WORLD WIDE WEB SITES AND SOCIAL ORDER WITHIN HIGHER EDUCATION JOURNALISM AND MASS COMMUNICATION PROGRAMS

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TABLE OF CONTENTS

LIST OF TABLES

Table Page

CHAPTER I

INTRODUCTION

Background

Thousands of colleges and universities use World Wide Web sites for promotional purposes, to help reach both general and targeted publics with specific information about academic programs and opportunities. Through the display of information in graphics and text, a higher education Web site helps establish institutional public image, a key element of institutional marketing. Web site displays allow institutions to target specific information to specific online users, something which is important in student recruitment. Web sites also allow faculty, staff and students to have an ongoing dialogue within and across academic programs and disciplines, something which is critical to creating productive educational environments.

Many U.S. colleges and universities which offer journalism and/or mass communication programs have embraced the technological advantages of the World Wide Web. Since journalism/ mass communication is a discipline which revolves around

reaching large audiences with a technologically-mediated message, it seems only natural that this discipline should use the Web to provide information about specific programs, degree and course offerings, activities, faculty members, scholarly and student life opportunities, and communities.

The Problem

Despite the popularity of WWW sites within the journalism/ mass communication discipline, however, there has been little empirical examination of these sites and their contents. Almost no research effort has been dedicated to learning about the visual, operational, and informational attributes of journalism/ mass communication sites. Even less has been confirmed about how different programs' Web sites differ from each other--and what might be responsible for the differences. Even the most basic research to simply confirm the presence of absence of journalism/ mass communication Web sites already is outdated (See A Survey of. . ., 1995).

Even less is known about the way social order within journalism/ mass communication programs impacts–and is impacted by–the creation and maintenance of program Web sites. Social order involves the written and unwritten rules, norms, and shared strategies which allow faculty, staff and students to work together (See Crawford & Ostrom, 1995). Social order is, by definition, the result of predictable or coordinated human actions (Elster, 1989); thus one would expect that a critical component in the success of any academic Web site would be the level of perceived predictability or

coordination among faculty who establish and maintain the Web presence for their academic program.

This research will make an effort to address some of the unanswered questions about journalism/ mass communication Web sites. It will involve an examination of academic Web sites within the discipline to gather data on the visual, operational and informational enhancements used in Web displays. It also will involve a survey of faculty members, to gather information about perceived social order within academic programs, as that social order impacts Web site creation and maintenance. Based on these findings, the research will then attempt to make some generalizations about institutional, program, and social variables–and how those variables affect the creation and maintenance of academic Web sites.

Development of the Internet

The Internet is a world-wide, informal network of linked computers which allows people to send and receive person-to-person messages. The system was developed in the early 1960s by the U.S. Defense Department's Advanced Research Projects Agency, the Rand Corporation, and several university research entities. It began as "a military strategy to enable communication networks to survive a nuclear attack" (Castells, 1996, p. 342). Unlike earlier linked networks, which relied upon a centralized command and control hub vulnerable to disablement, the Defense Department's computer network would use packet switching, which allows messages to be sent independently of any command center.

Thus, the system would function regardless of whether any single data entry or retrieval point was disabled (Picciano, 1998).

The system, initially known as ARPANET, became functional in 1969 at the University of California Los Angeles. ARPANET grew and developed throughout the 1970s, and was used primarily by engineers and scientists associated with defense projects. By 1973, 25 computers were tied into the system (Castells, 1996).

The first major expansion of ARPANET came in the early 1980s, when the U.S. military established MILNET as a separate network entity. Soon, two other networks were created. The National Science Foundation established CSNET for scientific information and BITNET as a link for major university mainframe computers (Picciano, 1998).

The system jumped from the government to the private sector in the late 1980s, spurred on by improving hardware and software technology - including the development of the modem, a device which allows computers to share information and transfer files without the presence of an intermediating host (Castells, 1996). A growing consumer market driven in part by falling prices on desktop computer systems began bringing the Internet into homes and offices on a large scale (Elmer-DeWitt, 1996).

By 1994, the Internet had become "the world's largest collection of decentralized computer networks," as its size doubled every year between 1988 and 1992 (Jaber & Hou, 1994). By late 1996, it was reported that 60 million people had access to an Internet connection (Ellsworth & Ellsworth, 1997). The growth in number of users has been estimated as low as 10 percent per month (Ellsworth & Ellsworth, 1997), 20 percent per

month (Picciano, 1998), and as high as 100 percent every three months (Coffman & Odlyzko, 1998).

General consumer market penetration in the U.S. was estimated at 16 percent in 1995, up from 10 percent a year earlier (Smith, 1996). More recent figures showed one-third of American homes had been equipped with a computer by 1997 (Castells, 1996) and in a six month period of 1998, the percentage of computer-equipped homes increased from 42 percent to 45 percent (Denton, 1998). In 1998, Coffman and Odlyzko believed total Internet traffic and capacity growth had leveled at about 100 percent per year.

The World Wide Web

The World Wide Web is the graphically-driven network dimension of the Internet. Its existence was made possible in the late 1980s through a series of software advances which allowed documents to share a common coded language (Rich, 1999). Today, the WWW is a vivid, colorful environment which uses motion, color, and sound to catch and hold users' attention (Marks & Dulaney, 1998). It is an environment where people do not just read information–they participate in it (Rich, 1999).

Like the Internet itself, the growth of WWW has been so rapid that it is difficult to accurately track. In early 1995, survey data cited by Vora (1998) identified 19,000 active sites. By the end of that year, the number had grown to 171,000 (Helmstetter, 1997). By April, 1997, Vora cited Netcraft Web Server survey data which estimated the number of active WWW sites as exceeding 1 million (Vora, 1998). It is difficult to determine the

number of active sites at any given time. And, because it is impossible to determine how many users are accessing each WWW site, "the number of people using the Web remains unknown" (Picciano, 1998, p. 134). The future development potential of the World Wide Web would seem unlimited.

Educational Applications of the WWW

By the 1980s, the personal computer had already proven itself to be an ideal educational tool, as it could deliver instructional content visually, with color animation and audio enhancement (Sultan & Jones, 1994; Lockard, Abrams, & Many, 1987). The development of the WWW made the computer infinitely more valuable in the schools, because the Web facilitated distribution of attractive, prepared material (Burden & Davies, 1998) "to anyone, anywhere, at any time" (McClintock & Taipale, 1996, not paginated).

The WWW works well in education because of the "critical interlock" between structures and processes of the Internet and those of education itself. In this interlock, the online network reinforces the conception of students as "active agents in the process of learning, not as passive recipients of knowledge from teachers and authoritative texts" (Rudenstine, 1997, p. A48).

Specifically, the Web bolsters general educational curriculum because the Web can both deliver information and support that delivery (Gibbs & Cheng, 1995). WWW content enriches elementary and secondary schools' existing scholastic resources (ILT resources, 1998), allows districts to overcome the isolation experienced by individual

students and by rural locations (McClintock & Taipale, 1996; D'Ignazio, 1984), promotes content learning and literacy development (Maring and others, 1996), empowers students (Rudenstine, 1997), and equalizes opportunities between students, schools and districts (See Picciano, 1998; Hundt, 1997; Riley, 1997; Couch, 1996).

Similar benefits are found in higher education, where the World Wide Web provides access to "essentially unlimited sources of information not conveniently obtainable through other means" (Rudenstine, 1997, p. A48), allows for the building of entire collegiate communities on the World Wide Web (Mende, 1996) and offers adult learners access and convenience unmatched by program offerings in a traditional classroom (Crawford & Shelfer, 1997; Deloughry, 1996).

Whole degree offerings (SCIS in brief, 1998) and an entire university (Pipho, 1996) have been 'created' in the online environment, despite arguments that this kind of educational experience "is scrupulously soulless" because it lacks a physical campus where students would be allowed to "cultivate their souls as well as their skills" (See Limerick, 1997, p. 15A).

The World Wide Web has changed our understandings of pure and applied research through its development of an "informational and global economy" (Castells, 1996, p. 66). In this new economy, information does not just create value–information is value (Negroponte, 1995). The benefits for researchers and scientists are limitless, as thousands of new online sources of information come into being each year, and faster and more accurate browsers allow users to find the knowledge they seek (Bederson, Hollan, Stewart, et al, 1998).

The Web and the Marketing of Education.

While the Web is making wide-scale changes in the educational system, it is also making changes in the way the educational system connects its offerings with intended recipients. This process is known as marketing. The goal of marketing is "to attract and satisfy customers or clients on a long-term basis" (Wilcox, Ault, and Agee, 1995, p. 17).

Marketing was not a significant focus for colleges and universities during the first century and a half of higher education in America. In the 19th and early 20th centuries, institutions selected students for admission. Students were relatively passive participants in the process. The concept of institutional marketing, an idea which "rubs against the traditions of academe" (Walters, 1982, p. 378) was not an option because higher learning was viewed as "the pursuit of knowledge for its own sake" (Hutchins, 1936, p. 36).

In the 1960s and 70s, however, economic changes, a growing government and private-sector conservatism, and a decline in the pool of available potential students left higher education institutions in a position necessitating competition for students and resources (See Chait, 1992; O'Keefe, 1991; Paulsen, 1990; Rudolph, 1977). With each passing year, students "became more like academic shoppers or consumers" in the higher education marketplace (Paulsen, 1990, p. 1). Marketing was not only desirable but vitally necessary for any higher education institution to exist and expand to serve the needs and wants of a diverse and changing population.

It has been argued that colleges and universities were engaged in marketing all along, through publication of catalogues, brochures and the employment of admissions counselors (Kelly, 1982). But in the 1960s and 70s, what had formerly become a seller's

market became a buyer's market. Higher education evolved into a service industry which required commitment to that service, as well as involvement and openness to a variety of publics. Individual, personal attention was sought by each enrolled student (Ihlanfeldt, 1979). Institutions not meeting student expectations would "find little interest in the product they have to offer" (Ihlanfeldt, 1980, p. 5).

Establishment of Institutional Identity.

"The basic bond of any society, culture, subculture, or organization is a 'public image'; that is, an image the essential characteristics of which are shared by individuals participating in the group" (Boulding, 1956, p. 64). The words written by Boulding more than thirty years ago remain true today, despite all the technological change which has accompanied image-building.

The marketing of higher education in the 1990s involves the establishment of a unique institutional image, or "'aura' about the institution and its programs" (Walshok, 1989, p. 227). This image, which is often created during a planned campaign (University launches..., 1997; Mooney, 1989) allows a college or university to occupy a particular niche in the local marketplace. Ideally, the educational offerings of any one institution should be perceived by the public as exclusive from all other competitive offerings (Corbitt, 1979).

For decades, educational subject offerings were created first, then students were encouraged to take interest in them (Kerr, 1995; Rudolph, 1977). Today, institutions of higher education must research and plan program offerings to match existing or

anticipated future interest in particular subjects (Barton, 1979). When educational programs are readied, they are presented to the public through a "marketing mix" which includes information about academic program content, packaging of concepts, branding, advertising, sales and service--with particular attention to the life cycle of each program offering (Riggs, 1989, p. 125).

Academic program information is presented through a variety of media, including display advertising, direct mail, and personal sales (Simerly, 1989), as well as internal public relations documents and news media contacts (Topor, 1993; Harral, 1942). Consumer habits, competition, and government activity are closely monitored (Riggs, 1989), as is the local political climate (Walshok, 1989).

Much of this process can be viewed socially, because it necessitates program leaders who are "visible, involved, and collaborative" (Walshok, 1989, p. 228). Program leaders work inside institutions to "integrate marketing concepts into the daily routine" as well as help maintain organizational support for efforts being made (Simerly, 1989, p. 451). Program leaders work outside their institutions to improve contacts with external groups, and with individuals to "increase the quality of enrolled students" (Kelly, 1982, p. 393).

Successful marketing of a higher education institution or program, then, is not any one particular event in time. It is an approach "woven into the fabric of organizational life" (Simerly, 1989, p. 451). It involves an effort to make a student prefer one particular institution or program to any other which may exist in the marketplace (Doyle & Newbould, 1986). It is "a methodology that permits decision makers in an organization to

think systematically and sequentially about the mission of the organization, the services or products it offers, the markets it currently serves, and the extent to which these same markets and possibly new ones may demand its products or services in the future" (Ihlanfeldt, 1980, p. 13).

Applying our knowledge of marketing to an understanding of the Web makes it easy to see how a presence on the WWW would benefit any higher education institution. Web sites for institutions and programs give colleges and universities competitive advantage in a marketplace with no barriers to entry, aside from technological concerns (Helmstetter, 1997). Web sites allow organizations to target specific information to specific groups (Ellsworth & Ellsworth, 1997), to change and update information easily and inexpensively (Siskind, 1996), and to increase the speed at which education consumers can gather data and the level at which they may access it (Tennant, 1996). An institutional presence on the network evens out competitive disadvantages between organizations (Helmstetter, 1997), and, as a consequence of the interactive social nature of the network, "raises the level of personal interaction" (Fisher, 1995, p. 38) between organizations and the users who seek information from them.

Student Recruitment and Retention.

In the changing environment in which we find higher education today, it is clear that the individual student must bear much of the responsibility for securing his or her education. There are no systems or processes at work at the federal, state, or community level to assure that every American who wants to partake of higher learning will be able

to do so. Colleges and universities have taken on the responsibility of negotiating with students for financial aid (Chait, 1992) and helping prospective students identify specific academic programs that match their personal skills and interests (Lowery, 1982) while helping students make the social transition into college life.

Students should enter the institution of higher learning with the attributes and abilities to succeed. While institutional characteristics help foster these attributes and abilities among students, studies have found that much of what students accomplish during the college years can be directly related to the interests, attributes and skills of students at the time they enrolled (Bowen, 1996; Pascarella & Terenzini, 1991).

As such, the process of student recruitment is often connected with that of student retention--since it is as important for the enrolled student to be able to make swift progress toward the degree as it is for the college to manage its institutional support through enrollment. College students have been categorized as "persisters"--those who remain enrolled; "attainers"--those who remain enrolled but are not progressing toward a particular degree; "stop outs"--previous students who leave the institution, presumably to return later; "drop outs"-- those who leave the institution with no presumed intent of continuing their studies; "transfers"--those who leave to enroll in other institutions; and "dismissals"--those whose enrollment is ended by the institution as a result of academic, financial or social misconduct (Dolence, 1991). The ideal student for a college or university to recruit is the "persister" or the "attainer."

In order to recruit these ideal students, institutions use a number of different means to try to target their recruitment efforts to students with the requisite

characteristics. Recruitment means used include personalized mailings, literature distribution, presentations, personal visits and college tours (Pagano & Terkla, 1991; Simerly, 1989; Bidelman, 1985; Lowery, 1982). It should be noted, however, that despite the huge expense of institutional effort and funding in these efforts, at least one researcher has found prospective students sometimes doubt the informational accuracy and validity of traditional printed college publicity materials (Boyer, 1987).

Prospective college students who are the recipients of institutional information look for a variety of things from the undergraduate experience (Pascarella & Terenzini, 1991). They seek an investment involved in making a decision to attend a particular school, a perceived social 'fit' between student and institution, and an appropriate status attainment level which results from the decision (Paulsen, 1990).

Students consult a variety of sources when gathering information about colleges. These typically include guidebooks and directories to develop a preliminary list of preferred colleges. From there, students "gather information and explore their choices in depth" through use of college catalogs, personal visits with counselors, campus tours, and interviews with college students, faculty and recent alumni (Bidelman, 1985, p. 2).

A thorough search helps the student become familiar with institutional characteristics and college environments, both of which are seen by Pagano and Terkla (1991) as critical variables in the student's decision. Students are urged to make as much personal contact with institutions as possible. "Institutional contacts, both formal and informal, reflect and communicate the personality of the institution. As a result they help

shape the image prospective students and their parents have regarding the institutional environment" (Pagano & Terkla, 1991, p. 33).

In a survey of minority student recruitment and retention practices among schools of psychology, Hammond and Yung found that a variety of traditional recruitment methods are used. Methods include personal contacts, invitations for campus visits, recruitment materials targeted for specific demographic audiences, and high school multi-media presentations (Hammond & Yung, 1993). At the same time, academic support for computer skill development was the most prevalent item reported by school administrators in the area of "academic retention strategies," (p. 7), a category which included 18 other options for keeping students enrolled.

Given the fact that the strategy of personal contact is ranked with such importance for recruiting students, that computer skill development has been cited in at least one survey as being a critical retention strategy, and that prospective students have previously doubted the validity of many of the traditional forms of printed college recruitment materials--it would seem that prospective student contact via a World Wide Web site would be an ideal way to add impact to the student recruitment process.

Organizational Support Within Academe.

Providing adequate support for faculty and staff is an important goal of any educational institution. Existing survey and case study research confirms that those who work within any place need to feel satisfied on the job (Bruce, 1989; Drory & Shamir, 1988; Ash, 1972). A manager's effectiveness (Blake & Mouton, 1978; Blake & Mouton,

1964) or ineffectiveness (Thompson, Kirkham, & Dixon, 1985) has been shown to have an influence in this process. Other variables in the process include good morale, which has been shown to a positive influence on workplace climate and productivity (Kiechel, 1989; Koenigsberg, 1989; Roberts & Harris, 1989), as well as social elements which foster creativity among employees (Balkin, 1990; Moore, 1990; Webster, 1990).

Managers' actions are key to the creation of positive, creative work climates where people learn (Blendinger & Jones, 1989; Moran & Volkwein, 1988) or work (Chelte, 1989; Miller, 1988). The development of a positive, creative work climate is especially important when managers and subordinates must work together to develop media content. At least one study suggests the presence of relationships between negative social reinforcements in the workplace and poor performance among those who work there (Swanson, 1991).

It is also been demonstrated that academic organizations are unlike any other in their form and complexity--and the unique social relationships involved. Extensive study of the academic environment by British researcher Tony Becher led him to conclude that academe is made up of "tribes," each with their own "traditions, customs and practices, transmitted knowledge, beliefs, morals and rules of conduct, as well as their linguistic and symbolic forms of communication and meanings they share.

"To be admitted to a particular sector of the academic profession," Becher continues, "involves not only a sufficient level of technical proficiency in one's trade but also a proper measure of loyalty to one's collegial group and of adherence to its norms" (Becher, 1989, p. 24).

Ideally, the creation and management of a Web site for an educational program should be part of a complete and ordered social experience, not only for faculty, staff, and students within a particular discipline and program--but for alumni, potential students, and others in the community outside the university. Of course, every institution is different. The specific variables at work in the creative process will differ depending upon the institution's culture, character, social order, and academic mission.

Taking these issues into account, a program's academic Web site should adhere to the written and unwritten expectations for it. These expectations govern social, technical, and symbolic norms for World Wide Web sites and the people who use them.

The site should adhere to institutional or program guidelines for site creation and management. The site should allow for optimum marketing of the host academic program, as well as of the institution as a whole. This marketing should include an emphasis on student recruitment and retention. The site should support, and be supported by, the host academic program and the institution in general. Finally, the site should support, and be supported by, positive social interactions between faculty, staff, and students in the host program.

The World Wide Web is a social medium; it supports and encourages human action through the use of computer-mediated technology and symbols. In order for a journalism/ mass communication program to gain the most benefit from a WWW site, the site needs to be developed and used in the most positive way, with consideration of all the social, technical, and symbolic elements and associations involved in the process. The academic Web site is not as much an end product in itself as it is a means to an end–it

facilitates continuing social experiences to bring about promotion of the institution in general and the host academic program in specific. Therefore, a Web site cannot be considered for analysis as an exclusive entity. It must be considered as part of a complete social system of higher education.

Journalism/ Mass Communication Education

The development of journalism into an academic field for study within the confines of American higher education traces its roots to the late 1860s and what O'Dell terms "natural social action" (O'Dell, 1935, p. 3) resulting from a variety of historical and social events. The first call for establishment of formal journalism training within the academic environment came in 1869, when General Robert E. Lee, the newly-installed president of Washington College, wrote to his board of trustees asking for establishment of 50 scholarships for "young men intending to make practical printing and journalism their business in life" (O'Dell, 1935, p. 15). A similar, vocationally-oriented proposal calling for professional certification in journalism was first proposed at Cornell University in about 1875. But due to a variety of difficult circumstances, these and other early programs never became established (See McClure, 1883).

Instruction in journalism at the college level finally took root at the University of Missouri in 1878, where independent courses were offered in association with literature, history and studies of politics. In 1908, Missouri's program became the first stand-alone journalism school at the college level (Jeffrey, 1994), adopting the philosophy first

espoused by Dr. Charles Eliot at Harvard, who saw journalism as first and foremost as a business and felt prospective journalists needed both editorial and management training.

Close behind Missouri was Columbia University. At Columbia in 1903, publisher Joseph Pulitzer awarded a $2 million endowment to help establish a journalism school "making it possible for journalism to rise to the level of other professions, through the medium of formal education" (O'Dell, 1935, p. 65). After several lengthy delays, the Columbia School of Journalism opened in 1912.

Other institutions, including the University of Denver, the University of Illinois, University of Michigan and others were soon to follow. Professional associations were formed--the American Association of Teachers of Journalism in 1912 and the American Association of Schools and Departments of Journalism in 1917. By 1934, 455 collegiate institutions in the U.S. offered journalism instruction (O'Dell, 1935).

Although traditional print journalism education developed markedly in subsequent years, by the late 1950s a new force--that of education in communication studies--was impacting journalism programs. As new technology expanded the size of the audience for various types of communication related to journalism, and as academic researchers began to delve more into studies of communication in social action, many academics within the discipline began looking to lead the field of journalism into new relationships (See Whetmore, 1982).

"The uniting of communication studies and journalism grew, in substantial part, out of a mix of bureaucratic expediency and a lack of understanding of journalism," Medsger writes (1996, p. 55), claiming that the absorption of traditional journalism

education into the larger discipline of communication studies was politically and economically motivated. "The union did not result from an altruistic desire for new philosophical understandings and/or a new commitment to academic or professional excellence" (1996, p. 55).

In 1995, college journalism education was well into its second century with at least 427 colleges and universities known to be offering some form of journalism degree--from small programs with just a few students in a journalism subject area, to the University of Iowa Journalism School with an enrollment of almost 2,900 undergraduates (Kosicki & Becker, 1996).

College journalism enrollments grew strongly in the 1970s and 80s (JMC Education. . ., 1995; Cowdin, 1985) and continued to grow at a more moderate pace in the early 1990s (Jeffrey, 1994). In 1996, Kosicki and Becker estimated 141,167 college students were enrolled in journalism programs at the college level, and 91 percent of students enrolled were undergraduates (Kosicki & Becker, 1996).

As in the early years when there were distinctly different perspectives on journalism education--Robert E. Lee's framing of journalism as a vocation; Joseph Pulitzer's framing of journalism as a profession with close academic ties; and Charles Eliot's framing of journalism as a business with editorial and management implications--there remain today great differences within academe as to what journalism education is, where it belongs in the academic hierarchy, and how it should best prepare students for career realities.

The Discipline, Education, and Institutions

Because there are different ways of conceptualizing journalism/ mass communication education, different institutions structure the discipline in different ways. These differences help explain, and are explained by, internal and external variables which are related to campus social order. These variables help determine 'best fit' between an institution of higher education and its journalism/ mass communication program. Internal variables include program and goals, academic culture, and, organizational structure and bureaucracy.

Strategies, Structure, Bureaucracy, Technology

A program and its goals are defined by administrative strategies (Cook, 1989) and mission statement, the document which serves as a test of what organizational and educational inputs are anticipated and what outcomes will be expected (Medoff, 1994). Academic culture is closely related to program and goals. Academic culture involves the particular sequence and structure orientation of the journalism/ mass communication program (Jeffrey, 1994), the number of faculty holding doctorate degrees (JMC Education. . ., 1995; Dickson & Sellmeyer, 1992; Cowdin, 1985), the extent to which faculty members have the opportunity to do academic research (Medoff, 1994), and the extent to which the academic culture implicitly or explicitly demands faculty research production (Bodle, 1993).

Organizational structure and bureaucracy relates to the degree to which the institution's inputs and outcomes are tightly- or loosely coupled (Weick, 1991), the size

of a journalism/ mass communication program and its "centrality in the academy" as related to the general political climate and allocation of funds (McCall, 1994, p. 8), the blending of the discipline with other institutional programs and the sharing of faculty from different academic areas (Medoff, 1994), the extent of facilities which allow for teaching, advising, and research (Medoff, 1994), and even the extent to which the institution promotes access by students to journalism/ mass communication program sequences (Jeffrey, 1994).

External variables which affect 'best fit' between an institution and its program of journalism/ mass communication include opinions of working professionals, technical change, and opinions and actions of university alumni and the community at large. Opinions of working professionals are important to educators, for it is the working professionals who hire students graduated from college programs. Dozens of surveys of working private sector journalists taken in recent years would appear to have a great influence on the direction of journalism/ mass communication as a discipline (See Auman & Cook, 1995; JMC Education. . ., 1995; Bautista, 1994). Most of the surveys reflect dissatisfaction over alleged irrelevancy of academic curriculum, vocational aspects of journalism education, quality of graduates, and other issues related to academics and program administration (Dickson & Sellmeyer, 1992).

Technical change is an important variable, because journalism/ mass communication programs must recognize and adapt their curricula to a world in which electronic reception, processing, storage and delivery of information is the routine, not the exception (Jeffrey, 1994). Regardless of their academic or vocational orientation,

programs which cannot keep up with changes in technology will not be able to recruit and retain students for their host institutions.

Community

Opinions and actions of university alumni and the community at large also are powerful. In today's economic climate, higher education institutions must continually look outside their institutional boundaries to raise financial support to build buildings, purchase expensive equipment, endow scholarships, hire special faculty and engage in service endeavors. Higher education institutions with student publications or broadcast media as part of a journalism/ mass communication program have an additional burden in that, in most cases, they must recruit advertising support for those media. An institution must consider the attitudes and opinions of its community and former students when attempting to 'fit' a journalism program--as it would any program which cannot survive without outside support.

