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# Longevity of Websites and Interactive Advertising Communication

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## Abstract

This study traces survival of advertising-related Web sites for a five-year period from 1997-2002. Client organizations had the best survival rate, about 70%, while less than 50% of advertising agency sites survived. Frequency of mentions in the advertising trade press was not related to site survival, but Web sites with shorter addresses were more likely to survive. This study also reports on a longitudinal analysis of health-related Web sites. Managers of surviving sites reported that resources were a critical factor for survival. Managers of failed sites often blamed the site's demise on external factors. A major implication for advertisers is one manager's observation that technology itself is less important than the ability to adapt to the changes it brings.

## Introduction

The World Wide Web ("Web") is dynamic. The Internet Software Consortium (2002) reported that about 1.3 million Internet hosts existed in January of 1993. In January of 1997, that number had grown to 16.1 million and by January 2002, more than 147.3 million hosts were found. Despite this exponential growth, however, not all Web sites have survived. Koehler (1999) reported that in a one-year period, from December 1996 through December 1997, 74.7% of a sample of Web sites survived. In an ongoing study of those sites, Koehler and his colleague found the overall survival rate had dropped to 40% by April 2000 (Koehler and Wall 2000).

What does this "easy come, easy go" environment mean for advertising researchers and practitioners? This study addresses this question by providing both breadth and depth of information about Web site survival.

The broad view is provided by analysis of 669 Web sites that were identified in Advertising Age from November of 1994, when that influential trade publication began reporting on the Web, through January of 1997. Five years later, in January of 2002, each of those sites was checked to see if it still existed and, if so, whether it seemed to continue to provide content similar to what was initially reported in Advertising Age.

The more in-depth view is provided from an on-going study of 394 health-related Web sites. These sites were also identified in 1997 and the author tracked survival of those sites after both three years and five years. An e-mail survey of site managers at the three-year mark explored manager's perceptions of why their sites had survived or failed.

Understanding Web site survival during a five-year period of rapid growth, 1997-2002, may provide insight into the future of

the World Wide Web. By knowing which kinds of advertising-related sites were most likely to survive, we might glimpse the future of Internet advertising. By learning from Web site managers about factors that are responsible for survival and failure, both researchers and practitioners might be better able to plan for the long-term growth of the Web as a marketing communications tool.

## Literature Review

The Web first became widely available in 1993 with the dissemination of the first Web browser, Mosaic. On October 4, 1993, Advertising Age created a new section titled Interactive Media and Marketing. Initially, this section focused on technologies such as interactive TV and computer gaming. However, by late 1994, the Web began to be a dominant medium written about in this section of the trade journal (McMillan 1999). Since the mid 1990s, advertisers have been fascinated by the potential of the Web to deliver interactive advertising. Bezjian-Avery, Calder, and Iacobucci (1998) indicated that new media fundamentally change relationships between consumers and producers by opening up the potential for new forms of dialogue

But how much of the potential of the Web been realized? Despite the rapid growth of the Web, not all organizations that set up shop on the Web have been able to keep their virtual doors open. Feldman (1997, p. 52) defined the Web as a "world frustrating and confusing in which materials that have some lasting intrinsic value are treated as disposable". Germain (2000) echoed this frustration in a study of Web sites that were identified in articles published in major academic journals. Over time, she found a significant decrease in the availability of those Web sites. The literature suggested four factors that might affect site longevity: resources, Web site features and technology, organizational issues, and external issues.

Among the resource issues most frequently identified in the literature are money, staff, and time (Domanski 2000; Woodard 2000). However, as Moschella (1999) pointed out, organizations that are resource-rich are not necessarily more capable of fully utilizing the Web. Some of these large organizations have failed to recognize the unique opportunities the Web offers and have either under-invested in Web-based communication or have invested unwisely. Despite the unwillingness of some organizations to invest in the Web, others have invested - often with the objective of using the Web as a way to maximize resources. But, many organizations were too optimistic about short-term cost savings and abandoned the Web when they did not see a quick return on investment (Hoffman 1998). Other organizations have shut down Web-based businesses because they have run out of money, often after over-spending on advertising, or because they failed to build a successful business model (Angwin 2000; Evans 2000). In addition to dedicating people and money, organizations must also recognize that building and maintaining content at Web sites takes time. Ozok and Salvendy (2000) suggested that organizations must recognize that taking the time for updating sites is critical for survival.

