

# Digital Tools for Learning, Engagement, and Research: An Argument for Student Affairs and Academic Libraries

S. Krishnaprabu

Assistant Professor, Department of Agronomy, Faculty of Agriculture, Annamalai University, Annamalainagar – 608 002, Tamil Nadu.

## Abstract

*The higher education landscape is changing rapidly, challenging academic professionals to think critically about their roles in the field. Digital tools can promote innovation, learning, and student engagement throughout such institutions and offer specific opportunities for the promotion of student learning outside the classroom. Moreover, digital tools provide ready-made research projects for faculty and staff in non-tenure track fields, such as student affairs and academic libraries, which often are overlooked in the academic environment due to fewer required implicit or explicit expectations of scholarly productivity. This comparative discussion considers the use of social networking by student affairs and virtual reference by academic librarians in hopes of promoting additional student engagement and enhancing the respective roles of these professionals through academic output and opportunities.*

**Keywords** - Student affairs, Academic libraries, Digital tools, Scholarly productivity, Social networking.

## I. INTRODUCTION

Digital tools, by a short definition, are any type of software or hardware that can be used for education (Mahiri, 2011). They can of course be employed in the classroom by faculty in a variety of forms, from anything as simple as PowerPoint presentations to complex programming software. However, this comparative discussion will focus on learning outside the classroom, examining how student

affairs and library personnel utilize digital tools of social networking and virtual reference, respectively, to enhance their interaction and communication with various entities in the academic community.

Additionally, the conversation will consider whether the employment of certain digital tools might modify the perception of both student affairs and librarians within the campus community. Due to opinions regarding student learning processes, the supposition has been made that student affairs and librarians occupy a status supplemental or even subordinate to the faculty in the higher education

community (Magdola & Magdola, 2011). It will be posited that research, either collaborative or independent, might enhance the characterized impact of these fields in the totality of the educational process.

## II. DEFINITIONS

Student affairs departments and libraries employ a variety of personnel in full-time and part-time status, as well as classified staff or professional and administrative faculty. Depending upon the individual employee's role, many of the duties and responsibilities blur. For example, a classified staff member in the library may focus on similar professional tasks as a faculty-level librarian, such as reference interaction and individual publication. For clarification purposes in this paper, "student affairs personnel" and "librarians" or "library personnel" will encompass all of these employees and the terms will be applied interchangeably.

## III. CHALLENGING ENVIRONMENT

At this point, a consideration of the roles that both student affairs professionals and librarians and library staff occupy on the campus may be appropriate. "Because the profession came into being primarily to provide counseling and services to help students develop beyond intellectual training, it has historically been characterized as addressing the nonacademic components of college life" (Magdola & Magdola, 2011). The origin of student affairs thus has hindered the growth of respect for the field around academe.

Libraries and their staff on the other hand have been a functioning part of academic study almost since its inception. Of late, academic libraries are increasingly viewed as service-oriented organizations as opposed to mere repositories of materials (Jeevan, 2007). This is not wholly optimistic, as such a mentality does not serve the promotion of collaboration between libraries and other researching parties on campus.

Advances in technology have resulted in the availability of more research tools for the librarians to utilize (Cardina & Wicks, 2004). The changing functions

of academic librarians, along with the influx of technological means for gathering information have created a unique opportunity for these professionals. As Wolfe, Naylor, and Drueke (2010) assert, "reference librarians are perfectly positioned to collaborate with other stakeholders...[as] they operate in integrated virtual and physical worlds, where the human and the computer work together". However, just as with student affairs, academic librarians are viewed as a form of sub-faculty who struggle for parity in their communities (ACRL, 2012), thereby hindering their outreach abilities.

Some of the issues revolve around the collegiate culture and the real or perceived silos that manifest around college campuses. "Cultural differences between the divisions, as well as the real and perceived differences in the deeply held values and beliefs about students and their education, hamper the pursuit of cross-divisional partnership" (Arcelus, 2011). In this environment, student affairs professionals

find it difficult to promote their contributions to student learning and counter the conception that their work actually detracts from in-class education (Benjamin & Hamrick, 2011). "Many student affairs professionals believe that faculty members regard them as secondclass citizens who merely provide nonacademic services to students" (Magdola & Magdola, 2011), ultimately marginalizing their status in the campus community.

