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E- INTERNATIONAL HOSPITAL WEBSITE STRATEGY COMPARISONS

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ABSTRACT

This manuscript evaluates 20 American and 20 non-American hospital websites using a Hospital E-Marketing Strategy Life-Cycle model. These hospital websites were initially evaluated and categorized using the model in 1999. These same hospital websites were revisited in 2004 to determine if their initial stage had changed over the years and if hospital websites did indeed follow the Life-Cycle model. Any changes in a hospital's website marketing strategy between years are also evaluated.

I. INTRODUCTION

How are hospitals using the Internet? This is a question that we asked ourselves back in 1999. We knew that the demographics of American Internet users were 32% between the ages of 18-34, 60% had finished high school, with a median household income of $50,000. [Investors Business Daily 1999] This was fairly similar to the general population with the exception of the median household income, which was about $10,000 higher for web users.

We also knew that one of the fast-growing groups of US Internet users were adults 55 and older who mostly used the Internet for health care information [Investors Business Daily 2000] In general, in 2000, 56% of all adults were on-line, 86% of those on-line had ever looked for health information, and 48% of adults had looked for health information on-line. [Harris Interactive 2000] Were hospital websites addressing this need by general health care website consumers and senior citizens?

An initial study of the use of the Internet by hospitals was conducted by Shepherd and Fell. [1996] In late 1995, these researchers surveyed health care facilities and found that only about 45 out of 261 hospitals were using the Internet in their marketing efforts. They found that the range of Internet usage ranged from simple e-mail to Internet websites. These findings sparked our curiosity into finding out more about how hospitals were using the Internet in marketing their services.

This research effort investigated two issues. The first issue was how American and non-American hospitals are using the Internet to market their services. Were non-

American hospitals using the Internet differently from American hospitals? We knew that healthcare Web sites were being reported by a U.S. Commerce Department study that healthcare organizations were getting more than 1 million hits per year. [Staff writer Healthcare PR & Marketing News 1999] Were non-American hospitals also trying to tap into this demand?

The second issue was to determine the effectiveness of a Hospital E-Marketing Strategy Life-Cycle model [Minifie, et. al. 2001]. In order to distinguish between various use levels of the Internet by hospitals a model was developed. The range of Internet usage ranged from posting of current written material used by hospitals to market their services (Phase 1) to being personalized to meet specific consumer's needs through transactional components (Phase 4).

To report the findings of these two issues, first, a general description of a hospital Internet website development life cycle will be reviewed. Based on this model, 20 American hospital websites and 20 non-American hospital websites were evaluated in 1999 against this model. These same websites were reevaluated in 2004 and were then compared to previous results obtained. Following this, hospital website characteristics are discussed to describe how hospitals are using their websites and how this has changed over the four-year period.

II. INTERNET WEBSITE DEVELOPMENT CYCLE

Website development progresses through several stages as it matures. This manuscript will utilize a website development cycle for hospitals that consists of four progressive phases. [Minifie, et. al. 2001] Four progressive phases for hospital website development are: 1) Establishment of the basic site, 2) Adding content and developing marketing functions, 3) Integrating interactive elements, and 4) Incorporation of transactional elements.

1. PHASE 1: ESTABLISHMENT OF THE BASIC SITE

Websites provide a means for low cost communications. [Medical Web Services] Hospitals have the potential to reach a very large patient basis that may not be feasible with normal brochure marketing strategies. In the initial stage, it is expected that the basic website would simply include basic information regarding the hospital that would normally be found in a hospital's brochure and promotional material. Information regarding a hospital is limited by the cost associated with printed material. Thus, hospitals must select that information which is directly related to those who receive the hospital brochure. The hospital has some control over who receives this material. An initial, low cost website could easily be generated using these existing materials. The

hospital website would have a marketing focus based upon a different medium for which it was designed.

2. PHASE 2: ADDING CONTENT AND DEVELOPING MARKETING FUNCTIONS

Once a basic website has been developed, the next phase in website development would be the inclusion of content beyond the basic hospital brochure format. Additional information about the hospital would be provided that may have been cost prohibited with a printed material strategy. Hospitals may increase beyond the brochure by including basic health care, physician, and service quality distinction information. At the same time, the website will incorporate an Internet marketing focus. The basic website would simply be an extension of the non-cyber space marketing efforts. The Internet marketing focus may be an extension of this strategy or may include a focus that is specific to surfing habits of potential patients.

