the data from explicit and implicit profiling can be merged with the off-line customer information (see legacy user data in Figure 1) to effectively present a seamless web interface to the customer.

Ideally, a company should use all sources of information it has about the customer. However, when a user visits a shopping web site (even a repeat user), it would be unsound business practice to expect the user to log-in every time to access personalized content. Hence, a good web site would use implicit profiling and make a few
assumptions about the likes and dislikes of the customer to provide adaptive content to the customer. For example, if a customer visits a specific product page, it is a good idea to assume that the customer is interested in that particular product and provide content personalized to that user's need. Of course, in most cases, even if the user logs in, the web site may have little else other than previous purchase history if the user has not provided any specific information on the products he/she likes.

The level and extent of personalization offered by the web site will have an effect on the communication characteristics of the media. This research argues that different levels of support provided for personalization will specifically impact on the adaptiveness (similar to contingency used by Burgoon et al., 2000) of the web site. This is best illustrated by discussing a real life example using Amazon.com. Appendices 6.1 to 6.3 include three screen shots that show the different ways Amazon.com attempts to personalize the experience of the customer. When the user enters the web site, he is invited to log in if desired. Once the user logs in, Appendix 6.1 shows the web page that is dynamically created by Amazon.com. This page recommends products to the user based on past purchase history and on the explicit ratings provided by the user to a set of select items. Appendix 6.2 shows the product page for a book the user is interested in. The column on the left hand side of this page shows the associated related content about the product that is displayed on this page. Appendix 6.3 shows the page tailor-made for the user based on his recent browsing history and past purchase history. Of course, the scenario described above assumes that the user logged into the web site at the outset. An intelligent web site can still adapt its content in its product page by assuming that the user is interested in the
product he/she is browsing. Accordingly, the product page shown in screen shot 6.2 can be personalized even with out an explicit log-in by the user.

If the same user were to shop for the book that he is interested in a physical store, he might have approached the sales clerk (or even a friend he had taken along for the shopping trip) for help locating the product. Now, when he mentions to his friend that he is interested in this specific book, music or movie, then it is possible to imagine a conversation happening along the lines discussed above. Of course, the above discourse with the web site is limited by the need for a shared context. The conversation will not be totally indeterminable in terms of context and content and may not move along in any arbitrary direction as is possible in a conversation with a friend. But, this research argues that there are enough cues in the discourse initiated by the personalization system of Amazon.com that is enough to give the user the impression that the conversation is contingent within that shared context.

2.2.2 Virtual Communities

To enhance the relationship with the customers, companies can also provide support for virtual communities, as this will facilitate access to free-flowing and unstructured information beyond what is provided by the computer agents (Jones 1997; Preece 2001; Preece 2002). For example, companies can aggregate the opinions of consumers on a particular product and present them to a new user who is browsing that product page. Depending on the level of support provided by the web site, the new user can also get in touch with another consumer he/she might identify with, as is the case with Amazon.com.
Recent research that elicited participant's beliefs about the goals that can be achieved through Internet found that the participants attached considerable importance to better social relations and new friendships (Capozza et al. 2003). A recent study by Brown et al., (Brown et al. 2002) shows that community features create value for a shopping website. Their study showed that community users accounted for about one-third of the visitors to the e-tailing sites surveyed and that they also generated two-thirds of the sales (2000 transactions worth one million dollars). Practitioners have long argued that having a vibrant community in the form consumer reviews is crucial for the success of e-commerce web sites such as Amazon.com and Ebay.com (Brown et al. 2002; Kirkpatrick 2002). This research argues that providing support for consumer reviews facilitates formation of one type of virtual community. High level of support (user rating and information about the user) for consumer reviews increases connectivity by giving the user an opportunity to express his opinions and by facilitating formation of informal peer groups/communities.

2.3 General Research Model: A Roadmap
This research attempts to investigate the effect of support for different levels of personalization and different levels of consumer reviews (one form of virtual community) on the relationship that companies develop with its customers. The communication characteristics of the medium can be manipulated by the interface design decisions made and underlying technologies used. This in turn affects social presence and subsequently the customer loyalty (See General Research Model in Figure 2). For example, based on the book that a customer is interested in, Amazon.com recommends similar books (simple filtering/rule-based) and books bought by users with similar tastes (collaborative
filtering). This type of personalization effort is hypothesized to increase adaptiveness afforded by the web site. This in turn will positively influence social presence and then, user’s evaluations of a web site.

![General Research Model](image)

**Figure 2: General Research Model**

This research model also proposes that the relationship between the perceived communication characteristics and evaluation criteria will be mediated by perceived usefulness (PU). To support this part of the model, the research borrows from previous research on Theory of Planned Behavior (Ajzen 1991) and Technology Acceptance Model (Davis 1989) that posited specific relationships between attitudes, belief structures, behavioral intent and actual usage. Our research model includes beliefs (perceived usefulness, social presence) and behavioral intent (loyalty). The research model will be fully developed in Chapter 4. With help from the next Chapter that discusses the nature of social presence, the theoretical support and arguments provided in Chapter 4 will also clarify the reasons why social presence is added as an additional belief structure.
3. Social Presence: Theoretical Background and Development

3.1 Relational Communication

Researchers in the Communication field have drawn a conceptual distinction between the content and the relational aspects of communication (Watzlawick et al. 1967). Any given interaction can be analyzed in terms of the content of the message exchange (verbal and non-verbal) and in terms of what it reveals about the nature and structure of the relationship between two participants. The relational aspect of communication can be used to characterize and measure the extent of interpersonal relationships between participants (Burgoon et al. 1987; Dillard et al. 1999; Kumar et al. 2001; Kumar et al. 2002; Walther 1992; Watzlawick et al. 1967). We propose that social presence could be used as a proxy to characterize the relational dimension of communication between human participants. This raises two important questions:

- Is it appropriate to draw parallels between "relationship among humans" and "relationship between a web site and its users"?
- What is the nature of the construct Social Presence (SP)? Is it appropriate to use social presence in the context of relationship between a web site and its users?

3.2 Do People Treat Computers as Social Entities? – Theory of Social Response

Reeves, Nass and their colleagues at the Center for the Study of Language and Information at Stanford have shown that even experienced users tend to respond to computers as social entities (Nass et al. 1995a; Nass et al. 1995b; Nass et al. 1994). These studies indicate that computer users follow social rules concerning gender stereotypes and politeness, and that these social responses are to the computer as a social entity and
not to the programmer. When explicitly asked by the researchers, most users consistently said that social responses to computers were illogical and inappropriate. Yet, under appropriate manipulation, they responded to the computer as though it were a social entity. This, in fact, is the essence of the ‘Theory of Social Response’ (Moon 2000; Reeves et al. 1997). Youngme Moon (2000, p325), in a recent paper, argues that

"More specifically, when presented with a technology possessing a set of characteristics normally associated with human behavior – such as language, turn taking, and interactivity – humans respond by exhibiting social behaviors and making social attributions. Consequently, many of the same social conventions that guide interpersonal behavior are also evident in human-computer interaction, even when the conventions no longer make ‘rational’ sense in this different context"

She further argues that,

"The theory of social response also leads to some interesting insights regarding how people generate the psychological boundaries associated with these relationships. The evidence suggests that these boundaries are structured by the physical and behavioral characteristics of the computer. For example, in studies involving text based computer interfaces with unremarkable features, researchers have found that users tend to psychologically orient themselves to the box... In short, it appears that the most salient cue – whether it be the box, the voice (voice based output) or the agent (computer interfaces with text based or graphics based computer agents) – is also likely to become the relational target of the social response"

We believe that there is value in conceptualizing the web site as a social actor and that the web site can be equated to the ‘agents’ mentioned above in terms of source orientation. There are several points-of-contact between a web site and its users that will result in responses by the users not unlike the way they would respond to a social interaction. Having established the notion that "inter-personal" interactions between a web site and its users may not be so far-fetched after all, we now turn to the other important issue: To what extent does social presence represent the “relational” aspect of communication between a web site and its users?
3.2 Presence: Different Conceptualizations

Researchers from a wide array of fields (such as communication, computer science, psychology, information systems, organizational behavior and cognitive science) have studied presence, even though the conceptualizations made different assumptions about the construct and the domain it is situated in (from the psychophysical to psychological). Lombard and Ditton (Lombard et al. 1997) identified six different conceptualizations of presence:

Presence as “Social Richness”: This is the conceptualization (social presence) that is familiar to most of the researchers in Management Information Systems and Organizational Behavior field. Social Presence is the degree to which a medium allows a user to establish a personal connection with others (Short et al. 1976). It has been predominantly used to study media selection. We argue that this construct has great potential if it can be used to represent the relational aspect of the communication between a web site and its customers.

Presence as “Realism”: Presence is conceptualized as the degree to which a medium can produce realistic representations of the “things” one is interested in. This conceptualization has been widely used by researchers in computer graphics and human factors field. This can further be sub-divided into two orthogonal categories: perceptual and social realism. For example, the movie “Star Wars” may be high in perceptual realism but low in social realism. On the other hand, the usual animation techniques used
in serials like “Simpsons” are low in perceptual realism, but high in social realism. The Japanese animation (anime) is an example of a representation that is high in perceptual realism.

**Presence as “Transportation”:** Sensations of "you-are-there", "it-is-here" and "we-are-together" are the centerpiece of this conceptualization. Virtual Reality is the classic example of “you are there” sensation and should ideally lead to sensations of being transported to the world generated by the computer environment. The second kind of conceptualization is directly linked to the sensation that television viewers might feel when watching TV. Usually, the viewers feel as though the events are being brought into their drawing room (Millerson 1969; Reeves 1991). The third kind of sensation “we are together” is similar to the tele-presence concept used to describe video conferencing applications.

**Presence as “Immersion”:** This conceptualization seeks to measure the extent to which a virtual environment immerses a user perceptually as well as psychologically. Measures have been developed to measure perceptual immersion (Biocca et al. 1993) and psychological immersion (Heeter 1995). Perceptual immersion usually emphasizes psychophysical responses while psychological immersion primarily emphasizes user’s involvement at a psychological level.

**Presence as “Social Actor within Medium”:** This conceptualization of presence addresses social responses of media users to entities within a medium. Typical examples
include: responses of users to television personalities even though this relationship is one-sided, responses of users to interpersonal distance cues from across the medium, and responses of users to virtual actors (e.g.: Microsoft's office assistant, Virtual raising of pets through a key chain).

Presence as “Medium as a social actor”: This conceptualization is similar to presence as “social actor within a medium”, but this presence captures social responses of media users to the cues provided by a medium. Studies have shown that users respond to social cues exhibited by the medium and respond to the medium as though it were a social entity (Nass et al. 1995a; Nass et al. 1995b; Nass et al. 1994).

Lombard and Ditton (1997) propose that the essential element for conceptualizing presence is the idea of perceptual illusion of non-mediation. However, we argue that 'illusion of non-mediation' is an important issue only for immersive environments such as virtual reality. When two social actors communicate in a mediated environment, these actors get used to this mediated environment over time and ascribe characteristics to the media that might increase or decrease the richness of the medium. E-mail (Markus, 1994) and instant messenger systems are two classic examples of this phenomenon. Hence, we argue that for cases that involve facilitation of communication between two social actors, it is more elegant and parsimonious to concentrate purely on psychological rather than psychophysical dimensions. We argue that it is possible to use social presence (presence as social richness) as an experiential construct that captures the relationship between a

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2 According to Lombard and Ditton, an "illusion of non-mediation" occurs when a person fails to perceive or acknowledge the existence of a medium in his/her communication environment and responds as he/she would if the medium were not there.
web site and its customers. The other conceptualizations are equally important, but they do not fit well within the context we are interested in (shopping in a business to consumer web site) and are outside the scope of the paper.

3.3 Social Presence

Social presence refers to the degree to which a medium allows a user to establish personal connection with other users (Short et al. 1976). A high presence medium is rated toward the sociable, warm and personal end of the continuum. The theory further postulates that the level of social presence needed by a particular communication task determines the use of a medium. The theoretical foundation of Social Presence draws from Daft and Lengel's (1986) Media Richness Theory, and Short, Williams and Christie's (1976) Social Presence Theory. Carlson and Davis (1998) characterize richness of a medium as the capacity for a medium to convey rich information, ability to give immediate feedback, variety of communication cues available, language variety attainable and personalization of the medium. Researchers have long been interested in media selection: given the choice, which media would one choose to accomplish a certain task? (Burke et al. 1999; Carlson et al. 1998; Daft et al. 1986; Daft et al. 1987; Fulk et al. 1993; Markus 1994; Rice et al. 1983). For example, one might prefer to use email to convey unpleasant information.

Researchers have used Media Richness and Social Presence theories to rank the media in order of increasing media richness and social presence respectively (Daft et al. 1987; Dennis et al. 1999; Dennis et al. 1998; Fulk et al. 1993; Sproull et al. 1986; Valacich et
al. 1993). Media Richness theory postulates that media selection depends on the equivocality and uncertainty of the task at hand. Social Presence theory postulates that selection of media is based on the degree to which social presence is necessary for a particular communication task. These two theories together have been grouped under “Trait Theories of Media Selection” because of the similarity of their approaches to media selection (Carlson et al. 1998).

However, empirical evidence so far has not supported the claims made by either of these theories especially in the case of media selection. One of the reasons for this ‘lack of strong support’ is the insufficient and still evolving understanding about the usage of newer media. Media selection and use is also a function of social influences: users over time ascribe certain characteristics to the media that might increase or decrease the richness of the medium. For example Markus (Markus 1994) showed that e-mail, traditionally thought of as a lean medium, can be used for richer communication when the social processes surrounding media use define it as a rich medium.

Dennis and Valacich (1999) argue that there is no such thing as absolute ranking of the media in terms of increasing information richness or social presence. Further, they also point out that one medium could possess different levels of communication capability depending on how that medium is configured and used. The versatility of the web allows different configurations to be used to support the avowed goals of a web site (from selling products and information to enhancing corporate image).
We view the web as a dynamic distributed communication network disseminating information and capable of global reach. We view its primary purpose as similar to that of any other media - dissemination of information and communication. The most widely used operationalization measures social presence with four 7-point semantic differential scale items: warm/cold, sensitive/insensitive, personal/impersonal, sociable/unsociable (Karahanna et al. 1999; Short et al. 1976). Gefen and Straub (Gefen et al. 2003) have adopted this construct for usage in a web site shopping context and this study uses the measure developed by them. Gefen and Straub (2003) use the label Social Presence - Information Richness (SPIR) for this construct and use this construct in the manner consistent with the original definition proposed by Short and Christie (1976). Even though social presence has been used by Gefen et al., (2003) in the web-shopping context, the assumptions underlying this construct and its gradual evolution in meaning over time, which has resulted in its use in the shopping context, has not been made explicit in previous research. The next section will explore the assumptions underlying usage of the construct social presence and will propose expanding the contexts where social presence can be used.

3.4 Social Presence: From Connection With Other Users To Connection With The Web site
The conceptualization of presence in this research focuses on the underlying structure of relationships facilitated by the medium. In the context of e-commerce, a web site that is high in social presence is more likely to facilitate a positive and mutually beneficial relationship between itself and its visitors. The participating social entities, the medium, and the way the medium is configured influences social presence. The advent of the web
has blurred the distinction between the media and the interface of the web site. It is possible for an organization to make web interface design decisions that would affect the characteristics of web as a medium for that web site.

Web as the platform of communication affords a range of channels through which information can be conveyed. Web sites use a combination of multimedia and hypertext to integrate and provide interactive access to both static and dynamic content. The web is more versatile than most other communication platforms as it is an integrated medium with multiple capabilities – synchronous communication (chats, instant messaging, video conferencing), asynchronous communication (web based mail, message boards, web based group support tools with different levels of personalization), memory, storage and retrieval of information, control and security access. These multiple capabilities and versatility allow each web site to be configured in many different ways and this would have an impact on the perceived communication characteristics afforded by that web site.

There are varied and multiple number of ways to configure and use the web. Any web site can offer a number of tools that support a variety of the functions described above at different levels. This research argues that social entities can configure the media according to their preferences; examples include voice mail settings (modifiable by the organization as well as users), web site design decisions made by the organization, customization by the visitor to a site (e.g. myCNN.com, my.yahoo.com). It is also important to understand that content of the message exchange will affect the structure of relationship between participating entities and vice-versa.
Table 2 shows the difference between Social Presence (SP) used in traditional and more recent contexts. The second column of Table 2 shows that the use of social presence has evolved over the years to include synchronous and asynchronous groups as well as a wide variety of settings including shopping on the web. However, the emergence of web as the new medium and its multiple capabilities suggests a need for rethinking the way social presence is used.

**Table 2: Recasting Social Presence to Connote a Broader Meaning**

<table>
<thead>
<tr>
<th>Social Presence (Traditional)</th>
<th>Social Presence (New Contexts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synchronous Groups</td>
<td>Synchronous &amp; Asynchronous Groups</td>
</tr>
<tr>
<td>Organizational Settings</td>
<td>Org. Settings &amp; More (e.g. Shopping)</td>
</tr>
<tr>
<td>Entities Involved - two or more persons and a medium of interaction</td>
<td>Entities - Should they be humans? (Web site as a valid social actor)</td>
</tr>
<tr>
<td>Virtual Teams</td>
<td>Virtual Teams &amp; Virtual Communities</td>
</tr>
<tr>
<td>Are the users connected through the medium pre-determined?</td>
<td>Modify to take into account the new media capabilities. Manner in which the web can bring together people with similar goals and interests (connectivity?)</td>
</tr>
</tbody>
</table>

The last three rows of the Table 2 (as shown by the arrows) indicate other contexts in which social presence will be used in this research. Further, making a case for treating web sites as valid social actors (Chapter 3.2) strengthens the case for using social presence to measure the relational aspect of communication between two or more social entities separated by time and space.
This work argues that it would be beneficial to *de-link the construct from the media* as the distinction between the web as a medium and the web interface becomes blurred. Instead, this research seeks to capture the underlying structure of relationship that emerges between participating social entities. Figure 2 shows *social presence of the web site* as one of the central constructs that can *mediate* the relation between communication characteristics of the media (influenced by a combination of technology and web interface decisions) and the evaluation of the web site. In short, social presence is used as an experiential construct that captures the relational aspect of communication between a web site and its users.
4. Research Model and Hypotheses Development

4.1: Rationale Behind The Research Model

Figure 3 shows the specific research model tested in this research. This research synthesizes three streams of literature – communication, media choice and theory of planned behavior – to propose a model where social presence and perceived usefulness are conceived of as primary mediators of relationship between communication characteristics of a web site and customer loyalty. The enabling technologies used to configure a web site are in turn theorized to impact on communication characteristics of the media. This research specifically looks at the interplay between a web site’s support for IT-enabled personalization systems and virtual communities on adaptiveness and connectivity.

![Figure 3: Research Model Tested](image)

Traditionally, intention to engage in a behavior has been an important construct that predicts actual behavior better than either attitude towards a behavior or a set of beliefs.
about that behavior (Ajzen 1991; Davis 1989; Venkatesh et al. 2003). Intention to engage in a behavior has in turn been known to be predicted either by attitude towards that behavior as in the theory of planned behavior (Ajzen 1991) or by a set of beliefs as in the technology acceptance model (Davis 1989). The technology acceptance model (TAM) used perceived usefulness and ease of use as the set of belief structures that are crucial to predicting intent to adopt a particular IT system. Belief structures in general are considered to be the cognitive component of attitudes (Taylor et al. 1995; Thompson et al. 1991; Triandis 1977) and are also known as evaluative affects. TAM uses belief structures and ignores the other components of attitudes for the sake of parsimony.

This research uses customer loyalty as a behavioral intent construct (intent to return to the web site regularly) and consistent with TAM theory posits perceived usefulness as a predictor of customer loyalty. However, this research omits ease of use in the research model and proposes social presence as the other belief structure that predicts loyalty. Previous research has also shown evidence for the argument that “TAM’s inherently parsimonious nature has excluded other critical belief constructs that are necessary to fully capture and mediate the influence of all external variables on user acceptance and subsequent usage behavior” (Hubona et al. 2003). This research argues that while perceived usefulness assesses the utilitarian aspect of the communication between a web site and its customers, social presence assesses the relational aspect of the communication between that web site and its customers. Chapter 3 presents arguments in support of treating a web site as a social actor and using social presence to capture the relational aspect of communication between a web site and its customers. We believe that social
presence is a more appropriate construct to use in the web-shopping context than ease of use. Moreover, the efficacy of ease of use in predicting behavioral intent has mixed empirical support (Venkatesh et al. 2003) and in general, ease of use has an indirect effect on behavioral intent through perceived usefulness.

Previous research has also used affective component of attitude with like/dislike connotations as one of the predictors of behavioral intent (Bandura 1986; Compeau et al. 1995; Goodhue et al. 1995; Thompson et al. 1991; Triandis 1977). This affective component could be considered as one of the alternate candidates to using social presence to capture the relational aspect of communication. Empirical support for the predictive effect of affect on behavioral intent has been mixed (Compeau 1999; Compeau et al. 1995; Taylor et al. 1995; Thompson et al. 1991; Venkatesh et al. 2003). Considering the mixed support for the effect of affect, we believe that using social presence as a belief structure, which has similar connotations to affect in expressing the experiential aspect of the relationship, would be more promising.

While social presence and perceived usefulness are proposed as experiential and utilitarian aspect of communication between a web site and its customers respectively, the front end of the model proposes that perceived communication characteristics of the web site would have a significant impact on social presence and perceived usefulness. This is consistent with the assertion of Dennis and Kinney (1998) who argued that using fundamental communication characteristics of the media would help researchers to better understand performance effects.
4.2 Hypotheses

Recent research on media use and media selection has argued that there is no such thing as absolute ranking of media in terms of its communication richness (Dennis et al. 1999; Fulk et al. 1993; Walther 1992) and that communication capabilities of the same media can differ depending on how it is configured (Dennis et al. 1999; Kumar et al. 2001). We argue that support for different levels of personalization and different levels of consumer reviews will have an impact on the communication capabilities of a web site and will affect adaptiveness and connectivity afforded by that web site. A web site that offers support for IT-enabled personalization systems will be perceived as being more adaptive when compared to a web site with no support for personalization systems. Similarly, a web site that offers support for consumer reviews (a form of virtual community) will be perceived as being more connective (bringing people together) when compared to a web site with no support for consumer reviews.

**H1a:** Higher levels of support for personalization features by a web site will lead to higher levels of perceived adaptiveness.

**H1b:** Higher levels of support for virtual communities by a web site will lead to higher levels of perceived connectivity.

Previous research has shown that a number of measures that can be construed as similar to adaptiveness - interactivity, empathy and responsiveness - have been closely associated with web site success and satisfaction (Devaraj et al. 2002; Palmer 2002; Zahedi et al. 2003). Previous research has also shown that virtual communities can be
influential sources of customer information and can create significant (Bickart et al. 2001; Brown et al. 2002) value for companies.

Hence, by designing web sites that the user perceives as being more adaptive and connective would lead to development of a positive relationship between the web site and its visitors. Chapter 3.2 made a case for treating web sites as valid social actors (Moon 2000; Nass et al. 1995a; Nass et al. 1995b; Nass et al. 1994). When treating a web site as a social actor, communication literature offers plenty of support for the assertion that if a social actor improves one's communication capabilities, the relational aspect of communication (social presence) between the communication partners would also improve (Burgoon et al. 2000; Burgoon et al. 1987; Dillard et al. 1999; Watzlawick et al. 1967). In Chapter 4.1, we argued that social presence and perceived usefulness could be construed as the relational and utilitarian aspects of this relationship. We hypothesize that increased levels of adaptiveness and connectivity will lead to greater levels of social presence (H2a and H2c). We also believe that adaptiveness and connectivity afforded by a web site will directly influence levels of usefulness perceived by a user (H2b, H2d). For example, web sites personalizing content to specific user's needs not only helps increase the feeling that the web site is socially present, but also increases the usefulness of the content by organizing the most relevant content.

