

Building Relationships through a Digital Branch Library: Finding the Community in Community College Library Websites

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Abstract:

This study evaluates whether or not community college libraries have in place the characteristics necessary to develop digital branch libraries to meet the expanding and changing needs of their publics. Using Hon and Grunig's (1999) relationship building criteria as a framework, 98 community college library websites were analyzed to determine if they can be considered digital branch libraries (King, 2009). Digital branches go beyond offering mere functionality to embody relational aspects that are critical to the success of service-based organizations. That is, they provide at least the same level of services as their brick and mortar counterparts through real staff, real collection, real building, and real community. Findings indicate that while aspects of all of King's criteria were present, representation was inconsistent and often weak; further, the emphasis was on functional features, suggesting a need for greater relationship building practices in order to engage with their publics. Collective results are discussed, and recommendations for improvement and areas of future research are offered.

Keywords: Library Science | Community College Libraries | Academic Libraries | Websites | Digital Branch | Library Services | Public Relations

Article:

Community colleges are highly dependent on their communities (McAllister-Spooner, 2008) and, more specifically, libraries have emerged as a highly visible way that the colleges can serve their public. The college library is a popular brick and mortar information resource and, increasingly, digital libraries provide the bond between community and college. To continue to deliver these valued services, libraries' existence and growth depend on state and county support. Despite being one of the few units in higher education that has enjoyed adequate funding over the past decade (Research Information Network, 2010), college libraries now find themselves in the unenviable position of most other areas of higher education in facing budgetary cuts.

Additionally, over the last decade advances in technology, use of social media, and competition from nonacademic sources have added to academic libraries' challenge in meeting the needs of their publics. The traditional image of a patron checking out a book has given way to a new model of stakeholder who seeks more and different types of information and wants it in increasingly different formats.

Libraries are not perceived by their communities as primary sources for useful information (Association of College and Research Libraries, 2007), so they must adapt to these changes to best meet the needs and expectations of the publics they serve. To be successful and to garner the support and advocacy they need, they must create "patterns of interaction, transaction, exchange, and linkage between organization and its publics" (Hung, 2005, p. 394). As such, developing both short- and long-term relationships with their users is essential.

In today's competitive environment all organizations need to reach out to and listen to their publics more than ever before. The cocreational approach (Botan & Taylor, 2004) and the turn to a relational focus in public relations research (Bruning & Ledingham, 1998; Ledingham & Bruning, 2000) provides a theoretical roadmap to help stakeholder-dependent organizations better communicate and serve their publics. All types of organizations will benefit from more engaged relationships with publics, but some organizations by their very nature and function, such as academic institutions and libraries, must go the extra distance to understand their publics' needs.

This study seeks to determine if community college libraries possess characteristics that allow them to create long-term, mutually beneficial relationships with their stakeholders. To do so, relationship building guidelines are placed within a framework of the concept of a *digital branch* (King, 2009)—that is, a branch library delivered digitally via the web. Although relationship building has become the exemplar for public relations practice over the past decade, challenges continue to confound the profession in fully implementing the approach, particularly in web-based environments. As such, the findings of this study are relevant in that they help provide a better understanding of how to create and maintain mutually beneficial relationships in recurrently changing online environments.

In this preliminary phase, community college library websites are analyzed to determine if they currently have the characteristics of digital branch libraries. Those characteristics are then examined to see whether and how they promote relationship building strong enough to create long-term, mutually beneficial relationships with users through the cocreation of meaning. The literature review explores relationship building guidelines related to the concept of digital branch libraries within the specific context of community college libraries. Next, research on the importance of building relationships specifically via websites is reviewed. Finally, findings from the analysis of 98 community college websites are discussed and a determination of their effectiveness as digital branches is offered. The findings provide insights into relationship building specifically within virtual organizations.

LITERATURE REVIEW

Academic libraries face the challenge of struggling with their changing role in an information-overloaded culture, and do so with diminishing resources. Managing relationships can be particularly difficult for community colleges because their publics are typically more diverse than at other institutions, often extending beyond academic membership to include community members; further, they rely heavily on fluctuant state funding (American Association of Community Colleges, 2011). No longer is being responsive to requests for information sufficient for libraries to fulfill their community obligation. Instead, all libraries must adopt a more proactive and interactive approach, both to address current stakeholder needs and anticipate their evolving expectations. To begin, a brief review of the relationship building literature is offered. Next, the concept of digital branch library is explained, and perspective contributions from library studies are offered for a more comprehensive, interdisciplinary understanding of the importance of this issue to these institutions.