3. PHASE 3: INTERACTIVE FUNCTIONS

Providing quality health care information is not enough to get most potential patient surfers to return to the hospital's website. The hospital needs to incorporate dynamic information content to their website to entice potential patient surfers to return frequently to their site. Dynamic health care information may include current hospital events, health tip of the week, and other interactive components. Initially, the website may incorporate one-way interactive forums for potential patient surfers through email, contests, surveys, job applications, health tip of the day, nursery pictures, and community health concerns/workshops.

4. PHASE 4: TRANSACTIONAL WEBSITE DEVELOPMENT

The last development phase for a hospital website is the real-time collaborative dialogue between the potential patient Internet user and the hospital. The ultimate goal of the transactional website phase is to put the potential patient in the position to act. At this phase, the website goes beyond the simple information forum. Potential patients are able to access information via real-time collaborative dialogues online with hospital personnel. The potential patient sees the website as a means to converse with the hospital and/or patients. The website incorporates a human touch element by providing potential patients with superior customer service while actually reducing operational costs. Ideally, the potential patient will revisit the hospital's website on a regular basis developing brand preference.

III. STUDY DESCRIPTION

In 1999, twenty American and twenty non-American hospital websites were selected at random from HospitalWeb. [Hospital Web, 2002] Each website was evaluated based on the characteristics of each Phase per Table 1. These same websites were revisited and reevaluated based upon these same criteria in 2004. In each year, the full website was investigated to determine if any of the components were present. Links listed on the main Web page were accessed and evaluated for the particular components. Hospital websites were categorized as being in a particular phase based on the number of components each had for the particular phase using the criteria in the initial study of these websites [Minifie, et. al. 2001]. By default, if a hospital had a website it was considered a "Phase 1: Basic" category. In order for a website to be categorized as a "Phase 2: Content/Marketing Focus", the website had to include three or more content/marketing components. For a website to be classified as a "Phase 3: Interactive", two or more of the interactive components had be found on the hospital's website. A hospital website needed only one or more transactional components to be listed as a "Phase 4: Transactional" website. Hospitals were classified according to the highest phase achieved.

Non-American hospitals represented 13 different countries. These included Australia, Canada, Germany, Greece, Iceland, India, Ireland, Israel, Ireland, Japan, Mexico, New Zealand, and Pakistan. All of the hospital websites selected for the study were either all in English or had an English version as an option on the main website. These countries had been randomly selected in 1999 from the list of global hospitals on the HospitalWeb website. This website lists all global hospitals that have websites. Thus, only countries and/or hospitals that have Internet capacity were included in the study. Certain countries had more hospitals selected due to the fact that the particular country had more hospitals that were actually using the Internet for their facilities.

IV. STUDY RESULTS

Only two of the Non-American websites were no longer available for this current study. One website no longer existed and the other was listed as "under-development." In 1999, the majority of the hospital websites were using the Internet as an extension of the written materials (65% in Phase 2) (See Table 1). The majority of the Non-American hospitals were using the Internet as a forum for their current hospital brochure and promotional material and little else (70% in Phase 1). The American websites included additional information to take advantage of the cost effectiveness of placing additional material on the Internet whereas non-American hospitals were using the web site as another publication source for current hospital brochures.

Table 1
Website Classification

	1999						2004					
	N=20		N=20		N=40		N=20		N=20		N=40	
Phase	American	%	Non-American	%	Total	%	American	%	Non-American	%	Total	%
1	0	0	14	70	14	35	0	0	1	5	1	2.5
2	13	65	4	20	17	42.5	1	5	11	55	12	30
3	5	25	2	10	7	17.5	17	85	4	20	21	50
4	2	10	0	0	2	5	2	10	2	10	4	25
n/a							0		2	10	2	5

Of all the hospital websites evaluated in 1999, only two were taking advantage of the transactional capabilities of the Internet (10% of the American websites or 5% of all hospital websites studies). Only seven hospitals (five American and two non-American) were using the interactive capabilities of the Internet.

These results are not unexpected. In 1999, the Internet was still fairly new. Many of the pop-up menus and other software capabilities were not readily available for website development. Many of the interactive and transactional capabilities were not as developed as they are today. Questions regarding information safety were still being very much scrutinized by website users in general.

