Abstract
The 20th century information explosion provided widespread technological innovation and ease of access to information, and due to the 21st century emphasis on digital collections and electronic resources, libraries around the world are facing an uncertain future. This naturally causes librarians to re-evaluate their professional role, but perhaps academic librarians are best prepared for the future due to their co-existing role as professors. Essentially they have always been teaching, but now they must conquer the disparaging image and status treatment to which they have been subjected and evolve their profession by joining their teaching faculty colleagues in classrooms on college and university campuses worldwide.

Introduction
Recent library literature is rampant with gloom and doom projections for academic libraries. Students no longer have to enter a library building as most information is available electronically; physical books, journals and newspapers are being replaced by electronic ones, professors provide students with electronically scanned copies of course materials housed on the campus course management system, and material not accessible in the campus library may be obtained through electronic interlibrary loan or by utilizing the World Wide Web. Further, the open access publishing movement is providing free access to a growing number of published articles thus weakening the hold libraries presently have on their journal subscriptions. “Libraries are transitioning from an analog to a digital environment and Lyman Ross and Pongracz Sennyey profess that “academic librarianship needs to fundamentally revise its practices to become competitive in a digital environment.” (Ross & Sennyey, 2008, p. 147, p. 151).

Other contributing factors leading to the uncertain future of academic libraries are outlined by Wade R. Kotter:

- Library budgets that are flat or declining;
- An information explosion with no end in sight;
- Continuing inflation in the cost of serials and other library resources;
- Critiques of higher education that ignore or downplay the role of the library; and
- A relentless tide of technological innovation. (Kotter, 1999, p. 1)

There are already discussions about removing books from library shelves and constructing classrooms, computer labs, writing centers or student lounges in their place. Brick and mortar libraries are projected to be a thing of the past; the only item one will need is an electronic mobile device with web access to retrieve all forms of information. Whether one chooses to heed or ignore these prophecies, the threat is already broadcast and people have begun to ponder the issue.

Now that the demise of academic libraries is predicted, although certainly not universally accepted, where does this leave the librarians? The library science literature espouses that academic librarians need to re-examine their professional role and some authors suggest that librarians need “more proactive methods … [of] active participation in the scholarly life of the campus.” (Sennyey, Ross & Mills, 2009, p. 255). Therefore academic librarians should take charge of their status as academics and teach full semester credit-bearing courses. Think beyond information literacy instruction and collaborative teaching and consider teaching in their own specialty field or perhaps a university core course, thereby joining the ranks of the teaching faculty on campus. Academic librarians have always been “teaching,” even while assisting patrons in the library; now they just need to expand that aspect of their profession to take command of the classroom. And because librarians will inevitably weave information literacy into their curriculum, perhaps their students will gain an educational advantage. But to be successful in the classroom there are a few hurdles that librarians must first overcome.

Librarian Image
The typical stereotype of the bespectacled, middle-aged matron with her premature graying hair coiffed in an austere pun with her finger pushed to her lips shushing young patrons talking or giggling in a library is unforgiving. But unfortunately, it is an image which undoubtedly clouds the mind of many people for the general public truly has no comprehension as to what an academic librarian (or any librarian) really does. Librarians have had to contend with this damaging
image for centuries, and although they have learned to laugh at it, they ultimately still feel oppressed by it. Even today, academic librarians are endlessly justifying their professional role in educational institutions.

One would think that college and university professors would possess a favorable image of the academic librarian in light that both professions share the same principle to serve the educational needs of the students while adhering to the university mission. However, the professional division between teaching faculty and librarians is legendary. Pauline Wilson wrote a lengthy article on what she termed an “organizational fiction;” librarians essentially elevate themselves to the status of professors as a defense mechanism against “an unflattering stereotype,” but one she admits is “not only difficult to change, it may be harmful as well.” (Wilson, 1979, p. 146). Despite conceding that “teaching is a small part of the set of behaviors that constitutes the role of librarian,” Wilson refuses to permit teaching and the credential of professor to be associated with academic librarians; rather she belittles their role: “library-use instruction would be better thought of as informing rather than teaching.” (Wilson, 1979, p. 157). Perhaps Robert D. Leigh and Kathryn W. Sewny, summarize the librarian’s frustration with image more aptly: “librarians want to be recognized as part of an intellectual profession but feel that public perception relegates them more often to the role of clerks.” (Walter, 2008, p. 59).

Although librarians appear to have a sound understanding of the role of teaching faculty, the reverse has been found to not be true. Several studies have been undertaken to illustrate this fact. Scott Walter examined and reported on many such studies and concluded:

Many faculty share their student’s inability to consistently distinguish between librarians and support staff as well as a similarly truncated vision of the scope of librarian work. .. few faculty members were aware of the range of instructional responsibilities held by many academic librarians, and that many did not consider teaching to be a significant responsibility for librarians when compared with other responsibilities that they associated with the profession. (Walters, 2008, p. 60).

