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EFFECTS OF WEB 2.0 VERSUS WEB 1.0 AFFORDANCES ON CONSUMER
PERCEPTIONS OF A COMPANY

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Abstract

Technological advancements of the internet, collectively known as Web 2.0, allow for a greater level of interaction between users. Businesses are rapidly adopting Web2.0 applications such as social networking sites as marketing tools. Based on the affordance approach to new media technology, this study aims to understand the effect of technologies (Web 1.0 vs. Web 2.0) on attitudes and perceptions of the consumer toward the company and toward the Web site. This research examines these issues by outlining literature on affordances of Web 2.0, comparing them to what is known of Web 1.0, and testing this comparison experimentally.

The purpose of this study is establishing effects of interaction with consumers via social media and highlighting different affordances of Web 2.0 versus Web 1.0 media technologies. This research examines effects of exposure through new internet technologies, such as social media, on consumer perception of a company.

A 2 (Web site type) x 2 (company) between-subjects experimental design uncovered an overall trend of no significant difference in effects of Web 1.0 versus Web 2.0. Results also revealed participants (n=82) in the Web 1.0 condition were more likely to feel engaged with the Web site, to have a more positive attitude toward the Web site (when controlling for pre-existing attitudes toward the company) and to have a more positive behavioral intention toward the Web site. The effect on behavior intention was mediated by attitude toward the Web site.

Analyses also exposed an interaction between Web 1.0 versus Web 2.0 and assigned company on customer service measures. These results suggest that the effects of a business presence in social networking sites may be conditional to the perceived appropriateness and quality of a company's Facebook use. Theoretical and practical implications are discussed, leading to suggestions for directions of future research on the commercial effects of Web 2.0.

Table of Contents

INTRODUCTION	1
LITERATURE REVIEW	2
Web 2.0 Affordances	2
Reviewing Web 1.0	5
Table 1	7
Effects Research	8
METHODS	11
Design Overview	11
Participants	11
Stimulus Material	12
Dependent Measures	14
PROCEDURE	16
Pretest	16
Tasks and Post Test	16
Table 2	18
RESULTS	19
Data Reduction	19
Hypothesis Testing	19
Figure 1-4	21
Figure 5-6	22
Figure 7-9	23
Summary of Key Findings	24
DISCUSSION	24
Interpretation	24
Limitations	29
Practical Implications	30
Future Research	30
References	32
APPENDIX A: Indices with individual measures	35
APPENDIX B: Additional Results	38
APPENDIX C: Media Stimuli Web sites	42

INTRODUCTION

The concept of “Web 2.0” has been attributed to a brainstorming session between Tim O’Reilly, CEO of O’Reilly Media, and MediaLive International (O’Reilly, 2005). Officially coined in 2004 by O’Reilly Media Inc. Vice President Dale Dougherty, the designation referred to the rebirth of the Internet platform following the 2001 burst of the dot-com bubble. Foreseeing a turning point for the Web, O’Reilly Media pioneered the Web 2.0 Conference as a summit for Internet leaders to gather for debate and to determine business strategy.

Web 2.0 is a fairly young concept. A vast amount of literature exists regarding Web 2.0 implications for education and healthcare. Now, as corporations enter the 2.0 realm of social networks, it is important to understand what effects such interactions may have on consumer attitudes and perceptions both for the sake of user privacy and cost-efficient and effective marketing tactics.

According to Tuten (2008), social media presence of a business is of growing importance. The expansion of social media leads to the “sin of omission” or the negative effect of not being present within a social network. Consumers may find a corporate social media presence beneficial as a result of the ability to share honest praises, condemnations, and reviews of company products and services. This study serves as the foundation for research involving what role Web 2.0 platforms should play in the relationship between the consumer and a company. It aims to set a foundation for future research that may uncover the validity of hype surrounding social media marketing.

Research Question: For consumers, controlling for existing attitudes toward the company, what are the effects of Web 1.0 versus Web 2.0 sites on consumer attitudes and perceptions of the company and Web site?

LITERATURE REVIEW

Computer-based technologies have been found to alter the social psychology of communication (Kiesler, Siegel, & McGuire, 1984). Scholars have investigated the influence of a medium's structure on user reactions to the medium's content (Reeves & Nass, 1996).

While traditional media-effects research manipulates media content as an independent variable, assuming all other variables are held constant, effects-based technology research examines non-content aspects as independent variables by keeping content constant (Sundar, 2009).

The current investigation examines effects on the user when both content and structural aspects of the technology are varied. This means that the content and structure of a Website are studied as a whole for their effects on user responses. This type of examination allows for a comparison between the effects of Web 1.0 as a whole and Web 2.0 as a whole.

Today, Web 1.0 and Web 2.0 coexist. Web 2.0 is a more fully implemented version of the Web (Anderson, 2007). This is a result of technological advancements of Web 2.0 that provide affordances to the user. It is based on such affordances as sharing content, harnessing the power of the crowd, network effect and user generated content that this study attempts to compare the effects of Web 1.0 and Web 2.0.

Web 2.0 Affordances

The precise definition of Web 2.0 is highly debated by scholars. It is safe to say that Web 2.0, as a new generation of tools and services on the Internet, may be defined as the sum of its parts. According to Funk (2009), based on his understand of the writings of O'Reilly (2005) he categorized the hallmarks of Web 2.0. Web 2.0, now considered a platform, is an interactive computer application that has the ability to harness collective intelligence. Online collaboration

of users, like wikis and open-source development, allows for people to work together to create, edit, and enhance information available on the Web. Web 2.0 depends on the quality and open availability of data as opposed to its location and format. Since Web 2.0 allows for applications to be served via the Web, software upgrades are now more rapid and constant and the software release cycle is inconsequential. Lightweight programming modules of Web 2.0 allow Websites to be more interactive with users, other sites, and data sources. High bandwidth connections, animation, and streaming audio and video result in a more dynamic and entertaining web and richer user experiences. The final hallmark of Web 2.0, according to Funk (2009) is growing mobility; software and Internet distribution among personal computers, PDAs, cell phones, and other mobile devices. This attempt to conceptualize Web 2.0 presents the complexity of composing a concrete definition. Web 2.0 is not one single type of software, but a variety of services and applications, each presenting its own affordances to the user (Cooke & Buckley, 2007).

An affordance is the presence of an “action possibility” suggested by the technology (Gibson, 1977; Norman, 1999). Attributes of Web 2.0 applications enable their respective affordances and individual aspects of the user have great impact in determining the extent of the effects such an affordance will have on his or her response.

Included in the bubble of Web 2.0 are applications and services such as search engine giants like Google, eCommerce sites like eBay, social networks, streaming video networks, blogs, tagging and social bookmarking sites, multimedia sharing site, RSS feeds, and wikis (Funk, 2009; Anderson, 2007). Research of Web 2.0 overwhelming attributes its key affordances to interactivity and user control (Anderson, 2007; Funk, 2009; Tuten, 2008). Other

affordances of Web 2.0 are sharing, communication and information discovery (McLoughlin & Lee, 2007).

A majority of literature focuses on Web 2.0 as a social transformation with interactivity at its very core (Tuten, 2008; Funk, 2009). The tools afforded by Web 2.0 have enabled the extension of social relationships and interaction beyond the physical boundaries of the past (Cram, Kuswara & Richards, 2008).

Interactivity in new media can be linked with user psychology as a Source Feature (Sundar, Xu, & Bellur, 2010). For example, in Web 2.0, users may adopt the status of source, not just receiver, of content. This describes a customization affordance that gives consumers the ability to disseminate their likes, dislikes, wants, and needs (Sundar, Xu, & Bellur, 2010). Therefore, in Web 2.0, control of content is equally in the hands of average users along with than corporate site owners. The Agency Model of Customization (Sundar, 2008) conceptualizes this by stating that such interactivity, along with modality and navigability, affords agency to users (i.e., they perceive themselves as sources). Interactivity, as previously discussed, affords dialogue between users, speed, and function. Modality as a technological variable contributes rich-user experiences and the means for self-representation while navigability provides an individualized experience and a range of levels of interaction. According to the Agency Model of Customization, these affordances of Web 2.0 technology promote a sense of agency and by doing so, directly affect cognitive, affective, and behavioral responses of the user (Sundar, 2008).

According to Sundar and Nass (2001), when the perceived source of online content is other users, the content is liked more and perceived to be higher quality than when the perceived source of identical content is news editors. When it came to liking, quality, and representativeness of news stories, other users as source garnered the most positive story ratings

(Sundar & Nass, 2001). These findings would suggest higher ratings of Web 2.0 media which lends to the perception of user as source rather than the traditional gatekeeper, the company, as source afforded by Web 1.0.

