Evolution of Cyber UCF: The Development of an Academic Institution's Website Through Time

JACOB VOGELBACHER
Produced in Marcy Galbreath's Spring 2015 ENC 1102

Introduction

Websites are used to help meet the needs of the entity they represent, as well as the needs of the audience the entity is targeting. In order to meet these needs, websites must communicate effectively. Websites often need to communicate with a diverse audience that consists of non-members of the community that originally created the site. Finding an effective solution to this challenge is vital to their success. Research shows there are many factors that impact the effectiveness of websites in communicating information. The ease with which one navigates and receives information from a website, as well as one's overall satisfaction with the experience of using the website, differs for everyone. There is no single style of web design that all people will find pleasing, easy to use, and understandable. Effectively representing oneself to an intended audience and meeting their needs requires careful examination of the audience to determine their web design preferences and how those preferences can be met through the design of a website.

Review of the Literature

The following literature review synthesizes the findings of many scholars on how one should go about making a website as effective as possible in order for it to accomplish its goals. These scholars examine how the culture and personality of users influence their satisfaction with websites, and how adapting to the user plays a vital role in the success of a website.

Cultural Preferences

The values that are held by different cultures impact their preferences in regard to the overall design of websites. Websites that meet these preferences have a more positive impact on the user (Cyr and Trevor-Smith; Gevorgyan and Manucharova; Nantel and Glaser; Singh, Zhao, and Hu; Unsunier and Roulin). When a website meets these cultural preferences, it is known as localization. Dianne Cyr and Haizley Trevor-Smith describe localization as the process through which a website, or any product, is designed in a manner that appeals to the preferences held by a particular culture (1199). Without localization, users from certain populations would find it difficult to utilize a website comfortably. Cyr and Trevor-Smith observe that there tends to be a high amount of variation between different cultures with regard to how certain elements of web design are used. Different cultures have differing preferences for layouts, content, and structural characteristics; symbol usage, and color usage to name a few (1203-06). Nitish Singh, Hongxin Zhao, and Xiaorui Hu describe this cultural diversity further. The researchers studied the content of websites from China,

India, Japan, and the United States. They examined seven different cultural dimensions such as individualism, collectivism, uncertainty avoidance, and contextual communication styles. All of the countries significantly differed from one another with regard to the cultural dimensions (138).

The research done by Gennadi Gevorgyan and Naira Manucharova demonstrated how preferences for website design such as those mentioned by Cyr and Trevor-Smith correlate with the values held by these different cultures, such as those mentioned by Singh, Zhao, and Hu. Their results showed that Chinese users —whose culture we typically think of as advocating collectivism—favored websites containing collectivistic design features, while American users —whose culture we typically think of as advocating individualism—preferred individualistic features (402). It was also revealed that those who identify as having a strong ethnic identity have even stronger positive reactions to design features consistent with their cultural preferences (403). Singh, Zhao, and Hu agree with the notion that diversity in values among cultures directly translates to diversity in web design, as all of the nations they studied produced websites that emulated the values held by the local culture (138-41). This emulation of values is expanded upon by Jean-Claude Unsunier and Nicolas Roulin. They note how websites tend to display a "domestic country bias," where the design and content of a website are prepared in such a way that would be favorable to the country of the creator (190). These researchers' findings further support the importance of localization to communicating effectively with an audience. Unsunier states that "[w]ebsites are perceived differently according to culture," so designing a website which reflects the cultural values of the intended users results in a more positive user experience (218).

Personal Preferences

The personality of users also affects their website preferences and determines their satisfaction with websites (Amichai-Hamburger, Fine, and Goldstein; Yates and Noyes). One personality trait studied by Yair Amichai-Hamburger, Adi Fine, and Abraham Goldstein was the need for closure. They describe the need for closure as the desire to quickly evaluate the validity of presented information and come to a conclusion in the process of information acquisition (105). Their observations showed how users with differing needs for closure have different preferences for interactivity in websites. Those who identify as having a low need for closure prefer interactive websites, while those with a high need for closure prefer less interactive, or flat, websites (115). The researchers also observed how these preferences can change when outside factors, such as time pressure, are added into the situation (115-16). Due to their differing personality types, the users had different preferences for information processing. And because browsing websites involves the processing of information, they held different preferences with regard to website design.

Rosemary Yates and Jan Noyes add to the concept of personality-driven website preferences through their research on self-monitoring styles. Self-monitoring has to do with the way one expresses oneself in social situations (1344). They observe that high self-monitors have a markedly positive experience while using websites with context-based design, and low self-monitors tend to experience a higher level of persuasion from websites with content-based design (1355). This supports the finding of Amichai-Hamburger, Fine, and Goldstein that individuals with different personalities prefer differing levels of interactivity. Interestingly, Yates and Noyes also note that the design of a website had no impact on either of the personality types with regard to their inclination to return to the website (1355). Paying special attention to personality is significant with regard to online methods of communication. It can increase the capability of the communication that takes place to meet the needs of the receiver, thereby making the communication appear more valuable to those participating in it.

Facilitating Usability

39

Users have certain goals in mind when visiting a website. In order to help the user meet their goals, there are certain steps that should be taken to ensure that the website fosters ease of use and a positive user experience (Brys and Vanderbauwhede; Inversini, Cantoni, and De Pietro; Nantel and Glaser; Skadberg and Kimmel). Yongxia Skadburg and James Kimmel define the idea of an optimal user experience as a "flow experience." When a user experiences flow, it becomes easier for them to learn about the information contained within the website (418). Skadburg and Kimmel contend that this leads to the user wanting to learn more about the topic of the website and taking positive action (418). They observe that the attractiveness and interactivity of a website are the most influential factors in facilitating a flow experience (419). However, they do not define what exactly constitutes attractiveness in a website. There may not be one sure definition of what attractive is, but other authors have attempted to answer how a website could be made attractive and thus foster flow. Catherine Brys and Wim Vanderbauwhede's research focuses on the World Wide Web Consortium's (W3C) Accessibility Guidelines; however, the claims they make can be applied to website usability in general. They stress the importance of understanding the audience groups and their purpose for using the product. In order to accomplish this, Brys and Vanderbauwhede recommend involving the audience in the design process. If certain audience groups have different needs for the product than others, they state that it could be effective to design separate products catered to the different audience groups. In addition, they assert that the goals of the users should be the focal point when "selecting content, defining the level of detail for topics, and presenting information" (75).

