

**EVALUATION OF UNIVERSITY OF PITTSBURGH  
PITT PUBLIC HEALTH WEBSITE**

by

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## EVALUATION OF UNIVERSITY OF PITTSBURGH

### PITT PUBLIC HEALTH WEBSITE

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#### ABSTRACT

**Problem:** In 2011 the Pitt Public Health Dean's office decided to redesign the school's website and has taken this opportunity to gauge how well the current website was reaching various audiences and what could be done in the future to better serve those who use website.

**Method:** An evaluation of the website was conducted with the purpose of determining the needs of the audiences who use the website, determine the usage of the website and to explore potential ways to make the website more effective. Website analytics and qualitative research methodology was employed including five structured interviews with members of the website committee and seven focus groups with primary audiences of the website. Focus groups audiences included current students, alumni, faculty, and staff. A theme analysis was used for the focus groups using qualitative research methods.

**Results:** There were a total of 43 participants (seven students, 13 alumni, seven faculty, and 16 staff members). Four major themes were found in the focus groups. The first theme is that is difficult to find information on the website, particularly contact information. The second theme is that website usage is low because it is difficult to find information or that the website is not updated enough with new information. The third theme was that there needs to be better communication between the school and its internal and external audiences. The final theme is that all focus groups thought that social media and mobile technology were extremely important.

**Conclusions:** Recommendations for the website include continuity between the school site and the department sites so that users can find the same information across different areas of the site. The webpages should not have paragraphs of information but lists or short descriptions so users can quickly find what they need without having to read paragraphs. A reliable search bar should be added so that it only searches for information on the site, so that users can quickly find what they are looking for. There should be an easy to use directory that users can find contact information and calendar that has important event information listed for the school and departments. The school should also encourage better outreach to their audiences and provide resources to accomplish this goal. The school should also have a Facebook page and Twitter feed and keep it updated so that users will be engaged.

**Public Health Significance:** Pitt Public Health conducts world class research and trains the next generation of public health practitioners and researchers. Any organization or institution that conducts business on the internet the website has become the most important place where transactions are carried out and this holds true for universities. In order to attract the best students, faculty and staff to the school, like any business, needs to develop a website that matches the schools high standards and ideals because it is where consumers first come into contact with the school.

## TABLE OF CONTENTS

<b>PREFACE.....</b>	<b>X</b>
<b>1.0 INTRODUCTION.....</b>	<b>1</b>
<b>2.0 BACKGROUND .....</b>	<b>3</b>
<b>2.1 HIGHER EDUCATION MARKETING.....</b>	<b>7</b>
<b>2.2 COMMUNICATION THEORY .....</b>	<b>8</b>
<b>2.3 SOCIAL MEDIA .....</b>	<b>12</b>
<b>2.4 UCLA WEBSITE CASE STUDY .....</b>	<b>14</b>
<b>3.0 METHODS .....</b>	<b>17</b>
<b>3.1 STRUCTURED INTERVIEWS.....</b>	<b>20</b>
<b>3.2 FOCUS GROUPS .....</b>	<b>21</b>
<b>4.0 FINDINGS.....</b>	<b>23</b>
<b>4.1 FOCUS GROUP THEMES .....</b>	<b>24</b>
<b>4.1.1 Difficulty Finding Information .....</b>	<b>24</b>
<b>4.1.2 Low Usage of the Website .....</b>	<b>26</b>
<b>4.1.3 The Need for Better Communication between the school and its audiences.....</b>	<b>28</b>
<b>4.1.4 The importance of social media and mobile technology.....</b>	<b>29</b>
<b>5.0 DISCUSSION .....</b>	<b>31</b>

<b>5.1</b>	<b>RECOMMENDATIONS .....</b>	<b>31</b>
<b>5.1.1</b>	<b>Difficulty Finding Information .....</b>	<b>31</b>
<b>5.1.2</b>	<b>Low usage of the website .....</b>	<b>34</b>
<b>5.1.3</b>	<b>Better communication between the school and it’s audiences .....</b>	<b>35</b>
<b>5.1.4</b>	<b>The importance of social media and mobile technology.....</b>	<b>36</b>
<b>5.2</b>	<b>LIMITATIONS.....</b>	<b>38</b>
<b>5.3</b>	<b>FUTURE DIRECTIONS.....</b>	<b>39</b>
<b>6.0</b>	<b>CONCLUSIONS .....</b>	<b>40</b>
	<b>APPENDIX A: WEBSITE TERMINOLOGY.....</b>	<b>42</b>
	<b>APPENDIX B: STUDENT FOCUS GROUP CONSENT SCRIPT AND QUESTIONS.....</b>	<b>43</b>
	<b>APPENDIX C: FACULTY FOCUS GROUP CONSENT SCRIPT AND QUESTIONS ....</b>	<b>45</b>
	<b>APPENDIX D: ALUMNI FOCUS GROUP CONSENT SCRIPT AND QUESTIONS.....</b>	<b>48</b>
	<b>APPENDIX E: STUDENT AFFAIRS FOCUS GROUP CONSENT SCRIPT AND QUESTIONS .....</b>	<b>51</b>
	<b>APPENDIX F: TASK FORCE FOCUS GROUP CONSENT SCRIPT AND QUESTIONS .....</b>	<b>53</b>
	<b>BIBLIOGRAPHY .....</b>	<b>55</b>

## LIST OF TABLES

Table 1. Qualitative Measures .....	22
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## LIST OF FIGURES

Figure 1. Information Foraging Theory .....	33
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## **PREFACE**

I would like to acknowledge the Pitt Public Health Website committee, my thesis committee and Dr. Martha Terry for their support and guidance during this evaluation project.

## **1.0 INTRODUCTION**

Any organization or university that conducts business on the internet, the website has become the most important place where transactions are carried out (Tarafdar & Zhang, 2005-2006). The University of Pittsburgh Graduate School of Public Health mission statement for the school states, “Through integrated programs of excellence in education, research, and service, we generate new knowledge to drive effective public health practice and policy and improve the management of health systems.” (“Mission, Vision and Values,”) Pitt Public Health conducts world class research and trains the next generation of public health practitioners and researchers. In order to attract the best students, faculty and staff to an institution of higher learning, like any business, needs to develop a website that matches the schools high standards and ideals because it is where consumers first come into contact with the school (Lee & Kozar, 2012).

Websites for higher education (higher education defined as undergraduate school and graduate school) are one of the most important interfaces between the university and students (Rizavi, Khan, & Mustafa Rizavi, 2011). The nature of the interactions between students and educational institutions has greatly evolved after the dramatic increase in the use of the internet (Rizavi et al., 2011). From a student services and recruitment perspective, universities rely on the internet to secure admissions, remain connected to students, provide assistance and support while students are in school and after they graduate (Rizavi et al., 2011). Outside of prospective and

current students, the Pitt Public Health website has become an important source of information for a wide variety of audiences including alumni, faculty and staff.

Unfortunately, the website may not be fulfilling the important function of providing accessible and relevant information. In late 2011, Pitt Public Health decided that the school's website needed to be redesigned and has taken this opportunity to gauge how well the website was reaching various audiences and what could be done in the future to better serve those who use website (E. Affairs, 2011). The purpose of this evaluation is to determine the needs of the audiences that use the website, determine the usage of the website and to explore potential ways to make the website more effective.

## 2.0 BACKGROUND

Websites are a place where an information exchange takes place in an e-commerce transaction (Rowley, 2004). When a customer visits a website they learn important information about the company from information provided by the site. Often, this information includes identifying the product being offered, communicates marketing and cultural messages, and aspects of the organization's positioning in the market place (Rowley, 2004). In the case of a university website, the transaction occurs when the student or another user comes to the website looking for information about the school.

For the purposes of this evaluation the following website terminology has been defined. A *user* is a person who comes to the Pitt Public Health website looking for information about the school and has a basic understanding about how to use a website (Group, 2013). The *content management system (CMS)* is software that allows someone to add to or change content on the website through the use of a simple interface (Plumley, 2011). The CMS can create new pages, enter and format text, add graphics and pictures and other website maintenance (Plumley, 2011). (See Appendix A for a complete list of terminology).

As in any marketing attempt when evaluating websites it is important to know the primary and secondary users of the website.. A *primary audience* is the audience that the website is either trying to attract or that the website is catered too. A *secondary audience* is an audience that is not considered the primary audience but still uses the website. There are also

internal and external users of the website. An *internal user*, in the case of this website, is users that are currently affiliated with Pitt Public Health (current students, faculty, and staff). These users are considered primary audiences. An *external user* is a person that is currently outside of Pitt Public Health. They can be considered primary users (prospective students and alumni) and secondary users (community members, media, etc.)