A second factor that may influence Web-site longevity is the technological capability of the site creators. Such technological capability is often reflected in the features of the Web site. For example, features such as chat rooms, search engines, personalized content, interactivity, and electronic payment options might be critical features that are required for the long-term success of some types of sites (Angwin 2000; Domanski 2000; Ha and James 1998; Hoffman 1998; Massey and Levy 1999; McMillan 2000a; Walker 2000). The features offered at a Web site should both utilize the technologies available, and also be designed carefully to provide the content that visitors most desire (McMillan 2000a; Woodard 2000).

Organizational issues are a third factor that might affect site survival. Cunningham (2000) pointed out the importance of organizational commitment to current technology as a factor in site survival. Woodard (2000) noted the importance of leadership and vision among Web sites that survive. Other key organizational factors that seem to be important for Web site survival include managing growth, and developing a vision for the future (Domanski 2000; Evans 2000; Hoffman 1998; Moschella 1999).

Finally, external issues may also affect Web site stability. For example, both competitors and site visitors are external to the Web site, but both of these groups can have significant impact on site survival. The ability of a site to attract and retain qualified visitors is a key element of Web site success. Sites that fail to focus on the needs of visitors are less likely to survive than are customer-focused sites (Domanski 2000; Evans 2000; Hoffman 1998; Walker 2000; Woodard 2000). Similarly, sites

that are built without a clear sense of what competitive sites offer are also often doomed to failure because they do not offer unique or significant benefits (Cunningham 2000; Domanski 2000; Woodard 2000).

Longitudinal studies are an ideal way to study growth, decline, and change in computer-mediated communication (CMC) environments. Longitudinal studies have examined CMC-related topics such as acceptance and evaluation of CMC by college students and other users (Hiltz, Turoff, and Johnson 1989; McMurdo and Meadows 1996; Reis and Tymchyshyn 1992), the impact of CMC on trends in public opinion toward privacy (Katz and Tassone 1990), changes in journalists' use of the World Wide Web as an information resource (Garrison 2000), the introduction of voice mail in organizational settings (d'Ambra and Rice 1994), computer-aided analysis of documents such as annual reports (Kabanoff 1996), trends in advertisements for technology-related jobs (McMillan et al. 2001; North and Worth 1998), and use of electronic data interchange systems (Crum, Johnson, and Allen 1997). Koehler has reported on a longitudinal study of Web site survival that uses automated systems to check for continued existence of Web sites (Koehler 1999; Koehler and Wall 2000).

But, what none of the above-cited studies provides is the perspective of the advertising industry. A primary question driving this study that has not been previously addressed is the relative survival rate of advertising agency Web sites, sites of marketers who are often described as the "clients" of advertising agencies, media and/or content based sites in which advertisements might be placed, and sites of companies that provide other marketing-related services.

RQ1: Are there differences in five-year survival rate of Web sites based on broad categorizations of the types of organization that make up the advertising industry?

Because this study draws a sample of advertising-related sites from a publication, two additional questions that interest advertisers can be addressed. First, the perceived need to gain publicity of Web sites is high. The assumption is often made that more mentions of a Web site in traditional publications leads to long-term success for the publicized site (Kitcho 1998).

RQ2: Are there differences in five-year survival rate of Web sites based on how frequently advertising-related sites are mentioned in an advertising trade journal?

Second, by drawing from the digital version of a print publication, this study can examine the presentation of the URL (uniform resource locator, or Web site address) and the ability to find the site years later. Some articles refer to a specific sub-set of a Web site and provide a URL that links to that content. For example, an article that mentioned Motorola's sponsorship of the 1996 Olympic Games in Atlanta linked to: <http://www.motorola.com/Sponsors/Olympics>. But what is the value of such a link after the Olympics are over?

RQ3: Are there differences in five-year survival rate of Web sites based on relative length and complexity of the Web site address used to publicize the site?

In addition to the broad look at survival of advertising-related sites, this study also takes an in-depth look at survival of a specific content area - health-related sites. These sites offer an ideal venue for examining issues of Web site permanence and change for five reasons.