**H2a:** Higher levels of adaptiveness afforded by a web site will lead to greater social presence.
H2b: Higher levels of adaptiveness afforded by a web site will lead to higher levels of perceived usefulness.

H2c: Higher levels of connectivity afforded by a web site will lead to greater social presence.

H2d: Higher levels of connectivity afforded by a web site will lead to higher levels of perceived usefulness.

In general it is argued that there is an underlying psychological connection between perceiving a medium as high on social presence and its usefulness across a wide variety of communication tasks (Gefen et al. 2003; Rice et al. 1983; Sherblom 1988; Steinfield 1986). Previous research also shows that social presence is an antecedent of perceived usefulness (Gefen et al. 2003; Karahanna et al. 1999; Straub et al. 2002). Hence, we also hypothesize that social presence will have a positive impact on perceived usefulness (H3).

H3: Higher levels of perceived social presence will lead to greater levels of perceived usefulness of that web site.

Consistent with the technology acceptance model, where belief structures predict behavioral intent, this research model hypothesizes that the belief structures used in this research - social presence and perceived usefulness - will have a positive impact on customer loyalty. Customer loyalty indicates the intent of the user of a web site to return to the web site. While there is plenty of support for the significant impact of perceived
usefulness on behavioral intent to use the system (Compeau 1999; Davis 1989; Gefen et al. 2003; Karahanna et al. 1999; Straub 1994; Thompson et al. 1991; Venkatesh et al. 2003), support for the impact of social presence on behavioral intent is limited to showing that the relationship is mediated by perceived usefulness (Gefen et al. 2003; Karahanna et al. 1999; Straub 1994). Yet another stream of research, borrowing from the flow literature, has shown that shopping enjoyment can be a significant predictor of behavioral intention along with perceived usefulness (Hoffman et al. 1996; Koufaris 2002). Past research has also found mixed support for using affective component of attitude as a predictor of behavioral intent (Compeau 1999; Compeau et al. 1995; Taylor et al. 1995; Thompson et al. 1991; Venkatesh et al. 2003). This research argues that the belief structure social presence covers similar grounds in trying to express the relational component of communication between a web site and its users. Hence, this research proposes a direct impact of social presence on customer loyalty.

**H4a**: Higher levels of perceived social presence will lead to an increase in customer loyalty.

**H4b**: Higher levels of perceived usefulness will lead to an increase in customer loyalty.

### 4.3 Research Methodology: A Brief Introduction

This research will utilize a survey and an experiment in order to fully test the sets of hypotheses developed in the previous section. The survey will first empirically test the hypotheses H2a-H4b (See the linkages shown in Figure 4). The survey will be conducted first to show that perceived communication characteristics do impact on social presence and perceived usefulness, thus underscoring the importance and relevance of these
communication characteristics. The results of the survey will further help show that the two belief structures social presence and perceived usefulness do have an impact on the behavioral intent customer loyalty thus validating one of the central arguments of the proposed research model. The validation of the central arguments posited by the research model will pave way for an experiment that sets out to show that IT-enabled support for technologies will impact on the perceived communication characteristics positively and through them on the other dependent variables studied in the model (social presence, perceived usefulness and customer loyalty).

Figure 4: Conceptual Model Tested Using Study 1

The difficulty of measuring the impact of online personalization using any type of research methodology has been well documented (Padmanabhan et al. 2001). Using a survey methodology to evaluate on-line personalization suffers from the lack of a base web site for comparison. The other option is to investigate the impact of personalization on the rare occasion just before a web site is adding personalization systems to its arsenal of features so that a longitudinal study can be undertaken. A researcher needs serendipity
to accomplish this as well as access to that web site. Constructing an experimental web site that replicates the personalization systems used by the big shopping sites is no easy task.

This is especially true when trying to construct web sites with consumer reviews as well as personalization systems. For example, collaborative filtering system used by both CDNOW and Amazon is dynamic in nature and generates recommendations based on other users who have visited the web site. The quality of these recommendations are highly dependent on the number of visitors and will definitely be better if a substantial number of users had already visited the web site and made browsing and purchasing decisions. Developing a web site with rich virtual community content also suffers from a similar problem. This research takes a novel approach to alleviate this problem. The content of Amazon.com was filtered real-time to manipulate the support offered by Amazon.com for different levels of personalization and consumer reviews. The filtered content was then displayed to the participants in the experiment.

This experiment will specifically focus on the linkage between personalization and virtual community features used in a web site and the two communication characteristics of the media – adaptiveness and connectivity (H1a and H1b). The experiment will also investigate whether support for personalization systems have an impact not only on adaptiveness but also on connectivity and vice-versa (Figure 5). This research argues that the way a web site is designed (how-to-provide-these-features) will play a major role in creating this effect. This assertion is also consistent with the findings from previous
research that argue that communication characteristics of a medium are perceived (Dennis et al. 1999; Fulk et al. 1993; Walther 1992) and that the way a medium is configured will impact on the perceptions these characteristics (Dennis et al. 1999). The data from the experimental study will also be used to reaffirm whether social presence and perceived usefulness mediate the relationship between perceived communication characteristics and customer loyalty.

![Figure 5: Conceptual Model Tested Using Study 2](image)

In addition, using a survey and an experiment to test different portions of the model helps accomplish two things: Firstly, the experiment by its very nature will allow for careful control of features used in a web site and hence will be useful in examining the causal links between interface features and perceived media characteristics - adaptiveness and connectivity. Secondly, the experiment will be used to collect data about the other dependent variables (social presence, perceived usefulness and customer loyalty) and this in turn will help us test the conceptual model proposed in Figure 4 using the two sets of
data from two different methods. This allows us to compare the conceptual model across methods thus providing more confidence with the validity of the model. Hence this research utilizes two studies to empirically test the full research model (Figure 3).
5. Study 1: Survey

5.1 Procedures
For this study, the web sites and tasks were carefully chosen such that they reflect the variance that is possible when designing web sites with different levels of adaptiveness and connectivity. For example, web sites such as Amazon.com, Chapters.ca, Bn.com and CDNow.com vary widely in the level of personalization they offer. It is also possible that communities within some web sites thrive more than others. Around the time the study was conducted (Nov 2001 – Jan 2002), the four web sites we chose fit roughly into a 2x2 matrix as shown in Table 3.

Table 3: Web Sites Used in Study 1

<table>
<thead>
<tr>
<th></th>
<th>Low Support for Consumer Reviews</th>
<th>High Support for Consumer Reviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Personalization</td>
<td>Chapters.ca</td>
<td>Bn.com (Barnes and Noble)</td>
</tr>
<tr>
<td>High Personalization</td>
<td>CDNow.com</td>
<td>Amazon.com</td>
</tr>
</tbody>
</table>

We arrived at the above matrix after a careful examination of the above web sites and comparison of their features. However, it needs to be emphasized that the 2x2 matrix shown above is intended only to offer the readers a general sense of the features offered by each web site. Each web site used in this study is a fully functional, commercial web site selling a wide array of consumer goods. Beyond this base functionality, there can be a lot of differences in the way a web site implements and uses its personalization and virtual community systems. Often times, this is a technology intensive process that may require huge capital investment as is the case with Amazon.com. A good web site such as Chapters.ca chooses not to offer both the more expensive personalization features as
well as the relatively inexpensive virtual community features. Even among web sites that do offer virtual community features, there is a huge difference in terms of vibrancy of the communities. Amazon.com seems to have more participants in their virtual community than both CDNow.com and BN.com. These three sites also differ widely in the way they implement virtual community features with Amazon.com being the strongest and CDNow being the weakest in terms support for virtual communities (Chapters.ca has no support for virtual community features). In the study, the participant was asked to go through the following steps:

- Each participant was randomly assigned to one of the four web sites and was asked to go through the purchase decision of three CDs (one CD as a gift for a friend and two CDs for self).
- The participant was instructed to browse the web site and locate information for a specific CD title (chosen to reflect the level of personalization and consumer reviews). For example, even though a web site may provide support for consumer reviews, it is possible for a user to encounter a product page for which there are no reviews. The CD title was carefully chosen so that it more or less reflects the features of the web site one has been assigned to. The participant was also instructed to browse the home page and get comfortable with the layout of the web site. This helps the participant to get familiar with the web site and the various features available with the web site.
- The participant was given a scenario and was asked to buy a CD as a gift for a friend. The participant was told that his friend recently came across a particular
CD (Al Green's Greatest Hits) that he/she liked very much and that the participant must try to buy a CD that is similar to that CD.

- The participant was then asked to shop for two CD titles of his/her choice for self. The participant was told that he/she had a 33% chance of winning one of the two CDs chosen for self (to help improve involvement). The participants were also paid an honorarium of $15 for participating in the study.

- Then, the participant was asked to fill out a survey to help empirically test the hypotheses presented in the previous section.

The survey used in this study is presented as Appendix 2. This survey also includes two pages of detailed instructions given to the participants to help them familiarize themselves with the web sites as well as to shop for the three CDs. For this study, we recruited 150 participants to shop in different web sites. All participants recruited were undergraduate and graduate students from the University of British Columbia. Of the respondents 78 were women and 72 were men.

5.2 Results and Discussion
Chapter 5.2.1 will start with an analysis of measurement properties of the different constructs used in the study. Using LISREL software (version 8.53) and with the data collected from the survey, measurement properties of the constructs such as reliability, discriminant validity and convergent validity are analyzed and the research model is run without any modification. Then, Chapter 5.2.2 will selectively drop items to improve fit and discuss the results of the model.
5.2.1 Initial Research Model

The items for measures of adaptiveness and connectivity were developed by us based on our characterization of these constructs in Chapter 2. We used previously validated scales for the constructs perceived usefulness and social presence (Gefen et al. 2003; Karahanna et al. 1999). The items for customer loyalty were adopted from measures used for purchase intention and loyalty in previous research (Gefen et al. 2003). The original items used to measure each construct in this research are listed in Appendix 1. First, the model was run on an as-is basis without any modifications and the results were examined. Figure 6A shows the loading coefficients associated with the measurement model and the structural model pictorially. Convergent validity is the extent to which multiple items that measure the same construct agree with each other. This is assessed by examining whether the factor loading coefficients that relate each item with the construct of interest are significant (t-values > 1.96; p<0.05). Factor loading coefficients of all items were significant with t-values exceeding 1.96, thus signifying good convergent validity.

Discriminant validity is the extent to which measures of different constructs are distinct from each other. In this research, discriminant validity is assessed using chi-square difference test (Venkatraman 1989). The assessment is done by examining and specifying two different models using each pair of constructs. The first model (Model A) constrains the correlation between these constructs as 1 suggesting that all the items for both constructs measure the same factor. The second model frees the correlation between these constructs to be estimated by the program (LISREL 8.53). Discriminant validity is supported if there is a significant difference between the chi-square measures of both
models. Table 4A reports the results of these pair-wise chi-square tests. All 10 chi-square differences are significant demonstrating strong support for discriminant validity.

Table 4A: Discriminant Validity – Pair-wise Chi Square Tests

<table>
<thead>
<tr>
<th>Model A: CONSTRAINED, 2 FACTOR MODEL</th>
<th>Model B: UNCONSTRAINED, 2 FACTOR MODEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHI-SQ A</td>
<td>CHI-SQ B</td>
</tr>
<tr>
<td>1 ADP_CON</td>
<td>416.19</td>
</tr>
<tr>
<td>2 SP_ADP</td>
<td>185.89</td>
</tr>
<tr>
<td>3 SP_CON</td>
<td>191.75</td>
</tr>
<tr>
<td>4 SP_PU</td>
<td>345.61</td>
</tr>
<tr>
<td>5 SP_LOY</td>
<td>324.94</td>
</tr>
<tr>
<td>6 PU_ADP</td>
<td>303.32</td>
</tr>
<tr>
<td>7 PU_CON</td>
<td>434.40</td>
</tr>
<tr>
<td>8 PU_LOY</td>
<td>847.53</td>
</tr>
<tr>
<td>9 LOY_ADP</td>
<td>468.48</td>
</tr>
<tr>
<td>10 LOY_CON</td>
<td>417.91</td>
</tr>
</tbody>
</table>

Table 4B reports the composite reliability and the variance extracted. The recommended values are 0.7 for reliability and 0.5 for variance explained (Hair et al. 1995). The results from Table 4B show that the variance explained for connectivity is low at 0.34 for the as-is model with all original items included in the analysis. Further, the fit indices from Table 4C for the research model show that all fit indices are within acceptable range with the exception of GFI and AGFI. To improve the low variance explained for connectivity and the moderate values for fit indices, the constructs in the model will further be analyzed to identify possible problems with individual items.
Figure 6B: Research Model – After Modification
Table 4B: Estimates of Composite Reliability and Variance

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Reliability</th>
<th>Explained Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptiveness</td>
<td>0.87</td>
<td>0.50</td>
</tr>
<tr>
<td>Connectivity</td>
<td>0.77</td>
<td>0.34</td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td>0.93</td>
<td>0.74</td>
</tr>
<tr>
<td>Loyalty</td>
<td>0.94</td>
<td>0.70</td>
</tr>
<tr>
<td>Social Presence</td>
<td>0.85</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Table 4C: Fit Indices for the Research Model: Before Modification

<table>
<thead>
<tr>
<th>Research Model</th>
<th>Desired Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMSEA</td>
<td>0.069</td>
</tr>
<tr>
<td>NFI</td>
<td>0.93</td>
</tr>
<tr>
<td>NNFI</td>
<td>0.97</td>
</tr>
<tr>
<td>CFI</td>
<td>0.97</td>
</tr>
<tr>
<td>IFI</td>
<td>0.97</td>
</tr>
<tr>
<td>RFI</td>
<td>0.93</td>
</tr>
<tr>
<td>RMR (Std)</td>
<td>0.077</td>
</tr>
<tr>
<td>GFI</td>
<td>0.75</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.71</td>
</tr>
<tr>
<td>$\chi^2 / df$</td>
<td>1.74</td>
</tr>
</tbody>
</table>

5.2.2 Research Model: After Modification

Each construct and the corresponding items were examined separately using LISREL to assess the value of the item factor loadings. In general, values greater than 0.6 are recommended for building reliable constructs. As a result of this analysis four items from connectivity (CON1, CON2, CON6, CON7) and one item from social presence (SP3) were eliminated. The dropping of items as a result of this procedure is considered
acceptable as this procedure examines unidimensionality as well as the residual variance of the individual items that do not overlap, both of which are ignored by a traditional factor analysis and/or reliability analysis (Gerbing et al. 1988). In the next stage, the model was run again using LISREL and three more items were dropped to improve the fit of the model. Two of these three items were from the construct loyalty (LOY2 and LOY5) and the third item was from the construct perceived usefulness (PU4). Figure 6B shows the results of this analysis. While dropping of items at this stage gives rise to the possibility that the results are empirically driven, an examination of the structural coefficients for both models (Figures 6A and 6B) suggests that the model is relatively stable (the values do not change much in the two models and the pattern of results remain the same). Further, we will use the data from Study 2 (see next Chapter) to examine whether the general pattern of results from this study is replicated.

Table 5A shows that all chi-squared difference tests are significant thus demonstrating strong support for discriminant validity. Factor loading coefficients of all items were significant with t-values exceeding 1.96 (measurement model in Figure 6B), thus signifying good convergent validity. Table 5B reports the composite reliability and the variance extracted for this model. These estimates exceed the recommended values of 0.7 for reliability and 0.5 for variance explained (with the exception of connectivity whose variance was marginally below the recommended value at 0.45; but this value for connectivity is higher than the 0.34 value before the offending items were dropped). The combined results of composite reliability and variance suggest that each construct is indeed internally consistent. The fit indices for the research model are reported in Table
The results show improved fit indices when compared to the fit indices of the model before modification.

### Table 5A: Discriminant Validity – Pair-wise Chi Square Tests

<table>
<thead>
<tr>
<th>Constructs</th>
<th>CHI-SQ A</th>
<th>CHI-SQ B</th>
<th>CHI-SQ Diff</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model A: CONSTRAINED, 2 FACTOR MODEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model B: UNCONSTRAINED, 2 FACTOR MODEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADP_CON</td>
<td>231.85</td>
<td>111.14</td>
<td>120.71</td>
<td>0.0000</td>
</tr>
<tr>
<td>SP_ADG</td>
<td>170.42</td>
<td>85.25</td>
<td>85.17</td>
<td>0.0000</td>
</tr>
<tr>
<td>SP_CON</td>
<td>71.33</td>
<td>33.27</td>
<td>38.06</td>
<td>0.0000</td>
</tr>
<tr>
<td>SP_PU</td>
<td>256.07</td>
<td>36.57</td>
<td>219.50</td>
<td>0.0000</td>
</tr>
<tr>
<td>SP_LOY</td>
<td>231.52</td>
<td>37.07</td>
<td>194.45</td>
<td>0.0000</td>
</tr>
<tr>
<td>PU_ADG</td>
<td>270.43</td>
<td>105.44</td>
<td>164.99</td>
<td>0.0000</td>
</tr>
<tr>
<td>PU_CON</td>
<td>188.97</td>
<td>37.92</td>
<td>151.05</td>
<td>0.0000</td>
</tr>
<tr>
<td>PU_LOY</td>
<td>442.94</td>
<td>121.12</td>
<td>321.82</td>
<td>0.0000</td>
</tr>
<tr>
<td>LOY_ADG</td>
<td>415.93</td>
<td>85.98</td>
<td>329.95</td>
<td>0.0000</td>
</tr>
<tr>
<td>LOY_CON</td>
<td>149.61</td>
<td>19.03</td>
<td>130.58</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

### Table 5B: Estimates of Composite Reliability and Variance

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Reliability</th>
<th>Explained Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptiveness</td>
<td>0.87</td>
<td>0.50</td>
</tr>
<tr>
<td>Connectivity</td>
<td>0.76</td>
<td>0.45</td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td>0.93</td>
<td>0.74</td>
</tr>
<tr>
<td>Loyalty</td>
<td>0.94</td>
<td>0.71</td>
</tr>
<tr>
<td>Social Presence</td>
<td>0.85</td>
<td>0.58</td>
</tr>
</tbody>
</table>

The fit indices for the research model shows that all the fit indices with the exception of GFI are within the acceptable range. $\chi^2 / df$ value is also in the accepted range for the research model (However, the use of $\chi^2 / df$ as a fit index is in a decline with the
emergence of much better indices such as RMSEA and NFI). Even though the fit index for GFI is just beyond the acceptable range, considering the value of this index (0.84) and the fact that other indices are well within the recommended range, the model is considered to have good fit. This approach of examining all the indices together to arrive at a conclusion about model fit is justified and is necessary as 'the rules about when an index indicates a good fit to the data are highly arbitrary' (Kelloway 1998). In fact, GFI, AGFI and RMR used above have no known sampling distribution to justify a set cut-off value (Kelloway 1998). Further, AGFI is a derivative of GFI and AGFI for this research model is 0.80 suggesting good fit.

Table 5C: Fit Indices for the Research Model

<table>
<thead>
<tr>
<th></th>
<th>Research Model: Before Modification</th>
<th>Research Model After Modification</th>
<th>Desired Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMSEA</td>
<td>0.069</td>
<td>0.052</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td>NFI</td>
<td>0.93</td>
<td>0.95</td>
<td>&gt; 0.9</td>
</tr>
<tr>
<td>NNFI</td>
<td>0.97</td>
<td>0.98</td>
<td>&gt; 0.9</td>
</tr>
<tr>
<td>CFI</td>
<td>0.97</td>
<td>0.98</td>
<td>&gt; 0.9</td>
</tr>
<tr>
<td>IFI</td>
<td>0.97</td>
<td>0.98</td>
<td>&gt; 0.9</td>
</tr>
<tr>
<td>RFI</td>
<td>0.93</td>
<td>0.94</td>
<td>&gt; 0.9</td>
</tr>
<tr>
<td>RMR (Std)</td>
<td>0.077</td>
<td>0.063</td>
<td>&lt; 0.08</td>
</tr>
<tr>
<td>GFI</td>
<td>0.75</td>
<td>0.84</td>
<td>&gt; 0.9</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.71</td>
<td>0.80</td>
<td>&gt; 0.8</td>
</tr>
<tr>
<td>$\chi^2 / df$</td>
<td>1.74</td>
<td>1.41</td>
<td>Between 1 and 5</td>
</tr>
</tbody>
</table>

Table 6 reports the support for the hypotheses developed in Chapter 4. Figure 6B shows the structural coefficients of the research model so that the individual hypotheses can be compared against the results. For this research model, all the hypotheses are supported with the exception of H2d (link between connectivity and perceived usefulness) and H3
Adaptiveness had a positive impact on both social presence ($t = 4.91$) and perceived usefulness ($t = 6.69$) supporting H2a and H2b respectively. Connectivity had a positive impact on social presence ($t = 5.96$) supporting H2c, but did not have any impact on perceived usefulness (H2d). Social presence affected Customer Loyalty ($t = 4.81$) positively supporting hypothesis H4a. Perceived Usefulness also had a positive impact on Customer Loyalty ($t = 5.63$) supporting hypothesis H4b. There was also a significant correlation between Adaptiveness and Connectivity ($t = 8.22$) suggesting a link that will be fleshed out more in depth in the experimental study.

<table>
<thead>
<tr>
<th>Hypothesis #</th>
<th>Hypothesis</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2a</td>
<td>Higher levels of adaptiveness afforded by a web site will lead to greater social presence.</td>
<td>Yes</td>
</tr>
<tr>
<td>H2b</td>
<td>Higher levels of adaptiveness afforded by a web site will lead to higher levels of perceived usefulness.</td>
<td>Yes</td>
</tr>
<tr>
<td>H2c</td>
<td>Higher levels of connectivity afforded by a web site will lead to greater social presence.</td>
<td>Yes</td>
</tr>
<tr>
<td>H2d</td>
<td>Higher levels of connectivity afforded by a web site will lead to higher levels of perceived usefulness.</td>
<td>No</td>
</tr>
<tr>
<td>H3</td>
<td>Higher levels of perceived social presence will lead to greater levels of perceived usefulness of that web site.</td>
<td>No</td>
</tr>
<tr>
<td>H4a</td>
<td>Higher levels of perceived social presence will lead to an increase in customer loyalty.</td>
<td>Yes</td>
</tr>
<tr>
<td>H4b</td>
<td>Higher levels of perceived usefulness will lead to an increase in customer loyalty.</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The pattern of structural coefficients for this model (Figure 6A and 6B) confirms the presence of two distinct mediating influences: social presence as the experiential
construct and perceived usefulness as the utilitarian construct. The results also show that while adaptiveness shows a significant direct impact on both social presence and perceived usefulness, connectivity has a significant direct impact on only social presence. This suggests that connectivity influences the experiential component for a web site’s customers much more than the utilitarian construct. Connectivity refers to the extent to which a web site links a shopper to other shoppers of similar interests. Originally, it was hypothesized that connectivity in addition to having an impact on social presence (H2c) by virtue of bringing together people of similar interests will also have an impact on perceived usefulness (H2d) as a shopper may perceive this as a useful function of a web site. The results show that at least in this context (shopping for a high involvement items – music CDs), the shoppers seem to attach a premium on the experiential aspect of the web site’s attempts to link people together rather than on the utilitarian side. Further, the presence of adaptiveness as the other, independent variable with a strong influence on perceived usefulness might have had an effect of diminishing the impact of connectivity on perceived usefulness.