Pitt Public Health was founded in 1948 and is fully accredited by the Council of Education for Public Health ("About: Fast Facts,"). The school is comprised of seven different departments: Behavioral and Community Health Sciences (BCHS), Biostatistics (BIOSTATS), Environmental and Occupational Health (EOH), Epidemiology (EPID), Infectious Diseases and Microbiology (IDM), Health Policy and Management (HPM), and Human Genetics (HUGEN). Pitt Public Health is ranked first within schools of the health sciences, second within the University of Pittsburgh for research dollars per faculty member, and ranked sixth nationally for National Institutes of Health funding (S. Affairs, 2012a). The school has 17 master's programs, 11 doctoral programs, nine certificate programs and eight active student organizations (S. Affairs, 2012a).

As of 2012, there were 181 primary faculty members, 670 students (451 continuing students and 219 newly enrolled students), and 6,554 alumni (S. Affairs, 2012a). The alumni who were considered active, in that they had a known address in the database that did not include a "do not mail" or "do not solicit" option, 46.09% of active alumni lived in Pennsylvania, 6.06 % lived in Maryland, 4.42% lived in California, 4.20 % lived in Ohio, 4.11% lived in New York and 35.11% lived in the remainder of the United States (S. Affairs, 2012b). There are about 5% of alumni living internationally (S. Affairs, 2012b).

The website provides important information that must be tailored to the appropriate audience without alienating anyone else who is visiting at the website (Mulhern, 2009). This is usually done by segmenting the audiences that use the website. Segmenting an audience is defined as describing the different types of homogenous groups that are present in a heterogeneous market (Costantinides & Zinck Stagno, 2011).

As established in the above sections the Pitt Public Health website provides a wide range of information to diverse audiences including current students, faculty, staff and alumni. Another important audience of the website are prospective students. The website is an important way to reach this external audience because the website is often the first time they are introduced to the school. This is especially true for the Pitt Public Health's website because many of the incoming students in 2012 were not from Pennsylvania (62%) or were international students (23%) (S. Affairs, 2012a). After reviewing the website analytics compiled in 2012 by the External Affairs department at Pitt Public Health, it is apparent that the site is also getting a lot of views from IP addresses outside of the United States. While the majority of views were from IP address in the US (74.69%) there were almost 25% of visitors from outside the United States including (in order of most number of views) China, Russia, India, France, and the United Kingdom (Hoel, 2012).

The current version of the school website was designed and launched in 2005 by an outside design company, Wall to Wall Studios (E. Affairs, 2011). Wall to Wall Studios created both the front end of the website and custom built the CMS. The current department websites were designed in house by a web developer in the Department of Epidemiology and launched in 2007. The current school and department websites are outdated and as technology changes Pitt Public Health needs to keep up with those developments in order to attract the best students,

faculty and staff. There have also been complaints from staff members who are asked to maintain the school website that the custom designed CMS system makes it extremely difficult to make simple changes to the website or add content.

In late 2011, the Pitt Public Health decided that the website needed to be redesigned (E. Affairs, 2011). A school website committee was formed with staff from the Dean's office Marketing Department (Sonia Gil- Director of External Affairs, Karen Perkins-Marketing Communications Manager, and Cathryn Hoel-Digital Communications Specialist), Student Affairs (Caitlin McCullough- Events Coordinator for Student Affairs), Information Technology Services (Robert Frankeny-Information Technology Manager) and Dr. Stephen Wisniewski, Senior Associate Dean of Pitt Public Health. The members of this committee were chosen because they represent areas of the school that either have the most interaction with the website (marketing and information technology) or have a large audience that uses the website (Student Affairs). This committee was formed in order to make decisions about the new website including choosing a vendor and working with them to create the new school website. Another committee was also created called the Website Task Force which was formed to include input about the website redesign from the departments at the school. This group is comprised of one member appointed from each of the seven departments to represent their department's interests and to provide information to their chairs about the new website.

Evaluating a website with the intent of improving the usability of the site can be formidable considering the size of many sites and the frequency of updates to site content (Katsanos, Tselios, & Avouris, 2010). This is also true Pitt Public Health's current website because the site contains the main school site (with information from Student Affairs including admissions, course registration, and graduation information) and the seven main department



websites that cover information pertinent to each department. Despite the large size of the website the evaluation was conducted to determine website usage and what improvements can be made to future versions of the site.

## **2.1 HIGHER EDUCATION MARKETING**

When reviewing the literature for this evaluation several areas were focused on including higher education marketing, website usability, communication theory and social media. The academic literature regarding higher education marketing is often incoherent and lacks theoretical models that reflect upon the unique context and nature of higher education services (Hemsley-Brown & Oplatka, 2006). Higher education websites are hybrids, they are not marketing a commercial product (like say, advertising shampoo or a new car) but also do not completely fit in with the idea of social marketing (Hemsley-Brown & Oplatka, 2006).

Social marketing is the application of commercial marketing technologies to the analysis, planning, execution and evaluation of programs designed to influence the behavior of target audience in order to either promote personal or societal improvement (Health Behavior and Health Education: 4th Edition 2008). Social marketing's focus on outcomes that improve personal and greater social welfare is the main difference between social and commercial marketing (Health Behavior and Health Education: 4th Edition 2008).

Social marketing is typically geared towards promoting public health initiatives (such as smoking cessation) and while an education in public health might make the world a better place it cannot be considered social marketing. While those that receive higher education degrees can have beneficial long term outcomes the goal of higher education marketing is not to improve the

lives of students (Hemsley-Brown & Oplatka, 2006). Literature about higher education marketing tends to draw empirical frameworks and conceptualizations from services marketing (for example travel); despite the differences in context between higher education institutions and other service organizations (Hemsley-Brown & Oplatka, 2006).

Higher education marketing could be described as the methodically formulated process driven by careful analysis, planning, implementation, and control of carefully formulated programs designed to gather the needs and opinions of a target market to achieve the programs objectives (Hemsley-Brown & Oplatka, 2006). According to the authors of the article, universities should market themselves through a couple of main brand positioning dimensions. First, they should marketing their reputation including their brand name, their achievements, and the high standard of education they offer. The second should be the university's learning environment including excellent staff, facilities and resources. Finally, universities should give information about graduate career prospects such as graduate's employment prospects, their expected income and employer's views of graduates from their institution (Hemsley-Brown & Oplatka, 2006).

## **2.2 COMMUNICATION THEORY**

Communication theory is particularly important for the evaluation of the website because it outlines the process of how communication works and the dissemination of information. (*Health Behavior and Health Education: 4th Edition* 2008) There are several key dimensions of communication. The message (content) is encoded and transmitted by the sender through a channel (the medium used to transmit the content) (*Health Behavior and Health Education: 4th*

Edition 2008). The message is then received by the audience, who then decodes the communication and derives meaning from it and finally the effects of the message are determined by some measureable outcome of this process (Health Behavior and Health Education: 4th Edition 2008). In the case of the Pitt Public Health, one of the main channels the school communicates through is the website.

Dissemination of information occurs through several steps. First information is encoded by the sender, transmitted, and received and decoded by the audience (Health Behavior and Health Education: 4th Edition 2008). Once information is received its meaning is synthesized and feedback can be provided. Finally this information can be circulated at the macro level if information processed and generated at the individual level (Health Behavior and Health Education: 4th Edition 2008).

The digitization of information in the last decade of the 20th century and the emergence of the Internet have added a powerful new dynamic to communication by creating easily available global access and growing reservoirs of information (Health Behavior and Health Education: 4th Edition 2008). Media have interconnected organizations that collect, process, and disseminate information, news, advertising and entertainment to a world-wide audience while also providing a platform for interaction (Health Behavior and Health Education: 4th Edition 2008).

Traditionally, media research had a strong focus of looking at audiences not as passive recipients but as active seekers and users of information (Health Behavior and Health Education: 4th Edition 2008). In the past, audiences were exposed to a variety of conventional media such as newspapers, magazines and television but that has changed as content became available on the

internet, podcasts, blogs, and user produced content such as YouTube (Health Behavior and Health Education: 4th Edition 2008).

The focus of marketing communication has been the transmission of promotions and message through available media such as radio, television, and magazines (Rowley, 2004). This focus, known as the “push approach” meant that the media were linear following a one-to-many communication model in where a single promotion such as a print advertisement was sent to many people without the opportunity for quick feedback (Rowley, 2004). The internet and websites have changed this model by allowing a non-linear communication (such as social media outlets like Twitter or Facebook) to exchange information and create potential for a two way communication between a business and its audience (Rowley, 2004).