It is the same struggle for librarians. Academic librarians frequently are viewed as service-oriented, noncollaborative sub-faculty. They regularly are omitted decision making processes available to other faculty members around campus, to their detriment. "[Librarians] should be involved in library governance, and that involvement in university governance improves the perception among the teaching faculty of academic librarians" (Wyss, 2010). Basically, instructional faculty considers their role in the education of the student more relevant to the students' complete learning outcomes than those experiences offered by student affairs opportunities or librarian roles.

This is the environment from which student affairs professionals and library personnel function. While not all faculty view these roles as supplemental to classroom learning, it is an additional obstacle that both fields must address prior to initiating any collaboration or outreach campaigns, and especially so when utilizing digital tools due to their complexity, rapid disuse, and expense. The conversation now turns to student affairs use of the digital tool of social media for enhanced student engagement.

#### IV. STUDENT AFFAIRS AND SOCIAL NETWORKING

Student affairs encompass a great deal of services offered at both a physical and distance campus. Depending on one's definition or perspective, these might include orientation personnel, academic advising, financial advising, career services, university life and social organizations, and so on. Student affairs represent a critical position in the academy, since their work aids in the development of the individual through non-class related activities. "What students do during college counts more in terms of what they learn and whether they will persist in college than who they are or even where they go to college" (Kuh, et al., 2005). Digital tools in fact increase student affairs personnel's effectiveness for reaching a diverse number of students.

For example, consider one facet of student affairs: academic advising. The importance of academic advising on campus has been established (Christian & Sprinkle, 2013; Schulenberg & Lindhorst, 2008), but the goal is to provide equal service to all students, including distance learners (National Academic Advising Association, 2010). Academic advising for distance students owns a significant role in moving the students towards graduation (Curry, Baldwin, and Sharpe, 1998). Distance education has been shown to exacerbate feelings of isolation (Burns, 2010), which in turn may lead to a greater chance of students dropping out (Tinto, 1987). As such, academic advisors have a central position in student retention because distance students have a higher rate of dropout due to a lack of institutional interaction (Gravel, 2012). Ultimately, it is the connection and communication developed between advisor and student that becomes the focal point of the student success (O'Connell, 2009; Steele & Thurmond, 2009). Digital tools provide a variety of interactive means through which advising personnel may communicate and interact with the student base.

Other aspects of student services, such as career counseling or orientation, may actually benefit from an online presence because the viability of organizing resources online is easier than on campus (Smith, 2005). It has been established that orientation can increase student interaction and understanding between distance learners (Kanuka & Jugdev, 2006) and models exist in how to best facilitate this communication (Cho, 2012), and better monitor their progress through the entirety of their studies (Wozniak, Pizzica, & Mahony, 2012). Therefore student affairs personnel must determine the best means of enhancing opportunities for communication with the student base. One popular methodology is through digital tools such as social networking sites, such as Facebook and Twitter. Given the multitude of

student affairs departments, the possibilities of application are plentiful. For example, career services can utilize both informally with Twitter (Harr & Baumhardt, 2011) and formally with career-oriented sites like LinkedIn (Albrecht, 2011). Institutions should persuade incoming students to participate in orientation activities (Schofield & Sackville, 2010). Interpersonal and identity building relationships may be developed through social networking and amplified with monitoring by student affairs personnel. "Student affairs professionals can correctly discern that student use of social networking sites has implications for student identity development and for students' understanding, presentation, and perception of gender, race and ethnicity, and social class" (Schuh, et al., 2011). Learning about oneself and the surrounding culture is a key factor to student engagement and education outside the classroom (Kuh, et al., 2005).

Social networking also provides additional means of social engagement for geographically diverse communities. Social networking has been shown to enhance communication among on-campus groups (Kord & Wolf-Wendel, 2009), but what about distance education students? While distance eliminates some of the social opportunities available to on-campus students (LaPadula, 2003), other organizations exist, such as academic clubs and alumni organizations (Veletsianos & Navarrete, 2012; Mandernach & Mason, 2008; Klages, Pate & Conforti Jr., 2007). Again, this reiterates the significance of communication with social networking and engagement of students regardless of learning modality.