This also reinforces the assertion put forth earlier in the thesis (Chapter 2) about the importance of the need to study each communication characteristic of a medium on its own. Some communication characteristics may have a bigger impact on the experiential component while others may have significant impact on the utilitarian component. Previous research has examined the impact of social presence/media richness at an aggregated level rather than attempting to examine the impact of individual communication characteristics on social presence/media richness (Dennis et al. 1998).
Studying the communication characteristics on their own helps us better understand the nature of these characteristics and helps organizations configure their web sites according to their fine-grained needs and requirements.

The results of the model also show that social presence does not mediate the relationship between perceived communication characteristics and perceived usefulness. Rather, the results suggest that (at least) these two media characteristics directly influence social presence as well as perceived usefulness. The results also show support for social presence and perceived usefulness having a significant positive influence on loyalty. Hence organizations by increasing the adaptiveness and connectivity of their web site can not only increase the experiential (social presence) and utilitarian (perceived usefulness) components, but can also improve customer loyalty thus directly impacting on their bottom-line.
6. Study 2: Experiment

6.1 Procedures
The content of Amazon.com was filtered in real time to generate the experimental web sites. As shown in Table 7, the study offered two levels of support for personalization - No support or High Support (personalization based on simple filtering/rule based techniques and collaborative filtering) and provided support for two levels of consumer review: no reviews or reviews with information about the rater included.

<table>
<thead>
<tr>
<th>Table 7: Experimental Manipulations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Low Support for Consumer Reviews</td>
</tr>
<tr>
<td>LoCR</td>
</tr>
<tr>
<td>High Support for Consumer Reviews</td>
</tr>
<tr>
<td>HiCR</td>
</tr>
<tr>
<td>Low (LoPER) Personalization</td>
</tr>
<tr>
<td>Condition 1</td>
</tr>
<tr>
<td>Condition 2</td>
</tr>
<tr>
<td>High (HiPER) Personalization</td>
</tr>
<tr>
<td>Condition 3</td>
</tr>
<tr>
<td>Condition 4</td>
</tr>
</tbody>
</table>

To the best of our knowledge, this is the first study to tackle the problem in evaluating the impact of personalization and assign causality using a controlled experiment. The filtering of content is based on the assumption that Amazon.com does provide high level of support for personalization as well as virtual communities. Amazon.com is one of the B2C retailers who are well known for its industry leading efforts in personalization. For example, based on the book that a customer is interested in, Amazon.com recommends similar books (simple filtering/rule based) and books bought by users with similar tastes (collaborative filtering). Amazon.com also offers excellent support for virtual communities (especially, consumer reviews) and has a rich user base that actively
contributes to the ‘Reviews’ section. Thus, the assumption that Amazon.com offers high level of support for personalization and virtual community is justified.

Filtering is done by intercepting the dynamic content sent by Amazon.com in response to an http request. When the shopper types in the web site address (URL) and requests a specific page from Amazon.com, the shopper is sent a page that is often created dynamically on the fly by Amazon.com. This page is then intercepted by a program that looks for a combination of specific key words to remove pre-planned content. The filtering process targets only the product pages of Amazon.com (for example, page that contains information about a particular music CD). The program takes advantage of the way this product page is structured and the specific combination of keywords used by Amazon.com (For example, the keyword combination “People who bought music by this artist also bought” followed by a set of recommendations). Please see Appendix 7 series for screenshots of these manipulations. Appendix 5 shows the sample code written in ASP (Active Server Page) to filter content from Amazon.com to obtain the experimental condition 1. The code written for other conditions are not included as the underlying logic for these programs is similar for all conditions.

Appendix 7.1 shows the screenshot of the first page participants see in all experimental manipulations. The content of Amazon.com is filtered in such a way that the top level tabs show only links related to music and the participants start with the page shown in this screenshot – New and Future Releases - as the default homepage (Amazon.com has a more generic home page and includes navigation tabs and content relating to different
product categories). While the subsequent pages the participant browses may occasionally include information about products other than CDs in the form of advertisements, the participant was encouraged to shop just for the CDs (See participant instructions below). The participant had access to sections such as “Search Music” and “Browse Styles” within the music portion of the web site. Appendices 7.2, 7.3, 7.4 and 6.5 show the screenshots of these other sections.

For condition 1 (LoPER and LoCR), the product page at Amazon.com is filtered to an extent where only the basic product information is shown. The participants can also listen to samples of selected tracks provided by Amazon.com. This is a web interface that provides shoppers with a good base-level functionality and can be considered as an interface that offers low support for personalization and low support for consumer review features. Appendix 7.6 shows a sample screenshot of this product page.

At the other end of the spectrum (For condition 4 - HiPER and HiCR), Amazon.com is filtered to an extent where a shopper has access to more features both in terms of support for personalization as well as support for consumer reviews. Appendix 7.7 shows a sample screenshot of this product page. More specifically, the shopper can view the recommendations generated by Amazon.com on a product page (For example, “Customers who bought this title also bought”, “Customers who bought titles by Al Green also bought”) as shown in Appendices 7.7 and 7.9. Upon clicking the appropriate hyperlink (“Explore similar items”, Explore similar artists”), they can get more product recommendations as shown in Appendices 7.10 and 7.11. Appendix 7.8 shows part of
the product page that demonstrates how this condition supports customer review features. Appendices 7.7, 7.8 and 7.9 together are spatially arranged together to reflect the way the actual product page looked for this condition: the sections of the product page are displayed in the following order – basic product information, personalization (part 1), audio samples, support for consumer reviews, and more personalization (part 2).

Conditions 2 and 3 are variants of the scenario described above. The product page for condition 2 (LoPER, HiCR) is similar to the base interface condition 1 with support for consumer reviews added in (similar to the one shown in Appendix 7.8). The product page for condition 3 (HiPER, LoCR) is similar to the base interface condition 1 with support for personalization added in (similar to the screenshots shown in Appendices 7.7, 7.9, 7.10 and 7.11. Of course, condition 4 described in the previous paragraph is similar to base interface condition 1 with support for personalization as well as consumer reviews features added in. The experiment was conducted as per the steps outlined below:

- The research assistants were trained in conducting the experiment and were given a handout with a set of instructions to ensure uniformity in procedures. The questionnaire used in this study is presented as Appendix 3 and the instructions to the research assistants are presented in Appendix 4.
- The research assistants, programmer and the author were collectively responsible for continually monitoring the experimental web site to ensure that the filtering process does indeed work as intended for all four conditions.
• The participant was asked to briefly surf the web sites of the two different web sites selling music CDs (CDNow.com and BN.com) to get a rough sense of a typical B2C web site. It is hoped that this will sensitize a user with limited experience in on-line shopping to the rich possibilities available beyond a simple catalogue web site. This step usually took about 15-20 minutes. The RA was available to answer any questions that the participant may have in this step.

• All participants completed two tasks using the base interface represented by condition 1 (low support for personalization as well as consumer reviews). The two tasks were similar to those used in the previous study – CD for a friend and a CD for self. The participants also completed a short questionnaire that measured the participants’ perceived adaptiveness and connectivity for this interface.

• The research assistant then randomly assigned each participant to one of the four conditions. The participants then completed two more tasks (similar to the tasks used in the previous step) using the assigned interface for this condition. The participants completed a similar questionnaire that measured the participants’ perceived adaptiveness and connectivity for this interface.

The experiment was conducted with 60 participants. All participants recruited were undergraduate and graduate students from the University of British Columbia. Of the respondents 31 were women and 29 were men. To increase involvement and external validity, participants were told that they had a 33% chance to keep one of the CDs they shop for themselves (in addition to a honorarium of $15). ANOVA was used to assess the impact of a web site’s support for personalization and consumer review features on
adaptiveness and connectivity (H1a and H1b) and to examine the interaction effects. The experimental manipulation will help increase the confidence with which a causal connection can be inferred between the interface features and perceived communication characteristics.

6.2 Results and Discussion
To check for the validity of experimental manipulations, self reported data was collected on perceived support for consumer reviews (3 items) and perceived support for personalization (3 items). These items asked the participants specifically about the interface features of the web site that were manipulated. Table 8A reports the items used and the reliabilities of these two scales and 8B the descriptive statistics.

Table 8A: Manipulation Check Scales and Their Reliabilities

<table>
<thead>
<tr>
<th>Construct</th>
<th>Reliability</th>
<th>Items Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Reported Support for CR</td>
<td>0.92</td>
<td>This web site provides me with product reviews</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This web site provides me with product reviews by other users</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This web site allows me to review a product</td>
</tr>
<tr>
<td>Self-Reported Support for PER</td>
<td>0.91</td>
<td>When I visit a product page (for ex, ‘Thriller’ by Michael Jackson), this web site recommends products that might potentially interest me</td>
</tr>
<tr>
<td></td>
<td></td>
<td>When I visit a product page (for ex, ‘Thriller’ by Michael Jackson), this web site shows me other similar items purchased by other users</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This web site recommends products that might potentially interest me</td>
</tr>
</tbody>
</table>
Table 8B: Descriptive Statistics for Manipulation Check Variables

<table>
<thead>
<tr>
<th>DV</th>
<th>Consumer Reviews (CR)</th>
<th>Personalization (PER)</th>
<th>Mean (7 pt. scale)</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Support for CR</td>
<td>Low Support for PER</td>
<td>Low Support for CR</td>
<td>2.93</td>
<td>1.94</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Support for CR</td>
<td>6.40</td>
<td>.84</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>4.66</td>
<td>2.29</td>
<td>30</td>
</tr>
<tr>
<td>Low Support for PER</td>
<td>High Support for CR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>5.19</td>
<td>1.73</td>
<td>30</td>
</tr>
<tr>
<td>High Support for PER</td>
<td>Low Support for CR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>4.93</td>
<td>2.03</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>Low Support for CR</td>
<td></td>
<td>3.47</td>
<td>1.82</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>High Support for CR</td>
<td>6.38</td>
<td></td>
<td>.83</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.98</td>
<td></td>
<td>1.90</td>
<td>30</td>
</tr>
<tr>
<td>Self-Reported Support for PER</td>
<td>Low Support for CR</td>
<td>Low Support for PER</td>
<td>3.33</td>
<td>2.05</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Support for PER</td>
<td>6.17</td>
<td>.66</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>4.75</td>
<td>2.08</td>
<td>30</td>
</tr>
<tr>
<td>Low Support for PER</td>
<td>High Support for CR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>4.98</td>
<td>1.90</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>3.51</td>
<td></td>
<td>1.83</td>
<td>30</td>
</tr>
<tr>
<td>High Support for PER</td>
<td>Low Support for CR</td>
<td>6.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>4.87</td>
<td>1.98</td>
<td>60</td>
</tr>
</tbody>
</table>

Table 8C reports the results of this manipulation check using ANOVA. The results show that experimental manipulations were successful.
Table 8C: ANOVA Table for Manipulation Check

<table>
<thead>
<tr>
<th>Source (IV)</th>
<th>Manipulation Check</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support for Consumer Reviews (CR)</td>
<td>Self-Reported Support for CR</td>
<td>127.14</td>
<td>1</td>
<td>127.14</td>
<td>65.79</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Self-Reported Support for PER</td>
<td>0.82</td>
<td>1</td>
<td>0.82</td>
<td>0.38</td>
<td>0.539</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support for Personalization (PER)</td>
<td>Self-Reported Support for CR</td>
<td>4.26</td>
<td>1</td>
<td>4.26</td>
<td>2.2</td>
<td>0.143</td>
</tr>
<tr>
<td></td>
<td>Self-Reported Support for PER</td>
<td>111.17</td>
<td>1</td>
<td>111.17</td>
<td>51.76</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR * PER</td>
<td>Self-Reported Support for CR</td>
<td>4.64</td>
<td>1</td>
<td>4.64</td>
<td>2.40</td>
<td>0.127</td>
</tr>
<tr>
<td></td>
<td>Self-Reported Support for PER</td>
<td>0.22</td>
<td>1</td>
<td>0.22</td>
<td>0.11</td>
<td>0.748</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>Self-Reported Support for CR</td>
<td>108.21</td>
<td>56</td>
<td>1.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self-Reported Support for PER</td>
<td>120.27</td>
<td>56</td>
<td>2.15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The next sub-section 6.2.1 will specifically investigate impact of these different experimental conditions on perceived communication characteristics (adaptiveness and connectivity) thus testing hypothesis H1a and H1b. Then, sub-section 6.2.2 will conduct a series of multiple regressions to further explore how social presence and perceived usefulness mediate the relationship between communication characteristics and customer loyalty as well as communication characteristics and perceived usefulness.
6.2.1 Impact of Web Site Interface Features on Communication Characteristics

Table 9A shows the means for the dependent variables adaptiveness and connectivity.

Table 9B reports the Cronbach’s alpha values for the scales used in the study (same as the items used in Study 1) suggesting good reliability.

Table 9A: Descriptive Statistics for Perceived Communication Characteristics

<table>
<thead>
<tr>
<th>DV</th>
<th>Personalization (PER)</th>
<th>Consumer Reviews (CR)</th>
<th>Mean (7 pt. scale)</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADP</td>
<td>Low Support for PER</td>
<td>Low Support for CR</td>
<td>2.74</td>
<td>1.18</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Support for CR</td>
<td>4.11</td>
<td>1.35</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>3.43</td>
<td>1.43</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>High Support for PER</td>
<td>Low Support for CR</td>
<td>4.49</td>
<td>1.02</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Support for CR</td>
<td>4.91</td>
<td>.76</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>4.71</td>
<td>.91</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Low Support for CR</td>
<td>3.62</td>
<td>1.40</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>High Support for CR</td>
<td>4.51</td>
<td>1.15</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.07</td>
<td>1.35</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>CON</td>
<td>Low Support for PER</td>
<td>Low Support for CR</td>
<td>2.30</td>
<td>1.06</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Support for CR</td>
<td>4.78</td>
<td>.93</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>3.54</td>
<td>1.60</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>High Support for PER</td>
<td>Low Support for CR</td>
<td>3.75</td>
<td>1.25</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Support for CR</td>
<td>4.73</td>
<td>1.40</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>4.24</td>
<td>1.40</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Low Support for CR</td>
<td>3.03</td>
<td>1.35</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>High Support for CR</td>
<td>4.76</td>
<td>1.17</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.89</td>
<td>1.53</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>
Table 9B: Reliability Values for Constructs Used in the Study

<table>
<thead>
<tr>
<th>Construct</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptiveness</td>
<td>0.89</td>
</tr>
<tr>
<td>Connectivity</td>
<td>0.78</td>
</tr>
<tr>
<td>Social Presence</td>
<td>0.89</td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td>0.97</td>
</tr>
<tr>
<td>Loyalty</td>
<td>0.94</td>
</tr>
</tbody>
</table>

Table 10 shows the results of the statistical analysis from the experiment (Study 2).

Figures 7 and 8 show the interaction patterns for adaptiveness and connectivity.

Table 10: ANOVA Table for Perceived Communication Characteristics

<table>
<thead>
<tr>
<th>Source (IV)</th>
<th>Dependent Variables</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support for Personalization (PER)</td>
<td>ADP</td>
<td>18.93</td>
<td>1</td>
<td>18.93</td>
<td>19.98</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td>7.35</td>
<td>1</td>
<td>7.35</td>
<td>5.34</td>
<td>0.025</td>
</tr>
<tr>
<td>Support for Consumer Reviews (CR)</td>
<td>ADP</td>
<td>12.13</td>
<td>1</td>
<td>12.13</td>
<td>9.84</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td>45.07</td>
<td>1</td>
<td>45.07</td>
<td>32.75</td>
<td>0.000</td>
</tr>
<tr>
<td>CR * PER</td>
<td>ADP</td>
<td>1.57</td>
<td>1</td>
<td>1.57</td>
<td>2.77</td>
<td>0.101</td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td>8.44</td>
<td>1</td>
<td>8.44</td>
<td>6.13</td>
<td>0.016</td>
</tr>
<tr>
<td>Error</td>
<td>ADP</td>
<td>67.91</td>
<td>56</td>
<td>1.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td>77.07</td>
<td>56</td>
<td>1.38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the analysis suggest that support for personalization features does indeed have a positive impact on adaptiveness supporting H1a. Similarly, support for consumer
reviews (a form of virtual community) positively affects connectivity thus supporting H1b. In addition, support for personalization has a positive impact on connectivity while support for consumer reviews has a positive impact on adaptiveness. Moreover, there is an interaction effect between support for personalization and consumer reviews. For connectivity this interaction is significant, but it is not significant for adaptiveness. Figures 7 and 8 illustrate this interaction effect graphically.

While the original research model (Figure 3) included only two hypotheses (H1a and H1b) on the impact of web interfaces, the intent there was to identify primary features that may have the most impact on adaptiveness and connectivity of a shopping web site respectively. However, this does not necessarily preclude a web site’s personalization features from having an impact on connectivity nor its consumer review features on adaptiveness (see Figure 5). The results show that support for personalization not only had an impact on adaptiveness, but also on connectivity. Similarly, support for consumer reviews had an impact on connectivity as well as adaptiveness.

To a large extent, this impact depends on the way these features are implemented in a web site. For example, CDNow’s support for consumer reviews was implemented in the form of bulletin boards and this information was not immediately available on a product page. However, Amazon.com implemented its consumer review features by displaying the reviews prominently on the product page. More information about the reviewer can be found by clicking on the name of the reviewer (if the reviewer makes his profile public).
Figure 7: Interaction Pattern for Adaptiveness

Figure 8: Interaction Pattern for Connectivity
When a web site supports consumer reviews on a product page, this can be viewed as an effort by that web site to build a vibrant community (as measured by connectivity). But, the same effort can also lead to a shopper perceiving comments about the product (by other users) being placed on the product page as relevant information about the product, thus leading to the perception that the web site is also adaptive (in catering to the pertinent needs of the shopper who may learn more about the product by reading the consumer reviews) in addition to being connective. This effect is also consistent with the findings from previous research that argue that communication characteristics of a medium are perceived (Dennis et al. 1999; Fulk et al. 1993; Walther 1992) and that the way a medium is configured will impact on the perceptions these characteristics (Dennis et al. 1999).

Hence, we argue that Amazon.com's implementation of support for consumer review features is more likely to have an impact on adaptiveness than the implementation of CDNow.com (whose consumer review features are not integrated into the product page). This Study used Amazon.com's web site to filter content live as it is considered one of the leading e-retailers in terms of implementing personalization features as well as consumer review features for shoppers with a very vibrant virtual community (whose consumer review features are integrated into the product page). Hence, it is hardly surprising that, in our experimental conditions, support for virtual communities not only impacts on connectivity but also on adaptiveness. As the results from Table 10 show, higher levels of support for consumer reviews leads to a strong effect on connectivity (F=32.75) as well as weaker, but significant effect on adaptiveness (F=9.83).
On a similar vein, a web site may offer support for personalization in a manner similar to Amazon.com where support for personalization is often implemented using explanations such as “Customers who shopped for this item also shopped for”, “Customers who bought items by this artist also bought” followed by a set of recommendations (see Appendix 7.7 and 7.9). These types of explanations often act as a portal from where more recommendations can be generated (see Appendix 7.10). This may very well be a deliberate strategy by leading web sites such as Amazon.com to inculcate a strong sense of (credible and vibrant) community within the shopping web site. As a side note, one of the future projects of this author is to check if explanations using phrases such as “you may also like/Amazon.com recommends” instead of “customers who shopped for this item also shopped for” makes a significant difference for connectivity (and the perception of a presence of a vibrant community). Hence, the results from Table 10 indicating a similar effect for personalization make sense. A web site’s support for personalization not only leads to higher levels of adaptiveness (F=19.98), but also to higher levels of connectivity (F=5.34).

In the light of the above discussion, it is also clear that when a web site offers low support for personalization, high support for consumer reviews might help alleviate the absence of an expensive personalization system if the consumer reviews are integrated into the product page (thereby indicating presence of an interaction effect). This implementation of support for consumer reviews may result in shoppers perceiving the web site with almost no support of personalization, but with a vibrant community as
being more adaptive. Similarly, a web site that offers excellent support for personalization can overcome the absence of a vibrant community by offering the product recommendations with the right explanations such as ‘customers who bought this item also bought’ followed by good recommendations (thereby indicating presence of an interaction effect).

In this study, this interaction effect between personalization and consumer reviews was significant only for connectivity. Even though the interaction effect for adaptiveness was not significant, the marginal means for this interaction did move in the right direction as shown in Figure 7. For the web interface with low support for personalization, offering high support for consumer reviews not only increased the adaptiveness perceived by the shopper (mean rose from 2.74 to 4.11), but also closed the gap in terms of perceived adaptiveness when compared to a web site that offered only high support for personalization (4.49). A very similar, but significant interaction pattern can be observed for connectivity (See Figure 8). For a web interface offering low support for consumer reviews, addition of support for personalization resulted in an increase in perceived connectivity (the mean value rose from 2.3 to 3.75).

Tables 11 and 12 show the one-way ANOVA results for the other dependent variables – Social Presence, Loyalty and Perceived Usefulness. Table 11 shows the group differences for personalization support while Table 12 shows the group differences for consumer review support.
Table 11: ANOVA Table for Other DVs (IV-Personalization Support)

<table>
<thead>
<tr>
<th>DV</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>Between Groups</td>
<td>5.70</td>
<td>1</td>
<td>5.70</td>
<td>4.39</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>75.39</td>
<td>58</td>
<td>1.30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>81.10</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOY</td>
<td>Between Groups</td>
<td>12.83</td>
<td>1</td>
<td>12.83</td>
<td>10.49</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>70.95</td>
<td>58</td>
<td>1.22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>83.78</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU</td>
<td>Between Groups</td>
<td>26.40</td>
<td>1</td>
<td>26.40</td>
<td>16.50</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>92.80</td>
<td>58</td>
<td>1.60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>119.20</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12: ANOVA Table for Other DVs (IV-Consumer Review Support)

<table>
<thead>
<tr>
<th>DV</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>Between Groups</td>
<td>22.20</td>
<td>1</td>
<td>22.20</td>
<td>21.86</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>58.89</td>
<td>58</td>
<td>1.01</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>81.10</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOY</td>
<td>Between Groups</td>
<td>8.62</td>
<td>1</td>
<td>8.62</td>
<td>6.65</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>75.16</td>
<td>58</td>
<td>1.29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>83.78</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU</td>
<td>Between Groups</td>
<td>14.01</td>
<td>1</td>
<td>14.01</td>
<td>7.72</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>105.191</td>
<td>58</td>
<td>1.81</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>119.207</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tables 13 and 14 show the descriptive statistics for the same set of dependent variables. The results show that both independent variables impacted on each of the dependent variables further underlining the importance of providing support for personalization and consumer reviews.
Table 13: Descriptive Statistics for Other DVs (IV-Personalization Support)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean (7 pt. scale)</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Support for Per</td>
<td>30</td>
<td>3.64</td>
<td>1.18</td>
</tr>
<tr>
<td>High Support for Per</td>
<td>30</td>
<td>4.26</td>
<td>1.10</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>3.95</td>
<td>1.17</td>
</tr>
<tr>
<td>LOY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Support for Per</td>
<td>30</td>
<td>3.81</td>
<td>1.21</td>
</tr>
<tr>
<td>High Support for Per</td>
<td>30</td>
<td>4.73</td>
<td>.98</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>4.27</td>
<td>1.19</td>
</tr>
<tr>
<td>PU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Support for Per</td>
<td>30</td>
<td>3.96</td>
<td>1.47</td>
</tr>
<tr>
<td>High Support for Per</td>
<td>30</td>
<td>5.29</td>
<td>1.03</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>4.62</td>
<td>1.42</td>
</tr>
</tbody>
</table>

Table 14: Descriptive Statistics for Other DVs (IV-Consumer Review Support)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean (7 pt. scale)</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Support for CR</td>
<td>30</td>
<td>3.34</td>
<td>1.05</td>
</tr>
<tr>
<td>High Support for CR</td>
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<td>4.55</td>
<td>.95</td>
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<tr>
<td>Total</td>
<td>60</td>
<td>3.95</td>
<td>1.17</td>
</tr>
<tr>
<td>LOY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Support for CR</td>
<td>30</td>
<td>3.89</td>
<td>1.04</td>
</tr>
<tr>
<td>High Support for CR</td>
<td>30</td>
<td>4.65</td>
<td>1.22</td>
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<tr>
<td>Total</td>
<td>60</td>
<td>4.27</td>
<td>1.19</td>
</tr>
<tr>
<td>PU</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Low Support for CR</td>
<td>30</td>
<td>4.14</td>
<td>1.46</td>
</tr>
<tr>
<td>High Support for CR</td>
<td>30</td>
<td>5.10</td>
<td>1.22</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>4.62</td>
<td>1.42</td>
</tr>
</tbody>
</table>

The next sub-section will analyze whether social presence mediates the relationship between perceived communication characteristics and customer loyalty as well as communication characteristics and perceived usefulness. This analysis will also help in comparing the efficacy of research model across multiple methods (survey in Study 1 and experiment in Study 2).
6.2.2 Mediation Analysis

Study 1 tested the research model (Figure 6) that posited social presence as the experiential construct and perceived usefulness as the utilitarian construct using LISREL. Because the sample size for Study 2 was 60, data collected about the other dependent variables in this study will be used to test the mediating relationships by conducting a series of multiple regressions (Baron et al. 1986). Consistent with the research model posited in Study 1, the following three mediating influences were tested:

a) Social presence mediating the relationship between perceived communication characteristics and loyalty,

b) Social presence mediating the relationship between perceived communication characteristics and perceived usefulness,

c) Perceived usefulness mediating the relationship between perceived communication characteristics and loyalty.