Relationship Building to Develop Community

To build community, that is, a sense of connectedness, in this new library environment, Hon and Grunig's (1999) guidelines for measuring relationships provide a lens for examining the potential effectiveness of community college library websites for building (or maintaining) relationships with their stakeholders. These characteristics include *control mutuality*, the level of control each party has in terms of relationship goals and behavioral routines while recognizing that there will be an imbalance between parties (Grunig & Huang, 2000; Ni, 2009); *trust*, the level of confidence each party has in one another, and their willingness to be open to the other party (Grunig & Huang, 2000; Ni, 2009); *satisfaction*, the degree to which both parties are happy with the relationship (Grunig & Huang, 2000) because the positive expectations about the relationship are reinforced (Ni, 2009); and *commitment*, desire by both parties to continue with the relationship. Additionally, the type of relationship is measured as either an *exchange relationship*, as occurs when one party benefits the other as a matter of reciprocation, either past or future; or as a *communal relationship*, when both parties provide benefits to each other out of concern rather than payback (Hon & Grunig, 1999). Communal relationships are the goal of organizations seeking to build long-term relationships with their stakeholders.

Pursuing this line of research is relevant for several reasons. As indicated, although there is considerable research on the importance of effective use of websites as a relationship building tool, organizations continue to struggle with implementing creative, interactive strategies. Studying a single type of organization will help identify specific tactics that might then be generalized to wider ranging audiences. Community colleges likewise will benefit from this research. First, as with many other organizations, specifically those related to education, these institutions have faced severe budget cuts that are likely to affect the services offered libraries, such as fewer print subscriptions (Bosch, Henderson, & Klusendorf, 2011). In addition, like many other types of organizations, community colleges serve a diverse population, are

geographically dispersed, and provide a needed service (Provasnik & Planty, 2008). Even so, college students' use of library websites has decreased in the last several years (De Rosa et al., 2011). As such, there are calls to replace the relationships that have been lost by the lack of physical presence (Wisner, 2010). Finally, there is budgetary pressure to close branch libraries and, therefore, increase use of libraries as online entities (Howes & Zimmerman, 2011). To ensure that users can obtain the same or greater level of service, libraries must offer an extensive range of online options.

It is also reasonable to believe that the results of this study can be generalized to all libraries because the problem of building relationships with users is universal. As a recent report to the membership of the largest library consortium, OCLC, Inc., noted, "Not a single survey respondent started their information search on a library web site," (DeRosa et al., 2011, p. 32). The authors conclude their report by raising several questions this research hopes to address to better position libraries, traditional or digital, as the fundamental source for all types of research:

The library is, in so many ways, the doorway to the communities and campuses it supports. How do the library website and online strategy celebrate and support community initiatives, as well as library initiatives? Do the current online strategies support the important campus and community programs as well as the libraries' offline strategies? What new online services or partnerships could better integrate online and community programs? (De Rosa, et al., 2011, p. 96)

This predicament exemplifies the need for pursuing research of this type and the importance of a cocreational approach in developing digital branch libraries that meet the needs of their various publics. In the next section the links between digital branches and relationship building are examined more closely.

Digital Branches and Relationship Building

While many libraries have websites that allow users to identify and obtain services, the growing dependency on electronic access to information requires that libraries further adapt to meet the changing demands of its users. To truly build a relationship with its users, libraries must become what King (2009) calls a digital branch. A digital branch recreates not only the functional features of a library but the relational aspects as well. To create such an environment, digital branch libraries must provide opportunities for interaction beyond those offered by a website. It is not just what a digital branch offers, but how publics interact with the content that creates a true digital branch. King identifies four characteristics that must be incorporated into the design of a digital library to distinguish and enhance it in a unique and interactive manner from traditional library websites: *real staff*; *real collection*; *real building*; and *real community* (King, 2009).

Real staff reflects an active presence to users, both in addressing inquiries made via e-mail and instant messaging and in demonstrating timely response to social media posts and other types of

online communication. Real collection suggests not only availability, but interaction with reading material, including periodicals, e-books, and audiobooks. In addition, a real collection would include additional content created by the librarians and/or users, such as blogs, videos, and podcasts.