Viewing the differences between faculty and librarians from a sociological perspective, Christiansen, Strombler, and Thaxton noted the disparity on several levels. From an organizational viewpoint, librarians work full days year round principally in the library which may be separated from other academic buildings on campus, while faculty often teach only two or three days a week, work in their home or office and have summers off to conduct research. Librarians seek out professors with whom to collaborate on information literacy instruction, but faculty are “resistant to librarian involvement in their classroom activities.” (Hrycaj & Russo, 2007, p. 694). Whereas librarians find contact with faculty to be role defining, “for faculty, however, librarian-faculty relations are of little or no concern.” (Christiansen, Strombler, & Thaxton, 2004, conclusion). Christiansen, et. al. further noted a definitive status division between librarians and teaching faculty:

But there is more to this disconnection than just organizational function. The perception among faculty is that librarians’ work is service-oriented – their primary duties are the organization and facilitation of access to knowledge and other resources. By contrast, faculty see their own work as focusing on the production and dissemination of knowledge. As many sociologists have discussed in numerous contexts … contemporary society generally views service-oriented work as being of lesser importance than production, primarily due to the implicit superordinate-subordinate relations that appear inherent in service. (Christiansen, et al., 2004, Status-Difference section, para. 2).

The fact that librarians are greatly outnumbered on campus by teaching faculty, that more faculty are present on governing committees, and that “most faculty feel that librarianship is not a true science and that the Master’s in Library Science (MLS) provides a vocational rather than academic education” (Hoggan, 2003, p. 436), only reinforces the status division between faculty and librarians. With such overwhelming odds and the rampant disrespect of teaching faculty, is it no wonder that librarians have an image complex.

Despite the devastating view of librarians by academics and the public, librarians persist in their endeavors to teach, either by seeking collaboration with faculty to educate students on information literacy in the classroom, or by conducting classes in the library building. Fortunately, there are some faculty
who are willing to acknowledge librarians, or at least are concerned that their students develop information fluency, to warrant collaborative classroom teaching. However, there is no doubt as to “which member of this teaching-related triad (teaching faculty/ students/librarians) is considered most significant within the educational cycle…the teaching faculty as sitting on the apex in this established relationship.” (Julien & Pecoskie, 2009, p. 151).

A Paradigm Shift
During the past few decades, education has been experiencing a profound paradigm shift. The Transmission Model of teaching in which professors lecture, students take notes, and tests and written assignments serve as assessment has been found to encourage “superficial reproduction rather than genuine learning.” (Wilkinson, 2000, p. 28). This lack of a deeper, more profound understanding of the subject matter, as well as the research process, led to the formation of the Research Model, also known as “active learning,” “case-based learning,” and “problem-based learning.” This shift equates to the progression from instructive learning to constructivist learning; or passive to active learning. The emphasis transfers from teaching to a focus on student learning.

In the Research Model, a professor presents the students with a real-life problem which they must solve individually or in groups, the students are encouraged to seek research to support their conclusions, and often they engage the use of emerging technologies. The advantages of this model is that “students are more likely to understand and remember something that they have figured out by themselves … [and] that we are trying to teach students not simply a body of knowledge, but a method; not simply content, put process as well.” (Ibid, p. 32). “The research model assumes that content is not an end in itself, but a means to a greater end, which is learning how to learn.” (Ibid, p. 36).

As the name of this new model implies, research is paramount and this has proved to be a significant advantage to librarians. James Wilkinson, in his chapter entitled “From Transmission to Research: Librarians at the Heart of the Campus,” envisions the Research Model providing great opportunities for librarians to assist both faculty and students. Faculty will need support incorporating the research methodology into their curriculum, while students will require help not only in finding appropriate resources, but in framing their questions in a manner to assist in their learning. (Ibid, p. 37-38). Often students allocate only minimal time and effort to the research process and often do not begin the actual process far enough in advance of creation to utilize other beneficial services such as interlibrary loan, or expanding their search in another direction, or seeking the opinion of a professor on the topic, or even just organizing the paper into a well structured document. Not only do students require instruction on when to begin research, but also where to begin (with resources from the library website, including paid databases, not Google) and how to formulate their thesis. “Students need coaching in the art of asking good questions – questions, that is, that lead to learning. They need to see how a question might play out in terms of time and research effort.” (Ibid, p. 38). Librarians have been teaching information literacy classes for centuries, but to have our latest movement in the development of lifelong information literate students coincide with the paradigm shift from Transmission Model to Research Model has proven prophetic.