Obviously, there are critical social implications involved as we begin to discuss the discipline of journalism/ mass communication, its role in academia, place in society, and development among working professionals. Journalism/ mass communication is itself a social discipline. It has a distinct order that exemplifies what Edgerton describes as "the regularity of human life" (1985, p. 255). Journalism/ mass communication has a social order within itself--as a discipline, and as institutions and programs. It also re-creates perceived social order, as journalists and other professionals conceptualize, structure, and disseminate messages about the social processes they see at work in the world.

Social Order

The concept of social order takes into account the whole spectrum of relationships which put communication in context with human action (Couch, 1996). Social order is not accidental (Eisenstadt, 1992). Every choice people make about their conduct within the sphere of collective relationships with others is open to study under this framework. Thus, by definition and by design, industrialized society is itself a social order (Cowan, 1997) because its very existence stipulates certain responsibilities for people who live together. Society is by definition cooperative; people must act together to accomplish tasks. Therefore, any effort to explain this action is an effort to understand social order.

Social order demonstrates itself directly and indirectly through culture, "an organized set of meaningfully understood symbolic patterns" (Alexander, 1992, p. 295). Culture has been defined as the "symbolic dimension of human activity" (Eisenstadt, 1992, p. 83). In the workplace, culture reflects the values, beliefs, and meanings of people working together in cooperative relationships (Dill, 1991).

Human action and information sharing is dependent upon culture. When human action and information sharing takes place within a culture, flows of data within the social system shape organizational, institutional, and cultural processes (Boisot, 1995).

Social Acts and Social Structure

A social act, the unit of measurement in social order, is a result of a sharing relationship between people (Couch, 1996). The social act is the observable evidence of

process or stimulus, either direct or indirect, toward a certain objective (Fisher, 1978). The act's influence on other acts and on people in the environment can be witnessed.

Social acts occur within the social structure, the formal and informal framework people conceptualize and maintain to carry out their lives and tasks. Social structure is "the way in which a culture or society patterns its interactions" (Klopf, 1987, p. 132). Social structure contains people, social acts, intended goals from social acts, norms for conduct, beliefs held by people in the social structure, status and status relationships between people, authority relationships between people and acts of people, and role expectations (Szilagyi & Wallace, 1983). Included in social structure are social institutions, which "are the established patterns of social behavior which organize the life of a particular segment of society" (Kraybill, 1978, pp. 41-42). Institutions are deeply ingrained in social culture and organize human education, work, family life, recreation and religious behavior.

Social Rules

Because social order is a concept which is applied to a structural environment in which obviously 'disorderly' action takes place, by understanding people's attention to rules we may attempt to explain social order. Written and unwritten rules, also known as norms and shared strategies (Crawford & Ostrom, 1995), affect acts which make up social order because rules prescribe or proscribe behavior--they tell people what actions to take, and what actions not to take. Social rules are supported by formal and informal rewards and punishments (Elster, 1989).

Rules to regulate and control human actions may be expressed directly or indirectly from one human to others. They may be expressed verbally, symbolically, or through demonstrated behaviors. They need not be explicit. "Implicit rules may be as imperative as explicit ones, and they may be every bit as vital to the establishment and maintenance of social order," Edgerton observes (1985, p. 25). Rules help create and manage human behavior which is predictable, or coordinated--two concepts which have been defined as key components of a socially ordered environment (Elster, 1989).

There are exceptions to rules, of course. Edgerton identifies four. In situations where we find ourselves faced with abnormal, temporary conditions, special status people, special occasions, and/or special settings, rules may be excepted or changed (1985). But these exceptions do not violate social order. In fact, "exceptions that are defined by rules do not weaken social order but maintain it in the same way that rules do" (Edgerton, 1985, p. 248).

Lack of predictability, or, the absence of coordination among people in the social environment implies disorder. However, disorder itself is a social order because it makes a definitive statement about the environment in which it takes place (Duncan, 1962). So, as with the old adage "one cannot not communicate," a social order cannot not demonstrate order. Even a social order which is in total disorder defines itself through that disorder (Duncan, 1968; Duncan, 1962).

Predictability and Coordinated Action

Predictable action, the first of two possible conditions under which social order is manifested, shows itself through human behavior which is consistent, repetitive, and capable of being correctly anticipated in advance of its occurrence. Predictable action is regulated by social norms. Social norms coordinate expectations (Elster, 1989).

Coordinated action, the second of two possible conditions under which social order is manifested, comes about through a process which involves sharing of past experiences, the projection of shared futures, the projection of a social objective, interpersonal timing, and timing of actions within the external environment (Couch, 1996; Novosad, 1994). Coordinated action requires that people be responsive to unfolding events, and that they be able to anticipate future events and formulate their intentions for dealing with those events.

Whether it comes as the result of predictable action or coordinated action, social order is sustained through a division of labor, a construction of trust and solidarity, a regulation of power, and a legitimization of social activities among humans (Eisenstadt, 1992).

Technology and Human Action

Technology is a design for action which always takes place in a social context (Couch, 1996). Technology is responsive to social demands (Alexander, 1992). Information technology increases the amount of information available to humans which is preserved, in circulation, or both. Each information technology favors some kinds of

information over others (Couch, 1996). All information technologies either enhance or erode social structure, and result in changes in human history (Miller, 1995). All information technologies change social order, and are changed by social order, because they are a part of humanity and human history (Cowan, 1997) and because they influence the human environment where work is done (Kling, 1996).

Because computers have been fully integrated with all facets of human life, computers are themselves an inherent part of our social structure (Couch, 1996). Computer hardware and software reflects the personality of the designer and psychology of the modern office (Harris, 1995). Computer-mediated communication by humans within the modern office involves a performance of numerous communicative elements at the same time, in synch with each other (Carlsson, 1995). Computers empower - and are empowered by - people to engage in social acts (Couch, 1996). In the education environment, successful educators collaborate with experts to use technology to meet educational and technological goals (Picciano, 1998).

Education and Human Action

The educational environment is a social structure unto itself, with its own distinct order. Schools are "knowledge centers" which "have become social structures that compete with state and economic structures for hegemony in programming the future endeavors of humanity" (Couch, 1996, p. 237). Within these structures, teachers are agents of social order, and their written work offers an additional reinforcement of the social order expectations (Walters, 1995). Establishment of a cooperative social order

among groups of teachers leads to effective curriculum development which all may share (Saga, 1993). Technology, applied through social order, 'creates' time for some teachers to take leadership positions where they direct the work output of others in the educational environment (Franklin and others, 1991).

Academic groups within higher education "define their own identities and defend their own patches of intellectual ground" by employing different social strategies to control the environment (Becher, 1989, p. 24). These strategies include defining physical space occupation, establishing membership rules or requirements, making social organizations within the discipline, and transmitting particular cultural information which only members may acquire. All of this is done in an effort to establish a "self-reinforcing elite structure" for academe (Mulkay, 1977).

The school administrator is a primary agent of this social order within the educational environment (Peca, 1991). In the higher education setting, in particular, the department chair is a critical determiner of social order because he or she is the "chief architect of the department's future" and creates the role according to his or her own talents and skills, within a framework which is consistent with departmental and personal goals (Tucker, 1984, p. 35).

The department or program chair holds administrative authority, which "is predicated on the control and coordination of activities by superiors" (Birnbaum, 1988, p. 10). The academic administrator must be skilled in "presentation and maintenance" of symbols and meanings which support academic culture (Dill, 1991, p. 189). The administrator has "principal responsibility of superintending academic values" (Dill, p.

193). He or she leads the academic unit in the "struggle for power and status, in which the hardiest and most applicable flourish while the weakest go to the wall" (Becher, 1989, p. 142).

A number of different models have been posed in an effort to explain how the academic department functions and how the chair of the department affects that functioning. These models include the bureaucratic model, the collegial model, the loosely-coupled system model, the organized anarchy model, and the political system model (See Baldridge, Curtis, Ecker, & Riley, 1991). Regardless of their differences, each of these models recognizes–to some extent–the existence of social and cultural variables, and the department chair's responsibility for coordinating them.

The World Wide Web and Social Order

Social order comes into play as we discuss World Wide Web sites because the Web is itself considered an environment for human action (Rich, 1999; Marks & Dulaney, 1998; Vora, 1998). In the online world, "symbols are not just metaphors, but comprise the actual experience" (Castells, 1998, p. 350). Therefore, Web designers and Web users need to take into consideration the social expectations which are explicit and implicit, and still developing, in this medium.

Institutional Policy Issues.

Among the first issues to be resolved when an institution considers launching a Web page is the establishment of institutional or departmental policy to regulate

development of online content. Essentially, institutions and departments need to create the rules under which people will be allowed to create and manage WWW sites–as well as the rules for the display of content in sites.

Within the past few years, the number of institutional policies to guide Web site development and use has increased dramatically. Although a few appear to have resulted from online usability testing (Corry, Frick, & Hansen, 1997; Everhart, 1996), most policies appear to be purely based on administrators' perceptions of need.

Policies have resulted from actions of institutional committees (University of Miami..., 1998; Education via advanced..., 1995) or have been developed through the natural bureaucratic action which accompanied the proliferation of online resources (SDSU World Wide Web..., 1997). Some policies have been established by university computing services (World-Wide Web publications..., 1997) or were suggested by computer consultants (Marr and Kirkwood's..., 1998; Stoner, 1996). Other policies have been developed by faculty members (Seven Cs of Webservice design, 1998) or by librarians (Grassian, 1997; Scholz, 1996).

While some policies have been created for use specifically in higher education, there also are policies which address concerns for Web site development and use in elementary and secondary schools (Critical evaluation..., 1998; Creating and placing..., 1996). All are essentially organizational rules to directly and indirectly govern social action–regardless of the creative source of the policy, the environment where policy is applied, the action taken to create policy, or the prescriptive or proscriptive goals of the policy. Policies governing online communication affect the creation of online content by

people within the institution, and the access and use of that content by those outside it (See Swanson, 1993).

Technical, Graphic, Symbolic, Linguistic Design Issues.

Specific Web site content issues tend to revolve around the overriding concept of visual literacy, or a site's transmittal of "information, emotion, and data" (Jaber & Hou, 1994). Among the most basic visual literacy concerns is that of technical compatibility, the mechanistic demand which must be met for a user to access a particular Web site. Evan the most informative and 'valuable' Web site is of no value if it cannot be accessed by users. So, experts agree that site technical elements–including design, colors, and embedded software--must be compatible with the highest possible number of potential users (Rich, 1999; Borges, Morales, & Rodriguez, 1998).

Journalist and Web designer Carole Rich recommends that site content be limited to 20 kilobytes or less in size, so sites do not take excessively long to load. "You have 20 seconds to make an impression with your Web site. That's all the time you will get before visitors to your site decide to stay or leave," Rich writes, suggesting that social order has already established a distinct 'value' exists in sites which load quickly–and does not exist in sites which do not (Rich, 199, p. 230).

In addition to technical concerns, the concept of visual literacy encompasses also the organization and inclusion–or exclusion--of graphic, symbolic, and linguistic elements in a Web site, something which makes stated and unstated assumptions about the role of the site in social order. Graphics and symbols within a Web site should be

presented in ways which enhance–rather than hinder–a presentation (Griffin, Pettersson, Semali, & Takakuwa, 1994). Graphic illustrations should be used with caution, because pictures "always incorporate some ambiguity and numerous "correct" interpretations, although not always a picture's intended or anticipated interpretation" (Pettersson, 1994, p. 136).

Symbols are important because they are the primary means for helping users navigate through a Web site. In the Web environment, as they would in the physical world, humans have become accustomed to completing tasks in regular, repetitive ways. Users of the Web navigate sites they find through one or more of three methods: They seek landmarks, or visual cues; they rely on route knowledge, or an understanding of the organization of a Web site based on a series of visual cues; or, they rely upon survey knowledge, or, information gained from recent past experiences with a particular site or another one similar to it (Whitaker, 1998).

Users employ strategies which are both discriminate and indiscriminate to follow symbols and navigate through WWW sites. In any case, in the online environment–as in life in the physical world–human action does not happen by accident (Marks & Dulaney, 1998; Eisenstadt, 1992). Familiar, understandable symbols are vital.

Linguistic elements are important because language "creates the forms which make possible the communication of experience" (Duncan, 1962, p. 144). Linguistic or textual information should be presented in a "clear, easy to use way" (Geske, 1997, p. 1) and in its full and accurate historical and cultural context (Messaris, 1994). This information should be ordered and organized in accordance with user expectations

(Hagerty, 1994), and with the recognition that not all users have the same cognitive and physical abilities (Laux, 1998). The technical, graphic, symbolic, and linguistic elements of a Web site all facilitate information dissemination to users–they support, and are supported by, the social order.

User Access Issues.

Concerns of Web users revolve around Netiquette, what has become known as "etiquette or good manners" (Rich, 1999). Even though many if not most Netiquette rules are unwritten, they're still important because "[b]asically there are no rules for use, [and] no one to answer to" in the online world (Jaber & Hou, 1994, p. 344). Netiquette helps prevent abuses which could result when large numbers of users associate with each other in an unstructured, mostly unregulated environment. Some of the more major abuses include illegally storing and re-transmitting copywrite-protected, pornographic or offensive material (Rich, 1999) or online stalking of other users (Jaber & Hou, 1994). Some of the more minor abuses include sending private messages to large groups of people, 'flaming' other users for their lack of rule-understanding or following behavior (Harnack & Kleppinger, 1998), and writing textual copy in all capital letters, something "which is considered shouting or screaming" (Rich, 1999, p. 91).

Whether in person or online–effective communication is more than just the sum of raw ingredients (Kerns & Johnson, 1994). Presentations are made by people and for people, and must fulfill a variety of different stated and unstated social expectations. The

established 'rules' for communication on the World Wide Web serve as a guide for effective communication between people in this rapidly-expanding medium.

Summary of Issues

Obviously, there's a large amount of literature addressing World Wide Web and the many ways it can be used now, and in the future, as a medium of communicative expression. The literature addresses Web use from a business perspective, in areas of advertising, marketing and promotion. It deals with consumer issues, such as who is using the Web, what it is used for, and how users relate to others in the process. Existing literature also addresses educational uses of the Web in regard to program administration, curriculum development and delivery of services. Likewise, there is a significant amount of literature which addresses social order. There has been quite detailed examination of the ways people order their society, and carry out the rule-reinforced acts which make up modern life and work. Because a World Wide Web site is supported by, and is a supporter of social order, it is important that we draw together these two study areas, to examine WWW sites and their specific impact on a specific higher education discipline in terms of business applications (presentation of a 'marketing' or 'promotional' message about programs), consumer use (dissemination of specific information to specific audiences), and social order implications (how actions of faculty within the academic unit impact site development).

In the competitive marketplace of higher education, educators need to be as effective as possible in administering their individual institutions, and the discipline in

general. Higher education institutions must be able to use the World Wide Web successfully as part of a strategy to promote programs, build on institutional strengths, and recruit the greatest number of students who are most likely to be retained to graduation. In order to accomplish this, educators and administrators must understand the World Wide Web, know how to use it effectively, know what groups to target with WWW-disseminated information, understand how to encourage interaction between prospective students and the institution, and be able to use the WWW to help solidify relationships throughout the academic unit. We must have all the information possible at our disposal to do this work on behalf of our discipline and our institutions. This research is where we begin to gather the new knowledge.

Research Questions

The analysis of the problem at hand, coupled with a review of existing literature in this field, resulted in the development of seven research questions to be addressed:

1) To what extent do U.S. college and university journalism/ mass communication programs utilize publicized academic program Web sites?

2) What types of visual, operational, and informational enhancements are in evidence on journalism/ mass communication program Web sites?

3) What quantitative differences are observed among enhancements displayed by journalism/ mass communication program Web sites, and how do these enhancements work together to establish "user friendliness" of sites?

4) Are relationships indicated among particular institutional, academic program, or subject area characteristics and quantitative differences observed among journalism/ mass communication program Web sites?

5) How do faculty members qualify four key areas of social order (delegation of labor, establishment of trust, regulation of resources, and support for academic processes) as those relationships affect journalism/ mass communication program Web site creation and maintenance?

6) How do faculty members rank their own academic program Web sites in regard to visual, operational, and informational enhancements; concept; site maintenance; purpose; and faculty involvement?

7) Are relationships indicated between particular institutional, academic program, or subject area characteristics and faculty rankings of journalism/ mass communication program Web sites?

Significance

This research has the potential to benefit the academic discipline of journalism/mass communication, because it has resulted in additional knowledge about the number of programs making use of public Web sites, the contents of those sites, and the institutional social order relationships which affect–and are affected by–the process.

The objective system of measurement developed for this research allowed sites to be quantitatively scored on the basis of their visual, operational, and informational enhancements. The resulting scores were then linked to institutional and program characteristics to illustrate how program Web sites differ, and the institutional and/or social variables which may be responsible.

The evaluations of social order by journalism/ mass communication faculty members allow us to have an increased understanding of key social expectations within academic units. The evaluations suggest, for the first time, relationships between the social order--or disorder (Duncan, 1962)--of a program and the structure of its Web site, a technology which is responsive to social demands (See Alexander, 1992).

One would expect that the increase in knowledge of this type would allow administrators and faculty in journalism/ mass communication programs to better understand the interpersonal, organizational, and technical elements which come together to allow WWW sites to be created and maintained. This improved understanding could lead to more effective online marketing of programs and their offerings, better use of current and future resources, and greater ability to practice and teach communication skills. Many of the general findings of this research are applicable to other disciplines, as well.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The World Wide Web is a fairly new technological advancement, so it has only been within the past few years that much scholarly research has focused on Web use. There still are many gaps in the literature. It seems ironic that a major area still needing investigation involves use of the WWW–the newest medium of mass communication–by journalism/ mass communication programs.

There is a great deal of general-interest, consumer-oriented information available about the World Wide Web. Most of it is not very scholarly. Even among published material which could be considered 'research literature,' most is subjectively-oriented and falls into the categories of 'review and analysis' or 'field observation.' Most is qualitative in nature, that is, it is holistic, designed to catagorize distinctive situations and environments and produce unique, detailed explanations (See Wimmer & Dominick, 1994). Little of the available research literature involves any kind of quantitative

experimental or survey research effort. Even less of the existing literature makes an effort to tie theory to practice in any meaningful way.

World Wide Web Content, General Applications, Users

Available literature includes general findings about the World Wide Web's size (Ho, 1997), scope (Dyson, 1997), history (Helmstetter, 1997; Castells, 1996; Tennant, 1996; December & Randall, 1995; Jaber & Hou, 1994) and general applications (Rich, 1999).

Demographics of Web users have been analyzed (Smith, 1997; Smith, 1996; Stoner, 1996). At least one case study addresses how the Web and its resources have matured over time (Quinn, 1997). But, again, little effort has been addressed to creating theoretical frameworks to help explain observed phenomena.

Several case study analyses speculate on social and economic changes which will result from the Web and other new technologies (Castells, 1998; Flower, 1997; Castells, 1996; Negroponte, 1995), while others identify economic barriers to Internet development (Marks, 1996; Gallimore, 1995).

The interaction between WWW and other media has been addressed in surveys focusing on the use of Internet resources by broadcasters (Bates et al, 1997) and by newspapers (Collins, 1997). Neither of these surveys went beyond promotional applications.

Numerous field observation-type studies have been developed to identify government censorship policies (Diamond & Bates, 1997; Ambah, 1995). At least one other study characterized political and social philosophies which historically have led to censorship (de Sola Pool, 1990).

Legal and Governmental Issues

General legal issues which affect online communication have been examined in similar form (McDonald, 1997; Siskind & Moses, 1996). Specific concerns for using a WWW page to market the services of a law firm have been addressed (Siskind & Moses, 1996).

Broad, Constitutional issues of Internet access and privacy have been addressed in case study form (Tribe, 1991). More focused critiques also have been done, addressing legal and ethical concerns associated with online copyright issues (O'Mahoney, 1998; Business leaders seek..., 1997; Blumenstyk, 1997), trademark violation (Chaos over trademarks..., 1998; Abel & Ellerbach, 1997), online data security (Cobb, 1997), user privacy (Alderman & Kennedy, 1995), and online pornography (Macavinta, 1998; Miller, 1997). A workplace policy outline has been proposed to help managers deal with these and other issues (Swanson, 1993). However, none of these works deals with the underlying social order which supports and is supported by legal and ethical decision-making.

Occasionally, law enforcement officers have threatened action against computer users suspected of committing crimes. Several highly-publicized incidents have been discussed and reviewed--again, in case study form (Sussman, 1995; Brennan, 1991; Rifkin, 1991; Hentoff, 1990).

Linguistic, Cultural, Social Issues

Language barriers have been addressed through analysis of linguistic characteristics and explanation of the difficulties involved in translating and publishing complex Asian languages online (Maney, 1997). There also has been a case study review of the cultural and legal objections to publication of English-language Web documents in France (Coleman, 1997). But the reviews of language issues are consumer directed and 'analysis'-oriented; they do not attempt to develop social scientific theory to explain why policies are created to regulate online publishing.

The alleged social evils of the Internet have been addressed through observational study and analysis (Gup, 1997; Mannix, 1996; Sussman, 1995). At least one study searches for religious significance in online communication (December, 1997), while another discusses problems created for religious believers by new media technologies (Fonda, 1996). Here again, no effort was made to develop broad theoretical explanations.

One observational study came to the conclusion that Internet use could cause behavioral disorders (Jones, 1997), while others identified productivity losses which can occur in the workplace from irresponsible software development (Ross, 1997) or

unstructured online use (Kuttner, 1997). But none attempted explanation of social processes which could be at work.

Site Design and User Interpretation/ Navigation Issues

A great deal of published material has been devoted to the design of World Wide Web sites. But, again, most of the work is consumer-oriented in nature, consisting of 'how to' guides for general applications (Rich, 1999; Pomeroy, 1997; Web page planner, 1997) or for educational Web site construction (Pollard, 1997, December; Pollard, 1997, July; Yale C/AIM Web style..., 1997).

There is at least one field study of rhetorically 'successful' college Web sites (Deloughry, 1995) but its research focus is limited. A number of page design guidelines have been established through surveys of user responses (Borges, Morales, & Rodriguez, 1998; Fuccella & Pizzolato, 1998), but none established theoretical frameworks for further study.

At least one survey of online style guide authors has been commissioned to determine adequacy or inadequacy of existing sites (Grose, Forsythe, & Ratner, 1998). Though quantitative in nature, its focus was limited to determining "who was writing these Web style guides and why" (p. 122).

The concept of visual literacy and online media has been addressed in a number of ways. One author chose to take a rhetorical examination of "the broad reach of U.S. visual culture" and relate its impact to imaging technologies (Messaris, 1994, p. 1).

Others attempted to examine conversational discourse and apply understandings gained to Web site design (Magliano, Schleich, & Millis, 1998).

Surveys of users have been used occasionally to glean information about how people use the World Wide Web. One author conducted a study to measure the effect of different online text characteristics on reading ability of college students (Geske, 1997). Another researcher surveyed online users in different countries to determine how they responded to visual symbols in business presentations (Griffin, Pettersson, Semali, & Takakuwa, 1994). A field experiment conducted among college students in Sweden attempted to make generalizations about the visual aspects of the WWW and word association (Pettersson, 1994).

One author's observational study helped develop elements and principles of visual organization which supposedly bring about the most efficient use of visual media (Hagerty, 1994). Another researcher's study of college student class presentations helped determine how visual literacy is demonstrated through 'effective' and 'ineffective' use of supporting materials (Kerns & Johnson, 1994). A meta-theoretical study was done to show the effect of computer visuals on learners' motivation (Sultan & Jones, 1994).

Web Use and Social Activity

How people collaborate to create Web pages has been addressed through case study analyses of the role of librarians (Andrew & Musser, 1997) and the 'team' approach to Web site design (Jagodzinsky, Cunningham, Day, Naylor, & Schobernd, 1997). As

with the other areas, none of this work attempted to establish explanatory theoretical foundations, or made the effort to link elements of the online environment with the social processes at work in the physical world.

There is existing literature to confirm the extent to which organizations use Web sites for promotional purposes. Aikat (1997) completed a content analysis and categorization of more than 1,000 Web sites, identifying sites maintained by government entities, commercial organizations and educational institutions. Ho (1997) completed a similar content analysis study of 1,800 commercial sites, to "address the question of what value is being created on the Web" (Ho, 1997, Abstract).

A survey undertaken by a class at Columbia University accessed 500 academic Web sites to determine "to identify good & poor examples for many different elements within one site" (sic) (A survey of... , 1995, Abstract). Along the same lines, a content analysis by Mitchell focused on the informational contents of Web sites hosted by state departments of transportation (Mitchell, 1996). While each of these surveys is thorough and relevant, none makes a strong link between any particular social scientific theory and Web site use--or creates parallels between Web site development and social action within the host organization.

A number of efforts have been made to identify different impacts of Web use on the general population (Castells, 1996), on minority populations (Wright, 1997), on children (Hundt, 1997; Riley, 1997; Druin & Solomon, 1996), or on people with physical disabilities (Laux, 1998). User experience and feedback has been noted in an effort to create the optimal Web page design (Fucella & Pizzolato, 1998). One researcher noted

human characteristics and attitudes and their apparent effect on Web site navigational skills (Whitaker, 1998). But, as with the other topic areas already discussed, these are mostly qualitative pieces. Few make any effort to recognize that Web sites impact, and are impacted by, the social order under which they were created.

Higher Education and the World Wide Web

Use of the World Wide Web in higher education has been addressed through case study examination of the use of WWW sites for recruitment (Fisher, 1995) admissions (Kellan, 1995), and promotion (Collins, 1997; Telling the world, 1995). No current, complete picture is available of educational use of WWW sites, however.

In May, 1995, Deloughry estimated there were 611 higher education institutions with listings on the Internet (Deloughry, 1995). In February, 1996, Arant surveyed and found 71 percent of member schools of the Association of Schools of Journalism and Mass Communication reported having a WWW site (Arant, 1996). But even 'complete' academic listings often do not include WWW addresses, and since the electronic information spectrum is constantly changing it would be impractical to do so.