Just as users expect an intuitive design (Pook & Bishop, 2006) in a traditional library facility, a digital library's real building should provide a clear layout and structure for users. As with the other features, this should include opportunities for interaction through questions and comments, or the ability to participate in library programs. Finally, real community suggests a welcoming environment that encourages users to "hang out" and connect with others—both professionally through contact with librarians and socially through activities such as book clubs, meetings, and tutorials.

What King is describing is relationship-building. Also referred to as a dialogic approach (Kent & Taylor, 2002; McAllister-Spooner, 2008) and organizational-public relationships (Hung, 2005), this view centers on relationships, both positive and challenging, as the core of public relations practice (Ledingham & Bruning, 2000). Dialogic theory states that organizations must communicate with their publics honestly and ethically (Kent, Taylor, & White, 2003). To do so requires engagement and interactivity, that is, responsiveness to stakeholder information needs. Dialogic principles have been tested amongst various organization types from corporations (Park & Reber, 2008); to nonprofits and activist organizations (Ingenhoff & Koelling, 2008; Kent et al., 2003; Seltzer & Mitrook, 2007); as well as colleges (Hall, 2002; Kang & Norton, 2006); and community college libraries (McAllister-Spooner & Kent, 2009). Across studies, research consistently finds that while some organizations do well in adhering to some or several dialogic principles, all organizations could benefit from developing the relational aspects of their websites to better meet their stakeholder needs.

The parallels between King's (2009) and Hon and Grunig's (1999) frameworks offer a new model for examining characteristics of organizational relationships from an interdisciplinary approach which draws from both the public relations and library literature. Libraries provide an excellent foundation from which to study the benefits of a cocreational approach because they are service-based institutions trying to maintain support in the transition from bricks and mortar to online patronage; thus, it is imperative that libraries of all types recognize the value of how their publics' support, actions, and experiences shape the library. Indeed, Hall's (2002) study of fundraising approaches for community colleges centers on Hon and Grunig's (1999) relationship building characteristics. Her research acknowledges and supports the importance of relationship building as a means of garnering support from the various constituents served by community colleges.

Despite the establishment of the relationship building approach as the standard in public relations practice over the past decade, questions raised by Kent et al. (2003) about how adept organizational websites are in meeting stakeholder information needs nonetheless remain poorly

addressed. To succeed in today's changing world, organizations, especially institutions that have already faced budget cuts and expect more in the future (De Rosa et al., 2011; Kelley, 2012), must make efficient use of their resources to best address user concerns. Organizations must employ relationship building strategies to maximize the effectiveness of their website to lead them towards communal relationships. Doing so contributes to the development of the characteristics deemed by King (2009) as necessary to meet stakeholders' requests, reveal their unique personality, and encourage their contributions.

At their roots, community colleges are institutions that reflect the needs and concerns of their nearby communities. As such, the publics they serve are broad and varied including business leaders, politicians, students, and faculty. Similarly, their libraries serve a wide range of publics. Beyond their diverse student population, community college libraries, like other organizations, support taxpayers in the surrounding communities. Because it is often the best resourced institution in close geographical proximity, it is frequently used by local communities for specialty information on topics such as medicine and technology. In this way, libraries attempt to address their collective priorities, which include diversity, equity of access, education and continuous learning, intellectual freedom, and 21st century learning (American Library Association, 2012), thus fulfilling the varied and often underserved needs of their communities.

Library Websites as Public Relations Tools

Research from the professional library literature likewise recognizes the importance of library websites for addressing their publics' needs. Indeed, libraries long have recognized a need for public relations efforts (Marshall, 2001; Vaughan, 1987; Welch, 2005) to create support for their mission. However, public relations as defined in library research focuses on raising awareness and increasing usage, which reflects a public information model, a one-way, informative model with little basis in research. Still, research in this field addresses similar website deficiencies in terms of development and effectiveness of outcomes. Detlor and Lewis (2006) advise academic libraries to develop robust websites to compete with other more popular and accessible resources (e.g., Google Scholar). Among their recommendations are to encourage participation in the customization of library sites, analogous to King's (2009) concept of real collection. They further endorse providing patrons with information that benefits them through increased knowledge versus simple awareness. Similarly, in their study of community college websites Pook and Bishop (2006) found that content (real collection) and the organization and architecture of the site, that is, being able to find specific information (real building), were important among users.