Social Networking and its usage is fluid, with interfaces rapidly changing. One can find plenty of journal recommendations regarding the implementation of My Space (Strayhorn, 2012), for example, but it is no longer a popular medium with the students (Gillette, 2011). Therefore student affairs personnel must monitor

social networking usage on their respective campuses and determine whether it is worthwhile to invest time and resources in development of a presence in a potential

ephemeral interface. As well, student affairs personnel should have boundaries of interaction via social networking, so as not to compromise the integrity of an organization (Schuh, et. al., 2011). Lastly, from a pragmatic student affairs perspective, all of the communication via social networking provides the opportunity for accumulating quantifiable information regarding student learning. For example, (with Institutional Research Board approval) a university life coordinator might question whether student involvement in a particular club enhances their in-class learning. This could be done by compiling GPAs of participating students at the beginning and end of a semester. For an additional

measurement regarding social networking, compare the grades of club members who frequently communicate via the club's social networking site with those who rarely do or not at all. Hypotheses for any GPA changes that researchers might argue are plentiful; enhanced social identity, development of studying networks, and increased mentoring are just a few options. The point is, employment of digital tools for learning enhancement not only has the potential to benefit student learning, but it also affords student affairs individuals research prospects. This may amplify their position regarding the impact of student learning through student affairs and at the very least illuminate their work to the wider college community.

## **V. LIBRARIES AND VIRTUAL REFERENCE**

Academic libraries offer a substantial connectivity to the university academic collective since they bridge the information gap between the faculty and the student. Libraries aid the acquisition of information for the student that supplements in-class learning. As well, advancing technology has resulted in the availability of more research tools for the librarians to utilize (Cardina & Wicks, 2004). As a result, libraries gradually have increased their presence digitally and online, providing more resources to faculty and students on campus or at a distance. Consequently, the use of the once-traditional library itself had begun to shift (Lougee, 2002). Physical volumes of some journals are being phased out in favor of online subscriptions. The on-campus library is evolving into a smaller study center and less of a repository (Jeevan, 2007; Lougee, 2002). This modification of thought is significant since it made the transition to servicing faculty and students in their ubiquitous digital learning much more natural. Despite this reduction in physical presence, faculty and students have expressed increased interest in access to the libraries resources (Zirkle, 2001). Services available to campus-based students such as digital interlibrary loan have been extended to distance learners as well (Davis & Foss, 2009). In addition, libraries continually increase electronic resources such as online periodicals and e-books (electronic books) (Croft & Davis, 2010; Grudzien & Casey, 2009). Even so, several of the library technologies, such as e-Books, have more work needed before they may be considered truly user-friendly (Young, 2006). Some of the other outreach technologies employed by librarians are online information guides (Roberts & Hunter, 2011; Robinson & Kim, 2010) and live and recorded web tutorials (ShiaoFeng & Kuo, 2010; Charnigo, 2009; Dunlap, 2002), with mixed efficacy (Shaffer, 2011). These services provide vital educational aid for faculty and students unable to access the physical library. All of these enhancements to library services create the potential for libraries and their staff to

modify and perhaps improve the understanding of their role in the larger campus community. Beginning with the faculty, one way to adjust this opinion is through the publication of academic works. Lamothe (2012) advocated publishing due to its facilitation of discussion amongst individuals in the academic environment. "Writing and publishing is an opportunity for conversation among professionals where ideas are exchanged, agreed upon or argued, elaborated, and clarified" (Lamothe, 2012). Due to mixed responsibilities of librarians at different institutions though, librarians do not always emphasize their professionalism through publication (Lamothe, 2012). This likely contributes to the misunderstanding of the role of the librarian around campuses. Tenure-track faculty is required to publish. Librarians, while not always required to publish, may gain respect and status by doing so. The success of this suggestion, though, ultimately rests on the librarians and the directors or vice-presidents of the library to make the campus community aware of this production.

Additionally, librarians may choose to collaborate with other faculty on publications. Tucci (2011) supports integrating librarians into the academic community outside of the library, particularly with faculty/librarian relationships and librarian and faculty collaboration has been proven successful (Kenedy & Monty, 2011). This does not suggest a mere service role where faculty contacts librarians for assistance when suitable research material seems difficult to find. Rather, the proposition suggests a working, collaborative relationship where both faculty and librarian may benefit by publishing or creating other collaborative enterprises together.

Unfortunately, college faculty primarily still utilize the library primarily for the acquisition of materials and occasionally as space for research labs (Marcus, Covert-Vail, & Mandel, 2007). For example, one study found that a vast majority of faculty value library services, but only a fraction utilized their liaisons for instruction and found the greatest use of the library as ordering books or serials for the faculty (Yang, 2000). Essentially, research has shown that faculty like and seemingly appreciate the services provided by the libraries, but the faculty does not wish to maintain or initiate them and therefore they may not provide longterm opportunities for collaboration.