Web site policy statements have been reviewed (Rich, 1999; Stoner, 1997) and different policies which serve as models for development have been published on the WWW (Web site development..., 1998; Student acceptable use policy, 1998; Policy on use of computers, 1998). A brief content analysis of academic Web sites was completed in 1995, showing design guidelines result in some sites being "well-appointed" while

others are not (Deloughry, 1995). News reports of changes and controversies involving academic Web sites are common (Rudenstine, 1997; Wayne State U. bans..., 1997; Young, 1996).

The case study method has been used to examine WWW use for creating new curriculum (McClintock & Taipale, 1996; Mende, 1996), sharing informational resources (Kirk, 1997), to bring business knowledge into school systems (Crawford & Shelfer, 1997), to promote literacy development (Maring and others, 1996), and to assess the pros and cons of online curriculum for higher education (Limerick, 1997; Arant, 1996; Deloughry, 1996). At least one study showed that the Internet was a positive contributor to scholarly activity (Kaminer, 1997).

Various studies have been done to track the impact of electronic technology including the Internet and e-mail on student populations, as well. Students who use e-mail to interact with faculty members and other students have been shown to be younger, carrying more credit hours, more likely to complete courses for which they are communicating online, and tend to be more active contributors to in-class discussions (Morton, 1997). In the academic environment, e-mail is more frequently used when users have greater opportunity to use it, collaborative support for doing so (Choi, 1995) and perceive great relative advantage of using online over other means (Kim, 1995). It has been difficult for researchers to affirm that frequent e-mail use increases intellectual performance by users (Hettinger, 1997). Much of this may result from the fact that e-mail use is highest for simple and routine tasks and lowest for complex and non-routine tasks (Wigand, 1995).

The case study method has been used to assess how to better incorporate online technology in the classroom and university office (Report of the task force..., 1996), to identify key legal concerns for academic Web site designers (McDonald, 1997) and discuss pros and cons of advertising on educational Web sites (Young, 1996).

The survey method has been used to find out how users navigate educational Web sites (Gibbs & Cheng, 1995) and to determine users' perceived value in online research sources (Burden & Davies, 1998). Technology issues have been addressed, along with hardware and software evaluation (Picciano, 1998), technology management (Horowitz, 1996), and use of Web technology in the gathering of survey research data (Turner & Turner, 1998).

Indeed, there has been a considerable amount of research conducted into the World Wide Web and the impact of it, and related technology on people, organizations, and the environment. But none of the research located by the author addresses social order–a state which results from predictable or coordinated human actions (Elster, 1989)–and any effect it may have on the development and maintenance of a Web site.

Social Order

As with WWW research, past research on social order also is mostly qualitative in nature. It "can be likened to stimulus generalization, or looking for sameness when making predictions about other communicators" (Gudykunst & Kim, 1992, p. 24). This is not surprising, since from its beginnings, social order theory has been developed

qualitatively. H. D. Duncan--recognized as the founder of social order theory--wrote of art, comedy, language, manners and other social acts which were perceived and structured qualitatively, and displayed in unique ways in a myriad of social environments (Duncan, 1962; Duncan, 1968).

Social order is manifested through predictable or coordinated actions (Couch, 1996; Elster, 1989). It is dependent upon culture (Kraybill, 1978) and is sustained through division of labor, construction of trust and solidarity, a regulation of power, and a legitimization of social activity among humans (Eisenstadt, 1992).

Existing social order literature which relates to division of labor identifies "an information technology paradigm" in which information as raw material is pervasive, networked, flexible, convergent, and an integral part of human life and work (Castells, 1996, p. 60). Past researchers have characterized technology as something which expands the human senses and makes work more productive (Couch, 1996). Work is portrayed "as the fundamental value of social order" (Oliva Augusto, 1998, Abstract). The school administrator has been portrayed as a leader and agent of that social order (Peca, 1991).

Trust is developed in the socially ordered environment when people are responsible for the actions they take, and select leaders who assume responsibility (Silvert, 1998). Past research has shown that individuals placed in positions of authority should allow development of compatibility of needs, ends, values, and intentions, ethical standards and goodwill (Visnovsky, 1995). Order reinforces trust in people and actions, and, in turn, trust reinforces order, "something humans crave and markets reward" (Postrel, 1998, p. 106).

Regulation of power is accomplished through actions of people in the social environment. It is supported by rules and their exceptions--which maintain "the regularity of social life" (Edgerton, 1985, p. 255). Past researchers have investigated the regulation of power through field observation studies of different social environments. These included national surveys of residents of urban neighborhoods to determine "territorial cognitions" which allowed people to identify with the places where they live. The studies determined various levels of social control were at work in neighborhoods and communities (Taylor, 1997).

Other research involved quantitative and qualitative coding of speech text to uncover patterns of rhetorical appeal (Lee & Ungar, 1989), and case study analysis to identify "the grammar of institutions" whereby institutions encourage the regularity of human action that takes place within them (Crawford & Ostrom, 1995). These studies showed that power can be created not only in the language we use, but in the way language and other symbols are used to represent spaces in the social environment. After all, "even space is an expression of society" (Castells, 1996, p. 410).

An observational study by Ericson, Baranke, and Chan dealt with concepts of social order as they related to news media portrayals of law enforcement activities. The authors developed an extensive framework to show how media demonstrate social order through message delivery, message context, cognitive involvement asked of the audience, news structure, news elements, and story pacing. The study showed significant 'socially ordered' differences in the content and context of news as delivered through different media, as well in audience expectations (See Ericson, Baranke, & Chan, 1991). It would

seem logical to extend this line of thinking to academic programs and their World Wide Web sites, by examining how different socially ordered environments result in creation of different WWW sites–or, message delivery systems–containing similar types of information, presented differently, to meet audience expectations.

The Online Social Environment

Two studies have dealt specifically with the World Wide Web and people's perceptions of the online social environment. Gardinali, Friedland, and Martinotti (1996) completed a field study of the World Wide Web's 'UseNet.' The researchers found that online user behavior conformed to implicit and explicit conduct rules, and that rules are transmitted directly and indirectly to users. Indergaard and McIlnerey (1998) addressed the social order perceptions of the Internet in a case study focusing on New York City-area users. The researchers found that although online users identified the Internet with free-association information sharing, the network remained grounded in an increasingly-commercialized urban culture. Both these studies demonstrated that the World Wide Web is a technological 'place' regulated by social order. People who go online to communicate with others are expected to follow certain 'rules' for their electronic conduct. Those who do not are ostracized. Furthermore, people who go online have distinct beliefs about the online environment. Those beliefs, based on visual and functional appearances of the technological 'places' they experience online, may differ greatly from institutional realities guiding development of the WWW.

Other studies examined e-mail, which is frequently used to accompany Web sites. A great variation in e-mail use has been identified (Krishnamurthi, 1996) based on user perceptions of task uncertainty, the need for clarification, the need to convey trust, and the need to gather information. An early survey of workplace social relationships which were maintained in part through electronic communication showed that workplace social influences can regulate users' perceptions and selection of means of electronic communication (Schmitz, 1990). A later study showed that social influences do affect users' specific choice of e-mail, and that these influences do regulate perceptions of e-mail's richness and usefulness as a communications medium (Stuckey, 1998).

Though these studies are insufficiently detailed to answer current questions, their concepts can be further developed to assist in the effort. Following the lead of Gardinali, Friedland, and Martinotti (1996) we can ask how the conduct of WWW users might be influenced through 'rules' established by the presence of visual, operational, or informational enhancements on an academic program's WWW site. Following the lead of Indergaard and McIlnerey (1998) we can ask how the social order of the academic unit affects the development of these visual, operational, and informational enhancements which result in presentation of a WWW site–or technological 'place'–portraying the academic experience.

Technology and the Legitimization of Social Action

Past researchers have identified a number of ways through which human social activity is legitimized. These include artistic display (Mortensen, 1997), aesthetic design (Harris, 1995), comedy and drama (von Busack, 1997), conventional and technological presentations of stories (Gronbeck, 1997), recreation (Brown, 1997), religion (Kraybill, 1978) and through socialization skills cultivated by television programs (Bitenc, 1998). Technological systems themselves have been portrayed as part of our humanity and our history (Cowan, 1997; Miller, 1995). In particular, the Internet has been characterized as an example of, and site for, creating personal interactions which legitimize social behaviors (Krause, 1996; Shields, 1996).

Though incomplete by themselves, these studies, too, help legitimize and give direction to further investigation into the topic at hand. They argue convincingly that social activity is legitimized; it is both creative and 'rule-following.' The social order which results from this legitimization process can be displayed through technological forms. The technological form of the World Wide Web site is creative, displaying institutionally-unique information, and 'rule-following' in that its properties are established and maintained in accordance with certain explicit and implicit expectations. The WWW site manifests artistic endeavor through its visual display. It manifests aesthetic properties through its operational functions. It offers a technological presentation of stories through its informational enhancements. Finally, the Web site is

structured and presented to users with the specific goal of allowing creation of interactions which legitimize social behaviors.

Limitations of Existing Research

Though the existing research is relevant to a broadened understanding of the World Wide Web and of social order, taken individually, it is insufficient. None of the research quantifies the number of journalism/ mass communication academic programs now using WWW sites or the extent of visual, operational, and informational enhancements used on sites. Existing research does not address the possibility that institutional characteristics themselves are a variable in the relationship, nor does it suggest how the social order established among faculty in academic programs might affect the development and presentation of a WWW site–or technological 'place'–portraying the academic experience.

When reviewed as a whole, however, the past studies do help focus and direct this research effort. Past studies show it is possible to quantify the number of programs now using World Wide Web sites, and that sites can be evaluated according to the quantitative extent of their visual, operational, and informational enhancements. Relationships between levels of enhancements and institutional characteristics can be investigated. Most importantly, an increased understanding of the perceptions of social order established among faculty in academic programs can give basis for support to the claim

that a WWW site is a socially-ordered 'place' which is, to some degree, the product of a socially-ordered experience in the academic community.

CHAPTER THREE

METHODOLOGY

Introduction

This research required the investigation of a broad and complex subject area. A detailed study was needed of variables which affect the content, functionality, and value of academic World Wide Web sites. It was necessary to assess the perception of faculty members in regard to social order variables–as those variables affect Web site creation, functionality, and value. It was also important to determine the opinions of faculty members as those opinions relate to the Web sites of their own academic programs.

The content analysis method was chosen for examination of Web sites. Content analysis allows for measurement of communication content in "a systematic, objective, and quantitative manner" (Wimmer & Dominick, 1994, p. 164). Content analysis is widely favored among researchers investigating electronic or published media content. This is because content analysis allows for a "systematic examination of materials that

are more typically evaluated on an impressionistic basis"–such as Web sites (See Babbie, 1990, p. 30).

The survey research method was chosen for assessing the perceptions of social order variables of faculty, and determining the opinions of faculty in regard to the success of Web sites hosted by their academic programs. The survey research method was chosen because it allows for the investigation of problems in realistic situations. It allows for the collection of large amounts of data, from a variety of different people, in a relatively short period of time (Wimmer & Dominick, 1994). The survey research method "can be used profitably in the examination of many social topics and can be especially effective when combined with other methods" (Babbie, 1990, p. 40).

Combining content analysis with the survey research method results in a data-gathering strategy which allows for quantitative understandings of the different dimensions of Web site content–in the context of the social order relationships which bring them about and allow them to be sustained. A research methodology of this type is uncommon. As already stated in the Review of Literature, nearly all existing research into World Wide Web sites is content analytic in nature; much of the existing research into Web site use is survey research. Combining these strategies in one investigation will allow for a much more thorough analysis than has heretofore been offered, particularly in relation to the key social order variables which both affect and are affected by site content.

This chapter begins with a description of the subject institutions, programs, and World Wide Web sites involved in the content analysis research. It follows with

information about faculty who were asked to participate in the survey. Web site content analysis procedures are explained. Then, the survey instrument, procedures, and response rate are discussed. The chapter ends with a description of statistical analysis procedures used in the study.

Subject Institutions and Programs

Higher education institutions and academic programs selected for study in this research were identified through listings in the 1998-99 Directory of the Association for Education in Journalism and Mass Communication (See Appendix A). The AEJMC directory was used because the organization is the primary professional group for journalism/ mass communication educators and their academic programs. It can be argued that any journalism/ mass communication program wanting to be considered 'serious' within the discipline should maintain AEJMC membership. Membership would include a directory listing. The AEJMC directory includes an alphabetical listing of approximately 400 journalism/ mass communication programs in the U.S. and Puerto Rico. From this list, 200 programs, or about 50 percent of the total, were chosen randomly for inclusion in the population for survey (See Appendix B).

A World Wide Web search was conducted in November, 1998, through Yahoo, Web Crawler, Lycos and InfoSeek search engines determined that each college or university in the population for survey had at least one institutional or program WWW

site listed with search engines. Thus, all 200 journalism/ mass communication programs were initially included in the research effort.

An effort was made to access each of the listed WWW addresses. A listed WWW address for one institutional site returned the message "file not found" from its host server. Five academic program WWW site addresses also returned the "file not found" message from their host servers. Since WWW site content associated with these institutions and programs could not be evaluated, they were disqualified from the research effort. Another program was disqualified because the content of its journalism/ mass communication site was exclusively devoted to the program's television station. Site content could not be evaluated using the content analysis instrument.

Of the 193 qualified colleges and universities, 126 (65 %) were public institutions. The remaining 67 (35 %) were private institutions.

Each institution's Carnegie Foundation classification (Carnegie Foundation Classification. . ., 1994) was noted. The Carnegie classification scheme offers an already-established objective criteria for evaluating structure, organization, and curricula of higher education institutions (See Bowen, 1996; Pascarella & Terenzini, 1991; Boyer, 1987). Using these classifications within the research framework allows for distinguishing institutions and the academic programs they house in an ordered way. This strategy is consistent with past research in higher education functions and outcomes (Clark, 1991; Dill, 1991). The study population of 193 institutions included colleges and universities in all eight Carnegie classes: Research I, 32 (17 %); Research II, 16 (8 %);

Doctoral I, 13 (7 %); Doctoral II, 18 (9 %); Masters I, 86 (45 %); Masters II, 10 (5 %); Baccalaureate I, 3 (2 %); and Baccalaureate II, 15 (8 %).

Each institution's journalism/ mass communication program structure and subject area description also were noted, to allow a more thorough means of distinguishing among academic units in an ordered and recognizable way. The structure of qualifying academic programs, as indicated by AEJMC directory information and Web site content, was as follows: College, 6 (3 %); School, 41 (21 %); Department, 131 (68 %); Division, 7 (4 %); and Program, 8 (4 %). The subject area description of qualifying academic programs, as indicated by AEJMC directory information and Web site content, was as follows: "Journalism," 41 (21 %); "Mass Communication," 23 (12 %); "Communication" or "Communications," 67 (35 %); or, a combination of different descriptors, 62 (or, 32 %).

Each institution was also classified by presence or absence of graduate-level offerings within the journalism/ mass communication curriculum, to identify program characteristics which would be relevant to a discussion of social order issues within the academic unit. According to AEJMC directory information and Web site content, 90 of the qualifying academic programs (or, 47 %) offered graduate degrees, and 103 (or, 53 %) did not.

Subject Faculty

A survey population of program faculty also was identified for study. Faculty members were identified through e-mail links on qualified academic program Web sites. An effort was made to identify and contact faculty whose roles were as follows:

1) The program head, chairperson, or other similarly-titled administrator who is responsible for program administration, budget and resources, office management, and other such duties and has been identified as to be "the chief architect of the department's future" (Tucker, 1984, p. 35). Because the chair is a primary agent of social order within the educational environment (See Peca, 1991) his or her perceptions of social order are critical.

2) The Web site administrator, manager, or other similarly-titled employee. This person is responsible for design and development of content of the program's Web site, management of technical issues and monitoring of user feedback (See Harrison, 1996). Regardless of whether the site administrator is a journalism/ mass communication faculty or staff member or is housed elsewhere in the institutional hierarchy, the site administrator is immediately responsible for coordinating a variety of different people and tasks to create Web site content for the program. Thus, the administrator plays a key role in establishing social order for the program as mediated by and through the WWW site.

3) At least one other journalism/ mass communication faculty member who has neither department head nor WWW maintenance responsibilities. The perspectives of

these faculty members are important because these faculty work in an academic community which is "created and sustained in the enactment of roles" (Duncan, 1968, p. 63). Their perspectives of these roles affect and are affected by the Web site.

Content Analysis Procedure

Existing content analysis designs located by the author were insufficient to fully extrapolate the visual, operational, and informational elements of Web sites hosted by academic programs. Therefore, the author created a content analysis instrument (See Appendix C) and procedure similar to that used by Mitchell, 1996. The data gathering procedure was broadened to address the three content dimensions to be studied. The content analysis procedure identified presence or absence of 15 types of visual enhancements, 18 types of operational enhancements and 24 categories of information which are commonly found on Web sites (Vora, 1998; December & Randall, 1995). Sites were scored to receive one point for each enhancement type present, regardless of the number of instances of the enhancement which were evident. No points were given for enhancement types not present. Total site scores were calculated for visual, operational, and informational enhancements.

Content analysis of qualified World Wide Web sites was carried out by the author between January 1-10, 1999. Site access was accomplished on an IBM Aptiva 233 MHz PC running a 56K Flex Modem and operating with an IBM high color, 16-bit, 800x600 resolution monitor. The Internet was accessed via Southwestern Bell Internet service

running Netscape browser version 4.05. A content analysis form for each accessed site was completed manually as each site was accessed and analyzed. Some sites were not electronically accessible on first attempt. In each case, two additional attempts were made. Upon completion of content analysis, data from content analysis forms were verified and entered into Minitab Version 12, and later into SPSS Version 8.0 for statistical analysis.

Survey Procedure

Existing research on social order can be categorized as observational study (Brown, 1997; Taylor, 1997; Becher, 1989), historical case study (Cowan, 1997), commentary (Postrel, 1998), meta-theoretical discussion (Malone, 1995), content analysis (Gronbeck, 1997), or dramatic or rhetorical analysis (Bitenc, 1998; von Busack, 1997). Because the author could locate no existing research which addressed Web site issues in the context of social order, the author was unable to replicate an existing survey instrument to quantify faculty perceptions of order or disorder as they relate to Web sites used within academic programs.

Therefore, an original survey instrument was created (See Appendix D). The questionnaire addressed social order through its previously-defined key components--predictability or coordination (Elster, 1989) as they relate to division of labor, trust among colleagues, regulation of power, and legitimization of activity (Eisenstadt, 1992).

Sixteen statements were used, as follows: Division of labor x predictable action (two statements); division of labor x coordination (two statements); trust x predictable action (two statements); trust x coordination (two statements); regulation of power x predictable action (two statements); regulation of power x coordination (two statements); legitimization of activity x predictable action (two statements); and, legitimization of activity x coordination (two statements).

An additional seven statements were posed in an effort to gauge the opinion of each respondent of the Web site hosted by his/her academic program, and whether the site is complete, professional, attractive, relevant, clearly-defined, professionally maintained, and involving of faculty, staff and students.

Using the computer described above, 750 individuals qualified for survey were identified via e-mail links on journalism/ mass communication academic program Web sites in the population for study. Those qualified included 92 faculty identified on Web sites as program chairs, 76 faculty identified as Web site administrators, and 582 faculty members who were not identified as either the program chair or Web site administrator. One request to participate in the survey (See Appendix E) was sent to the linked e-mail address for each of the qualified individuals between January 1-10, 1999. The request included an embedded hyperlink to allow respondents to access the World Wide Web site containing the survey instrument.

It became evident early in the survey that response rates would be low. As a result, between January 23-25, 1999, a "reminder" e-mail notice (See Appendix F) was sent in an effort to increase response percentages. Those participants who had already

submitted a completed survey form were asked to disregard the reminder. Between February 5-7, 1999, a second "reminder" e-mail notice (See Appendix G) was sent in a final effort to increase response percentages. Those participants who had already submitted a completed survey form were asked to disregard the reminder. Both reminders included an e-mail version of the questionnaire, so that any participant unable to access the WWW survey instrument could participate in the survey. A final survey response rate of 20 percent was obtained.

The survey asked each respondent to indicate agreement to statements posed on a 1-to-5 scale, with "1" representing "strongly disagree" and "5" representing "strongly agree." Each statement in the Web form defaulted to a "0" to allow identification of statements for which responses were not offered. An open-ended comment section was included, for respondents to elaborate on responses if desired. No length limit was imposed for comments.

In drafting the survey questionnaire, the author reviewed instruments previously administered electronically to measure attitudes about Web-based enhancement (Client survey. . ., 1998; Web development survey, 1998) in order that the instrument used might be as simple and understandable as possible. Sseveral guides which address the key concerns involved when surveying online users were consulted (Turner & Turner, 1998; Narins, 1998; Smith, 1997) and sought feedback from several academic researchers and statisticians outside the population for survey. Pilot testing showed it possible for respondents to complete the Web-based survey form in five minutes or less.

Survey responses submitted by participants through the WWW-based survey form were automatically e-mailed to the author's e-mail address of tsgroup@swbell.net. The respondent-encoded ZIP code allowed each response to be verified to assure it came from an institution and academic program within the population for survey. Survey responses returned as a reply to the "reminder" e-mail version of the survey were downloaded and verified using similar procedures.

The survey resulted in 127 usable responses from participants. This reflects a response rate of 20 percent, which is seen as lower than acceptable for most forms of survey research (Babbie, 1990). A total of 90 e-mail messages were returned to the author as "undeliverable" due to invalid e-mail links on host program Web sites. A total of 29 intended participants sent e-mail replies to the author, declining to participate in the survey for one or more of a variety of reasons. Two survey responses were received lacking ZIP codes and were disqualified. The remaining 502 requests to participate in the survey sent by the author were not acted upon by recipients.

Statistical Analysis

Upon completion of the content analysis, the collected data was assembled in the Minitab Version 12 software program, and later in SPSS Version 8.0, to provide a basic statistical picture of the sites analyzed. Basic percentage, mean, and standard deviation scores were calculated to address most of the issues brought forth through the research questions.

A series of t tests was conducted at the .01 and .05 levels to determine whether mean enhancement scores of journalism/ mass communication program Web sites were significantly different based on public or private institutional affiliation, or presence or absence of graduate program offerings. The t tests were used because they offer an effective method for determining whether a group of scores is normally distributed around a given mean.

A preliminary review of subject institutions and obtained data revealed that no relationships were likely to be identified between journalism/ mass communication academic program structure or subject area description and levels of Web site enhancement. These areas for examination were dropped from the study.

One-way analysis of variance tests were conducted at the .01 and .05 levels to compare the total journalism/ mass communication Web site enhancement mean scores among programs within each of the Carnegie classifications. ANOVA tests were used because the data involved were non-proportional mean scores; each institutional affiliation classification and responses obtained from faculty within it were independent of all others.

One-way analysis of variance tests were conducted at the .01 and .05 levels to compare mean scores given by faculty on social order statements. Mean responses were compared by faculty member job responsibility classification, by public or private institutional affiliation, by Carnegie classification, and by presence or absence of a graduate program within the host institution.

A series of t tests was conducted at the .01 and .05 levels to determine whether mean rankings given by faculty to their own academic program Web sites and related socially-ordered procedures were significantly different, based on faculty member job responsibility classification, public or private institutional affiliation, Carnegie classification, or presence or absence of a graduate program within the host institution.

CHAPTER FOUR

RESULTS

This chapter presents the seven research questions, followed by the findings which answer each question. The chapter concludes with a summary of significant findings.

Research Questions

1) To what extent do U.S. college and university journalism/ mass communication programs utilize publicized academic program Web sites?

Of the 193 randomly-selected journalism/ mass communication programs, 172 (89 %) had a specific academic WWW site for journalism/ mass communication. The remaining 21 (10%) had no such site specifically delineated. Instead, these programs disseminated information about their journalism/ mass communication offerings through the host institution site. Table I profiles the institutions and programs which make up the qualified population for study. Table II profiles programs by academic subject area description.

Table I
Profile of Qualified Institutions and Programs
By Carnegie Classification, Program Organizational Structure, & Graduate Offerings
N = 193

Carnegie Classific.	N	Pub.	Priv.	College	School	Dept.	Division	Program	Graduate Degree(s) Offered
Research I	32	28	4	4	11	17			29
Research II	16	11	5		8	8			13
Doctoral I	13	11	2	1	1	9	1	1	11
Doctoral II	18	12	6		6	11	1		11
Masters I	86	57	29	1	12	68	3	2	36
Masters II	10	2	8			7	1	2	1
Baccal. I	3		3		1	2			
Baccal. II	15	5	10		2	9	1	3	2
	193	126	67	6	41	131	7	8	103

Table II
Profile of Qualified Institutions and Programs
By Carnegie Classification & Subject Area Description
N = 193

Carnegie Classification	N	Journalism	Mass Comm.	Comm.	(Combination)
Research I	32	13	2	9	8
Research II	16	4	2	6	4
Doctoral I	13	5	1	6	1
Doctoral II	18	6		9	3
Masters I	86	10	14	25	37
Masters II	10	1	1	5	3
Baccal. I	3	1		1	1
Baccal. II	15	1	3	6	5
	193	41	23	67	62

2) What types of visual, operational, and informational enhancements are in evidence on journalism/ mass communication program Web sites?

Each of the 15 types of visual enhancements, 18 types of operational enhancements, and 24 types of informational enhancements was observed on at least one qualifying Web site. The most common visual enhancement was use of varying fonts (191 sites, or 99 %). The most common operational enhancement was that of links to institutional sites (167 sites, or 87 %). The most common informational enhancement was display of program news (153 sites, or 79 %).

Combined visual, operational, and informational enhancement scores for subject sites ranged from a low of 0 to a high of 38. The group mean was 19.26. The standard deviation was 8.29.

3) What quantitative differences are observed among enhancements displayed by journalism/ mass communication program Web sites, and how do these enhancements work together to establish "user friendliness" of sites?

Web sites were electronically accessed and scored individually. Presence of absence of visual, operational, and informational enhancements was recorded by category and collectively. Date and time of site access was noted. Qualitative observations were made, and written comments recorded, in regard to apparent veracity and consistency of observed enhancements.

Individual site visual enhancement scores ranged from a low of 0 to a high of 13. The group mean was 6.24. The standard deviation was 2.14.