In her 20-year overview of library website development, Ryan (2003) notes that there continues to be a lack of advancement in overall site development and effectiveness. These gaps can be obstacles to patrons in finding the information they seek. She advocates for strategic plans that incorporates the parent organization's goals and missions, while providing a comprehensive approach to the content, maintenance, administration, and assessment of the site. Similarly,

Welch (2005) notes the importance of using websites as a resource for libraries and librarians to better promote their services. While both Welch (2005) and Ryan (2003) advocate the use of library websites as important marketing and public relations tools, their emphasis on key features of the site itself indicates a functional versus relational approach is distinguished from true relationship building approaches. These studies are consistent with the work of Kent et al., (2003) and others whose findings indicate that websites are not effectively adhering to dialogic principles that would help them to maximize their effectiveness in building and maintaining relationships with their users.

More recent observations from library-based organizations offer an even more pragmatic assessment of the changing role and direction of academic and research libraries. Both the Association of College and Research Libraries (2007) and the United Kingdom-based Research Information Network (2010) recognize that academic libraries must reconsider how and what services they provide to their publics. Beyond traditional support, such as managing a staggering array of information resources, libraries and librarians must consider the evolution of their real collection (King, 2009) and its development. Also, in terms of real staff (King, 2009), librarians typically do not receive specialized training to work in community college libraries or to support the technological requirements of their jobs. Addressing the constantly changing information-seeking behaviors of their stakeholders and the types of information resources with which they are expected to be familiar is a challenge for community college librarians.

As this research collectively suggests, there is far-reaching consensus among both public relations and library scholars on the critical nature of websites as dialogic tools for building relationships with stakeholders. To that end, the following research questions are posed:

RQ1:	What characteristics of digital branches do community college library websites demonstrate?
RQ2:	What characteristics of relationship building do digital branches demonstrate?

Recognizing existing characteristics that contribute to a foundation from which community college libraries can begin to cocreate meaning with their publics provides an opportunity to build real community. This will provide a more complete picture and a practical foundation for how to best approach relationship building in an online environment.

METHOD

Instrument and Data Set

The researchers used King's (2009) properties of a digital branch and created a 19-item inventory of characteristics relevant to community college libraries (see Appendix A).

Identification of key features is a method that has been used previously in the study of library websites (Park & Reber, 2008; Seltzer & Mitrook, 2007; Welch, 2005). Prior to coding the websites, each item on the inventory was categorized into one of King's (2009) four digital library characteristics. Similarly, the appropriate Hon and Grunig (1999) relationship-building indices were applied to each inventory item, creating an evaluation matrix by which to assess the results for the presence of relationship-building elements (see Appendix B).

In applying Hon and Grunig's (1999) relationship building elements to the inventory. For instance, control mutuality was considered an influence for categories that required the seeking of some type of information, assistance, or influence by either party. Because libraries are service-based, it was assumed that all characteristics on the survey would influence satisfaction. Similarly, because stakeholders must initiate the interaction, some level of trust in the library could be inferred; likewise, the availability and credibility of information or services suggests a degree of commitment. The potential for exchange relationships was indicated by characteristics where useful information or services might inspire a return visit. Finally, characteristics that suggested a more substantive or meaningful exchange beyond fulfilling a typical library function (for example, searching the catalog for a source) or one that would result in more direct interaction with a staff member was labeled as having the potential for a communal relationship. While only a survey of users' perceptions can effectively measure these characteristics, it is expected that this preliminary assessment will provide enough insight to determine if there is a foundation for building the type of community that is essential to both King's (2009) and Hon and Grunig's (1999) approaches.

The sample consisted of the library pages of a systematic random selection of 98 institutional websites, or 10% of all public institutions that award only associate's degrees as categorized by the Carnegie classifications (Carnegie Foundation for the Advancement of Teaching, 2012). Institutional demographics including classification by degree offered, size and setting, and profile of undergraduate students; profile of enrollment by degree were also included for each school. An additional demographic characteristic, location, was also evaluated. The regional accrediting agency for each school was identified using the Department of Education (2012) website. This was done so that the schools could be clustered geographically to avoid bias toward states with a large number of community colleges. For instance, the New England Association for Schools and Colleges was identified as the accrediting body for schools in Connecticut. The location variable was also used to determine if different accrediting standards might influence community college library websites.