Alessandro Inversini, Lorenzo Cantoni, and Marianna De Pietro agree that the users' needs should be central when designing a website's content and

While we know the values held by different cultures and the different personality types of users affect the preferences they hold with regard to website design, we still do not know how websites change over time to accommodate these preferences as well as the needs of the website itself.

functionality. They observe that websites with the most complete set of content and functions are not always effective at satisfying the user (574). They also note that websites with less content and functionality tended to be more tailored to the users' needs, thus providing more usability. Inversini, Cantoni, and De Pietro insist that in order to achieve a positive user experience, the "quality, relevance, and accessibility" of the content and functions is more important than the quantity (572). Jacques Nantel and Evelyne Glaser add to the insisted importance of relevance and accessibility of content by claiming the importance of language. Due to the fact that the "[p]rocessing of information is closely linked with language," native languages foster easier information processing and thus higher ease of use (113). Therefore, they assert that websites conceived in the native language of the user are more usable than those that are not. All of these authors agree that usability comes about through the knowledge and understanding the web designer has of the user.

In discussions of web communication, some researchers argue for the importance of localization to tailor websites to global, multicultural audiences. Others contend that the personality of the user should be taken into account to foster a positive user experience. Research has also been done to determine how important the user is in general when designing a website. While we know the values held by different cultures and the different personality types of users affect the preferences they hold with regard to website design, we still do not know how websites change over time to accommodate these preferences as well as the needs of the website itself. In this paper, I will argue that the changes which take place in an organization's website over time reflect the

organization's needs with regard to self-representation and its understanding of its intended audience and their needs.

Methods

Primary research was performed using a survey and a content analysis of four versions of the University of Central Florida (UCF) website. The survey was created the week of March 15 using the online survey generator Survey Monkey, and was distributed the same week on several UCF Facebook groups. Responses were collected until the week of March 29. The survey included four parts, each part beginning with an image of the homepage of a version of the UCF website. Following the image were eight questions regarding the respondent's opinion of the website. The eight questions were identical for each of the four parts. Seven of the questions were multiple choice and one was a grid rating scale. The images used and questions asked are located in Appendices A and B, respectively.

A total of 29 people responded to the survey through Facebook. Due to some early confusion with regard to the four-part layout of the survey, many respondents completed Part 1 without advancing to the remaining parts. As a result, Part 1 received 29 responses while Parts 2 and 4 received 16 responses and Part 3 received 15. The survey was conducted in order to learn what typical users thought about the UCF websites. The target survey group was UCF students. This group was chosen due to their familiarity with using the academic institution's website. Familiarity with the website was valued because the survey asked questions regarding functions the website is presumably used for, such as locating information about university events or programs of study. This meant respondents would be familiar with the topic of the questions and comfortable observing images of a familiar entity.

The survey asked questions regarding what topic the website was emphasizing, what audience group the website was primarily targeting, the respondent's confidence in locating certain types of information on the website, the usability of the website, and desire to return to the website. These questions were important because I wanted to see what opinions users may have had about the old versions of the website while they were still in use. With this information, I could compare users' opinions of various versions of the website to see how opinions changed over time and if certain opinions were addressed in future versions of the website.

A content analysis was conducted on the four versions of the UCF website to find out why users held the opinions they expressed on the surveys, and if the website would adapt over time according to user opinions. Three categories of elements were observed in the websites. The categories included elements related to graphics, layout, and interactivity. These three groups encapsulate the main elements that a user would encounter on the home page of the website, such as colors, images, menus, and links. Observations were made on the presence of elements in each version, if certain elements influenced users' opinions of the version, how the elements changed over time, and if changes in elements corresponded with users' opinions of the previous version of the website.

The UCF website has had four different versions in its history. Version 1 was used until January 1, 2000; Version 2 until March 14, 2005; and Version 3 until June 21, 2008. As of this writing, Version 4 is still in use. Pages, or "snapshots," of the previous versions of the website were acquired through the Internet Archive's Wayback Machine. The snapshots studied for the content analysis were from 1996, 2003, 2005, and 2015. The same four snapshots were used in the survey. Snapshots of the four versions were used because they differ substantially in terms of design and thus represent the major changes in the website's history.

A strength of this research is that the survey was administered online via Facebook, making it more accessible than a pen and paper survey. The survey was also limiting in positive and negative ways. Due to the fact that it was posted only to UCF Facebook groups, respondents were

limited to current and former UCF students, who were the target groups for this research. The survey's location also limited its respondents to only those who are active enough on Facebook to visit Facebook groups on a somewhat regular basis. In addition, time was also a constraint with regard to the survey because it was only available for two weeks. The biggest strength of this research was the use of the Internet Archive's Wayback Machine to obtain almost exact copies of the original websites, with multimedia still present and very few broken links. This allowed for an in-depth content analysis and provided survey respondents with a clear image of what each website looked like. The use of images in the survey was somewhat limiting, however, as respondents were unable to interact with the websites, thus restricting them to only observing the static elements of the web page.

These methods of research were conducted to find out what the website's changes from version to version would reveal about how the university wanted to represent itself and what it thought was important to its users.

Results

The four versions of the UCF website will be referred to as Website 1996, Website 2003, Website 2005, and Website 2015. All survey results can be found in Appendix C. Over half of the respondents for Websites 2003 and 2015 said they felt the websites had a strong focus on social life (Appendix C.1). All websites except Website 2003 were found to have a strong focus on academics. Although about 43% of respondents believed Website 2003 had somewhat of a focus on academics, only about 17% felt that there was a strong focus and about 31% felt that there was not much of a focus (Appendix C.2).

