

Providing Library Instruction to Distance Learning Students in the Twenty-First Century: Meeting the Current and Changing Needs of a Diverse Community

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ABSTRACT

This study examines the variety of instructional practices employed in distance learning librarianship from the end of the Twentieth Century through the early beginnings of the Twenty-First Century. The authors provide a thorough review of the literature on distance learning library instruction, and the study highlights the instructional services provided at two academic institutions with distinctly different clienteles and missions—one a large American university and the other a large Caribbean university.

Introduction

According to the Association of College and Research Libraries' (ACRL's) *Guidelines for Distance Learning Library Services*, it is "essential" that each institution provide distance learning students with instructional services "equivalent" to those provided on-campus students, including the provision of a "program of library user instruction designed to instill independent and effective information literacy skills." How academic institutions provide instructional services vary widely depending on the personnel, facilities, and resources employed by the individual institution. In some cases, librarians travel to classrooms located at various sites, where they meet face-to-face with classes, lecture on library resources and services, and interact with students—the traditional method of library instruction prevalent throughout the last half of the Twentieth Century. In an ever-increasing number of situations, however, librarians are using the interactive capabilities of new technologies, especially the Web, television, and videoconferencing, to communicate simultaneously with students who can be located at many different sites. In addition, through online tutorials, course management systems, and other software, a great deal of library instruction is being conducted asynchronously. With resources and clientele varying greatly among academic institutions, pedagogical practices for distance learning librarians also vary greatly, and frequently for large institutions, depending upon the nature of the particular program or course being supported, practices may vary within the institution.

For librarians looking for information on pedagogical practices for instructing distance education students on how to use library resources and services, there are several resources that are immensely valuable. *Library Literature and Information Science Full Text* (a commercial *WilsonWeb* database) and *Library, Information Science & Technology Abstracts* (a free *EBSCOhost* database) are two of the best resources available, and fortunately, since the University of Iowa is home to an American Library Association accredited school of library and information science, both databases were available and utilized for this study. Possibly the best free resource, however, is *Library Services for Distance Learning: The Fourth Bibliography*, a Web-based resource originally edited by Alexander Slade—the editorial responsibility for the Web site was transferred in 2005 to the Distance Learning Section of ACRL. Other resources that should prove informative and useful for distance education librarians interested in instructional issues would be the Web site for *LOEX* (Library Orientation Exchange), a self-supporting, non-profit educational clearinghouse for library instruction and information literacy information, and the

Web sites and listservs for the two most relevant sections of ACRL—the Distance Learning Section and the Instruction Section.

Information Literacy and Active Learning

According to ACRL, information literacy is the “set of skills needed to find, retrieve, analyze, and use information,” and in order to guide instruction librarians interested in promoting information literacy skills, ACRL published the “Information Literacy Competency Standards for Higher Education” (ACRL, 2000). Building upon this, ACRL’s Distance Learning Section developed a SPEC Kit for the Association of Research Libraries entitled *Collaboration for Distance Learning Information Literacy Instruction* (ACRL, 2005), and in its study, the committee observed,

The ability to utilize a variety of tools and technologies, from face-to-face instruction to synchronous and asynchronous online assistance, appears to be a trend for libraries that are taking the lead in distance information literacy instruction. . . . Many of those libraries that are engaged in the distance information literacy instruction appear to be approaching the unique challenges of the distance learning environment dynamically and creatively (ACRL, 2005, p. 18)

Debbie Orr and Margie Wallin also recognized the need for creativity—that the “individualistic” information literacy needs and learning styles of off-campus students require a realignment of traditional services and flexible delivery of instruction (Orr and Wallin, 2001). During the last four years, the Off-Campus Library Services Conference and a number of journals have produced a good deal of scholarship concerning the creative development of information literacy programs for distance education students (Lockerby, Lynch, Sherman, & Nelson, 2004; Mulherrin, Kelley, & Fishman; 2004; D’Angelo & Maid, 2004; Kearley & Phillips, 2003; Buchanan, Luck, & Jones; 2002; Holmes, 2002; Walsh, 2002; McFarland and Chandler, 2002; Kelley, Orr, & Houck, 2001; Manuel, 2001; Reynolds, 2001; Dewald, Scholz-Crane, and Booth; 2000; Heller-Ross and Kiple, 2000)