Data Analysis

Four coders reviewed and scored a test set of five community college library websites not included in the final sample for the presence or absence of each characteristic on the inventory without regard to its quality or usability. Because four coders were used, the procedures detailed by Craig (1981) to assess intercoder reliability were followed. Specifically, Scott's Pi was

calculated, which indicated a .76 reliability. Next, the extent to which agreement among the coders would happen by chance was calculated. In this case, the formula indicates that with four coders and 19 categories it was anticipated that only a 5.5% agreement among the four coders would occur by chance. Using Craig's (1981) formula, a .56 reliability for this data might be expected; thus, .76 is an indicator of strong intercoder agreement given the number of coders and categories (Landis & Koch, 1977). As such, the coding is considered sufficiently reliable. Results were coded using Excel spreadsheets and transferred to SPSS.

Prior to further analysis the variable "quick links" was removed because its inclusion was intended to give the coders an indication of accessibility to the library site from the school's landing page. As such, it represented a characteristic of the institution's website rather than the library's specific website. In addition, four schools were removed from the data set because they did not have library websites. The result was a final sample of 94 community college websites.

An exploratory factor analysis (principal component) was conducted to uncover any latent structure among the remaining variables (Child, 2006). The factor analysis provided groupings to better determine what digital branch library characteristics (RQ1) and relationship building characteristics (RQ2) were present on the library websites. Using the factors that emerged from the analysis, correlations were run to identify any significant relationships with the institutional demographics.

RESULTS

Factor Analysis

The literature revealed a number of characteristics relevant to community college library websites, but the relationship between these characteristics and their applicability to a digital branch or relationship-building criteria was unclear. As such, a factor analysis was conducted to find patterns among variables to better explain the underlying dimensions among participant responses (Bryant & Yarnold, 1995). The factor analysis yielded three strongly discriminated factors that represented 56% of the variance in the sample (see Appendix C). All variables had good factor loadings at or above .55 (Comrey & Lee, 1992). In response to RQ1, there was a presence of several characteristics of digital branch libraries. The first factor included alternative resources (e.g., interlibrary loans); list of databases; library tutorials; additional resources (e.g., access to American Psychological Association guidelines); and electronic books. Factor 1 was labeled "traditional resources." Factor 2, labeled "community building," included programs and services offered; links to social media (e.g., library Facebook page); blogs; and user reviews. The third factor, "demographics," included hours of operation and contact information.

Next, a factor score was computed for each school using a sum of the raw scores for each characteristic (DiStefano, Zhu, & Mindrila, 2009). This identified which schools in the sample had heavy representation of characteristics defined by the factor analysis. Demographics were well-represented with 92% ($n = 87$) of the schools including both contact information and hours

of operation. The traditional resources were also adequately represented across the sample with 68% ($n = 63$) having a factor score of four or five on a scale of five. Conversely, 4% ($n = 4$) of the sample had a maximum factor score (4/4) in representing community building characteristics; and only 18% ($n = 17$) of the all the schools assessed were represented by any of the variables included in the community building factor. Looking at individual schools, only four schools demonstrated the highest scores across all three factors; and 14 schools demonstrated evidence of each factor, regardless of the score.

Looking at the relationship building guidelines based on the emergent factors, all six criteria were met in some form. However, while areas such as trust and satisfaction were well-represented, control mutuality (the level of control each party has in terms of relationship goals and behavioral routines) and communal relationships (marked by reciprocal benefits) were less apparent across the factors. Because these features are linked most directly with the real community characteristics of digital branch libraries, the ability of community college libraries to foster these attributes will be imperative if they are to be successful in building relationships via their websites.

While these factors and loadings represent key characteristics of digital branch libraries, it should be noted that several other items, including “about us” information, accessibility to a catalog, directions, user-produced content, or a downloadable phone application did not load on any factor. The absence of these characteristics suggests weak representation of key components that users likely would seek in a digital branch. Further, as the labels suggest, both the traditional resources and demographics represent fundamental features that one would expect of any library or its website. While these functions may help to build relationships with their publics (RQ2), it is the community building variables that are necessary to help community college libraries move towards addressing their evolving roles.

Correlations

Correlations identify interrelationships among variables in a given population. A Pearson’s correlation coefficient was conducted using pairwise-exclusion and a two-tailed test of significance to determine if there were any significant relationships based on institutional characteristics such as size and enrollment. Using the three new factors as variables, size was the only institutional characteristic that was significantly related to the presence of interactive features, $r = .036$, $p < .01$. Schools across all size categories showed some characteristics of digital branch libraries, thus relatedly, relationship building criteria. However, while size correlated with both traditional resources and community building, though not demographics, no specific categories of size emerged. That is, none of the factors could be linked to smaller or larger schools specifically. As such, this finding is of limited benefit in the analysis of data.