All respondents were in agreement that current students and potential students were the two primary targets of all the websites, with alumni being the least targeted (Appendix C.3). Over half of the respondents for each website except Website 2003 felt strongly that they would be capable of finding information about the university and the services it offers using that website. Although about 37% felt somewhat capable of doing so using Website 2003, only 25% felt strongly capable and about 18% felt not very capable (Appendix C.4). When asked to what degree they felt capable of finding information about classes and programs of study, over 60% of respondents for Websites 2005 and 2015 felt strongly capable of doing so. Respondents felt quite differently about Website 2003 as about 31% felt not very capable, while 25% felt strongly capable and 25% felt somewhat capable (Appendix C.5). Over 60% of respondents for all websites except Website 1996 felt strongly capable of finding information about university events. About 31% felt strongly capable of doing so using Website 1996, while about 20% reported feeling not much or no capability at all (Appendix C.6).

When respondents were asked to what degree they believed the website was easy to use and understand—Websites 1996 and 2003 received somewhat mixed results. No more than half of the respondents felt those websites had strong usability while at least 20% for each reported neutral usability or lesser. Websites 2005 and 2015 received highly positive results, as no respondent reported feeling any lower than a neutral level of usability for either, and only one claimed a neutral level (Appendix C.7). Respondents felt mostly comfortable with returning to Websites 2005 and 2015 if they needed to find information in the future, as only one respondent reported less than a neutral desire to return to Website 2005 and none felt less than a neutral desire for Website 2015. Websites 1996 and 2003 received mixed results, as no answer garnered more than 31% of responses. However, a majority did report feeling either a strong or somewhat of a desire to return for each (Appendix C.8).

The following are results of the content analysis of the websites. Full results of the content analysis can be viewed in Appendix D. In terms of layout, Website 1996 was very simple as it consisted entirely of menu items situated horizontally in the middle of the screen. Website 2003

was more complex with a horizontal menu at the top, vertical menus on both sides, and drop-down menus emerging from the left vertical menu. It was the first to feature photographic images and a keyword search at the top of the page. It also contained mostly navigational elements. Website 2005 contained a horizontal menu at the top and a vertical menu on the left. It was the first to feature content on the main page, rather than just navigational elements that led to content. Graphics were also featured more prominently, with navigational menus taking up less space. Website 2015 featured a horizontal menu at the top of the screen and contained no vertical menus. Navigation, graphics, and content covered relatively equal amounts of space on the screen and white space was utilized to a noticeable degree (Appendix D.2).

Website 1996 was the only one to not feature a user sign in function. It also was the only one to not have any links with rollover effects. All of the links in Website 1996 were accompanied by a symbol representing the subject of the link. Website 2003 contained 4 links with symbols, but also contained 14 text-only links. Websites 2005 and 2015 consisted entirely of text-only links. In terms of interactive consistency, Website 2003 used the same rollover effect for all of its menu items. Website 2005 used three different rollover effects as the top menu, left menu, and links from the middle of the page and lower all featured a different effect when rolled over by the cursor. Website 2015 also used three different rollover effects, with the top menu, links in the middle, and links at the bottom of the page having their own rollover effect (Appendix D.1).

Website 1996 was the only website not containing photographic images. Website 2005 was the only one to use more than one color for static text, as it used three. All but Website 1996 used multiple colors for hyperlinks. Website 2005 was the only one to use more than one color for the background of its menu items, as it used three (Appendix D.3).

Discussion

The changes that took place over time showed a clear picture of how the institution wanted to represent itself. First of all, the university valued having a focus on academics, as evidenced by respondents' belief of Website 1996 having by far the strongest focus on academics. However, it also had the weakest focus on social life. The university attempted to address this lack of focus on social life in the second version of the website (Website 2003), as those who felt there was a strong focus on social life jumped from 17% to 50% of respondents. This added emphasis on social life negatively affected the focus on academics, as the amount who felt there was a strong focus on academics fell from 83% to 19%, with 31% believing there was not much of a focus on academics. It then became clear that an academic identity was the priority for the institution's website, as they re-shifted the focus back to academics at the expense of the strong focus on social life in the third version of the website (Website 2005). The amount who felt it had a strong focus on academics jumped up to 47% from 19%. No respondent claimed feeling any less than a neutral focus on

The changes that took place over time showed a clear picture of how the institution wanted to represent itself.

academics in Website 2005. However, the amount who felt the website had a strong focus on social life dropped from 50% to 27%. The fourth version of the website (Website 2015) then shows how the university aimed to achieve a balance of the two, as they maintained the focus on academics while also regaining the focus on social life. The amount who felt the website had a strong focus on social life rose from 27% to 63%, and those who felt there was a strong focus on academics also rose from 47% to 56%. In terms of -self-representation, the university wanted to show an emphasis on academics while also seeking to establish some level of sociality (Appendices C.1 and C.2).

The survey results clearly establish who the audience of the website has been through time, as the two primary targets of each version of the website were thought to be current and potential

students. With this in mind, we will look into how the changes that occurred over time addressed the needs of this particular audience (Appendix C.3).

One need that the institution saw as being important to the users of its website was the ability to locate information about the university and services it offers. Respondents for Website 1996 claimed feeling strongly capable of doing so, with only 10% feeling any less than a neutral capability. Users' ability to do this fell after the introduction of Website 2003, as those who felt strongly capable dropped from 55% to 25%. This is when it became clear that the institution valued the users' ability to find this information, as 86% of respondents for Website 2005 and 94% of respondents for Website 2015 felt at least somewhat capable of finding information about the university and services it offers (Appendix C.4).

Another need that experienced a similar sequence of events was the ability to find information about classes and programs of study, showing that it too was seen as an important one to address by the institution. A majority of respondents for Website 1996 felt capable of doing so, as 31% felt strongly capable and 38% felt somewhat capable. It then experienced a dramatic change in Website 2003, as only 25% felt strongly capable, 25% felt somewhat capable, and a staggering 31% felt not very capable. This was then addressed in the following versions of the website, as 67% felt strongly capable in Website 2005 and 63% felt strongly capable in Website 2015 while only two respondents total reported feeling any less than a neutral capability (Appendix C.5).

In both of these instances, Website 2003 marked the point where users felt the least capable of finding the particular set of information. There is a link between this and the institution's added focus on social life in Website 2003. Both of these sets of information are related to academics, and Website 2003 was viewed as having the least emphasis on academics out of all the websites. While users may have found it difficult to locate academic information because of this, their ability to locate social information clearly increased. When asked to what degree they believed they could find information about university events in Website 1996, 31% of respondents felt strongly capable of doing so. That amount jumped to 67% for Website 2003, while no respondents reported feeling less than a neutral capability and only one claiming a neutral capability (Appendix C.6).