First, messages about health and health-related subjects have played a central role in the early development of many media types. For example, patent medicines were among the first products advertised in newspapers (Jones 1996) and makers of health-related products were among the first sponsors of radio programming (Barnouw 1966). Second, health-related sites were one of the early high-growth topic areas on the Web (Fisher 1996). Third, researchers have found that health-related Web sites are used heavily (Pingree et al. 1996). Fourth, health sites encompass a wide range of content types including public health information (Dorman 2000), doctor patient communication tools (Grandinetti 2000; Harris and Campbell 2000), and support groups for patients suffering from diseases such as depression (Christensen 2000). Finally, the literature on health communication recognizes the importance of longitudinal studies in understanding not only health trends, but also the use of health communication tools (Dick and Gabler 1995; Gray and Brookmeyer 2000).

The longitudinal analysis of the sample of health-related Web sites reported in this study has been more fully reported

elsewhere (McMillan 2001; McMillan and White 2001). This study addresses two primary questions about these health-related Web sites.

RQ4: How do health-related Web sites compare to other organizations in terms of five-year survival rates?

RQ5: What can advertisers learn about opportunities and challenges of maintaining Web sites from the information provided by the managers of these health-related Web sites about resources, Web site features and technology, organizational issues and external issues?

## Method

Because of its early recognition of the importance of interactive media, and also because of its ongoing regular commitment to coverage of interactive media, Advertising Age seems to provide an ideal venue for selecting URLs of advertising-related Web sites. Analysis of these URLs can provide the information that will address research questions 1 through 3.

All articles that appeared in Advertising Age from the first appearance of a Web address on November 1, 1994 through the end of January 1997 were examined. The electronic Dow Jones News Retrieval service was used to retrieve these articles and search for Web addresses. Initially, the author searched for instances of "http://" -- the opening characters of most Web addresses. However, by late 1996 and early 1997, many articles had dropped this designation. Instead of identifying a site with the full URL (e.g. <http://adage.com>), many articles had begun to assume that the reader and/or the Web browser would supply the "http://" and instead used shortened forms (e.g. [adage.com](http://adage.com)). Thus, the author decided to use ".com" as the primary search criteria. However, this produced some articles that were not about Web sites (e.g. some articles that provided an e-mail address for the author). So the search was refined by specifying that articles should contain both "Web" and ".com".

Every URL found in the selected articles was recorded in a database. As the URLs were recorded, the author also read the context of the reference and noted what type of organization had developed the Web site. Pre-testing revealed that organizations could be identified based on relatively traditional advertising industry categories: agencies, marketers (or clients), media/content, portals/new media sites, and marketing-related services.

Agencies included both traditional and "interactive" agencies. Marketers included organizations ranging from large marketing and manufacturing companies to small e-commerce start-ups. What organizations in this category have in common is that they hire (or might hire) agencies to develop advertising for them. Media/content sites included online ventures of traditional media (such as [espn.com](http://espn.com)), as well as online-only content sites (e.g. [salon.com](http://salon.com)) and entertainment sites (e.g. [riddler.com](http://riddler.com)) - all of which might contain advertising messages. Some sites had characteristics of media/content, but they also ranged into other services such as e-mail, Web search engines, etc. These sites were categorized as "new media" sites. The term "portal" has also been used to describe this kind of site as exemplified by Yahoo!, Excite, Lycos, and others. Examples of marketing-related service sites include traditional and online media ratings companies, sites promoting advertising-related conferences, etc.

A sample of health-related sites was used to address research questions 4 and 5. A random sample of health-related Web sites was drawn in January of 1997. The sampling frame was all sites that are listed in the Yahoo! directory of health-related topics. As detailed elsewhere (McMillan 2000b) a total of 394 Web sites were analyzed.

In January of 2000, the author checked all of the health-related sites to see if they were still operating. Three years after the original study, 281 sites (71.1%) were still operating. In 2000, the researcher also sent an e-mail questionnaire to managers of both surviving and non-surviving sites. Questions focused on the four factors identified in the literature that might impact site longevity. The purpose of this open-ended survey was to get depth of information about why sites survive or fail. Responses were received from 30 managers of surviving Web sites and 6 managers of sites that were no longer in existence. These qualitative responses to the 2000 survey are used in analysis of research question 5.

In January of 2002, the health-related Web sites were again checked to see if they had survived. All of the original URLs were checked (even for those that could not be found in 2000). It is the survival rate in 2002 that is reported in discussion of

research question 4.