Web 2.0 is not only faster and more interactive than Web 1.0, but rich media content, always-on connections, streaming video, webcasts, music downloads and multiplayer role-playing games have become expected as a part of the online experience. These affordances have allowed the Web to take a place among traditional entertainment media (Funk, 2009).

Reviewing Web 1.0

Residing on the opposite end of the Internet spectrum is Web 1.0 which, in comparison to Web 2.0, is characterized by a set of linked information sources (McLoughlin & Lee, 2007). What scholars have referred to as a “paradigm shift” is the transformation from the Web as a medium of communication between applications to the Web as the application itself (Cram, Kuswara & Richards, 2008).

The World Wide Web, introduced by Tim Berners-Lee in 1991, offered those affordances that today are referred to as Web 1.0. Web 1.0 is a collection of static information uploaded and updated by hand and used for text displays and simple graphics (Funk, 2009). The keyword when it comes to Web 1.0 is static. In comparison to the dynamic, rapidly expanding information of Web 2.0, new Web 1.0 content was uploaded to servers piecemeal everyday (Funk, 2009).

Research has uncovered effects of regular, Web 1.0 sites on the user. Studies of Web 1.0 effects in the infancy of the Internet resulted in negative effects of the technology when it comes to politics. Johnson, Braima, and Sothirajah (1999) found no significant correlation between use of the Internet and voter knowledge. Early studies also found that Internet users reported high

levels of political distrust. Researchers acknowledge low adoption rate and individual characteristics of early adopters of the Internet as explanations for such findings (Johnson, Braima, & Sothirajah, 1999).

A more recent study found that the Internet effects citizen to government interaction by improving service delivery and by improving communication between citizens and government (Fountain, 2001; Peterson and Seirfert, 2002). Wellman, Haase, Witte and Hampton (2001) found that, in terms of socialization, effects of the Internet on social contact are supplementary. Results of their study suggested the Web 1.0 Internet increases organizational involvement and interpersonal connectivity, both exposes users to more contact and information and potentially reduces commitment to community.

Previous studies have shown that higher levels of perceived interactivity on a company Web site result in more positive attitudes toward the company and Website (e.g. McMillan, Hwang & Lee, 2003). Researchers investigating the features (high or low) and tone of content (informational or transformational) of a Web 1.0 site found a significant effect on attitude toward the Web site. In a Web1.0 company site, low features and informational content revealed the most positive attitude toward Web site suggesting that an affordance of Web 1.0 may be responsiveness to information inquiries (McMillan, Hwang & Lee, 2003). .

Concerning Web 1.0 effects on perception of the company, a previous study revealed a significant positive relationship between a recruitment Web site's interactivity level and user's perception of the organization (Guillory & Sundar, 2008). This suggests that while the interactivity affordance of a Web 1.0 company Web site can be manipulated, it is viewed a positive interface feature.

The previously mentioned findings regarding Web 1.0 effects on corporate image and Web site perceptions propose that a company Web site may have positive or negative effects on consumer attitudes and perceptions of the company and Web site depending on the features and content of the site.

Cram, Kuswara, and Richards (2008) integrated their findings with the original O'Reilly (2005) model to conceptualize the differences between Web 1.0 and Web 2.0 services. See Table 1.

Table 1:

Table 1: Web 1.0 Vs. Web 2.0 by observation (expanded from O'Reilly, 2005)

<i>Basic service</i>	<i>Web 1.0</i>	<i>Web 2.0</i>	<i>New characteristics</i>
Online advertisement	DoubleClick	- Google AdSense	Dynamic advertisement based on the page content
Photo sharing	Ofoto	- Flickr & MySpace	Personalized templates, tagging, annotating & comment
Website	personal websites	- blogging	Peer to peer source & each downloading machine becomes server
File sharing	Akamai	- BitTorrent	Open content & collaboratively written
Music sharing	Mp3.com	- Napster	Event request & comments from collective users
Online encyclopaedia	Britannica Online	- Wikipedia	Marketability
Online event organizing	Evite	- upcoming.org & EVDB	Navigation behaviour
Identity	domain name speculation	- search engine optimisation	Merging into 1 platform: The Web.
Visitors volume	Page views	- cost per click	Democratisation of authorship
interfacing 2 programs	screen scraping	- web services	Open content
Centralized authorship	Publishing	- participation	User-defined
Centralized managed content	content management systems	- wikis	Federated provider
Pre-defined	directories (taxonomy)	- tagging ("folksonomy")	
Single provider	stickiness	- syndication	

Summarising O'Reilly's (2005) observations of the new web-based applications, Table 1 is adapted to show the distinctions between this new breed of characteristics with their counterparts; further annotation on the outer columns are added to clarify the explanations.

From Cram, Kuswara & Richards, 2008

Effects Research

Emerging research is examining the effects of various Web 2.0 technologies such as social media in general, blogs, electronic word of mouth (EWOM) and user-generated content (UGC). In 2006, just one year after the emergence of Web 2.0, the *Time Magazine* person of the year was awarded to “YOU,” a result of the proliferation of bloggers and other forms of UGC on the Web.

According to Tuten (2008) the affordances of social media (UGC, message boards, review sites, blogs, social networking site...) embody the notion of democratization and allow user engagement with a company on a more distinct level. Consumers have the opportunity to examine the company’s personal characteristics, assess their personal relationship with the company, interact with the company, create information regarding their own views of the company and share it with other consumers.

Regardless of a consumer’s background, socioeconomic status or geographic location, EWOM provides a wide and diverse set of information about companies, products and services. A prior relationship is no longer required to exchange opinions with another individual. According to Funk (2009), EWOM is the highest ranking trusted source of product information. Studies on the effects of EWOM found higher interest in product category among participants assigned to view user-generated information than among those who viewed marketer generated content. Research has suggested this trend exists because UGC is perceived to be more relevant and credible by other users (Schindler & Bickart, 2005).

Research by Funk (2009), characterizes the effects of Web 2.0 technologies by their impact on entertainment, advertising, eCommerce, and search. He considers the unbundling effect of Web 2.0 on the entertainment industry. For example, television shows are no longer

tied to advertisements and single songs are no longer tied to full albums. An effect of the Web 2.0 affordance of user control is a higher consumer demand for more control of what they watch, read and listen to. Video sharing sites such as Youtube have shifted viewing habits to shorter-form video.

Online advertising is currently a \$20 billion per year industry. This number is increasing by approximately 30 percent each year. Funk (2009) attributes this rapid growth to a higher respect for display ads due to the affordance of rich media and video ads, cost-per-click ads on search engines, social network affordance of user-customized content that allows for personalized advertising, and the rapid and dynamic growth of the Web resulting in millions of new pages in need of a business model.

Afforded by Web 2.0 technologies on eCommerce sites, users can personalize their interaction to dynamically search and compare products. The effects of personalized interaction are increased conversion rates, simplification of complex products and higher engagement of the shopper (Funk, 2009).

In Web 1.0, search is limited to words on a Web page and results are determined location and frequency of the searched term. In contrast, search in Web 2.0 adds off-the-page criteria and a specific algorithm to determine results. The ranking of hyperlinks is interpreted as a signifier of site popularity and relevance.

Tuten (2008) believes democratization of media would not be possible without Web 2.0 technologies. She attributes this phenomenon to the Web 2.0 affordance of user-generated content (UGC). UGC is made publically available online, reflects some creative effort on the part of the user, and is created outside of professional practice. Examples of UGC are blogs, wikis, message board posts, photos and videos. The emergence of UGC has led to multiple effects.

Primarily, as opposed to Web 1.0, Web 2.0 is characterized by shared control over content development and distribution. In an effect called crowdsourcing, professional work, such as news reporting, is commonly accomplished using content from the general public. In effect, online social networks have become the modern public square.

While the number of affordances provided by Web 2.0 is clear, this study narrows the broad landscape of Web 2.0 by focusing on social media, specifically the social network Facebook, and social media marketing. Social media offers its own affordances for marketing as a Web 2.0 technology above and beyond those of traditional marketing. Literature on advertising in Web 2.0 says affordances of social media encourage interaction between consumers and the brand. This interaction can enhance a brand's personality, differentiate a brand from competitors and contribute to a perceived relationship (Tuten, 2008). In what he terms Media Effects 2.0, Sundar (2009) supported the notion that technology is not secondary, but connected, to the effects of content. Characterized as a sum of affordances, Web 2.0 technologies as well as content influence the cognitive responses of the user. For this reason, this study looks for a difference between Web 1.0 and Web 2.0 effects on attitude toward the company.