The most technologically simple visual enhancements were most commonly observed among Web sites. The more elaborate enhancements were far less common. Frequently-observed enhancements included one or more occurrence of varying fonts (191 sites, or 99 %); lines and borders (180 sites, or 93 %); user-assist graphics (159 sites, or 82 %); institutional logo (148 sites, or 77 %); illustrations (147 sites, or 76 %); background color other than white (137 sites, or 71 %); or photos (125 sites, or 65 %).

Visual enhancements which are more technically sophisticated were used by a much smaller proportion of sites. These enhancements included one or more use of text frames (48 sites, or 25 %); animated graphics (21 sites, or 11 %); "construction" identifiers (18 sites, or 9 %); "new" identifiers (12 sites, or 6 %); audio clips (9 sites, or 5 %); video clips (5 sites, or 3 %); enlargeable photos (4 sites, or 2 %); or "live" camera images (2 sites, or 1 %). Table III shows the different visual enhancements which were observed during content analysis, and the frequency with which those enhancements were displayed within the population of sites analyzed.

Table III
Observed Use of Visual Enhancements
Among Journalism/ Mass Communication Program Web Sites
N = 193

Visual enhancement type	Number of sites displaying (N=193)	Frequency of use among population
Varying fonts	191	99%
Lines and borders	180	93
Graphics (pointers, etc.)	159	82
Institutional logo	148	77
Illustrations	147	76
Background color not white	137	71
Photos	125	65
Frames	48	25
Animated graphics/ Java script	21	11
"Construction" noted	18	9
"New" noted	12	6
Audio clips	9	5
Video clips	5	3
Photos enlargeable	4	2
"Live" camera	2	1

Individual site operational enhancement scores ranged from a low of 0 to a higher of 12. The group mean was 4.99. The standard deviation was 2.81.

Operational enhancements commonly observed among Web sites included one or more links to institutional Web sites (167 sites, or 87 %); links to related sites within the journalism/ mass communication program (143 sites, or 74 %); or e-mail links (141 sites,

or 73 %). While the display of at least one e-mail link was fairly common among Web sites, it should be noted that some site links were to an unnamed "Webmaster" and not to any journalism/ mass communication faculty, professional, staff member, or student.

Other operational enhancements included one or more links to professional organizations (90 sites, or 47 %); links to faculty Web sites (86 sites, or 45 %); links to student sites (80 sites, or 41 %); or date of last revision (78 sites, or 40 %).

Among dates of last revision, the most current revision was reported as two days previous to the site analysis. The most dated revision was reported as 44 months earlier. The average mean time since last reported revision was 9.04 months. The standard deviation was 8.76 months.

Less commonly-observed operational enhancements included one or more links to job search information (65 sites, or 34 %); links to program advertisers or sponsors (30 sites, or 16 %); links to student media (24 sites, or 12 %); user 'Guest Book' (21 sites, or 11 %); access counter (12 sites, or 6 %); internal search engine (10 sites, or 5 %); "Best with. . ." software notice (9 sites, or 5 %); server information (2 sites, or 1 %); multi-lingual text (2 sites, or 1 %); downloadable files (2 sites, or 1 %); or load time warning (2 sites, or 1 %). Table IV shows the different operational enhancements which were observed during content analysis, and the frequency with which those enhancements were displayed within the population of sites analyzed.

Table IV
Observed Use of Operational Enhancements
Among Journalism/ Mass Communication Program Web Sites
N = 193

Operational enhancements	Number of sites displaying (N=193)	Frequency of use among population
Link to institutional sites	167	87%
Link to other program sites	143	74
E-mail link	141	73
Link to professional organization(s)	90	47
Link to faculty sites	86	45
Link to student media	80	41
Date of last revision	78	40
Link to job search help	65	34
Link to program advertiser or sponsor	30	16
Link to student sites	24	12
'Guest book'/ comment box	21	11
Access counter	12	6
Internal search engine	10	5
"Best with" software	9	5
Load time warning	2	1
Server information	2	1
Multi-lingual text	2	1
Downloadable files	2	1

Written comments relating to site operational enhancements were made during the site analyses. It was noted that 31 sites (or 16 %) contained at least one invalid link–a

hypertext link to subordinate pages, other sites, or e-mail boxes–which was not operational. Several sites contained more than five invalid links. Occasionally, an invalid link was immediately observable–an access effort would result in an immediate "file not found" message. In most cases, however, the invalid nature was not obvious. Therefore, it is possible that the actual number of invalid links on program sites is larger than shown here.

Individual site informational enhancement scores ranged from a low of 0 to a high of 18. The group mean was 8.02. The standard deviation was 4.35.

Informational enhancements commonly observed among Web sites included the explicit display of program news (153 sites, or 79 %); degree requirements (146 sites, or 76 %); or degree offerings (136 sites, or 70 %). It should be noted that not all programs displayed information about all degree offerings. Nine program Web sites (or, 5 %) displayed information about Bachelor's degree offerings but displayed no information about available graduate degrees.

Other informational enhancements observed among sites included the explicit display of facilities information (122 sites, or 63 %); faculty/ staff biographies or vitae (119 sites, or 62 %); student social information (118 sites, or 61 %); program goal statement (118 sites, or 61 %); program mailing address or phone number (115 sites, or 60 %); student organization information (113 sites, or 59 %); student media information (102 sites, or 53 %); or enrollment information (88 sites, or 46 %).

Less commonly-observed informational enhancements included explicit display of internship information (65 sites, or 34 %); scholarship information (49 sites, or 25 %);

course syllabi (20 sites, or 10 %); student or graduate resumes (14 sites, or 7 %); student profiles (13 sites, or 7 %); community directory information (12 sites, or 6 %); program rankings (11 sites, or 6 %); "frequently asked questions" (9 sites, or 5 %); student directory information (9 sites, or 5 %); social or academic calendar (7 sites, or 4 %); program organizational chart (5 sites, or 3 %); program assessment information (3 sites, or 2 %); or course lectures/ notes (1 site, or 1 %). Table V shows the different informational enhancements which were observed during content analysis, and the frequency with which those enhancements were displayed within the population of sites analyzed.

Table V
Observed Use of Informational Enhancements
Among Journalism/ Mass Communication Program Web Sites
N = 193

Informational enhancement type	Number of sites displaying (N=193)	Frequency of use among population
Program news	153	79%
Degree requirements	146	76
Degree(s) offered by program	136	70
Program facilities info.	122	63
Faculty/ staff bios, vitae	119	62
Student social info.	118	61
Statement of program goals	118	61
Mailing address/ phone	115	60
Student organization info.	113	59
Student media information	102	53
Enrollment help	88	46
Internships information	65	34
Scholarship information	49	25
Course syllabi	20	10
Recent graduate resumes	14	7
Student profiles or quotes	13	7
Community directory	12	6
Program rankings/ info.	11	6
Student directory	9	5
Frequently asked questions	9	5
Academic calendar	7	4
Program organizational chart	5	3
Academic assessment info	3	2
Course lectures/ notes	1	1

Most of the literature which addresses whether World Wide Web sites are found to be "user friendly" equates the term with organization of visual enhancements according to a structure (Hagerty, 1994), or theme (Corry, Frick, & Hansen, 1997), or in accordance with the visual processing of information by users (Marks & Dulaney, 1998). The issue of "user friendliness" has also been equated with content readability (Geske, 1997; Griffin, Pettersson, Semali, & Takakuwa, 1994) and the extent to which content is consistent with user likes and dislikes (Fucella,& Pizzolato, 1998). Clearly, "user friendliness" is a subjective, user-centered concept. It is difficult to make objective generalizations about the issue based on site content. However, the analysis of Web sites for this research did attempt to make a subjective identification of elements in each of the three enhancement categories which appeared to be blatant examples of "not user friendly" site content.

Visual elements which contributed to the finding included one or more of the following: Inconsistent design; incomplete visual elements; inappropriate use of color; graphic elements missing, of poor quality, or inappropriate; or, complicated frame displays. Operational elements which contributed to this finding included one or more of the following: Lengthy loading time; operational elements difficult to use; directory indistinguishable or absent; "dead" or confusing hyperlinks; and, indication of last content revision missing or dated. Informational elements which contributed to this finding included one or more of the following: Excessive or insufficient amount of

program information; program information perceived as outdated, irrelevant, or trivial; and, program information inaccurate–factually, grammatically, or stylistically.

Using this guideline, the reviewer determined a total of 55 sites (or, 28% of the total) to be "not user friendly" due to problems in any one or all three enhancement categories: Thirty of the sites (or, 28% of the total) were"not user friendly" based on visual enhancement elements. Fifty-five sites (or, 28% of the total) were "not user friendly" based on operational enhancement elements. Fifty-four sites (or, 28% of the total) were "not user friendly" based on informational enhancement elements.

4) Are relationships indicated among particular institutional, academic program, or subject area characteristics and quantitative differences observed among journalism/ mass communication program Web sites?

A t test was used to compare the mean Web site enhancement scores of sites hosted by 126 journalism/ mass communication programs housed within public institutions with the mean Web site enhancement scores of sites hosted by 67 journalism/ mass communication programs housed within private institutions. The mean scores of public institution program Web sites were found to be significantly different from the mean scores of private institution program Web sites, reflecting greater levels of enhancement among Web sites within academic programs in public institutions.

The mean visual enhancement score among public institution sites was 6.55. The standard deviation was 1.85. The mean visual enhancement score among private

institution sites was 5.67. The standard deviation was 2.51. The means were significantly different (t test of equal variances, t = 2.77, df = 191, <.01).

The mean operational enhancement score among public institution sites was 5.66. The standard deviation was 2.61. The mean operational enhancement score among private institution sites was 3.73. The standard deviation was 2.75. The means were significantly different (t test of equal variances, t = 4.80, df = 191, <.01), reflecting greater levels of enhancement among public institution Web sites.

The mean informational enhancement score among public institution sites was 9.00. The standard deviation was 3.96. The mean informational enhancement score among private institution sites was 6.16. The standard deviation was 4.47. The means were significantly different (t test of equal variances, t = 4.53, df = 191, <.01), reflecting greater levels of enhancement among public institution Web sites.

An additional t test was used to compare the total site enhancement mean scores–the scores which reflect the use of all visual, operational, and informational enhancements on Web sites. Mean scores of Web sites hosted by programs within public institutions were compared with mean scores of Web sites hosted by programs within private institutions. The mean scores for Web sites hosted by programs within public institutions were found to be significantly different from those of Web sites hosted by programs within private institutions.

The mean summed site enhancement score among public institution sites was 21.23. The standard deviation was 7.30. The mean summed site enhancement score among private institution sites was 15.56. The standard deviation was 8.81. The means

were significantly different (t test of equal variances, t = 4.76, df = 191, <.01), reflecting greater levels of enhancement among public institution Web sites.

The t tests affirm that Web sites hosted by journalism/ mass communication programs housed within public colleges and universities have significantly higher levels of enhancement than sites hosted by journalism/ mass communication programs housed within private colleges and universities. The higher levels of enhancement are evidenced in total, and among all three enhancement categories, as shown in Table VI.

Table VI
Web Site Enhancement Scores (Mean)
By Institutional Affiliation (Public or Private)
N = 193

	N	Visual Enhancement	Operational Enhancement	Informational Enhancement	Total Site Enhancement
Public	126	M = 6.55 SD = 1.85	M = 5.66 SD = 2.61	M = 9.00 SD = 3.96	M = 21.23 SD = 7.30
Private	67	M = 5.67 SD = 2.51	M = 3.73 SD = 2.75	M = 6.16 SD = 4.47	M = 15.56 SD = 8.81
	193	M = 6.11 SD = 2.18	M = 4.70 SD = 2.68	M = 7.58 SD = 4.22	M = 18.40 SD = 8.06

M = mean SD = standard deviation

A one-way analysis of variance was performed to compare the total Web site enhancement mean scores among journalism/ mass communication programs within each of the eight Carnegie Foundation classifications of higher education institutions (Carnegie

Foundation Classifications. . ., 1994). ANOVA was used because the data involved were non-proportional mean scores; each Carnegie classification category and responses obtained within it were independent of all other classifications and responses. A separate ANOVA was calculated for each category.

Total site enhancement mean scores for institutions in the Carnegie Baccalaureate II category were found to be significantly different from total site enhancement mean scores for institutions in the Research I, Research II, and Master's I categories (ANOVA, $F = 5.55$, $df = 192$, $<.01$).

Total site enhancement mean scores for institutions in the Carnegie Baccalaureate II category were found to be significantly different from total site enhancement mean scores for institutions in the Doctoral I category (ANOVA, $F = 5.55$, $df = 192$, $<.05$). These findings are shown in Table VII.

Table VII
Web Site Enhancement Scores (Mean)
By Carnegie Classification of Institution
N = 193

Carnegie Classification	N	Visual Enhancement	Operational Enhancement	Informational Enhancement	Total Site Enhancement
Research I	32	M = 6.96 SD = 1.69	M = 6.09 SD = 2.05	M = 10.34 SD =3.64	M = 23.40 SD = 6.41
Research II	16	M = 7.06 SD = 1.12	M = 6.37 SD =2.80	M = 9.81 SD = 2.99	M = 23.25 SD = 5.31
Doctoral I	13	M = 5.92 SD = 2.72	M = 5.38 SD =2.66	M = 8.53 SD =3.86	M = 19.84 SD = 8.20
Doctoral II	18	M = 5.55 SD = 2.33	M = 4.44 SD =3.14	M = 6.72 SD = 5.07	M = 16.72 SD = 9.92
Masters I	86	M = 6.46 SD = 2.01	M = 5.06 SD = 2.66	M = 7.93 SD = 4.37	M = 19.46 SD = 7.85
Masters II	10	M = 5.10 SD = 2.72	M = 4.40 SD = 2.75	M = 7.40 SD = 4.11	M = 16.90 SD = 8.62
Baccal. I	3	M = 5.00 SD = 3.00	M = 4.00 SD = 4.58	M = 4.66 SD = 4.16	M = 13.66 SD = 11.50
Baccal. II	15	M = 4.73 SD = 2.25	M = 1.66 SD = 1.95	M = 3.86 SD = 2.77	M = 10.26 SD = 8.29
	193	M = 6.24 SD = 2.14	M = 4.99 SD = 2.81	M = 8.02 SD = 4.35	M = 19.82 SD = 8.29

M = mean
SD = standard deviation

A similar finding was obtained for visual, operational, and informational enhancement mean scores. Visual enhancement mean scores for Baccalaureate II institutions were significantly different from visual enhancement mean scores for Research I and Research II institutions (ANOVA, F = 3.13, df = 192, <.05).

Operational enhancement mean scores for Baccalaureate II institutions were significantly different from operational enhancement mean scores for Research I, Research II, Doctoral I, and Master's I institutions (ANOVA, $\underline{F} = 5.19$, df = 192, <.01) and were significantly different from Doctoral II institutions (ANOVA, $\underline{F} = 3.13$, df = 192, <.05).

Informational enhancement mean scores for Baccalaureate II institutions were significantly different from informational enhancement mean scores for Research I, Research II, and Master's I institutions (ANOVA, $\underline{F} = 3.13$, df = 192, <.01).

These differences are reflected in Table VIII. The table shows the significant differences of Web site enhancement scores among categorical means.

Table VIII
Web Site Enhancement Scores
Significant Differences Among Categorical Means

Carnegie Classification	Visual Enhancement	Operational Enhancement	Informational Enhancement
Research I	+2.23 (.646)	+4.42 (.820)	+6.47 (1.27)
Research II	+2.32 (.742)	+4.70 (.942)	+5.94 (1.46)
Doctoral I		+3.71 (.993)	
Doctoral II		+2.77 (.916)	
Master's I		+3.40 (.734)	+4.06 (1.14)
Master's II			
Baccalaureate I			
Baccalaureate II	4.73 (.581)	1.66 (.504)	3.86 (.716)

(Standard Error in Parentheses)

The one-way analysis of variance tests affirm that Web sites hosted by journalism/ mass communication programs within colleges and universities ranked by the Carnegie Foundation as Baccalaureate II institutions have overall lower levels of enhancement than sites hosted by journalism/ mass communication programs within colleges and universities ranked by the Carnegie Foundation as Research I, Research II, Doctoral I, Doctoral II, and Master's I institutions.

Using t tests, an examination was made of the mean site enhancement scores of Web sites hosted by journalism/ mass communication programs which offered graduate degrees, and the mean scores of Web sites hosted by undergraduate journalism/ mass communication programs. The t tests were used to determine whether site mean scores were normally distributed around a given mean.

The first t tests compared visual, operational, and informational site enhancement scores. The mean scores of graduate degree-offering programs were found to be significantly different from the mean scores of programs not offering graduate degrees.

The mean visual enhancement score among graduate degree-offering programs was 6.83. The standard deviation was 1.77. The mean visual enhancement score among programs not offering graduate degrees was 5.57. The standard deviation was 2.33. The means were significantly different (t test of equal variances, $t = 4.24$, $df = 191$, $<.01$).

The mean operational enhancement score among graduate degree-offering programs was 5.87. The standard deviation was 2.38. The mean operational enhancement score among programs not offering graduate degrees was 3.98. The standard deviation was 2.94. The means were significantly different (t test of equal variances, $t = 4.91$, $df = 191$, $<.01$).

The mean informational enhancement score among graduate degree-offering programs was 9.73. The standard deviation was 3.80. The mean informational enhancement score among programs not offering graduate degrees was 6.05. The standard deviation was 4.12. The means were significantly different (t test of equal variances, $t = 6.45$, $df = 191$, $<.01$).

A t test was used to compare the total site enhancement mean scores of Web sites hosted by programs which offered graduate degrees and the total site enhancement mean scores of Web sites hosted by programs which did not offer graduate degrees. The total site enhancement mean score among graduate degree-offering programs was 22.44. The standard deviation was 6.70. The total site enhancement mean score among programs which did not offer graduate degrees was 15.62. The standard deviation was 8.47. The mean scores were significantly different (t test of equal variances, t = 6.24, df = 191, <.01). The t tests affirm that Web sites hosted by journalism/ mass communication programs which offer graduate degrees had significantly higher levels of enhancement than sites hosted by journalism/ mass communication programs which did not offer graduate degrees. The higher levels of enhancement are evidenced in total, and among all three enhancement categories, as shown in Table IX.

Table IX
Web Site Enhancement Scores (Mean)
By Presence or Absence of Graduate Degree Offerings Within Program
N = 193

	N	Visual Enhancement	Operational Enhancement	Informational Enhancement	Total Site Enhancement
Undergrad only	90	M = 5.57 SD = 2.33	M = 3.98 SD = 2.94	M = 6.05 SD = 4.12	M = 15.62 SD = 8.47
Grad. degree(s)	103	M = 6.83 SD = 1.77	M = 5.87 SD = 2.38	M = 9.73 SD = 3.80	M = 22.44 SD = 6.70
	193				

M = mean SD = standard deviation

A preliminary review of subject institutions and data revealed no objective means of quantifying the relationship between journalism/ mass communication academic program structure and Web site enhancements. Similarly, no means was found of quantifying the relationships between journalism/ mass communication subject area description and Web site enhancements. These areas of investigation were dropped from the study.

5) How do faculty members qualify four key areas of social order (delegation of labor, establishment of trust, regulation of resources, and support for academic processes) as those relationships affect journalism/ mass communication program Web site creation and maintenance?

A total of 750 faculty members were contacted for survey. Responses were obtained from 20 percent of faculty members. Those responding self-identified as academic program chairs (33, or 36% of 92 surveyed), Web site administrators (35, or 46% of 76 surveyed), and 'other' faculty (59, or 10% of 582 surveyed).

Survey responses indicated that respondents perceived, at best, only moderate levels of social order within their programs, as social order affects the creation and maintenance of their program Web site. The mean response to all social order statements was 3.19, indicating "unsure or don't know" on the part of the respondent. The standard deviation was 0.67.

Faculty gave their highest categorical rankings to the establishment of trust in the academic unit. The mean ranking in this category was 3.59. The standard deviation was

0.40. Among the four statements in the 'trust' category, respondents gave highest ranking of agreement to the statement: "The people managing our academic Web site can be trusted to do professional work." The mean response to this statement was 4.10. The standard deviation was .99.

Respondents gave their lowest ranking of agreement to the statement: "Technical elements of our Web site always work the way they're supposed to." The mean response to this statement was 3.16. The standard deviation was 1.26.

The mean ranking of the regulation of resources component was 3.24. The standard deviation was 0.39. Among the four statements in the 'resources' category, respondents gave highest ranking of agreement to the statement: "Faculty members have a say in the Web site development process." The mean response to this statement was 3.55. The standard deviation was 1.10. Respondents gave their lowest ranking of agreement to the statement: "Development of the Web site is coordinated with a program strategic plan." The mean response to this statement was 2.73. The standard deviation was 1.21.

The mean ranking of the support for academic processes component was 3.08. The standard deviation was 0.49. Among the four statements in the 'process' category, respondents gave highest ranking of agreement to: "Faculty are encouraged to make suggestions or help with the Web site." The mean response to this statement was 3.69. The standard deviation was 1.04. Respondents gave their lowest ranking of agreement to the statement: "Our academic program experiences no difficulty in keeping the Web site

technically advanced." The mean response to this statement was 2.60. The standard deviation was 1.14.

Faculty gave their lowest categorical rankings to delegation of labor within the academic unit. The mean score in this category was 2.83. The standard deviation was 0.85. Among the four statements in the 'labor' category, respondents gave highest ranking of agreement to: "The technical people working on our Web site know what to do, to keep the site working." The mean response to this statement was 3.91. The standard deviation was 1.08. Respondents gave their lowest ranking of agreement to the statement "Faculty work is coordinated; everyone helps in some way with the Web site." The mean response to this statement was 1.85, reflecting "strongly disagree." This was the lowest ranking given to any of the 16 statements. The standard deviation was .95–also, the lowest of any of the statements.

Table X shows the 16 social order statements contained on the questionnaire. It also shows respondents' mean rankings for each category and for each individual statement.

Table X
Respondents' Rankings of Social Order Components
N = 127

Social Order Component	Statement	Mean Ranking (Std. Deviation)
Trust M = 3.59 SD = .40	The people managing our academic Web site can be trusted to do professional work. (#5)	4.10 (.99)
	Our program has trustworthy technological systems and support for the Web site. (#6)	3.66 (1.14)
	The Web site always offers an accurate presentation of our program. (#8)	3.44 (1.14)
	Technical elements of our Web site always work the way they're supposed to. (#7)	3.16 (1.26)
Resources M = 3.24 SD = .39	Faculty members have a say in the Web site development process. (#11)	3.55 (1.10)
	Our academic World Wide Web site benefits everyone in the program. (#9)	3.54 (1.08)
	There's effective leadership in our program for future Web site development. (#12)	3.15 (1.26)
	Development of the Web site is coordinated with a program strategic plan. (#10)	2.73 (1.21)
Process M = 3.08 SD = .49	Faculty are encouraged to make suggestions or help with Web site technical work. (#15)	3.69 (1.04)
	Our program's Web site supports academic and scholarly activity. (#13)	3.24 (1.21)
	The faculty's best expectations for our program Web site have been met or exceeded. (#14)	2.78 (1.08)
	Our academic program experiences no difficulty in keeping the Web site technically advanced. (#16)	2.60 (1.14)
Labor M = 2.83 SD = .85	The technical people working on our Web site know what to do, to keep site working. (#4)	3.91 (1.08)
	We have enough technical help to professionally maintain the program's Web site. (#3)	2.87 (1.45)
	Our program faculty and staff always know about changes to the Web site. (#1)	2.69 (1.16)
	Faculty work is coordinated; everyone helps in some way with the Web site. (#2)	1.85 (.95)

A one-way analysis of variance was performed to compare mean scores of faculty respondents within job responsibility classifications. No statistical significance was found (ANOVA, $\underline{F} = 2.35$, df = 2, <.05).

Faculty summed mean responses to the group of 16 social order statements varied slightly when broken down by faculty members' institutional affiliations. Faculty members working in journalism/ mass communication programs housed within private institutions gave higher mean rankings to each of the four categories of social order statements as compared to responses of faculty members working in journalism/ mass communication programs housed within public institutions. The data are shown in Table XI.

Table XI
Respondents' Rankings of Social Order Components
by Institutional Affiliation (Public or Private)
$\underline{N} = 127$

	N	Labor	Trust	Resources	Process	Sum
Public	98	M = 11.04 SD = 3.20	M = 14.13 SD = 3.29	M = 12.67 SD = 3.60	M = 12.19 SD = 3.05	M = 50.04 SD = 10.82
Private	29	M = 12.24 SD = 3.61	M = 15.13 SD = 2.91	M = 13.96 SD = 2.86	M = 12.72 SD = 2.46	M = 53.00 SD = 9.62
	127	M = 11.64 SD = .85	M = 14.63 SD = .71	M = 13.32 SD = .91	M = 12.46 SD = .37	M = 51.52 SD = 2.09

M = Mean
SD = Standard Deviation

One-way analysis of variance tests were performed to compare mean scores of faculty respondents to the four categories of social order statements within institutional affiliation classification–public and private. A separate ANOVA was calculated for each social order response category and for the sum of all response means. Tests showed no significant difference between means in the categories of labor (ANOVA, $\underline{F} = 2.96$, df = 1, <.05), trust (ANOVA, $\underline{F} = 2.19$, df = 1, <.05), resources (ANOVA, $\underline{F} = 3.14$, df = 1, <.05), academic process (ANOVA, $\underline{F} = 0.73$, df = 1, <.05), and sum (ANOVA, $\underline{F} = 3.25$, df = 1, <.05).

Faculty mean responses to the group of 16 social order statements also varied slightly when broken down by Carnegie classification of each respondent's host institution. Mean scores in the categories of 'trust' and 'resources' tended to be higher individually and collectively than mean scores in the other two categories. The data are shown in Table XII.