Overall, these results indicate that community college library websites demonstrate several, though not all, characteristics associated with digital branch libraries (RQ1). Further, based on

the characteristics that are better represented, there is support for the ability of community college library websites to build relationships with their publics (RQ2) as they look forward to their changing roles in a more technologically dependent future. However, while this study found that key characteristics of both digital branches and relationship building are present, they are underutilized, as suggested by previous research. This is evidenced by the absence of several key relationship-building and digital branch characteristics, as well as the limited number of schools that demonstrated evidence of these characteristics.

DISCUSSION

The purpose of this project was to determine if community college libraries demonstrate characteristics of King's (2009) digital branch, which would position them to create long-term, mutually beneficial relationships with their stakeholders. Using both King's (2009) digital branch library characteristics and Hon and Grunig's (1999) relationship building characteristics as a framework for this research provides a better sense of whether or not community college libraries can build relationships among, and for, their users during a time of critical, and potentially institution-threatening change for virtually all types of libraries. This section addresses and identifies gaps that may be limiting these libraries' ability to build relationships with their stakeholders. It concludes with recommendations for community college libraries to consider as they move forward in a changing and unfamiliar environment.

Where is the Digital in Digital Branches?

King (2009) contends that modern libraries can and should exist both in physical and online environments, and that both places should offer the same functionality, high levels of interaction, and community. This view is well-supported within his field (DeRosa et al., 2011; Detlor & Lewis, 2006; Marshall, 2001; Ryan, 2003). Each of King's (2009) four digital branch libraries categories were represented across community college library websites, which offers promise for the development of digital branch libraries. However, representation of digital branch characteristics was uneven across schools as indicated by the consistent representation of some characteristics across schools, such as hours of operation, and absence or infrequent inclusion of other characteristics. For example, only 15% ($n = 15$) of the websites evaluated identified the programs or services they offer. Omission of this level of information is in direct contrast to relationship building; it is also something that can be quickly remedied to reflect the libraries' recognition of meeting the needs of their publics.

Further, the categories that were better represented typically reflected characteristics of the functional, versus relational, aspects of traditional libraries. This makes sense as these characteristics represent a basic level of services offered by libraries; however, it suggests a lack of interactivity, which indicates that these are traditional websites versus digital branches. Some of these gaps can be readily addressed in a cost-efficient manner to create more competitive and robust online resources for their publics (Detlor & Lewis, 2006; Flowers, Bray &

Algozzine, 2001). For example, attributes of the real building category can easily be strengthened if libraries ensure that basic information, such as directions or information on areas of staff expertise, is provided.

Relationship Building Potential

Academic libraries are at a pivotal juncture. Rapidly evolving changes, particularly those related to the effective use of technology, require adapting to and adopting new approaches. On one hand, libraries are expected to meet specific obligations, yet they are limited by funding and inadequate training to effectually do so. However, because librarians are acutely aware of the gap in their current offerings versus the expectations of their publics (Association of College and Research Libraries, 2007; Research Information Network, 2010), what might be considered challenges could be viewed as opportunities. This is particularly true for community colleges because their audiences are both academic and community-based, positioning them as models for many other types of organizations.

Given that websites require initial interaction by the user and that libraries are generally viewed as credible sources of information, it is not surprising to find that opportunities for trust, satisfaction, and commitment were most prominent. Characteristics associated with exchange relationships were also noteworthy. This suggests some give-and-take in the relationship; however, because exchange relationships benefit only one party, connections to community or relationship building cannot be assumed. Still, these findings suggest there is a basis from which libraries can develop their relationship building efforts. Further, the give-and-take aspect is favorable in that it may suggest readiness among the stakeholders to begin a process of cocreating meaning. This could enhance levels of trust, satisfaction, and commitment which are tied to virtually all aspects of digital branches, thereby leading to a stronger community.