Given the lack of previous research comparing the effects of Web 1.0 and Web 2.0, a specific directional hypothesis is not proposed for the current investigation. The differences in affordances between Web 1.0 and Web 2.0 technologies as outlined in the previous section would lead to the expectation of differences between Web 1.0 and Web 2.0 media in favor of the Web 2.0 condition. However, the literature on positive aspects of Web 1.0, such as the ability for the company to control communication around its products and services and the greater presence of factual information may be an argument for finding no difference or a difference in

favor of Web 1.0. Therefore, this study executes a test of competing ideas on the effects of Web 1.0 versus Web 2.0 on consumer's attitudes and perceptions.

METHODS

Design Overview

A 2 (Web site type) x 2 (company) between-subjects experimental design was used to examine the effects of different affordances of Web 1.0 and Web 2.0 on user's attitude toward and perceptions of a company and the Web site. The companies selected for the study were Hewlett-Packard (HP), a technology product and service provider; and Southwest Airlines, an air travel service provider. These companies were appropriate for the study for multiple reasons, including participant familiarity, social media activity and website content. Southwest Airlines and HP both represented companies who dealt with products and services requiring a level of inquiry before making a purchase decision. Both companies have company Web sites and active fan pages on the social networking site, Facebook. Participants were randomly assigned to one of four groups (Web 2.0-HP, Web 1.0-HP, Web 2.0-Southwest, Web 1.0- Southwest) in pre-post test experiment. These assignments determined two main conditions. Half of the participants were assigned to the Web 2.0 website and half were assigned to the Web 1.0 website of one of two companies selected for the study.

Participants

A total of 130 undergraduate students were recruited from several Communication classes at The Pennsylvania State University during the spring semester of 2010. Students were recruited in person for participation in an undergraduate study concerning "the consumer to business relationships through the Internet." The recruitment information did not include any mention of social media to avoid any contamination of the sample. Students who showed interest

in participating were asked to provide their email address to be contacted with further information regarding the study. Students were instructed to read and accept implied consent forms prior to beginning the study. After the initial recruiting, participants were only contacted via email from the principal investigator throughout the duration of the study.

Stimulus Material

In the Web 1.0 condition, participants were assigned either to browse the company Web site of Southwest Airlines or HP. In the Web 2.0 condition, participants were assigned to either the Southwest Airlines Facebook fan page or the HP Facebook fan page. At the time of the study, Southwest Airlines had approximately 748,000 Facebook fans and HP had approximately 39,000 Facebook fans. The company websites of both Southwest Airlines and HP, while extensive, did not easily link users to the companies' respective social media pages. This attribute was essential to prevent participant contamination during the extent of the study.

The live company Web sites and Facebook "fan" pages, as opposed to created screen shots, were used for the experiment. Using live page was necessary in order for participants to get the full user experience of each site. The company Web sites and Facebook pages all has multiple tabs, all with valuable (and possibly interactive) content. If a participant is engaged enough to click on a link posted by the company, it is essential that they be able to follow through on that link to allow for a full extent of the effect of the medium. Most of the participants were familiar with the Facebook interface. Consequently, looking at a screen shot would be very noticeable, possibly even distracting and confounding to the purpose of the study. Tasks, sent daily for the duration of the study, were employed in order to control for distractions that may arise while on the Internet and especially when logging in to a personal Facebook account.

In order to gain valid results of the effects of Web sites and Facebook, participants must get the full experience (both positive and negative) that goes along with interacting with a company on their site or fan page. Without strong reason to artificially control perusal of the Web site or Facebook page, and given that the real company sites were the stimulus of interest, allowing participants to browse the actual Facebook page of the organization was required in order to enhance both ecological and internal validity of the experiment.

The four assigned sites represented the manipulation of Web 1.0 and Web 2.0, the independent variable of concern in the experiment. Web 2.0 may be considered a consequence of a fuller implementation of the aims of Web 1.0 (Anderson, 2007). For example, social networking sites such as Facebook fan pages afford the user the possibility to share content by posting hyperlinks, to harness collective intelligence by showing comments of other users and the number of fans of the company, to network by viewing profiles and messaging the company representatives and other “fans”, and to create their own content by posting comments on the wall or in the discussion tab of the page. In contrast, a Web 1.0 site presents content to the user but lacks the affordance of sharing. When it comes to the power of the crowd, the easiest example of the contrast between Web 1.0 and Web 2.0 regards the source of information.

According to Anderson (2007), when acting independently and collectively, the ‘crowd’ may be more reliable than any one individual. This is supported by the previously discussed findings of Sundar and Nass (2001) that revealed “other users” to be highly regarded sources. In the Web 2.0 condition, the primary source of content is the ‘crowd’ (which may include representatives of the company) while in Web 1.0, the source is singularly the company. On the Web 1.0 sites, the participants are not aware of other users visiting the site. This leads to little room for networking of any sort. Finally, while both Web 1.0 sites used in the study had their

own versions of a discussion forum (see appendix for screenshots) they were complicated to access, required registration to use and less frequently visited when compared to one of the main functions of the Web 2.0 pages, users generating and sharing content.

Dependent Measures

Based on the hypothesis, the study used 13 items to measure attitude and perceptions of the company and attitude and perceptions of the Web site. Attitudes and perceptions of the company items included attitude toward the company, product knowledge, purchase intention, customer service, and perceived coolness.

Attitude toward the company was adapted from a scale developed by Burner (1998). The specific items, Good/Bad, Appealing/Unappealing, Pleasant/Unpleasant, Attractive/Unattractive, Interesting/Boring, and Like/Dislike, were measured on a 7-point semantic-differential scale.

These were summed to create the Attitude to company index (Cronbach's $\alpha = .91$)

Product knowledge was measured by asking participants to respond by indicating their level of agreement with the following assertions on a scale of 1 to 7, with "1" meaning "strongly disagree" and "7" meaning "strongly agree:" (1) I feel very knowledgeable about the company; (2) If I had to make a purchase from the company today, I would need to gather very little information in order to make a wise decision; (3) I feel very confident about my ability to tell the difference in product quality between the company and its competitors. The product knowledge index was reliable (Cronbach's $\alpha = .80$).

Purchase intention was operationalized in terms of three Likert-type scaled items from 1 to 7, with "1" meaning "strongly disagree" and "7" meaning "strongly agree:" based on Bearden, Lichtenstein, and Teel (1984): (1) I would make a purchase from this company; (2) If financially able, I would be willing to purchase a product from this company; (3) How certain are you that

you would make a purchase from this company? These items were averaged (Cronbach's alpha=.92).

The items for the customer service index (Cronbach's alpha=.96) and perceived coolness index (Cronbach's alpha=.96) were both generated for media effects research by Sundar et. al. Customer service measures asked to indicate their level of agreement to assertions of the company on a scale of 1 to 7, with "1" meaning "strongly disagree" and "7" meaning "strongly agree," (see appendix).

Attitudes and perceptions of the Web site items included Web site credibility, ease of use, absorption, real-time conversation, engagement, behavioral intention toward Web site, perceived usefulness, and Web site attitudes.

Web site credibility measures, adapted from Mackenzie and Lutz (1989), were measured on a 7-point semantic-differential scale. The individual items, very unbelievable/very believable; Very biased/very unbiased; very convincing/very unconvincing; and one of the worst/one of the best, were summed to create the Web site credibility index (Cronbach's alpha=.66).

Items for the *Ease of use* (Cronbach's alpha=.94), *Real-time Conversation* (Cronbach's alpha=.89), *Engagement* (Cronbach's alpha=.73), *Behavioral intention* (Cronbach's alpha=.94), and *Perceived usefulness* (Cronbach's alpha=.89) indices were all adapted from Chang and Wang (2008). Participants were asked to indicate their level of agreement to all items on a scale of 1 to 7, with "1" meaning "strongly disagree" and "7" meaning "strongly agree," (see appendix).

Absorption, (Cronbach's alpha=.90) derived by Agarwal and Karahanna (2000) and *Attitude to the Web site* (Cronbach's alpha=.82) adapted from Chen, Clifford and Wells (2002)

were assessed similarly on scales of 1 to 7, with “1” meaning “strongly disagree” and “7” meaning “strongly agree,” (see appendix for individual items).

Control Measures

This study controlled for gender and prior attitude toward the company. Prior attitude was measured in the pre-test. The items and scale were identical to the dependent variable of attitude toward the company measured in the post-test.

PROCEDURE

After making a brief announcement in classes and obtaining email address of potential participants, the principle investigator emailed the implied consent form, URL of pre-test, assigned Web site URL, daily tasks, and URL of post-test to participants.

