

The Evolution of Library and Information Science Education Promotion: A Comparative Analysis of LIS Program Websites between 1999 and 2019

Melissa Fraser-Arnott

San José State University, San José, California, United States

This study compares library and information studies (LIS) departmental websites from 1999, 2009, and 2019 to explore the evolution of program promotion practices. Websites were analyzed using the 7Ps Marketing Mix model to explore how programs were marketed across this timeframe. Similar promotional messages were used across the years, but a key difference over time was that the 1999 sites promoted the program whereas the 2019 sites promoted people (faculty and students). Three key findings concerning changes in how LIS program websites evolved between 1999 and 2019 to serve program public relations goals were that (1) websites and social media have become key mechanisms for relationship building and promotion; (2) websites have evolved from sharing program details to showcasing faculty and student success stories as the core element of program promotion; and (3) the development of social media and dynamic websites have made these websites more interactive and content rich. An understanding of changes in LIS program websites over time can assist LIS program administrators in developing current and future program promotions activities.

Keywords: online communication, program marketing, program promotion, program websites, public relations

Library and Information Science (LIS) programs are a vital part of the library and information science ecosystem. These programs educate future practitioners and researchers and guide the intellectual direction of the profession, producing research that informs society's understanding of and interactions with data, information, and knowledge in their various forms. LIS programs' ability to achieve their goals, including the attraction and retention of students, faculty, and staff, the obtaining of resources and support from their institutions and other stakeholders, and the creation and dissemination of knowledge, depends on their ability to build and maintain relationships. While marketing and promotion of libraries exist within the library literature, LIS programs must also consider the marketing and promotions practices of the higher education sector when guiding their public relations activities.

University departments and faculties build relationships for the purpose of attracting students, faculty, and staff, creating learning opportunities, conducting research, funding departmental activities, and supporting the post-graduation success of students. University program administrators use public relations and marketing strategies and tactics to achieve their goals of engaging with stakeholders such as current and prospective students and faculty. While their full marketing and stakeholder relations strategy is deployed through a range of activities across multiple channels, websites serve as useful artifacts that reveal multiple

aspects of these campaigns, including target audiences and promotional messages. Rather than compare the public relations approaches of a single university at a given moment of time, this study examines changes in patterns of library and information studies program marketing over time using the 7Ps marketing mix model as a framework for analysis.

Ten American Library Association (ALA)-accredited library and information studies programs were found to have websites captured by the Internet Archive since the 1990s. Captures of these websites from 1999, 2009, and 2019 were analyzed to explore the evolution of websites as public relations tools. The home and “about us” pages of these websites were reviewed for information about intended audiences, navigation options, and key messages. The content from these pages was analyzed through the lens of the 7Ps marketing mix model. The development of social media tools and dynamic websites dramatically changed how LIS programs promoted their programs, moving websites from static information resources to dynamic relationship-building tools. An understanding of changes in LIS program websites over time can assist LIS program administrators in developing current and future program promotions activities. These artifacts show how 7Ps marketing mix elements have been used by LIS programs and offer insights into what marketing elements have endured and which have evolved during a twenty-year period in which the emergence of online technologies has dramatically altered communication and information-sharing expectations.

KEY POINTS:

- Websites serve as proxies for LIS program marketing and public relations approaches as they allow for the examination of the key elements of their marketing strategies as represented by the 7Ps marketing mix framework.
- Examining how LIS programs have presented their programs to stakeholders over a 20-year period helps to expose the stability of program value propositions as well as changes in marketing approaches.
- The promotional messages used to articulate the value of LIS programs have remained largely consistent between 1999 and 2019, emphasizing learning experiences and career opportunities. While changes to website technologies and design conventions have altered the ways in which LIS program information has been presented, the most significant change was the increased emphasis on student, faculty, and alumni voices and success stories in program promotion.

Literature review

Public relations literature was used as the starting point for this exploration of LIS program marketing and promotion. The literature was examined to define and differentiate between public relations and related practices, such as marketing and promotion. The public relations and marketing practices of university programs were then examined, with an emphasis on digital marketing practices. Finally, existing literature on LIS program marketing was reviewed.