For both the Advertising Age and health-related URLs, checking for five-year survival rates involved multiple attempts to find each Web site. If a site could not be found, it was checked again on another day and with a different Web browser. In most cases, the first search was done through Netscape and the second through Internet Explorer.

Twelve different categories were used in initial coding for Web site survival. At the two extremes were sites that used the identical URL in 2002 that they had used five years or more earlier and sites that were completely gone in 2002. For analysis, survival was grouped into three broad categories. The first category was sites that survived. This includes those with identical URLs, as well as those that can be accessed with the old URL but change to either an expanded or a shortened version of the URL when the site is accessed. The second category was URLs that brought up a Web site that was substantially changed. Examples of these changed sites were those that led to a different company (notably several sites had been "taken over" by a purveyor of pornography), those that were diverted to search engines, and URLs that were for sale. So, while these changed sites did lead to some content, it was not the same company delivering the same type of content that had originally been identified in Advertising Age or in the Yahoo! directory of health-related sites. Finally, URLs that resulted in repeated browser message indicating that the site was not available were coded as gone. Also, when a parent site (e.g. <http://members.aol.com>) could be found, but a specific URL that had been publicized in either Advertising Age or the Yahoo! list of health-related Web sites could not be found (e.g. <http://members.aol.com/dearest/>), the original URL was coded as gone.

Finally, all URLs from both the advertising- and health-related samples were coded for the total number of dots (".") and slashes ("/") in the address (the "http://" portion of the address was not included in coding for slashes). This coding was used in addressing research question 3. URLs with multiple dots and slashes (e.g. <http://adage.com/IMM/roadkill.html>) were considered to be more complex than those with fewer dots and/or slashes were. An example of the most basic URL is: <http://adage.com>. This would be coded as having one dot and no slashes.

## Findings

A total of 602 articles that provided URLs for Web sites were found in Advertising Age in the period from November of 1994 through January of 1997. Many of those articles included multiple URLs. A total of 1,152 URLs were coded. URLs were sorted and duplicates were noted for examination of research question 2. The total number of unique URLs in the Advertising Age sample was 668. Table 1 summarizes survival rates for all organizational types identified in the Advertising Age sample.

Table 1. Five-Year Survival Rate by Organizational Type

	Survived	Changed	Gone
Client Organizations	168 70.3%	30 12.6%	41 17.2%
Health-Related Site	242 61.4%	49 12.4%	103 26.1%
Portals and Other "New Media"	14 60.9%	6 26.1%	3 13.0%
Marketing Services	45 57.0%	12 15.2%	22 27.8%
Media/Content Sites	151 55.9%	55 20.4%	64 23.7%

Advertising Agencies	21 48.8%	5 11.6%	17 39.5%
Total	641 61.2%	157 15.0%	250 23.9%

Percentages are based on rates of survival for the organizational type.

One cell (5.6%) has an expected count of less than 5.

$\chi^2 = 21.602$ ,  $df = 10$ ,  $p < .01$

Note: 14 sites were coded as "other" and were not included in this analysis

Client organization sites seem to have the most stability with a five-year survival rate of 70.3%. Advertising Agency sites were least likely to have survived intact with a survival rate of only 48.8%. Slightly more than half of portal/new media, media/content, and marketing services sites survived. In answer to research question 1, differences in survival rate did exist and they were statistically significant.

Research question 2 was addressed by using Analysis of Variance to compare mean number of mentions of a URL in Advertising Age with survival category. Overall, URLs were mentioned an average of 1.72 times in the Advertising Age sample. Sites that survived had an average of 1.76 mentions, those that changed had an average of 1.84 mentions, and those that were gone had an average of 1.54 mentions. Differences in these means were not significant ( $F = 1.092$ ,  $p > .05$ )

Table 2 summarizes findings related to research question 3. Complexity, as measured both by the number of dots and by the number of slashes in a URL, did have a significant relationship with survival. Sites that survived had URLs with the fewest dots and slashes; those with the most are gone.