Pretest

A pre-test was incorporated in the study design to measure participants’ prior purchasing experience and interaction via the Internet with the assigned companies. The pre-test also measured attitude toward the company and perceived coolness of the company to gather baseline data. This data was intended to be used as a comparison to post test responses to attitude and coolness measures to see if attitude toward the company or perceived coolness of the company was impacted by interaction via a Web 2.0 platform. All of the measures in the pretest were repeated for two of the top competitors of the company as another level of comparison as well as to maintain internal validity. In the Southwest condition the competitors included American Airlines and Continental Airlines and in the HP condition, competitors were IBM and Dell.

Tasks and Post Test

In order to create an interaction between the consumer and company, a procedure was developed to ensure adequate browsing of an assigned website for the duration of one week.

After reading implied consent forms, participants completed a pre-test questionnaire which measured purchase behavior, prior attitude toward and perceived coolness of the company to which they would be assigned as well as two competitors of the company. The pre-test also measured for Internet usage and prior purchasing and Internet experience with the company. The day after completing the pre-test, participants were informed of their assigned website and given their first of seven daily tasks (See Table 2). One task per day for the seven days was sent to participants via email by the principal investigator. Participants were instructed to complete each task, identical across conditions, using their assigned website and to copy and paste their findings into a Word document. The daily tasks were intended to ensure the participants' thorough browsing of the assigned media stimulus.

Table 2:

Task	Wave One Tasks		Wave Two Tasks (Revised)	
1	Please create a user account on the company website.	Please use your current Facebook account to become a “fan” of the company. If you do not currently have a Facebook account you may create one.	Please create a user account on the company website.	Please use your current Facebook account to become a “fan” of the company. If you do not currently have a Facebook account you may create one.
2	Imagine that you are having a problem with a newly purchased product from company X. You would like to ask a customer service question about product Y. Search the company site or page to find who would you contact and how would you contact them in order to ask a customer service question about product Y. Please record your findings in a Word document.		Find the contact of a customer service representative that you could communicate with on your assigned website if you had a question or concern regarding the company or a product or service provided by the company. Please record your findings in a Word document.	
3	Search your assigned Web site to find the year that the company was founded. Record your findings in a Word document		Search the assigned website to find the year that the company was founded. While you are browsing for this information, find somewhere on the site that you (as a consumer) can create and post information. Record the steps that you would take to do so, as well as the year the company was founded, in a Word document.	
4	Find two product or service reviews by searching your assigned Web site, one positive review and one negative review. Copy and paste each and save them in a word document.		Record how many new posts or discussions have been <i>started this week</i> on the assigned Website. Are these comments mostly negative or positive? Next, find two product or service reviews or comments, one positive review and one negative review. Copy and paste each and save them in the word document and record the number of company or consumer comments on each post.	
5	Search your assigned Web site to find the name and supporting details about one campaign or sale the company is currently running. Record your findings in a Word document.		Post a comment regarding any information you encountered while browsing on a discussion page or forum on your assigned website. After posting, find another user's comment or discussion thread (a post with two or more comments) on the website. Read and copy and paste the entire thread into a Word document.	
6	Imagine you are considering the purchase of product Y from company X. Search your assigned Web site to find as much information about product Y as you feel is appropriate. Copy and paste this information into a Word document.		Imagine you are considering the purchase of a product or service from the company. After reading the home page of your assigned website, click through any two or three pages to find any information about you can about this product or service that you can. While browsing, if you notice any content that is new or different from your earlier visits this week, please copy and paste that content into your Word document as well.	
7	Post a comment regarding any information you encountered while browsing the website to complete your tasks on any discussion page or forum on your assigned website.		Search your assigned Website to find the information generated by the company (ex. name and supporting details) and any consumer generated content about one campaign or sale the company is currently running and then, to follow-up, return to the post or comment you created early this week. Copy and paste any comments or ratings of your content into a Word document.	

The tasks were revised for the second wave of participants due to concerns that original tasks were too Web 1.0 oriented. Wave 2 tasks were derived from the original tasks, to better balance out the nature of tasks typically associated with Web 1.0 and Web 2.0 media.

After completing all 7 daily tasks, participants were sent a link to a post questionnaire which measured attitude towards the company, attitude towards the website and perception of the company and website through multiple dependent variable measures. Pre and post questionnaires were identical across conditions with exception of the company name.

The location and time of completion of all daily tasks and questionnaires were at the discretion of each participant. Emails with instructions were sent between 7:30 a.m. and 8:30 a.m. each morning. The pre- and post-test were distributed and completed using surveymonkey.com.

RESULTS

Data Reduction

A total of 130 undergraduate students were recruited from several Communication classes at The Pennsylvania State University during the spring semester of 2010. Of those recruited, 82 valid responses were used for the analysis ($n=82$). The average age of the participants was 20.72 years ($SD= .93$). Sixty-six percent were female. Sixty percent were juniors; the rest were seniors (30%) or sophomores (10%).

62% of participants were assigned to a Southwest Airlines Web site; the rest to an HP Web site (38%). 52% were assigned to the Web 2.0 condition and forty-eight percent were assigned to Web 1.0.

Hypothesis Testing

Each dependent variable index was entered individually in a one-way ANOVA between the two Web site conditions (Web 1.0 vs. Web 2.0). There was no significant difference in

means between Web 1.0 subjects and Web 2.0 subjects for attitude toward the company, product knowledge, purchase intention, website credibility, ease of use, absorption with website, real-time conversation, perceived usefulness, coolness, and customer service indices.

However, when subjected to the same test, there was a significant main effect for the Web 1.0 vs. Web 2.0 on behavioral intention toward Web site, $F(1, 80) = 5.2, p < .05$, with a higher mean for Web 1.0 ($M = 3.8, SE = .2$) than Web 2.0 ($M = 3.2, SE = .19$).

A marginally significant main effect was found for Web 1.0 vs. Web 2.0 on engagement, $F(1, 80) = 3.16, p < .1$, with ($M = 4.8, SE = .14$) of Web 1.0 and ($M = 4.45, SE = .14$) of Web 2.0. Although no significant main effect was found for Web 1.0 vs. Web 2.0 on attitude toward the Web site, results approached significance when we controlled for pre-existing attitudes toward the company, $F(1, 79) = 3.12, p < .1$, with mean attitudes toward the Web 1.0 site ($M = 4.35, SE = .15$) being higher than mean attitudes toward the Web 2.0 site ($M = 4.0, SE = .14$).

Since there was a significant main effect on behavioral intention toward Web site, even when controlling for pre-attitude toward the company and, Baron and Kenny's (1986) causal steps approach was used to test whether Web site attitude was indeed a mediator of this relationship. Results showed that attitude toward Web site was a mediator for this relationship (See Appendix B for Mediation figure).

Baron and Kenny's (1986) causal steps approach was also used to test whether attitude toward the Web site was a mediator on Web site engagement, which had a marginally significant main effect ($p < .1$). The mediation analysis showed that attitude toward the Web site was also a mediator in this relationship

Although there was no significant main effect for many of the variables, a full-factorial analysis run with all dependent variable measures found nine measures with significant interaction effects between Web 1.0 and Web 2.0 and Assigned Company (HP or Southwest).

FIGURE 1: Interaction between Web 1.0 and Web 2.0 and Assigned Company on **Website enables real-time communication**

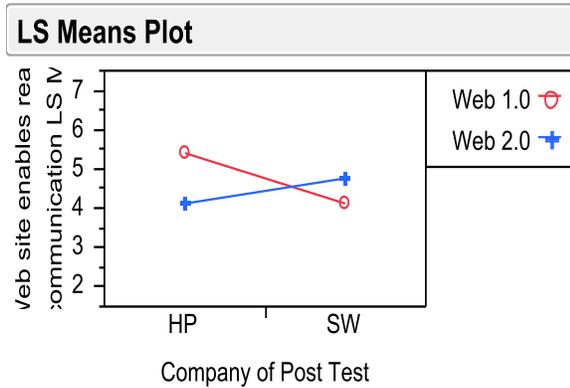


FIGURE 2: Interaction between Web 1.0 and Web 2.0 and Assigned Company on **Learning to operate web site was easy**

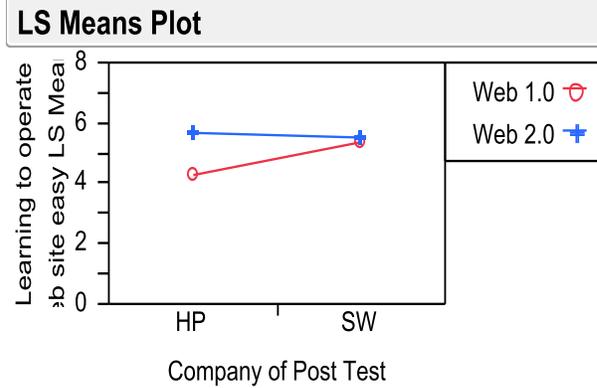


FIGURE 3: Interaction between Web 1.0 and Web 2.0 and Assigned Company on **Pleasantness of company** (higher scores indicate greater pleasantness)