Learning Styles

In order to connect with as many students as possible, distance education librarians must be aware of the wide variety of student learning styles, especially when their instruction involves new technology. For example, Yunfei Du noted that, for online courses, students with “concrete” learning styles are naturally more satisfied with the learning experience, so instructors may increase overall student satisfaction by including more active/reflective dimensions for “abstract” learners (Du, 2004, pp. 60-61). Christopher Brown-Syed, Denice Adkins, and Hui-Hsien Tsai discovered that, although “visual and intuitive learners may gravitate to the Web with ease,” sequential and aural learners may have problems. To help alleviate such problems, they concluded, “Just as with classroom presentations, distance education programming demands the employment of a variety of teaching methods to accommodate a variety of learning styles (Brown-Syed, Adkins, and Tsai; 2005, p. 22).” Katherine Holmes also emphasized the need to better understand the variety of learning styles among distance education students, concluding “When we offer a diversity of learning approaches, we enable all students to choose the best environment (possibly multiple environments) for their learning” (Holmes, 2002, p. 376).

The University of the West Indies at Mona Information Literacy: Getting UWI Mona Distance Learners on Board!

The University of the West Indies (UWI) consists of three campuses—Cave Hill in Barbados, St Augustine in Trinidad, and Mona in Jamaica. In addition there are UWI Distance Education Centres (UWIDECs) in the non-campus countries, which gives the University a presence in those islands, as well—Anguilla, Antigua and Barbuda, the British Virgin Islands, Dominica, Grenada, Montserrat, St. Kitts/Nevis, St. Lucia and St. Vincent, the Grenadines, Belize, the Bahamas, the Cayman Islands, and the Turks and Caicos Islands.

UWI's programs are delivered face-to-face on-campus, through tertiary level institutions (TLIs), and by distance education methodologies. Formal distance education at UWI, began in 1983 with audio-graphic teleconferencing. However, in 1996 print became the primary medium of dissemination of instruction, while teleconferences and face-to-face tutorials became supportive strategies.

In recent years, the drive has been to improve the quality of UWI distance education offerings, so beginning with the academic year 2005, blended learning was introduced. The components of this new approach are a self-study print-based instructional package (course material, compilation of readings and course guide); *Moodle*, a Web-based learning Management System (LMS); E-Tutor to monitor activities; and CDROM to provide students with *PowerPoint* presentations (with audio narration) of some aspect of the course content.

Mona has a relatively small distance-student population, the majority of whom work in education, the financial sector, or the civil service. Students pursue undergraduate degrees in accounting, economics, management studies, education, educational administration, agribusiness, and the diploma in gender and development studies. In addition, there is a post-graduate diploma in construction management, and master's degrees in agricultural and rural development, counseling, family medicine, and education.

Distance students attend classes at UWIDEC sites, and each of the three UWI campuses is responsible for a number of these sites. Mona Campus, for example, is responsible for ten off-campus sites across Jamaica and four in the northern Caribbean—in the Bahamas, Belize, Cayman and the Turks and Caicos Islands. It is the responsibility of each campus library to provide support to underpin the academic programs.

Library Instruction & Information Literacy at UWI. Mona

As one of its offerings to on-campus undergraduates, the Mona Library delivered face-to-face bibliographic instruction from 1985 to 2000. Instruction was compulsory for students taking an English usage and writing class sponsored by the Department of Language, Linguistics and Philosophy. The sessions involved a lecture by a reference librarian and a two-hour tutorial, which were complemented by optional sessions on the use of the Internet and information about database searching.

Unfortunately, these sessions were never offered to the distance learning community, although their informational needs were not different from their on-camps counterparts. But there was a reason for this. For many years, the library was not involved with the campus's distance education programs. However, in 1996 when UWIDEC was established, its staff invited librarians from the three campuses to join them and other UWI personnel in Barbados for a five-day workshop conducted by personnel from the International Extension College of the Open University. The workshop addressed support for distance learners and sensitized the librarians to this segment of the student population and to their information needs. As a consequence, the Mona Campus librarian identified someone to coordinate services to the distance learners. This resulted in the introduction of some basic library services, such as on-site core collections, mediated database searching, and reference service.

The University administration declared that UWI students upon graduation, should possess certain attributes and these clearly highlight the need for information literacy instruction. For example, the current principal stated, "The Mona Campus remains committed to the delivery of a quality education to our students and to the producing of graduates who are independent critical thinkers..." (UWI Calendar 1999, p119). And the following was found in the *Mona Development Plan 1990-2000*, "The campus will emphasize sound undergraduate education... to produce good graduates capable of thinking, researching material, analysis, integrating knowledge and coherent expression of ideas (UWI Mona, 2001, p. 6). Against this backdrop, in her report for the academic year 1999-2000, the University/Campus Librarian remarked, "It is hoped that the Library will soon be able to establish a bibliographic instruction unit to spearhead the thrust towards an Information Literacy program which will equip students with the competencies to gain maximum benefits from their university education" (Departmental Reports p.6).