In 2004, the number of hospital websites incorporating capabilities of the Internet increased from 23.5% in 1999 (Phase 3 & Phase 4 websites) to 75% in 2004. Only one hospital website still used the Internet to post simple brochure type of material (non-American hospital). There was a general increase in the amount of material being placed on the Web by hospitals, both American and non-American. Even those hospitals that only used the Internet for basic material in 1999 (Phase 1) had incorporated additional material such that the hospital moved to a higher phase as demonstrated by the fact only one hospital remained in Phase 1.

There was a general trend among all hospitals to either incorporate additional phase components and/or move to a higher phase. The movement from a previous phase in 1999 to 2004 is shown in Table 2. Of the American hospitals that had been in Phase 2 in 1999, only one remained Phase 2 status in 2004. The remaining hospitals had begun incorporating specific Internet capabilities into their websites via use of e-mail contact, search engines, on-line feedback, enrolling in newsletter mailings, requesting enrolling in programs on-line or requesting appointments via e-mail. One hospital included a transactional component of on-line forums.

Table 2
Website Classification Change Between Studies

American Hospital Websites						
Website Development Phase	Previous Study Classification (1999)	Current Study Classification (2004)				
		Phase 1	Phase 2	Phase 3	Phase 4	Website N/A
Phase 1: Basic Site	0	-	-	-	-	-
Phase 2: E-Marketing	13	-	1	11	1	
Phase 3: Interactive	5	-	-	4	1	
Phase 4: Transactional	2	-	-	2	-	
Totals	20	0	1	17	2	0

Non-American Hospital Websites						
Website Development Phase	Previous Study Classification (1999)	Current Study Classification (2004)				
		Phase 1	Phase 2	Phase 3	Phase 4	Website N/A
Phase 1: Basic Site	14	1	9	2	-	2
Phase 2: E-Marketing	4	-	2	1	1	-
Phase 3: Interactive	2	-	-	1	1	-
Phase 4: Transactional	0	-	-	-	-	-
Totals	20	1	11	4	2	2

Of the American hospitals included in Phase 3 status in 1999, only one hospital moved to Phase 4 status. The hospitals that stayed in Phase 3 in 2004 also showed an increase in the number of Phase 3 components in 2004. Many of the hospitals that only had three or four Phase 3 type components in 1999 increased this number to five to seven components in 2004. This clearly shows that hospitals are starting to take advantage of the Internet's specific capabilities.

Only two hospitals were classified as Phase 4 in 1999. Both of these hospital websites changed to a Phase 3 classification in 2004, as the single component that had indicated Phase 4 status in 1999 no longer existed on the 2004 website. In both cases, the websites included additional Phase 3 components.

In 2004, additional American hospitals may have been classified as Phase 4 but due to login requirements, these other Web pages could not be viewed for this study. It is expected that due to privacy concerns, transactional components would be protected by limited access via member only access. It was noted on several websites that patients could pay their bills online or communicate directly with a nurse, physician, or

pharmacist. Patients could even develop websites on the hospital website so that friends and families could see the progress of the patient. It was not uncommon to see that visitors to the hospital main webpage could send a patient an e-mail. One website even allowed the sender to select a particular card cover for the e-message.

The non-American websites in general either stayed in the same Phase classification or moved upward. None of the non-American websites had decreased the amount of material and/or components in their websites. All of these had incorporated additional material or Internet specific components to their websites. Although there were increases in the Phase of development for these websites, there was still a general trend of using the Internet for posted general hospital information. Less than one-third of non-American hospitals had begun to utilize components specific to the Internet (Phase 3 or Phase 4).

Overall, there was a general trend in hospitals to use the Internet as a specific marketing tool; one that is designed to be different from their printed brochure material. Specific marketing strategies were being incorporated into this particular marketing medium. There were several interesting trends noted among the websites selected for review. The main Web page is designed to direct the type of browser to areas of interest to them. For instance, many main hospital home Web pages had tabs for health professionals, education & research, donation, hospital employees, patients, specific services, and/or general public links. Thus, each specific link then was designed to market to a specific market. The home page was being used as general "lobby" of sorts to direct the prospective consumer to an area that would be of interest to them.

The inclusion of Virtual Tours of the facility seemed to be a growing trend among the American websites. Both American and non-American websites had information for patients regarding how to get to the facility, in-patient procedures, parking information, and other information regarding becoming either an in-patient or out-patient status. These types of services are normally included to give the prospective/current patient familiarization with the facility prior to arrival. It is quite normal for patients to be apprehensive prior to a medical procedure. It is anticipated that familiarizing the prospective patient with the facility prior to arrival will assist in decreasing stress levels on the day of the procedure.