To test each of the mediating relationships, three separate regressions need to be run (Baron et al. 1986). For all subsequent mediation analyses, the first equation regresses the independent variables on the mediator variable. Then, the second equation regresses the independent variable on the final outcome variable. To show that there is a mediation effect, the beta coefficients for the two regressions above must be significant (Baron et al. 1986). In addition, the mediator variable is now introduced along with the two independent variables to predict the final outcome variable in the third regression equation. Full mediation is said to occur if the beta coefficients of both independent variables become insignificant, while the beta coefficient of the mediator variable is
significant. Partial mediation is said to occur if the independent variables do not drop out of the equation, but rather the introduction of the mediator variable causes a drop in the value of the beta coefficients of these independent variables (Bårón et al. 1986).

Table 15 reports the results of three regressions run to test whether social presence mediates the relationship between perceived communication characteristics and loyalty. The results in Table 15 show that the beta coefficients for the first two regression equations are significant thus satisfying the initial conditions while testing for mediation effect. The results from the third regression equation indicate that social presence mediates the relationship only when p is set to a more liberal 0.1 criteria ($p=0.10$). The results further show that connectivity totally drops out of the equation (beta coefficient insignificant) suggesting a strong mediation effect for social presence between connectivity and loyalty.

On the other hand, the beta coefficient for adaptiveness is the largest in the equation suggesting weak mediation effect for social presence. The beta coefficients for adaptiveness as well as connectivity drop in value when social presence is introduced thus suggesting that social presence does mediate the relationship between communication characteristics and loyalty even though this mediation effect is stronger for connectivity than it is for adaptiveness. The results from this mediation analysis in Study 2 are consistent with the results from LISREL analysis in Study 1, thus improving our confidence in the overall research model. To understand the impact of adaptiveness
and connectivity on social presence, the mediation analyses are shown for each of these communication characteristics individually as shown in Tables 16 and 17.

Table 15: Social Presence As A Mediator Between Communication Characteristics and Loyalty

<table>
<thead>
<tr>
<th>Regressions</th>
<th>Dependent Variable</th>
<th>R² (adjusted)</th>
<th>F-Value</th>
<th>Standardized coefficients</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression #1</td>
<td>SP</td>
<td>0.567</td>
<td>36.67***</td>
<td>0.283</td>
<td>2.75***</td>
</tr>
<tr>
<td></td>
<td>ADP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td></td>
<td></td>
<td></td>
<td>5.53***</td>
</tr>
<tr>
<td>Regression #2</td>
<td>Loyalty</td>
<td>0.477</td>
<td>27.95***</td>
<td>0.466</td>
<td>4.12***</td>
</tr>
<tr>
<td></td>
<td>ADP</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td></td>
<td></td>
<td></td>
<td>2.91***</td>
</tr>
<tr>
<td>Regression #3</td>
<td>Loyalty</td>
<td>0.493</td>
<td>20.14***</td>
<td>0.398</td>
<td>3.36***</td>
</tr>
<tr>
<td></td>
<td>ADP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td></td>
<td></td>
<td></td>
<td>1.40</td>
</tr>
<tr>
<td></td>
<td>SP</td>
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<td></td>
<td></td>
<td>0.239</td>
</tr>
</tbody>
</table>

*** p<0.01; ** p<0.05; * p<0.1

Table 16 shows that beta coefficient for adaptiveness still remains the largest in the regression equation even with the introduction of SP thus lending support to our contention that SP is a weak mediator of relationship between adaptiveness and loyalty. On the other hand, as the results from Table 17 show, the beta coefficient for SP is the largest when it is introduced alongside connectivity in predicting loyalty. This shows that SP mediates the relationship between connectivity and loyalty more strongly than the relationship between adaptiveness and loyalty.
Table 16: Social Presence As A Mediator Between Adaptiveness and Loyalty

<table>
<thead>
<tr>
<th>Regressions</th>
<th>Dependent Variable</th>
<th>$R^2$ (adjusted)</th>
<th>F-Value</th>
<th>Standardized coefficients</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression #1</td>
<td>SP</td>
<td>0.347</td>
<td>32.34***</td>
<td>0.598</td>
<td>5.69***</td>
</tr>
<tr>
<td></td>
<td>ADP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression #2</td>
<td>Loyalty</td>
<td>0.410</td>
<td>42.02***</td>
<td>0.648</td>
<td>6.48***</td>
</tr>
<tr>
<td></td>
<td>ADP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression #3</td>
<td>Loyalty</td>
<td>0.485</td>
<td>28.74***</td>
<td>0.434</td>
<td>3.72***</td>
</tr>
<tr>
<td></td>
<td>ADP</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>SP</td>
<td></td>
<td></td>
<td>0.357</td>
<td>3.06***</td>
</tr>
</tbody>
</table>

*** p<0.01; ** p<0.05; * p<0.1

Table 17: Social Presence As A Mediator Between Connectivity and Loyalty

<table>
<thead>
<tr>
<th>Regressions</th>
<th>Dependent Variable</th>
<th>$R^2$ (adjusted)</th>
<th>F-Value</th>
<th>Standardized coefficients</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression #1</td>
<td>SP</td>
<td>0.518</td>
<td>64.48***</td>
<td>0.726</td>
<td>8.03***</td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression #2</td>
<td>Loyalty</td>
<td>0.334</td>
<td>30.54***</td>
<td>0.587</td>
<td>5.53***</td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression #3</td>
<td>Loyalty</td>
<td>0.402</td>
<td>20.81**v</td>
<td>0.295</td>
<td>2.01**</td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td></td>
<td></td>
<td>0.403</td>
<td>2.76***</td>
</tr>
<tr>
<td></td>
<td>SP</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

*** p<0.01; ** p<0.05; * p<0.1
Table 18 shows the results of the mediation analysis for SP as a mediator between communication characteristics and perceived usefulness. The results from Table 18 show that SP does not mediate the relationship between communication characteristics and perceived usefulness as the beta coefficient is not significant. The results suggest that adaptiveness seems to have a biggest impact on perceived usefulness (beta coefficient largest in the regression equation).

Table 18: Social Presence As A Mediator Between Communication Characteristics and Perceived Usefulness

<table>
<thead>
<tr>
<th>Regressions</th>
<th>Dependent Variable</th>
<th>$R^2$ (adjusted)</th>
<th>F-Value</th>
<th>Standardized coefficients</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression #1</td>
<td>SP</td>
<td>0.567</td>
<td>36.67***</td>
<td>0.283</td>
<td>2.75***</td>
</tr>
<tr>
<td></td>
<td>ADP</td>
<td></td>
<td></td>
<td>0.569</td>
<td>5.53***</td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression #2</td>
<td>PU</td>
<td>0.684</td>
<td>64.89***</td>
<td>0.750</td>
<td>8.53***</td>
</tr>
<tr>
<td></td>
<td>ADP</td>
<td></td>
<td></td>
<td>0.136</td>
<td>1.55</td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression #3</td>
<td>PU</td>
<td>0.681</td>
<td>42.91***</td>
<td>0.731</td>
<td>7.77***</td>
</tr>
<tr>
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<td>ADP</td>
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<td></td>
<td>0.096</td>
<td>0.88</td>
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<tr>
<td></td>
<td>CON</td>
<td></td>
<td></td>
<td>0.070</td>
<td>0.61</td>
</tr>
<tr>
<td></td>
<td>SP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<0.01; **p<0.05; *p<0.1

To understand the individual impact of these communication characteristics, mediation analysis was conducted for each of these characteristics on their own and the results are shown in Tables 19 and 20.
Table 19: Social Presence As A Mediator Between Adaptiveness and Perceived Usefulness

<table>
<thead>
<tr>
<th>Regressions</th>
<th>Dependent Variable</th>
<th>$R^2$ (adjusted)</th>
<th>F-Value</th>
<th>Standardized coefficients</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression #1</td>
<td>SP</td>
<td>0.347</td>
<td>32.34***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADP</td>
<td></td>
<td>0.598</td>
<td>5.69***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression #2</td>
<td>PU</td>
<td>0.676</td>
<td>124.38***</td>
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</tr>
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<td></td>
<td>0.826</td>
<td>11.15***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression #3</td>
<td>PU</td>
<td>0.682</td>
<td>64.23***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADP</td>
<td></td>
<td>0.749</td>
<td>8.17***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td></td>
<td>0.129</td>
<td>1.41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*** p<0.01; ** p<0.05; * p<0.1

Table 20: Social Presence As A Mediator Between Connectivity and Perceived Usefulness

<table>
<thead>
<tr>
<th>Regressions</th>
<th>Dependent Variable</th>
<th>$R^2$ (adjusted)</th>
<th>F-Value</th>
<th>Standardized coefficients</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression #1</td>
<td>SP</td>
<td>0.518</td>
<td>64.48***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CON</td>
<td></td>
<td>0.726</td>
<td>8.03***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression #2</td>
<td>PU</td>
<td>0.293</td>
<td>25.44***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CON</td>
<td></td>
<td>0.552</td>
<td>5.04***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression #3</td>
<td>PU</td>
<td>0.348</td>
<td>16.77***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CON</td>
<td></td>
<td>0.282</td>
<td>1.85*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td></td>
<td>0.372</td>
<td>2.44**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*** p<0.01; ** p<0.05; * p<0.1
The results from Table 19 show that social presence does not mediate the relationship between adaptiveness and perceived usefulness. On the other hand, the results from Table 20 show that the relationship between connectivity and perceived usefulness is strongly mediated by social presence. Even though connectivity has a direct impact on perceived usefulness, it is weak as suggested by the smaller beta coefficient in regression equation 3 (Table 20).

Table 21: Perceived Usefulness As A Mediator Between Communication Characteristics and Loyalty

<table>
<thead>
<tr>
<th>Regressions</th>
<th>Dependent Variable</th>
<th>(R^2) (adjusted)</th>
<th>F-Value</th>
<th>Standardized coefficients</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression #1</td>
<td>PU</td>
<td>0.684</td>
<td>64.89***</td>
<td>0.750</td>
<td>8.53***</td>
</tr>
<tr>
<td></td>
<td>ADP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td></td>
<td></td>
<td>0.136</td>
<td>1.55</td>
</tr>
<tr>
<td>Regression #2</td>
<td>Loyalty</td>
<td>0.477</td>
<td>27.95***</td>
<td>0.466</td>
<td>4.12***</td>
</tr>
<tr>
<td></td>
<td>ADP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td></td>
<td></td>
<td>0.329</td>
<td>2.91***</td>
</tr>
<tr>
<td>Regression #3</td>
<td>Loyalty</td>
<td>0.632</td>
<td>34.77***</td>
<td>-0.07</td>
<td>-0.49</td>
</tr>
<tr>
<td></td>
<td>ADP</td>
<td></td>
<td></td>
<td>0.232</td>
<td>2.39**</td>
</tr>
<tr>
<td></td>
<td>CON</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PU</td>
<td></td>
<td></td>
<td>0.714</td>
<td>4.99***</td>
</tr>
</tbody>
</table>

Table 21 shows the results of the mediation analysis for perceived usefulness as the mediator between communication characteristics and loyalty. The results provide support for the claim that perceived usefulness is a stronger mediator for adaptiveness
than social presence. The third regression equation in Table 21 shows that adaptiveness totally drops out of the equation when perceived usefulness is introduced (beta coefficient is very small and is insignificant). On the other hand, connectivity stays in the equation suggesting a weaker mediation effect for perceived usefulness. When contrasted with the results from Table 15, which shows the opposite effect for social presence: Social presence is a stronger mediator of connectivity and loyalty (connectivity drops out of the third regression equation when social presence is introduced along with adaptiveness and connectivity to predict loyalty). Table 15 also shows that adaptiveness stays in the equation thus suggesting a very weak mediation effect for social presence.

These results from Tables 15, 16, 17, 18, 19, 20 and 21 when taken together broadly support the general pattern of results observed in Study 1. The link between connectivity and perceived usefulness was not significant in Study 1. This is supported by a weaker relationship observed between connectivity and perceived usefulness when social presence is introduced in the equation (Tables 18 and 20). When the effect of adaptiveness and connectivity is regressed on perceived usefulness, social presence drops out of the equation in Study 2 (Table 18) as was the case in Study 1 where the relationship was not significant. In both studies, adaptiveness seems to predict perceived usefulness more strongly than connectivity does, whereas connectivity has a stronger relationship with social presence than with perceived usefulness. While the results of the mediation analyses and LISREL analysis are not directly comparable, the general pattern of results confirms the validity of the research model posited.
6.2.3 Partial Least Squares Analysis

The data from Study 2 was also analyzed using partial least squares (PLS) to test the research model (Figures 4, 6A and 6B). The main objective of this analysis is to affirm that the general pattern of results holds true holistically as shown from the LISREL analysis in study 1 (and in a disaggregated manner by the mediation analyses in Study 2). PLS, like LISREL, is a structural equation modeling technique and PLS is chosen over LISREL in this case because of sample size constraints. PLS can be used to analyze data with small sample sizes and can be used in this case. Wynne Chin suggests “5-10 times the scale with the largest number of formative indicators or 5-10 times the largest number of structural paths directed at a particular construct in a structural model” (Chin et al. 1999). He further adds that the sample size requirements drop considerably for constructs with reflective indicators, as is the case in this model.

Figure 9 shows the results of the PLS analysis pictorially. Table 22A shows the composite reliability values and the average variance extracted (AVE) for the constructs used in the study demonstrating strong reliability. Loading coefficients of all items on their respective constructs were significant with t-values exceeding 1.96 (measurement model in Figure 9), thus suggesting good convergent validity. Table 22B shows the square root of AVE on the diagonal and the correlation between the latent constructs on the off-diagonal position of the matrix displayed. The square root of the AVE of every construct exceeds the correlation between that construct and all other constructs thus signifying good discriminant validity.
Figure 9: Research Model Using PLS (Study 2)
Table 22A: Estimates of Composite Reliability and Variance

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Reliability</th>
<th>Explained Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptiveness</td>
<td>0.95</td>
<td>0.74</td>
</tr>
<tr>
<td>Connectivity</td>
<td>0.94</td>
<td>0.79</td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td>0.97</td>
<td>0.86</td>
</tr>
<tr>
<td>Loyalty</td>
<td>0.94</td>
<td>0.79</td>
</tr>
<tr>
<td>Social Presence</td>
<td>0.92</td>
<td>0.73</td>
</tr>
</tbody>
</table>

Table 22B: Square-root of AVE and Correlation Between the Latent Constructs

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Adaptiveness</th>
<th>Connectivity</th>
<th>Perceived Usefulness</th>
<th>Loyalty</th>
<th>Social Presence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptiveness</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connectivity</td>
<td>0.57</td>
<td>0.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td>0.83</td>
<td>0.75</td>
<td>0.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyalty</td>
<td>0.69</td>
<td>0.55</td>
<td>0.81</td>
<td>0.89</td>
<td></td>
</tr>
<tr>
<td>Social Presence</td>
<td>0.61</td>
<td>0.55</td>
<td>0.60</td>
<td>0.62</td>
<td>0.85</td>
</tr>
</tbody>
</table>

The results from Figure 9 show that the general pattern of results holds true for this analysis as well. All hypotheses are supported with the exception of H2d and H3 (see Table 6 that shows the test results for Study 1). However, the results need to be interpreted cautiously as a direct comparison of results from LISREL analysis is not advisable. The assumptions underlying both methods are different (Barclay et al. 1995; Chin 1998; Chin et al. 1999) and in fact Chin compares both methods with the quote “Partial Least Squares is to LISREL as Principal Components Analysis is to Common Factor Analysis” (Chin 1995). The main intent here is to show that the general pattern of
results is consistent with those from previous analyses and hence PLS analysis is appropriate in this context in the light of small sample size for this study.
7. Conclusions

This research investigated the impact of perceived communication characteristics on social presence, perceived usefulness and customer loyalty. A lab experiment also examined the impact of a web site’s support for personalization features and consumer review features on these perceived communication characteristics of the media (adaptiveness and connectivity). The results from Study 1 show that social presence acts as a mediator between adaptiveness and loyalty as well as connectivity and loyalty. Perceived usefulness acts as a mediator between adaptiveness and loyalty. The hypotheses suggesting social presence acting as a mediator between communication characteristics and perceived usefulness was not supported. Instead, adaptiveness had a stronger effect on perceived usefulness whereas connectivity showed a stronger relationship with social presence and vice versa. In fact, the link suggesting a direct relationship between connectivity and perceived usefulness was also rejected.

These results suggest that a better way of examining these relationships may be to look at the communication characteristics individually and determine whether the experiential or the utilitarian component predominates for that communication characteristic in a specific task setting. This research argues that web sites in trying to develop meaningful relationships with its customers must focus on improving the perceived communication characteristics of the media. This research explored the impact of two such communication characteristics - adaptiveness and connectivity.
The second study utilizing a lab experiment set out to show how a web site's support for personalization features and consumer reviews will have an impact on these two perceived communication characteristics of media. The results unambiguously showed that these web interface design decisions did make the web site more adaptive and connective. This result, when juxtaposed with the results from the first study indicates that appropriate web interface design decisions will eventually lead to higher levels of consumer loyalty. The controlled conditions used in the experiment allows for the causal claim that higher levels of support for personalization features and consumer review features led to higher levels of adaptiveness, connectivity, social presence, perceived usefulness and loyalty.

The interaction effect between support for personalization and consumer review features (Figures 7 and 8) also gives rise to interesting possibilities for designing web sites. This shows that web sites by choosing to provide support for just one of these features can simultaneously positively impact both adaptiveness and connectivity. For example, a web site that offers support for just personalization features not only makes itself adaptive, but also more connective. Similarly, a web site that provides support just for consumer reviews may lead to the web site being perceived as highly connective as well as adaptive. The direction of means in Figures 7 and 8 clearly illustrate this argument. What this means for web sites in terms of practical implications will be explored in the sub-section 7.3. The mediation analyses and the PLS analysis from Study 2 support the general pattern of results from Study 1 thus providing triangulation across research methods increasing confidence in the general research model proposed.
7.1 Theoretical Contributions
This research also made a number of new theoretical contributions while reiterating support for established as well as not-so-established extant theories. This work reviewed the perceived communication characteristics of the media developed by previous research (Burgoon et al. 2000; Daft et al. 1986; Dennis et al. 1999; Sproull et al. 1986; Te'eni 2001; Valacich et al. 1993) and introduced connectivity as an important communication characteristic that was missing in previous literature. Following Dennis and Kinney's (1999) arguments for treating communication characteristics of a medium as the fundamental building blocks to understand performance effects of that medium, this thesis separated the two perceived communication characteristics of a web site - adaptiveness and connectivity - from the experiential construct social presence and showed that they do help in understanding the communication capabilities of that web site. Adaptiveness had an impact on both the experiential and the utilitarian aspects of relationship between a web site and its users. On the other hand, connectivity had an impact only on the experiential aspect of the relationship.

This thesis also adds further evidence to the media use research that posits that the same communication medium can possess different levels of social presence by configuring the medium differently (Dennis et al. 1999; Fulk et al. 1993). This is empirically shown in a new context (for a web site) by systematically varying a web site's support for personalization and consumer reviews. While past research has shown support for treating computers as social actors (Moon 2000; Nass et al. 1995a; Nass et al. 1995b; Nass et al. 1994; Reeves et al. 1997), this research extends the theory of social response
by making a case for treating a web site as a valid social actor. This work also uncovers the assumptions underlying the construct social presence and makes a case for using social presence as an experiential construct to capture the "relational" aspect of the communication between a web site and its users.

These arguments for treating the web site as a valid social actor and social presence as an experiential construct pave the way for one of the key contributions of this work. This research, by synthesizing theories from communication, media use, theory of social response and theory of planned behavior, proposes an extension to the technology acceptance model to understand customer behavior better. This research argues that social presence can be used as the construct of choice to represent the relational aspect of communication between a web site and its users while perceived usefulness can be used as the utilitarian construct. Consistent with previous literature, perceived usefulness does predict a customer's intent to return to a web site as measured by customer loyalty. While previous studies have shown mixed support for the use of affect (attitude), this study offers new evidence for the impact of social presence (belief structure) on customer loyalty.

7.2 Limitations
While this research investigated the impact of two communication characteristics – adaptiveness and connectivity – further research is needed to study the impact of other communication characteristics (see Table 1 for a list of these communication characteristics). Further, the research model was tested in one context involving a high involvement product (music CDs). Hence, the associated research model should be
tested in other contexts to check for potential moderator effects. For example, the level of involvement associated with a particular product may play a moderating role on the relationship between the experiential construct social presence and customer loyalty.

Study 1 used university students as participants in the survey and the results as such generalize to this target population. While students are an attractive market segment for music CDs, care should be exercised in interpreting the results of the study across the board. Even though, the participants were offered the chance to win one of the music CDs they chose as an incentive to increase their involvement and to ensure external validity, the survey was not conducted in a real setting where customers were actually shopping in an online store. However, since the main intent of the study was to explore customer behavior in the pre-purchase stage, the employed methodology is acceptable as an alternative to the ideal.

Study 2 used support for specific features of personalization and consumer reviews by one e-retailer – Amazon.com – in an experimental setting. As this research argued, there are many ways of implementing support for these features as web site interface design decisions. Amazon.com was chosen specifically because it is recognized as one of the leading e-retailers that serves as an exemplar for other on-line stores in terms of implementing support for personalization and consumer reviews. There is ample scope for further research that focuses on the details of implementing support for these features in specific ways to improve the communication capabilities of a web site.
Another limitation of this experimental study is that the results may be specific to the way Amazon.com (and hence this study) chose to implement support for personalization and for consumer reviews. As the results suggest, there is an element of commonality between the way support for personalization and support for consumer reviews are implemented. Amazon.com uses the explanation “other customers who bought this product also bought xxx” to recommend other similar items that a customer may be interested in thus resulting in support for personalization. There is an element of “other customers” influencing the personalized recommendations that are being made by the web site. Thus, there is a common theme of “other customers’ views and recommendations” running through the implementations of both the support for personalization as well as support for consumer reviews.