In emphasizing problem solving techniques, the Research Model requires students to perform more information gathering, and although undergraduate students may be adept with the new technologies that are at their disposal, there is such an overabundance of information that to acquire it, evaluate it, organize it and integrate the right information effectively can be challenging. As more and more library content is digitized and added to the library’s digital collections, patrons (faculty, students, staff, visitors) will need assistance both in learning that such collections exists, and in locating the collections on the various library websites. Unlike the journal databases that are restricted to the university users, digital collections are open source and available to everyone to view and use; but learning to cite the library or organization that owns the collection is another issue to be included in the learning process. Who better to assist them in their research development than librarians?

In the Research Method, forming questions takes on increased importance and librarians can assist faculty in creating research opportunities within the curriculum to benefit the learning process of the students. Librarians have tried desperately to participate in curriculum development from its inception during collaborative teaching opportunities, but these have been sporadic at best. Teaching faculty remain reluctant to include librarians in their classroom instruction and still think of information literacy as separate and distinct from their subject matter. However, progress to include information fluency
standards into university wide courses is burgeoning and is also compatible with the paradigm shift.

**Librarian as Professor**

Academic librarians transform patron questions into teaching opportunities constantly; they rarely search for information and just hand it to a student. Instead, academic librarians first ask their own questions to obtain the real object of inquiry, and then demonstrate to the student how to search for the desired information. The point is to have students perform future searches independently. This concept in certainly not new; rather is dates back to the nineteenth century when the librarians of our first prominent universities and public libraries instituted the theory. Samuel S. Green wrote in 1876, “Give them [patrons] as much assistance as they need, but try at the same time to teach them to rely upon themselves and become independent.” (Weiss, 2004, p. [10]). Thus library instruction began at its most basic level only to expand so that soon college and university librarians were teaching their students in what was then newly termed the “laboratory library,” instruction took place in the library building, not in a classroom. “George W. Harris, Librarian of Cornell University, suggests that a ‘lecture to the entering class from the librarian, explaining the plan of the catalogue and its arrangement, pointing out the principal works of general reference’ would be helpful.” (Ibid, p. [13]). Since then librarians have taught bibliographic instruction or information literacy in a cornucopia of iterations that have progressed from information laden library tours to full semester credit-bearing courses. As Howard I. Simmons so fittingly states in his article entitled, “Librarian as Teacher: A Personal View, “ librarian’s “work in information literacy and resource-based learning confirm my long held conviction that most librarians are, first and foremost, teachers.” (Simmons, 2000, p. 43).

Although academic librarians have proven to be practiced and proficient teachers of information literacy, can they or do they wish to branch out to other disciplines as well? A literature search on the topic of librarians as professors in higher education inevitably retrieves articles on librarians teaching bibliographic instruction or information literacy, with very few other options. However, one exception is an article in which Gretchen V. Douglas writes about her experience teaching full semester, credit-bearing computer courses at the State University of New York (SUNY) at Cortland entitled “Professor Librarian: A Model of the Teaching Librarian of the Future.” Douglas refers to herself as “professor librarian,” obviously relishes the role and views it as a natural progression of her profession. She dovetails computer application course teaching with librarianship because both “cross all disciplines,” and because librarians are adept at using technology:

> On many college campuses, libraries were the first place computers were used in academic pursuits. Librarians had to learn to use the technology to survive. In turn, librarians had to teach the campus community how to effectively use the new technology to find information previously available in print sources. We are expert technology users and we already teach in many capacities. So I believe that the librarian as professor is the next step in the evolution of the profession. I believe our next step is to teach credit-bearing courses in computer applications. (Douglas, 1999, p. 26).

Despite Douglas’ perceptive concept of the professor librarian and her wonderful expose on the evolution of technology in higher education, her vision of future librarians teaching only computer application courses is restrictive. Librarians are ready and able to tackle much more.

At Seton Hall University in South Orange, New Jersey, the librarians have had innovative opportunities to teach beyond library instruction or information literacy. As the new millennium approached, the university was in the process of creating a new core curriculum. From its inception, librarians were involved in the creative process and they fought long and hard for the inclusion of information literacy as a required proficiency in the core design. It was an arduous task expanding several years, but the outcome was successful on several levels. Not only was information literacy infused in all the core courses, but the librarians also won the respect and admiration of several of the faculty members serving on the core curriculum committees. This second accomplishment was of major significance as it provided a prime opportunity for librarians to be counted equally among the faculty under consideration for teaching the new core courses.