It was interesting to note that it was common for the American hospital websites to highlight awards, achievements, and/or quality service recognition on their main Web page. Only four of the non-American websites included this information.

Donation and/or volunteering was another common component of both American and non-American websites. Individuals could donate online, download a

form used to submit donations, or secure an e-mail address or telephone number from the website to contact someone at the hospital. Other types of donations were also solicited on websites. Individuals could learn about volunteering opportunities at the hospital from the website. Specific needs of the hospital were included on one hospital website. Another website gave information regarding how to donate one's body for research purposes.

Some hospitals used their websites to encourage repeat visits. For instance, current information regarding any health threats/allergies was posted daily on websites, encouraging consumers to return each day for new information. Some had daily "quizzes" that users could take to test their health knowledge. For those hospitals that had maternity wards, it was not uncommon for the website to direct the visitor to a page showing recent newborns. And as mentioned before, hospitals allowed visitors to send patients get well e-mails and/or view Web pages established by patients to let friends and family know of the patient's current condition or other information.

In general, websites in 2004 were more condensed. Websites incorporated drop down menus to free up space on the current website. Web pages did not extend beyond more than one or two screen lengths. Information provided on the main website was restricted to more of a directory or daily update type of information. Not all of the hospital's information was being placed on a single page in 2004.

V. CONCLUSION AND RECOMMENDATIONS

Hospitals are becoming more marketing savvy in terms of their Internet marketing. Specific marketing approaches are being developed that incorporate more than the current employee and/or consumer. Websites are targeting prospective patients as well. Web designers are incorporating Internet specific components into their Web design. Web pages are no longer simply a copy of the hospital's brochure. There is a natural cycle that Web designers are following in their approach to using the Internet for marketing their services.

Obviously, additional hospitals need to be examined in further studies. The limited scope of this study does not necessarily allow for generalization of the results. This study does suggest that further investigation in this area is warranted. Also, through the examination of websites, general guidelines for "good practices" in designing websites could be developed. The following suggestions are provided for hospital Web designers.

- Main webpage should be used as a "lobby" to direct users to general categories. General categories noticed were for patients, education & research, donation,

employees, insurance providers, general health information, job opportunities, physicians/health professionals, services, and general public.

- Web pages should be designed so that the Web page may be opened quickly. Graphics should be kept to a minimum or saved using the least amount of space. Web pages that load too slowly will detract from prospective consumers. Although more Internet users are using DSL or cable, many are still using dialup connections.
- Web pages should be developed for easy navigation. Use the rule of "keeping it simple." Users should easily be able to peruse the Web page. Too much information will keep the Internet user from seeing important information that is embedded in long paragraphs.
- Information should be provided in a way that will encourage the Internet user to return to the site on a daily or weekly basis. Suggested methods to accomplish this include providing updated information on health issues and incorporating health calculators, healthy eating/lifestyle information, recipes, or non-health information such as community events and activities.
- Incorporate user login. This assists in developing a database of prospective/current consumers. Also, it will allow current patients to access personal information, pay bills, make appointments, ask questions, view bulletin boards, etc. Not only does the hospital build their patient database, it provides an additional means for Web viewers to return and possibly increase retention rates and account collection.
- Keep the website "friendly." Show pictures of hospital employees. The main webpage may be used to promote employees who have shown exceptional patient service, research excellence, or other hospital achievements. Although using pictures of the facility will familiarize Web visitors with the hospital, it does not put a "face" on the hospital. Using the accomplishments of employees gives the website a personal touch. Consumers base many of their decisions on the person they are interacting with rather than just the product. This will also allow the hospital to differentiate the quality of their services from competitors.
- Allow Web viewers the option of sending feedback. Again, this will assist the hospital website to be used to develop a "relationship" with the Web browser.
- Incorporate a website search engine, which is very helpful for users. This allows for viewers to find the information that they are seeking quickly. If viewers are unsure about the appropriate link in which their question or inquiry would be found, the search option would allow them to quickly find the information they are seeking.
- Provide Virtual Tours and photos of the facility. Give prospective patients an opportunity to learn about the facility layout to reduce questions and concerns. Providing this information prior to their visit will assist with processing patients more efficiently.

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