The presence of control mutuality and communal relationship characteristics were not strong, as indicated by their limited representation among the newly formed factors. This finding is consistent with previous research (Ingenhoff & Koelling, 2008; Kent ET AL., 2003; McAllister-Spooner & Kent, 2009; Park & Reber, 2008; Seltzer & Mitrook, 2007) and the prevalence of traditional factors present on the websites studied. Strong communal relationships are a positive reflection on an organization's relationship building ability (Hon & Grunig, 1999), and they offer the greatest promise for a continued connection. Again, however, there was only limited presence of these characteristics. As such, there is no support to indicate that effective communal relationships are in place, merely that the opportunity to develop them appears to exist.

A positive discovery is in the comprehensiveness with which real collection attributes are addressed. Previous research finds that content is influential in return visits to a site (Detlor & Lewis, 2006; McAllister-Spooner & Kent, 2009; McAllister-Spooner & Taylor, 2012; Pook & Bishop, 2006; Ryan, 2003), and a credible collection is a good indicator of strong content. An even greater signal of the potential for building strong relationships is in the community building

characteristics represented. Although there was only moderate attention given to characteristics in the real community category, those that were significant were clearly tied to digital branch libraries. The inclusion of links to social media sites and the use of blogs, for example, demonstrate recognition of how to provide information in new and different ways to their publics. While there is still a great deal that can be done to enhance these types of services, the community college libraries that are early adapters can serve as models for their peers.

These findings support previous research indicating that academic libraries both recognize the changing needs of their users and have the capacity to develop digital branch libraries to meet these needs (Association of College and Research Libraries, 2007; Research Information Network, 2010). Still, fewer than half of the characteristics assessed were well-represented, and the majority of those were typically associated with traditional brick and mortar libraries. This indicates that community college library websites are more functional rather than interactive, blurring the line between these libraries being digital branches or simply offering a traditional website. Comprehensive changes must be implemented for these institutions not only to thrive, but to survive among the increasing number and type of competitive resources they face.

Moving Forward

Community college libraries are not taking full advantage of the potential resources available to them, and they are missing opportunities to create and maximize an environment of community and interaction that benefits both the libraries and their diverse publics. In doing so they are missing rich opportunities to work together with their publics (Detlor & Lewis, 2006; McAllister-Spooner & Taylor, 2012) in ways that could have a lasting impact on how community college libraries continue to provide services in a changing world. While each community college must consider unique qualities specific to their publics, close examination of the characteristics evaluated here provides a starting point for self-assessment on a broad scale. Fortunately, because costly resources such as databases and electronic books are established within the collection, community college libraries can direct their limited funding to other areas, many of which are cost efficient to implement.

One area where funding would be well-spent is on professional development for library staff. Librarians are not typically educated for roles specific to community college libraries which, coupled with potentially weak technical skills, puts them at a disadvantage in fully serving their publics (Association of College and Research Libraries, 2007; Welch, 2005). Waiting for sweeping changes to academia is unrealistic; libraries must reevaluate their roles in light of the rapidly changing service and publics they address and take action.

This study was conducted to determine if community college libraries have the foundation to develop their websites to create long term, mutually beneficial relationships with their publics, thereby benefitting both parties by better addressing changing needs. A second phase of research is planned to solicit input from relevant stakeholder, including librarians and other publics, to

determine their views on the effectiveness of community college libraries in building relationships with users. The findings here support their ability to do so.

LIMITATIONS AND CONCLUSION

As noted, there are some limitations to this study. Namely, websites were coded exclusively for the presence of a variable with no regard for its usability or quality. As such, there could be widely varying levels of effectiveness in how a given variable is presented. The second phase of this research should consider ways to address this gap.

This research was specific to community college library websites, a small subset of the library community. While the findings here may not be applicable to all types of libraries, they support previous research that, likewise, identifies limitations in how libraries use their websites or attempt to develop relationships with their users. As such, it is feasible that further research could be generalized to include other library types to determine similarities or contrasts in issues. Continued research in this area should further attempt to distinguish between how community college library websites attempt to build community with their users versus providing solely functional support. Doing so would help address the vast research that consistently finds that websites are being underdeveloped and underutilized as a relationship building resource.

In conclusion, although these findings identify only moderate relationship building by community college libraries, the presence of both traditional and digital characteristics indicates a forward-moving direction. Continuing in this direction is an effective step in building a community of users that will contribute to the cocreation of digital branch libraries that are better enabled to meet the unique and changing demand of its users. By developing more long-term, mutually beneficial relationships with all stakeholder groups, community college libraries not only can ensure their positions at their institutions, but reclaim their role as a central, indispensable resource for the many publics they serve. Jointly creating meaning with their publics allows digital branch libraries, as well as other virtual organizations, to more comprehensively and effectively address the issues most relevant to their targeted audience, thereby ensuring open communication as the foundation of the relationship.