Defining public relations

Public relations is concerned primarily with relationships (Olkkonen & Luoma-Aho, 2015). The discipline of public relations focuses on developing and maintaining positive relationships

with various publics, including strengthening an organization's reputation and building a corporate image and identity (Olkkonen & Luoma-Aho, 2015; Pirožek & Hesková, 2003). Communications activities are a primary source of evidence for ways in which public relations is practiced in organizations (Ledingham & Bruning, 1998), with communications framing being a key paradigm for public relations communications research (Hallahan, 1999).

The relationship between public relations and marketing has concerned researchers and practitioners from these two disciplines since the 1970s. While several relationships between these disciplines have been proposed (Kotler & Mindak, 1978), promotion is seen an area of mutual interest and overlap between the two practices (Kies, 1987; Welch, 2005).

Marketing

Marketing includes the processes through which an organization manages relationships with stakeholders and creates, communicates, and delivers value to customers (Kotler, Keller, Ang, Leong, & Tan, 2012). The marketing mix refers to the variables that an organization controls and coordinates in order to achieve its marketing goals (Rafiq & Ahmed, 1995). Organizations select their marketing mix in order to achieve their objects, connect with customers, and compete in their marketplaces (Gerdeman, 2011; Jain, 2013).

The marketing mix was originally and popularly introduced by McCarthy (1960) as the 4Ps: product, price, place, and promotion. The 4Ps model has, however, been criticized as being overly simplistic and inadequate for complex situations (Heckman, Vestergaard, & Sole, 2018), better suited to goods than services or intangible marketing (Rafiq & Ahmed, 1995; Wasan & Tripathi, 2014), and for its context dependence (Rafiq & Ahmed, 1995). A number of alternatives to the 4Ps have been proposed (de Ternay, 2016; Strzebicki, 2014). Booms and Bitner's (1981) 7Ps model added people, physical evidence, and processes to McCarthy's 4Ps (Dobrescu, 2012; Heckman et al., 2018). These Ps were added to increase the model's emphasis on customers (Jain, 2013).

Public relations in the university context

Public relations activities are undertaken by universities to attract, build, and maintain relationships with numerous publics including prospective students, current students, alumni, donors, faculty, prospective faculty, and employers (Pirožek & Hesková, 2003). Public relations and marketing are essential for universities seeking to compete in the higher education market (Bock, Poole & Joseph, 2014). Competing for students requires universities both to develop a clear understanding of potential students' expectations, wants, and needs and to develop a strong profile to distinguish themselves from competitors (Chapleo, Durán, & Díaz, 2011; Frölich & Stensaker, 2010; Maringe, 2006; Saichaie, 2011).

Universities promote themselves based on multiple criteria. First, they promote their programs based on the outcomes or goals of higher education. Labaree (1997) outlined three goals for higher education: "democratic equality (schools should focus on preparing citizens), social efficiency (they should focus on training workers), and social mobility (they should prepare individuals to compete for social positions)" (p. 39). Universities emphasize one or more of these goals in their program promotion materials. The second approach is to promote the university experience and amenities (Reynolds, 2007; Saichaie, 2011).

Programs are promoted and students are recruited through multiple methods and communication channels, with online recruitment methods becoming prominent due to their wide reach (Chapleo et al., 2011; Gambescia & Paolucci, 2011; Kittle & Ciba, 2001; Saichaie, 2011). Websites are used to communicate program brand and promote programs. Individual academic program promotion is tied to the university's image and to academic norms (Frølich & Stensaker, 2010). Prospective students have been found to favor online university research due to privacy, convenience, and speed (Kittle & Ciba, 2001; Mentz & Whiteside, 2003). Factors that have been associated with graduate and undergraduate university selection decisions include "(1) location of the university, (2) personal contact with individual faculty, (3) cost of education, (4) reputation of department, (5) reputation of faculty, (6) prior attendance at the university as undergraduate student, and (7) recommendation from significant other" (Narayanan, 1999, pp. 361–362). Of these factors, admissions (including financial assistance) and university environment were cited as most important (Saichaie, 2011).

Several research studies have examined characteristics of university websites and have offered recommendations on successful website design. The first characteristic of a successful university recruitment website is that information is targeted and presented from the perspective of various publics (Astani & Elhindi, 2008). Second, websites need to be effectively designed, utilizing visual elements that are attractive, easy to navigate, and easy to browse for information (Astani & Elhindi, 2008).