The menu items used by each website provide evidence as to why respondents felt Website 2003 focused on social life while de-emphasizing academics. Websites 1996, 2005, and 2015 all contained the menu items "Admissions" and "Academics" in their main menu bars. Websites 2005 and 2015 also had a menu item for "Research." Website 2003 contained none of these in its main horizontal and vertical menus. Instead, these items were listed in a drop-down menu from the ambiguously titled "Top UCF Links". Survey respondents were unable to see the drop-down menu items when observing the still image of the website due to the fact that the drop-down menu items are only visible interactively when the user moves his/her cursor over the vertical menu items on the actual webpage. The placement of these academic menu items in drop-down menus clearly shows why respondents felt less capable of finding information related to academics in Website 2003. The links used to access this content were made secondary to links such as "Athletics," "Student Activities," and "Events," which were displayed prominently on the main page, even being accompanied by icons such as the UCF Athletics logo and the Office of Student Activities logo (Appendix A).

The fact that the ability to locate academic information was addressed by the institution in the versions following Website 2003 proves that the institution had an understanding of its users and adjusted its website according to the users' needs. By adjusting to their needs, users felt that the website had become more usable. Only 31% of respondents felt that Website 2003 was easy to use and understand. After changes were made to the website according to the users' need to access academic information, this amount increased significantly. Website 2005 only had one respondent report feeling the website was less than somewhat easy to use, while no respondents felt Website 2015 was less than somewhat easy to use (Appendix C.7). This confirms Brys and Vanderbauwhede's assertion that the goals of the users should be the focal point when "selecting

content, defining the level of detail for topics, and presenting information" in order to foster usability (75).

The set of content and functions available on each website also played a role in fostering usability. Websites 1996 and 2015 featured the least amount of content and functions on their main page. They both contained only one main menu type: horizontal. The menu for Website 1996 contained 10 items, and Website 2015's contained 8 items. 48% of respondents for Website 1996 and 56% of respondents for Website 2015 felt strongly that the website was easy to use and understand. Website 2003 contained three main menu types: horizontal, vertical, and drop-down. Its main menus contained a total of 14 items, as well as 32 items only visible via the drop-down menus on the left vertical menu (Appendix D.2). This added content and functionality led to lesser usability, as only 31% felt Website 2003 was easy to use and understand. This supports Inversini, Cantoni, and De Pietro's claim that websites with the most complete set of content and functions are not always effective at satisfying the user (574). The fact that Website 1996 and 2015 were able to achieve higher usability with lesser content and functions also supports their assertion that websites with less content and functionality tend to be more tailored to the users' needs, thus providing more usability. Website 2005 contradicted this, however. It contained two main menu types: horizontal and vertical. The menus contained 17 total items, 3 more than Website 2003. However, Website 2005 received highly positive reviews of usability, as 53% felt the website had strong usability and only one respondent reported feeling the website was any lower than somewhat easy to use.

Two additional aspects of the websites that influenced usability—and may explain Website 2005's contradiction to the claim noted above—are balance and consistency. The content analysis showed that the websites survey respondents found to be most usable also contained balance among the main elements visible on the page and consistency with how those elements were presented. Website 1996 consisted almost entirely of navigational elements, which were all accompanied by a symbol. Respondents felt strongly that the website was easy to use and understand. Websites 2003, 2005, and 2015 all incorporated navigation, graphics, and content to some degree. Website 2003 used these three elements to varying extents, as navigation took up close to 2/3 of the page, graphics about 1/3, and content having a very minimal presence. It also used an unequal amount of symbol-accompanied links (4) and text-only links (14). This corresponds with the drop in the amount who strongly felt the website was easy to use and understand. Website 2005 was more balanced in its use of the three elements. Graphics may have taken up almost half the page, but navigation and content were equal as each took up about 1/4 of the page. It also consisted entirely of text-only links. The amount who strongly felt the website was easy to use and understand rose significantly. Website 2015 was the most balanced in its use of the elements, as each took up about 1/4 of the page, with white space also taking up about 1/4. It, too, consisted entirely of text-only links and no respondent felt that Website 2015 was any less than somewhat easy to use and understand (Appendices D.1 and D.2).

The fact that the website constantly changed from version to version with regard to its content, functions, and balance shows that the institution was constantly trying to meet its users' needs and provide a more usable product. When asked to describe their desire to return to the website if they needed to find information in the future, the amount of respondents who felt a strong desire decreased from Website 1996 to Website 2003. The amount who felt a strong desire to return to the website then increased over each version of the website after Website 2003, as did the perceived usability of the website (Appendix C.8). This research supports Skadburg and Kimmel's "flow experience" definition of an optimal user experience. When a user experiences flow, Skadburg and Kimmel claim it becomes easier for the user to learn about the information contained within the website, which leads to the user wanting to learn more about the topic of the website and taking positive action (418). When the website was adapted more to the needs of the user, not only did

they find it more usable, they also became more interested in it and wanted to return to it to fulfill their needs.

Conclusion

Although this research justifies the importance of adapting websites to their users, research still needs to be done to determine the significance of the culture and personality of the users. Since public universities are typically very diverse, understanding how the culture and personality of the users influences the design of an academic institution's website warrants further research. Uses of imagery should also be looked into further to determine if the cultural and/or social values portrayed through them have a noticeable impact on certain users' satisfaction with the website. This research is important because the purpose of a website is to convey information. By making a website more usable, users become more satisfied with the website and are more likely to return or seek further information on the subject matter of the website. Thus, the website becomes more successful at fulfilling its purpose.

Works Cited

Amichai-Hamburger, Yair, Adi Fine, and Abraham Goldstein. "The Impact of Internet Interactivity and Need for Closure on Consumer Preference." *Computers in Human Behavior* 20.1 (2004): 103-17. *FRANCIS*. Web. 19 Feb. 2015.

Brys, Catherine M., and Wim Vanderbauwhede. "Communication Challenges in the W3C's Web Content Accessibility Guidelines." *Technical Communication* 53.1 (2006): 60-78. *Academic OneFile*. Web. 12 Feb. 2015.