Table XII
Respondents' Summed Rankings of Social Order Components
by Carnegie Classification
N = 127

	N	Labor	Trust	Resources	Process
Research I	28	M = 10.89 SD = 2.99	M = 15.25 SD = 2.92	M = 12.21 SD = 3.44	M = 12.23 SD = 2.76
Research II	12	M = 11.66 SD = 3.14	M = 14.08 SD = 4.03	M = 14.16 SD = 3.35	M = 13.25 SD = 3.60
Doctoral I	10	M = 11.80 SD = 2.57	M = 15.20 SD = 1.47	M = 13.30 SD = 2.26	M = 12.50 SD = 1.71
Doctoral II	10	M = 12.50 SD = 1.90	M = 14.10 SD = 1.37	M = 13.80 SD = 3.08	M = 11.20 SD = 2.53
Masters I	55	M = 10.98 SD = 3.60	M = 13.70 SD = 3.67	M = 12.41 SD = 3.81	M = 12.03 SD = 3.22
Masters II	4	M = 13.25 SD = 6.75	M = 17.00 SD = 2.58	M = 14.75 SD = 2.06	M = 14.00 SD = 2.31
Baccal. I	3	M = 11.67 SD = 5.69	M = 13.00 SD =3.61	M = 15.66 SD = 0.57	M = 12.67 SD = 2.89
Baccal. II	5	M = 11.40 SD = 0.89	M = 14.80 SD = 0.83	M =15.00 SD = 3.0	M = 13.40 SD = 1.34
	127	M = 11.77 SD = 0.78	M = 14.64 SD = 1.22	M = 13.91 SD = 1.23	M = 12.66 SD = 0.88

M = Mean
SD = Standard Deviation

A one-way analysis of variance test was performed to compare respondents within the eight Carnegie classifications of institutions according to respondents' mean scores for the four categories of social order statements. The ANOVA showed no significant differences between means (ANOVA, F = 0.77, df = 126, <.05).

Faculty mean responses to the group of 16 social order statements varied when broken down by presence or absence of graduate degree offerings within faculty members' host academic program. Faculty members working in journalism/ mass communication programs which offered graduate degrees gave lower mean rankings to each of the four categories of social order statements than faculty members working in journalism/ mass communication programs which were exclusively undergraduate. The lower mean scores were observed in the four individual social order categories as well as in sum. The data are shown in Table XIII.

Table XIII
Respondents' Rankings of Social Order Components
by Presence or Absence of Graduate Program
N = 127

	N	Labor	Trust	Resources	Process	Sum
Undergrad. only	35	M = 12.40 SD = 3.72	M = 15.31 SD = 3.01	M = 14.42 SD = 2.66	M = 13.37 SD = 2.28	M = 55.51 SD = 9.27
Graduate program	92	M = 10.90 SD = 3.08	M = 14.00 SD = 3.24	M = 12.41 SD = 3.60	M = 11.91 SD = 3.05	M = 49.23 SD = 10.69
	127	M = 11.65 SD = 1.06	M = 14.66 SD = 0.93	M = 13.42 SD = 1.42	M = 12.64 SD = 1.03	M = 52.37 SD = 4.44

M = Mean SD = Standard Deviation

A t test was used to compare mean scores of faculty respondents within public and private institutions–as separate groups–with the four categories of social order statements. The t test showed a significant difference between means. The responses

given by faculty members working in journalism/ mass communication programs which offered graduate degrees were significantly lower than responses given by faculty members working within undergraduate programs (t test of equal variances, $t = 3.06$, $df = 125$, $> .01$).

6) How do faculty members rank their own academic program Web sites in regard to visual, operational, and informational enhancements; concept; site maintenance; purpose; and faculty involvement?

Survey responses indicate faculty members gave, at best, only moderate rankings of agreement to the statements addressing their own program Web sites. Faculty members' mean ranking of the seven statements was 3.24, indicating "unsure or don't know" responses. The standard deviation among all statements was 1.07.

Among the seven statements, respondents gave highest ranking of agreement to: "The operational components of our site are complete, professional, and attractive." The mean response to this statement was 3.76. The standard deviation was .90.

Respondents gave their lowest ranking of agreement to the statement "I am pleased with the level of involvement of faculty, staff, and students in regard to Web site planning, development, and use." The mean ranking of this statement was 2.54, indicating "disagree" responses. The standard deviation was 1.09.

Table XIV shows the seven statements. Response means and standard deviations are shown for each.

Table XIV
Respondents' Ranking of Program Web Sites
N = 127

Statement	Mean Ranking	Standard Deviation
The operational components of our site are complete, professional, and attractive. (#18)	3.76	.90
The visual components of our site are complete, professional, and attractive. (#17)	3.73	.90
The information offered by our site is thorough, accurate, and relevant. (#19)	3.43	1.12
Our unit's academic Web site is professionally maintained. (#21)	3.26	1.18
Our unit's academic Web site was developed in accordance with a clearly defined concept. (#20)	3.06	1.12
Our academic unit has a clearly-defined purpose for Web site; the site fulfills that purpose. (#22)	2.91	1.18
I am pleased with the level of involvement of faculty, staff, and students in regard to Web site planning, development, and use. (#23)	2.54	1.09

7) Are relationships indicated between particular institutional, academic program, or subject area characteristics and faculty rankings of journalism/ mass communication program Web sites?

The responses of faculty members to the survey statements were summed and grouped, so that a comparison could be made between the responses offered by faculty within different job responsibility groups. When compared by groups, the response means were fairly consistent regardless of the self-declared job responsibilities of respondents, or the Carnegie Classification of their host institution. Related data are shown in Table XV.

Table XV
Respondents' Ranking of Program Web Sites
by Carnegie Classification and Respondent Job Responsibility Classification
N = 127

	Chair	Web Site Admin.	Other	Sum/ All Faculty Within Classification
Research I	M = 19.00 SD =5.00 N = 3	M = 23.80 SD = 3.65 N = 10	M = 22.93 SD =5.13 N = 15	M = 22.82 SD = 4.68 N =28
Research II	M = 24.00 SD =5.29 N = 3	**No responses obtained**	M = 22.56 SD =6.37 N = 9	M = 22.92 SD = 5.92 N = 12
Doctoral I	M = 21.00 SD = 0.00 N = 2	M = 21.00 SD = 5.35 N = 4	M = 22.50 SD = 3.11 N = 4	M = 21.60 SD = 3.66 N = 10
Doctoral II	M = 20.00 SD = 5.48 N = 4	M = 27.00 SD = 9.90 N = 2	M = 19.25 SD = 4.92 N = 4	M = 21.10 SD = 6.23 N = 10
Masters I	M = 23.50 SD = 6.12 N = 18	M = 22.60 SD = 5.12 N = 15	M = 20.86 SD = 4.97 N = 22	M = 22.65 SD = 5.85 N = 55
Masters II	M = 31.00 SD = 0.00 N = 1	M = 24.00 SD = 7.00 N = 3	**No responses obtained**	M = 25.75 SD = 6.70 N = 4
Baccal. I	**No responses obtained**	M = 16.00 SD = 0.00 N = 1	M = 27.50 SD = 3.54 N = 2	M = 23.67 SD = 7.09 N = 3
Baccal. II	M = 26.80 SD = 2.49 N = 2	**No responses obtained**	M = 25.00 SD = 2.00 N = 3	M = 25.80 SD = 2.28 N = 5
Category Totals	M = 23.61 SD = 4.20 N = 33	M = 22.40 SD =3.71 N = 35	M = 22.94 SD = 2.69 N = 59	M = 23.29 SD = 1.73 N = 127

M = Mean
SD = Standard Deviation

A one-way analysis of variance test was performed to compare the ranking by faculty members of program Web sites, by the three different categories of job

responsibilities across Carnegie classifications of institutions. The ANOVA showed no significant difference between means (ANOVA, $F = 2.34$, df = 127, <.05).

An preliminary review of subject institutions and obtained data revealed that no relationships were likely to be identified between journalism/ mass communication academic program structure and Web site enhancements. Similarly, no relationships were likely to be identified between journalism/ mass communication subject area description and Web site enhancements. These areas for examination were dropped from the study.

A t test was used to compare the rankings of program Web sites by faculty, to see if the summed mean scores of faculty teaching in programs offering graduate degrees were different from scores of those teaching in undergraduate programs. The mean score among faculty in programs offering graduate degrees was 22.14. The standard deviation was 5.19. The mean score among faculty in undergraduate programs was 24.37. The standard deviation was 5.68. The mean scores were significantly different–showing faculty in undergraduate programs give higher rankings to their program Web sites (t test of equal variances, $t = 2.10$, df = 125, > .05).

Summary of Significant Findings

A large quantity of data was obtained through the analysis of journalism/ mass communication program Web sites and the survey responses of faculty members. Though not complete in all areas, the evidence allows for a more comprehensive portrait of the content, functionality, and value of journalism/ mass communication Web sites. The

information also enables some generalizations to be made about how journalism/ mass communication faculty members rank the social order components which contribute to Web site creation and maintenance, and how faculty rate the appropriateness of their own program Web sites and associated processes.

This research found that most U.S. journalism/ mass communication programs maintain academic Web sites. However, large numbers of Web sites contain qualitative visual, operational, or informational components which inhibit content, functionality, and value. Among the most common are "dead" hyperlinks and obviously outdated, erroneous, or incorrect information.

Statistically-significant differences were found between the levels of Web site visual, operational, and informational enhancements. Web sites maintained by programs housed within public institutions were significantly more enhanced than sites maintained by programs within private institutions. The statistical significance of greater enhancement was seen at all levels of analysis–visual, operational, informational, and in sum.

Significant differences were found in the levels of Web site enhancement among different institutional classifications. Journalism/ mass communication programs within institutions ranked by the Carnegie Foundation as Baccalaureate II were found to have Web sites which were lower in total site enhancement than Web sites of programs housed within Research I, Research II, Doctoral I, and Master's I schools.

Journalism/ mass communication programs within institutions ranked by the Carnegie Foundation as Baccalaureate II were found to have Web sites which were lower

in site visual enhancement than Web sites of programs housed within Research I and Research II schools. Journalism/ mass communication programs within institutions ranked by the Carnegie Foundation as Baccalaureate II were found to have Web sites which were lower in site operational enhancement than Web sites of programs housed within Research I, Research II, Doctoral I, Doctoral II, and Master's I schools. Journalism/ mass communication programs within institutions ranked by the Carnegie Foundation as Baccalaureate II were found to have Web sites which were lower in site informational enhancement than Web sites of programs housed within Research I, Research II, and Master's I schools.

Journalism/ mass communication programs which offered graduate degrees were found to have Web sites which were higher in enhancement than the Web sites of undergraduate programs. The statistical significance of greater enhancement was seen at all levels of analysis–visual, operational, informational, and in sum.

Despite this fact, the analysis of survey data revealed the site rankings offered by faculty members in programs which offered graduate degrees were lower than the rankings offered by faculty in undergraduate programs. The difference was statistically significant. Faculty respondents in graduate degree-offering programs also offered lower rankings of social order components than did faculty within undergraduate institutions, although the difference in this area was not statistically significant.

CHAPTER FIVE

ANALYSIS OF FINDINGS

Introduction

This chapter begins with an interpretation of the results obtained from the analysis of World Wide Web sites and evaluation of survey responses. Also included is a discussion of the comments offered by survey participants, as those comments relate to other findings. The chapter concludes with a review of the limitations of this study, and suggested directions for further research.

The primary purpose of this study was to ascertain the extent to which higher education journalism/ mass communication programs use program World Wide Web sites to communicate information about academic offerings. The study also was aimed at making qualitative evaluations of the use of visual, operational, and informational enhancements on sites which characterize academic programs and offerings–and at determining possible quantitative relationships between institutional or program variables and use of enhancements on program Web sites.

A secondary purpose of the study was to ascertain how higher education journalism/ mass communication faculty members perceive social order variables as they

relate to program Web site creation and maintenance, and how faculty qualitatively rank their program sites. An effort was made to identify possible relationships between institutional or program variables and faculty rankings.

Institutions and Programs

The institutions and programs in the population for study were appropriate. The Association for Education in Journalism and Mass Communication is the nation's premier professional association for those who are involved in journalism education at the college level. The association's membership is large and broad-based. The programs randomly selected for inclusion in the study represent approximately half of the U.S. academic program membership of AEJMC and included some of the smallest and some of the largest programs in the nation, as well as a broad range of programs from different types of institutions.

Population for Survey

Individual faculty selected to participate in the study were chosen as a result of their professional listings on academic program Web sites, and contacted via e-mail links on those sites. While the survey population, as a whole, cannot be considered "random" it certainly is representative–those who were asked to respond to questions about academic Web sites were asked because their name and/or image is shown on such a site,

promoting the program in which they work. Furthermore, faculty members were contacted through e-mail links, rather than through e-mail messages to individually-entered e-mail addresses. By contacting faculty in this fashion, the study also tested the veracity of e-mail links on program Web sites.

Research Questions

The research outcomes were addressed through a series of seven questions. The questions follow below, with discussion of the applicability of the findings to the research effort.

1) To what extent do U.S. college and university journalism/ mass communication programs utilize publicized academic program Web sites?

The study found high levels of adoption of the World Wide Web by institutions and programs. Each of the institutions in the study population had a listed World Wide Web address. Only one institutional site was not electronically accessible during the study period.

Among journalism/ mass communication programs, most have a significant World Wide Web presence which includes at least one academic program Web site. Only a small percentage of institutions and programs included in the population

for study had no publicized Web site devoted exclusively to journalism/ mass communication–or had a program site which was unaccessible for some reason.

These findings are important because they demonstrate that the discipline of journalism/ mass communication has rapidly adopted the relatively new communication technology of the World Wide Web. The findings demonstrate that the discipline is integrating Web technology into the social order of institutions and programs in a multitude of ways. This is shown by the large variety of operational and informational enhancements which 'connect' users with information and resources relevant to academic offerings.

The findings are also important because they demonstrate technological reliability of the medium. Even though many faculty e-mail addresses and other links on program Web sites turned out to be invalid, most institutional and academic program sites were electronically accessible and did fulfill their basic informational role. There is research support for the claim that much of the responsibility for invalid e-mail addresses and other links can be traced to software and hardware which has not reached optimum levels of technological sophistication (Tse et al, 1994).

The findings are consistent with existing knowledge of Web site adoption and use by business in general and education specifically (Rich, 1999; Picciano, 1994). They also are consistent with what is known of the adoption of the medium of WWW and application of the many enhancements which can be incorporated into Web sites (Bates, Chambers, Emery, Jones, McClung, & Park, 1997).

2) What types of visual, operational, and informational enhancements are in evidence on journalism/ mass communication program Web sites?

The study found variation in the types and amounts of visual, operational, and informational enhancements used on Web sites. The study found variation in the overall 'quality' of Web sites as seen through the coordination and application of enhancements.

Visual Enhancements

A qualitative analysis of the visual enhancements used on academic program Web sites is important because a high visual enhancement score does not necessarily mean a particular site is attractive or user-friendly. The analysis of Web sites found that some sites scored high in visual enhancement but did not productively use enhancements presented. Other sites used smaller numbers of enhancements in ways which were more in support of operational and informational enhancements.

Most sites could be described as 'average' in their use of visual enhancements. They were fairly common in appearance, and often lacked visual enhancements which would distinguish them from the sites maintained by competing institutions and programs. Most of the 27 programs which used institutional Web sites to disseminate journalism/ mass communication information could be qualified as 'average' in that no unique visual enhancements were used to distinguish journalism/ mass communication from any other university subject area.

A few sites could be described as 'poor' in their use of visual enhancements. This was commonly seen in the use of garish colors, oversized fonts, or garish clip-art illustrations–often presented out of proportion to the desired space. Even the most basic guidelines for effective visual presentations (Fuccella & Pizzolato, 1998; Geske, 1997; Hagerty, 1995) were often flouted.

Occasionally, illustrations used as site background made text content difficult or impossible to read. One particular school of journalism site covered almost every page with background illustrations of a famous black and white photo of Edward R. Murrow. The result was an almost unreadable on-screen hodgepodge of text and illustration.

Photographs were commonly used on Web sites, and in most instances they were used sparingly, appropriately, and in good taste. A few exceptions were noted, however. One school of communication site included more than a dozen large color photos of a small building demolition project–with detailed description of the effort. Little was offered to explain the project's relevance to the academic unit. One department of communications site published a detailed "tour" of the department facilities using narrative text only–no photos were found anywhere on the site. A media arts department site included a photograph of facilities with a description contradicting what was portrayed in the photo.

Overall, the use of visual enhancements on program Web sites was less extensive than that found on many commercial or business promotional sites (See Ho, 1997). While nearly all journalism/ mass communication sites used common visual enhancements such as fonts, illustrations, and graphics, only a few included such high-profile, technically

sophisticated enhancements as enlargeable photos, video clips, or "live" video. Given the faculty comments obtained through the survey–which will be addressed later in this chapter–it would appear likely that many sites do not offer these more sophisticated enhancements because their host academic programs do not have sufficient coordination of personnel or resources to do so.

Operational Enhancements

A qualitative analysis of operational enhancements used on academic program Web sites is important because–as with visual enhancements–a high site enhancement score does not necessarily mean a particular site is functional or user-friendly. The analysis of Web sites found that some sites scored high in operational enhancement but did not structure or display enhancements in productive ways. Other sites used smaller numbers of enhancements, but linked more critical informational content to them–in essence, making the operational enhancements more valuable.

A key qualitative issue in operational enhancements is the ease of navigation through the site. The majority of sites were easy for the user to navigate, either by mouse clicking on posted icons or by pursuing commonly-anticipated paths (See Whitaker, 1998).

A few sites were exceptionally difficult. Some had long blocks of text, rather than links to subordinate pages–forcing the user into the time-consuming and frustrating process of scrolling and reading to glean desired information. Other sites had too many levels for the user to wade through. One communication and journalism department site

required the user to mouse click through four pages between the institutional site and the opening page of the journalism site.

Operational enhancements which did nothing operational were frustrating. These "dead" or invalid links were identified on a high percentage of journalism/ mass communication sites. The opening page of one journalism department Web site had five dead hyperlinks to lower-level pages.

Several sites had numerous dead links to faculty members' e-mail addresses or professional Web sites. One university's school of media and public affairs site crowed that "Access is just one click away!" and then presented four invalid e-mail links to faculty members. A New York school of public communication's "interactive communications" faculty had no site e-mail links to faculty, and no listed postal address or telephone number for the school. Another east coast program faculty list names the department's "digital media guru"–but the e-mail link to this professor returned the message "file not found."

One site highlighted a simple list of faculty names in the blue color associated with hyperlinks–leaving the user unsure of whether the color was used in error, or whether the names actually were links that were invalid due to some technical problem. One site barred off-campus Web site users from accessing faculty profiles or e-mail links--items which are routinely posted on other Web sites across the breadth of the medium.

The rationale behind the use of some links on WWW sites was difficult to determine. One large communications department site included links to communication programs at competing universities in nearby communities–something which would be

the marketing equivalent of a Toyota dealer linking its site with those of Ford and Chevrolet. Another department had almost no academic information on its Web site–but had dozens of links to media "fun sites" and "games."

In total, 21 sites (11 %) were operationally structured in ways which rendered them difficult to use, based on common user expectations of WWW content and features. Structural components which made these sites more difficult to use included one or more of the following: Absence of an internal directory of contents; information or links placed randomly within the site; informational frames used within other frames; minimal contrast between background color and text; lack of highlighting for hyperlinks; and presence of 'one-way' links from which users are not able to return back into the body of the site.

Informational Enhancements

A qualitative analysis of informational enhancements used on academic program Web sites is important, as well, because high levels of informational enhancement alone do not guarantee quality of content. Information offered on Web sites needs to be accurate in fact and presentation, and relevant to users' needs and wants. Information offered on Web sites should integrate with operational and visual elements to create a single unifying theme for the host site.

The analysis of Web sites found many were lacking in the basic information users search the World Wide Web to find. One site did not name the university with which the journalism/ mass communication program was associated. Another site exclaimed "Come

See Us!" and then offered no address or telephone number with which to do so. Forty percent of the sites analyzed offered no program address or phone number which potential students could use to make personal contacts for enrollment information or assistance. This clearly is a major failing, given that the academic program Web site is seen as a key marketing tool for any program (Topor, 1993; Pollard, 1997, July 10).

Other sites did not identify degrees offered, or requirements students must meet to complete degrees. This, too, is a major failing. It defies logic that Web site designers would create informational content which fails to provide even the most basic academic and program information that large numbers of users in key publics would be searching for.

On the other hand, some sites contained entirely too much information. Several sites offered seemingly endless detail about fairly trivial subjects, such as faculty members' pets, hobbies, and relatives. One site prominently displayed the key information item that a faculty member's great-uncle was a Titanic survivor. One university's department of media studies Web site had an "open guestbook" in which prospective students' names, addresses, phone numbers, and e-mail comments to the department and individual faculty were published. More than a dozen comments–some, fairly personal–were published on the site for anyone to read.

While typical public relations and promotions guidelines would tell communicators to 'put the best face forward,' many journalism/ mass communication Web sites display candid ignorance. "This page is Under Construction. More to come as we get better at this webpage stuff!" trumpeted one state university mass communication

department site. Another site, hosted by a journalism department at a small private college, announced itself as "THE HOME OF JOURNAISM" (sic). The site also was sprinkled with punctuation errors. Twelve sites within the study population (6 % of the total) contained one or more obvious errors in text.

Outdated information was common, which is not surprising given that the mean amount of time since last posted revision was in excess of nine months. One university's journalism program site had catalog information dated 1996, with the disclaimer "a major curriculum change is taking place in Fall, 1997." Another journalism department site contained on its front page "new information" for the March, 1998, pre-registration. One site had not been updated in 44 months. Three sites within the study population (2 % of the total) contained obviously out of date information.

The majority of the sites seemed reasonably well equipped to allow users to interact with the information contained. A small percentage of sites contained technically sophisticated enhancements such as load time warnings, downloadable files, and internal search engines which are common among business and professional sites on the World Wide Web.

In summary, most of the journalism/ mass communication sites analyzed for information content showed at least the basic level of information prospective students and others look for–degree requirements, program news, and student organization information. But the overall level of enhancement was perhaps surprisingly low given the fact that the discipline itself is all about mediated communication–and reaching targeted audiences with information of relevance and importance to users. While some sites were

very well prepared–such as one communication department site which invited prospective students to partake of 'CU-CME' video teleconference capabilities–many sites exhibited far less quantity and quality of information that would be typically found on a commercial or business Web site.

Significance of Findings

These findings have significance for the discipline because they show that although much progress has been made to integrate our discipline into the online environment, much more needs to be done. As a whole, journalism/ mass communication programs need to work much more effectively to plan, produce, and publish online content for the World Wide Web. Faculty members and administrators need to be much more involved in the process, to avoid the online publication of enhancements which can be interpreted by the user as incomplete, trivial, improper, or–for lack of a better word–stupid. The mis-spelling of the word "journalism" is such an example. A mis-spelling of this type says something about educators and their attention to detail in a detail-oriented profession. It says 'no one notices' or 'no one cares.' In many ways, the qualitative findings in regard to enhancements are not surprising, especially given the survey responses and faculty comments which will be discussed later in this chapter.

The findings also illustrate great differences between the creation and maintenance of Web sites for academic programs and the creation and maintenance of Web sites for business ventures. There is research support for the claim that those engaged in business ventures are, and would consistently be, more concerned about the

visual, operational, and informational enhancements which are used on WWW sites (Helmstetter, 1997). A 'poor' quality Web site hosted by a business can generate immediate negative feedback from consumers. Consumers will express their dissatisfaction with products or services offered (McCarthy, 1996), or they may report that the site is unable to demonstrate product competitiveness versus other brands (Siskind & Moses, 1996). In the end, lost sales opportunities (Ellsworth & Ellsworth, 1997) are an immediate result.

Because academic program Web sites are not considered precursors to 'direct sales' activity, and faculty members often report not feeling responsible for or included in institutional or academic program marketing efforts (Simerly, 1989; Ryans, 1986; Ihlanfeldt, 1980), it seems not surprising that many academic Web sites fall so short of qualitative expectations in regard to enhancement content.

3) What quantitative differences are observed among enhancements displayed by journalism/ mass communication program Web sites, and how do these enhancements work together to establish "user friendliness" of sites?

The study found much variation in the quantity of visual, operational, and informational enhancements displayed by journalism/ mass communication Web sites. Some academic program Web sites were found to be especially technologically complex and information-rich, while others were simplistic and featured minimal information about their host institutions, programs, and academic offerings. While each site had at

least one type of visual, operational, or informational enhancement, it was not uncommon for sites to display half or fewer of the enhancements in each of the three categories.

Visual Enhancements

Overall, the sites analyzed were found to more consistently use visual enhancement content than operational or informational enhancement content. This is not surprising, given that the World Wide Web is primarily a visual medium–and it is not especially difficult or time-consuming to post a site which would have varied visual elements. An examination of the data shows that 99 percent of sites had varying fonts, 93 percent of sites used lines and borders, and 82 percent of sites employed visual graphics. In all, more than half of the sites examined used more than half of the total visual enhancement types contained in the content analysis frame. But, on the other hand, visual enhancements which are now considered 'state of the art' for business and commercial Web sites (See Rich, 1999; Helmstetter, 1997)–such as enlargeable photos, audio clips, and live video–were used by fewer than 5 percent of program Web sites. This leads to the conclusion that many site designers are creating Web sites with common, popular visual enhancements–but fewer numbers of designers are going 'the extra mile' to make their sites as complex and sophisticated as those in the commercial sector.

Operational Enhancements

The mean enhancement score for operational enhancements was lower than that calculated for visual enhancements–and the standard deviation among operational

enhancements was higher. Furthermore, only three of the 18 enhancement types were observed on more than half of the sites. Seven of the operational enhancements (39%) were in evidence on fewer than 10 percent of sites. The operational enhancement data affirm that far fewer sites are structured to be operationally complex. As with visual enhancements, one can easily conclude that many site designers are creating Web sites with common, popular operational enhancements–but fewer numbers of designers are going 'the extra mile' to make their sites as interactive as those in the commercial sector.