Table 2. Survival Rate and URL Characteristics

	Survived N = 647	Changed N = 163	Gone N = 252
Number of Dots in Name overall mean = 2.20 $F=9.211$ $p < .001$	mean = 2.14 std. dev. = .59	mean = 2.19 std. dev. = .65	mean = 2.34 std. dev. = .72
Number of Slashes in Name overall mean = .53 $F = 44.725$ , $p < .001$	mean = .36 std. dev. = .82	mean = .50 std. dev. = .88	mean = .98 std. dev. = 1.04

Research question 4 addressed the survival rate of health-related sites as compared to advertising-related organizations. As shown in Table 1, health-related sites had a five-year survival rate of 61.4% - second only to client organizations. This would seem to be consistent with the literature that suggests health-related sites can be a good indicator of the early development of a new medium. However, survival rate of these health-related sites at three years was 71.1%. Surviving for three years does not guarantee survival to the five-year mark.

Research question 5 draws from the qualitative feedback that Web site managers provided about the opportunities and challenges of maintaining a Web site over time. Managers of both surviving and non-surviving sites were asked open-ended questions about the role of resources, Web site features and technology, organizational issues, and external issues, in the fate of their sites.

## Resources

Seventeen of the 30 site managers of surviving sites reported that resources played a positive role in their survival. One respondent wrote:

Resources have become significant. In fact, we believe that our Web site is vitally important to our progress and have increased the amount of time, money and staff we allocate to this form of communication...Our original Web site was created by a volunteer and did not cost us anything other than the costs of an ISP, on-line credit card capability, etc. But it has been successful enough to warrant a significant allocation of funds, staff and time.

Another respondent wrote: "Without the time that my secretary and I have been able to spend updating the site, it would have quickly become irrelevant and we would have given up on it. We have made it a priority to update and add to its content." Among those who felt that resource issues were not important, many indicated that, over time, resources had been committed to the Web site and few, if any, new resources were needed.

Among non-survivors, only one of the six respondents indicated that resources were an important reason for a site's demise. The respondent wrote: "About a year ago I decided to shut it down. I was out of time." However, for most managers of failed sites, resources were not a key issue. For example, one wrote: "The site was easily maintained by myself and there were not specific issues such as resources, money, time, etc. that led to its closure.

### Features and Technology

Fourteen of 30 site managers reported that technology played a positive role in their survival. One wrote: "Our site depends on the reliability of our hardware, software, and programming. The presentation of our site is only as good as the worst of these." Several others noted that staying current with technology was a challenge, but by doing so they were able to stay competitive. Among respondents who indicated that technology was not very important to survival, many noted that only a small investment in technology was needed to maintain the core features of their sites. For example one wrote: "We don't go into really fancy stuff on our site - most of it is pretty basic HTML code - so we don't need to invest a lot in hardware or software."

No managers of non-surviving sites reported technology as a reason for their demise. None elaborated on this point. They all simply wrote that technology was not important. One went so far as to emphasize that technological issues were "NOT important at all" (capitalization in the original).

### Organizational Issues

Twelve of the 30 managers of surviving sites indicated that organizational factors were important. For example, one respondent wrote: "We look at our Web site as 'changing the way we do business' since we will offer member services online." Another wrote: "Management support is key. Without my boss's support and guidance, the site would not have been a high enough priority to keep it going." Others reported on specific organizational changes that had been made to find an internal "home" for the Web site and make sure that it was supported.

Among surviving sites that indicated organizational issues were not important, many wrote that the site was run by a small organization in which coordination was easy. One respondent commented:

Organizational issues are not important to us. We are a small company, but everyone in the company realizes the importance of the Web site. I don't think company size really matters as long as the decision-makers are committed to the company's Web strategy, and in 2000 I would think it would be difficult for any company not to realize how powerful a sales tool the Web is.

It is interesting that the respondent began by pointing out that organizational issues were not important, but then went on to explain that organizational commitment to the Web is a critical factor for survival.

Among sites that did not survive, only one of the six respondents indicated that organizational issues were a factor in the demise of the site. The respondent wrote: "There was a change of management and the new manager was not interested in supporting the site. If a brand manager is interested then fine. If not, then funding is placed elsewhere."

## External Issues

Twelve of the 30 managers of surviving sites reported that external issues played a positive role in their survival. Several focused on the issue of attracting visitors. One wrote: "Our Web site is relatively busy with visitors from around the world...We depend on generating contacts to increase our membership and we feel the Internet is doing that for us." Others noted that while their audience was small it was targeted and the Web site was a good vehicle for reaching the audience. Some respondents also commented on other external issues such as competition. One wrote: "I think that having established my site in mid-1995, way before all the mingo health sites, has done a lot for keeping me high in the search engines."