The internet has a number of characteristics that make an important impact on communication because it is a multimedia platform, available 24 hours a day, is interactive, and has a global availability (Rowley, 2004). Even though the internet has a variety of unique features, many detractors in both business and academia feel that the internet is “just another channel” or another way of doing business (Rowley, 2004). This approach is a narrow and short sighted view of the internet. Instead of looking at the internet as another channel it should be viewed as a blending of media and marketing definitions of a channel. The definition of a channel in the media world is a branded carrier of entertainment or information to an audience with the purpose of sending content to its users. The marketing world defines a channel as any permanent route to a group of customers and is conduit for a company’s services or products. A company’s website should be viewed as not only an avenue to a market but also a place where users can gain information about a business (Rowley, 2004).

In 2008, Microsoft CEO Steve Ballmer stated that “offline advertising will all be online within in 10 years” and this idea reflects the huge transformation of advertising as it shifts from paper based to digitization (Mulhern, 2009). There is a fundamental difference between the idea of communications being about the delivery of messages through media channels versus communicating in an electronic world of networks and automated systems for maintaining connections between information and people (Mulhern, 2009). Traditional advertising has long been occupied in the process of amassing a large audience and delivering messages to them (Mulhern, 2009). While this approach continues in traditional marketing there is a parallel world developing that focuses on developing social networks, cloud computing and algorithms that filter and serve information (Mulhern, 2009).

The way people gather information and communicate has changed dramatically over the past decade (Park et al., 2012). This includes the use increasing use of cell phones as a way to gather information and the rise of social media (Park et al., 2012). Cell phones have become ubiquitous and are viewed as a faster and more convenient medium (Park et al., 2012). Beyond voice-based conversations, smart phones perform various functions including accessing the internet, email, taking pictures, playing music and games (Park, Chung, & Lee, 2012).

Along with the increased use of cell phones, communication has changed as text messaging became increasingly popular, particularly among young people (Park, Chung, & Lee, 2012). Text messaging has begun surpassing email, voice calling, and face to face talking in terms of frequency of use (Park, Chung, & Lee, 2012). It has been reported that cell phone users receive and send more text messages than phone calls and 30 % of text users stated they prefer texting over phone calls (Park et al., 2012).

This is true particularly among young adults and teenagers who conduct large parts of their communication through multimedia forms and text messaging (Park et al., 2012). This includes social networking sites which have emerged as novel and increasingly important platforms for sharing and communicating within social connections both close to home and far away (Park et al., 2012).

### **2.3 SOCIAL MEDIA**

Social media, also defined as Web 2.0, are made up of social websites that focus on user driven materials such as Flickr (photos), YouTube (videos), and networking sites (Facebook or Twitter) (Mason & Rennie, 2007). Facebook wall posting has provided a unique platform of communication in which the comments posted by one's friends can be viewed by other users as well as the profile owner, facilitating the sharing of messages among one's circle of social connections (Park et al., 2012). According to Pew Research, 83% of Americans between 18-33 years old are already users of social networking sites (SNS) and 93% of teens use the internet (Roblyer, McDaniel, Webb, Herman, & Witty, 2010). These numbers reflect big changes in the way that schools market their programs and many universities are already using SNS for promotion purposes (Roblyer et al., 2010). Outside of marketing, SNS have also begun to change how faculty communicates with their students (Roblyer et al., 2010).

Facebook is seen as an excellent mechanism for communicating with students because it allows universities to go to an environment that students are already participating in and feel comfortable using (Roblyer et al., 2010). Facebook offers the school a simple and cost-effective way to upload photos, post school announcements, and recruit for student organizations (Roblyer

et al., 2010). Universities are not the only organizations using SNS for marketing, 80% of the US businesses with more than 100 employees are using social media tools for marketing purposes (Costantinides & Zinck Stagno, 2011).

For higher education intuitions, relationship-building involves creating and maintaining valuable relationship between university and three main customer groups: alumni, current students and future students (Costantinides & Zinck Stagno, 2011). Higher education institutions show increased interest in the potential of social media as a marketing tool. Particularly important is the potential of these tools to reach and attract future students (Costantinides & Zinck Stagno, 2011). Social marketing is not the perfect solution to marketing but should be treated as another important avenue to explore. While social media use is high among future students the impact of choice of study and institutions is relatively low compared to more traditional forms of marketing (Costantinides & Zinck Stagno, 2011).

Social media (especially Facebook) is increasingly used by students for educational purposes but there is a lag between student usages versus faculty. College students tended to check Facebook and email with equal frequency while faculty were more likely to check email than Facebook (Roblyer et al., 2010). Almost 60% of students who use social networking talk about education online (Roblyer et al., 2010). More than 50% use to it to talk about specific school work (Roblyer et al., 2010). Teenagers use of other technologies, like email, is decreasing while social network use is increasing (Roblyer et al., 2010).

A great deal of communication occurs between students and instructors about courses already go on via email (Roblyer et al., 2010). Faculty may be likely to adopt a technology if they perceive it as a way to facilitate communication with students (Roblyer et al., 2010). Some faculty noted that email seemed to them a more appropriate avenue for this kind of

communication (Roblyer et al., 2010). Students may perceive a teacher's use of Facebook as an attempt to foster positive effects on important student outcomes; however, teachers may violate student expectations of proper behaviors and run the risk of harming their credibility if they use Facebook (Roblyer et al., 2010).

There are downsides to social media. For example, after a professor at Dartmouth College posted on her Facebook page about her irritation about some of the of older faculty members at a meeting she did not realize that she had not made the post private (Young, 2009). It ended up going to everyone on her Facebook page including her students. For years college administrators have warned students to watch their step in online social realms noting that sharing could hurt too much could hurt them later on if future employers saw their inappropriate pictures or wall postings. Now that professors and administrators are using social media they should heed their own advice and be careful when posting anything online (Young, 2009).

## **2.4 UCLA WEBSITE CASE STUDY**

When reviewing the literature about education websites one case study was particularly helpful outlining the problems of redesigning a university website. "Usability testing for web redesign: A UCLA case study" was published in 2005 and outlines the process by with the University of California-Los Angeles (UCLA) Library redesigned their website (Turnbow, Kasianovitz, Synder, Gilbert, & Yamamoto, 2005). This case study is an excellent example of the common problems with university websites and provides an interesting view of the redesign process. The goals of the UCLA Library website redesign were: to utilize a user-centered nomenclature, establish clear site organization and navigation, ensure easy access from the homepage to information relevant



to the entire user population, and to develop a unified institutional visual identity throughout the site and to enable a content management system (Turnbow et al., 2005).

UCLA's previous website had a variety of problems that were very similar to the problems facing many academic websites. The first problem was lack of consistency and standards for the placement and labeling of navigational tools which made it difficult for users to find information in a predictable place (Turnbow et al., 2005). The second problem was an inconsistent terminology on linked pages within the site and a heavy use of internal vocabulary that made it difficult for users to find information (Turnbow et al., 2005). The third problem was differences in graphic design and layout across departmental, resource, and service pages due to decentralized planning, management and lack of coordination among individual library units that resulted in different visual identities, navigation, and vocabularies (Turnbow et al., 2005). Finally, design inconsistencies ranged from color palates, different versions of the library logo to the placement and labeling of links to crucial library services (Turnbow et al., 2005).

In order to solve their main problems of inconsistency of pages and differences in graphic design was to create a standard page template that all of the library departments would use. Designing this standardized page was one of the challenges the UCLA library staff faced when developing the site because they wanted a template that adhered to design consistency but was not restrictive or dull (Turnbow et al., 2005).

One of the lessons learned from the website redesign was that it is an ongoing process that requires continuous usability testing as the institution and the information it provides evolve (Turnbow et al., 2005). Part of this process are the continued discussions between the design team and the library staff as they deliberate the nature of certain pages, whether they are primarily for an internal library audience or of interest to the campus or other outside users

(Turnbow et al., 2005). The case study also acknowledged that the UCLA library is not unique in facing internal changes and external pressures when it comes to a university website redesign (Turnbow et al., 2005).

### 3.0 METHODS

The evaluation consisted of first interviewing the Pitt Public Health Website Committee members about who they felt were audiences of the current website, their current likes and dislikes of the website, and what they felt was important to have in the future website. They believed that the audiences of the current website were students (prospective and current), alumni, faculty and staff. Their biggest complaints about the website were that it did not have a reliable search bar, that they did not like the current school calendar (which was just a listing of school events that is not able to search by department) and that the CMS was so difficult to use that it was not easy to update the website.

The CMS was the biggest complaint discovered during the interviews with the Website Committee. It was custom-designed meaning that in order to upgrade the site to include new features the school had to design or program new applications instead of buying a plug in application that functions on open source CMS such as Joomla or Drupal (Plumley, 2011). Many of the committee members stated that it is not easy to update information across several different pages and that they spend much of their time trying to update the same information across different areas of the site.