Mona's Information Literacy Unit (MILU) was established in the 2000-2001 academic year. Training sessions were offered to all librarians and paraprofessionals, and this resulted in the development of a cadre of librarians who were able to offer a variety of training courses to clients. According to the departmental report for 2001-2002, over 1500 students were given information literacy training via library modules in foundation courses. Along with the customary introductory courses on using the online public access catalogue (OPAC), post-graduates and undergraduates could access the following: "Introduction to the WWW," "Internet Strategies," "Web Databases," and "Citing and Evaluating Information Resources." In addition, the unit provided group-specific training courses at the request of lecturers.

By 2001, the Distance Library Services Coordinator, in keeping with ACRL's *Guidelines for Distance Learning Library Services*, surveyed a sample of the distance-learner population to ascertain their satisfaction with the existing library services and to determine new service requirements (McLean & Dew, 2004). Unfortunately, when asked how useful information literacy (the meaning of information literacy was explained) would be to their course of study, the majority gave it a "moderately useful" score. This of course indicated a lack of understanding of information literacy skills to their studies and for life long learning. Convinced that the time for information literacy instruction had arrived, the Distance Library Services Coordinator commenced training at the sites. The idea was to offer training similar to that offered to the on-campus students, bearing in mind the necessity to give distance learners services and resources comparable to those offered to the on-campus students. As a result the module developed by MILU was slightly modified for the purpose of off-site training.

The Module

The module is entitled "Locating, Evaluating and Using Information from a Variety of Sources," and it covers the following search strategies:

- Analyzing and brainstorming the topic
- Determining the information needed— background, statistical, current, historical
- Resource options—reference books, text books, newspaper articles, scholarly journal articles,
- Using appropriate tools to locate the resources—The Library catalogues, databases, the Internet, printed indexes and abstracts
- Evaluating your sources (some criteria—Does the information answer the question? Is it current? Is it complete? Is the article signed? Is the writer an expert in his field)
- Citing information sources

The tutorials are conducted in the computer labs of the UWIDDEC sites and aim to introduce students to the library services and resources, search strategies, finding print and online resources available from the library, evaluating sources, and responsible use of information. During the two-hour-long session, the Distance Library Services Coordinator uses the distance learners' Web page as the centerpiece, to introduce the scope of the library services and resources available to the students. Then, using a *PowerPoint* presentation, the librarian takes students through the steps in the research process, stopping at intervals to engage in the following activities: brainstorming and analyzing a given topic; using the Web version of the library catalogue to locate resources on the topic; database searching, using search engines, accessing the subject portals and other resources from the distance learners' homepage. An important bit of information for the students is the fact that they can access the databases from the UWIDC sites only, as authentication is by IP address, but they can access past exam papers and reference sources anytime anywhere. Finally, students are taken through the criteria for evaluating information resources and reminded of the need to note information sources carefully and to cite them accurately.

Challenges

Both on-campus and off-campus students are required to take the English usage and writing course through which the module is delivered. However, as part of their course requirement, the on-campus students must attend the lecture in the library (most times their lecturers accompany them and mark

the register). However, there is no such requirement for those in the distance program, and herein lies one reason for poor attendance at training scheduled at the sites. Another reason for this is the fact that the Distance Library Services Coordinator has to depend on the willingness of the site administrators to schedule the sessions and encourage attendance, and more often than not, this is not easily achieved. In other cases it is the unwillingness of students to attend. One can only speculate that some are yet to grasp the importance of the tutorial and others cannot find the time to attend because of their packed schedule. Another contributory factor to the poor attendance might be the time of the academic year that the classes are scheduled. The English usage and writing course is delivered in the first semester, but more often than not, information literacy training is not delivered at the sites until the second semester.

Another issue is that of follow up. While the face-to-face students have their lecturers to reinforce aspects of the training through class activity, there is no such experience for the off-campus students. They have one class only, sometimes for less than the scheduled two hours, and that is the sum total of their exposure. However, their on-campus counterparts have the option of attending additional sessions offered by MILU. Finally, undergraduate distance students, in the Northern Caribbean and those in postgraduate programs by distance are not given information literacy training. This is so because the Distance Library Service Coordinator does not visit sites out of Jamaica nor have classes with those in the postgraduate programs.