Nevertheless, collaboration becomes all the more available with the introduction of digital repositories and extended access. "In an environment where digitized and born digital content is growing at an accelerated pace, [digital development] shows how previously disparate institutions can work

together to seize the opportunities this presents and help libraries and researchers exploit the benefits of digital cultural heritage" (Reilly, Lefferts, & Moyle, 2012). The materials are available increasingly in a format that makes interaction and collaboration available both inside and outside the confines of the physical library. Libraries and their librarians often have several options for outreach and interaction with students on campuses, such as invited lectures, roving reference (where librarians carrying laptops aid research at different locations on campus), and in-class instruction, all of which can employ the usage of digital tools.

However, the popular suggestion to achieve rapid interaction is through virtual communication (Bennett & Simning, 2010; Hawes, 2011), labeled virtual reference. The premise of virtual reference is simple. The librarian is not tied to a specific reference point, such as a desk or phone, and the interaction is immediate, so the communication is quicker than email. The medium of communication creates the potential for extended hours of service both on-campus and off. Virtual reference includes avenues of written digital communication such as Instant Messaging (IM) (Whitehair, 2010; Bower & Mee, 2010) and video chat, such as via Skype (Booth, 2008a).

IM actually seems like an antiquated means to communicate with the student base, particularly due to its association with AOL IM. Founded in 1997 (Warren, 2012), AOL IM had over 100 million users in 2006 (New Literacies, 2013), but by 2011 AOL IM only had 0.73% of the global market share on messaging (OPSWAT, 2011). This is only part of the discussion though, as other mediums of IM exist, such as Yahoo Messaging, Facebook, and others. In fact, the different varieties of IM fueled library experimentation with interfaces (Pulliam & McMullen, 2006) and probably expedited its implementation into reference.

Virtual Reference grew from libraries attempting to use digital tools in order to provide learning opportunities and communication with patrons who could not directly visit a reference desk. Through pilot studies utilizing various written IM interfaces, it was determined that librarians could in fact provide basic, needed reference guidance through IM (Pulliam & McMullen, 2006). Literature regarding the usage of IM began to appear around 2002 (Luo, 2007), and since then numerous articles regarding the training (Radford & Connaway, 2013), implementation (Chan, Ly, & Meulemans, 2012), best practices (Devine, Paladino, & Davis, 2011), and user perspectives (Chang & Yang, 2012) on virtual reference via IM have emerged, all



demonstrating its viability as a digital reference tool. As well, the use of IM reference actually has the potential to increase in-person communication with library patronage (Pulliam & McMullen, 2006).

For example, some questions asked via IM result in quick responses, such as those regarding library hours and quick links to other information. However, some questions too complex to analyze through IM prompt librarians to request that the patron either visit the reference desk in person or contact a specialist librarian who might further aid them. Skype and other brands of video chat add another dimension of digital communication with reference patrons by adding synchronous video chat (Booth, 2008a). It provides an additional layer of interaction adding accountability and a face to the communication process, which benefits the collaborative experience (Cordell, 2012).

As with written IM communication, video communication requires training and understanding of the technological platform (Booth, 2008b). Given that chat via programs like Skype requires more technical operations (sound and picture) it may take more time and higher frequency of use in order to fully understand its nuances. Regardless, it provides yet another opportunity for the librarian to interact with prospective collaborative parties. Virtual reference is not a complete solution though. First, such interaction presumes that the monitor answering questions are properly trained in order to best answer questions or direct patrons to the individual(s) who do have proper responses. Also, simple considerations like the placement of widgets (the interface software of the communication method) on the library page greatly influence its usage (Graybill & Bicknell-Holmes, 2013). If the widget is buried multiple pages into a library webpage interface, the frequency of inquiries sharply declines. Moreover, consider the time factor. Some institutions provide virtual reference 24/7, though this is not universal (Mueleman, Carr, & Ly, 2010). If virtual reference hours correspond to the physical reference desk hours, say, 9am-7pm Monday through Friday, a patron has multiple options for contacting a library professional, albeit not 24/7 accessibility. Librarian communication with that student may be delayed long enough so that the interaction is no longer beneficial to the student. Despite these concerns, virtual reference using digital tools such as IM and Skype have been shown to be successful means in which to engage the campus community. Similar to student affairs, library professionals may use statistics provided by their management of digital tools such as IM and video chat. Librarians do not always know the learning outcomes of their students, as there may be no communication between the parties following initial interaction. For example, a student visiting a librarian may learn how to use

databases efficiently enough not to warrant a future visit to library reference.