After speaking to members of the Pitt Public Health Website Committee, they determined the internal and external audiences of the website. Internal audiences included current students, faculty and staff and external audiences included prospective students, alumni, community

members and other users. Primary audiences are considered prospective students, current students, alumni, faculty and staff. Secondary audiences include community members and anyone else who visits the site looking for information about public health.

The Website Committee felt that prospective students were looking for information on how to apply to Pitt Public Health, tuition rates, and general information about the school. Current students were looking for information on courses, graduation information and events at the school. Faculty were looking for information related to advising students, events, or requesting technical services (such as submitting help desk tickets for IT problems) and alumni were looking for updates about the school, important school events and lecture series. All groups were looking for contact information for people located at the school.

After meeting with all of the committee members they agreed that the best way to determine what the audiences wanted from the website was to conduct focus groups with each primary audience. While quantitative data is pertained to be important and would be obtained through analytics (which can provide information about page views, pages hits, etc.) it was felt that focus groups would be the best way to collect detailed information about website usage that could not be identified through these numbers alone.

Consumer insight is usually thought of as the qualitative understanding of the motives and behaviors of consumers (Mulhern, 2009). Qualitative research methods, focus groups and structured interviews, were chosen to gauge primary audience usage of websites. While secondary audiences are important to the website it would be difficult to identify and conduct focus groups with those people (community members, media, political officials, etc.).

Usually one of the biggest challenges for marketing communications has been to fully utilize consumer insight in the planning process (Mulhern, 2009). A disconnect commonly occurs between consumer research and the planning process, often because two different people are performing these actions (Mulhern, 2009). By design, the evaluator worked closely with the Pitt Public Health website committee to prevent this problem.

After it was determined that focus groups would be used to collect data about usage of the school's website an application was submitted for Institutional Review Board (IRB) Exempt Status. Under normal circumstances IRB consent would not be needed to conduct focus groups for marketing purposes but because this information would be used for a thesis paper IRB consent was needed. An application for exempt status and received approval from the IRB on April 3, 2012 (IRB approval code is PRO12030104).

Structured interview and focus groups questions were developed after talking to the Website Committee and consulting a faculty member at Pitt Public Health who specializes in focus groups as a qualitative measurement. The goals of the evaluation were to determine the usage of the website (both at the school and department level) and how to make improvements to the redesigned site. In order to gather that information questions were developed to address these issues.

Questions for each group covered the same areas but did have some different questions depending on the audience. All groups were asked questions about usage of the main school website and the department websites, what information they were looking for, if they found it easily, and if they thought social media and mobile technology was important. Alumni were asked about the usage of the alumni page of the website and faculty were asked what information

they felt they needed for their own faculty pages. Student Affairs and the Task Force were asked to describe the usage of their websites and current issues with maintenance of website.

All groups were also shown the Yale School of Public Health website and asked their opinion of the website and in particular the online calendar. The reason the Yale website was chosen was because the school has an easy to navigate layout, good consistency between department sites, clear graphic and school identity, and an excellent online calendar.

### **3.1 STRUCTURED INTERVIEWS**

Interviews were conducted with two of the student groups due to low turn-out for advertised focus groups. Interviews are excellent way to collect qualitative information regarding people's attitudes or opinions (Butterfoss, 2007). Two interview sessions took place with student audiences: April 17, 2012 and April 18, 2012. (To see the breakdown of the groups please go to Table 1 on page 22.) Each participant at the interviews were consented using the IRB transcript. All interviews were recorded using a digital recorder and then transcribed verbatim. After transcribing the transcripts they were reviewed looking for reoccurring themes that occurred across all of the focus groups. Codes were created for the various themes, then the transcripts were reviewed again and codes were entered.

### 3.2 FOCUS GROUPS

Focus groups are small groups of people selected for their perspective on a topic of interest (Rossi, Lipsey, & Freeman, 2004). For the purpose of this evaluation focus groups were considered any group that had four people or more. The discussion is then used to identify important issues or construct a summary of the views and experiences of the topic of the focus group (Rossi et al., 2004). All focus groups were conducted at Pitt Public Health at times that was most convenient for the participants. There was one student focus group held on April 13th, 2012. One alumni focus group was held on June 27, 2012, one faculty group was held on July 17, 2012, a focus group with Student Affairs was held on July 26, 2012 and the last focus group was held with the task force on September 14, 2012. (Please see page 22 for a breakdown of the focus groups.)

Students and faculty were recruited through advertisements in the Weekly Update (a weekly newsletter distributed electronically to the students, staff and faculty at the school) as well as email announcements. Alumni were recruited through an email sent to them from the University of Pittsburgh Alumni Association. The Student Affairs department and the website Task Force also agreed to attend a focus group. Students, faculty and alumni were provided with lunch or dinner depending on what time of day their focus group occurred. Alumni were also given a twenty five dollar gift card to the University bookstore as a thank you for attending. The Student Affairs and task force focus group were not provided with any incentive because these focus groups were taking place during work hours and it did not seem appropriate to provide staff members an incentive during work hours.

The breakdown of attendance for the focus groups is as follows: student focus groups (seven students, six from BCHS, one from HPM) alumni (13 attended, all departments were

represented), faculty (five attended from BCHS, BIOSTATS, HUGEN, IDM), Student Affairs (13 people attended) and Task Force (seven staff members attended but IDM and HUGEN were unable to attend). All groups were consented by reading out loud the IRB consent script and gave audio confirmation. A note taker was present as well as members of the company contracted for the design of this new website who were observers of the focus groups.

All focus groups were recorded using a digital recorder and then transcribed verbatim. After transcribing the transcripts they were reviewed looking for reoccurring themes that occurred across all of the focus groups. Codes were created for the various themes, then the transcripts were reviewed again and codes were entered. After finding the relevant themes in the focus groups, analytics were reviewed from Google to see if the website usage matched some of the themes presented (if analytics could be used, for example it's difficult to determine the importance of social media through analytics).

**Table 1. Qualitative Measures**

<b>Qualitative Measurement</b>	<b>Date of Interview</b>	<b>Number of participants</b>	<b>Audience</b>	<b>Departments</b>
Focus Group	April 13, 2012	4	Students	BCHS/HPM
Guided Interview	April 17, 2012	2	Students	BCHS
Guided Interview	April 18, 2012	1	Students	BCHS
Focus Group	June 27, 2012	13	Alumni	All departments
Focus Group	July 17, 2012	5	Faculty	BCHS, BIOSTATS, HUGEN, IDM
Focus Group	July 27, 2012	13	Student Affairs	Student Affairs
Focus Group	September 14, 2012	7	Website Taskforce	BCHS, BIOSTATS, EOH, EPID, HPM



## 4.0 FINDINGS

There were four major themes discovered when reviewing the transcripts. The first theme was that it was difficult to find information on the website, particularly contact information. The second theme is that website usage was low because it is difficult to find information or that the website is not updated enough with new information. The third theme was that there needs to be better communication between the school and its internal and external audiences. The final theme was that all focus groups thought that social media and mobile technology are extremely important.

Students were using the website for graduation information, course information (both how to enroll in courses as well as researching what courses they would be interested in taking), events information, financial aid information, and thesis information. Alumni stated that they did not use the website often but when they did they were looking at the school calendar (looking for school or department events such as lecture series or seminars), job information (either looking at job postings or looking to post job/internship opportunities for current students), contact information (for faculty and alumni organizations). Information that faculty are looking for include class schedules, academic policies, staff or faculty contact info (but they usually go to the department sites) and faculty committees. Staff are typically looking for scheduling and contact information.

## **4.1 FOCUS GROUP THEMES**

### **4.1.1 DIFFICULTY FINDING INFORMATION**

“I have to memorize where things are. Literally, I do.”-Student Affairs Focus Group

Difficulty finding information on the website was the most discussed theme about the school website and the department websites. Reasons for difficulty finding information include website pages having too much information, inability to easily find information needed, and the lack of continuity between the individual department websites. While each audience was looking for different information it is important to note that all groups singled out finding contact information has particularly cumbersome. It also should be noted that every group mentioned that they either use Google search to find the Pitt Public Health website or use Google search to find things on the school website. It should also be noted that all of the focus groups did not like the flash panel in the middle of the school page. They thought it was difficult to use and distracted from the navigation of the site. A quote from the faculty focus group succinctly sums up the general feeling about the flash panel on the website “The flipping pictures on the front drives me bonkers.”

Student groups were discouraged when trying to find information about courses, graduation and financial aid. They stated that too much of the information on the website was in paragraph form and what they really wanted were lists of either information or instructions. As prospective students they said that they were willing to spend a lot of time going through the website but as current students they no longer have the time or inclination to look through the website on a regular basis to find information.