Similarly, Amazon.com chose to integrate support for consumer reviews on the product page of the web site. This integration leads to a customer perceiving reviews by other customers as relevant information on the product he/she is interested in, thus lending an element of ‘adaptiveness’ to the way support for consumer reviews is implemented. Hence, the two treatments (support for personalization and consumer reviews) are not completely orthogonal and are an artifact of the way these features are implemented in Amazon.com. While Amazon.com is a leading company in terms of implementing support for personalization as well as consumer reviews, the results of the study should be interpreted with caution keeping in mind that “specific implementations of technologies” also have a role to play. This observation suggests possible avenues of
future research in the different ways a web site can choose to implement these technologies some of which will be touched upon in the next section.

7.3 Implications for Practice and Research
In practice, it is advantageous for the web sites to offer some form of support for personalization or virtual community as this makes the web site to be perceived as more adaptive and connective. This will facilitate better communication between the web site and the shoppers, thus leading to higher levels of social presence and perceived usefulness. Ultimately, this will result in increased customer loyalty. Companies do understand that in practical terms it takes a lot more money and effort to acquire a new customer than to keep an existing customer and the results of this study throws new light on the role of support for personalization and consumer reviews in increasing customer loyalty.

Good personalization systems can be very expensive to set up. Enabling an e-commerce web site with the necessary tools to build a vibrant community costs little (especially when compared to personalization systems) as the community members provide the content. The results of the second study offers evidence that web sites by providing support for consumer reviews could not only increase connectivity but also reap the benefits in terms of increased adaptiveness despite offering very little personalization. However, the ways and means of implementing support for personalization and virtual communities deserve further research.
This research implemented the virtual community support by incorporating the consumer reviews on the product page (as Amazon.com does). There are other web sites such as CDNow that implement the virtual community features in a different manner. The virtual community content at CDNow is not integrated into the product page and is implemented using an elaborate bulletin board system. Future research needs to explore these implementations in finer detail to figure out if they make a difference in terms of perceived connectivity and adaptiveness.

Similarly, there are many different ways of implementing a personalization system (and the subsequent set of recommendations). Even after a set of recommendations have been arrived at, the way of introducing these recommendations to the shopper may yet make a difference. What is more effective in introducing these sets of recommendations - the explanation “Customers who bought this item also bought” or the phrase “You may also like”? It would be interesting to apply the principles set forth in the Elaboration Likelihood Model (Petty et al. 1986) to investigate to what extent the content (message) being delivered and the way it is being delivered (peripheral or central route to persuasion) impacts on the constructs studied in this research.

Future research should investigate how specific implementations of personalization systems and virtual communities can use these “explanations” to persuade customers about the efficacy and credibility of the message. This study only provides a starting point in looking at the way personalization systems and virtual community features can be built into an e-commerce web site. Future research should examine the
implementation of these features in finer detail. This will help the organizations understand more in depth the trade-offs involved in providing different types and levels of personalization and virtual communities.
References


## Appendices

### Appendix – 1

**Operationalization of Constructs and Original List of Items**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Labels</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Items</strong></td>
</tr>
<tr>
<td>Adaptiveness</td>
<td>ADP1</td>
<td>ABC.com personalized my web shopping experience.</td>
</tr>
<tr>
<td></td>
<td>ADP2</td>
<td>I feel that ABC.com must have been designed for individuals like me.</td>
</tr>
<tr>
<td></td>
<td>ADP3</td>
<td>The pages displayed by ABC.com seemed to be tailored to my needs.</td>
</tr>
<tr>
<td></td>
<td>ADP4</td>
<td>I feel as though ABC.com is custom-made for me.</td>
</tr>
<tr>
<td></td>
<td>ADP5</td>
<td>I feel that ABC.com personalized its offerings based on my requirements.</td>
</tr>
<tr>
<td></td>
<td>ADP6</td>
<td>I feel that my interactions with ABC.com are not at all personalized.</td>
</tr>
<tr>
<td></td>
<td>ADP7</td>
<td>I felt that ABC.com did not adapt itself to serve my personal needs.</td>
</tr>
<tr>
<td>Connectivity</td>
<td>CON1</td>
<td>ABC.com never gave me a chance to interact with other visitors to its web site.</td>
</tr>
<tr>
<td></td>
<td>CON2</td>
<td>ABC.com exposed me to opinions of other visitors to its web site.</td>
</tr>
<tr>
<td></td>
<td>CON3</td>
<td>ABC.com created a sense of community.</td>
</tr>
<tr>
<td></td>
<td>CON4</td>
<td>ABC.com gives me an opportunity to meet people with similar interests.</td>
</tr>
<tr>
<td></td>
<td>CON5</td>
<td>ABC.com lets me meet others with similar tastes.</td>
</tr>
<tr>
<td></td>
<td>CON6</td>
<td>I feel like I know the other users who visited ABC.com.</td>
</tr>
<tr>
<td></td>
<td>CON7</td>
<td>I did not identify with the opinions of the visitors I met at ABC.com</td>
</tr>
<tr>
<td></td>
<td>CON8</td>
<td>I felt linked to the other users of ABC.com.</td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td>PU1</td>
<td>ABC.com is useful in shopping for CDs.</td>
</tr>
<tr>
<td></td>
<td>PU2</td>
<td>ABC.com improves my performance in shopping for CDs.</td>
</tr>
<tr>
<td></td>
<td>PU3</td>
<td>ABC.com enables me to shop for CDs faster.</td>
</tr>
<tr>
<td></td>
<td>PU4</td>
<td>ABC.com enhances my effectiveness in CD shopping.</td>
</tr>
<tr>
<td></td>
<td>PU5</td>
<td>ABC.com makes it easier to shop for CDs.</td>
</tr>
<tr>
<td></td>
<td>PU6</td>
<td>ABC.com increases my productivity in shopping for CDs.</td>
</tr>
<tr>
<td>Loyalty</td>
<td>LOY1</td>
<td>I am very likely to buy CDs from ABC.com.</td>
</tr>
<tr>
<td></td>
<td>LOY2</td>
<td>I would recommend ABC.com to my friends and relatives.</td>
</tr>
<tr>
<td></td>
<td>LOY3</td>
<td>I would seriously contemplate buying from ABC.com.</td>
</tr>
<tr>
<td></td>
<td>LOY4</td>
<td>I am likely to make future purchases from ABC.com.</td>
</tr>
<tr>
<td></td>
<td>LOY5</td>
<td>I would be shopping at ABC.com again.</td>
</tr>
<tr>
<td></td>
<td>LOY6</td>
<td>I would return to ABC.com to make purchases.</td>
</tr>
<tr>
<td>Social Presence</td>
<td>SP1</td>
<td>There is a sense of human contact in the web site</td>
</tr>
<tr>
<td></td>
<td>SP2</td>
<td>There is a sense of personalness in the web site</td>
</tr>
<tr>
<td></td>
<td>SP3</td>
<td>There is a sense of sociability in the web site</td>
</tr>
<tr>
<td></td>
<td>SP4</td>
<td>There is a sense of human warmth in the web site</td>
</tr>
<tr>
<td></td>
<td>SP5</td>
<td>There is a sense of human sensitivity in the web site</td>
</tr>
</tbody>
</table>
Appendix – 2: Questionnaire and Instructions used in Study 1

Study on Web Shopping Behavior

November 2001

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GENERAL INSTRUCTIONS

Welcome to the web shopping survey conducted by the MIS Division at the Faculty of Commerce, University of British Columbia. This survey is designed to evaluate the overall shopping experience provided by an on-line shopping web site. The questions do not evaluate you, only your opinion of the web site. As such there are no right or wrong answers.

This survey is divided into three sections. The first section (section-A) primarily consists of questions on your general background. The second section (section – B) consists of questions about the web site where you will shop for CDs today (you will complete this section after the shopping trip). The last section consists of a few questions on the features of the web site you noticed while shopping for CDs.

It is very important to answer all of the questions included in the questionnaire, without leaving out a single question. If you are not sure of the answer to a question, please give us your best opinion.

All information provided by you is kept confidential. Thank you for your participation!

Note: In the following pages, you may be asked to respond to a set of statements about your recent web shopping experience. Please circle a number that indicates the extent to which you agree with each statement. The correct way of responding to these statements is shown below.

Examples:

Correct way of marking:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>2</td>
<td>Disagree</td>
<td>Mildly Disagree</td>
<td>Neither Agree Nor Disagree</td>
<td>Mildly Agree</td>
<td>6</td>
</tr>
</tbody>
</table>

Incorrect way of marking: Do not circle between numbers

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>2</td>
<td>Disagree</td>
<td>Mildly Disagree</td>
<td>Neither Agree Nor Disagree</td>
<td>Mildly Agree</td>
<td>6</td>
</tr>
</tbody>
</table>

Incorrect way of marking: Do not circle two numbers

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>2</td>
<td>Disagree</td>
<td>Mildly Disagree</td>
<td>Neither Agree Nor Disagree</td>
<td>Mildly Agree</td>
<td>6</td>
</tr>
</tbody>
</table>
SECTION – A

Date: ____________________
Name: ____________________ Gender: ____________________
Telephone: ____________________ Age: ____________________

Major at UBC: ____________________
Year of Study: __________ Email: ____________________

Instructions: Please circle one item that is closest to your experience.

1. How many hours per week do you use a personal computer? (Ex: IBM compatible/ Mac)

   a) Less than 1 hour  
   b) 1 - 5 hours  
   c) 6-10 hours  
   d) 11-20 hours  
   e) More than 20 hours

2. How long have you been using the Internet? (Ex: read news, e-mail, general browsing)

   a) Never  
   b) Less than 6 months  
   c) 6-12 months  
   d) 1-2 years  
   e) More than 2 years

3. How many hours per week do you spend on the Internet?

   a) Less than 1 hour  
   b) 1 - 5 hours  
   c) 6-10 hours  
   d) 11-20 hours  
   e) More than 20 hours

4. In the past 12 months, how many times have you made a purchase on-line?

   a) Never  
   b) Once  
   c) 2-5 times  
   d) 5-10 times  
   e) More than 10 times
5. In the past 12 months, about how much money have you spent shopping on-line?

- a) None
- b) <$100
- c) $101-$500
- d) $500-$1,000
- e) >$1000

6. How long have you been visiting Amazon.com? (General browsing included)

- a) Never
- b) Less than 6 months
- c) 6 – 12 months
- d) 1-2 years
- e) More than 2 years

7. How many hours per week do you spend at Amazon.com? (General browsing included)

- a) None
- b) Less than 1 hour
- c) 2 - 5 hours
- d) 6 - 10 hours
- e) More than 10 hours

8. In the past 12 months, how many times have you made a purchase on-line at Amazon.com?

- a) Never
- b) Once
- c) 2-4 times
- d) 5 - 10 times
- e) More than 10 times

9. In the past 12 months, about how much money have you spent shopping at Amazon.com?

- a) None
- b) <$100
- c) $101-$500
- d) $500-$1,000
- e) >$1000

Please circle a number that indicates the extent to which you agree with each statement.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

103
<table>
<thead>
<tr>
<th></th>
<th><strong>I feel comfortable with using a mouse and computer applications</strong></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td><strong>I am comfortable browsing the internet</strong>&lt;br&gt;(read email, check news, general browsing)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>11</td>
<td><strong>I am comfortable with shopping on-line</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td><strong>I am familiar with Amazon.com</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>13</td>
<td><strong>I visit Amazon.com regularly</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

End of Section – A

If you have questions or if you do not understand the instructions please ask the Research Assistant to clarify. Otherwise, proceed to the next page...
Shopping for CDs - Instructions

- Please follow instructions.
- You have up to 70 minutes to complete these tasks. The time limit provided for each task is only a suggestion. But, please ensure that you spend at least the minimum time suggested for each task. For example, please spend at least 10 minutes on task 1.
- Remember that this is a shopping trip... There is no right or wrong way of doing things... Only your way! So, relax and enjoy.

You will be given specific instructions and you will be asked to shop for CDs from an on-line shopping store - Amazon.com (e.g. shop for a gift for a friend who likes a certain type of music, shop for a CD by your favorite artist). Please keep in mind that you don’t need to actually purchase CDs, but we do expect you to look for information about the CDs at Amazon.com. Once you choose/find the CDs you’d like to buy, place them in the shopping cart (available in the web site). Please ask the R.A. for assistance if you are not clear about the terminology or the instructions.

Task – 1: Getting to know the web site (10 - 25 minutes).

- Please open your favorite browser (Internet Explorer/Netscape Navigator) if you have not done so already. Please visit the home page of Amazon.com (Type in the URL: http://www.Amazon.com in the address bar; Please ask R.A. for help if you are not sure how to do this)

- Try to locate information about the following CD: Title – Thriller; Artist – Michael Jackson.
  - The easiest way to do this is to use the search function (search by Artist Name/CD title or use both).
  - Open the page that contains information about this CD (product page).
  - Please spend some time looking at the content of this page.

- Return to the home page and spend some time trying to familiarize yourself with the web site (lay out of the web site, the type of products sold, the way information is organized etc.)
  - Please remember that the objective is to familiarize yourself with the web site. There is no specific way to do this other than browsing and navigating your way around the web site.
  - Pay particular attention to the features and services provided by the web site to support and enhance your shopping needs and experience.
  - For some services you wish to use, the web site will require you log in (you may wish to create a new user account if you don’t have one already). Creating a user account is easy for these shopping web sites. All you need to do is to enter an email id, your name and password. Feel free to use your personal email or ask the R.A. for a temporary email id.

Task – 2: Shopping for a gift for your friend (10 – 20 minutes)
A close friend of yours, recently told you that he bought the CD titled "Greatest Hits" by Al Green and loved it. He confessed that this was the first time he bought this type of music (Soul/R&B) and is absolutely enthralled by Al Green. Your friend’s birthday is coming up in 15 days and you would like to give him a thoughtful gift for his birthday. So, your intention is to buy a CD similar to Al Green's ‘Greatest Hits’, but from another artist in order to pleasantly surprise him. You will use this shopping web site to look for more information when buying this gift for your friend. Please spend enough time so as to make sure that you choose a suitable CD as a gift for your friend’s birthday.

Use the space below to answer the following questions about your shopping for the gift

1) Name of the CD you chose:

2) Name of the artist (for the CD you chose):

3) Other Artists you considered (at least three):

4) Reasons for your choice:

Task –3: Shopping for yourself (5 - 10 minutes)
Please search for CDs of your favorite artists. You will be shopping for a CD that you would like to buy (1 in 5 chance of winning this CD). You are familiar with this type of music and have listened to one or more songs by these artists before. Please make sure that you visit product pages for at least three CDs.

Use the space below to answer the following questions about your shopping for the gift

1) Name of the CD you chose:
2) Name of the Artist:

Task –4: Shopping for yourself – II (5 - 10 minutes)
In this case shop for a CD by an artist that you are not too familiar with. You’ve probably heard a song by this artist somewhere; and perhaps, your friend mentioned something positive about this artist. You will use this shopping web site to look for music by this artist and also explore other music that might interest you.

Use the space below to answer the following questions about your shopping for the gift

1) Name of the CD you chose:
2) Name of the Artist:

End of Shopping Tasks
Turn to the next page only after you’ve completed all tasks.
SECTION – B

In the following pages, you will be asked to respond to a set of statements about your recent shopping experience. Please circle a number that indicates the extent to which you agree with each statement. The questions do not evaluate you, only your opinion of the web site. As such there are no right or wrong answers.

Reminder – What the numbers mean (see page 2):

<table>
<thead>
<tr>
<th>S. No</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Mildly Disagree</th>
<th>Neither Agree Nor Disagree</th>
<th>Mildly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Amazon.com is likable.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2)</td>
<td>Amazon.com failed to keep me involved while I was shopping.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3)</td>
<td>Amazon.com has adequate knowledge to manage its business on the Internet</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>4)</td>
<td>I feel as though Amazon.com is custom-made for me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5)</td>
<td>Amazon.com enhances my effectiveness in CD shopping</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6)</td>
<td>I would return to Amazon.com to make purchases</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7)</td>
<td>Amazon.com created a sense of closeness with me.</td>
<td>1</td>
<td>2</td>
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<td>5</td>
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<td>8)</td>
<td>Amazon.com keeps me totally absorbed in my interactions with it.</td>
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<td>9)</td>
<td>I was completely interested in what I was doing while browsing Amazon.com</td>
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<td>2</td>
<td>3</td>
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<td>6</td>
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<td>10)</td>
<td>Amazon.com personalized my web shopping experience.</td>
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<td>2</td>
<td>3</td>
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<td>5</td>
<td>6</td>
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<tr>
<td>11)</td>
<td>Amazon.com had no clue as to what I really wanted.</td>
<td>1</td>
<td>2</td>
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<td>6</td>
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<td>S. No</td>
<td>Description</td>
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<tr>
<td>12</td>
<td>I would be shopping at Amazon.com again</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>13</td>
<td>Amazon.com is pleasant</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>14</td>
<td>Amazon.com is incompetent</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>15</td>
<td>There is a sense of sociability in Amazon.com</td>
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<tr>
<td>16</td>
<td>Amazon.com is useful in shopping for CDs</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>17</td>
<td>I feel that Amazon.com must have been designed for individuals like me.</td>
<td>1 2 3 4 5 6 7</td>
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<td>18</td>
<td>Amazon.com holds my attention</td>
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<tr>
<td>19</td>
<td>Amazon.com is unfriendly</td>
<td>1 2 3 4 5 6 7</td>
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<td>20</td>
<td>Amazon.com created a sense of distance.</td>
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<tr>
<td>21</td>
<td>Amazon.com has the ability to handle sales transactions on the Internet securely</td>
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<tr>
<td>22</td>
<td>I did not get treated right by Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>23</td>
<td>Amazon.com excites my curiosity</td>
<td>1 2 3 4 5 6 7</td>
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<td>24</td>
<td>Amazon.com increases my productivity in shopping for CDs</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>25</td>
<td>Amazon.com lets me meet others with similar tastes.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>26</td>
<td>The pages displayed by Amazon.com seemed to be tailored to my needs.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
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<tr>
<td>27</td>
<td>There is a sense of human sensitivity in Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>28</td>
<td>Amazon.com did not understand my needs</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>29</td>
<td>Amazon.com improves my performance in shopping for CDs</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>30</td>
<td>Amazon.com exposed me to opinions of other visitors to its web site.</td>
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<td>31</td>
<td>Promises made by Amazon.com are likely to be reliable</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>S. No</td>
<td>Statement</td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
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<tr>
<td>32)</td>
<td>I have positive feelings about Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>33)</td>
<td>Amazon.com cares for me.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>34)</td>
<td>I did not identify with the opinions of the visitors I met at Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>35)</td>
<td>I was deeply involved in my interactions while shopping at Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>36)</td>
<td>Amazon.com understood what I wanted.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>37)</td>
<td>Amazon.com enables me to shop for CDs faster</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>38)</td>
<td>I felt close to Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>39)</td>
<td>Amazon.com may be &quot;bending the facts&quot;.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>40)</td>
<td>Amazon.com created a sense of community.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>41)</td>
<td>I can count on Amazon.com to consider how its actions may affect me.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>42)</td>
<td>I dislike Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>43)</td>
<td>I found Amazon.com to be very detached in its interactions with me</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>44)</td>
<td>I feel that Amazon.com personalized its offerings based on my requirements.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>45)</td>
<td>I trust Amazon.com to keep my best interests in mind.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>46)</td>
<td>Amazon.com knows me well.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>47)</td>
<td>There is a sense of human warmth in Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>48)</td>
<td>I felt that Amazon.com was aloof in its interactions with me</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>49)</td>
<td>I would seriously contemplate buying from Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>50)</td>
<td>Amazon.com aroused my imagination.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>S. No</td>
<td>Description</td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
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<tr>
<td>51)</td>
<td>I felt linked to the other users of Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>52)</td>
<td>I felt that Amazon.com did not adapt itself to serve my personal needs.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>53)</td>
<td>Amazon.com's intentions towards its customers are benevolent.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
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<tr>
<td>54)</td>
<td>I feel like I know the other users who visited Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
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<tr>
<td>55)</td>
<td>Amazon.com does not know my desires at all.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
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<tr>
<td>56)</td>
<td>Amazon.com acts sincerely in dealing with its customers</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>57)</td>
<td>Amazon.com understood my goals.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>58)</td>
<td>I am very likely to buy CDs from Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>59)</td>
<td>I feel that Amazon.com puts customers' interests before its own.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>60)</td>
<td>Amazon.com gives me an opportunity to meet people with similar interests.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>61)</td>
<td>I was treated fairly by Amazon.com</td>
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<tr>
<td>62)</td>
<td>I found Amazon.com to be very detached from me</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>63)</td>
<td>Amazon.com was very impersonal in its dealings with me.</td>
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<tr>
<td>64)</td>
<td>Amazon.com might be withholding crucial information from me.</td>
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<tr>
<td>65)</td>
<td>Amazon.com will over-charge their customers (considering the overall level of services / products provided).</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
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<tr>
<td>66)</td>
<td>I am likely to make future purchases from Amazon.com</td>
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<tr>
<td>S. No</td>
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<td>Strongly Agree</td>
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<tr>
<td>67</td>
<td>There is a sense of human contact in Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>68</td>
<td>Amazon.com never gave me a chance to interact with other visitors to its web site.</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>69</td>
<td>I feel that my interactions with Amazon.com are not at all personalized.</td>
<td>1 2 3 4 5 6 7</td>
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<td></td>
</tr>
<tr>
<td>70</td>
<td>Amazon.com is fun.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>Amazon.com makes it easier to shop for CDs.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>Amazon.com is honest with their customers</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td>Amazon.com does not have sufficient expertise and resources to do business on the Internet</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>Amazon.com understood what I was trying to do.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>I would recommend Amazon.com to my friends and relatives</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>There is a sense of personalness in Amazon.com</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

End of Section – B
Close the browser (Internet Explorer/Netscape Navigator).
Turn to the next page only after you’ve completed this section.
**SECTION – C**

Instructions: Please circle a number that indicates the extent to which you agree with each statement. Please do not visit the site again to answer these statements. The questions do not evaluate you, only your opinion of the web site.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Features/Services</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Amazon.com sells books</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td>Amazon.com sells CDs</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td>Amazon.com provides me with product reviews</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4)</td>
<td>Amazon.com provides me with product reviews by other users</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5)</td>
<td>Amazon.com allows me to review a product</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6)</td>
<td>Amazon.com lets me rate music</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7)</td>
<td>When I visit a product page (for ex, ‘Thriller’ by Michael Jackson), Amazon.com recommends products that might potentially interest me</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8)</td>
<td>When I visit a product page (for ex, ‘Thriller’ by Michael Jackson), Amazon.com shows me other similar items purchased by other users</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>9)</td>
<td>Amazon.com recommends products that might potentially interest me</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>10)</td>
<td>Amazon.com allows me to create a wish list of products</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>11)</td>
<td>Amazon.com allows me enter my personal information (address, preferred credit card etc)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>12)</td>
<td>Amazon.com allows me enter my personal preferences (my favorite music, rating CDs)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>13)</td>
<td>Amazon.com uses these preferences to recommend relevant products</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>14)</td>
<td>If I visit again, Amazon.com will remember my preferences</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
End of Section - C

Thank you for participating in the study. Please do not discuss the study with other friends as they may be participating in the study as well.
Appendix – 3: Questionnaire and Instructions used in Study 2

Study on Web Shopping Behavior

Fall 2002

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GENERAL INSTRUCTIONS

Welcome to the web shopping survey conducted by the MIS Division at the Faculty of Commerce, University of British Columbia. This survey is designed to evaluate your overall shopping experience provided by an on-line shopping web site. The questions do not evaluate you, only your opinion of the web site. As such there are no right or wrong answers.

This survey is divided into three sections. The first section (section-A) primarily consists of questions on your general background. The second section (section – B) consists of questions about the web site where you will shop for CDs today (you will complete this section after the shopping trip). The last section consists of a few questions on the features of the web site you visited while shopping for CDs.