Therefore it becomes difficult to accurately gauge and argue the value of student learning in the libraries. However, statistics regarding mode of interaction, topic, and frequency may be examined to determine the usage of specific services by the academic community. In doing so, professional academic projects emerge, and as suggested earlier, present librarians with an opportunity to justify their standing in the academic community through published work

## VI. CONCLUSION

Digital tools offer a variety of modes of interaction between parties in an academic community. Social networking provides a multitude of options for student affairs personnel to interact with students regardless of learning modality in hopes of enhancing their out-of-class education. Virtual reference increases speed of information acquisition for library patrons regardless of locale. As with any technology, the specter of obsolescence hovers, forcing personnel to monitor usage rates and efficacy of communication via their respective technologies. However, both social networking and virtual reference remain practical digital tools and readily utilized means to improve experiences for all constituencies.

It also was posited that both student affairs and library personnel do not always have the reputation on campus they deserve for the work that they perform in service to the institution. Student affairs and library personnel should consider usage of such digital tools not only for the improvement of their communication within the community but also as a means of readymade research data. While it may not always lead to a rapid change of perception, it will disseminate information on the successes and challenges of various organizations around campus for the benefit of the collective whole.

## REFERENCES

- [1] Albrecht, W. (2011). Linked In for accounting and business students. *American Journal of Business Education*, 4(10), 39-41.
- [2] Arcelus, V. J. (2011). Transforming our approach to education: Cultivating partnerships and dialogue. In P. M. Magolda & M. B. Baxter Magolda (Eds.), *Contested Issues in Students Affairs: Diverse Perspectives and Respectful Dialogue* (3-14).
- [3] Sterling, VA: Stylus Publishing LLC. 3. Association of College and Research Libraries (ACRL). (2012). Guidelines for academic librarians without faculty status. *College & Research Libraries News*, 73(3), 161-162.
- [4] Benjamin, M., & Hamrick, F. A. (2011). Expanding the learning environment. In P. M. Magolda & M.B. Baxter Magolda (Eds.), *Contested Issues in Students Affairs: Diverse Perspectives and Respectful Dialogue* (3-14). Sterling, VA: Stylus Publishing LLC.