The faculty group was frustrated because they do not have a page on the website that was dedicated to information that they needed as faculty. One faculty member noted that she needed to find information about course schedules but it was not until she realized that she needed to look under the “Current Students” section of the website that she found what she needed. As noted by someone in the Student Affairs focus group a user should not have to pretend to be another audience member to find the information they need.

“But, it does but I think one of the things we if we do have this you get there [the website] the view by audience or who you are there’s going to be some occasions where whether you’re faculty or student that you want to land somewhere and you should be able to land somewhere without having to go or pretending to be a student to get to that somewhere if you’re really a faculty person we should have enough vision of where faculty might want to go that we put it all in the faculty silo or whatever we’re going to call it”.-Student Affairs Focus Group

Lack of continuity between department websites is another issue that leads to difficulty finding information, particularly when trying to find contact information. Students, faculty, alumni and staff have all noted that there is a lack of continuity between the department websites which leads to difficulty finding information on the department websites. For example, from the student focus group

“You bring up an interesting point because I, before I started here, I think I, like, I think I tried to look at this website but being a prospective student you don’t really know what you’re looking for, it’s kind of overwhelming because all of the departments have their own pages, all of the pages look a little bit different”.-Student Focus Group

#### **4.1.2 LOW USAGE OF THE WEBSITE**

“I didn’t know it existed”-Alumni Focus Group

There appears to be a low usage of the website by internal and external audiences. There are a variety of reasons that usage appears to be low including difficulty finding information (which was reviewed above), poor communication from the school about using the website (which will be reviewed below), and that content was not updated enough to keep returning to the website.

The students in the focus group commented that they used the website often when applying for graduate school as prospective students but as current students they usually do not use the general school website or the department sites. Students in particular noted that it was easiest to get important information via word of mouth, either from their student liaison (a staff person that acts as a liaison between the department and the student body) or another student, and then it was trying to find it on the website. Many of them said that their student liaisons keep them well informed about important deadlines and other information so they do not bother with the website. Most of the students said that if they needed information about their department that they first contact their friends, then their student liaison, then student affairs or their advisor. As one student noted:

“Hey, so and so, where do I find my thesis advisor? Or how to I find my reader? If they don’t know I’ll go to my liaison and she’ll direct me to somewhere else and if she can’t help then I’ll go to student affairs and see if they can give me more information about what department I need to talk to or who I need to talk too and then sometimes I can just send my advisor an email and she’s able to field any questions that I get.” –Student Focus Group

A part time student stated that it was particularly difficult for her if she cannot find information on the website because she did not know a lot of students well enough to ask them for help.

The faculty was split about the usage of the website. One faculty member stated that the IT departmental website easy to use and they use it often. Faculty members from other departments stated that they do not often use the website because they either already have the information that they need or they have used the website in the past and it has not been easy to find information. One faculty member stated that she uses the website for the department handbook or contact information but that is it.

Some faculty felt there should be a section for the website that will have information that would be helpful to faculty (teaching resources, advising information, class schedules, forms, etc.) as well as a functioning intranet. There was also some interest in having a way to identify guest speakers, experts, research collaborators within in the school. While the school has a faculty directory it is difficult to use or find specializations (for example people looking for HIV/AIDS research, community interventions, etc.)

Alumni stated that they do not go on the website often either to the school's main page, department sites or the alumni page. Alumni had some interesting ideas on information they would like to see on the website. One alumnus said that it would be interesting to have a short history of the school and a short history of how each department was founded. Other alumni suggested to featuring notable alumni from each department which would not only be a bragging point for the school but also let visitors to the site know what kind of work each department is involved in. Notable alumni should be profiled on the site and this would be of interest to many audiences but specifically prospective students. Students also said that they would like to see

more notable alumni on the website so it gives them an idea about where to apply for jobs after they graduate or maybe be able to use alumni as contacts for either job opportunities or mentors.

One alumnus said that she could not find any information on Delta Omega (the honors society for public health) on the site which was strange to her because she has been told that Delta Omega at Pitt Public Health is very active. Career Services and school events were of particular interest for alumni. Alumni were interested in attending events at the school and participating in a mentoring program with current students.

Someone from Student Affairs stated that a one problem with the website was that content was not updated enough, especially faculty profiles.

“A big problem with that is that everyone on the top department level are not changing their research and stuff and their questions, if no one updates their research right now and 2008 is the last time they posted a paper it looks like our faculty and staff aren’t doing anything.”-Student Affairs

#### **4.1.3 THE NEED FOR BETTER COMMUNICATION BETWEEN THE SCHOOL AND ITS AUDIENCES**

All groups thought that the school could do a better job with communicating with their audiences. Students felt that there was information missing from the site that they did not know about until after they spoke to other students or attended orientation. Students said that they did not know about information about certificates or the ability to take classes in other schools at Pitt or in other universities in the area.

Faculty thought that the school needs to spend more time promoting the three primary goals of the school listed including teaching, research and public service. One faculty member

felt that while research was being promoted the other areas were not getting enough space on the website. They felt that the website should be organized so that research accomplishments (large grants being awarded to faculty or labs, recent publications and awards) get attention. Teaching should be promoted by focusing certain classes or professors. Service should be promoted by spotlighting people that work in the community such as evaluators and public health practitioners that do not work in a traditional wet lab, because as one faculty member stated “Our lab is the community”.

Alumni stated that there needs to be better outreach from the school to alumni and they would like to be better informed about what’s going on with the school. One alumnus said that she reads everything from the school and would be happy to use the website but feels that the website needs to be promoted better.

#### **4.1.4 THE IMPORTANCE OF SOCIAL MEDIA AND MOBILE TECHNOLOGY**

“I mean, you know, that’s just the world that they exists in, that’s where they communicate in, so you have to be where they are”-Faculty Focus Group

Students, faculty, alumni and staff all noted the importance of social marketing and media technology but there appears to be a division of that importance when it comes to age. All groups said that they use Facebook to some extent and everyone agreed that they do not currently use Twitter. In fact none of the groups were aware that the school currently has a Twitter account or that Student Affairs currently has a Career Services Facebook page.

Students were very interested in social media and mobile technology particularly when it comes to events. Considering the large amount of time they spend on Facebook it makes sense that the school should have a wider presence on the social marketing site. Student said that they

would like to use Facebook by having a link to the calendar where you can “like” events or using a news feed to learn about events at the school. This way they could easily check what events are going on at school or see if their friends are attending events.

The faculty thought that social media was a good idea but were divided about how to use it.. One faculty member thought it would be better to have an official school page than having student’s friending her on her personal page and that would limit any possible legal issues. They also felt that an official page would be helpful for incoming students that have a lot of questions because faculty are getting a lot of emails. But as it was pointed about by another faculty member students probably would not want to use a separate system, they like to use Facebook since they are on there already.

Some of the alumni use Facebook but admit that there was probably a generational gap and think that younger alumni would be interested in having a school Facebook page. Many of the alumni are viewing the website on their computers so they are not interested in mobile applications. The alumni who use smart phones would like to have mobile technology if it is easy to use and view (there was some concern that the print would be too small to read on a phone.)

In summary, students, faculty, alumni, and staff felt that there were four main themes regarding the current website. The first theme is that it is difficult to find information on the website, particularly contact information. The second theme is that website usage is low because it is difficult to find information or that the website is not updated enough with new information. The third theme was that there needs to be better communication between the school and its internal and external audiences. The final theme is that all focus groups thought that social media and mobile technology were extremely important.



## **5.0 DISCUSSION**

The purpose of this evaluation was to determine the needs of the audiences that use the website, determine the usage of the website and the discover how to make the website more effective. After reviewing the transcripts four theories emerged about the website: difficulty finding information, usage of the website was low, the need for better communication between the school and its audiences, and finally the importance of social media and mobile technology.