LIS program marketing

Several aspects of LIS program marketing have been explored by LIS researchers. As a first example, Chu (2012) examined the emergence of iSchools and the shift toward information science content in LIS program course offerings and program descriptions. Websites were examined in this study to examine the shift from library school to information school (iSchool) focus between 1996 and 2009. Several authors have examined both efforts to recruit and represent greater student diversity in LIS programs (Kim & Sin, 2006; Ndumu & Betts-Green, 2018). Research has also been conducted on the reasons that students select an LIS program or choose to enter the LIS profession(s). Ard et al. (2006) discussed the impacts of career opportunities as a draw for students and recommended outreach to "other departments that have an overload of graduates for the number of available positions in their fields" (p. 245). Oguz, Chu, and Chow (2015) examined students' motivations for enrolling in online courses, identifying accommodation, predisposition, and selectivity as motivations for online learning. Hands (2018) examined the LIS doctoral student motivation and identified preparation for the future and the appeal of the scholarly environment among students' motivational factors. This study offers insights into changes in LIS program public relations practices as manifested through differences in identified audiences, promotional messages, and information presentation over a 20-year period.

Methods

The objective of this study was to explore the evolution of marketing elements on library and information studies program websites over a 20-year period. Since the 1990s, websites have become a vital information resource for prospective university students (Saichaie, 2011). While they are only one component of a university program's marketing approach,

internet archiving preserves them as information-rich artifacts that offer insights into the core elements of the university's recruitment approach.

The sample for this study consisted of captured copies from the Internet Archive of American Library Association (ALA)-accredited program websites from North America. English-language North American ALA-accredited programs were selected to ensure that programs were similar. A convenience sample of program websites was obtained based on availability in this web archive. This means that some program websites that were available during the late 1990s were excluded. The Internet Archive was used to obtain screen captures from the spring of 1999, 2009, and 2019. Ten-year intervals between captures were selected because technological advancements and the launch of social media tools occurred between each of these intervals. The first capture in 1999 predates the rise of most social networking sites. The 2009 capture occurred after the launch of popular social media resources. By 2019, the social media landscape had matured. The captures were collected from the same time of year in order to capture information from the same point in the academic cycle. Spring was selected, as this is the time when students prepare their applications for the fall semester. Of the 61 accredited programs, ten had Internet Archive web captures in the springs of 1999, 2009, and 2019 (see Table 1).

Table 1: ALA-accredited program with Internet Archives web captures from the 1990s

University	Program name	Website	Earliest Internet Archive capture
University of Alabama	School of Library and Information Studies	http://www.slis.ua.edu/	October 10, 1997
University of British Columbia	School of Information	https://slais.ubc.ca/	January 6, 1997
Clarion University of Pennsylvania	Department of Information and Library Science	http://www.clarion.edu/libsci	December 5, 1998
University of Denver	Research Methods and Information Science	http://www.du.edu/education	June 5, 1997
University of Michigan	School of Information	http://si.umich.edu/	February 20, 1997
University of Rhode Island	Graduate School of Library and Information Studies	http://www.uri.edu/artsci/lsc/	February 23, 1997
University of South Carolina	School of Library and Information Science	http://www.libsci.sc.edu/	January 2, 1997
University of Tennessee	School of Information Sciences	http://www.sis.utk.edu/	December 2, 1998
Texas Woman's University	School of Library and Information Studies	http://www.twu.edu/slisl/	February 13, 1998
University of Western Ontario	Faculty of Information and Media Studies	http://www.fims.uwo.ca/	December 5, 1998

Content analysis, a technique for analyzing written, verbal, and visual communication messages (Elo & Kyngäs, 2008), was used in order to systematically identify message characteristics in a systematic and rigorous fashion (Drisko & Maschi, 2016). Content analysis was selected because of its appropriateness for conducting research that is both descriptive/exploratory (determining what phenomena are occurring) and explanatory (used to test hypotheses) (Drisko & Maschi, 2016).