Cyr, Dianne, and Haizley Trevor-Smith. "Localization of Web Design: An Empirical Comparison of German, Japanese, and United States Web Site Characteristics." *Journal of the American Society for Information Science & Technology* 55.13 (2004): 1199-208. *CINAHL Plus*. Web. 15 Feb. 2015.

Gevorgyan, Gennadi, and Naira Manucharova. "Does Culturally Adapted Online Communication Work? A Study of American and Chinese Internet Users' Attitudes and Preferences toward Culturally Customized Web Design Elements." *Journal of Computer-Mediated Communication* 14.2 (2009): 393-13. *Communications and Mass Media Collection*. Web. 10 Feb. 2015.

Inversini, Alessandro, Lorenzo Cantoni, and Marianna De Pietro. "Destination Online Communication: Why Less Is Sometimes More. A Study of Online Communications of English Destinations." *Journal Of Travel & Tourism Marketing* 31.5 (2014): 563-75. *Academic Search Premier*. Web. 12 Feb. 2015.

Nantel, Jacques, and Evelyne Glaser. "The Impact of Language and Culture on Perceived Website Usability." *Journal of Engineering and Technology Management* 25.1 (2008): 112-22. *ScienceDirect*. Web. 10 Feb. 2015.

Singh, Nitish, Hongxin Zhao, and Xiaorui Hu. "Analyzing the Cultural Content of Web Sites: A Cross-National Comparison of China, India, Japan, and US." *International Marketing Review* 22.2 (2005): 129-46. *PsycINFO*. Web. 16 Feb. 2015.

Skadberg, Yongxia Xia, and James R. Kimmel. "Visitors' Flow Experience While Browsing a Web Site: Its Measurement, Contributing Factors and Consequences." *Computers in Human Behavior* 20.3 (2004): 403-22. *ScienceDirect*. Web. 19 Feb. 2015.

Usunier, Jean-Claude, and Nicolas Roulin. "The Influence of High- and Low-Context Communication Styles on the Design, Content, and Language of Business-to-Business Web Sites." *Journal of Business Communication* 47.2 (2010): 189-227. *Business Source Premier*. Web. 10 Feb. 2015.

Yates, Rosemary A., and Jan M. Noyes. "Web Site Design, Self-Monitoring Style, and Consumer Preference." *Journal of Applied Social Psychology* 37.6 (2007): 1341-62. *Business Source Premier*. Web. 10 Feb. 2015.

Jacob Vogelbacher

Jacob Vogelbacher is currently a junior at the University of Central Florida. He is majoring in Digital Media with a specialization in Web Design while also pursuing a minor in Marketing. Jacob has an interest in digital interactivity and enjoys learning about modern trends in web development, user interface, and user experience design. After completing his degree program, he hopes to find opportunities in the field of web design and development. He has been placed on the President's Honor Roll for three semesters and was awarded with the Silver Pegasus Scholarship. In his free time, Jacob enjoys watching sports and listening to classic rock n' roll music.

APPENDIX A: Website Images

Website 1996

Website 2003

Website 2005

Website 2015

APPENDIX B: Survey Questions

1. To what degree do you believe the website focuses on social life?
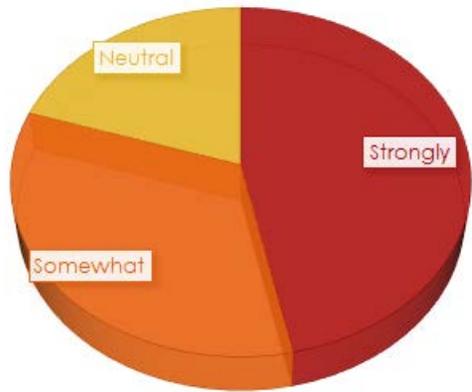
2. To what degree do you believe the website focuses on academics?
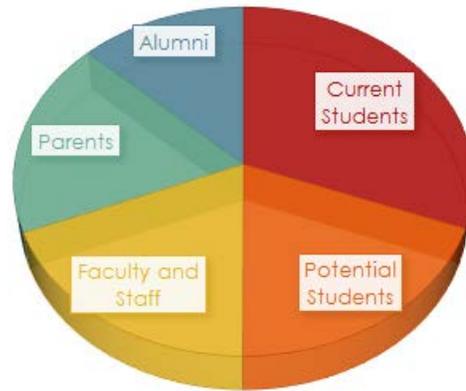
3. Who do you think this website is targeting the most? Rank the answers from 1 to 5, with 1 being the most targeted and 5 being the least targeted.
    (Current Students | Faculty and Staff | Parents | Potential Students | Alumni)

4. To what degree do you believe you could find information about the university and the services it offers using this website?

5. To what degree do you believe you could find information about classes and programs of study using this website?

6. To what degree do you believe you could find information about university events using this website?

7. To what degree do you believe this website is easy to use and understand?

8. How would you describe your desire to return to this website if you needed to find information in the future?
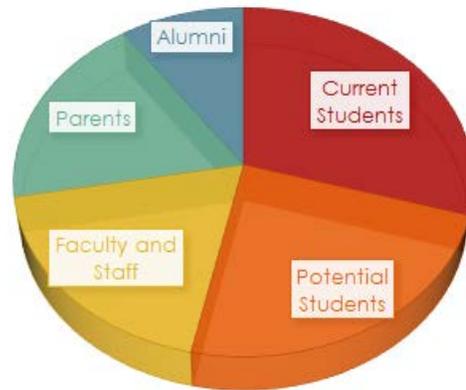
APPENDIX C: Survey Results