## **5.1 RECOMMENDATIONS**

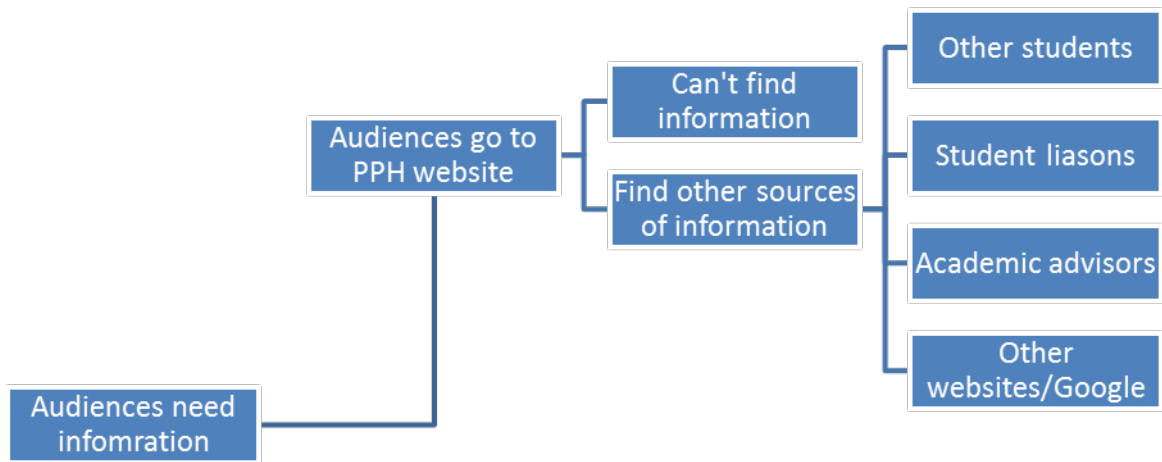
### **5.1.1 DIFFICULTY FINDING INFORMATION**

The website appears to have a paradox in that it has too much information on the website but it is incredibly difficult to find either useful information or a way to search for it. As noted in the results section there was frustration by some staff members that students were not using the website and were expecting staff to members to provide them information. There was some disagreement by other members stating that the website was too difficult to navigate so students were forced to ask others for help finding information.

This problem probably stems from poor information architecture. Information architecture is defined as the practice of structuring information (knowledge or data) for a purpose (Katsanos et al., 2010). While some staff members use the site regularly or maintain the site they are very familiar with how to find information, however, most of the school's users, do not. If the school's current site had a better structure of information that would probably determine the efficiency of the user to find meaningful information, in the context of their reason for visiting the website (Katsanos et al., 2010).

The Information Foraging theory posits that website users are constantly making decisions on what type of information to look for, which path to follow to find that information, and whether to continue looking for information on a specific site, to move on to another site, or to stop their search entirely (Katsanos et al., 2010). The decision to keep using the same site is based on a cost-benefit analysis mechanism, meaning that the user examines the provided information against the amount of effort required to obtain it (Katsanos et al., 2010). When users of the website can no longer easily find information they move on to a different information source (Katsanos et al., 2010).

In the case of the Pitt Public Health, website users (in particular students) have become frustrated with using the site and would rather consult friends or staff members to answer their questions. As a result the participants reported that information finding was extremely time-consuming and annoying. Users are irritated that they cannot easily find information and staff are upset that they have to keep answering the same questions over and over again when they know the website has the information people need. Below is a visual representation of current path of information seeking regarding the website.



**Figure 1: Information Foraging Theory**

All focus groups noted that a search bar was absent from the website and one would be needed in the future (preferably powered by Google and that its search remain limited to the website). Part of this problem is because the school does not have a functioning search bar on the website. When discussing this with members of the website committee they noted that they did have a search bar in the past but it has functioned so poorly that when a user typed in a question that often it came back with “Search Not Found”. The committee thought that it would be better to remove the search bar entirely than have the user think that the information was not available. Due to the customized CMS, it would have been incredibly expensive to buy an updated search bar or extremely time consuming to build a search bar on their own. The website committee realizes that a search bar is necessary and one will be included when the new website launches later in 2013.

Department websites should be standardized across departments because that will make navigation and finding information easier for all stakeholders coming to the website. (Mulhern,

2009) There should also be a directory that includes staff and faculty along with their contact information and title because that would be useful when trying to find people. The directory would be helpful for internal and external audiences (such as students looking for advisors or businesses looking for principal investigators of labs).

When redesigning the website the recommendation would be to have continuity between the school site and the department sites so that users can find the same information across different areas of the site. A reliable search bar should added, that only searches for information on the site, so that users can quickly find what they are looking for. The webpages should not have paragraphs of information but just lists or short descriptions so users can quickly find what they need without having to read through paragraphs.

### **5.1.2 LOW USAGE OF THE WEBSITE**

Interestingly, there was a conflict in the Student Affairs focus group about the low usage of the website. One of the staff members noted that she meets with a lot of students and when she asks them if they have visited the website they say no. She, understandably, is upset because there is information listed on the website and that it is the student's job to find the information and not make her repeat the same thing over and over again. But, as another member of the Student Affairs group pointed out:

“Well, that maybe a problem with the way in which they start reading and they can't make sense of it [the website]”. “And it's just like....and they're hoping someone can translate it for them. So I don't think that we should hold them entirely accountable for...”-Student Affairs Focus Group

There are a variety of reasons that there is low usage of the website. As has been found with commercial websites there are a variety of problems with website usability including inconsistent formats, difficulty navigating the site, hard to understand content and inefficient search capabilities (Lee & Kozar, 2012). The Pitt Public Health website has many of these issues.

As mentioned in the above section, the Information Foraging theory states that when users have problems locating information they leave the site and look for it elsewhere. Over time, Pitt Public Health website users have learned that it is easier to ask others to either answer their questions or other ways to answer their questions rather than going to the website. This leads to users not using the website. If the recommendations for the difficulty finding information are followed this should help rectify the problem of low usage of the website.

### **5.1.3 BETTER COMMUNICATION BETWEEN THE SCHOOL AND IT'S AUDIENCES**

Participants in all focus groups noted that there should be better communication between the school and its audiences. Problems ranged from people not being informed about school events in a timely manner, alumni feeling that they did not have good communication with the school and faculty having difficulty looking for collaborators or feeling that outside users could not easily find experts at the school.

The website redesign will allow for better communication between the school and it's audiences by providing a platform that allows for easy communication between both parties. This should include providing an easy to use directory so that users can find faculty and staff, a calendar that provides information about all school events (including both school wide and

departmental) and encouraging alumni and other outside audiences to use the website through other communication means (school magazine, alumni email updates, etc.)

While the website redesign will make it easier for the school to communication with its audiences it cannot be the only solution to this problem. According to the participants the school needs to do a better job of outreaching to the various audiences of the school including prospective students, current students, faculty, staff and those outside of the school The school needs to provide resources including time and staff to be able to properly maintain the site and allow for open channels of communication.

Recommendations are to include an easy to use directory, encouraging the use of the website through other media and providing a calendar of events.

#### **5.1.4 THE IMPORTANCE OF SOCIAL MEDIA AND MOBILE TECHNOLOGY**

Students, faculty, alumni and staff all noted the importance of social marketing and media technology but there appears to be a division of that importance when it comes to age. All groups said that they use Facebook to some extent and everyone agreed that they do not currently use Twitter.

A Facebook page would be a way for different audiences for the GSPH to connect to each other such as prospective students with current students, current students to alumni, and alumni to alumni but it is important to remember to update content regularly and allocate resources such as staff time to run it (Costantinides & Zinck Stagno, 2011). Many universities do not provide online visitors with social media options on their home pages and other universities are limiting their attention only to social networks such as Facebook and Twitter (Costantinides & Zinck Stagno, 2011). This is probably because the process of creating attractive

social media applications, populating them with content and then connecting with users is a major challenge for university marketers (Costantinides & Zinck Stagno, 2011).

Social media requires an allocation of resources, an organizational structure and consistent policy that keeps applications up to date and utilizes the consumer input (Costantinides & Zinck Stagno, 2011). Just having prescience in social media space is not enough for successful higher education marketing (Costantinides & Zinck Stagno, 2011). Strong institutional commitment is very important and university must be willing to allocate resources to this form of communication (Costantinides & Zinck Stagno, 2011).

The recommendations for addressing social media and mobile technology would be to include a simple and easy to read mobile version of the website. Resources should be allocated to allow staff to update the school's Facebook page and Twitter feed on a regular basis so that users will be engaged with the school on a variety of platforms.

The recommendations for the website are as follows. The website redesign should include continuity between the school site and the department sites so that users can find the same information across different areas of the site. The webpages should not have paragraphs of information but just lists or short descriptions so users can quickly find what they need without having to read paragraphs. A reliable search bar should added, that only searches for information on the site, so that users can quickly find what they are looking for. There should be an easy to use directory that users can find contact information and a calendar that has important event information listed for the school and for the departments. The school should also encourage better outreach to their audiences and provide resources to do this. The school should have a Facebook page and Twitter feed but keep it updated so that users will be engaged.

## 5.2 LIMITATIONS

There were several limitations in the study. First, there was low focus group turn out for students. The student focus groups had only two departments represented BCHS and HPM, which was probably due to the fact that focus groups were held two weeks before finals. In the future it would be better to have the focus groups during the middle of the semester to insure a higher turnout. It might also help to have focus groups in the fall rather than the spring because most students graduate in the spring and are probably more inclined to attend because they are not concerned about graduating that semester.

Second, there may have been a selection bias of faculty focus group members. One of the faculty member's is very interested in communication and particularly social media. Third, not all departments were represented in focus groups for faculty. One of the reasons that the focus groups took place in the summer and some faculty were not on campus at the time. Scheduling during the school year would also have been difficult because faculty may be teaching classes and conducting research. Also, it appears that faculty usage of the website was low so they might have felt they had nothing to add to the discussion which is why they did not attend the focus group.