APPENDIX A

Community College Library Website Assessment for Digital Library Characteristics

School Name/#:

State:

Undergrad profile code (PT2; FT2; MFT2; Mix2)*:

Size & Setting code (VS2; S2; M2; L2; VL2)*:

Basic code (R-S; R-M; R-L; S-SC; S-MC; U-SC; U-MC)*:

Coder initials:

*From the attached two-year school list.

	Digital Library Characteristics	Yes (1) /No (0)
1	“Quick” link or direct link from school home page to library page	
2	Library-specific “About Us”/mission/introduction/history	
3	Hours of operation	
4	Directions/location	
5	Contact information (general: phone, e-mail and/or key contact)	
6	List of staff identifying expertise/roles (e.g. Director, medical reference)	
7	Help function (e.g. “Ask a librarian”, IM)	
8	Identification of alternative resources (e.g. interlibrary loans)	
9	List of databases	
10	Library guides/ tutorials (e.g. descriptions of resources/databases; how to use databases)	
11	Additional resources/“How to...” (e.g. APA/MLA guidelines, tax forms)	
12	Catalog	
13	E-book availability	
14	Identification of programs/services offered (e.g. speakers, workshops, “How to find a job”)	
15	External social media links (e.g., Facebook, Twitter, RSS feeds)	
16	Library/staff blogs	
17	User reviews/feedback (including comments on blogs)	
18	User-produced (staff or visitors) content (e.g., photos, stories, online exhibits, publications)	
19	QR code/downloadable phone application	

APPENDIX B

Presence of digital branch library and relationship building characteristics

	Variables¹	Hon & Grunig (1999) Indices	King's (2009) Digital Branch Characteristics
***	Contact information	T, S	Real Staff
	Staff expertise	CM,T, S, C	
	Help function (e.g., Ask a librarian)	CM, T, S, C, ER, CR	
*	Databases	T, S, C, ER	Real Collection
	Catalog	T, S, C, ER	
*	Library guides/tutorials	T, S, C, ER	
*	Alternative resources	T, S, C, ER	
*	Electronic books	T, S, C, ER	
	Library/staff blogs	CM, T, S, C, ER, CR	
	Quick link	S	Real Building
***	Hours of operation	T,S	
*	Contact information	T,S	
	Directions/location	T,S	
	About us	T, S, C	
	Help function (e.g., Ask a librarian)	CM, T, S, C, ER, CR	

*	Library guides/tutorials	T, S, C, ER	Real Community
*	Additional resources	T, S, C, ER	
**	User reviews	CM, T, S, C, ER, CR	
	Help function (e.g., Ask a librarian)	CM, T, S, C, ER, CR	
**	Library/staff blogs	CM, T, S, C, ER, CR	
	User-produced content	CM, T, S, C, ER, CR	
**	Social media links	CM, T, S, C, ER, CR	
	QR code	CM, T, S, C, ER, CR	
**	Programs/services offered	CM, T, S, C, ER, CR	
	Hon and Grunig characteristics coding:		
	control mutuality (CM)	commitment (C)	
	trust (T)	exchange relationship (ER)	
	satisfaction (S)	communal relationship (CR)	

Some variables fall under more than one of King's characteristics.

Indicates weighting on Factor 1: Traditional Resources.

Indicates weighting on Factor 2: Community Building.

Indicates weighting on Factor 3: Demographics.

APPENDIX C

Principal component factor analysis with varimax rotation*

		Factor	
Component	1	2	3
E-book	.769		

Guides	.730		
Alternative resources	.630		
Additional resources	.613		
Databases	.605		
User reviews		.864	
Blogs		.819	
Social media links		.665	
Programs/Services offered		.571	
Contact information			.826
Hours			.808
Eigenvalues	2.944	2.018	1.220
Percentage of Total Variance	26.767	18.348	11.087

Loadings = > .50.

Notes

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Some variables fall under more than one of King's characteristics.

Indicates weighting on Factor 1: Traditional Resources.

Indicates weighting on Factor 2: Community Building.

Indicates weighting on Factor 3: Demographics.

Loadings = > .50.

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