Latent analysis was used in order for interpretations of meaning or implied/implicit communications, rather than only direct word use, to be included (Bengtsson, 2016; Drisko & Maschi, 2016; Potter & Levine-Donnerstein, 2009). The study took a deductive approach by using marketing mix theories to create a coding guide (Elo & Kyngäs, 2008; Graneheim, Lindgren, & Lundman, 2017; Hsieh & Shannon, 2005). A challenge that arises when applying the marketing mix to real marketing programs is the difficulty of placing marketing elements into mutually exclusive categories, as many marketing activities, such as branding, involve a combination of marketing mix elements (Shapiro, 1985).

As outlined above, the original marketing mix model consisted of 4Ps: product, price, place, and promotion (Heckman et al., 2018). It has been expanded to 7Ps with the addition of people, process, and physical evidence (Dobrescu 2012; Ivey 2008; Jain 2013; Kareh 2018; Rafiq & Ahmen 1995). Product includes all aspects of an organization's products or services (Kareh, 2018), including their features, quality indicators, and variations (Kotler et al., 2012, p. 26). Price refers to what people are willing to pay for a product or service (Kareh, 2018). In cases where products or services are available for free, price includes the time required and the effort that users must undertake to access the product or service. Place refers to the physical or digital locations where current or potential customers can access the organization's offerings (Jain, 2013; Kareh, 2018). Place variables include channels, coverage, assortments, locations, inventory, and transport (Kotler et al., 2012). Promotion encompasses all of an organization's advertising, promotions, and public relations efforts (Kareh, 2018; Kotler et al., 2012; Tălpău, 2014). The people or participants component of the 7Ps model can be interpreted to refer to stakeholders and includes both internal stakeholders (particularly employees and internal customers) and external stakeholders (particularly customers) (Dobrescu, 2012). It includes factors related to human resource management, especially employee training (Kareh, 2018). Process captures systems and processes that facilitate the delivery of goods or services to customers. Processes may be explicitly described or tacitly experienced by website visitors. This may include information about an organization's processes, policies, and procedures with visitors. The degree to which processes should be made transparent will depend on multiple factors, including corporate reporting requirements, stakeholder expectations, and stakeholder responses to posted information. Physical evidence covers environmental or physical factors impacting the delivery and performance of services and goods (Rafiq & Ahmen, 1995). Table 2 provides the coding guide for this study.

Results and discussion

LIS program websites from 1999, 2009, and 2019 were explored to determine how LIS programs have promoted themselves across these three time periods. The discussion is divided

Table 2: Coding guide

Marketing mix variable	Examples
Product	<ul style="list-style-type: none"> • Aspects of products or services including: <ul style="list-style-type: none"> ○ Features ○ Quality indicators ○ variations
Price	<ul style="list-style-type: none"> • Price / financial cost • Time and effort requirements • Features that lead to price / cost reductions <ul style="list-style-type: none"> ○ Financial assistance (grants, scholarships, student work opportunities) ○ Convenience features
Place	<ul style="list-style-type: none"> • Locations
Promotion	<ul style="list-style-type: none"> • Advertising • Public relations
People	<ul style="list-style-type: none"> • Identified stakeholders (internal and external) • Human resource management practices
Physical Evidence	<ul style="list-style-type: none"> • Facilities features • Delivery details • Amenities
Process	<ul style="list-style-type: none"> • Procedures • Information technology • Administrative functions • Service indicators

into the seven marketing mix elements of product, price, place, promotion, people, physical evidence, and process.

Product

The product being promoted through LIS program websites is an educational program in library and information studies. The value of LIS programs was presented in terms of competency development and career opportunities.

The ability of LIS programs to prepare graduates for careers was present in the 1999, 2009, and 2019 samples. This was expressed through statements regarding the program's ability to prepare students for employment opportunities. This included general statements about the program as preparing students for careers, such as the following:

- “To prepare students better for careers as information specialists” (1999)
- “prepares the next generation of library and information professionals” (2009)

- “Not only will we prepare you for your first position in the information and library professions, we will also prepare you to be agile and flexible throughout your career” (2019)

These career preparation statements were supported by messaging around competency development. Competency development messaging described the types of competencies that students can expect to develop through the program. These competency descriptions included general statements about competency development:

- “help students develop competencies” (1999)
- “develop and hone technical knowledge” (2009)
- “gives you the knowledge and hands-on experience to find your place in the rapidly changing digital landscape” (2019)

Statements about the acquisition of library and information–specific competencies or professional skills were also included:

- “Students here learn a full range of professional skills” (1999)
- “develop and hone technical knowledge” (2009)
- “prepares professionals to exercise leadership in planning, implementing and promoting the preservation, organization and effective use of society’s recorded information and ideas” (2009)
- “seeks to prepare you to access, evaluate, manage, communicate, create, and adapt the information environment to meet the needs of changing user groups” (2019)

These also included statements about the acquisition of transferable competencies:

- “cultivates critical thinking” (1999)
- “be critical consumers of research and reflective practitioners” (2009)
- “have the skills to adapt to and effectively manage change” (2009)
- “Challenging you to think, create, and communicate” (2019)
- “aims to develop creative and critical thinkers and leaders for the information world” (2019)

Price

Price is defined in terms of monetary and time costs. There was an increasing emphasis on program affordability and financial assistance in the 2009 and 2019 samples. While financial assistance information was available through navigational menus on websites from all three years, affordability became a program selling feature in 2009 and 2019, with statements such as these appearing on program description pages:

- “competitive cost” (2009)
- “competitive funding” (2019)
- “100% of our admitted students receive financial aid” (2019)

- “flexible and affordable curriculum” (2019)
- “Most affordable online program in library & information sciences” (2019)

The importance of flexible delivery options also increased over time. The most significant development was the availability of online learning, including fully online delivery options, which began appearing in the 2009 LIS websites:

- “Multiple locations, including fully online” (2009)
- “online, face-to-face, and hybrid courses” (2019)
- “fully online” (2019)

Place

Place refers to the distribution channels used to communicate with clients or other stakeholders. This study examined websites as the information distribution channel for LIS programs. All of the websites offered contact information for further information on admissions. The 2009 and 2019 sites also offered visitors with information about visiting or meeting with program representatives. Prospective students were offered general program information through the website and opportunities to meet with program representatives for further information.

Examining program websites at three points over a 20-year period highlights changes in websites as communication tools. The three screen captures for each university visited in this study looked dramatically different. There were very few visual brand elements that remained the same across these three points in time. This is not surprising, given the ten-year intervals between captures. Social media elements began appearing on the 2009 websites and were more prominent on the 2019 sites.

Additionally, the 1999 and 2009 websites featured largely static content. There was a dramatic increase in the amount of text available in the 2009 websites as well as a greater focus on images. The 2019 sites, instead, featured dynamic content on their home pages. These landing sites focused on news and announcements and brief program introduction comments. In contrast, the 1999 landing pages focused on offering program contact information.

This reflects observations that early university websites evolved into key recruitment and communications tool (Astani, 2013). These two changes reflect both the different online resources available during each of the periods examined as well as changes in website design conventions. These conventions guide both the types of content users expect to see on a website and the ways in which they expect that content to be presented.

Promotion

Websites were examined for promotional messages used to attract prospective LIS students. Several promotional messages were present across all of the years examined. These messages were identified, including the community that students would enter, the competencies they would gain, the people they would serve, and the program’s reputation and status.

A first shared promotional message from the LIS program websites in 1999, 2009, and 2019 was an emphasis on the community that students who applied to the program would join and that alumni can maintain. In the 1999 sample, library associations were

highlighted as the community that students would be joining. The 2009 sample focused on the internal community of students and faculty within the program and the “opportunities for interaction and collaboration.” Finally, the 2019 websites offered the broadest view of community, describing the program community, partnerships with employers both within the university’s city and internationally, and the “robust alumni network.”

LIS program websites in 1999, 2009, and 2019 all emphasized the impact that the competencies developed by graduates could have on their communities or society. These impact statements included general claims about programs being created in response to a growing need for information-related competencies stemming from the rise of the global information society:

- “In response to a growing need” (1999)
- “to meet the needs of a global society” (1999)
- “for enlightened participation in a global information society” (2009)
- “constantly evolving to reflect the rapidly transforming information age” (2009)
- “committed to educating students to work in the growing global digital information environment” (2019)
- “we can help you develop leadership skills, the capacity to support people’s lifelong learning, and advance their digital literacy competencies in the global information age” (2019)

LIS program websites also highlighted some of the communities that graduates would serve:

- “particularly those who serve rural populations” (1999)
- “To provide services to the state, region, and nation” (1999)
- “will serve diverse information consumers” (2009)
- “help underserved populations” (2019)