Fourth, the ages of the participating alumni were homogenous and not representative of the alumni population. Most of the alumni were older and not interested or unable to use mobile technology. They admitted that there was probably a generational gap and that younger alumni would find mobile technology helpful. The other limitation was that all of the alumni that attended were still living in the Pittsburgh area; while about half of Pitt Public Health alumni are living outside of the Pittsburgh area. In the future it would be helpful to arrange a focus group (either through Skype or another virtual meeting system) that would allow out of state or even



international alumni to participate. It should be noted that while there were limitations, the themes above were mentioned in all focus groups and focus group saturation had been reached.

### **5.3 FUTURE DIRECTIONS**

There needs to be further research about at the marketing and the usage of websites for higher education institutions, particularly for graduate programs. Many of the articles discussed the use of mobile technology and websites for undergraduates and although the number of graduate students is much smaller than undergraduates it would be useful to further look into this audience. A lot of time and money is invested into graduate students, particularly graduate students going for their PhD, so it makes sense to determine what content graduate students need. According to the literature there also appears to be some evidence of negative feelings towards the need for marketing activities on a university site, so research should be conducted to examine the notions of ethical perceptions, personal and moral philosophies, ethical values and social responsibilities of those involved managing the marketing of universities, particularly the internal marketing issues (Hemsley-Brown & Oplatka, 2006). Finally, there should be more research into the use of the information foraging theory and website usage.

## **6.0 CONCLUSIONS**

The purpose of this evaluation is to determine the needs of the audiences that use the website, determine the usage of the website and the discover how to make the website more effective. Pitt Public Health has recognized these issues which is why they decided to redesign the website. They are taking other positive steps to incorporate social media. They have hired a digital communications specialist to focus on building the school's Facebook and Twitter pages. The website design firm will take the information collected from the focus groups and use that to redesign the website. The marketing department at the school has taken the initiative to redesign the website and will also use the information from the focus groups to help improve the website.

The results of the focus groups were that is difficult to find information on the website, particularly contact information. The second theme is that website usage is low because it is difficult to find information or that the website is not updated enough with new information. The third theme was that there needs to be better communication between the school and its external and internal audiences. The final theme is that all focus groups thought that social media and mobile technology is extremely important.

Recommendations for the website include have continuity between the school site and the department sites so that users can find the same information across different areas of the site. The webpages should not have paragraphs of information but just lists or short descriptions so users can quickly find what they need without having to read paragraphs of content. A reliable

search bar should added, that only searches for information on the site, so that users can quickly find what they are looking for. There should be an easy to use directory that users can find contact information and a calendar that has important event information listed for the school and for the departments. The school should also encourage better outreach to their audiences and provide resources to do this. A mobile version of the website should be created so that the school's website can be viewed on various smart phone platforms. The school should also have a Facebook page and Twitter feed and keep it updated so that users will stay engaged.

## APPENDIX A

### WEBSITE TERMINOLOGY

User: user is a person who comes to the Pitt Public Health website looking for information about the school and has a basic understanding about how to use a website

Content Management System (CMS): Software that allows someone to add to or change content on the website through the use of a simple interface. It allows someone to create new pages, enter and format text, add graphics and pictures, etc.

Primary audiences: the audience that the website is either trying to attract or that the website is catered too

Secondary audiences: the audience that is not the primary audience but still uses the website

Internal users: in this case it's users that are currently at Pitt Public Health (current students, faculty, and staff). These users are considered primary audiences.

External users: users that are currently outside of Pitt Public Health. They can be considered primary users (prospective students and alumni) and secondary users (community members, media, etc.)

## **APPENDIX B**

### **STUDENT FOCUS GROUP CONSENT SCRIPT AND QUESTIONS**

Good afternoon. My name is Lauren Hughes and I am a masters student in the Graduate School of Public Health (GSPH) in the Behavioral and Community Health Sciences. First, I want to thank you for attending today's focus group and I really appreciate the time you are taking out of your schedule to participate. You will be provided a lunch as thanks for your participation with this focus group. The purpose of this research is to gather information about how you use the GSPH website, as a current student and if there are any areas of the website that you feel need to be improved.

This focus group was commissioned by the GSPH Dean's Office because we are interested in redesigning our website. You are one of the primary audiences that use the website and it is incredibly important that we know how you are using the site and how we can improve it. The information that is gathered from today's group will be transcribed, analyzed and then given to Sonia Gill, the Director of External Marketing. This information will inform her about how you are using the site and hopefully be used when we begin to redesign the website later this year.

You will notice that I am recording this focus group session. While we will not be discussing any personal or sensitive information, it is important for me to note that the transcripts and recording of this focus group will be completely confidential. By staying at this table you all consenting to be audio recorded. If anyone does not feel comfortable you may feel free to leave at this time. Does everyone feel comfortable being recorded?

Has anyone been part of a focus group before? Okay, for those of you who have not I will explain how this will work. First, I want to let you know that this focus group should take about ninety minutes. We will be looking at GSPH website throughout this session so please excuse me if I need to move around to change anything on the computer. You might have also noticed Caitlin is in the corner of the room. She is the note taker for this focus group, she will not be participating but she will be making notes about our discussion. I am the facilitator of this group and my role is to ask you questions, verify anything that is unclear and to keep track of the time. You are the experts in the group and I value everyone's opinion. There are no bad or stupid ideas and it is important to remember that we should respect everyone's opinion. So even if someone suggests something that might seem strange, like changing the Pitt logo to a unicorn or making the background lilac, that's fine. The GSPH website is here to serve you and we want to hear your opinion. Does everyone need anything else before we get started or have any questions?

### Questions

1. What information do you go to a university website for?
  - a. How often do you use the university site?
  - b. Do you find the information you need easily?
  - c. Do often do you use your department website?
  - d. Do you find the information easily?
  - e. What information would you like to see on the school/department sites?
  - f. Are you interested in mobile technology (i.e.-using the school site on your phone)
  - g. Are you interested in social media from the school (i.e.-Facebook, Twitter, etc.)
2. Tell me about a website that you visited that you really like. What is it about that website that you really like? What about the site don't you like?
3. Let's take a look at the Yale Graduate School of Public Health website. I'd like to get your reaction to it. What's your initial reaction? What do you like about it? What don't you like?
4. Let's take a look at the GSPH website. I'd like to get your reaction to it. What is your initial reaction? What do you like? What don't you like?

## **APPENDIX C**

### **FACULTY FOCUS GROUP CONSENT SCRIPT AND QUESTIONS**

Good afternoon. My name is Lauren Hughes and I am a masters student in the Graduate School of Public Health (GSPH) in the Behavioral and Community Health Sciences. First, I want to thank you for attending today's focus group and I really appreciate the time you are taking out of your schedule to participate. You will be provided a lunch as thanks for your participation with this focus group. The purpose of this research is to gather information about how you use the GSPH website, as current faculty and if there are any areas of the website that you feel need to be improved.

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Has anyone been part of a focus group before? Okay, for those of you who have not I will explain how this will work. First, I want to let you know that this focus group should take about ninety minutes. We will be looking at GSPH website throughout this session so please excuse me if I need to move around to change anything on the computer. You might have also noticed Caitlin in the corner of the room. She is the note taker for this focus group, she will not be participating but she will be making notes about our discussion. I am the facilitator of this group and my role is to ask you questions, verify anything that is unclear and to keep track of the time. You are the experts in the group and I value everyone's opinion. There are no bad or stupid ideas and it is important to remember that we should respect everyone's opinion. So even if someone suggests something that might seem strange, like changing the Pitt logo to a unicorn or making the background lilac, that's fine. The GSPH website is here to serve you and we want to hear your opinion. Does everyone need anything else before we get started or have any questions?

### Questions

1. Do you use the GSPH school website?
  - a. If yes, how often do you use the university site?
  - b. When you use the site what information are you looking for?
    - i. Do you find the information you need easily?
  - c. Is there any type of information that you don't see on the GSPH website but would like to have?
2. Do you use your department website?
  - a. If yes, how often do you use the department site?
  - b. When you use the site what information are you looking for?
    - i. Do you find the information you need easily?
  - c. Is there any type of information that you don't see on the department website but would like to have?
3. How would you like to have your research featured on the GSPH website?
4. How would you like to receive information from the school? (Do you read the weekly update)
  - a. Are you interested in mobile technology (i.e.-using the school site on your phone)
  - b. Are you interested in social media from the school (i.e.-Facebook, Twitter, etc.)
    - i. Do you use Facebook or Twitter?
5. Tell me about a website that you visited that you really like. What is it about that website that you really like? What about the site don't you like?