It is very important to answer all of the questions included in the questionnaire, without leaving out any questions. If you are not sure of the answer to a question, please enter your best opinion.

All information provided by you will be kept confidential. Thank you for your participation!

Note: In the following pages, you may be asked to respond to a set of statements about your recent web shopping experience. Please circle a number that indicates the extent to which you agree or disagree with each statement. The correct way of responding to these statements is shown below.

Correct way of marking:

Examples:

Incorrect way of marking: Do not circle between numbers

Incorrect way of marking: Do not circle two numbers
SECTION – A

Date: ____________________

Name: ____________________  Gender: ____________________

Telephone: ____________________  Age: ____________________

Major at UBC: ____________________

Year of Study: ___________  Email: ____________________

Instructions: Please circle one item that is closest to your experience.

1. How many hours per week do you use a personal computer? (Ex: IBM compatible or Mac)
   
   a) Less than 1 hour  d) 11 - 20 hours
   b) 1 - 5 hours  e) More than 20 hours
   c) 6-10 hours

2. How long have you been using the Internet? (Ex: read news, e-mail, general browsing)

   a) Never  d) 1 – 2 years
   b) Less than 6 months  e) More than 2 years
   c) 6 – 12 months

3. How many hours per week do you spend on the Internet?

   a) Less than 1 hour  d) 11 - 20 hours
   b) 1 - 5 hours  e) More than 20 hours
   c) 6-10 hours

4. In the past 12 months, how many times have you made a purchase on-line?

   a) Never  d) 5 – 10 times
   b) Once  e) More than 10 times
   c) 2-4 times
5. In the past 12 months, approximately how much money have you spent shopping on-line?

- a) None
- b) Less than $100
- c) $101-$500
- d) $500-$1,000
- e) More than $1,000

6. How long have you been visiting Amazon.com? (General browsing included)

- a) Never
- b) Less than 6 months
- c) 6-12 months
- d) 1-2 years
- e) More than 2 years

7. How many hours per week do you spend at Amazon.com? (General browsing included)

- a) None
- b) Less than 1 hour
- c) 2-5 hours
- d) 6-10 hours
- e) More than 10 hours

8. In the past 12 months, how many times have you made a purchase on-line at Amazon.com?

- a) Never
- b) Once
- c) 2-4 times
- d) 5-10 times
- e) More than 10 times

9. In the past 12 months, about how much money have you spent shopping at Amazon.com?

- a) None
- b) Less than $100
- c) $101-$500
- d) $500-$1,000
- e) More than $1,000

Please circle a number that indicates the extent to which you agree with each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>10) I feel comfortable with using a mouse and</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Computer Applications</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>11) I am comfortable browsing the internet (read email, check news, general browsing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12) I am comfortable with shopping on-line</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13) I am familiar with Amazon.com</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14) I visit Amazon.com regularly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

End of Section – A

If you have questions or if you do not understand the instructions please ask the Research Assistant to clarify. Otherwise, proceed to the next page...
Shopping for CDs - Instructions

- Please follow instructions shown below.
- You have up to 90 minutes to complete these tasks. The time limit provided for each task is only a suggestion. But, please ensure that you spend at least the minimum time suggested for each task. For example, please spend at least 20 minutes on task 1.
- Remember that this is a shopping trip... There is no right or wrong way of doing things... Only your way! So, relax and enjoy.
- You have a 33% chance of winning a CD. In the following pages, you will be asked to shop for a CD for yourself twice (Task B and Task D). If you win, we will randomly select one of these two CDs as your prize.

You will be given specific instructions and you will be asked to shop for CDs from an on-line shopping store - Amazon.com (e.g. shop for a gift for a friend who likes a certain type of music, shop for a CD by your favorite artist). Please keep in mind that you don’t need to actually purchase CDs, but we do expect you to look for information about the CDs at Amazon.com. Please ask the research assistant (R.A.) for assistance if you are not clear about the terminology or the instructions.

Practice Tasks: Getting to know shopping web sites (20 - 30 minutes).

- Please visit the home page of CDNow.com (Click on File>Open and then, type in the URL: http://www.CDNow.com in the address bar; Please ask the R.A. for help if you are not sure how to do this)

- Try to locate information about the following CDs:
  Title – Thriller; Artist – Michael Jackson

  > The easiest way to do this is to use the search function (search by Artist Name/CD title or use both).
  > Open the page that contains information about this CD (product page).
  > Please spend some time looking at the content of this page. Pay particular attention to the features and services provided on the product page by the web site to support and enhance your shopping needs and experience.
  > Please read the list below and tick the type of features provided by the web site that you noticed while you were browsing the web site. Show this list to the RA.

| □ Artist Information | □ Editorial Reviews of Albums and/or Artists |
| □ Album Information | □ Consumer Reviews of Albums and/or Artists |
| □ Track Listings | □ Message Board |
| □ Audio Samples of Track Listings | □ Ability to browse music from similar genre/style |
| □ Information on other related/similar artists | □ Other features not mentioned on this list |
• Repeat the above steps for Barnes and Noble.com (www.bn.com)

<table>
<thead>
<tr>
<th>Artist Information</th>
<th>Editorial Reviews of Albums and/or Artists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Album Information</td>
<td>Consumer Reviews of Albums and/or Artists</td>
</tr>
<tr>
<td>Track Listings</td>
<td>Message Board</td>
</tr>
<tr>
<td>Audio Samples of Track Listings</td>
<td>Ability to browse music from similar genre/style</td>
</tr>
<tr>
<td>Information on other related/similar artists</td>
<td>Other features not mentioned on this list</td>
</tr>
</tbody>
</table>

Now ask the R.A. to take you to our shopping site. Repeat the above steps for this web site as well. The objective here is to familiarize yourself with the web site before you start shopping. Please remember that the R.A. would be happy to assist you if you have any questions about the shopping experience and the features of the web site.

<table>
<thead>
<tr>
<th>Artist Information</th>
<th>Editorial Reviews of Albums and/or Artists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Album Information</td>
<td>Consumer Reviews of Albums and/or Artists</td>
</tr>
<tr>
<td>Track Listings</td>
<td>Message Board</td>
</tr>
<tr>
<td>Audio Samples of Track Listings</td>
<td>Ability to browse music from similar genre/style</td>
</tr>
<tr>
<td>Information on other related/similar artists</td>
<td>Other features not mentioned on this list</td>
</tr>
</tbody>
</table>

Task –A: Shopping for a gift for your friend (10 – 20 minutes)
A close friend of yours, recently told you that he bought the CD titled “Greatest Hits” by Al Green and loved it. He confessed that this was the first time he bought this type of music (Soul/R&B) and is absolutely enthralled by Al Green. Your friend’s birthday is coming up in 15 days and you would like to give him a thoughtful gift for his birthday. So, your intention is to buy a CD similar to Al Green’s ‘Greatest Hits’, but from another artist in order to pleasantly surprise him. You will use this shopping web site to look for more information when buying this gift for your friend. Please spend enough time so as to make sure that you choose a suitable CD as a gift for your friend’s birthday.

Use the space below to answer the following questions about your shopping for the gift:
1) Name of the CD you chose:

2) Name of the artist (for the CD you chose):

3) Other Artists you considered (list at least three):
4) Circle the number that indicates the extent to which you agree with the following statement:

a) I am familiar with this genre of Music - Soul/R&B:

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Agree</td>
<td>2</td>
<td>Disagree</td>
<td>3</td>
<td>Mildly Disagree</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b) I am familiar with the music of this artist - Al Green:

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Disagree</td>
<td>3</td>
<td>Mildly Disagree</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5) Reasons for your choice of CD:

Task –B: Shopping for yourself (5 - 10 minutes)
Please search for CDs of your favorite artists. You will be shopping for a CD that you would like to buy for yourself. You are familiar with this type of music and have listened to one or more songs by these artists before. Alternately, you may also shop for CDs by an artist that you are not too familiar with. You’ve probably heard a song by this artist somewhere; and perhaps, your friend mentioned something positive about this artist. You will use this shopping web site to look for music by this artist and also explore other music that might interest you.

Use the space below to answer the following questions about the CD you chose for yourself:

a) Name of the CD you chose:

b) Name of the Artist:

Ask the RA for further instructions.
Please don’t turn to the next page.
Task –C: Shopping for a gift for your friend (10 – 20 minutes)
A close friend of yours, recently told you that he bought the CD titled “The Best of James” by James and loved it. He confessed that this was the first time he bought this type of music (Alternative Rock) and is absolutely enthralled by James. Your friend’s birthday is coming up in 15 days and you would like to give him a thoughtful gift for his birthday. So, your intention is to buy a CD similar to James’ ‘The Best of James’, but from another artist in order to pleasantly surprise him. You will use this shopping web site to look for more information when buying this gift for your friend. Please spend enough time so as to make sure that you choose a suitable CD as a gift for your friend’s birthday.

Use the space below to answer the following questions about your shopping for the gift:

1) Name of the CD you chose:

2) Name of the artist (for the CD you chose):

3) Other Artists you considered (list at least three):

4) Circle the number that indicates the extent to which you agree with the following statement:

a) I am familiar with this genre of Music – Alternative Rock:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Mildly Disagree</td>
<td>Neither Agree Nor Disagree</td>
<td>Mildly Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

b) I am familiar with the music of this artist – James:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Mildly Disagree</td>
<td>Neither Agree Nor Disagree</td>
<td>Mildly Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

5) Reasons for your choice of CD:
Task -D: Shopping for yourself (5 - 10 minutes)

Please search for CDs of your favorite artists. You will be shopping for a CD that you would like to buy for yourself. You are familiar with this type of music and have listened to one or more songs by these artists before. Alternately, you may also shop for CDs by an artist that you are not too familiar with. You've probably heard a song by this artist somewhere; and perhaps, your friend mentioned something positive about this artist. You will use this shopping web site to look for music by this artist and also explore other music that might interest you.

Use the space below to answer the following questions about the CD you chose for yourself:

a) Name of the CD you chose:
b) Name of the Artist:

Ask the RA for further instructions.
Please don’t turn to the next page.
In the following pages, you will be asked to respond to a set of statements about your recent shopping experience. Please circle a number that indicates the extent to which you agree with each statement. The questions do not evaluate you, only your opinion of the web site. As such there are no right or wrong answers.

**Reminder – What the numbers mean (see page 2):**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Mildly Disagree</td>
<td>Neither Agree Nor Disagree</td>
<td>Mildly Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>After Tasks A and B</th>
<th>After Tasks C and D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) This web site personalized my web shopping experience:</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2) I feel that this web site must have been designed for individuals like me.</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>3) The pages displayed by this web site seemed to be tailored to my needs.</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>4) I feel as though this web site is custom-made for me.</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>5) I feel that this web site personalized its offerings based on my requirements.</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>6) I feel that my interactions with this web site are not at all personalized.</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>7) I felt that this web site did not adapt itself to serve my personal needs.</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td></td>
<td>After Tasks A and B</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------------------</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td></td>
</tr>
<tr>
<td>8)</td>
<td>This web site never gave me a chance to interact with other visitors to the web site.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>9)</td>
<td>This web site exposed me to opinions of other visitors to its web site.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>10)</td>
<td>This web site created a sense of community.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>11)</td>
<td>This web site gives me an opportunity to meet people with similar interests.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>12)</td>
<td>This web site lets me meet others with similar tastes.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>13)</td>
<td>I feel like I know the other users who visited this web site</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>14)</td>
<td>I did not identify with the opinions of the visitors I met at this web site</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>15)</td>
<td>I felt linked to the users at this web site</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
SECTION – C

In the following pages, you may be asked to respond to a set of statements about your recent shopping experience at the web site you visited to complete Tasks C and D. Please circle a number that indicates the extent to which you agree with each statement. The questions do not evaluate you, only your opinion of the web site. As such there are no right or wrong answers.

Reminder – What the numbers mean (see page 2):

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Mildly Disagree</th>
<th>Neither Agree Nor Disagree</th>
<th>Mildly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Mildly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Neither Agree Nor Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Mildly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th></th>
<th></th>
<th>Strongly Agree</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>S. No</td>
<td>This web site is likable.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>This web site failed to keep me involved while I was shopping.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>This web site enhances my effectiveness in CD shopping</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>I would return to this web site to make purchases</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>This web site created a sense of closeness with me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>This web site keeps me totally absorbed in my interactions with it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>I was completely interested in what I was doing while browsing this web site</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>This web site had no clue as to what I really wanted.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>I would be shopping at this web site again</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>This web site is pleasant.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>There is a sense of sociability in this web site</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>S. No</td>
<td>Statement</td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>---------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12)</td>
<td>This web site is useful in shopping for CDs</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13)</td>
<td>This web site holds my attention</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14)</td>
<td>This web site is unfriendly.</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15)</td>
<td>This web site created a sense of distance</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16)</td>
<td>This web site excites my curiosity.</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17)</td>
<td>This web site increases my productivity in shopping for CDs</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18)</td>
<td>There is a sense of human sensitivity in this web site</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19)</td>
<td>This web site did not understand my needs</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20)</td>
<td>This web site improves my performance in shopping for CDs</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21)</td>
<td>I have positive feelings about this web site</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22)</td>
<td>I was deeply involved in my interactions while shopping at this web site</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23)</td>
<td>This web site understood what I wanted.</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24)</td>
<td>This web site enables me to shop for CDs faster</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25)</td>
<td>I felt close to this web site</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26)</td>
<td>I dislike this web site</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27)</td>
<td>I found this web site to be very detached in its interactions with me</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28)</td>
<td>This web site knows me well</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29)</td>
<td>There is a sense of human warmth in this web site</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30)</td>
<td>I felt that this web site was aloof in its interactions with me</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S. No</td>
<td>Statement</td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------------</td>
<td>----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31)</td>
<td>I would seriously contemplate buying from this web site</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32)</td>
<td>This web site aroused my imagination.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33)</td>
<td>This web site does not know my desires at all.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34)</td>
<td>This web site understood my goals.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35)</td>
<td>I am very likely to buy CDs from this web site</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36)</td>
<td>I found this web site to be very detached from me</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37)</td>
<td>This web site was very impersonal in its dealings with me.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38)</td>
<td>I am likely to make future purchases from this web site</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39)</td>
<td>There is a sense of human contact in this web site</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40)</td>
<td>This web site is fun.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41)</td>
<td>This web site makes it easier to shop for CDs</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42)</td>
<td>This web site understood what I was trying to do.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43)</td>
<td>I would recommend this web site to my friends and relatives</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44)</td>
<td>There is a sense of personalness in this web site</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Close the browser (Internet Explorer/Netscape Navigator).
Turn to the next page only after you’ve completed this section.
Please circle a number that indicates the extent to which you agree with each statement about the web site you visited to complete Tasks C and D. Please do not visit the site again to answer these statements. The questions do not evaluate you, only your opinion of the web site.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Features/Services</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>This Web Site sells books</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td>This web site sells CDs</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td>This web site provides me with product reviews</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4)</td>
<td>This web site provides me with product reviews by other users</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5)</td>
<td>This web site allows me to review a product</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6)</td>
<td>This web site lets me rate music</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7)</td>
<td>When I visit a product page (for ex, ‘Thriller’ by Michael Jackson), this web site recommends products that might potentially interest me</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8)</td>
<td>When I visit a product page (for ex, ‘Thriller’ by Michael Jackson), this web site shows me other similar items purchased by other users</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>9)</td>
<td>This web site recommends products that might potentially interest me</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>10)</td>
<td>This web site allows me to create a wish list of products</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>11)</td>
<td>This web site allows me enter my personal information (address, preferred credit card etc)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>12)</td>
<td>This web site allows me enter my personal preferences (my favorite music, rating CDs)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>13)</td>
<td>This web site uses these preferences to recommend relevant products</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>14)</td>
<td>If I visit again, this web site will remember my preferences</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Thank you for participating in the study. Please do not discuss the study with other friends as they may be participating in the study as well.
Appendix – 4: Instructions to Research Assistants for Study 2

Adaptiveness and Virtual Communities: An Experimental Study Using Real-time Filtering of Amazon.com

Directives to Research Assistants

Materials for the Participant:

- Consent Form
- Survey: This has the following components:
  - The first part of the survey (Background Information)
  - Instructions: Practice and Tasks A and B
  - Survey (Continued)
  - Tasks C and D
  - Rest of the Survey
- Participant Payment Sheet

Note: The RA should read the instructions for participants carefully to understand what the participants are required to do. This also helps the RAs understand the purpose of the study. If you have any questions about the instruction, get in touch with Nanda Kumar at nanda@commerce.ubc.ca

Preparations Just Before the Participant Arrives:

- Open Internet Explorer (IE) 6.x. We will use only IE v6.0 or higher in the study to standardize the browser interface.
- Make sure that the Address bar is NOT visible (View>ToolBars>Address bar)
- Empty Temporary Internet files (Tools>Options>General>Delete Cookies, Delete Files (check delete all offline content!))
- Clear History (Tools>Options>General>Clear History)
- Clear Forms and Passwords (Tools>Options>Content>Auto complete>Clear Forms, Clear Passwords). Ensure that all options (web addresses, forms, usernames and passwords on forms) are unchecked in the last screen.
- Ensure that privacy is set to default and security is set to medium (Tools>Options>security, privacy).
- Ensure that the test web site is working
- Bookmarks are in place (Test Web Site – Four Bookmarks for the four conditions, CDNow.com, BN.com, Borders.com and Amazon.ca)
After the Participant Arrives:

- Welcome the participant
- Seat the participant in an area away from the computer (The monitor should be out of view) that he/she will be using.
- Ask the participant to read and sign the Consent Form.
- Get the participant to fill out Background Survey.

Practice:

- **Stay with the participant for the duration of the practice.**
- Explain to the participant that he will be looking at two different shopping sites to understand how shopping sites enhance the shopping experience of the visitors. Ask the participants to focus more on the features on the product pages. Give them the following example: if you are interested in a particular CD, what kind of information and features shopping sites generally provide to make the shopping experience more convenient and pleasant.
- Take the participant to the PC. Use IE 6.x to open the CDNow.com site (Since, the address bar will be invisible, you will need to click on File>Open and then type in the URL)
- Ask the participant to read the instructions and ask him to browse the first web site (CDNow.com). Once the participant spends enough time on the product page and lists the features provided on the web site, review the list with him/her. Ensure that the participant has at least a few of the features provided on the product page (For example, for CDNow, the participant should at least understand that the web site provides artist information, album information, track listings, related artists among others). Please explain to the participant that it's okay if the participant thinks if some or all of the features are unimportant/useless/important/helpful... The purpose of writing the list is to recognize the features provided by the web site irrespective of whether the participant thinks if they are useful or not.
- Make the participant repeat these steps for http://www.bn.com
- Ensure that participants understand at least some of the minimal features of bn.com web site (In this case, ensure that they see the Consumer reviews section among others).

Actual Task:

Now the participant is ready to do the practice on the experimental web site and then continue with the tasks. Since, we are filtering the content of Amazon.com real time, not all content is enabled and the site might be a bit slow at times. **We will explain this to the participants using the argument outlined below:**
Open the bookmarked web sites borders.com and Amazon.ca, and let the participants inspect the homepage. Explain to the participants that Amazon.com in the past has collaborated with other companies and its subsidiaries to share parts of its content from the original web site Amazon.com. For example, borders.com is a physical store in U.S. with several branches in various cities in the U.S. Amazon.com helps Borders.com with on-line content and in returns shares revenues from sales. Similarly, the recently launched amazon.ca borrows selected content from Amazon.com to sell few categories of products (Books, Music, Movies).

We at UBC are helping Amazon.com evaluate its content and the features it offers specifically in the music category. The participant will be looking at the Music section from Amazon.com and will shop for CDs. He will then be asked questions about his attitudes towards the web site. Since the content is valuable, this content is coming through several layers of security and authentication to UBC’s server here. Hence, the site could be a bit slow at times. Please remember that we are interested in the content in this shopping trip and not the speed. The speed is the result of security arrangements and this won’t be a problem in the actual site. So, please imagine that speed won’t be a problem in actual situations.

Now, load the experimental web site (using the direct bookmark to condition - 1) and briefly explain the lay-out of the web site. Briefly explain to the participant that the site is divided into five sections and explain their purpose. Inform the student that two other sections have been disabled to let the student focus on these five sections in the music site. If by chance, the participant finds himself in any other part of Amazon.com (DVD for example), request him to use the back button to get back to the music site.

Now, ask the participant to repeat what he/she did at CDnow.com and BN.com (search for Michael Jackson’s Thriller) with this web site. Then, write down the features that he noticed at this (experimental – never use this word in front of the participants) site. The RA will check the list to ensure that the participant has noticed most of the features. Again, never use the word personalization or virtual communities in front of the participant. Talk to the subject about the features of the web site using the terminology used by the web site.

Now, the participant is ready to shop for CDs as instructed in the Tasks section. The RA may now leave the participant on his/her own. Of course, let the participant know that you would be happy to help if he/she had any questions.

Once the participant finishes the tasks A and B, ask him to fill out the survey of 15 items (see survey – Under Column “After Tasks A and B”).

Note: The participant will have two more tasks (Tasks C and D) left to finish. The web site where the participant conducts these tasks will depend on prior assignment by the RA. There are four experimental conditions and the first participant will be assigned to condition – 1 (same as before), the second to the second condition and so on. Of course, the fifth participant will be assigned to condition 1 and the cycle will start again.

If the participant is assigned to condition-1, then ask the participant to simply proceed to the next page and finish the tasks (C and D). Then, ask the participant to respond to the same questions in the space under the column “After Tasks C and D”.

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If the participant is assigned to one of the other three conditions, then explain to the participant that he will be shown a different site (in terms of content) by Amazon.com and that he will shop for the remaining two CDs (Tasks C and D) on this web site. Now, ask the participant to search for Michael Jackson’s Thriller. Request him to pay attention to the product page and list the features in a separate sheet of paper. Discuss the list with him and then let him proceed to the last two tasks. After these tasks are completed, ask the participant to respond to the same questions in the space under the column “After Tasks C and D”.