Among respondents who indicated external factors were not important to their survival, many noted that they held a specialty or niche position on the Web that neither depended on large numbers of visitors, nor faced serious competition. One wrote that external factors were "not really an issue; however, the number of visitors to our site is high because we provide up-to-date content on issues important to our members and non-member readers." One emphasized the low relevance of external issues by writing: "It [the Web site] would continue to operate regardless of external factors."

Despite the low importance that survivors placed on external factors, non-survivors were likely to see external factors as being the primary reason for their failure. Four of the six respondents attributed their sites' demise primarily to external factors. One wrote that the site failed because members of the target audience (doctors working in a specialty area) were unwilling to support the site - they read the newsletter but would not contribute to site upkeep. Another respondent reported that a site was developed as a "demonstration" in 1994. It was never intended to be maintained. But, it became popular and taking it down after the demonstration period proved difficult. Another wrote that the site ceased to exist when the company responsible for its creation went out of business, and another reported that the site was eliminated when the responsibility for the association it represented was moved to another city.

## Most Important Reasons for Success or Failure

Respondents were asked to indicate what they believed to be the most important reason for their site's survival or demise. Respondents were allowed to give multiple responses. Some responses were unique to a specific situation, but three types of responses seemed to dominate replies from survivors: public service, promotion and marketing, and resources.

Thirteen of the 30 site managers whose sites had survived from 1997-2000 indicated that one of the primary reasons their site had continued to exist was because it was providing some kind of public service. One respondent wrote: "It is perhaps the best means we have for communicating the nature and content of our research to the academic community - thus it is an essential component of our laboratory." Another wrote: "Because I'm bipolar and the best way to heal is with other bipolars who find a home at my site." Another wrote: "The main reason for my site still operating is because of the poor quality of treatment, and poor to no communication between patients and their doctors, and my willingness to offer insight into patients' problems."

The second most frequently mentioned reason for survival was issues related to promoting and/or marketing the organization and its goods or services. Promotion and marketing issues were identified as important by 10 managers of surviving sites. One respondent wrote: "It is an important marketing tool for the laboratory and for the department." Other similar comments included: "To fulfill the department's responsibility to present itself to the outside community and to promote its educational facilities." The manager of a more commercial site wrote: "It's free. Any orders it generates are gravy."

Finally, six of the managers of surviving sites identified resource issues as a key reason for their continued survival. One respondent wrote: "Availability of resources, especially my time, would be the most important reason." Others also wrote about the importance of time commitment: "Because I spend the time maintaining and updating it to ensure that it does continue to operate." But others focused more on money. For example, one wrote: "We have a server that hosts our domain at no charge...There are no costs to keep the information available to the public."

Among sites that did not survive, managers uniformly identified a single reason for their site's failure. As noted earlier, external factors were most-frequently mentioned, followed by resources and organizational issues. None of these



respondents identified technology issues as being the most important reason for failure.

## Discussion

As illustrated by the responses from Web site managers, it is fairly easy to get a Web site up and running. It can be created with relatively few resources and has the potential for broad reach. But, as illustrated by survival rates hovering around 50% in several categories, it is also relatively easy for Web sites to cease to exist. What does this easy come, easy go climate mean for advertising?

One important lesson for advertising agencies is that creating a Web presence for the agency is not enough. Evidently it was easy for agencies to develop sites in the mid-1990s, but it was hard to sustain a presence for the long term, and more than half of those agency sites had not survived in 2002. Why did advertising agencies have such an abysmal record? The data collected for this study do not provide detailed answers to that question, but the high failure rate could have to do with the "weeding out" of startups that thought they could make a killing developing advertising in this new medium. It could also reflect the ongoing consolidation of agencies in general, or more specifically the trend toward larger agencies buying up small specialty agencies - particularly those that focused on interactive media and marketing. Future studies could provide more depth of historical perspective on the "shrinking" of the presence of advertising agencies over time. Such studies could also explore whether new agencies continue to come online to replace those that failed.