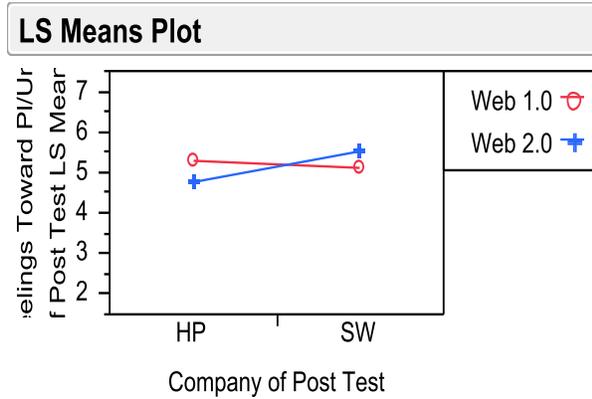


FIGURE 4: Interaction between Web 1.0 and Web 2.0 and Assigned Company on **Attractiveness of company** (higher scores indicate greater attractiveness)



As can be seen in Figure 1, participants were more likely to perceive the Web site as enabling real-time communication in the Web 1.0 condition when the assigned company was HP. There was no significant Web 1.0 vs. Web 2.0 difference for Southwest; $F(1, 77) = 9.1, p < .05$. As shown in Figure 2, responses to the ease of learning to operate the Web site are nearly

identical for the Web 1.0 condition of Southwest and the Web 2.0 condition of both HP and Southwest. However, for participants assigned to HP, the Web 1.0 condition makes responses become more negative; $F(1, 77) = 3.53, p = .064$.

As seen in Figure 3, participants assigned to an HP Web site were more likely to rate the Web 1.0 condition as more pleasant. This response was reversed for those assigned to a Southwest Web site; $F(1, 77) = 4.1, p < .05$. A marginally significant interaction was found between Internet condition and company on attractiveness of the company; $F(1, 77) = 3.11, p < .1$. Those assigned to an HP Web site elicited greater attractiveness of company in the Web 1.0 condition than in the Web 2.0 condition while the means for Web 1.0 and Web 2.0 are nearly identical in the Southwest condition (see Figure 4).

FIGURE 5: Interaction between Web 1.0 and Web 2.0 and Assigned Company on **Service personalized**

FIGURE 6: Interaction between Web 1.0 and Web 2.0 and Assigned Company on Responsiveness to customer concerns

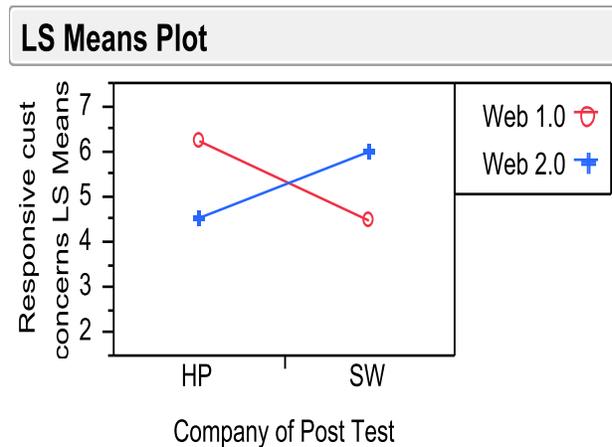
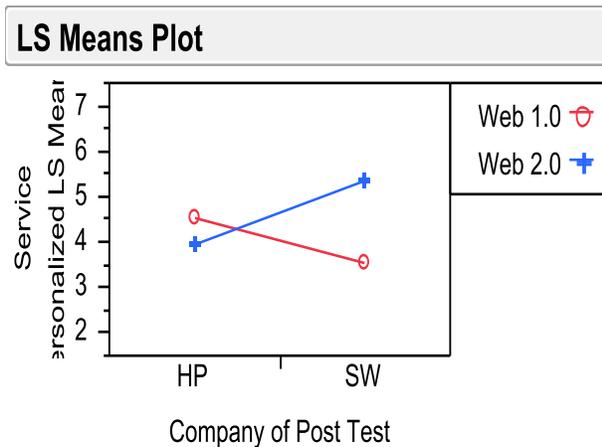


FIGURE 7: Interaction between Web 1.0 and Web 2.0 and Assigned Company on Sympathetic to customers' needs/views

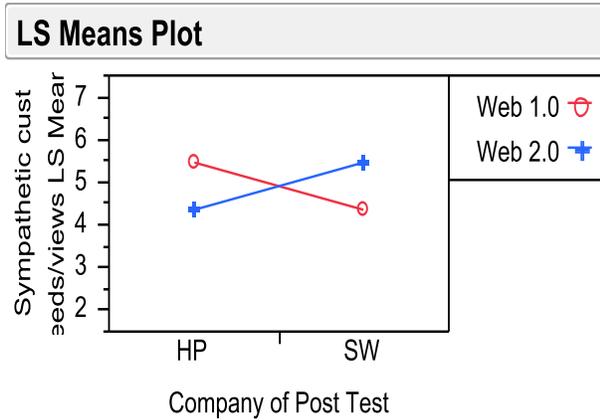


FIGURE 8: Interaction between Web 1.0 and Web 2.0 and Assigned Company on Interested listening to my concerns

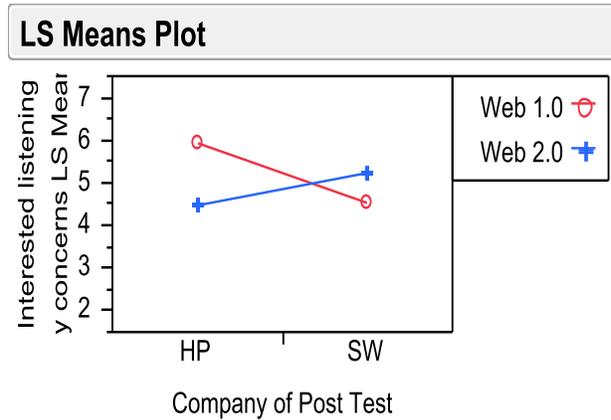


FIGURE 9: Interaction between Web 1.0 and Web 2.0 and Assigned Company on Cares about customers



A significant interaction was also found between

Internet site and company on the level of personalized service; $F(1, 18) = 6.33, p < .05$, and on level of agreement to the company's responsiveness to customer concerns; $F(1, 18) = 8.81, p < .05$. Figure 5 and Figure 6 show for the level of personalized service variable and level of agreement to the company's responsiveness to customer concerns Web 2.0 scored significantly higher than Web 1.0 in the Southwest condition whereas the trend is reversed in the HP condition.

Marginally significant interactions are found Web 1.0 versus Web 2.0 and company on sympathy to customer views and needs; $F(1, 18) = 3.70, p = .070$, interest in listening to concerns; $F(1, 18) = 4.15, p < .1$, and caring for customers; $F(1, 18) = 3.62, p < .1$. For all items, Web 2.0 scored higher than Web 1.0 in the Southwest condition whereas the trend is reversed in the HP condition with Web 1.0 scoring higher on all stated variables than Web 2.0 (See Figures 7-9).

Summary of Key Findings

In summary, results from analyses suggest a trend of no significant difference between the effects of Web 1.0 and Web 2.0 on overall attitudes and perceptions of the company and attitudes and perceptions of the Website. The data does suggest that individuals interacting with the Web 1.0 Web site tend to have more positive behavioral intentions toward the Web site. This relationship is mediated by attitudes toward the Web site. A final key finding involved an interaction between Web 1.0 versus Web 2.0 and the assigned company. Results from the analyses suggest that for certain measures of Customer Service, (Service personalized; Responsiveness to customer concerns; Sympathetic to customer needs/views; Interested listening to my concerns; and Cares about customers), Web 1.0 ranked more positively for HP while Web 2.0 ranked more positively for Southwest.

DISCUSSION

Interpretation

The overall absence of a significant difference in effect on consumer attitudes and perceptions between subjects in the Web 1.0 and Web 2.0 conditions was an unexpected, yet interesting, result of this project. One explanation for this finding is the nature of technological affordances. The hypothesis of this study is based on a comparison of the affordances of Web 1.0 and Web 2.0. Given that an affordance is the presence of an “action possibility” suggested by the technology (Gibson, 1977; Norman, 1999), a user needs to *do* something in order for the

affordance to be realized. This was the reason for incorporating the daily tasks in the experimental design. However, it is possible the tasks were more oriented to a Web 1.0 site and therefore did not serve to highlight the breadth of affordances offered specifically by the Web 2.0 technology.