A final program promotion messaging theme that was present in all three years was an emphasis on the program’s reputation and recognition within the field. The emphasis of program reputation increased over time, with only a few instances of this category in the 1999 sample, but multiple examples from the 2009 and 2019 versions of the program websites:

- “international leader in the field” (1999)
- “Our programs have received international awards” (2009)
- “achieved regional, national, and international recognition” (2009)
- “a top-ranked program” (2019)
- “one of the top 20 public universities in the world” (2019)
- “top 20 program in library & information sciences” (2019)
- “Top 3 affordable online” (2019)
- “has achieved regional, national, and international recognition through award-winning faculty, innovative research” (2019)

The previous examples outlined program promotion messages that were present across all three years reviewed in this study. There were several program promotional themes that shifted over time. These suggest changes in how programs were promoted over time. There was one promotional message category that was present in both the 1999 and 2009 set, but

disappeared in the 2019 sample. This was the theme of LIS education as being professional. These program descriptions described LIS programs as “professional schools” that prepared professionals for practice in libraries or related institutions. While job preparation and the development of professional skills remained over time, the program emphasis shifted away from that of a “professional school” to a “research-intensive environment.”

There was one LIS program promotion theme that was found only in the 2019 sample. This was an emphasis on student and graduate accomplishments. These messages were prominently displayed either through the inclusion of statements in program descriptions such as “Many of our students and graduates have been named ALA Spectrum Scholars, Emerging Leaders and won teacher of the year awards” and through student and alumni achievement news feeds on program landing pages. This shift is significant because it expands the library’s influencer network, turning students into LIS program ambassadors. The use of social media feeds also provides students and alumni with the opportunity to act as program champions, sharing both program messages and their own success stories as evidence of a program’s effectiveness. Table 3 provides a summary of the promotional message categories present across websites from the three years examined.

Table 3: Promotional message categories

1999	2009	2019
<ul style="list-style-type: none"> • Accreditation • Career options • Career preparation • Community • Competency development • Diversity • Environment • Interdisciplinarity • Learning opportunities • Professionalism • Professional practice, research and scholarship • Program reputation and recognition • Societal need / impact • Technology / information society • Teaching and research 	<ul style="list-style-type: none"> • Accreditation • Career preparation • Community • Competency development • Cost and financial assistance • Delivery • Diversity • Facilities and amenities • Interdisciplinarity • Learning opportunities • Professional practice, research and scholarship • Professionalism • Program location & history • Program reputation, recognition and rankings • Societal need / impact • Technology / information society • Teaching and research 	<ul style="list-style-type: none"> • Accreditation • Career options • Career preparation • Community • Competency development • Cost and financial assistance • Delivery • Diversity • Facilities & amenities • Faculty quality • Interdisciplinary • Learning opportunities • Program location & history • Program reputation, recognition and rankings • Societal need / impact • Student achievements • Teaching and research • Technology / information society

People

Astani (2013) identified university websites' primary audiences as employees (academic staff and faculty) and students (current and prospective). These were key audiences for the program websites from all three years. There were differences in the ways in which information for these groups was organized and presented. All of the sites offered information about admissions and application processes. The websites served as both internal and external communication resources. In 2009, sites moved toward content that was more explicitly targeted to audiences. While the only explicitly named target audience in the 1999 websites were alumni, the 2009 websites included navigational links for alumni, friends, faculty, staff, families, counselors, fellows, current students, prospective students, and international students. Links to internal sites (intranets) and current student tabs appeared in the 2009 and 2019 sites. The 2019 websites maintained targeted content for alumni, friends, faculty, staff, current students, and prospective students, but in some cases they added materials for media. Table 4 shows the audiences identified across websites from each time period.

Diversity was also highlighted by programs in all three years, with the emphasis on diversity increasing over time. In 1999, the programs emphasized diversity among faculty ("from a wide variety of backgrounds"). In 2009, diversity was related to student and faculty backgrounds ("takes pride in the fact that our students come not only from diverse professional backgrounds . . . but that they come from all over the world"), to the intellectual work produced by the program ("respect for intellectual diversity"), and to the communities that libraries serve ("develops leaders who promote exceptional services in libraries within diverse communities"). In 2019, diversity and inclusion were identified as program values ("all committed to equity, diversity and social justice").