Once this part is completed, the participant completes the rest of the survey. For this part, the participant should base the answers on shopping experience he had while completing tasks C and D. Then pay the participant and thank him for his time. Get his signature on the payment sheet and let him know that the lucky draw for the winners will be made in three months.
Appendix 5: Code Used To Filter Amazon.com for Experimental Condition 1

```asp
<!-#include file="incl.asp">
<!-#include file="incl2.asp">
<!-#include file="incl3.asp"> 
<% 
Set htobj = Server.CreateObject("ASPHTTP.conn")
dim url 
dim b_url 
dim strResult
strResult = "" '--- change this one.
b_url = "http://ecom.commerce.ubc.ca/amazon3/pl.asp"
'----------
htobj.UserAgent = Request.ServerVariables("HTTP_USER_AGENT")
htobj.Accept = Request.ServerVariables("HTTP_ACCEPT")
htobj.ContentType = Request.ServerVariables("CONTENT_TYPE")
htobj.RequestMethod = Request.ServerVariables("REQUEST_METHOD")
'----------
thobj.Proxy = "192.168.0.57:80"
'----------
if Request.Form.Count <> 0 then
  iCount = 0
  for each objItem in Request.form
    iCount = iCount + 1
    postext = postext + objItem + "=" + Request.form(objItem)
    if iCount <> Request.Form.Count then postext = postext + chr(38)
  Next
End If
htobj.PostData = postext
'----------
sUrl = Request("ur")
'----------

'assign the URL you pass in to htobj
htobj.url = sUrl

'get the content of the htobj and store it in strResult.
strResult = htobj.geturl

'if InStr(sUrl,"ilm-redirect") <> 0 Then
'if InStr(sUrl,"obido") = 0 Then
if InStr(strResult, "pnm") <> 0 then
```
```vbnet
'startPoint = InStr(sUrl, "http://www.Amazon.com/exec/obidos/ASIN/")
'endPoint = InStr(sUrl, "B000")

'p1=startPoint
'p2=endPoint
'length = p2 - p1 + 1
'sUrl = Mid(sUrl,80,10)
'sUrl=b_url+"?ur="+sUrl
response.redirect(sUrl)
'response.write(sUrl)

' varHREFArray = htObj.GetHREFs

' intHREFArrayLimit = UBound(varHREFArray) -1
' For I = 0 to intHREFArrayLimit
' Response.Write varHREFArray(I) & "<br>" & VBCrLF
' Next

Else

'*******************************************************************************

'---FUNCTION CALLS TO Delete Content

'*******************************************************************************

strResult = removeAverageCustomerReviewWithStars(strResult)

"Remove You may also like these items (you might also enjoy)
strResult = removeYouMayAlsoLikeTheseItems(strResult)

' removeRateThisItemBoxOnLeft
' Step 1
strResult = removeRateThisItemBoxOnLeft1(strResult)
' Step 2
strResult = removeRateThisItemBoxOnLeft2(strResult)
' Step 3
strResult = removeRateThisItemBoxOnLeft3(strResult)

'Step 4, kill the Rate this item blue image on top of the box

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/detail/rate-this-item-eyebrow-musi.gif"+chr(34)+" width=155 height=19 alt="+chr(34)+"Rate This Item"+chr(34)+"">"<br>
actResult15=""
```
strResult=replace(strResult,actMatch15,actResult15)

'**** Change the link for the top Amazon logo to going to the default page

actMatch9="<a href=/exec/obidos/subst/home/redirect.html/ref=nh_music/
actResult9="<a
  browse/-/465672/ref=m_mh_mn_nf"
strResult=replace(strResult,actMatch9,actResult9)

'******* Beginning OF removeilm-redirectLink **********
'-- in New & Future Releases
'-- kill those links that will lead to redirect to default pages due to URL checking

'strResult = removeilmredirectLink(strResult)

'--- Kill "Used Price: $11.25"
'--- In "Hot New & Future Releases" section

Do while Instr(strResult, "Used Price</a>:\") <> 0
strResult = removeUsedPriceDollars(strResult)
Loop

' Kill See All New From $12.50
strResult = removeSeeAllNewFromDollars(strResult)

' Kill See All Used From $12.50
strResult = removeSeeAllUsedFromDollars(strResult)

' -- no Buy used

actMatch9="buy used"
actResult9=""
strResult=replace(strResult,actMatch9,actResult9)

' -- no Buy Collectable
actMatch9="buy collectible"
actResult9=""
strResult=replace(strResult,actMatch9,actResult9)

'**** Remove Your Gold Box image on upper right corner
strResult = removeYourGoldBox(strResult)

'**** Remove More Buying Choices
strResult = removeMoreBuyingChoices(strResult)
strResult = removeMoreBuyingChoices0(strResult)
strResult = removeMoreBuyingChoices1(strResult)
strResult = removeMoreBuyingChoices2(strResult)

'delete ready to buy image
actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/detail/buybox/ready-to-buy-02.gif"+chr(34)+" width=190 height=18 alt="+chr(34)+"Ready to Buy?"+chr(34)+">"
actResult15=""
strResult=replace(strResult,actMatch15,actResult15)

'delete more choice image
actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/detail/buybox/more-buying-choices-01.gif"+chr(34)+" width=190 height=17 border=0>"
actResult15=""
strResult=replace(strResult,actMatch15,actResult15)

'delete the little blue corner on the bottom left
actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/detail/buybox/bl-01.gif"+chr(34)+" width=6 height=6>"
actResult15=""
strResult=replace(strResult,actMatch15,actResult15)

'delete the little blue corner on the bottom right
actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/detail/buybox/br-01.gif"+chr(34)+" width=6 height=6>"
actResult15=""
strResult=replace(strResult,actMatch15,actResult15)

' change light blue table color to white, so it is transparent
actMatch15="#99CCFF"
actResult15="#FFFFFF"
strResult=replace(strResult,actMatch15,actResult15)

'--- nO Get it for less!

actMatch9="Get it for less!"
actResult9=""
strResult=replace(strResult,actMatch9,actResult9)

' DELETE THE BUT IT USED IMAGE

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/detail/preorder-buy-it-used-button-detail-page.gif"+chr(34)+" width=91 height=20 align="+chr(34)+"absmiddle"+chr(34)+" border="+chr(34)+"0"+chr(34)+">"
actResult15=""
strResult=replace(strResult,actMatch15,actResult15)

' DELETE THE BUY BOTH NOW IMAGE

actMatch15="<input type=image name="+chr(34)+"submit.add-to-cart-with-promo"+chr(34)+" value="+chr(34)+"Buy Both Now"+chr(34)+" border=0 alt="+chr(34)+"Buy Both Now"+chr(34)+" src=http://g-images.amazon.com/images/G/01/buttons/buy-both.gif width=122 height=25 >"
actResult15=""
strResult=replace(strResult,actMatch15,actResult15)

strResult = removeRateThisItemLink(strResult)

' No Free Downloads
actMatch9="Free Downloads</a>&nbsp;&nbsp;|&nbsp;&nbsp;" 
actResult9="</a>"
strResult=replace(strResult,actMatch9,actResult9)

'No Essential CDs
actMatch9="Essential CDs</a>&nbsp;&nbsp;|&nbsp;&nbsp;" 
actResult9="</a>"
strResult=replace(strResult,actMatch9,actResult9)

'**** Remove See All New
strResult = removeSeeAllNew(strResult)

' --- Remove So you would like to table rows after the SEARCH 
strResult = removeSoYouWouldLikeToTableRows(strResult)
'--- Remove ListMania ! table rows after the SEARCH
strResult = removeListManiaTableRows(strResult)

'--- Remove Rate Album You Own Link in the left navi bar
strResult = removeRateAlbumYouOwnLink(strResult)

' remove the "So you would like to Box on the bottom left corner of each product page
strResult = removeSoYouWouldLikeToBox(strResult)

' remove the "You may also like box on the bottom left corner of the search result page
strResult = removeYouMayAlsoLikeTableRows(strResult)

'--------- This function remove "Our Customers' Advice" section in product page. This shows
only
'in certain CDs (such as "Be Not Nobody",
http://www.amazon.com/exec/obidos/ASIN/B0000646TK/)
--------- For ALL Conditions ----------------------------------------
strResult = RemoveOurCustomerAdvice(strResult)

'--- remove What's Your Advice?
strResult = RemoveWhatIsYourAdvice(strResult)

'-- Remove the Browse the Music in .... section ---------------
strResult = RemoveBrowseMusicIn(strResult)

'-- Remove the popular in and all its links in the upper part of product page -------------
strResult = removePopularInLinks(strResult)

"******** Function to remove View online books link Under the top Nav Bar
"**** Two functions: Top and Bottom !!
strResult = removeViewOnlineBookLinkTop(strResult)
strResult = removeViewOnlineBookLinkBottom(strResult)

'--Remove add to shopping cart blue box table Step 1,2
strResult = removeAddToShoppingCart1(strResult)
strResult = removeAddToShoppingCart2(strResult)
'-- Helper function 1, 2, 3 for above
'-- Helper 1
strResult = removeAddToShoppingCartHelper1(strResult)
'-- Helper 2
strResult = removeAddToShoppingCartHelper2(strResult)
'-- Helper 3 - to kill the Guaranteed picture

'actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/detail/shopping-with-us-is-safe.gif"+chr(34)+" width=150 height=25 align=center border=0>"
'actResult15=" "
strResult = replace(strResult, actMatch15, actResult15)

'--Remove the Buy and Sell Used Item Table Step 1,2
strResult = removeBuyAndSellUsedItemTable1(strResult)
strResult = removeBuyAndSellUsedItemTable2(strResult)

'--Remove the Add to Wish list and Wedding Registry Table Step 1,2
strResult = removeWeddingRegistry1(strResult)
strResult = removeWeddingRegistry2(strResult)

'***** Remove editorial review Link
strResult = removeEditorialReviewLink(strResult)

'***** Remove customer review Link
strResult = removeCustomerReviewLink(strResult)

'***** Remove rate this item
strResult = removeRateThisItemLink(strResult)

'***** Remove See more by this artist
strResult = removeSeeMoreByThisArtistText(strResult)

'***** Remove All Album by artist Name Link
strResult = removeAllAlbumByLink(strResult)

'***** Remove Free Downloads by Artist Name LINK
strResult = removeFreeSongsDownloadsBy(strResult)

'***** Remove Essential Recording By Artist Name LINK
strResult = removeEssentialRecordingsByLink(strResult)
strResult = removeCustomersAlsoBoughtText(strResult)

strResult = removeTheseAlbumsLink(strResult)

strResult = removeTheseOtherItemsLink(strResult)

strResult = removeShareYourThoughtsText(strResult)

strResult = removeWriteAReviewLink(strResult)

strResult = removeCheckPurchaseCirclesLink(strResult)

strResult = removeEmailAFriendAboutThisItemLink(strResult)

strResult = removeSoYouWouldLikeToLink(strResult)

strResult = removeEnyaOnTopLink(strResult)

strResult = removeUsedPriceSection(strResult)

strResult = removePopularIn(strResult)

strResult = removeLi(strResult)
strResult = removeLi1(strResult)
strResult = removeLi2(strResult)
'strResult = removeLi3(strResult)
'strResult = removeLi4(strResult)

'-- remove International Sites links at the bottom
strResult = removeInternationalSites(strResult)

'-- remove Rate this item to get Personal Recommendations
strResult = removeRateThisItemToGetPersonalRecommendationSection(strResult)

'-- remove Blue Box Bottom
strResult = removeBlueBoxBottom(strResult)

'-- remove Average Customer Review Section
strResult = removeAverageCustomerReviewSection(strResult)

'-- remove So You would like to section
strResult = removeSoYouWouldLikeToSection(strResult)

'-- remove Customers who bought this title also bought:
strResult = deleteAlsoBought(strResult)
strResult = conv_hrals(strResult)

'-- remove Customers who SHOPPED for this item also shopped:
strResult = deleteWhoShopped(strResult)

'-- remove Customers who shopped for this item also shopped

'-- remove deleteEditorialReviews:
strResult = deleteEditorialReviews(strResult)

'-- remove deleteCustomerReviews:
strResult = deleteCustomerReviews(strResult)

'-- remove AUctions and zShops:
strResult = deleteAuctions(strResult)

'--- remove Auctions and zShops type 2
strResult = removeAuctionAndZshopsType2(strResult)
strResult = removeAuctionAndZshopsType3(strResult)

'--remove Listmania
strResult = deleteListmania(strResult)

'--remove Free Downloads
strResult = deleteFreeDownloads(strResult)

'-- remove Where is my stuff FORM section
strResult = removeWhereIsMyStuffSection(strResult)

' **********************
'-- Delete Words in the page
' **********************

'-- Delete the link on top of the page - VIEW CART WISH LIST YOUR ACCOUNT

actMatch14="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/cartwish/right-topnav-default-2.gif'+chr(34)+" width=300 height=22 alt="+chr(34)+chr(34)+" USEMAP=#right_top_nav_map border=0">"
actResult14=""
strResult=replace(strResult,actMatch14,actResult14)

'-- Delete Images on the Navigation Bar on TOP
**** Off Image ONLY

'--- WELCOME ---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/welcome-off-whole.gif"+chr(34)+" width=60 height=26 border=0>"
actResult15=""
strResult=replace(strResult,actMatch15,actResult15)

'--- Your Store ---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/yourstore-unrec-off-sliced.gif"+chr(34)+" width=47 height=26 border=0>"
actResult15=""
strResult=replace(strResult,actMatch15,actResult15)
'--- Books ---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/books-off-sliced.gif"+chr(34)+" width=39 height=26 border=0>"
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

'--- Electronics ---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/electronics-off-sliced.gif"+chr(34)+" width=74 height=26 border=0>"
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

'--- DVD ---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/dvd-off-sliced.gif"+chr(34)+" width=35 height=26 border=0>"
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

'--- TOYS ---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/toys-off-sliced.gif"+chr(34)+" width=47 height=26 border=0>"
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

'--- BABY ---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/baby-off-sliced.gif"+chr(34)+" width=40 height=26 border=0>"
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

'--- VIDEO GAMES ---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/videogames-off-sliced.gif"+chr(34)+" width=73 height=26 border=0>"
actResult15=" "

144
strResult=replace(strResult,actMatch15,actResult15)

'--- TOOLS and GARDENS ---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/hi-off-sliced.gif"+chr(34)+" width=62 height=26 border=0">"
actResult15=""
strResult=replace(strResult,actMatch15,actResult15)

'--- Tools and Hardware ---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/hi-off-sliced.gif"+chr(34)+" width=62 height=26 border=0">"
actResult15=""
strResult=replace(strResult,actMatch15,actResult15)

'--- Gifts ---

'actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/gifts-off-sliced.gif"+chr(34)+" width=45 height=26 border=0>"'
'actResult15=""
'actResult15=replace(strResult,actMatch15,actResult15)

'--- HEALTH and BEAUTY ---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/drugstore-off-sliced.gif"+chr(34)+" width=50 height=26 border=0>"
actResult15=""
strResult=replace(strResult,actMatch15,actResult15)

'--- IN THEATER ---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/theatrical-off-sliced.gif"+chr(34)+" width=56 height=26 border=0>"
actResult15=""
strResult=replace(strResult,actMatch15,actResult15)

'--- TRAVEL -------

145
actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/travel-off-sliced.gif"+chr(34)+" width=45 height=26 border=0>"
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

"---- CARS -----

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/cars-off-sliced.gif"+chr(34)+" width=35 height=26 border=0>"
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

"---- OUTDOOR LIVING -----

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/garden-off-sliced.gif"+chr(34)+" width=59 height=26 border=0>"
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

"---- KITCHEN -----

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/kitchen-off-sliced.gif"+chr(34)+" width=70 height=26 border=0>"
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

"---- COMPUTERS -----

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/computers-off-sliced.gif"+chr(34)+" width=70 height=26 border=0>"
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)
'---- CELL PHONE -----

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/wireless-off-sliced.gif"+chr(34)+" width=81 height=26 border=0>">
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

'---- VIDEO -----

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/video-off-sliced.gif"+chr(34)+" width=43 height=26 border=0>">
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

'---- PHOTO -----

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/photo-off-sliced.gif"+chr(34)+" width=52 height=26 border=0>">
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

'---- SOFTWARE -----

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/software-off-sliced.gif"+chr(34)+" width=58 height=26 border=0>">
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

'---- SEE MORE STORE -----

147
actMatch15 = "<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/see-more-off-sliced.gif"+chr(34)+" width=70 height=26 border=0">
actResult15 = ""
strResult = replace(strResult, actMatch15, actResult15)

'--- Magazine Subscription ---

actMatch15 = "<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/magazines-off-sliced.gif"+chr(34)+" width=78 height=26 border=0">
actResult15 = ""
strResult = replace(strResult, actMatch15, actResult15)

'--- Corporate Account ---

actMatch15 = "<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/corporate-off-sliced.gif"+chr(34)+" width=70 height=26 border=0">
actResult15 = ""
strResult = replace(strResult, actMatch15, actResult15)

'--- Store Directory ---

actMatch15 = "<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/homegarden-off-sliced.gif"+chr(34)+" width=64 height=26 border=0">
actResult15 = ""
strResult = replace(strResult, actMatch15, actResult15)

'<img src="http://g-images.amazon.com/images/G/01/nav/personalized/tabs/homegarden-off-sliced.gif" width=60 height=26 border=0>

'--- Home and Garden ---

actMatch15 = "<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/homegarden-off-sliced.gif"+chr(34)+" width=60 height=26 border=0">
actResult15 = ""
strResult = replace(strResult, actMatch15, actResult15)

'--- Your Store ---

actMatch15 = "<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/yourstore-unrec-off-dropdown.gif"+chr(34)+" width=47 height=26 border=0>"
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

'--- Office Product---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/nav/personalized/tabs/office-products-off-sliced.gif'+chr(34)+" width=59 height=26 border=0">
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

'--- Apparel Top---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/apparel/coat_tab2_t.gif'+chr(34)+" width=70 height=34 border=0">
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

'--- Apparel Bottom---

actMatch15="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/apparel/coat_tab2_b.gif'+chr(34)+" width=70 height=26 border=0">
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

'--- Replace Amazon Logo with Amazon Music Logo at very TOP

actMatch31="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/associates/navbar2000/logo-no-border(l).gif'+chr(34)+" width=148 height=43 alt="+chr(34)+" USEMAP=#logo_top_nav_map border=0">
actResult31="<img src="+chr(34)+"http://g-images.amazon.com/images/G/01/v9/icons/music-new.gif'+chr(34)+" width=250 height=36 border=0><br><br>
strResult=replace(strResult,actMatch31,actResult31)

'-- Delete Image Map for FREE DOWNLOADS
'-- V1

actMatch9="coords="+chr(34)+"367,0,453,27"+chr(34)+""
actResult9=" "
strResult=replace(strResult,actMatch9,actResult9)
'-- V2
actMatch9="coords"+chr(34)+"384,0,478,27"+chr(34)+"
actResult9=" 
strResult=replace(strResult,actMatch9,actResult9)

'-- Delete Image Map for ESSENTIAL CDS
actMatch9="coords"+chr(34)+"455,0,527,27"+chr(34)+"
actResult9=" 
strResult=replace(strResult,actMatch9,actResult9)

'-- Delete Image Map for Gift Ideas
actMatch9="coords"+chr(34)+"479,0,532,27"+chr(34)+"
actResult9=" 
strResult=replace(strResult,actMatch9,actResult9)

'-- Delete Image Map for USED CDS
'-- V1
actMatch9="coords"+chr(34)+"529,0,590,27"+chr(34)+"
actResult9=" 
strResult=replace(strResult,actMatch9,actResult9)

'-- V2
actMatch9="coords"+chr(34)+"532,0,588,27"+chr(34)+"
actResult9=" 
strResult=replace(strResult,actMatch9,actResult9)

'-- Delete Add to Wish List Orange icon at various places
actMatch15="<input type="+chr(34)+"image"+chr(34)+" value="+chr(34)+"Add to Wish List"+chr(34)+" name="+chr(34)+"submit.add-to-registry.wishlist"+chr(34)+" src=http://g-images.amazon.com/images/G/01/buttons/add-to-wl-yellow.gif border="+chr(34)+"0"+chr(34)+" height=20 width=113">
actResult15=" 
strResult=replace(strResult,actMatch15,actResult15)

'-- Delete Add to Cart Orange icon at various places
actMatch15="<input type="+chr(34)+"image"+chr(34)+" value="+chr(34)+"Add to Shopping Cart"+chr(34)+" name="+chr(34)+"submit.add-to-cart"+chr(34)+" src=http://g-images.amazon.com/images/G/01/buttons/add-to-cart-yellow-short.gif border=0 width=113 height=20>
actResult15=" 
strResult=replace(strResult,actMatch15,actResult15)

'-- Delete Preorder this item Orange icon at various places
actResult15="<p><center><b><a
href="+chr(34)+"http://www.amazon.com/exec/obidos/tg/browse/-/5174"+chr(34)+">Music
Home</a>&nbsp;&nbsp;</b> | <b><a
href="+chr(34)+"http://www.amazon.com/exec/obidos/tg/stores/static/-
music/search"+chr(34)+">Music Search</a>&nbsp;&nbsp;</b>|<b>&nbsp;&nbsp;<a
href="+chr(34)+"http://www.amazon.com/exec/obidos/tg/browse/-
/301668"+chr(34)+">Browse
Styles</a>&nbsp;&nbsp;</b>|<b>&nbsp;&nbsp;<a
href="+chr(34)+"http://www.amazon.com/exec/obidos/tg/browse/-
/573448"+chr(34)+">Classical</a>&nbsp;&nbsp;</b>|<b>&nbsp;&nbsp;<a
href='http://www.amazon.com/exec/obidos/tg/browse/-/538588'>Top
Sellers</a>&nbsp;&nbsp;</b>|<b>&nbsp;&nbsp;<a
href="+chr(34)+"http://www.amazon.com/exec/obidos/tg/browse/-
/465672"+chr(34)+">New &
Future Releases</a>&nbsp;&nbsp;</b>
'
strResult=replace(strResult,actMatch15,actResult15)

actMatch31="bgcolor=#3333cc"
actResult31=" "
strResult=replace(strResult,actMatch31,actResult31)

'---- END OF REPLACING THE TOP BLUE NAVI BAR WITH TEXT LINKS ----
'---- END OF NOT USED -----------------------------------------------

-- END OF Delete Images on the Navigation Bar on TOP***********************

----- Delete the view book online images on top navigation bar ---------

actMatch15="<img src="+chr(34)+"http://g-
images.amazon.com/images/G/01/books/inside/stripe/stripe-top.gif"+chr(34)+" width=589
height=22 alt="+chr(34)+"+chr(34)+" border=0>"
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

actMatch15="<img src="+chr(34)+"http://g-
images.amazon.com/images/G/01/books/inside/stripe/stripe-bottom*height=15
alt="+chr(34)+"+chr(34)+" border=0>"
actResult15=" "
strResult=replace(strResult,actMatch15,actResult15)

actMatch31="See larger picture"
actResult31=" "
strResult=replace(strResult,actMatch31,actResult31)

actMatch31="Sign in"
actResult31=" "
strResult=replace(strResult,actMatch31,actResult31)

'-- no Your Favorites

actMatch9="Your Favorites"
actResult9=" "
strResult=replace(strResult,actMatch9,actResult9)

'** Delete BLUE BOX Content ***********************

actMatch10="(Use if you're redeeming a promotional certificate or coupon.)"
actResult10=" "
strResult=replace(strResult,actMatch10,actResult10)

actMatch18="(We'll set one up for you)"
actResult18=" "
strResult=replace(strResult,actMatch18,actResult18)

'** Delete Share your thoughts under the BLUE BOX

actMatch20="<input type="+chr(34)+"image"+chr(34)+" src=http://g-images.amazon.com/images/G/01/buttons/add-to-wishlist-yellow.gif border="+chr(34)+"0"+chr(34)+" height=20 width=101 name="+chr(34)+"submit.add-to-wishlist"+chr(34)+"">"
actResult20=" "
strResult=replace(strResult,actMatch20,actResult20)

actMatch21="View my Wish List"
actResult21=" "
strResult=replace(strResult,actMatch21,actResult21)

'** END of Delete Share your thoughts under the BLUE BOX
"These following codes delete the links at the bottom for various purposes

actMatch21="review</a> it."
actResult21="</a>"
strResult=replace(strResult,actMatch21,actResult21)

actMatch21="I have listened to this recording, and I want to"
actResult21=""'
strResult=replace(strResult,actMatch21,actResult21)

actMatch21="E-mail a friend about this item</a>.
actResult21="</a>"
strResult=replace(strResult,actMatch21,actResult21)

actMatch21="Write a So You'd Like to... guide</a>.
actResult21="</a>"
strResult=replace(strResult,actMatch21,actResult21)

actMatch21="Check purchase circles</a>.
actResult21="</a>"
strResult=replace(strResult,actMatch21,actResult21)

actMatch21="Correct</a> errors and omissions in this listing."
actResult21="</a>"
strResult=replace(strResult,actMatch21,actResult21)

actMatch21="<li>Is there a specific product you'd like us to sell?"
actResult21=""'
strResult=replace(strResult,actMatch21,actResult21)

actMatch21="Tell us</a> about it.</li>"
actResult21=""'
strResult=replace(strResult,actMatch21,actResult21)

actMatch21="<li><a href=/exec/obidos/tg/stores/detail/"
actResult21="<a href=/exec/obidos/tg/stores/detail/"
strResult=replace(strResult,actMatch21,actResult21)

actMatch21="<li><a href=/exec/obidos/guide-create/"
actResult21="<a href=/exec/obidos/guide-create/"
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155
'----- Beginning of Kill Bottom Text !!!