Informational Enhancements

The analysis of informational enhancements turned up a more complicated situation–with a much higher mean score of 8.02, and a proportionately higher standard deviation of 4.35. Analysis of the data shows that more than half of the sites used more than 42 percent of the informational enhancements, and a small number of sites were extremely informationally-rich. Eleven sites used 15 or more enhancements. However, 109 sites used fewer than ten enhancements, indicating their presentation of information was minimal. The examination of sites suggests that some programs do extremely well in presenting a large quantity of different types of information on their Web sites, while other programs make only a minimal effort–or almost no effort at all.

"User Friendliness"

While "user friendliness" is a subjective, user-centered concept, there is some value to an effort to make generalizations here about it. Certainly one would expect that

journalism/ mass communication program sites should attempt some objective measure of "user-friendliness." At the very least, this would involve appropriate and pleasing visual enhancement displays, operational enhancements which work appropriately and seem consistent with site design, and informational enhancements which support–rather than detract from–the overall effort.

The reviewer's admittedly subjective effort to determine "user friendliness" found almost one-third of the sites analyzed (55 sites, or 28% of the total) failed in one or more of these three areas. Examples of specific problems are mentioned above, and in other sections of this report.

While it is impossible to state with authority whether another reviewer might agree with these qualitative conclusions, at least one objective observation can be made: The sites which the reviewer determined to be "not user friendly" were so because of the absence of coordinated enhancements which were found on other journalism/ mass communication sites, sites which were determined to be "user friendly." In that regard, there is an objective standard for site "friendliness" and at least one-third of the journalism/ mass communication sites analyzed did not meet it.

Significance of Findings

These findings are not especially surprising, when viewed in context of the written comments of survey participants. Several faculty members expressed concerns about the ability of their program to create and publish well-enhanced Web sites, given management, resources, and technology limitations. "Development and maintenance of

our website falls into the category of "service," which means that nobody wants to do it," wrote a faculty member at a Doctoral I university in the Midwest.

Several survey respondents expressed frustration over a lack of leadership within the program administration, and a lack of general faculty involvement. One respondent said her department site is just "a hobby" for its sponsoring faculty member. These comments suggest that many programs may end up using Web sites which fail to meet common expectations for the medium, due to expedience or convenience. "Right now, if you want something changed or created, you better be prepared to do it yourself because the technician in charge of the site is rarely available to help," a faculty member from a midwestern state Research I institution wrote.

Faculty concerns of this nature seem to be common, since 20 percent of the 127 respondents offered written comments on the survey–and nearly all were critical of program leadership, resources, technology, or faculty involvement. The comments focusing on presentational quality of Web site displays were particularly harsh.

The comments addressing use of enhancements in Web site displays point out what may be a problem within the academic discipline of journalism/ mass communication–a problem which boils down to a basic marketing issue demonstrated again and again in the literature (See Topor, 1996; Goldgehn, 1990; Doyle & Newbould, 1986): If our discipline is to be perceived by potential students and the general public as one which is vital, active, and involved in new technology–then we should be able to present mediated portraits of our programs which are dynamic and multi-faceted. If we cannot or will not do so on the World Wide Web–itself the most dynamic and

contemporary means for interacting with potential students–then the public is likely to quickly reach the conclusion that our discipline and academic programs are antiquated, backward, or 'old-fashioned.'

4) Are relationships indicated among particular institutional, academic program, or subject area characteristics and quantitative differences observed among journalism/ mass communication program Web sites?

Institutional Characteristics

The study found significant differences (.01) between the Web site enhancement scores for academic programs within public institutions and academic programs within private institutions. Journalism/ mass communication programs contained within public institutions had significantly higher enhancement scores in visual, operational, and informational categories and in sum. Additionally, the standard deviation among public institution Web sites was lower, indicating that there is significantly less variance among public institution Web sites than among those within private institutions.

These findings are not surprising, given that there is research affirming that public institutions are often better funded and staffed than private institutions (Bowen, 1996; Boyer, 1987). Within the population for study, 66 of the 90 graduate programs are offered in public institutions–suggesting that these programs would, by design, have more opportunity for the development and growth of trust, resources, academic process, and

labor support which are functions of social order and which would in turn support the creation and maintenance of Web sites.

There is research support for the contention that many journalism/ mass communication programs among private institutions are liberal arts-oriented, with particular social and scholarly perceptions of the discipline which would affect the use of technological resources (See Ragan & McMillan, 1989; Cowdin, 1985; DeMott, 1984). This, too, is a social order issue. Liberal arts-oriented programs may be more likely to have a social order which is unregulated and unstructured. Liberal arts-oriented programs may be more likely to view the discipline in traditional, non-technological means. Liberal arts programs commonly view journalism in a language and literature context, rather than in a media context. Therefore, these programs may be less likely to have a social order which supports technology and fewer resources to allow for developing technology. Consequently, the academic leadership may be less willing to proceed with extensive World Wide Web development.

The study found significant differences between the Web site enhancement scores of Carnegie Baccalaureate II institutions and those institutions in several of the other Carnegie classifications (at the .05 and .01 levels). As a group, the Baccalaureate II programs had mean visual enhancement scores which were significantly lower than mean visual enhancement scores for Research I and Research II institutions at the .05 level. Baccalaureate II programs had mean operational enhancement scores which were significantly lower than mean operational enhancement scores for Research I, Research II, Doctoral I, and Master's II institutions at the .01 level. Baccalaureate II programs had

mean informational enhancement scores which were significantly lower than mean informational enhancement scores for Research I, Research II, and Master's I institutions at the .01 level. Finally, total enhancement scores for Baccalaureate II institutions were significantly lower than total enhancement scores for Research I, Research II, and Master's I programs at the .01 level–and significantly lower than Doctoral I programs at the .05 level.

These findings affirm that, as a group, the Web sites hosted by journalism/ mass communication programs within Baccalaureate II schools are far less enhanced than the Web sites hosted by programs within most of the other Carnegie classifications. Again, the reasons for this seem clear. The colleges and universities within the Baccalaureate II classification are the smallest in terms of institutional size, enrollment, and types of degrees granted. Many of the institutions are religious schools with a literature or liberal arts orientation throughout the curriculum. Thus, these are the types of institutions–and, as a consequence, journalism/ mass communication programs–which may be likely to have a social order in which World Wide Web technology is not or cannot be a priority. They may have developed systems of trust, resources, process, and division of labor which create a social order which could or would pursue technology development.

Although Baccalaureate II programs represented 8 percent of the population for study, the survey response from faculty members among these programs was disproportionately low. Of the 127 survey responses obtained, only 5 (4%) were returned from faculty members within Baccalaureate II programs–and none offered a written comment.

As the survey was being administered, the author found it difficult on many occasions to even identify faculty in Baccalaureate II journalism/ mass communication programs. In many instances, the academic discipline was contained within an English or Humanities program. Often, the journalism/ mass communication discipline had no exclusive Web site–or had a site which was difficult to identify because it was contained within a larger subject entity site.

The study found significant differences (at the .05 and .01 levels) between the Web site enhancement scores of programs housed within graduate degree-granting institutions and those of programs in undergraduate institutions. Web sites hosted by journalism/ mass communication programs within graduate degree-granting institutions displayed significantly higher enhancement scores in visual, operational, and informational categories and in sum. Additionally, the standard deviation among sites housed within graduate degree-granting institutions was lower, indicating that there is significantly less variance among these institution sites than among sites within undergraduate institutions.

Given the knowledge that 66 of the 90 graduate programs in this study are offered in public institutions–together with the research support for the claim that public institutions are likely to have more expansive management, resources, and technology to support the creation and maintenance of Web sites–it seems consistent that Web sites within graduate degree-granting institutions would display higher levels of enhancement. The social order would be in place to support this activity, because there would likely be the development of trust, regulation of resources, support for academic processes, and

division of labor which are necessary to create a social order supportive of WWW development.

Academic Program and Subject Area Characteristics

Analysis of the data did not allow for establishing clear relationships between journalism/ mass communication academic program structure and Web site enhancements. This is because it seems impossible to quantify the variables for classifying an academic program as a 'college,' 'school,' 'department,' 'division,' or 'program.' Some subject institutions' journalism/ mass communication schools were smaller in enrollment than journalism/ mass communication departments in other institutions. Lacking a consistent framework for quantifying differences between academic structures, this segment of the research effort was abandoned.

Similarly, analysis of the data did not allow for establishing clear relationships between journalism/ mass communication subject area description and Web site enhancements. Again, it seems impossible to quantify the variables for classifying an academic program as 'journalism,' 'mass communication,' 'communication,' 'theater,' or a combination of these names. Furthermore, the statistical breakdown showed that most programs fell into the category of 'combination'–with at least three different identifying titles in common use. Therefore, this segment of the research effort also was abandoned.

Significance of Findings

These findings indicate that there are statistically significant relationships between higher education institutions, academic programs and the World Wide Web sites created by academic programs to promote and market their academic offerings. The findings suggest that Web sites hosted by programs within public institutions, or by programs within graduate degree-granting institutions consistently display more visual, operational, and informational enhancements than sites hosted by programs within private institutions, or programs within undergraduate-oriented institutions.

The findings also suggest that Web sites hosted by Carnegie Baccalaureate II-category programs consistently display fewer visual, operational, and informational enhancements than sites hosted by programs in other Carnegie classifications. Web sites hosted by Carnegie Baccalaureate II-category programs seem to consistently display fewer total enhancements than sites hosted by programs in other Carnegie classifications.

These findings are significant because they suggest that World Wide Web site creation, maintenance, and display are regulated at least in part by the social order of the host academic unit–and elements which are a function of social order, including trust, availability of resources, the academic process, and the division of labor. When these elements are present, Web sites are likely to be more enhanced. When these elements are not present, Web sites are less likely to be enhanced. An argument could be made that 'the Matthew principle' is at work (Zwerling, 1976) in that academic programs with the most socially-ordered resources and stature are so established that they are likely to continue gaining in resources and stature, while those programs with lesser amounts of

socially-ordered resources and stature are so established that they are likely to lose even what they have gained.

5) How do faculty members qualify four key areas of social order (delegation of labor, establishment of trust, regulation of resources, and support for academic processes) as those relationships affect journalism/ mass communication program Web site creation and maintenance?

Institutional Characteristics

The study found a significant difference (.01) between the responses offered by faculty members to social order statements contained within the survey instrument. Respondent faculty members working in journalism/ mass communication programs housed within institutions which offered graduate degrees gave lower mean rankings to each of the four categories of social order statements as compared to responses of faculty members working in journalism/ mass communication programs housed within institutions which were exclusively undergraduate. The lower mean scores were observed in the four individual social order categories as well as in sum.

Lacking verification of the reasons why the mean scores were different, perhaps some speculation is in order. Many researchers have pointed out the increased fragmentation of the faculty among graduate and research-oriented institutions (See Bowen, 1996; Tucker, 1984; Pascarella & Terenzini, 1991). Clearly, the social order of the undergraduate faculty is likely to be more unified–more focused on teaching within

the curriculum (See also Clark, 1991; Becher, 1989). Perhaps these faculty, as a consequence, are more able to highly rank social order variables. Future research may clarify relationships.

In any case, no other relationships were found–and surely the low response rate is a contributing factor in this issue. Some discussion about response rate is in order.

Survey Response Issues

The survey of faculty members resulted in a response rate of 20 percent, which was lower than had been hoped--and is too low to allow for many statistically-sound generalizations about the academic discipline as a whole. Recognized survey expert Earl Babbie contended that a response rate of at least 50 percent was needed for survey data to be "adequate for analysis and reporting" (Babbie, 1990, p. 182); therefore this survey falls far short of traditional expectations.

Still, one significant relationship was indicated (.01). The social order responses given by faculty members working in journalism/ mass communication programs housed within institutions which offered graduate degrees were significantly lower than responses given by faculty members working within undergraduate institutions.

It is interesting to note that the reminder mailings to participants did seem to help boost the response rate. The response rate had reached only 9 percent when the first reminder notice was sent. Within three days, the response rate had reached 17 percent. After the final reminder notice was sent, the response rate reached 20 percent. No responses were received after the extended February 12 cutoff date.

The response rate was undoubtedly hindered by the large percentage of "undeliverable" surveys sent to e-mail links posted on program Web sites. Ninety responses (12% of the total) were returned "undeliverable."

The overall low response rate to this e-mail survey and the large percentage of "undeliverable" returns is not surprising, given an analysis of the recent research which focuses on e-mail surveys. Schuldt and Totten's national survey of university marketing and MIS faculty, for example, reflected almost a 30 percent lower response rate for e-mail versus postal surveys (1994). A survey of university faculty and staff in Hong Kong showed the e-mail response rate to be more than 20 percent lower than the postal response rate (Tse et al, 1995). A similar conclusion was reached after a survey of academic telecommunications administrators done by Fouty (1998).

In the private sector, a survey by a California software developer found 85 percent of Fortune 100 firms failed to respond to a simple e-mail inquiry within three hours. A total of 36 percent of the firms either never responded or could not be contacted at all via e-mail from corporate Web sites (Beer, 1999).

On the other hand, there has been research in the academic sector which reached opposite conclusions about e-mail response. Good's study of university faculty and staff members found a 16 percent higher response rate to an e-mail survey than to a postal survey. It should be noted, however, that much of the increased performance of the e-mail was attributed to reminder notifications which increased response rate by almost 50 percent in the e-mail survey.

One would logically expect several variables to influence whether or not an e-mail or Web-based survey is responded to promptly–or at all. In the academic environment, one variable would be the degree to which faculty would feel motivated to respond. Universities typically have a fairly well established reward system in place for the traditional faculty tasks of research, teaching, and service. But a study by Doty (1995) showed that no such system had been generally accepted to reward faculty for using electronic communications technology. Doty found faculty members are not granted and do not expect formal rewards for use of online technology. A lack of explicit rewards for online use could impact faculty members' motivation for communicating through these means–especially for 'extra-curricular' tasks.

The ability of faculty members to do basic manipulation of computer hardware and software is likely to be an issue, as well. University faculty who have received informational technology training have been shown to be much more positive about the use of online communications (Gilmore, 1998). There has been support for the claim that teachers who have more years of teaching experience display greater e-mail skill (McLeroy, 1998). At least one study showing most faculty have positive feelings about computer use also showed that there are significant positive relationships between users' computer attitudes and their computer use patterns (Lee, 1998).

Still, the decision to use or not use e-mail is not consistently objective or rational. A great variation in e-mail use has been identified (Krishnamurthi, 1996) based on user perceptions of task uncertainty, the need for clarification, the need to convey trust, and the need to gather information.

A recent study showed that social influences affect users' choice of e-mail, and that these influences do regulate perceptions of e-mail's richness and usefulness as a communications medium (Stuckey, 1998). Furthermore, many faculty members feel e-mail is best used for simple, routine tasks and not for those which are complex or non-routine (Wigand, 1995). All of these would potentially affect a faculty member's ability to want to respond to online communication.

Finally, another factor affecting response to online communication is the validity of e-mail addresses used to reach populations for survey. As was demonstrated by the survey reported by Beer (1999), many e-mail addresses cannot be accessed at all–or are electronically invalid. One world-wide survey of academic faculty found 30 percent of electronic surveys were returned undeliverable due to address invalidity (Anderson, 1998). Despite the lack of much other research in this area, one has to accept it is an important related issue to non-response.

Social Order Issues

Regardless of all the complexities of the findings, some generalizations can still be made about the social order relationships faculty members surveyed in this research perceive as affecting program Web site creation and maintenance. Initially, it can be affirmed that most faculty do not perceive high levels of social order within their academic units.

The mean response to all social order statements on the survey was 3.19, indicating that faculty members are "unsure or don't know" of their agreement to most of

the 16 affirmative social order statements offered to them. The standard deviation was .67, indicating low variation among responses by the 127 participants.

The highest rankings of faculty members were in the area of trust. The mean score was 3.59, with standard deviation of .40. Faculty do report fairly strong indications of trust in their Web site administrator to do good work. For the most part, faculty also accept that their academic programs have trustworthy systems and support. This trust was reflected in written comments, as well. No respondent indicated a lack of trust in site management. In fact, several praised their Web site administrator for taking on "a heavy burden" or doing "a good job."

The mean response to social order statements reflecting regulation of resources was slightly lower–at 3.55. Standard deviation was notably higher, at 1.10. Faculty members' responses suggest they feel less comfortable with the way their programs strategically plan Web development. These feelings, too, were reflected in written comments. A faculty member in the journalism school at a Southwestern U.S. Master's I institution wrote that, at his school, "the Web site is an afterthought, like many other things." Another faculty member, from a Master's I institution in the Midwest, wrote: "We have one overworked person who does our website. He asks for help, but usually few if anyone help (sic). At this time, it is a missed opportunity for the department as a unit."

Still lower mean scores were recorded in response to statements in the category of 'outgrowth of the academic process.' Many faculty members gave responses which indicate that the best expectations for the Web site have not been met, and that their academic program has difficulty keeping the Web site technologically advanced. A Virginia department chair expressed frustration at his inability to have changes made in online sites–and said his program is going back to more traditional means of information dissemination, in part, because of a failure of the technological processes involved in Web-based information dissemination:

> "We have two different web sites, the official one maintained by the university and one maintained by the department. The official one is very hard to change and only reflects "official" changes, i.e., catalog changes and the like. Consequently, when personnel changes occur, we can't update but we can request to update it. We have made the request for two years to make minor changes in the staff, for example, but still no one has responded. As to the other web site what we are finding is that the maintenance has to come out of someone's time - that's time that none of us have and consequently it isn't as to date as it should be (sic). We have also found that creating course web sites has begun costing the university and the department a lot more money for paper then (sic) when we just ran a syllabus off. Consequently, we are going back to hand out (sic) in the classroom syllabus with web page supplemental information."

The lowest response means were recorded in the category of 'division of labor.' The mean score of 2.83, and standard deviation of .85, indicate that the majority of faculty respondents "disagree" with statements that there is sufficient labor in their academic unit to update Web sites and keep content current. The lowest-ranked of all 16 statements was "Faculty work is coordinated; everyone helps in some way with the Web

site." The response mean to this statement was 1.85, indicating "strongly disagree." The standard deviation was .95. Faculty comments which addressed this area of concern included several which were quite direct:

> "The college began planning for and developing its web site many years ago with tremendous faculty enthusiasm. Once the site got started, the faculty, with few exceptions, turned its attention elsewhere."
> (Faculty member, Midwestern U.S., Research I program)

> "Attempting to gain access to resources to maintain a professional web presence for the department has been difficult at best and rewards for faculty to develop web-based instructional support for their courses has been met with disinterest at best, but more typically with disdane (sic). Maintaing (sic) our departmental web presence has more often than not been a heavy burden born (sic) by one faculty person and a graduate student who are never encouraged for their efforts, but quickly chastized (sic) if the page(s) should be down, or inaccurate..."
> (Web site administrator, Western U.S., Research I program)

> "There is minimal interaction in developing the site."
> (Faculty member, Midwestern U.S., Master's I program)

> "Half our faculty do not have a clue as to why the Web is important or useful for academic use."
> (Faculty member, Midwestern U.S., Master's I program)

Nearly every comment offered by survey participants was negative–particularly in the context of administrative planning and faculty involvement. The following was one of the few 'positive' comments offered:

> "The web site provides basic information very well, but simply lacks consistent leadership. Right now, our department is tying the web site to its overall strategic plan and I think this will give it more emphasis and possibly more resources."
> (Web site administrator, Southwestern U.S., Doctoral I program)

Though perhaps not 'statistically significant,' the data generated by the survey and the comments of participants do indicate that faculty members have great concerns about how existing social order within academic programs supports Web site creation and maintenance. There is an indication of discontent among journalism/ mass communication faculty in regard to allocation of resources for Web development, the application of Web site activity to the academic process, and the division of labor within programs to accomplish online tasks.

6) How do faculty members rank their own academic program Web sites in regard to visual, operational, and informational enhancements; concept; site maintenance; purpose; and faculty involvement?

The study found that, as a whole, faculty members did not indicate tremendous enthusiasm about the contents of their program Web sites, or several of the socially-ordered processes related to site creation and maintenance. Survey respondents were presented with seven affirmative statements on the questionnaire; the group mean response to all statements was 3.24, indicating "unsure or don't know." One can reasonably interpret the finding to indicate only a moderate level of agreement to

statements offered. The standard deviation was .44, indicating a fairly small amount of variance among responses.

Visual Enhancements

Faculty members indicated a slightly higher level of agreement to the statement "The visual components of our site are complete, professional, and attractive." The mean response to this statement was 3.73, with standard deviation of .90. The statement received the second-highest level of agreement among the seven statements presented. The data would indicate that faculty members feel more satisfied with visual components of program sites than with the information offered, the level of maintenance, the concept for the site, purpose of the site, and overall faculty involvement.

This finding is noteworthy, given that the standard deviation among site visual enhancement scores from the analysis of Web sites was the lowest among all categories–and that none of the written comments from survey participants was specifically critical of site visual enhancements. The findings suggest that faculty members are, for the most part, moderately satisfied with the visual elements used to portray their academic programs on academic World Wide Web sites.

Operational Enhancements

Faculty members indicated their highest level of agreement to the statement "The operational components of our site are complete, professional, and attractive." The mean response to this statement was 3.76, with standard deviation of .90. The response mean is

only slightly higher for that given to the visual enhancement statement, the standard deviation is equally low. The data would indicate that faculty members feel more satisfied with operational components of program sites than with the information offered, the level of maintenance, the concept for the site, purpose of the site, and overall faculty involvement.

The site operational enhancement mean score from the analysis of Web sites was the lowest among all categories. So, even though Web sites as a whole scored fairly low in operational enhancements, faculty members evaluating their own program sites seem satisfied with the level of enhancements in this category. None of the written comments from survey participants was specifically critical of site operational enhancements.

Informational Enhancements

Faculty members indicated a lower level of agreement to the statement "The information offered by our site is thorough, accurate, and relevant." The mean response to this statement was 3.43, again indicating "unsure or don't know." The standard deviation was 1.12. A lower mean response is not especially surprising, when viewed in context with survey responses which were critical of program Web site informational content or content management. One respondent complained of his site being "a cobweb site" while another complained of a program site which "is totally outdated with faculty members listed who are not on the faculty any more." Others wrote of site information "inaccuracies" and one respondent contended that minor site information changes take "years" to get posted.

What is perhaps surprising about the lower level of agreement to the informational enhancement statement is the fact that the site informational enhancement mean score of 7.58 from the analysis of Web sites was the highest among all three enhancement categories. The category did have the second-highest standard deviation, however. The standard deviation of 4.22 would indicate there was a wider variance among site informational enhancements than among visual and operational enhancements.

Maintenance, Concept, Purpose, Faculty Involvement

Faculty members indicated their lowest levels of agreement with the statements focusing on maintenance of the Web site, concept for the site, purpose of the site, and faculty involvement in its development and use. The responses would indicate that survey participants were far less satisfied with the socially-ordered procedures supportive of–and supported by–the development of the program Web site.

The lowest level of agreement was with the statement: "I am pleased with the level of involvement of faculty, staff, and students in regard to Web site planning, development, and use." The mean response to this statement of 2.54 indicates fairly widespread "disagreement" with the statement, although the standard deviation of 1.09 indicates a greater variance of opinion than for that of the earlier statements addressing visual and operational enhancements. This low level of agreement is not surprising, given the many written comments offered by survey respondents who were critical of involvement of their colleagues in Web site-related work.

"Faculty with narrow, traditional interests don't give a darn about the Web in any respect, and they resist its development," wrote a faculty member from a Kentucky Master's I school. "This faculty is clearly split between those who have been here a long time and have little regard for the role/ importance of the site, and those recently hired who feel little clout and emphasize getting into the job," wrote a faculty member from a Master's I school in the Midwest.

The Web site administrator for an east coast Master's I institution seemed to reflect the opinions of several survey participants. She blamed "apathy and being busy with other tasks" for preventing faculty from being more involved in site issues.

Significance of Findings

The significance of the findings in regard to faculty members' rankings of their own academic program Web sites is clear–especially viewed in context with what we know about social order. Social order is the state which results from predictable or coordinated human actions (Elster, 1989). Human beings have a demonstrated need to perceive a sense of order, not only in society (Visnovsky, 1995) but in their economic and political relations with others (Silvert, 1998). People must also perceive a sense of order in the work environment; a sense of order and belonging has been demonstrated to be a key precursor to human involvement, productivity, and creativity (Postrel, 1998). This is especially true for academicians, who have unique perceptions of their work and its relation to others' work in the education environment (Becher, 1989).

This social order, which is so critical to productivity, is sustained through division of labor, construction of trust and solidarity, a regulation of power, and a legitimization of social activity among humans (Eisenstadt, 1992). The rankings offered by faculty respondents to this survey cast great doubt on the existence of these components in large measure within journalism/ mass communication programs in the subject population.

It could be argued that a review of the survey non-response data could indicate that the faculty population is not as socially ordered as it could be in regard to Web site creation and maintenance. Of the 750 surveys sent out, 90 were returned "undeliverable" because they were sent to faculty e-mail addresses which were invalid. This causes one to wonder whether the invalid links remain on WWW sites because the social order exerts no pressure on Web administrators to have the links corrected or removed, or because the social order puts no pressure on faculty members to care about the issue.

Twenty-nine replies were received from faculty who refused to participate. Four had retired, but their e-mail links remained on program sites as if they were still teaching in those institutions. One had left his state university faculty 18 months earlier and was teaching in another school in another part of the country–but still was listed as a state university faculty member and was receiving e-mail through its page. He wrote back to say he had requested several times–without success–for his e-mail link to be removed.

Twenty-four of the surveys sent out resulted in written responses from journalism/ mass communication faculty members who declined to participate for other reasons. Their written reasons for non-participation included the following:

"I have no responsibility or connection with the College of Journalism web site."

"I do not handle our department's Web site."

"I am not in charge of our Web page, and cannot answer questions."

"I am out of touch with the department website."

"I would be happy to forward it (the survey) to one of our faculty members who knows more about what we are doing on the web."

"I do not teach journalism."

"I don't use the web for academic purposes. . . I sometimes find articles or current facts on the web which I print out and duplicate to share with classes."