The relative stability of client organizations also has implications for advertising. As Web site managers reported, it is relatively easy to set up a Web site. And ongoing organizational commitment to the site can make it relatively easy to maintain. The Web offers marketers a global tool for "telling their own story." While the Web site may not replace other forms of advertising it does provide a tool for marketing communication that can provide depth of information in an environment that is less expensive than advertising and easier to manage than publicity. Organizations use many different models for managing their Web sites, from creating them in-house to contracting them out to Web site design firms. But, if advertising agencies want to be integrally involved with their clients, they need to make sure that the Web site becomes an integrated part of the marketing communication message. The client Web site is more likely to endure than the online medium in which advertising messages will be placed.

Of the two types of content sites studied, "new media" (a.k.a. portal sites) were more likely to survive than more traditional media and content sites. There could be many reasons for this and they should be explored in future research. But, for the short term, this does suggest that the trend toward heavy advertising placement in portals such as Yahoo! makes good business sense. These are the sites that are more likely to survive. The fact that traditional kinds of content sites have a survival rate not much better than 50%, may reflect the fact that many of these sites were not able to successfully attract advertisers. The early promise of the Web was that it could deliver highly targeted and very involved audiences. But the reality is that advertisers have tended to show more support for the kinds of sites that draw large audiences by serving as "portals" for entry in to the Web.

The fact that the number of mentions of Web sites in Advertising Age was not related to site survival suggests that some conventional thinking needs to be reexamined. More mentions might lead to increased name recognition, but name recognition does not equal survival. This finding also raises the question of how journalists can sift through the multitude of Web sites that come to their attention and be able to separate the wheat from the chaff. If journalists were better at recognizing winners, then media coverage might be more closely linked to survival potential.

A very practical suggestion that arises from this research is that references to Web sites should be kept as simple as possible. If an organization wants to publicize a specific content area of a site, it may be best to provide the basic link with a few simple instructions about how to navigate to find the desired content. Not only is a short URL easier to remember, but it is also more likely to survive for the long term.

Health-related sites, many of which run on relatively low budgets, fared better than all of the advertising-related sites, except for the client organization sites. What can advertisers learn from them? One important lesson is that resources must be

committed to the site. While it may not require a lot of bells and whistles, the site must have support from management and must meet the needs of external constituencies. However, it is interesting to note that managers of failed sites most often blamed external factors for their failure. The external environment must be constantly monitored. If the site no longer meets the needs of a clearly defined audience, or if managers fail to recognize emerging competition, the consequences can be deadly.

The public service aspect of health-related Web sites may be different from the purpose of most advertising-related sites. However, managers of the health-related sites repeatedly emphasized the importance of providing public service to their Web site survival. Many wrote about how they were able to facilitate a sense of community at their Web sites that made the site indispensable to their audiences. Advertising-related sites should explore the possibilities of both service and community as important aspects of what they offer through their Web sites.

## Limitations and Suggestions for Further Research

This study represents a first step in understanding longevity of advertising-related Web sites. Future studies should build on this work and expand it to address additional questions about Web site longevity. A single source was used for examining advertising-related sites and the researcher used a census rather than a sample of those sites. Therefore, care must be taken in generalizing too broadly about the findings of this study. Future studies should consider other sampling methods that might allow for more depth of analysis.

The choice of 1997 as the "cut off" year was somewhat arbitrary to allow for a five-year follow up in 2002. But, in a sense, 1997 could be considered almost "pre-historic" in terms of Internet time. Researchers should consider drawing a sample of contemporary Web sites, analyzing them closely at the time they are identified, and tracking changes in those sites over time. The study reported here used a relatively simple coding scheme that focused on organizational type, mentions in the trade press, URL characteristics, and survival. With more data collected at the time of the first sample, researchers would be able to develop a more complex coding scheme that would allow more depth of insight into sites that survive and those that fail. Also by selecting a contemporary sample, researchers might have a better opportunity to examine sites that have survived past the rapid-growth period of the medium's early years and now represent a more realistic and mature phase of the World Wide Web.

## Conclusion

The World Wide Web offers enormous opportunities for advertising and interactive marketing communication. But managing those opportunities is a challenge when Web sites so easily come and go.

Based on the findings of this study, client organizations seem to have done the best job of learning how to manage their Web presence as more than 70% of them have survived for five years. The Web can be hostile to advertising agencies that don't understand how their role may be changing as they adapt to new media and new kinds of messages. Lessons from Web site managers can be summed up by one respondent's observation that technology itself is less important than the ability to adapt to the changes it brings.

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