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actResult21=" 
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actResult21=""
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'Delete ADD FAVORITES button on HOME PAGE on the left navigation bar
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'Delete 'ADD TO SHOPPING CART SMALL BUTTON on HOME PAGE on various search result

'Delete ADD FAVORITES button on HOME PAGE on the left navigation bar
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'******** KEYWORD USED FOR ABOVE FUNCTIONS SO REMOVED LAST!!
'-- modifying the links
'*****************************************************************************
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strResult=replace(strResult,actMatch2,actResult2,1,-1,1)

*****************************************************************************
edpos=1
stpos=1
dim exl
DIM arrayHrefs(3000)
iCount=0
do while(true)
    stPos=instr(stpos+1,strResult,"href",vbtextcompare)
edPos=instr(stpos+1,strResult," ",vbtextcompare)
ed1Pos=instr(stpos+1,strResult,">",vbtextcompare)
    if(stpos=0)then exit do
    if(edPos < ed1Pos) then
        arrayHrefs(iCount) = mid(strResult, stPos, (edPos-stPos))
    else
        arrayHrefs(iCount) = mid(strResult, stPos, (ed1Pos-stPos))
    end if
    iCount=iCount+1
loop
tempstr="|"

For I = 0 to icount
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    if instr(1,newurl,"href=/exec") = 1 then
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    elseif instr(1,newurl,"href=" & chr(34)& "/exec") = 1 then
newurl="href=" & chr(34)& b_url & "?ur=http://www.amazon.com" &
mid(newurl,7,7000)
elseif instr(1,newurl,"href=" & chr(34)& "http://") = 1 then
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elseif instr(1,newurl,"href=http://") = 1 then
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    elseif instr(1,newurl,"href /=exec") = 1 then
        newurl="href=" & b_url & "?ur=http://www.amazon.com" & Mid(newurl,6,7000)
    elseif instr(1,newurl,"HREF=/exec") = 1 then
        newurl="HREF=" & b_url & "?ur=http://www.amazon.com" & Mid(newurl,6,7000)
    elseif instr(1,newurl,"HREF=" & chr(34)& "http://") = 1 then
        newurl="HREF=" & chr(34)& b_url & "?ur=" & mid(newurl,7,7000)
    elseif instr(1,newurl,"HREF=http://") = 1 then
        newurl="HREF=" & b_url & "?ur=" & mid(newurl,6,7000)
end if
if instr(1,tempstr,arrayHrefs(I))=0 then strResult=replace(strResult,arrayHrefs(I),newurl)
tempstr=tempstr & arrayHrefs(I) & "|"
Next
Response.Write strResult
end if
%>
Appendices 6.1-6.3

Amazon.com - Screen-shots
Appendix 6.1: Screen Shot 1

Welcome to Your Recommendations

Hello, nanda@commerce.. Explore today’s featured recommendations. (If you’re not nanda@commerce, click here.)

Music Recommendations
Elliott Smith, XO

Elliott Smith’s fourth solo album and major-label debut, XO, brings narrative detail and a wide range of emotion to an indie meld of ’60s-style rock and folk-pop. Whether in the broken heartleness of “Waltz #2 (XO),” the Sgt. Pepper tribute of “Baby...” Read more

See more in Pop, Rock, and other Music Recommendations

Books Recommendations
Value Nets: Breaking the Supply Chain to Unlock Hidden Profits

Book Description
Find out how companies like Dell, Coca-Cola, and IBM profit from the hidden strategic value of their supply chain.

With the supply chain accounting for sixty to eighty percent of many companies’ total costs, managers are focusing on extracting greater... Read more

See more in Literature & Fiction, Health, Mind & Body, and other Books Recommendations

DVD Recommendations
Traffic

Featuring a huge cast of characters, the ambitious and breathtaking Traffic is a tapestry of three separate stories woven together by a common theme: the war on drugs. In Ohio, there’s the newly appointed government drug czar (Michael Douglas) who... Read more

Continue shopping on the Amazon.com home page

Edit Your Collection
Total items: 7
Items not rated: 0
Excluded items: 0

Recommended Authors, Artists & Directors

Enigma
- Sadness
- The Cross of Changes
- Momev A.D.

- More Artists

Haim Mendelson
- Survival of the Smartest

- More Authors
Appendix 6.2: Screen Shot 2

BOOK INFORMATION

Availability: Usually ships within 24 hours. This is a bargain book; quantities are limited. Find out more about the condition of bargain books.

EASY RETURNS Read more

See larger photo

BUY & SELL USED ITEMS

22 used from $6.50

I have one to sell Sell yours here

Hardcover - 320 pages (May 2000)

Amazon.com Sales Rank: 7,885

Popular in: Electronic Data Systems (#19), Computer Sciences Corp. (#16)

nanda@commerce., you'll love this! Your predicted rating is: ★★★★★ (why?) Don't agree? Rate it.

Average Customer Rating: ★★★★★ Based on 33 reviews. Write a review.

Customers who bought this book also bought:

- ePrizes: Building an Internet Business at Breakneck Speed by Phil Carpenter
- Value Nets: Breaking the Supply Chain to Unlock Hidden Profits by David Bovee, et al
- E-Prize: High-Profit Strategies for Capturing the E-Commerce Edge by Peter S. Cohan
- Blown to Bits: How the New Economics of Information Transforms Strategy by Philip Evans, Thomas S. Wurster

Explore similar items

Editorial Reviews

Amazon.com

God forbid that doing business and making money on the Internet should bear any resemblance whatsoever to the past millennia of bricks-and-mortar capitalism...
Appendices 7.1 – 7.11

Experimental Manipulation
Screen-shots
Appendix 7.1: Home Page

New & Future Releases

Browse Hot Releases

• Hot New Releases

• Hot Future Releases

Browse All Music Releases by Week

<table>
<thead>
<tr>
<th>Date</th>
<th>Artists/Albums</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 15, 2002</td>
<td>Faith Hill, Tracy Chapman, Fleetwood Mac, Warren Zevon, More</td>
</tr>
<tr>
<td>November 19, 2002</td>
<td>Shania Twain, New Kids on the Block, Matt Damon, More</td>
</tr>
<tr>
<td>October 22, 2002</td>
<td>Santana, Red Hot Chili Peppers, Aerosmith, More</td>
</tr>
<tr>
<td>November 26, 2002</td>
<td>Jennifer Lopez, Paul McCartney, Barbra Streisand, Bob Dylan, More</td>
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<tr>
<td>October 29, 2002</td>
<td>Christina Aguilera, 10cc (Deluxe Limited Edition), More</td>
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<tr>
<td>November 5, 2002</td>
<td>12, Justin Timberlake, Andrea Bocelli, David Gray, More</td>
</tr>
<tr>
<td>December 3, 2002</td>
<td>Nas, Nas, Issa, Babyface, More</td>
</tr>
<tr>
<td>November 12, 2002</td>
<td>Tlc, Mariah Carey, Barry Manilow, Elton John, More</td>
</tr>
<tr>
<td>December 17, 2002</td>
<td>Thievery, Justin Guarini, Dashboard Confessional, More</td>
</tr>
</tbody>
</table>

Hot New & Future Releases

- **American IV**: Johnny Cash
  - Price: $12.98 You Save: $6.00 (32%) Used & new from $11.97

- **One More Car, One More Rider**: Eric Clapton
  - Price: $20.99 You Save: $3.99 (16%) Used & new from $18.47

- **Forty Licks**: Rolling Stones
  - Price: $19.98 You Save: $10.00 (33%) Used & new from $17.47

- **Stones & Guitars**: Willie Nelson & Friends
  - Price: $12.98 You Save: $6.00 (32%) Used & new from $8.98

- **Only Time**: Enya
  - Price: $47.99 You Save: $11.99 (20%)

- **Morelenbaum / Sakamoto**: Antonio Carlos Jobim (Composer), Ryuichi / Morelenbaum, Jaques Sakamoto (Composer)
  - Price: $16.49 You Save: $1.49 (8%) Used & new from $9.99

- **Elvis' 30 #1 Hits**: Elvis Presley
  - Price: $13.98 You Save: $6.00 (30%) Used & new from $9.99

- **Home**: Dina Chambers
  - Price: $13.49 You Save: $5.49 (29%) Used & new from $11.49

- **Live in Paris**: Diana Krall
  - Price: $13.49 You Save: $5.49 (29%) Used & new from $12.37

- **Up**: Peter Gabriel
  - Price: $13.49 You Save: $5.49 (29%) Used & new from $8.99

**More Hot New & Future Releases**

Great Prices on New Releases

Check out these discounted new CDs from all genres.

- **Sea Change**, Beck
- **Yoshimi Battles the Pink Robots**, the Flaming Lips
- **The Doorway**, Betty Buckley
- **The Wraith**, Shaggy-Le, Isaac Cvetin Poste
- **Your Songs & Fullblads**, Tim Bresnan
Appendix 7.2: Search Section

Search Music

Popular Music Artist, Title, Label Search
You do not need to fill in all fields.

Artist: 
Title: 
Label: 

Format: CD Cassette DVD Audio Vinyl

Used only: 

Search Now Clear the Form

Or,

Popular Music Song Title Search
Enter one or more keywords from the song title that interests you

Song Title: 

Search Now Clear the Form

Looking to search Classical & Opera Music? Use our Classical & Opera Music Search.


Looking for used, out of print, or hard to find music? Try searching for Music in Amazon.com zShops.

Search Examples:

Popular Music Artist, Title, Label Search:
- Entering "davis, miles" in the Artist field finds titles by Miles Davis.
- Entering "road" in the Album Title field finds titles with the word "road" (e.g. Abbey Road by The Beatles, The Road to Ensenada by Lyle Lovett, etc.).
- Entering "exile" in the Album Title field and "stones" in the Artist field finds Exile on Main Street by the Rolling Stones.
- Entering "warner" in the Label field finds titles on the Warner Brothers label.

Popular Music Song Title Search
- Entering "bright" finds titles that feature songs including the word "bright".
- Entering "bright gun" finds the CD University by Throwing Muses, which features the song "I'm a Bright Yellow Gun".

More Search Tips

Free Pay nothing after rebate for Motorola's hottest cell phone.

Over $2,000 in savings and free shipping on select toys.

Get $50 off your next purchase when you spend $249 on

www.amazon.com

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## Appendix 7.3: Browse Section

**Browse Styles**

**Free Downloads**

- *Best of 2001* - Essentials by Style - Essentials by Artist - Essentials by Composer - DVD-Audio - Instruments - Used Music

- **Indie Music**
  - Independent releases from all genres
- **International**
  - European, Latin, Reggae, Asian, Celtic...
- **Jazz**
  - Vocal, Cool, Bebop, Fusion, Swing, Acid, by Instrument...
- **Latin**
  - Latin Pop, Salsa, Brazilian Jazz, Rock en Español, Cuban Music...
- **Miscellaneous**
  - Comedy, Karaoke, Interviews, Wedding Music, Holiday Music...
- **Music Accessories**
  - Blank Tapes, CD Cases, Music Videos, MP3 Players...
- **New Age**
  - Meditation, Celtic, Environmental, Ambient...
- **Opera & Vocal**
  - Composers, Historical Periods, Languages, Singers...
- **Pop**
  - Teen Pop, Adult Contemporary, Oldies...
- **R&B / Soul**
  - Contemporary, Classic, Funk, Motown...
- **Rap & Hip-Hop**
  - Gangsta, West Coast, East Coast, Underground, Old School...
- **Rock**
  - Blues Rock, Folk Rock, Jam Bands, Progressive...
- **Soundtracks**
  - Movie Soundtracks, Movie Scores, TV Soundtracks...
- **Today's Deals in Music**
  - Great deals in all genres

For the best in jazz, blues, R&B, folk, world, and classical music check out our label stores!

---

**Music Search | Browse Styles | Classical | Top Sellers | New & Future Releases**

Amazon.com Home | Directory of All Stores

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![Free V60](bottom-left)
Pay nothing after rebate for Motorola's hottest cell phone. Hurry, limited-time offer.

![Big Toy](bottom-center)
Over $2,000 in savings and free shipping on select toys—only orders of $99. Shop now!

![50 Offer](bottom-right)
Get $50 off your next purchase when you spend $249 on Calphalon cookware offered by Amazon.com.
Appendix 7.4: Classical Section

Classical: Instrumental Store

Glenn Gould, A State of Wonder: The Complete Goldberg Variations

Glenn Gould's legendary 1955 and 1981 recordings of Bach's Goldberg Variations are packaged together and completely remastered on A State of Wonder. Included in this essential, budget-priced set is a bonus interview disc with critic Tim Page and Gould discussing the two works. Even if you already own these recordings, you'll want this new set. Other new Classical: Instrumental releases:

- Emerson String Quartet, The Emerson Encore
- Jocelyne Saillant, Vivant d'Amour, L'Orchestre des Pays Basque
- Midori, French Violin Sonatas: Poulenc, Debussy

Opera & Vocal Store

Irish Tenors

The compilation The Very Best of the Irish Tenors collects some of your favorite songs by the beloved trio. Here are more titles in our Opera & Vocal Store to check out:

- Barbra Streisand, The Essential Barbra Streisand
- Ennio Morricone, The Best of Ennio Morricone
- Renée Fleming, Bel Canto

Essentials by Composer

Bach, Beethoven, Mozart, and more

Whether you're looking to start a collection or add to one, check out our Composer Essentials section. Our classical critics pick the best recordings by:

- J.S. Bach
- Brahms
- Mahler
- Mozart
- Puccini
- Wagner

See our complete list.

Classical for Beginners Store

Carlos Kleiber Performs Beethoven's Symphonies 5 & 7

Carlos Kleiber's legendary recording of Beethoven's Symphonies 5 & 7 is still a Classical music bestseller. It's no wonder; this definitive gem has drama, great playing, and awesome sound. If you get one Beethoven disc for your collection, this should be it. More can't-miss Classical recordings:

- Glenn Gould, Bach's Goldberg Variations
- Leonard Bernstein and the New York Philharmonic, Copland: Appalachian Spring
- Maria Callas, Puccini: Aida, Vol. 1

More to Explore

Learn about Amazon.com's Co-op and Review Policy.

Sell Your Used Items

It's fast. It's easy. It's money in your pocket. Get started!

Build a Store on Your Web Site

Team up with Amazon.com to sell CDs. It's easy!
Appendix 7.5: Top Sellers Section

Our most popular items. Updated Hourly.

1. **U2 - The Best of 1990-2000 [Deluxe Limited Edition w/ Bonus DVD] [LIMITED EDITION]**
   by U2 (Audio CD -- November 5, 2002)
   No customer rating available.
   Be the first to review it.
   Usually ships within 24 hours
   - List Price: $25.99
   - Price: $19.99
   - You Save: $6.00 (23%)
   Used & new from $13.99

2. **A Wonderful World**
   by Tony Bennett, K.J. Lang (Audio CD -- November 5, 2002)
   No customer rating available.
   Be the first to review it.
   Usually ships within 24 hours
   - List Price: $46.88
   - Price: $13.49
   - You Save: $33.39 (72%)
   Used & new from $11.89

3. **It Had to Be You... The Great American Song Book**
   by Rod Stewart (Audio CD -- October 22, 2002)
   Avg. Customer Rating: 4 stars out of 5
   Usually ships within 24 hours
   - List Price: $46.88
   - Price: $13.49
   - You Save: $33.39 (72%)
   Used & new from $11.89

4. **Come Away with Me**
   by Norah Jones (Audio CD -- February 26, 2002)
   Avg. Customer Rating: 5 stars out of 5
   Usually ships within 24 hours
   - List Price: $46.88
   - Price: $13.49
   - You Save: $33.39 (72%)
   Used & new from $11.89

5. **Sentimento: Andrea Bocelli with Lorin Maazel and the London Symphony Orchestra [Limited Edition w/ Bonus Track] [ENHANCED]**
   by Andrea Bocelli (Audio CD -- November 5, 2002)
   No customer rating available.
   Be the first to review it.
   Usually ships within 24 hours
   - List Price: $46.88
   - Price: $13.49
   - You Save: $33.39 (72%)
   Used & new from $11.89

6. **8 Mile (Deluxe Limited Edition) [SOUNDTRACK] [EXPLICIT LYRICS]**
Appendix 7.6: Product Page for Condition 1 (LP, LC)

Al Green - Greatest Hits

List Price: $14.66
Price: $13.49
You Save: $1.17 (8%)

Used & new from $8.99

Availability: Usually ships within 24 hours

Great Buy

Buy this album with More Greatest Hits — Al Green today!
Buy Together Today: $25.47

Product Details

- Essential recordings: Al Green
- Audio CD (August 1, 1995)
- Original Release Date: April 1975
- Number of Discs: 1
- Label: Capitol
- ASIN: B000002PP
- Other Editions: Audio Cassette, DVD Audio
- Amazon.com Sales Rank: 1,018

Listen to Samples

To hear a song sample, click on any song title below that is followed by . Visit our audio help page for more information.

1. Tired of Being Alone
2. Call Me (Come Back Home)
3. I'm Still in Love With You
4. Here I Am (Come and Take Me)
5. Love and Happiness
6. Let's Stay Together
7. I Can't Get Next to You
8. You Ought to Be With Me
9. Look What You Done for Me
10. Let's Get Married
11. Livin' for You [*]
12. Sha-La-La (Make Me Happy) [*]
13. L.O.V.E (Love) [*]
14. Full of Fire [*]
15. Belle [*]
Appendix 7.7: Product Page for Condition 4 (HP, HC)
Appendix 7.8: Product Page for Condition 4 – Continued (HP, HC)

Editorial Reviews

Amazon.com essential recording
One of the must-have soul albums, Greatest Hits is fattened with five extra tracks in this reissue. Al Green brought the Memphis Sound into the '70s by slightly softening it, melding smooth funkiness with his miraculous voice and unabashed sensuality: his love songs, while perfect for the bedroom, are as conversational as they are blatantly seductive. By adding the likes of "Belle," a 1977 single that's a near-goodbye to the pop list, to the original lineup of "Let's Stay Together," "Look What You Done for Me," "Call Me," and the others, this edition of Greatest Hits also intriguingly fills out the story. --Rickey Wright

Spotlight Reviews (what's this?)

5 of 5 people found the following review helpful:

★★★★★ Still In Love With Al Green, Sho Nuff, December 3, 2001
Reviewer: Eanna Gamblin (see more about me) from Cypress, TX USA
I bought this album simply because it makes me happy. The music is great and it inspires great memories within me. We danced to this album on Holidays. I love Al Green's passion, and mood making. His voice is so awesome. This is truly wonderful ear and soul candy. It's hard to find a good love song now that doesn't break out into a rap song, so I tend to stay with the older soul and R&B music.

One really can't listen to any of the songs and not feel moved in some way. My favorite song on this collection is 'Tired of Being Alone'. It is a good example of his voice, and the range. Other awesome songs are 'Love and Happiness', 'Here I am', and the wonderful love ballad 'Let's Get Married'. There are so many other songs on here though that showcase his talent all the more. Describing each song would have me here until the next millennium!

Whether he is pelting out a gospel tune or a soul one, it's a hit with me. His voice is like no other and it's pure joy, pain, and laughter all bunched into one. If it's good you feel it. And you will feel it.

One song I strongly suggest checking out that isn't on this album is:

For The Good Times (commonly referred to as 'Lay your head on my pillow') - More Greatest Hits Album

Either way you go, you can't go wrong. Al Green is timeless and wonderful!

Was this review helpful to you?  Yes  No

6 of 6 people found the following review helpful:

★★★★★ Smooth and perfect - gets better every listen, April 21, 2001
Reviewer: John (see more about me) from Okinawa, Japan
Why is Al Green so much better than so many recording artists who think that they have soul?

Al doesn't sound forced or unnatural, and rarely shows you the full range of expression of which he is capable. The biggest hit that he ever had, 'Let's Stay Together,' begins with Al and the background vocalists whispering, and thereafter he does not raise his voice much from that. All the parts are very subtle, each instrument seemingly arranged to disturb the whole the least. It's simple, danceable, and has real dynamics, even when the songs are generally quiet.

While I appreciate R&B made in the last twenty years, I don't like the group of mainly female vocalists who think that soul is shrieking your way up and down a given scale. Saying more with less notes is the heart of soul, and it makes
Appendix 7.9: Product Page for Condition 4 – Continued (HP, HC)

Buy this. It's tremendously... for the value, and if you

Was this review helpful to you? [YES] [NO]

All Customer Reviews
- Avg. Customer Review: ★★★★★
- ★★★★★ Greatest Hits, November 1, 2002
  Reviewer: G Gouws from South Africa
  I am trying the Back Tracks of the Album Precious Lord - quite desperate - can you help me.
  Was this review helpful to you? [YES] [NO]

- ★★★★★ THE Collection, August 8, 2002
  Reviewer: Sashatuan (see more about me) from Jackson, MS United States
  The sublimey unique and timeless productions of Willie Mitchell at Hi Records, all with marvelous musicianship, and one amazing voice made Al Green demand the title of The Last Great Soul Singer. A greatest hits collection is meant to be just that. Not overkill, but more of an introductory album to turn people on, so they in turn, dive into the vaults all they can. In that sense, this is the best greatest hits package I have ever seen. There's only one disappointing omission in "Take Me To The River". The marvelous musicianship comes courtesy of the unequaled Memphis Horns of Stax Records (Otis Redding, Sam & Dave) fame. The Hi rhythm section consisted of three brothers, Charles Hodges on organ, Leroy Hodges on bass, and Mabon "Teenie" Hodges on guitar. And these gentlemen play like brothers. The telepathic interplay between these wonderful "studio rats" is rivaled only by cross town session legends, the mighty Stax house band, Booker T. & the MGs. The secret ingredient of these soul masterpieces may be in fact, Booker T. & the MGs' drummer, Al Jackson, Jr., whose infectious grooves are utterly contagious. Nowhere does this masterful combination gel better than on "Love and Happiness", co-written by Green and guitarist, Teenie Hodges. All four musicians are so perfect, yet so soulful, the horn arrangements are spectacular, and let's not forget, the last great soul singer. There are also bonus tracks, including "Belle", an admirably touching and inspiring song, where Green's conscience wavers between a woman, "Belle", and God. One can't help but draw the metaphors in the song to Green soon after going from "Here I am, baby" to "Here I am, Lord." This is a must have collection.
  Was this review helpful to you? [YES] [NO]

Customers who bought titles by Al Green also bought titles by these artists:
- Marvin Gaye
- Otis Redding
- Aretha Franklin
- Barry White
- The Isley Brothers

- See all customer reviews...

Explore similar artists

Listmania!
- CDs better than ones on other lists: A list by Joseph Hoffman. Not hard of hearing
- Sex in the City: A list by Kevin Cole
- The Best Old School Greatest Hits Collections: A list by Jason Ryan, College Student

Browse for music in:
- Styles > R&B > Classic R&B
- Styles > R&B > General
- Styles > R&B > Soul > General
Appendix 7.10: More Personalization for Condition 4 (HP, HC)

**People who bought items by this artist...**

<table>
<thead>
<tr>
<th>Artist</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al Green</td>
<td>Al Green - Greatest Hits</td>
</tr>
<tr>
<td>Marvin Gaye</td>
<td>The Very Best of Marvin Gaye</td>
</tr>
<tr>
<td>Otis Redding</td>
<td>The Very Best of Otis Redding, Vol. 1</td>
</tr>
<tr>
<td>Aretha Franklin</td>
<td>30 Greatest Hits</td>
</tr>
<tr>
<td>Barry White</td>
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