A total of 502 surveys which by all indications were transmitted to recipient e-mail addresses without hindrance resulted in no responses from the intended participants. Similarly, no responses were received to the two 'reminder' notices sent to these 502 faculty members.

Among those who did respond to the survey, program chairpersons and Web site administrators responded in much higher percentages than did other faculty. A total of 92 chairpersons were surveyed. Thirty-two responses (35%) were returned. A total of 76 Web site administrators were surveyed. Thirty-six responses were returned (47%). A total of 582 other faculty were surveyed. Fifty-nine responses were returned (19%). Clearly,

program chairs and Web site administrators were more inclined to reply to the survey than other faculty members. One could logically surmise that they either felt more responsibility or interest in doing so–or were more familiar and involved with the Web site and its management and felt more comfortable expressing opinions about the site. This, too, is a result of social order within the academic unit.

The survey response was insufficient to make statistically-sound claims about the entire academic discipline. However, the written responses suggest that faculty members who responded to the survey feel strongly that the social order in their work environments is not supportive of efficient and productive use of the World Wide Web as an academic communications medium.

It is important to remember that there is no developed scale with which we can 'measure' observations of social order, nor is there existing research to quantitatively link observations of social order with technological applications. Furthermore, social order as a concept represents a set of behaviors and not a defined theory. For these reasons, and for the others described above, much more investigation and research in this area seems warranted.

7) Are relationships indicated between particular institutional, academic program, or subject area characteristics and faculty rankings of journalism/ mass communication program Web sites?

Significance of Findings

The response rates across all Carnegie classifications were low, despite a fairly even distribution of requests sent to intended participants. The population for survey included faculty at some fairly large university programs–where ten or more faculty were asked to participate, and none responded. On the other hand, a few smaller programs had three or four faculty asked to participate, and each one did so.

The author is inclined to believe that there is 'something,' some social order variable at work, either individually or interacting with technology which may make some faculty in some programs more willing as a group to become involved in online communication. Alas, within the parameters of this research it is impossible to determine what this unknown variable may be or how it is regulated.

The survey response included data from only 33 program chairs (36% of 92 surveyed), 35 Web site administrators (46% of 76 surveyed), and 59 'other' faculty (10% of 582 surveyed). Obviously, Web site administrators responded in much larger proportion than faculty members in the other two classifications. One could easily surmise that Web site administrators would, by nature, be more technologically active on the WWW and with e-mail–and thus more inclined to respond to surveys of this nature. The subject of the survey itself, of course, would also seemingly be of immediate interest to Web site administrators and perhaps result in greater response from individuals in this group.

While the proportionately large response from Web site administrators was heartening, the disproportionately small response from 'other' faculty members was

unsettling. There are a number of unanswered questions about the reasons for faculty non-response. At least one involves whether faculty members would be equally non-responsive to queries about academic program offerings, enrollment, and campus life submitted by prospective students. Are faculty members as non-responsive, generally, as they are with e-mail surveys? If so, why? If 90 percent of faculty members are unable to answer general information inquiries from the public and from prospective students–for whatever reason–a great many institutions and programs may have serious marketing issues to be addressed right in their own backyards.

It should also not be forgotten that at least 90 of the intended survey recipients (12%) had e-mail links which were "dead." This statistic dramatically reduced survey response, and, consequently, affected findings. It is unclear whether there may be institutional or program variables which directly affected presence or absence of "dead" links.

In any case, though the statistics were not found to confirm relationships between institutional or program characteristics and faculty rankings of Web sites, the author cannot help but believe there are relationships waiting to be uncovered by a future researcher. The voluntary submission by so many respondents of explicit and emotionally-charged comments about their programs and Web sites–and the informal comments of faculty heard through 'the grapevine' of academe would suggest there is much more at work here than these survey results can confirm.

Limitations

Theoretical Development

The research effort was limited by a lack of theoretical development in the literature. Previous work did not propose linking program social order to creation and maintenance of World Wide Web sites as evidenced by the dependent variables of Web site enhancements. While methods used here are reliable, and means of measurement appear valid, the concepts involved should be subject to further study.

From the outset, this research was not intended to make claims about the entirety of social order within the academic discipline of journalism/ mass communication. Rather, the research was aimed at making generalizations about social order processes as they relate to–and are affected by–the creation and maintenance of program academic Web sites. This research supports the generalization that program social order acts as an independent variable to affect creation and maintenance of World Wide Web sites hosted by academic programs. All the dynamics of this relationship have not been established or investigated, however. Broader theoretical frameworks are needed. When these frameworks for social order are established–and supported by additional research into social order effects and inter-effects with technology–scholars can develop more specific and wide-ranging hypotheses about social order's impact on the academic unit as a whole. At some point, it is hopeful that research may allow for illustration of an unequivocal and overriding relationship between social order throughout an academic program and social order as demonstrated by an academic program's WWW site.

Data Collection Instruments

As a consequence of the lack of past investigation into this issue, this research effort was further limited by the inability to locate data collection instruments designed specifically for an investigation of this type. While the author believes the instruments used are reliable, and that they generated data which are valid, it would have been preferable to use a content analysis instrument previously used to analyze academic Web sites and a survey instrument previously used to assess faculty perceptions of social order in the context of Web site creation and maintenance.

Interactive Nature of the Medium

A further limitation stems from the nature of the World Wide Web itself. The WWW is an interactive medium. The perceived functionality and value of a Web site are, to a great degree, influenced by user skills and predispositions (Fucella & Pizzolato, 1998; Corry, Frick, & Hansen, 1997). The WWW is constantly changing. The construction of a Web site, and use of enhancements contained therein, can change at a moment's notice. The World Wide Web is dependent totally on the interworking of technology. Its constantly-changing set of technological standards can support or hamper user access. Its use in the academic environment is a complicated issue, since the academic environment is built on 'stable' administrative and social traditions (Becher, 1989).. As a result, it is difficult to make lasting conclusions about the content, functionality, and value of the Web itself or of particular sites used in higher education.

A related issue involves the structure and application of World Wide Web sites on behalf of educational institutions and programs. Most journalism/ mass communication programs studied in this research were found to maintain just one academic WWW site. However, a small number of programs were found to maintain multiple sites–as many as four. Often this was the case in a department or school in which 'journalism' encompasses a text editorial sequence and 'communication' represents broadcasting, theater, communication theory, public relations, and/or other related academic areas. In instances where this was found to be the case, the program's 'journalism' WWW site was included in the research survey population. It is reasoned that this was the most appropriate inclusion strategy to take, since as a sub-discipline in a multi-faceted program, journalism is more accurately associated with the WWW editorial issues at hand. However, in any instance where just one site out of several can be chosen for analysis, the resulting quantitative and qualitative 'picture' of the academic program remains incomplete.

Data Collection

Conducting a survey in which participants are contacted via online methods brings additional limitations. As was discovered in the course of this research, Web sites often do not identify faculty members, making them unavailable for survey. In other instances, Web sites mis-identify faculty or fail to characterize members' rank or position. Because of these evidenced inaccuracies and omissions in the areas of operational and informational content, it would be impossible to use information from

Web sites to assemble an accurate or "randomly selected" database of survey participants. Such was the case in this research.

This research found a high percentage of e-mail links to be "dead" due to technological or programming errors, thus preventing e-mail from reaching intended recipients. Web site hyperlinks are often "dead." Occasionally, they route e-mail to faculty members who have retired or left the institution for a teaching assignment elsewhere. While e-mail sent to a "dead" link or invalid e-mail address will presumably return to its sender with the notice "undeliverable," this is never a guarantee. So the survey taker is left wondering how many surveys really did survive the tortuous path and land in respondents' e-mail boxes.

Once the e-mail lands in the e-mail box, of course, there is no guarantee it will be accessed or viewed. Since the use of e-mail is growing so rapidly, and so many faculty members are barraged with e-mail from administrators, colleagues, textbook vendors, students, and others, e-mail requests to participate in a survey could easily be perceived as an effort at "spamming," the sending of trivial correspondence which is unnecessary in the workplace (Rich, 1999). E-mail messages could thus be deleted or misplaced.

The intent of an e-mail surveys also could be misinterpreted. Three very stern messages were received by this author as replies to his survey questionnaire. One respondent criticized the author for "bothering" him with the request to participate. Another lambasted the author for failing to clarify his methods–methods which were explained in detail in the initial survey request. The third was sent by an internationally-renown communication scholar and author. His response, showing he had mis-interpreted

the information presented about sponsorship of the survey, asked why the author could not pay him to answer the questionnaire.

Sometimes, faculty members may be technologically equipped–but unable to use their equipment for online communication. One participant in this survey printed his survey questionnaire on paper, wrote answers on it with an ink pen, and mailed it to the author. The faculty member explained in a note that he had learned to access and print e-mail messages, but was unable to send messages electronically. A few respondents who replied to the e-mail version of the survey form acknowledged earlier receipt of the survey request with embedded WWW hyperlink, but said their computers had no Internet access.

In the end, surveying by e-mail certainly has its limitations. This research might well have been able to achieve a greater response rate by other means. However, since the research subject area was the World Wide Web, it would have seemed illogical to use traditional 'paper and pencil' or telephone survey methods to ask members of the survey population about their involvement with computer mediated communication processes and the social order involved.

Summary

This research affirms much about the visual, operational, and informational content of academic program Web sites–findings which had heretofore been only conjectured among online users. The research affirms that many academic program Web sites are flawed from a marketing perspective. A large percentage of sites was found to

contain visual, operational, or informational elements which detract from site content, functionality and value. Finally, some statistically-significant relationships were affirmed between institutional type and levels of enhancement on program Web sites. But these findings are tempered by a low response rate for the e-mail survey used–thus, the generalizability of the findings is in question.

Despite the theoretical, procedural and technological limitations of this study, the research findings still have import not only for the discipline but for Web creators and users. If anything, the limitations may even serve to further advance the field of research in this area–because they show how much more work needs to be done to make data collection, analysis, and reporting on electronic communications technology and its affects easier and more reliable.

Future Research Opportunities

This study has hinted at a number of research areas which merit further study. In the area of content analysis, it would be helpful for there to be an ongoing effort to evaluate journalism/ mass communication program academic Web sites–to see on a continuing basis how the content, functionality, and value of these sites changes. After all, sites change on a daily basis–several of the sites evaluated in this research have already been drastically altered–before this research has even been reviewed by committee. Surely there will be even greater amounts of change in the future, as resources for Web creation are advanced, technology becomes more 'user-friendly,' more students

and faculty become Web savvy, and institutional and program leaders see more value in Web sites. These changes should be quantitatively and qualitatively tracked.

There should be additional research work to compare the visual, operational, and informational enhancements of journalism/ mass communication program Web sites with sites operated by entities in the commercial sector. In the increasingly competitive marketplace of higher education (Topor, 1997; Goldgehn, 1990), colleges and universities should be at the forefront of Web marketing and promotions technology. Our discipline demands it. Yet, the current research has illustrated areas in which the discipline lags well behind the standards already set in the business sector. Here again, further ongoing research is warranted to track the professionalism of journalism's Web applications.

Beyond that, we must attempt to quantify why Web site creation and maintenance issues are given the 'short shrift' perceived by many faculty members. Perhaps additional research work with larger populations would help in this regard. What specific social, organizational, administrative, procedural, or disciplinal variables affect the decisions of faculty and administration to be assertive–or passive–when it comes to Web site development? What is the discipline doing to make changes? How can we alter the reward structure so more faculty can get more involved in the creation and management of this vital communications link with the 'outside world'?

Before this can begin in earnest, additional work is needed to build the theoretical foundation on which more broad-based generalizations can be made about the social order of academic programs as that order relates to Web site creation and maintenance. The current research has barely scratched the surface of what is obviously a concern to many faculty members. A reading of the written survey responses–by any standard–shows many faculty are not content with the social order of things in their programs. A clear relationship has already been established between social order and productivity and success in the academic environment; we must continue to build on this foundation to can help explain some of the unanswered questions about Web sites and their role in the order of things.

More research also is warranted in the area of surveying via e-mail. There is only a small amount of research available on this topic, and much of it is contradictory. We need a better understanding of the most effective means of surveying a population by electronic means–along with all the variables in the process.

All these issues are important in a general sense, in that further investigation will help us better explain our world and the people working within it. But the issues are critical to the future survival of the journalism discipline, which itself has been threatened in many ways in the recent past. If we are to be the best journalists–the best communicators–we can possibly be, the research effort along these lines must continue. We must be able to create a more effective social order, a more effective online presence, and–as a result–a more effective marketing strategy for our discipline now and in the next century.

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APPENDICES

APPENDIX A

Journalism & Mass Communication Directory

Volume 16 • 1998 • 1999

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APPENDIX B

Survey Population

Global Computing list of universities

No.	Institution	P	ZIP Code	Carnegie Classific.	
1	Univ. of Alabama		35487	d1	http://www.ccom.ua.edu/
2	Jacksonville State, Alabama		36265	m1	http://jsucc.jsu.edu/depart/edprof/comm/
3	Samford Univ.	p	35229	m1	http://www.samford.edu/schools/artsci/jmc/index.htm
4	Spring Hill College	p	36608	m2	http://www.shc.edu/commfine.htm
5	Univ. of Alaska, Anchorage		99508	m1	http://webserver.cts.uaa.alaska.edu/jpc/jpc.html
6	Univ. of Arizona, Tucson		85721	r1	http://journalism.arizona.edu/
7	Northern Arizona Univ.		86011	d1	http://www.nau.edu/~soc-p/
8	U Ark Little Rock		72204	r2	http://www.ualr.edu/~jndept/
9	Ark Tech Univ. Russellville		72801	m1	http://www.atu.edu/acad/Schools/lfa/stj/journalism.ht
10	Harding Univ.	p	72149	m1	http://www.harding.edu/~commdept/index.html
11	John Brown Univ.	p	72761	b2	http://www.jbu.edu/communicate/
12	Cal Lutheran	p	91360	m1	http://robles.callutheran.edu/htdocs/CommunicationA http://robles.callutheran.edu/htdocs/ugcat/communic.
13	Cal State Univ. Chico		95929	m1	http://www.csuchico.edu/jour/
14	Cal State Univ. Dom Hills		90747	m1	http://www.csudh.edu/communications/index.htm
15	Cal State Univ. Fullerton		92634	m1	http://communications.fullerton.edu/
16	Cal State Univ. Long Beach		90815	m1	http://www.csulb.edu/~cla/journalism/
17	Cal State Univ. Northridge		91330	m1	http://jour.csun.edu/
18	Humboldt State Univ.		95521	m1	http://www.humboldt.edu/~jnhsu/
19	Univ. of the Pacific	p	95211	d2	http://www.uop.edu/
20	Pepperdine	p	90263	d2	http://www.pepperdine.edu/seaver/communic/
21	San Diego State Univ.		92182	d2	http://www.sdsu.edu/academicprog/journlsm.html
22	San Jose St. Univ.		95121	m1	http://jmcweb.sjsu.edu/HOMEBODY.HTM
23	San Francisco State Univ.		94117	m1	http://www.journalism.sfsu.edu/
24	USC	p	90089	r1	http://www.usc.edu/schools/annenberg/ or http://ww
25	Adams St. College, Colorado		81102	m1	http://www.adams.edu/academics/artsletters/communi

26	CSU Ft Collins		80523	r1	http://www.colostate.edu/Depts/TJ/
27	Mesa St. College		81502	b2	http://mesa7.mesa.colorado.edu/masscomm/
28	Univ. of No. Colorado		80639	d1	http://asweb.unco.edu/depts/jmc.htm
29	Univ. of Bridgeport	p	06601	m1	http://www.bridgeport.edu/ (no dept. page)
30	Univ. of Hartford	p	06117	m1	http://uhavax.hartford.edu/ cmm/index.html
31	Quinnipac College	p	06518	m2	http://www.quinnipiac.edu/libarts/mcmain.html
32	So. Conn St. Univ., New Haven		06515	m1	Journalism Catalogue site - http://www.southernct.ed Communication Catalogue site - http://www.southern Journalism Dept. site - http://www.com.scsu.ctstateu. Communication Dept. site - http://www.scsu.ctstateu.
33	Univ. Delaware		19716	r2	http://www.udel.edu/johnc/udcomm.html
34	American Univ., Wasington, DC	p	20016	d1	http://www.soc.american.edu/
35	George Washington Univ.	p	20052	r2	http://www.gwu.edu/~smpa/journalism.htm
36	Howard Univ.	p	20059	r1	School of Communications - http://www.soc.howard. Journalism - http://www.soc.howard.edu/Journalism/i
37	Univ. of Central Florida		32816	d2	http://pegasus.cc.ucf.edu/~joupage/
38	Univ. of Florida Gainesville		32611	r1	http://www.jou.ufl.edu/jou/Default.htm
39	Florida Intl. Univ.		33181	d2	http://www.fiu.edu/~journal/
40	Univ. of Miami		33124	r1	http://www.miami.edu/com/
41	Univ. of No. Florida		32246	m1	http://www.unf.edu/coas/cva/
42	Univ. of Western Florida		32514	m1	http://www.uwf.edu/~commarts/
43	Berry Col	p	30149	m1	http://www.berry.edu/ no dept. page
44	Brenau Univ., GA		30501	m1	http://www.brenau.edu/humanities/ - no dept. site
45	Georgia St. Univ., Atl		30303	d1	http://www.gsu.edu/~wwwcom/comm.html
46	Univ. of Georgia, Athens		30602	r1	http://www.grady.uga.edu/
47	Toccoa Falls College	p	30598	b2	http://www.toccoafalls.edu/adm/Schools/scom.htm
48	U of Hawaii Manoa		96822	r1	http://www2.soc.hawaii.edu/com/
49	Univ. of Idaho		83844	r2	http://www.uidaho.edu/LS/Comm/
50	Bradley Univ, Ill.	p	61625	m1	http://www.gcc.bradley.edu/
51	E Ill. Univ		61920	m1	http://www.eiu.edu/~journal/welcome.html
52	Univ. of Ill., Urbana		61801	r1	http://www.uiuc.edu/providers/comm/ - Communicati http://www.comm.uiuc.edu/Journlsm - Journalism
53	No. Ill. Univ., De Kalb		60115	d1	http://www.niu.edu/comm/

54	So. Ill. Univ. Edwardsville		60276	m1	http://www.siue.edu/MASSCOMM/
55	Western Ill. Univ.		61455	m1	http://www.wiu.edu/users/micom/ - Communication
					http://www.wiu.edu/users/micng/wiu - Journalism
56	Ball State		47306	d1	http://www.ccim.bsu.edu/ - College of Comm., Infor
					http://www.journalism.bsu.edu/mncont.html - journali
57	Univ. of Evansville	p	47722	m1	http://www.evansville.edu/~commweb/info.html
58	Franklin College	p	46131	b1	http://www.franklincoll.edu/jouweb/pub/shirk.html
59	Indiana State		47809	d2	http://www.communication.indstate.edu/
60	Purdue		47907	r1	http://www.sla.purdue.edu/academic/comm/
61	Univ. of So. Indiana		47712	m2	http://www.usi.edu/libarts/comm/comhom.htm
62	Drake	p	50311	m1	http://www.drake.edu/journalism/sjmc.html
63	Grand View College, Iowa	p	50316	b2	http://www.gvc.edu/jour.html - journalism
					http://www.gvc.edu/comm.html - mass comm.
64	Univ. of Iowa, Iowa City		52242	r1	http://www.uiowa.edu/~commstud/ - communication
					http://www.uiowa.edu/~journal/ - journalism
65	Univ. of No. Iowa		50614	m1	http://www.uni.edu/comstudy/index.html
					http://www.uni.edu/chfa/deptcom.html
66	Univ. of Kansas		66045	r1	http://www.cc.ukans.edu/~jschool/
67	Pittsburg State		66762	m1	http://www.pittstate.edu/comm/
68	Asbury College, Kentucky	p	40390	b2	http://www.asbury.edu/academ/info/communications/
					http://www.asbury.edu/academ/info/english/overview.
69	Wichita State		67260	d2	http://aristotle.es.twsu.edu/
70	Eastern Kentucky Univ. Richmond		40475	m1	http://www.masscomm.eku.edu/
71	Univ. of Louisville		40292	d1	http://www.louisville.edu/a-s/comm/
72	Murray State U		42071	m1	http://www.mursuky.edu/qacd/cfac/jmc/index.html
73	Western Kentucky Univ.		42101	m1	Mass Comm. - http://www.wku.edu/Dept/Academic/
					Journalism - http://www.wku.edu/Journalism/
74	Louisana State Univ.		70803	r1	http://www.jour.lsu.edu/manship/
75	Louisana Tech Univ.		71272	d2	http://www.latech.edu/tech/liberal-arts/
76	McNeese St. Univ.		70609	m1	http://www.mcneese.edu/colleges/libarts/masscomm/
77	Nicholls St. Univ.		70310	m1	http://server.nich.edu/~nsu/acad/bulletin/bltnmaco.ht
78	Univ. of SW Louisana		70504	d2	http://www.usl.edu/Departments/CMCN/
79	Univ. of Maine		04469	d2	http://www.ume.main.edu/~coj/depthomp.htm
80	Hood College	p	21701	m1	http://www.hood.edu/academic/english/
81	Univ. of Maryland, College Park		20742	r1	http://www.inform.umd.edu/JOUR/
82	Towson St. Univ.		21204	m1	http://www.towson.edu/mconv/

83	Boston Univ.	p	02215	r1	http://web.bu.edu/com/
84	Univ. of MA, Amherst		01003	r1	http://www.umass.edu/journal/
85	Calvin College	p	49546	m2	http://www.calvin.edu/academic/cas/
86	Cent. Michigan Univ.		48859	m1	http://www.cmich.edu/JRN.HTML - catalogue site http://www.ccfa.cmich.edu/jrn/main1.html
87	Grand Valley St. Univ.		49401	m1	http://www.gvsu.edu/acad/flyers/comm.html
88	Univ. Michigan, Ann Arbor		48109	r1	http://www.umich.edu/~commstud/index.html
89	Wayne St. Univ.		48202	r1	http://www.comm.wayne.edu/
90	Bemidji St. Univ.		56601	m1	http://cal.bemidji.msus.edu/masscomm/
91	Univ. of Minn, Mineap		55455	r1	http://www1.umn.edu/commpub/cla/cla_c080.html
92	St Cloud St. Univ.		56301	m1	http://condor.stcloudstate.edu/~bulletin/comm/progra
93	Univ. of St. Thomas, St. Paul	p	55105	m1	http://www.stthomas.edu/www/jour_http/journ.html
94	Winona St. Univ.		55987	m1	http://www.winona.msus.edu/masscommunication/
95	Alcorn St. Univ. of Miss.		39096	m1	http://www.alcorn.edu/academic/academ/comm.htm
96	Univ. of Miss.		38677	r2	http://www.olemiss.edu/depts/journalism/
97	MISS Valley St. Univ.		38941	b2	http://www.mvsu.edu/mass.html
98	Cent Missouri Univ.		64093	m1	http://www.cmsu.edu/commun/index.html
99	Evangel College	p	65802	b2	http://www.evangel.edu/communic.htm
100	Lindenwood Coll	p	63301	m1	http://199.217.137.67/ - no dept. site
101	Univ. Missouri, Columbia		65205	r1	http://www.missouri.edu/~jschool/
102	Univ. Missouri, St. Louis		63121	d2	http://www.umsl.edu/divisions/artsience/communicati
103	Missouri Western St. College		64507	b2	http://www.mwsc.edu/~engdept/
104	St. Louis Univ.	p	63108	r2	http://www.slu.edu/colleges/AS/CMM/
105	SW Missouri St.		65804	m1	http://commedia.smsu.edu/
106	Truman State U		63501	m1	http://www2.truman.edu/ll/comm.html
107	Univ. Mont, Missoula		58912	d2	http://www.umt.edu/journalism/
108	Creighton	p	68178	m1	http://www.creighton.edu/Journalism/
109	Hastings College, NE	p	68902	b1	http://www.hastings.edu/academic/index.html
110	Univ. of Nebraska, Lincoln		68588	r1	http://jet.unl.edu/coj/
111	UNLV		89154	m1	http://www.unlv.edu/Colleges/Greenspun/masscomm/
112	Keene St. Univ. NH		03431	m1	http://www.keene.edu/academics/depts/jrn/
113	Fairleigh Dickinson Univ.	p	07666	m1	http://www.fdu.edu/academic/uc/comarts/cocomm.ht