Analysis of only data from participants assigned to an HP Web site revealed a significant main effect on the customer service index that was not found when all data was analyzed; $F(1, 9) = 7.68, p < .05$, with a higher mean for Web 1.0 ($M = 5.66, SE = .4$) than Web 2.0 ($M = 4.2, SE = .36$). Similarly, the effect of Web 1.0 versus Web 2.0 on coolness was approaching significance when the HP data was analyzed independently; $F(1, 29) = 3.21, p < .1$, with Web 1.0 ($M = 4.26, SE = .3$) being higher than Web 2.0 ($M = 3.48, SE = .31$).

Consequently, the significance for main effect on behavioral intention toward the Website and engagement was lost when only the responses of HP participants were analyzed. However, when the Southwest data was run independently, the differences between Web 1.0 and Web 2.0 versions seen earlier were even stronger. This is further evidence to support that effects of Web 1.0 and Web 2.0 are influenced by consumer impressions of the companies and their Web site.

When a significant main effect was found, the Web 1.0 condition garnered higher ratings than the Web 2.0 condition. To be more specific, participants responded higher to measures for behavioral intention toward the Web site, engagement with the Web site and attitude toward the Web site (when controlling for prior attitude toward the company) when assigned to a company Web site than when assigned to the company's Facebook fan page.

This effect may be explained by perceived appropriateness of source placement. Hu and Sundar (2010) suggested health information attributed to a professional source may be perceived

as more credible when posted in a Web site than homepage and that the reverse effect would occur when identical health information was attributed to a layperson source. While their hypothesis was only partially supported, it may explain the unexpected and more positive responses from respondents in the Web 1.0 condition. Consequently, product and company information may be perceived as more appropriate on a company Web site than on a social networking site. This may explain why responses to measures for frequency of future use, recommendation of the site to others, and intent to browse the site again soon, were significantly higher for participants in the Web 1.0 condition.

Another explanation for finding Web 1.0 superiority could be the use of Web 2.0 technologies within the limitations set by a third party; in this case, Facebook. Some marketers view Web 2.0 as a threat to their control of the communication process (Constantinides, 2009). The affordances of Web 2.0 that put greater control in consumer hands could simultaneously weaken the persuasive power traditionally held by the companies. Although the company Web site does not have the affordances of a social media site, it does afford the company total control over information and communication. This control is restricted in social media, especially within the confines of the Facebook interface. The “give and take” of control between Web 1.0 and Web 2.0 may have a balancing effect on attitudinal and perceptual effects on the consumer. In other words, the lack of Web 2.0 affordances on a traditional company Web site may be resolved by the company’s control over the communication process and therefore their power to control impressions of the site. On Facebook, the Web 2.0 affordances may be undermined by the limitations of the Facebook interface, meaning the company itself has less to offer.

As described by the outline of affordances of Web 1.0 in comparison to those of Web 2.0, an argument can be made that Web 1.0 is a stronger ally for companies than Web 2.0. Social

networking sites afford harnessing collective power, network effect, and user-generated content. The characteristics of Web 1.0 such as the static presentation of information and effects of Web sites such as increased organizational involvement and interpersonal connectivity, found by Wellman, Haase, Witte and Hampton (2001), may be more appropriate for companies.

This study also found a significant two-way interaction between Web 1.0 or Web 2.0 and company of the assigned Web site on perceived customer service. Those assigned to an HP Web site responded more favorably to customer service measures in the Web 1.0 condition than in the Web 2.0 condition while those assigned to a Southwest Web site responded more rated customer service more positively in the Web 2.0 condition than in the Web 1.0 condition. Consequently, for customer service, the results from the Southwest condition were in support of the hypothesis while those of the HP condition were in opposition to the hypothesized results. This offers more evidence that a major explanation for the results could be the particular attributes of each Web site.

A content analysis of the four media stimuli attempted to uncover a possible explanation. Since the results in question dealt primarily with customer service, the discussion forums in the Web 1.0 condition and the Facebook “wall” in the Web 2.0 condition were examined. On the HP and Southwest Facebook fan pages, the 60 most recent posts were analyzed. The 60th post on the HP fan page was posted five days earlier than the most recent post. On the Southwest fan page, the 60th post was posted only 30 hours before the most recent post. This implies much more activity in general on the Southwest fan page than on the HP fan page. Since the duration of the study was only seven consecutive days, this difference in posting frequency very likely had a significant effect on participant impressions.

On the Web 1.0 versions too, there were differences between discussion forums of each company Web site during the study period. The HP discussion forum, although difficult to navigate to from the home page of the site, is extensive. The “community” is organized first by product category and each product category is further divided into specific topics of interest. For example, within the “Notebook Computers” category there are nine discussion items such as “Lock-ups, freezes and hangs,” and “Hardware.” All relevant postings and comments are included within each category. Below the product categorization are the “Top Boards” (most popular postings) and “New Solutions,” (most recent postings). Posts for each category reach into the thousands. Users can rank posts, tag posts, and “give kudos” to posters. On the Southwest Web site, discussions are organized by city, theme, activities, and general help topics. The most recent posts are also available on the discussion page. There are no ranking cues for comments or users. Many of the categories have a high number of independent posts with very few replies. The main function of the Southwest discussion forums is to serve as an outlet for customers to post journals, pictures, and videos of their trips on Southwest rather than as a customer service tool.

To summarize, Southwest fans are very active on its Facebook page. This is important because consumers are not only visiting the page, but reading and giving feedback on comments and concerns of other Southwest followers. On the HP, site there is significantly less fan activity. Most of the activity is one-time postings without any comments. The nature of the Southwest company Web site discussion board lends itself to a personal outlet, rather than a place to go for help and interaction with the company and other consumers whereas the HP site discussion forum is organized to promote interaction between users and the company. The high number of posts and comments on the HP company site and on the Southwest Facebook fan page

may serve as a “bandwagon cue” (Sundar, Oeldorf-Hirsch & Xu, 2008). Study participants who are assigned to such Web sites as opposed to accessing them for their own needs may be more influenced by peripheral cues, - based on the elaboration likelihood model (Petty & Cacioppo, 1986). Cues such as high site activity, amount of information including discussion topics and comments, and agency cues such as user ratings and post rankings on the HP Web site and high activity of fans, amount of wall posts and comments, and bandwagon cues such as number of fans on the Southwest Facebook fan page could explain why the HP Web site and the Southwest Facebook page were evaluated more positively than their counterparts.

Limitations

The overall trend of finding no significant main effect may be explained by threats to the internal and external validity of the study. One explanation to the lack of significance may be the limited sample size. More participants in each condition could lead to more distinguished results. The use of live Web sites as stimuli outside of the control of a lab environment may increase the potential for participant contamination. For example, participants in the Web 2.0 condition may have visited the company Web site or participants in the Web 1.0 condition may have visited the Facebook fan page at some point during the experiment. Such contamination could influence user responses and therefore should be considered in future studies. The use of only two companies and a homogeneous sample may be threats to the reliability of independent variables. To be more specific, the company Web site of HP or Southwest may have been too sophisticated to reliably exemplify a Web 1.0 condition. Subsequently, the high familiarity of the sample with the Facebook interface may have removed some features such as novelty, richness, and coolness, typically attributed to Web 2.0 technologies.

Practical Implications

By showing the lack of psychological differences between Web 1.0 and Web 2.0 company sites, this study implies that the simple Web 2.0 presence may not be adequate to improve a company's image. An important practical implication of this project is that the hype regarding the use of Web 2.0 technology as a marketing tool cannot, within the limits of this study, be fully supported. Due to the fact that there does not appear to be a distinguished trend to support the hypothesis of this study, and that an interaction was found between main effect of Web 1.0 or Web 2.0 and assigned company, especially on customer service measures, has implications for industry professionals who have or have considered adopting social media as a marketing tool. These findings suggest that the effects of social media marketing are conditional and can be positive or negative for a company. In other words, companies will get out of social media no more than what they put into it. Also, if enough effort is dedicated to online customer service, the location of that service, be it Web 1.0 or Web 2.0, may be inconsequential. For example, on the Southwest Facebook fan page, users are informed that they are "chatting with Lindsey, Laurel, and Christi," when posting a comment on the Wall. A Southwest employee is actively involved in responding to fan comments even given the higher volume of user activity on the site. Although HP frequently posts links to its own content on its Facebook Wall, there is less of a presence by a company spokesperson when compared to the Southwest Fan page.

Future Research

This study examines the effects of Web 1.0 as a whole and Web 2.0 as a whole. Little is known about which features of each interface affect attitudinal and perceptual outcomes. Since most current research on Web 2.0 effects deals with the Web 2.0 medium in comparison to

traditional media such as print or television, more research must be done to uncover on which levels Web 1.0 and Web 2.0 may be contrasted.