- [5] Bennett, E., & Simning, J. (2010). Embedded librarians and reference traffic: A quantitative analysis. *Journal of Library Administration*, 50(5/6), 443-457.
- [6] Booth, C. (2008a). Developing Skype-based reference services. *Internet Reference Services Quarterly*, 13(2/3), 147-165.
- [7] Booth, C. (2008b). Video reference and the library kiosk: Experimentation and evaluation. *Journal of Access Services*, 5(1/2), 47-53.
- [8] Bower, S. L., & Mee, S. A. (2010). Virtual delivery of electronic resources and services to off-campus users: A multifaceted approach. *Journal of Library Administration*, 50(5/6), 468-483.
- [9] Burns, M. (2010). Not too distant: A survey of strategies for teacher support in distance education programs. *Turkish Online Journal of Distance Education (TOJDE)*, 11(2), 108-117.
- [10] Cardina, C., & Wicks, D. (2004). The changing roles of academic reference librarians over a ten-year period. *Reference & User Services Quarterly*, 44(2), 133-142.
- [11] Chan, I., Ly, P., & Meulemans, Y. (2012). Extending IM beyond the reference desk: A case study on the integration of chat reference and library-wide instant messaging network. *Information Technology & Libraries*, 31(3), 4-23.
- [12] Chang, J., & Yang, C. (2012). Viable or vital? Evaluation of IM services from patrons' perspectives. *Electronic Library*, 30(1), 70-88.
- [13] Charnigo, L. (2009). Lights! Camera! Action! Producing library instruction video tutorials using Camtasia Studio. *Journal of Library & Information Services in Distance Learning*, 3(1), 23-30.
- [14] Cho, M. (2012). Online student orientation in higher education: a developmental study. *Educational Technology Research & Development*, 60(6), 1051-1069.
- [15] Christian, T. Y., & Sprinkle, J. E. (2013). College student perceptions and ideals of advising: An exploratory analysis. *College Student Journal*, 47(2), 271-291.
- [16] Cordell, D. (2012). Skype and the embedded librarian. *Library Technology Reports*, 48(2), 8-11.
- [17] Croft, R., & Davis, C. (2010). E-Books revisited: Surveying student E-Book usage in a distributed learning academic library 6 years later. *Journal of Library Administration*, 50(5/6), 543-569.
- [18] Curry, R. F., Baldwin, R. G., & Sharpe, M. S. (1998). Academic advising in baccalaureate distance education programs. *The American Journal of Distance Education*, 12(3), 42-52.
- [19] Davis, V., & Foss, M. (2009). Supporting the distance learning community with interlibrary loan and collection management at the University of Florida libraries. *Journal of Library & Information Services in Distance Learning*, 3(2), 55-66.
- [20] Devine, C., Paladino, E., & Davis, J. A. (2011). Chat reference training after one decade: The results of a national survey of academic libraries. *Journal of Academic Librarianship*, 37(3), 197-206.
- [21] Dunlap, S. (2002). Watch for the little red light: Delivery of bibliographic instruction by unconventional means. *Journal of Library Administration*, 37, 279-285.
- [22] Gillette, F. (2011). The rise and inglorious fall of MySpace. Retrieved from [http://www.business-week.com/magazine/content/11\\_27/b4235053917570.htm](http://www.business-week.com/magazine/content/11_27/b4235053917570.htm)
- [23] Gravel, C. A. (2012). Student-advisor interaction in undergraduate online degree programs: A factor in student retention. *NACADA Journal*, 32(2), 56-67.
- [24] Graybill, J., & Bicknell-Holmes, T. (2013). Location, location, location: The impact of IM widget placement. *College & Undergraduate Libraries*, 20(1), 72-86.
- [25] Grudzien, P., & Casey, A. (2008). Do off-campus students use e-books? *Journal of Library Administration*, 48(3/4), 455-466.
- [26] Harr, M., & Baumhardt, M. (2011). Preparing for job-search success. *Campus Activities Programming*, 44(1), 12-15.
- [27] Hawes, S. (2011). Playing to win: Embedded librarians in online classrooms. *Journal of Library & Information Services in Distance Learning*, 5(1/2), 56-66.
- [28] Jeevan, V. J. (2007). Technology-enhanced library services and the librarian's identity crisis in academic and research libraries of India. *Libri: International Journal of Libraries & Information Services*, 57(2), 100-109.
- [29] Kanuka, H., & Jugdev, K. (2006). Distance education MBA students: an investigation into the use of an orientation course to address academic and social integration issues. *Open Learning*, 21(2), 153-166.
- [30] Kenedy, R., & Monty, V. (2011). Faculty-librarian collaboration and the development of critical skills through dynamic purposeful learning. *Libri*, 61, 116-124.
- [31] Klages, C., Pate, S., & Conforti Jr., P. A. (2007). Virtual literature circles. *Curriculum & Teaching Dialogue*, 9(1/2), 293-309.
- [32] Kord, J., & Wolf-Wendel, L. (2009). The relationship between online social networking and academic and social integration. *College Student Affairs Journal*, 28(1), 103-123.
- [33] Kuh, G. D., Kinzie, J., Schuh, J. H., Whitt, E. J., & Associates. (2005). *Student success in college: Creating conditions that matter*. San Francisco: Jossey-Bass.
- [34] LaPadula, M. (2003). A comprehensive look at online student support services for distance learners. *American Journal of Distance Education*, 17(2), 119.
- [35] Lamothe, A. R. (2012). The Importance of encouraging librarians to publish in peer-reviewed publications. *Journal of Scholarly Publishing*, 43(2), 156-167.
- [36] Lougee, W.P. (2002). *Diffuse libraries: Emergent roles for the research library in the digital age*. Washington, DC: Council on Library and Information Resources.
- [37] Luo, L. (2007). Chat reference competencies: Identification from a literature review and librarian interviews. *Reference Services Review*, 35(2), 195-209.
- [38] Magolda, P. M., & Magolda, M. B. (2011). Intellectual curiosity and lifelong learning. In P. M. Magolda & M. B. Baxter Magolda (Eds.), *Contested Issues in Students Affairs: Diverse Perspectives and Respectful Dialogue* (3-14). Sterling, VA: Stylus Publishing LLC.