114	Rider Univ.	p	08648	m1	http://genius.rider.edu/~wwwcomm/
115	Rutgers		08903	d2	http://www.scils.rutgers.edu/jmm/index.html
116	Seton Hall	p	07079	d2	http://www.shu.edu/academic/arts_sci/ - no dept. site
117	UNM		87131	r1	http://www.unm.edu/~cjdept/
118	NMSU		88003	r1	http://www.nmsu.edu/Academic_Progs/Colleges/Arts
119	St. College at Buffalo		14222	r1	http://wings.buffalo.edu/soc-sci/communication/
120	Columbia Univ., NYC	p	10027	r1	http://www.jrn.columbia.edu/indexmain.htm
121	Cornell	p	14853	r1	http://www.comm.cornell.edu/
122	Fordham	p	10458	d1	http://www.fordham.edu/fc/communications.html
123	Iona College	p	10801	m1	http://www.iona.edu/academic/arts_sci/departments/
124	Long Island Univ.-Brooklyn	p	11201	m1	http://www.brooklyn.liunet.edu/cwis/bklyn/depts/con
125	NYU		10003	m1	http://www.nyu.edu/cas/dept/jour.htm
126	Pace Univ.	p	10570	d2	http://www.pace.edu/
127	St. Bonavent Univ.	p	14778	m1	http://www.sbu.edu/academics/departments/jmc/
128	Syracuse	p	13244	r2	http://newhouse.syr.edu/splash.html
129	Campbell Univ., NC	p	27506	m1	http://www.campbell.edu/academics/colleges/massco
130	Elon College	p	27244	m2	http://www.elon.edu/jourcomm
131	UNC, Chap Hil		27599	r1	http://www.sunsite.unc.edu/jomc/
132	UND, Grand Forks		58202	d2	http://www.und.nodak.edu/dept/scomm/comm_home.
133	Bowling Green St.		43403	d1	http://www.bgsu.edu/departments/journalism/
134	Univ. of Dayton	p	45469	m1	http://www.as.udayton.edu/dept/CMM/
135	John Carroll Univ.	p	44118	m1	http://www1.jcu.edu/commdept/comshome.htm
136	Ohio Univ. Athens		45701	r2	http://www.scripps.ohiou.edu/
137	Marietta College, OH	p	45750	b2	http://mcnet.marietta.edu/~mass/Journalism/
138	Otterbein College	p	43081	b2	http://www.otterbein.edu/admission/speechcom.html
139	Xavier	p	45207	m1	http://www.xu.edu/depts/xutv/ - dept. link goes to tv
140	Univ.Cent.Okla.		73034	m1	http://www.ucok.edu/journalism/journalismcomm.htm
141	NE St. Univ. Okla		74464	m1	http://www.nsuok.edu/academic/depts/masscom/
142	So. Nazarene Univ.	p	73008	m1	www.snu.edu - no dept. page
143	Linfield College, OR	p	97128	m2	http://www.linfield.edu/comm/
144	Univ. of OR, Eugene		97403	r2	http://jcomm.uoregon.edu/main.shtml
145	Univ. Portland	p	97203	m1	http://www.uofport.edu/academics/cas/communicatio
146	Cabrini College	p	19087	m2	http://www.cabrini.edu/html/communications_depart
147	Elizabethtown College, PA	p	17022	b2	http://www.etown.edu/home/com/homepage.html
148	LaSalle Univ.	p	19141	m1	http://www.lasalle.edu/academ/commun/home.htm
149	Lehigh	p	18015	r2	http://www.lehigh.edu/~injrl/injrl.html
150	Univ. of Penn., Philadelphia	p	19104	r1	http://www.asc.upenn.edu/
151	Point Park College	p	15222	b2	http://www.ppc.edu/departments/jnc/
152	Shippensburg Univ.		17257	m1	http://www.ship.edu/~commjour/

153	Temple		19122	r1	http://www.scat.temple.edu/jpra/
154	Univ. of RI		02881	r2	http://www.uri.edu/artsci/jor/main.htm
155	College of Charleston		29424	m1	http://www.cofc.edu/~english/
156	Winthrop		29733	m1	http://www.winthrop.edu/artscience/
157	Black Hills St.		57783	b2	http://www.bhsu.edu/academics/artssciences/artscienc
158	Mount Marty College	p	57078	b2	http://rs6.mtmc.edu/~jpr/
159	SD State		57007	m1	http://www.sdstate.edu/
160	Christian Bros. Univ.	p	38104	m2	http://www.cbu.edu/arts/music/Welcome.html
161	Univ. of Memphis		38152	d1	http://www.people.memphis.edu/~jourlib/frontpage.ht
162	Univ. of Tenn, Knoxville		37996	r1	http://excellent.com.utk.edu/~journal/
163	Univ. of Tenn, Martin		38238	m1	http://www.utm.edu/departments/comm/comm.htm
164	Tenn Tech		38505	m1	http://www.tntech.edu/www/acad/english/jourmenu.h
165	Abilene Christian	p	79699	m1	http://www.acu.edu/academics/overviews/jmc.html
166	Baylor	p	76798	d2	http://www.baylor.edu/~Journalism/
167	Univ. of Houston		77204	r2	http://www.hfac.uh.edu/comm/
168	Lamar- Beaumt		77710	m1	http://hal.lamar.edu/~commdept/
169	Univ. No.Texas		76203	d1	http://www.jour.unt.edu/
170	Sam Houston St.		77341	m1	http://www.shsu.edu/~com_www/
171	SW Texas St. Univ.		78666	m1	http://www.finearts.swt.edu/masscomm/masscomm.ht
172	Texas A&M		77843	r1	http://journalism.tamu.edu/
173	Univ. Texas Arllington		76019	d1	http://www.uta.edu/communication/
174	Univ. Texas, El Paso		79968	m1	http://www.utep.edu/comm/
175	Texas Christain Univ.	p	76129	d2	http://www.jou.tcu.edu/jou/
176	Texas Tech		79409	r2	http://www.mcom.ttu.edu/
177	Texas Womans		76204	d1	http://www.twu.edu/slis/mc/
178	BYU	p	84602	r2	http://newsline.byu.edu/communications/
179	Utah St.		84322	r1	http://www.usu.edu/~communic/
180	St. Michaels VT	p	05439	m1	http://academics.smcvt.edu/journalism/
181	Hampton, VT	p	23668	m1	http://www.hamptonu.edu/massmedia/index.htm
182	James Madison		22807	m1	http://www.jmu.edu/media-arts/main/main.html
183	Norfolk St. Univ.		23504	m1	http://www.nsu.edu/schools/arts_letters/MCJ/
184	Radford		24142	m1	http://www.runet.edu/~mstd-web/
185	Regent	p	23464	m1	http://www.regent.edu/acad/schcom/
186	Va Commonwealth Univ.		23284	r1	http://www.vcu.edu/hasweb/mac/intro.html
187	William and Lee	p	24450	b1	http://www.wlu.edu/~hhsmith/index.html
188	Gonzaga	p	92258	m1	http://www.gonzaga.edu/academic/com/
189	Walla Walla College	p	99324	m2	http://www.wwc.edu/academics/departments/commu
190	WA State Univ.		99164	r2	http://www.wsu.edu/Communications/

191	Western WA Univ.	98225	m1	http://www.ac.wwu.edu/~journal/
192	Bethany College, WV	p 26032	b1	http://www.bethany.wvnet.edu/Academics/Departme
193	Marshall Univ.	25755	m1	http://www.marshall.edu/sojmc/
194	West Virginia Univ.	26506	b2	http://www.wvu.edu/~journals/
195	Univ. Wisc Eau Cl	54702	m1	http://www.uwec.edu/Academic/COMMJOUR/
196	Univ. Wisc Madison	53706	r1	http://www.journalism.wisc.edu/
197	Univ. Wisc Milwaukee	53201	r2	http://www.uwm.edu/Dept/MassComm/
198	Univ. Wisc River Falls	54022	m1	http://www.uwrf.edu/journalism/
199	Univ. Wyoming	82071	r2	http://www.uwyo.edu/A&S/comm/comm.htm
200	Sacred Heart	00914	m2	http://www.usc.clu.edu

APPENDIX C

Content Analysis

University name:

_____

ZIP Code _____

1. Institutional type
   - 01 Public
   - 02 Private

2. Carnegie classification
   - 01 Research I
   - 02 Research II
   - 03 Doctoral I
   - 04 Doctoral II
   - 05 Masters I
   - 06 Masters II
   - 07 Baccalaureate I
   - 08 Baccalaureate II

3. Program structure, as indicated on site
   - 01 College
   - 02 School
   - 03 Department
   - 04 Division
   - 05 Program

4. Subject area description, as indicated on site
   - 01 Journalism
   - 02 "Mass Communication"
   - 03 Communication Theory
   - 04 Theater Arts
   - 05 Combination of different descriptors

5. Graduate degrees also offered, as indicated on site
   - 00 No
   - 01 Yes
   - 02 Not indicated

Visual enhancements

6.	00	01	Graphics (pointers, etc.)
7.	00	01	Illustrations
8.	00	01	Lines/borders
9.	00	01	Backgrd color not white
10.	00	01	Institutional logo
11.	00	01	Frames
12.	00	01	Varying fonts
13.	00	01	Animated grphs/ Java
14.	00	01	"New" noted
15.	00	01	"Construction" noted
16.	00	01	Photos
17.	00	01	Photos enlargbl.
18.	00	01	"Live" camera
19.	00	01	Video clips
20.	00	01	Audio clips

Operational Enhancements

21.	00	01	Date/ last revision
22.	00	01	Access counter
23.	00	01	Load time warning
24.	00	01	E-mail links
25.	00	01	'Guest book'/ comments
26.	00	01	Server info
27.	00	01	"Best with" software
28.	00	01	Links w/in program
29.	00	01	Links/ institutional
30.	00	01	Links/ student sites
31.	00	01	Links/ faculty sites
32.	00	01	Links/ student media
33.	00	01	Links/ profess orgs
34.	00	01	Links/ job search
35.	00	01	Links/ prgm advertisrs/sponsrs
36.	00	01	Multi-lingual text
37.	00	01	Downloadable files
38.	00	01	Internal search engine

Information Types

39.	00	01	Mailing address/ phone
40.	00	01	Statement of prgm goals
41.	00	01	Prgm organizational chart
42.	00	01	Faculty/staff bios, vitae
43.	00	01	Degrees offered/ prgm
44.	00	01	Degree reqmts/ prgm
45.	00	01	Enrollment help
46.	00	01	Academic calendar info
47.	00	01	Course syllabi
48.	00	01	Course lectures/ notes
49.	00	01	Academic assessmt info
50.	00	01	Program rankings/info
51.	00	01	Student media info
52.	00	01	Scholarship info/ prgm
53.	00	01	Internships info
54.	00	01	Program news
55.	00	01	Student directory
56.	00	01	Student profiles/quotes
57.	00	01	Recent grad resumes
58.	00	01	Student org info
59.	00	01	Prgm student info/ social
60.	00	01	Facilities/ prgm/ descript
61.	00	01	Community directory
62.	00	01	FAQ file

Date and time of access _____

Notes:

Survey University _____ ZIP _____ Date sent _____

[1] Chair -_____, Prof/ Assoc/ Asst/ Instr

[2] Webmaster - _____

[3] _____, Prof/ Assoc/ Asst/ Instr [6] _____, Prof/ Assoc/ Asst/ Instr

[4] _____, Prof/ Assoc/ Asst/ Instr [7] _____, Prof/ Assoc/ Asst/ Instr

[5] _____, Prof/ Assoc/ Asst/ Instr

RSPNDT 1|2|3|4|5|6|7| coded below

Delegation of labor (#1-4)

___|___|___|___|___|___|___ |Our program faculty and staff always know about changes to the Web site
___|___|___|___|___|___|___ |Faculty work is coordinated, everyone helps in some way with the Web site
___|___|___|___|___|___|___ |We have enough technical help to professionally maintain the program's Web site
___|___|___|___|___|___|___ |The technical people working on our Web site know what to do, to keep site working

Atmosphere of trust (#5-8)

___|___|___|___|___|___|___ |The people managing our academic Web site can be trusted to do professional work
___|___|___|___|___|___|___ |Our program has trustworthy technological systems and support for the Web site
___|___|___|___|___|___|___ |Technical elements of our Web site always work the way they're supposed to.
___|___|___|___|___|___|___ |The Web site always offers an accurate presentation of our program.

Regulation of resources (#9-12)

___|___|___|___|___|___|___ |Our academic World Wide Web site benefits everyone in the program.
___|___|___|___|___|___|___ |Development of the Web site is coordinated with a program strategic plan
___|___|___|___|___|___|___ |Faculty members have a say in the Web site development process.
___|___|___|___|___|___|___ |There's effective leadership in our program for future Web site development

Outgrowth of the academic process (#13-16)

___|___|___|___|___|___|___ |Our program's Web site supports academic and scholarly activity.
___|___|___|___|___|___|___ |The faculty's best expectations for our program Web site have been met or exceeded
___|___|___|___|___|___|___ |Faculty are encouraged to make suggestions or help with Web site technical work
___|___|___|___|___|___|___ |Our academic program experiences no difficulty in keeping the Web site tech. adv.

About your academic Web site (#17-23)

___|___|___|___|___|___|___ |The visual components of our site are complete, professional, and attractive
___|___|___|___|___|___|___ |The operational components of our site are complete, professional, and attractive
___|___|___|___|___|___|___ |The information offered by our site is thorough, accurate, and relevant.
___|___|___|___|___|___|___ |Our unit's academic Web site was developed in acc. w/ a clearly defined concept.
___|___|___|___|___|___|___ |Our unit's academic Web site is professionally maintained.
___|___|___|___|___|___|___ |Our academic unit has a clearly-defined purpose for Web site; site fulfills that purpose
___|___|___|___|___|___|___ |I am pleased with the level of involvmt /faculty, staff, students in re: to Web site...

APPENDIX D

Journalism /Mass Communication

Web Site Study

A study is being done to learn more about **Journalism/ Mass Communication Web sites**. We're interested in finding out how successful your academic program has been...

- In delegating labor to complete tasks related to your Web site;
- In creating an atmosphere of trust surrounding your Web site;
- In regulating resources for Web site development;
- and in structuring the Web site as a legitimate part of the educational process.

Your participation in this survey is voluntary. This survey is confidential. You will never be identified by name or affiliation in the published results. You are entitled to receive a copy of the results, if you so desire. An address which you may use to request results is listed at the end of this questionnaire.

If you wish to participate, it will probably take you about 10 minutes to complete the short questionnaire.

If you wish to participate, please do so by January 20, 1999. Thank you for your involvement!

Enter the zip code of your college or university in the space below:

☐ ***Check here if you are serving as Web site administrator, manager, or faculty representative.***

☐ ***Check here if you are serving as a program faculty member but not chair or Web site administrator.***

☐ ***Check here if you are serving as academic program chair or lead administrator.***

Please read each statement. Does it adequately describe the situation in your academic program? Choices will appear under each statement in a drop-down box with the following response options: [5] = Agree strongly; [4] = Agree; [3] = Unsure or don't know; [2] = Disagree; [1] = Disagree strongly. An additional comments box appears at the end of the questionnaire.

Delegation of labor

Our program faculty and staff always know about changes to the Web site.

Please respond as follows: Please select a response

Faculty work is coordinated; everyone helps in some way with the Web site.

Please respond as follows: Please select a response

We have enough technical help to professionally maintain the program's Web site.

Please respond as follows: Please select a response

The technical people working on our Web site know what to do to keep the site working.

Please respond as follows: Please select a response

Atmosphere of trust

The people managing our academic Web site can be trusted to do professional work.

Please respond as follows: Please select a response

Our program has trustworthy technological systems and support for the Web site.

Please respond as follows: Please select a response

Technical elements of our Web site always work the way they're supposed to.

Please respond as follows: Please select a response

The Web site always offers an accurate presentation of our program.

Please respond as follows: Please select a response

Regulation of resources

Our academic World Wide Web site benefits everyone in the program.

Please respond as follows: Please select a response

Development of the Web site is coordinated with a program strategic plan.

Please respond as follows: Please select a response

Faculty members have a say in the Web site development process.

Please respond as follows: Please select a response

There's effective leadership in our program for future Web site development.

Please respond as follows: Please select a response

Outgrowth of the academic process

Our program's Web site supports academic and scholarly activity.

Please respond as follows: Please select a response

The faculty's best expectations for our program Web site have been met or exceeded.

Please respond as follows: Please select a response

Faculty are encouraged to make suggestions or help with Web site technical work.

Please respond as follows: Please select a response

Our academic program experiences no difficulty in keeping the Web site technologically advanced.

Please respond as follows: Please select a response

About your academic Web site

The visual components of our unit's academic Web site (symbols, illustrations, etc.) are complete, professional, and attractive.

Please respond as follows: Please select a response

The operational components of our unit's academic Web site (links, frames, etc.) are complete, functional, and appropriate.

Please respond as follows: Please select a response

The information offered by our unit's academic Web site is thorough, accurate, and relevant.

Please respond as follows: Please select a response

Our unit's academic Web site was developed in accordance with a clearly defined concept.

Please respond as follows: Please select a response

Our unit's academic Web site is professionally maintained.

Please respond as follows: Please select a response

Our academic unit has a clearly-defined purpose for the Web site, and the site fulfills that purpose.

Please respond as follows: Please select a response

I am pleased with the level of involvement among faculty, staff, and students in regard to Web site planning, development, and use.

Please respond as follows: Please select a response

Enter any additional comments in the space provided below:

☐ ***Check here if you would like to receive a copy of the survey results, when available, by e-mail.***

List your E-mail address in the space provided if you want a copy of the results of this survey:

Submit Comments Clear Form

APPENDIX E

From: <tsgroup@swbell.net>
To: Academic.Library(Doug Swanson)
Date: Mon, Dec 21, 1998 11:01 PM
Subject: Online survey

Greetings,

You have been selected to participate in a national survey which is gathering information about journalism/ mass communication program World Wide Web sites.

Would you please respond to our online questionnaire? It will take about ten minutes to do so. You may respond online by clicking on the following icon:

www.bisonusa.net/survey

More information about our survey is available at the World Wide Web address above. You may read the full text of the questionnaire before responding, and you are free not to do so if you choose. All responses are completely confidential. If you choose to respond, you will not be identified by name or institution in the published findings.

Thank you for your time.

D. J. Swanson
Doctoral Candidate
Oklahoma State University

APPENDIX F

From: Educational Survey <tsgroup@swbell.net>
To: Academic.Library(Doug Swanson)
Date: Sat, Jan 23, 1999 8:38 PM
Subject: (no subject)

A few weeks ago, you were sent an ONLINE SURVEY concerning your department's World Wide Web site. If you have already responded to the survey, thank you! If you have not, please accept this invitation to do so.
Your opinions are important.

The survey can be accessed and completed online, in about ten minutes' time, at:

<http://www.bisonusa.net/survey/>

If you would prefer to respond via e-mail, you may "REPLY" to this e-mail message. Include the text of the original in your reply and type your answers in the _____ spaces shown below.

Thank you again for your time.

D. J. Swanson
Doctoral Candidate, Oklahoma State University

==========

A study is being done to learn more about Journalism/ Mass Communication Web sites. We're interested in finding out how successful your academic program has been...

In delegating labor to complete tasks related to your Web site;
In creating an atmosphere of trust surrounding your Web site;
In regulating resources for Web site development;
and in structuring the Web site as a legitimate part of the educational process.

Your participation in this survey is voluntary. This survey is confidential. You will never be identified by name or affiliation in the

published results. You are entitled to receive a copy of the results, if

you so desire. An address which you may use to request results is listed

at the end of this questionnaire.

If you wish to participate, it will probably take you about 10 minutes to complete the short questionnaire.

If you wish to participate, please do so by January 31, 1999. Thank you for your involvement!

Enter the zip code of your college or university in the space _____.

Check here if you are serving as _____Web site administrator, manager, or faculty representative.

Check here if you are serving as a program faculty member but not chair or Web site administrator _____

Check here if you are serving as ___academic program chair or lead administrator.

Please read each statement. Does it adequately describe the situation in your academic program?

As you read each statement, reply to each with a typed numeric answer:
[5] = Agree strongly; [4] = Agree; [3] = Unsure or don't know;
[2] = Disagree; [1] = Disagree strongly.

Delegation of labor

Our program faculty and staff always know about changes to the Web site.

_____

Faculty work is coordinated; everyone helps in some way with the Web site.

_____

We have enough technical help to professionally maintain the program's Web site.

_____

The technical people working on our Web site know what to do to keep the site working.

_____

Atmosphere of trust

The people managing our academic Web site can be trusted to do professional work.

_____

Our program has trustworthy technological systems and support for the Web site.

_____

Technical elements of our Web site always work the way they're supposed to.

_____

The Web site always offers an accurate presentation of our program.

_____

Regulation of resources

Our academic World Wide Web site benefits everyone in the program.

_____

Development of the Web site is coordinated with a program strategic plan.

_____

Faculty members have a say in the Web site development process.

_____

There's effective leadership in our program for future Web site development.

_____

Outgrowth of the academic process

Our program's Web site supports academic and scholarly activity.

_____

The faculty's best expectations for our program Web site have been met or exceeded.

_____

Faculty are encouraged to make suggestions or help with Web site technical work.

_____

Our academic program experiences no difficulty in keeping the Web site technologically
advanced.

_____

About your academic Web site

The visual components of our unit's academic Web site (symbols, illustrations, etc.) are
complete, professional, and attractive.

_____

The operational components of our unit's academic Web site (links, frames, etc.) are
complete, functional, and appropriate.

_____

The information offered by our unit's academic Web site is thorough, accurate, and relevant.

_____

Our unit's academic Web site was developed in accordance with a clearly defined concept.

_____

Our unit's academic Web site is professionally maintained.

_____

Our academic unit has a clearly-defined purpose for the Web site, and the site fulfills that
purpose.

_____

I am pleased with the level of involvement among faculty, staff, and students in regard to
Web site planning, development, and use.

_____

Enter any additional comments in the space provided below:

Check here if you would like to receive a copy of the survey results, when available, by e-mail_____

List your E-mail address in the space provided if you want a copy of the

results of this survey:

END==========

APPENDIX G

Subject: Last chance
Date: Fri, 05 Feb 1999 14:25:13 -0600
From: tsgroup@swbell.net
Organization: Southwestern Bell Internet Services
To: tsgroup@swbell.net, Doug_Swanson@mail.okbu.edu

A few weeks ago, you were sent an ONLINE SURVEY concerning your department's World Wide Web site. If you have already responded to the survey, thank you! If you have not, please accept this final invitation to do so before the extended survey period ends FEBRUARY 12. Your opinions are important.

The survey can be accessed and completed online, in about ten minutes' time, at:

<http://www.bisonusa.net/survey/>

If you would prefer to respond via e-mail, you may "REPLY" to this e-mail message. Include the text of the original in your reply and type your answers in the _____ spaces shown below.

Thank you again for your time. This will be the final time I contact you, unless you have asked to receive the research findings (when ready). I appreciate your involvement.

D. J. Swanson
Doctoral Candidate, Oklahoma State University

==========

A study is being done to learn more about Journalism/ Mass Communication Web sites. We're interested in finding out how successful your academic program has been...

In delegating labor to complete tasks related to your Web site;
In creating an atmosphere of trust surrounding your Web site;
In regulating resources for Web site development;
and in structuring the Web site as a legitimate part of the educational process.

Your participation in this survey is voluntary. This survey is confidential. You will never be identified by name or affiliation in the published results. You are entitled to receive a copy of the results, if you so desire. An address which you may use to request results is listed at the end of this questionnaire.

If you wish to participate, it will probably take you about 10 minutes to complete the short questionnaire.

If you wish to participate, please do so by FEBRUARY 12, 1999. Thank you for your involvement!

Enter the zip code of your college or university: _____.

Check here if you are serving as _____Web site administrator, manager, or faculty representative.

Check here if you are serving as a program faculty member but not chair or Web site administrator _____

Check here if you are serving as ___academic program chair or lead administrator.

Please read each statement. Does it adequately describe the situation in your academic program?

As you read each statement, reply to each with a typed numeric answer:

[5] = Agree strongly; [4] = Agree; [3] = Unsure or don't know;
[2] = Disagree; [1] = Disagree strongly.

Delegation of labor

Our program faculty and staff always know about changes to the Web site.

_____

Faculty work is coordinated; everyone helps in some way with the Web site.

_____

We have enough technical help to professionally maintain the program's Web site.

_____

The technical people working on our Web site know what to do to keep the

site working.

_____

Atmosphere of trust

The people managing our academic Web site can be trusted to do professional work.

_____

Our program has trustworthy technological systems and support for the Web site.

_____

Technical elements of our Web site always work the way they're supposed to.

_____

The Web site always offers an accurate presentation of our program.

_____

Regulation of resources

Our academic World Wide Web site benefits everyone in the program.

_____

Development of the Web site is coordinated with a program strategic plan.

_____

Faculty members have a say in the Web site development process.

_____

There's effective leadership in our program for future Web site development.

_____

Outgrowth of the academic process

Our program's Web site supports academic and scholarly activity.

_____

The faculty's best expectations for our program Web site have been met or exceeded.

_____

Faculty are encouraged to make suggestions or help with Web site technical work.

_____

Our academic program experiences no difficulty in keeping the Web site technologically
advanced.

_____

About your academic Web site

The visual components of our unit's academic Web site (symbols, illustrations, etc.) are
complete, professional, and attractive.

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The operational components of our unit's academic Web site (links, frames, etc.) are
complete, functional, and appropriate.

_____

The information offered by our unit's academic Web site is thorough, accurate, and relevant.

_____

Our unit's academic Web site was developed in accordance with a clearly defined concept.

_____

Our unit's academic Web site is professionally maintained.

_____

Our academic unit has a clearly-defined purpose for the Web site, and the site fulfills that
purpose.

_____

I am pleased with the level of involvement among faculty, staff, and students in regard to
Web site planning, development, and use.

_____

Enter any additional comments in the space provided below:

Check here if you would like to receive a copy of the survey results, when available, by e-mail_____

List your E-mail address in the space provided if you want a copy of the results of this survey:

END==========

APPENDIX H

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

DATE: 02-05-99 **IRB #: AS-99-034**

Proposal Title: WORLD WIDE WEB SITES AND SOCIAL ORDER WITHIN HIGHER EDUCATION JOURNALISM AND MASS COMMUNICATION PROGRAMS

Principal Investigator(s): Steve Smethers, Doug Swanson

Reviewed and Processed as: Expedited

Approval Status Recommended by Reviewer(s): Approved

Signature: Carol Olson (CBO) Date: February 5, 1999

Carol Olson, Director of University Research Compliance
cc: Doug Swanson

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modification to the research project approved by the IRB must be submitted for approval. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Douglas J. Swanson

Candidate for the Degree of

Doctor of Education

Thesis: WORLD WIDE WEB SITES AND SOCIAL ORDER WITHIN HIGHER EDUCATION JOURNALISM AND MASS COMMUNICATION PROGRAMS

Major field: Higher Education

Biographical:

Education: Graduated from Chatsworth High School, Chatsworth, California, in June, 1980; received Bachelor of Science degree in Communication (Radio/Television emphasis) from Eastern New Mexico University in 1984; received Master of Arts degree in Communication from Eastern New Mexico University in 1991; completed requirements for Doctor of Education degree at Oklahoma State University in May, 1999.

Professional Experience: Frank W. and Pauline G. Patterson Assistant Professor of Journalism, Oklahoma Baptist University (1995-present). Instructor in Communication and Radio News Director, Cameron University (1993-1995). Worked as freelance journalist and public relations copywriter, 1990-1993; television news assignments manager, 1989-1990; radio news director and program host, 1987-1990; newspaper reporter, 1984-85.

Professional Memberships: Association for Education in Journalism and Mass Communication, Western Social Science Association, Oklahoma Collegiate Press Association.