Physical evidence

Physical evidence covers environmental or physical factors affecting the delivery and performance of services and goods (Rafiq & Ahmen, 1995). For educational programs, physical evidence relates to the ways in which programs are structured and delivered.

Table 4: Target audiences

1999	2009	2019
<ul style="list-style-type: none"> • Alumni • Current students • Faculty & staff • Potential students 	<ul style="list-style-type: none"> • Alumni • Friends • Faculty & staff • Families & counselors • Fellows • Current students • Prospective students • International students 	<ul style="list-style-type: none"> • Alumni • Friends • Faculty & staff • Media • Current students • Prospective students

LIS program websites from all three years also emphasized the learning opportunities available to students. Several aspects of the learning environment were described. The first was the interdisciplinary nature of the programs:

- “advancement of interdisciplinary knowledge” (1999)
- “To offer . . . programs of high quality in the interdisciplinary fields” (1999)
- “multi-disciplinary” (2019)

Programs discussed options for students to learn from faculty with different disciplinary backgrounds or in partnership with other programs within the university. The quality of teaching was also emphasized in websites from all sample years. Statements about teaching and research included:

- “excellence in teaching, research, and public service” (1999)
- “leading-edge curriculum” (2009)
- “a supportive teaching and learning environment” (2019)
- “through outstanding teaching, research and service” (2019)

Programs also emphasized opportunities for experiential learning, citing opportunities including participation in research projects, practicums, and co-op or internship programs:

- “To conduct basic and applied research” (1999)
- “opportunities available to students for national and international experience via professional practice and internships as well as our very successful co-op program” (2009)
- “you will also have opportunities to engage in practical learning experiences in the field” (2019)

Process

Process captures systems and processes that facilitate the delivery of goods or services to customers. All of the programs examined emphasized their accreditation from the American Library Association. Programs highlighted the length of time for which they have maintained accreditation status. They also promoted both long-standing accreditation statuses (for example, “we have maintained continuous accreditation from the American Library Association since 1938”) and new accreditations (“the first program to be accredited by the ALA in the past 20 years”).

Conclusion

Websites and social media have become key mechanisms for relationship building and promotion. A comparison of library and information studies program websites in 1999, 2009, and 2019 illustrates the evolution of website technologies and public relations approaches. An analysis of the message elements across websites shows that they all follow the conventions of higher education promotion, by highlighting factors that have been found to attract students as faculty, such as post-graduation employment opportunities, teaching and research quality, and university facilities and amenities. The websites illustrate changes

in the presentation of this information; they have evolved from sharing program details to showcasing faculty and student success stories as the core element of program promotion. The development of social media and dynamic websites have made these websites more interactive and content rich.

This study used websites as an artifact representing LIS programs' marketing approach. While they are information rich, websites are only one component of a marketing strategy; the other elements of marketing include strategies and other artifacts such as program brochures, information sessions, and planning documents. While all of the elements in a marketing campaign should be coordinated and share key messages, looking only at websites means that marketing materials tailored for particular target audiences may be missed. This study also does not investigate the effectiveness of the marketing approaches used on the websites. This study serves as a starting point for the investigation of websites as an LIS program promotion tool. While this comparison of websites over three time periods offers a view into how LIS program websites have changed, it does not capture the reasons for change or the effectiveness of these changes in achieving LIS program goals, including attracting students, soliciting donations from funders, and enhancing the program's reputation among stakeholders. These are questions that require further investigation, as the answers will inform the next key question for LIS program website development, namely, what further changes LIS programs should make to their websites in order to achieve their public relations goals. An additional opportunity for future research is to compare the presentation of marketing information on websites to those in other promotional materials produced during each time period. This type of investigation could help to illustrate the place of the LIS program website in the overall marketing strategy and how its role and significance have changed over time.

Melissa Fraser-Arnott, *San José State University*, is a member of the San José State University School of Information's CIRI International Advisory Board and Leadership and Management Program Advisory Committee. She holds a PhD from Queensland University of Technology, a MLIS from the University of Western Ontario, and an MBA from the Australian Institute of Business (AIB). She has fifteen years of special library experience, and her research interests include professional identity, competency development, library marketing, and library management. Email: melissa.a.fraser@gmail.com

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