1. To what degree do you believe the website focuses on social life?

WEBSITE 1996

WEBSITE 2003
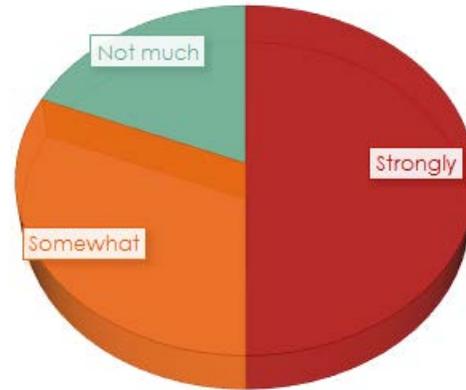
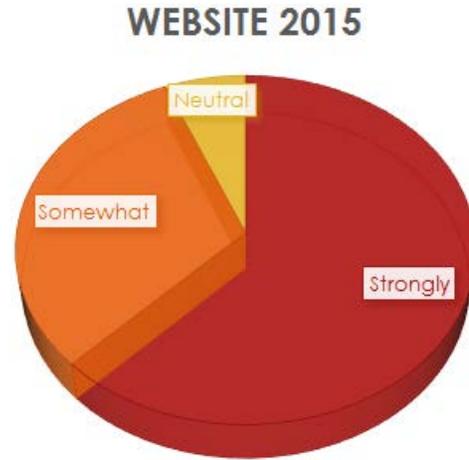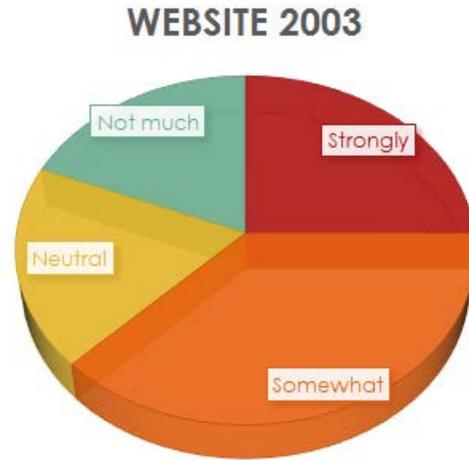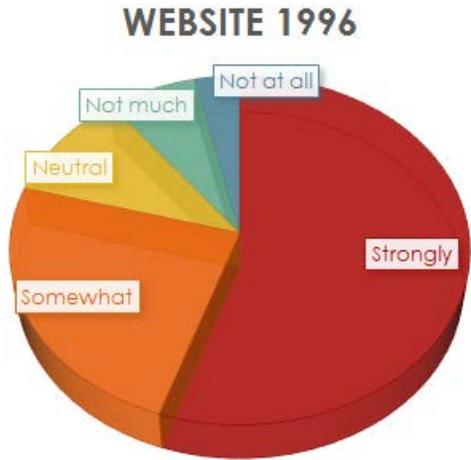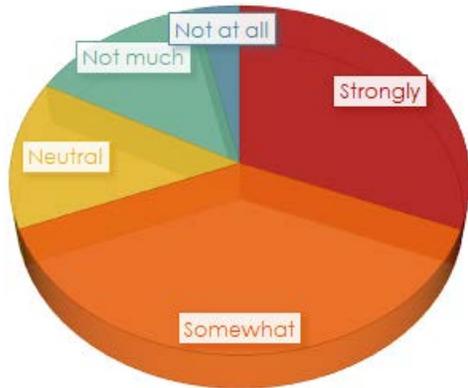## WEBSITE 2005
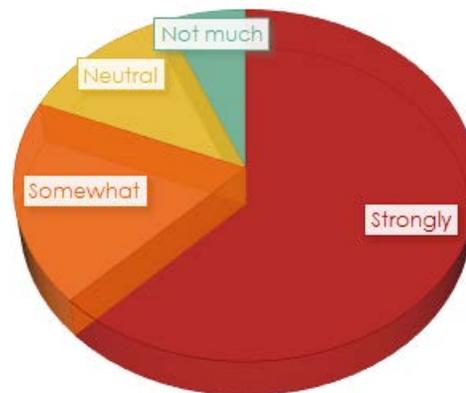
WEBSITE 2015

2. To what degree do you believe the website focuses on academics?

WEBSITE 1996
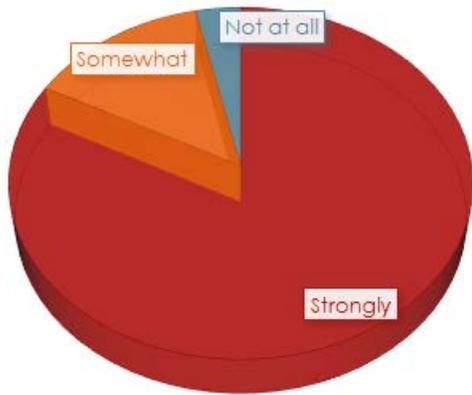
Not at all
Somewhat
Strongly

WEBSITE 2003

Strongly
Not much
Neutral
Somewhat

WEBSITE 2005

Neutral
Strongly
Somewhat

WEBSITE 2015

Not much
Neutral
Strongly
Somewhat
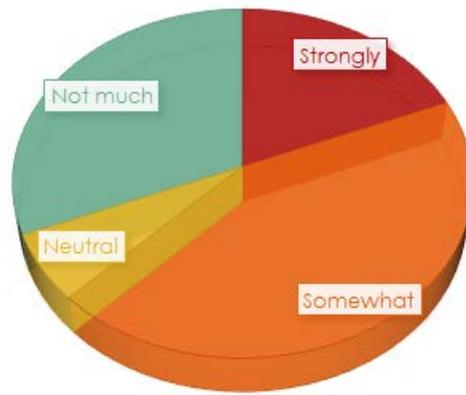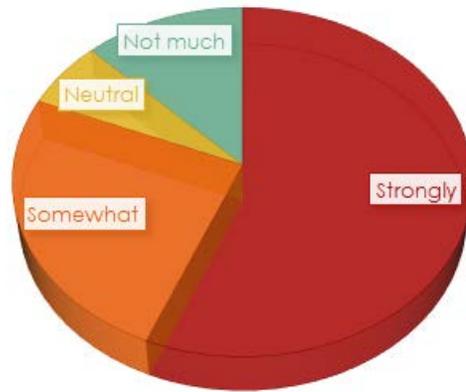
3. Who do you think this website is targeting the most?

WEBSITE 1996

Alumni
Parents
Current Students
Faculty and Staff
Potential Students

WEBSITE 2003

Alumni
Parents
Current Students
Faculty and Staff
Potential Students

WEBSITE 2005

Alumni
Parents
Current Students
Faculty and Staff
Potential Students

WEBSITE 2015

Alumni
Parents
Current Students
Faculty and Staff
Potential Students

4. To what degree do you believe you could find information about the university and the services it offers using this website?