The Way Forward

The provision of the information literacy instruction for UWI Mona distance students is still in its infancy and is not reaching the majority of distance students. However, those who have attended the sessions have given positive feedback and lamented that they had not been exposed to the information earlier in the academic year. This is one good reason to improve the offering and delivery of instruction. Another is that distance learning is one of the nine strategic objectives of the UWI *Strategic Plan 11, 2002-2007* (p.24) and there is the Library's own commitment to improve library services for distance learners.

The first step in this direction involves lobbying the Department of Language, Linguistics and Philosophy, which is responsible for the English usage and writing course, to integrate the information literacy module into the course for all undergraduate distance student, as it is for the on-campus students, and encouraging the course coordinators of the distance master's programs to integrate an information literacy module in their program, as well.

Over the longer term all Mona distance students should be required to take an information literacy course for academic credit. Of course the methodology, by which the course will be disseminated, since there are a number of students to be reached, is a factor for careful consideration. However, contemporary trends in course delivery, dictate that a Web-based solution is the way forward. According to Stefanie Dennis and Kelly Broughton (2000), "a clear and distinct advantage of using a Web-based tutorial is that it can be offered to anyone in the world at any time of the day or night, to the benefit of independent learners and those at a distance" (p32). If this delivery method is adopted, it will allow students to complete the course independently, without having to attend classes. However, they would be encouraged to seek the help of the Distance Library Services Coordinator by telephone, fax or e-mail, if they need help to complete their course work. A best practice that could be benchmarked for this module is that done by Texas Tech University, in which students do two practicum exercises which require them to go to the nearest public library to use printed resources in order to complete them (Hufford 2004). An appropriate evaluation instrument should also be developed to measure the effectiveness of the module and to make adjustments where necessary. Finally a variety of methods including e-mail, brochures, and the learning management system, *Moodle*, should be used to publicize information literacy instruction, including its benefits, and means of access.

Library Instruction & Information Literacy at the University of Iowa

The University of Iowa (UI) sponsors about fifteen different degree-granting programs (Dew, 2002). Approximately 2,000 students are enrolled in graduate or professional degree-granting programs, and another 4,000 are enrolled each year in bachelor-level, liberal-arts-and-sciences courses. Although

most of UI's distance learners are located in the state, a significant number are located throughout the United States and in many foreign countries. To meet a growing demand for distance education, the University of Iowa has increased its course and degree offerings by utilizing a wide variety of teaching methods, formats, and technologies. Although some distance-education classes continue to conform to the traditional correspondence-course format, others are conducted entirely over the Internet or entirely by videotape. Most distance-education classes, however, involve some level of live interaction between faculty and students. For some courses, faculty members travel to classrooms located at various sites throughout the state, where they lecture, hold class, and interact with students. In an ever-increasing number of situations, faculty members use the interactive capabilities of television, especially the Iowa Communications Network (ICN), and they conduct their classes while communicating simultaneously with students who are located at several different sites around the state.

The University of Iowa Libraries support the informational, research, and instructional needs of UI students and faculty participating in distance-education programs regardless of course format or location. Prior to the beginning of each semester, the Distance Education Coordinator sends an e-mail to each faculty member involved in distance education, offering formal face-to-face instruction when appropriate, as well as other instructional services, including reference assistance (by e-mail and toll-free telephone) and course-specific chat communications through the university's course management system—ICON (Iowa Courses Online, a Desire2Learn system) (See Appendix A). For the Coordinator, the preferred method of instruction remains the face-to-face alternative, especially when each student has access to a computer with an Internet connection. In such face-to-face instruction, the Coordinator can take best advantage of the hands-on experience, taking each student through the research process of using library resources and services, while highlighting information literacy components. In most cases, the Coordinator travels to the off-campus site where the class meets, but for some programs, the distance education students visit the campus for a general orientation to their program, and while on campus, they visit the library for face-to-face instruction.

For joint videoconferencing with on-campus and off-campus courses, the University of Iowa has the great fortune to have access to The Iowa Communications Network (ICN), a statewide fiber optic network providing connections to over eight hundred classrooms located in libraries, schools, colleges, hospitals, and a wide variety of government offices throughout the state. With comfortable seating and individual microphones for students located in each classroom, instructors can communicate directly with off-campus students and promote discussions between a number of sites simultaneously during a class session. A significant number of UI distance education classes utilize the ICN, and the Coordinator of Library Services for Distance Education usually meets with several of the classes each semester. Since individual student computers are not available in the ICN classrooms, however, the Coordinator must rely on a general presentation and demonstration to the students, instead of taking advantage of a hands-on experience. In spite of the lack of the hands-on option, the Coordinator attempts to enliven the presentation with discussion, questions, and feedback from the students at the off-campus classrooms.