6. Let's take a look at the Yale Graduate School of Public Health website. I'd like to get your reaction to it. What's your initial reaction? What do you like about it? What don't you like?
  - a. Let's take a look at their research section. What do you like about it? What don't you like about it?
7. Let's take a look at the GSPH website. I'd like to get your reaction to it. What is your initial reaction? What do you like? What don't you like?

## **APPENDIX D**

### **ALUMNI FOCUS GROUP CONSENT SCRIPT AND QUESTIONS**

Good afternoon. My name is Lauren Hughes and I am a masters student in the Graduate School of Public Health (GSPH) in the Behavioral and Community Health Sciences. First, I want to thank you for attending today's focus group and I really appreciate the time you are taking out of your schedule to participate. You will be provided dinner as well as a gift card as thanks for your participation with this focus group. The purpose of this research is to gather information about how you use the GSPH website, as alumni and if there are any areas of the website that you feel need to be improved.

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Has anyone been part of a focus group before? Okay, for those of you who have not I will explain how this will work. First, I want to let you know that this focus group should take about ninety minutes. We will be looking at GSPH website throughout this session so please excuse me if I need to move around to change anything on the computer. You might have also noticed Caitlin in the corner of the room. She is the note taker for this focus group, she will not be participating but she will be making notes about our discussion. I am the facilitator of this group and my role is to ask you questions, verify anything that is unclear and to keep track of the time. You are the experts in the group and I value everyone's opinion. There are no bad or stupid ideas and it is important to remember that we should respect everyone's opinion. So even if someone suggests something that might seem strange, like changing the Pitt logo to a unicorn or making the background lilac, that's fine. The GSPH website is here to serve you and we want to hear your opinion. Does everyone need anything else before we get started or have any questions?

### Questions

1. Do you use the GSPH school website?
  - a. If yes, how often do you use the university site?
  - b. When you use the site what information are you looking for?
    - i. Do you find the information you need easily?
  - c. Is there any type of information that you don't see on the GSPH website but would like to have?
2. Do you use your department website?
  - a. If yes, how often do you use the department site?
  - b. When you use the site what information are you looking for?
    - i. Do you find the information you need easily?
  - c. Is there any type of information that you don't see on the department website but would like to have?
3. Do you use the Alumni section of the GSPH website?
  - i. As an alumnus what kind of information would you be interested in?
  - ii. Would you be interested in attending events at the school? If so, what kind of events?
  - iii. Are you interested in participating in a mentoring program?
4. How would you like to receive information from the school? Website, newsletter, email, etc.
  - a. Are you interested in mobile technology (i.e.-using the school site on your phone)
  - b. Are you interested in social media from the school (i.e.-Facebook, Twitter, etc.)
    - i. Do you use Facebook or Twitter?

5. Tell me about a website that you visited that you really like. What is it about that website that you really like? What about the site don't you like?
6. Let's take a look at the Yale Graduate School of Public Health website. I'd like to get your reaction to it. What's your initial reaction? What do you like about it? What don't you like?
7. Let's take a look at the GSPH website. I'd like to get your reaction to it. What is your initial reaction? What do you like? What don't you like?

## **APPENDIX E**

### **STUDENT AFFAIRS FOCUS GROUP CONSENT SCRIPT AND QUESTIONS**

Good afternoon. My name is Lauren Hughes and I am a masters student in the Graduate School of Public Health (GSPH) in the Behavioral and Community Health Sciences. First, I want to thank you for attending today's focus group and I really appreciate the time you are taking out of your schedule to participate. The purpose of this research is to gather information about how you use the GSPH website, as faculty and staff and if there are any areas of the website that you feel need to be improved.

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### Questions

1. Are you concerned about addressing any audiences outside of current and prospective students?
2. What are some common complaints about the current Student Affairs section of the website?
3. Do you think it's important to separate information for current and prospective students?
4. Is there any information that's not currently on the Student Affairs website but should be?
5. Are you currently using social media? If yes, how is it working for your department? If not, how would you like to use social media?
6. What information should be under Student Affairs? What should be posted on the department sites (course description, etc.)?
7. What are the top 10 questions that you get asked on a regular basis?

## **APPENDIX F**

### **TASK FORCE FOCUS GROUP CONSENT SCRIPT AND QUESTIONS**

Good afternoon. My name is Lauren Hughes and I am a masters student in the Graduate School of Public Health (GSPH) in the Behavioral and Community Health Sciences. First, I want to thank you for attending today's focus group and I really appreciate the time you are taking out of your schedule to participate. The purpose of this research is to gather information about how you use the GSPH website, as faculty and staff and if there are any areas of the website that you feel need to be improved.

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### Questions for Pitt Public Health Task Force

1. Content Management System
  - a. What is your current CMS?
  - b. What are the limitations of the current CMS?
  - c. What are you features do you want to have in a CMS?
2. How often do you think your students/staff/faculty use your department site?
3. How often do you update the site?
4. Are you creating content? If not, who is giving you content for your site?
5. Is there anything special about your department that needs to be featured on the website?
6. What are the current pros/cons about your site?
7. What would you like to change about the website?



## BIBLIOGRAPHY

- Affairs, E. (2011). Website Request for Proposal University of Pittsburgh, Graduate School of Public Health
- Affairs, S. (2012a). 2012 New Student Orientation: University of Pittsburgh, Graduate School of Public Health
- Affairs, S. (2012b). Board of Visitors Annual Meeting: University of Pittsburgh-Graduate School of Public Health
- Butterfoss, F. (2007). *Community Assessment Coalitions and Partnerships in Community Health* San Francisco, CA: Jossey-Bass.
- Costantinides, E., & Zinck Stagno, M. C. (2011). Potential of the social media as instruments of higher education marketing: a segmentation study. *Journal of Marketing for Higher Education*, 21(1), 7-24.
- Group, P. (2013). Graduate School of Public Health-Website Functional Specifications Pipitone Group
- Hasley, J. P., & Gregg, D. G. (2010). An exploratory study of website information content *Journal of Theoretical and Applied Electronic Commerce Research* 5(3), 27-38.
- Health Behavior and Health Education: 4th Edition* (2008). San Francisco, CA: John Wiley & Sons, Inc.
- Hemsley-Brown, J., & Oplatka, I. (2006). Universities in a competitive global marketing: A systemic review of the literature on higher education marketing *International Journal of Public Sector Management* 19(4), 316-338.
- Hoel, C. (2012). Web Analytics Report University of Pittsburgh, Graduate School of Public Health
- Katsanos, C., Tselios, N., & Avouris, N. (2010). A survey of tools supporting design and evaluation of websites based on models of human information interactions *International Journal on Artificial Intelligence Tools* 19(6), 755-781.
- Lee, Y., & Kozar, K. A. (2012). Understanding of website usability: Specifying and measuring constructs and their relationships *Decision Support Systems* 52, 450-463.
- Mason, R., & Rennie, F. (2007). Using Web 2.0 for learning in the community. *Internet and Higher Education* 10, 196-203.
- Mission, Vision and Values. 2013, from <http://www.publichealth.pitt.edu/interior.php?pageID=52>
- Mulhern, F. (2009). Integrated marketing communication: From media channels to digital connectivity. *Journal of Marketing Communication*, 15(2-3), 85-101.
- Park, N., Chung, J. E., & Lee, S. (2012). Explaining the use of text-based communication media: An examination of three theories of media use *Cyberpsychology, Behavior and Social Networking* 15(7), 357-363.
- Plumley, G. (2011). Website Design and development: 100 questions to ask before building a website
- Rizavi, S. S., Khan, M. M., & Mustafa Rizavi, S. H. (2011). Website quality of higher education websites: Young user's perception *Interdisciplinary Journal of Contemporary Research in Business* 3(1), 370-376.

- Roblyer, M. D., McDaniel, M., Webb, M., Herman, J., & Witty, J. V. (2010). Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites *Internet and Higher Education*, 13, 134-140.
- Rossi, P. H., Lipsey, M. W., & Freeman, H. E. (2004). *Evaluation: A systematic approach* (Seventh Edition ed.). United States Sage Publications Inc.
- Rowley, J. (2004). Just another channel? Marketing communications in e-business *Marketing Intelligence & Planning* 22(1), 24-41.
- Tarafdar, M., & Zhang, J. (2005-2006). Analysis of critical website characteristics: A cross-category study of successful websites *Journal of Computer Information Systems*
- Turnbow, D., Kasianovitz, K., Synder, L., Gilbert, D., & Yamamoto, D. (2005). Usability testing for web redesign: a UCLA case study *OCLC Systems & Services* 21(3), 226-234.
- Young, J. R. (2009). How not to lose face on Facebook, for professors *The Chronicles of Higher Education* 55(22).