WEBSITE 1996

WEBSITE 2003

WEBSITE 2005

WEBSITE 2015

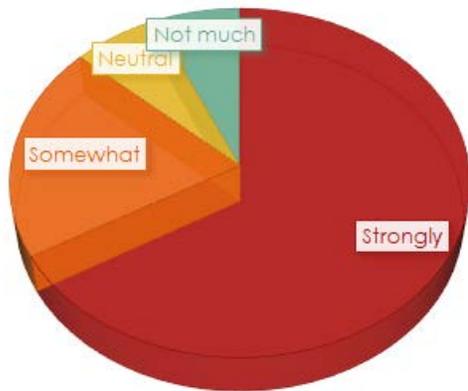5. To what degree do you believe you could find information about classes and programs of study using this website?
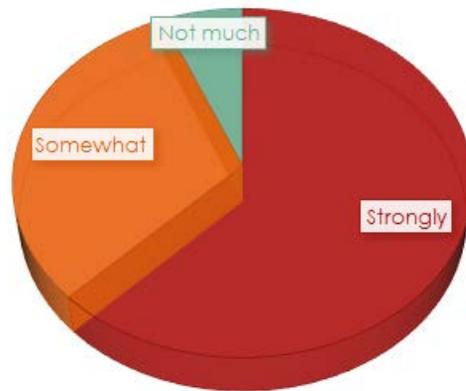
WEBSITE 1996
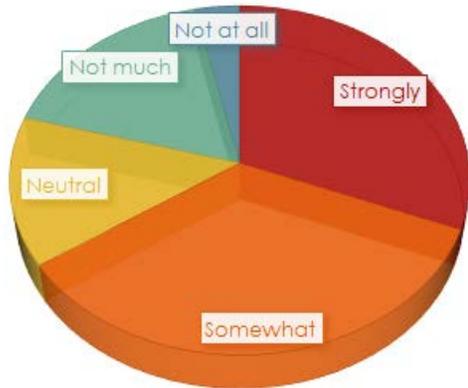
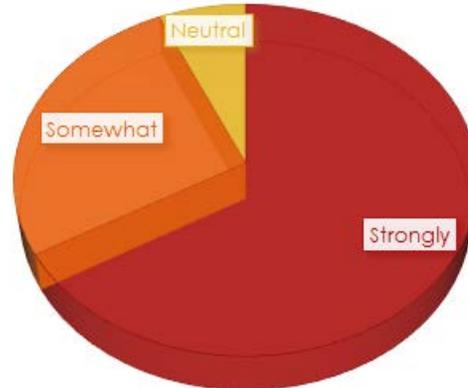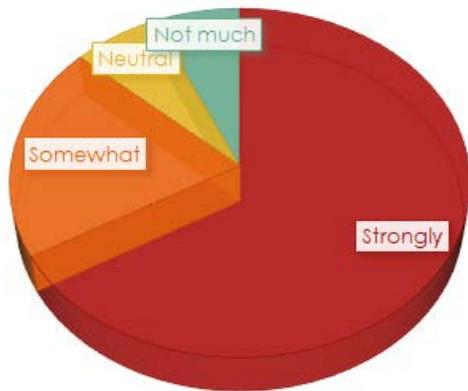**WEBSITE 2003**