This study focuses on two companies, HP and Southwest Airlines, distinguished for the purposes of this study by their high-consumer involvement regarding the cognitive and behavioral topics of product or service inquiry and purchase. An intriguing topic for further research would be to examine the same Web 1.0 versus Web 2.0 effects on consumer attitudes and perceptions towards companies with greater affective consumer involvement such as non-profit organizations. This direction of research may uncover specific industries where a Web 2.0 presence has a more positive effect.

Future research may also look at other ways to track the success of Web 2.0 for companies. For example, Twitter, corporate blogging, and LinkedIn are all other Web 2.0 platforms with a growing business presence. Given the different affordances of each application, it is imperative to understand the impact of different Web 2.0 platforms over time as well as under what conditions they are most influential. This will not only help companies most effectively use (or not use) particular Web 2.0 media but will also develop and test theories about the effects of new media technologies, with implications for design of future innovations in integrating online tools for corporate public relations.

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APPENDIX A: Indices with individual measures

Index (Cronbach's Alpha) Individual Items
<u>Attitude toward company (.91)</u>
Good/Bad
Appealing/Unappealing
Pleasant/Unpleasant
Attractive/Unattractive
Interesting/Boring
Like/Dislike
<u>Product Knowledge (.80)</u>
Feel very knowledgeable about
Need to gather very little information to make purchase
Feel confident in ability to tell difference in product quality
<u>Purchase Intention (.92)</u>
Would make purchase
Financially able, willing to purchase
How certain make a purchase
<u>Website Credibility (.66)</u>
Unbelievable/believable
Biased/unbiased
Unconvincing/convincing
Compared with otr co. sites/pages, rate this as
<u>Ease of Use (.94)</u>
Learning to operate web site easy
Easy get what want out of web site
Easy browse web site
<u>Absorption with Website (.90)</u>
Fun interacting with website.
Using web site provided enjoyment
Web site allowed control interaction
Web site excites curiosity
Web site arouses imagination

<u>Real-Time Conversation (.89)</u>
Web site enables two-way communication w/co.
Web site enables real-time communication
Web site enables interpersonal interaction with other customers
Web site enables conversation
<u>Engagement (.73)</u>
Web site has good variety of content
Web site keeps attention
Web site makes easy find what I want
<u>Behavioral Intention toward Website (.94)</u>
Frequently use in future.
Strongly recommend others visit
Intend browse again soon
<u>Perceived Usefulness (.89)</u>
Worthwhile use web site
Web site improves quality completing daily tasks
Web site enabled accomplish daily tasks more easily
Useful browsing web site
<u>Website Attitudes (.82)</u>
Web site makes it easy build a relationship
Would like to visit web site again in future
Satisfied with features provided by web site
Satisfied with customer service
Comfortable in browsing
Browsing website good way to spend my time
<u>Post-Coolness (.96)</u>
On cutting edge
Stands apart from similar companies
Sexy
Stylish
Caters to my own needs
Hot
Hip
Original
Novel
Unique
Out of the ordinary
<u>Customer Service (.96)</u>

Cares about customers
I could trust
Interested listening my concerns
In touch customers
Sympathetic customer needs/views
Trustworthy
Sensitive
Responsive to customer concerns
Comfortable publically identifying as fan
Service personalized
<u>Privacy</u>
Fear intrude in personal space

Pre-test Measures:

Demographics

- I have regular access to the Internet
- I am familiar with the social networking site Facebook
- On average, how much time (in hours and minutes) do you spend on the Internet per week?
- I have made a purchase from the following brand (Select all that apply)
- I have visited a website or page of the following brand (Select all that apply)
- Attitude toward Competitors (see individual items above)
- Attitude toward Company (see individual items above)
- Coolness of Competitors (see individual items above)
- Coolness of Company (see individual items above)

Post-Test Measures:

Demographics

- Gender
- Class
- Age
- Dependent Variables (see individual items above)

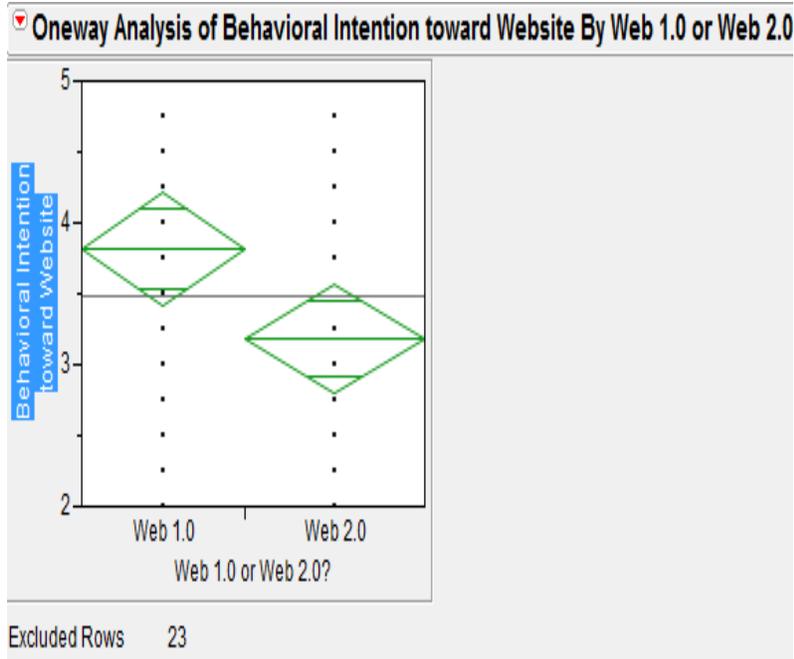
APPENDIX B: Additional Results

One-Way ANOVA: Web 1.0 or Web 2.0 effects on: (NO SIGNIFICANT DIFFERENCE between Web 1.0 and Web 2.0)

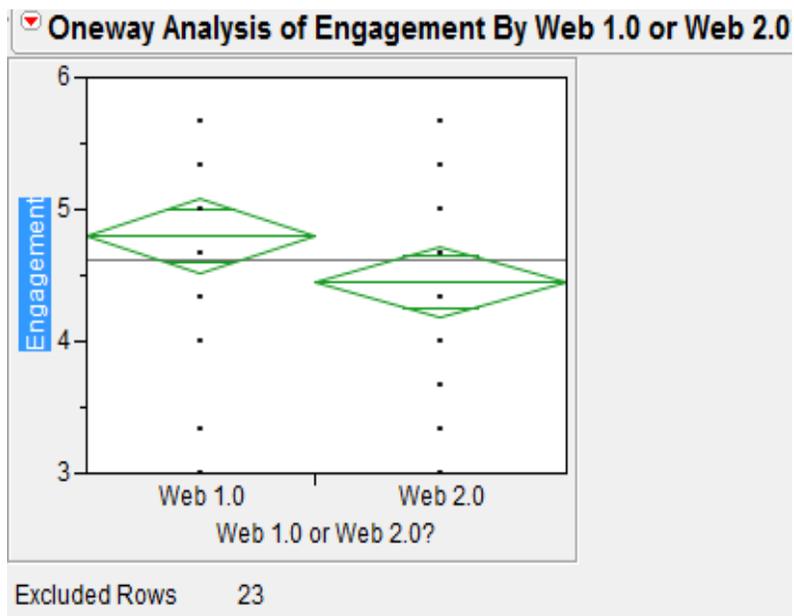
- Attitude toward the company; $F(1, 80) = .370, p = .5446$
 - Web 1.0 M=5.29; Web 2.0 M= 5.17
- Product knowledge; $F(1, 80) = .0174, p = .895$
 - Web 1.0 M=4.08; Web 2.0 M= 4.04
- Purchase intention; $F(1, 80) = .915, p = .3417$
 - Web 1.0 M=5.18; Web 2.0 M= 4.89
- Website credibility; $F(1, 80) = 2.19, p = .14$
 - Web 1.0 M=5.08; Web 2.0 M= 4.84
- Ease of use; $F(1, 80) = .9231, p = .3396$
 - Web 1.0 M=4.89; Web 2.0 M= 5.17
- Absorption with website; $F(1, 80) = .6301, p = .4297$
 - Web 1.0 M=3.75 ;Web 2.0 M= 3.57
- Real-time conversation; $F(1, 80) = .2940, p = .589$
 - Web 1.0 M=5.06 ;Web 2.0 M= 5.21
- Perceived usefulness; $F(1, 80) = .0002, p = .9887$
 - Web 1.0 M=4.20; Web 2.0 M= 4.20
- Coolness; $F(1, 80) = 1.12, p = .293$
 - Web 1.0 M=4.02; Web 2.0 M= 3.72
- Customer service; $F(1, 21) = 1.306, p = .266$
 - Web 1.0 M=5.14 Web 2.0 M= 4.60