Librarians have taught and continue to teach core courses at Seton Hall University. Among those having taught a core course is a reference librarian, an archivist, a cataloger and the dean of the library. All faculty and administration go through a semester of training and preparation before embarking upon the
actual teaching process which has proven to be a successful and rewarding experience. Librarians at Seton Hall have also branched out to other realms of teaching credit-bearing courses; teaching in their specialty field based upon their second master’s degree or work experience. A cataloger teaches in the Women and Gender Studies program, part of the Elizabeth Ann Seton Center for Women’s Studies on campus, and a reference librarian serving as the library liaison to the Stillman School of Business, teaches a business course. A science librarian with a doctorate in anthropology was approached by the Anthropology Department in the College of Arts and Sciences to consider teaching in their program. The opportunities for librarians of all specialties to teach within the various colleges or departments in an institute of higher learning are numerous; they just have to think beyond the enclave of the library and strive to number themselves among their teaching faculty colleagues.

Conclusion
The library as place in the 21st century may be facing an uncertain future due to increased electronic accessibility to information and the digital revolution, but for librarians, the climate is ripe for expanding teaching opportunities. Now more than ever, students and faculty need assistance with the retrieval of pertinent and meaningful information for their research needs. More than that, faculty and students need assistance with incorporating research into the curriculum and by extension, into the learning process. The Research Model stresses problem solving as a direct result of research, thereby making “inquiry and investigation” the “key activities” of graduate and undergraduate education. Wilkinson boldly proclaims, “Without the collaboration of librarians, attempts to improve teaching and learning are less likely to succeed.” (Wilkinson, 2000, p. 26). Librarians have been teaching information literacy classes for centuries, but to have this advancement in the development of lifelong information literate students coincide with the paradigm shift from Transmission Model to Research Model has proven prophetic.

The time for teacher-librarian collaboration is especially relevant so that increased respect among the professions is paramount. For professors to change both their teaching habits and their course work to conform to the Research Model is difficult, but the process can be lightened with the assistance of an understanding and patient librarian. Since librarians have been eager for just such collaborative opportunities, surely their patience and diligence will be forthcoming. However, faculty must understand the necessity for as well as the desire to incorporate information literacy into their curriculum in order for the partnership to be successful. Faculty may also obtain additional support by applying for course specific new technologies from their information technology center. Meanwhile, if librarians increase their presence on campus by serving on governance bodies and participating in social activities, it will allow them further opportunities to network with their faculty colleagues and to persist in their collaborative teaching endeavors.

It is also necessary for students to begin their research process well in advance of their writing and or production process in order to take full advantage of research avenues and services at their disposal through library websites. Glitches with technology can also prove problematic for students, so waiting until the last minute to create their product is a habit which the students must learn to correct. Faculty and librarians can emphasize this advantage incessantly, but ultimately it is up to the students to be responsible for their own coursework.

The digital revolution is a great benefit to researchers by making available a wealth of information not previously accessible to the general public, but ultimately places additional responsibility upon the librarian. As part of their profession, librarians must know where to find information, but the rise in digital collections expounds the amount of available information exponentially. Now is the time for increased specialization within academic libraries to allow librarians to keep abreast of the growing digitized projects in their specific disciplines. Creating libguides or subject guides will not only aid librarians in organizing their research options, but also provide the library user with a concise location on the library website to meet their research needs in a particular discipline.

As more information becomes accessible electronically, promotion of the library website becomes paramount; however, this mission cannot rest solely with the librarians, faculty and administration must also contribute their strong support. The library must once again regain its reputation as the “heart of the university.” Threats of the future demise of academic libraries are misguided at best, restoring scholarship as the cornerstone of universities should be the task at hand. As Thomas H. Benton states in his article entitled, “A Laboratory of Collaborative Learning: How we can put the library back at the center of undergraduate education, where it belongs?”
“By working more closely together, and responding to new technology while preserving the traditional culture of scholarship and books, I am convinced, professors and librarians can put the library back at the center of undergraduate education, where it belongs.” (Benton, 2009, p. A34).

Although collaborative classroom teaching and the continued instruction of individual information literacy classes is vital, librarians can combine their subject knowledge and information literacy skills to take teaching of credit-bearing courses to a whole new level. Douglas’ concept of the professor-librarian teaching computer applications courses is a step in the right direction in light of the growing digital environment. Keeping abreast of emerging digital projects, creating libguides in specific disciplines, adeptness with computer technology, and incorporating information fluency in their coursework make a resourceful, dynamic professor-librarian. Now more than ever, information literacy skills and concepts should be integrated into the curriculum, not only to coincide with the Research Model, but to meet the ultimate goal of creating true, lifelong learners. Knowledge acquisition does not cease upon graduation, it is necessary both in the workplace and in our social and leisure pursuits as well.

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