WEBSITE 2005

WEBSITE 2015

6. To what degree do you believe you could find information about university events using this website?

WEBSITE 1996
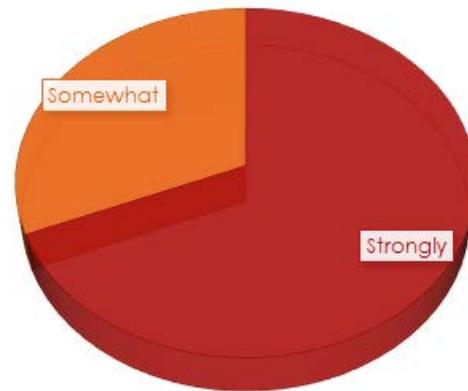
WEBSITE 2003

WEBSITE 2005
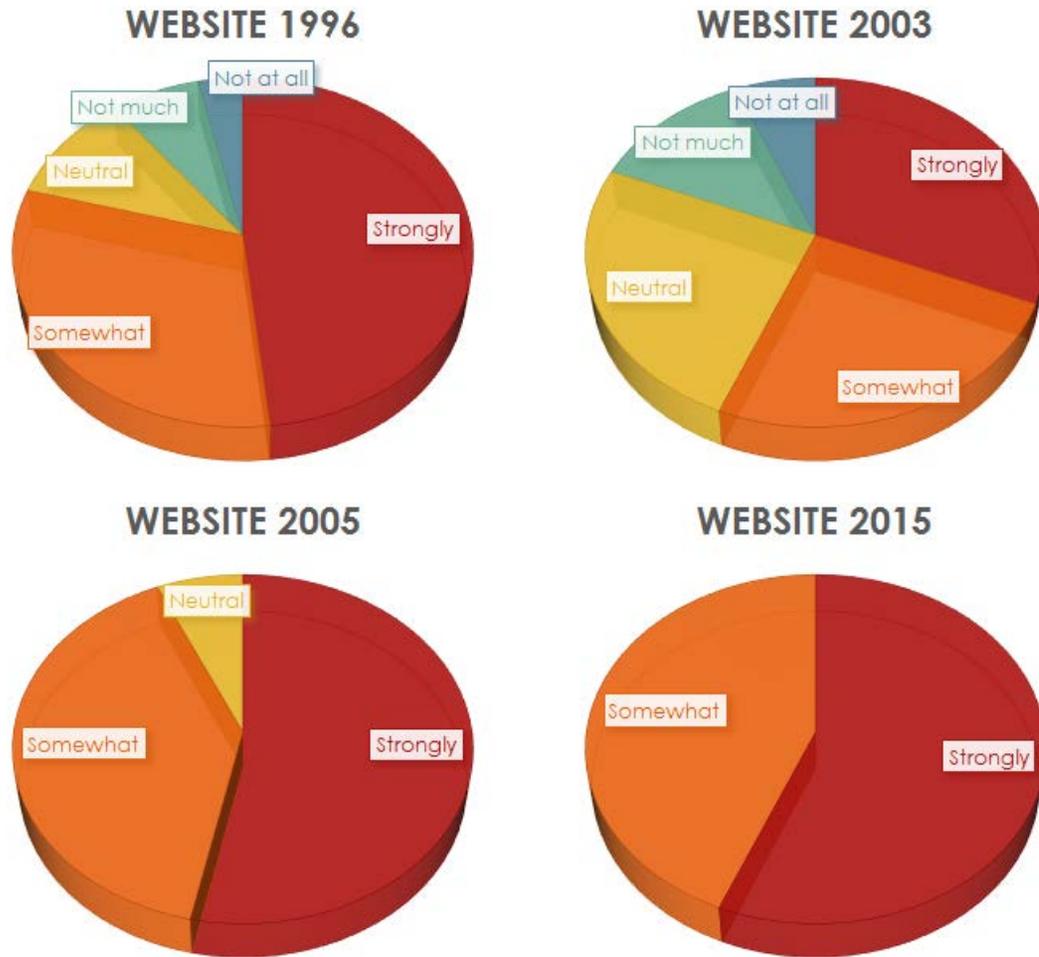
WEBSITE 2015

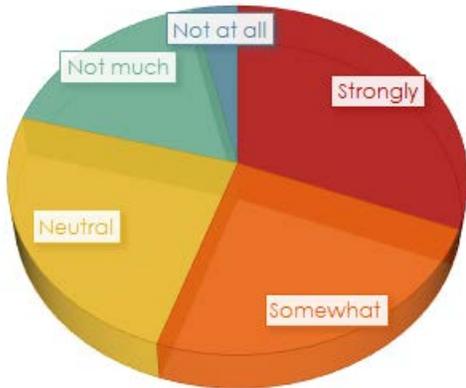7. To what degree do you believe this website is easy to use and understand?

WEBSITE 1996

Not at all
Not much
Neutral
Strongly
Somewhat

WEBSITE 2003

Not at all
Not much
Strongly
Neutral
Somewhat

WEBSITE 2005
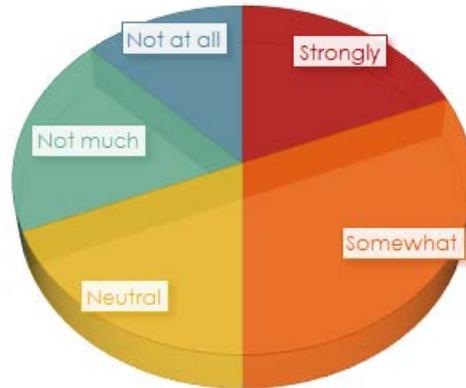
Neutral
Somewhat
Strongly

WEBSITE 2015

Somewhat
Strongly

8. How would you describe your desire to return to this website if you needed to find information in the future?

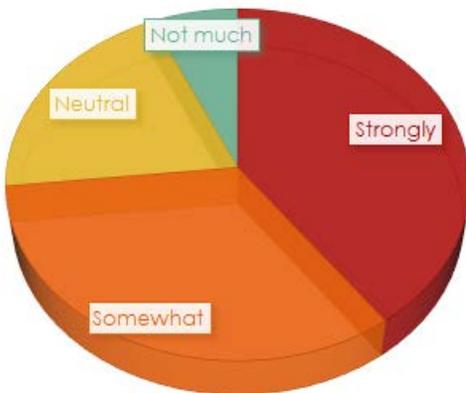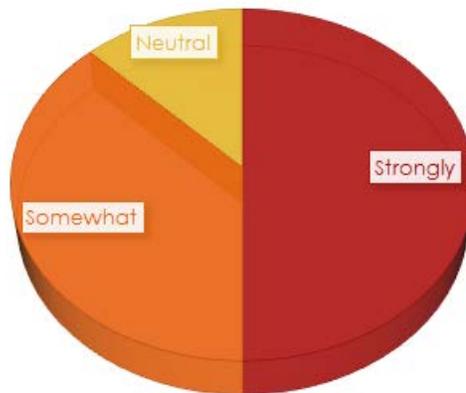**WEBSITE 1996**

Not at all
Not much
Strongly
Neutral
Somewhat

WEBSITE 2003

Not at all
Strongly
Not much
Somewhat
Neutral

WEBSITE 2005

Not much
Neutral
Strongly
Somewhat

WEBSITE 2015

Neutral
Strongly
Somewhat

APPENDIX D: Content Analysis

1. Interactivity

Interactivity	User sign in	Symbol links	Return home button	Internal links	External links	Text-only Links	Links change color	Link consistency
Website 1996	no	yes (all)	yes	10	0	no	no	no changes
Website 2003	yes	some (4)	yes (logo and menu)	36	12	some (14)	rollover	same rollover effect
Website 2005	yes	no	yes (logo and bottom)	10	8	yes (all)	rollover	Top menu rollover = text changes color Left menu rollover = background changes color Middle and bottom link rollover = text underlines
Website 2015	yes	no	yes (logo)	17	23	yes (all)	rollover	Top menu rollover = text changes color (gray) Middle link rollover = text changes color (red) Bottom link rollover = text underlines
(Broken links were not counted)								

2. Layout

Layout	Menu	Menu types	Amount of page used
Website 1996	middle	horizontal	Navigation = almost all | Graphics = logo at top | Content = none | Some Whitespace
Website 2003	top | left | right	horizontal | vertical | dropdown	Navigation = ~2/3 | Graphics = ~1/3 | Content = very little
Website 2005	top | left	horizontal | vertical	Navigation = ~1/4 | Graphics = ~1/2 | Content = ~1/4
Website 2015	top	horizontal	Navigation = ~1/4 | Graphics = ~1/4 | Content = ~1/4 | Whitespace = ~1/4

3. Graphics

Graphics	Symbols with links	Images	Text colors	Link colors	Menu colors
Website 1996	yes (10)	no	gold	black	gold
Website 2003	yes (3)	yes (5)	black	black | dark red	white
Website 2005	no	yes (4)	white | black | gold	black | gold | white	dark gold | light gold | black
Website 2015	no	yes (10)	black	black | gray | red	white