One-Way ANOVA: Web 1.0 or Web 2.0 on

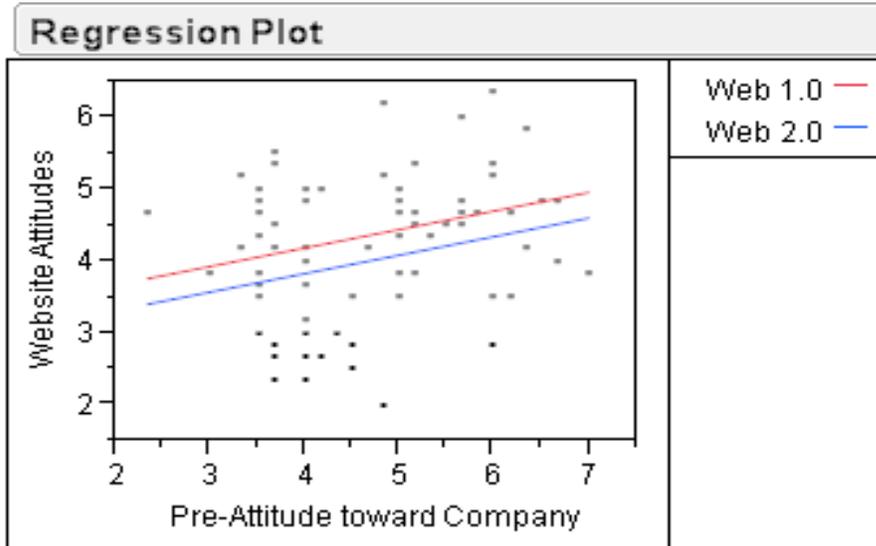
- Behavioral intention toward Web site; $F(1, 80) = 5.237, p < .05$
 - Web 1.0 (M= 3.8, SE= .2) Web 2.0 (M=3.2, SE= .19)



- Engagement; $F(1, 80) = 3.16, p < .1$
 - Web 1.0(M= 4.8, SE= .14) Web 2.0(M= 4.45, SE= .14)



- Attitude toward Web site (controlling for pre-existing attitudes to company); $F(1, 79) = 3.12, p < .1$
 - Web 1.0 ($M = 4.35, SE = .15$) Web 2.0 ($M = 4.0, SE = .14$).

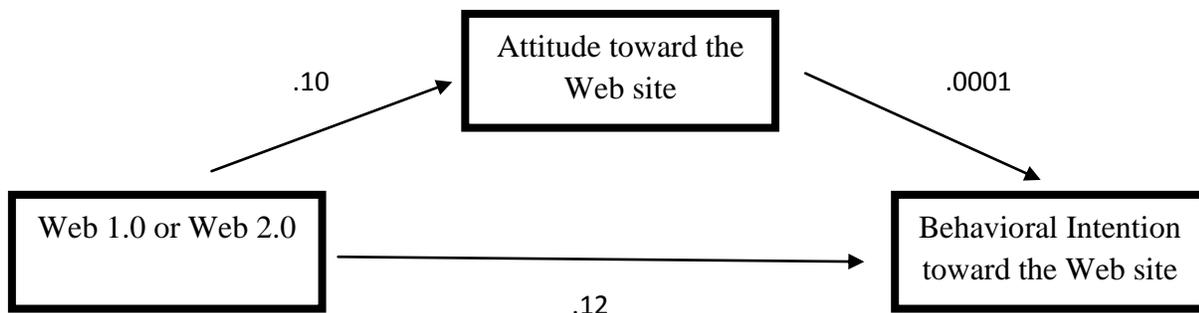


Mediation figure (Preacher & Hayes, 2004)

Panel A: Significant Main Effect



Panel B: Showing mediators effect on main effect significance



APPENDIX C: Media Stimuli Web sites

Example 1: Company website Southwest

The screenshot shows the Southwest Airlines website's 'Travel Tools' section. At the top, there is a navigation bar with links for 'Book Travel', 'Special Offers', 'Travel Tools', 'Rapid Rewards', and 'Travel Guide'. Below this, the 'Travel Tools' section is titled 'Feel Free to Wing It' with the tagline 'Because we've got your trip covered.' A sidebar on the left lists various tools like 'TRAVEL TOOLS', 'SUBSCRIBE TO E-MAIL UPDATES', 'GIFT CARDS', etc. The main content area is divided into sections: 'Air' (with sub-sections for Travel Tools, Maps and Schedules, and Traveler Information), 'Flight Status', 'Plan Your Trip', and 'southwestgiftcard'. A 'My Southwest Login' box is visible on the right side.

Example 2: Company Web site HP

The screenshot shows the HP website's main page. At the top, there is the HP logo and the slogan 'LET'S DO AMAZING'. Below this, there is a navigation bar with links for 'Shop for Products & Services', 'Explore & Create', 'Support & Drivers', and 'Connect with Others'. A search bar is located on the right. The main content area features a large promotional banner for 'ENTERTAINMENT UNDILUTED' with the text 'Save up to \$450 on our entertainment laptops and get a free upgrade to 4GB of memory.' The banner includes an image of a laptop displaying the movie 'Shrek Forever After 3D' and the slogan 'THE COMPUTER IS PERSONAL AGAIN.' A sidebar on the left lists various product categories like 'Home & Home Office', 'Small & Medium Business', etc. At the bottom, there are sections for 'HP Newsroom', 'HP Corporate', 'Resources', and 'Customer Support'.

Example 3: Facebook Fan Page Southwest Airlines

facebook Search Home Profile Account

Southwest Airlines

Wall Info Bags Fly Free More LUV Photos Live >>

Write something... Attach: [Image] [Video] [YouTube] Share Filters

Sarah Morrison I ♥ Ding Alerts! Hoping for an LAX/MID ding soon.
51 minutes ago · Comment · Like · Report

Kim Darby Schneible FLY SOUTHWEST! The only decent airline around anymore! Bags fly free! No change fees! Customer Service!!!
about an hour ago · Comment · Like · Report

Nicole Gouzoulis Knisely When is the \$89 special from PGH to Orlando coming back? I missed the last deal because of travel over the Easter break!! Really need a cheaper flight thank \$94
about an hour ago · Comment · Like · Report

Nicole Gouzoulis Knisely I meant than not thank! Sorry for the typo!
about an hour ago · Report

Nicole Gouzoulis Knisely Oh and right now Airtran is cheaper even with the luggage fees.
about an hour ago · Report

Write a comment...

Internet | Protected Mode: On

Example 4: Facebook Fan Page HP

facebook Home Profile Friends Inbox 2 Lindsay Smith Settings Logout Search

HP Have you experimented with Linux? What's your view on the usability? <http://bit.ly/5qa3mJ> on Sunday

Wall Info Create Change Support Around HP Live Green >>

Write something... Attach: [Image] [Video] [YouTube] Share

HP Just Fans

HP HP CTO Phil McKinney shares more information on the company's latest innovation, the HP Slate. What feature are you most excited about?

SPECIAL REPORT! The HP Slate
www.youtube.com
Phil McKinney, walks us through HP's latest innovation, the HP Slate. Do you have questions for Phil? Leave them in the comments section.

Yesterday at 4:22pm · Comment · Like · Share

50 people like this.

View all 7 comments

Oskido Prior Memetja Most interestin
Yesterday at 10:11pm · Report

Salim Remmal Bazz
3 hours ago · Report

Write a comment...

HP Choose products at the HP Direct Store's Create Change portal and 4% of your...

Academic Vita of Lindsay Smith

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Bachelor of Arts Degree in Public Relations, Penn State University, Spring 2010
Minors in Business and the Liberal Arts and International Studies
Honors in Advertising and Public Relations
Major GPA: 4.0, Cumulative GPA: 3.93

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Of A Company

Thesis Supervisor: S. Shyam Sundar

Work Experience

January 2007-May 2010

Athletic Communications Student Intern
Media and public relations for Penn State varsity sporting events
Penn State University- University Park, Pa

June 2009-August 2009

Public Relations Intern
Research and development of PR department, press kit/marketing plan for start-up
Awareness Audiobooks- Bethlehem, Pa

Awards: Schreyer Honors College scholar, Kappa Tau Alpha, Dean's List

Professional Memberships: PRSSA

Publications: Smith, L. (2010, Feb, 24). Students of All Majors Learn Valuable Life
Lessons From Penn State Alumnus and McGraw-Hill Executive. *PRNewswire Online*.

Presentations: Poster at Penn State's Undergraduate Research Exhibition

Community Service Involvement: CentrePeace, Inc.volunteer

International Education: IES Barcelona Study Abroad Program, January-May 2009