As Cheryl McCarthy at the University of Rhode Island has observed, a positive attitude about learning through the medium of videoconferencing can be increased by interactivity and the active participation of distant students, and as she concluded, "The benefits of interactive video far outweigh the barriers" (McCarthy, 2004, p. 25). At Nova Southeastern University, Mou Chakraborty and Shelley Victor were involved in an innovative delivery method for library instruction to graduate students using compressed video, and in a study presented at the Eleventh Off-Campus Library Services Conference, they highlighted the many challenges confronting instructors using videoconferencing. Chakraborty and Victor emphasized the need to incorporate active learning techniques whenever possible, and they concluded that each remote site needs to be set up to be "conducive to a positive learning process," with access to computers for hands-on experience at the sites being the ideal (Chakraborty & Victor, 2004, p. 111). In addition, several other studies have emphasized the positive aspects of reaching distance education students through the use of videoconferencing technology (Dunlap, 2002; Ronayne and Rogenmoser, 2002; Ruttenberg and Housewright, 2002; Bean 1998).

UI Online Courses, Course Management Systems, & Tutorials

For several years, the University of Iowa supported two different course management systems—*Blackboard* and *WebCT*, and although most faculty and students were generally satisfied with the systems, technical support was quite demanding, and the dual support sometimes led to confusion. After a university-wide assessment indicated that the university should adopt a single, centrally-supported course management system with full enterprise integration, a faculty review led to the adoption of *Desire2Learn*, allowing for a common institutional-wide strategy, while encouraging local adaptation and innovation-- colleges and departments are given local control over "look and feel" aspects, and they are given the flexibility to develop their own best practices. In 2005, the university began a one year transition to the *Desire2Learn* courseware, which the university named *ICON*, standing for "Iowa Courses Online." For the Coordinator of Distance Education Library Services, working with faculty using the course management systems has involved the creation of special resource pages, the provision of electronic reserves, and occasionally, chat reference. In order to take greater advantage of the university's courseware, in 2005, the Libraries created a Course-Management-System Integration Task Force (with the Coordinator for Distance Education Library Services as a member). The Task Force interviewed librarians and teaching faculty in order to determine current and potential uses of the courseware. The investigation will continue into 2006, with one goal being to promote librarian and faculty collaboration in order to utilize the full potential of the courseware for instructing and assisting students.

In 2005, the UI Libraries offered only one online class focused on instructing students in the use of library resources and services; it was a course designed for undergraduate business students entitled "Competitive Intelligence Resources." The librarians involved in the course have begun preliminary discussions on how the course might be adapted and offered to off-campus students involved in the university's distance education MBA program. In addition, the Coordinator began preliminary discussions on developing an online course on the use of library resources and services that would be offered to off-campus undergraduate liberal arts students. The UI Libraries will continue to investigate ways to use online courses and course management systems to provide instruction, resources, and services to distance education students.

Other institutions have taken different advantages of online courses and course management systems. For instance, librarians at Central Missouri State University used *Blackboard* to create a "pseudo course" that was designed to provide library instruction, research assistance, and communication to all of the institution's nursing students (Dinwiddie and Winters, 2004). Librarians at the University of Kentucky have developed faculty/librarian co-instructor teams for online courses, allowing "students to work with the course librarian throughout the entire life of a research project or a course, thus providing greater continuity in their projects and alleviating the need for constant re-explanation (Lillard, 2003, pp. 209-210; Lillard, Wilson, and Baird, 2004). Several institutions have used courseware to develop for-credit courses in information literacy and library instruction, including the Open University (Needham, 2004; Parker, 2003), Royal Roads University (McFarland and Chandler, 2002), Austin Peay State University (Buchanan, Luck, and Jones, 2002), Louisiana State University (Wittkopf, 2003), Purdue University (Reynolds, 2001), Texas Tech University (Hufford, 2004), Washington State University (Lindsay, 2004), Rollins College (Zhang, 2002); Regent University (Lee and Yaegle, 2005), California State University, Chico (Blakeslee and Johnson, 2002); California State University, Hayward (Manuel, 2001), University of Texas at Austin (Ardis, 2003), and University of Maryland, University College (Kelley, Orr, and Houck, 2001; Mulherrin, Kelley, and Fishman, 2004). Librarians at the Houston Community College System have expanded upon the concept of the online course by having embedded librarians in the online classes, and they have creatively used a blog, available through links in all of the online classes, to serve as an instructional and communication tool with large numbers of students (Drumm and Havens, 200

During the last decade, as the Internet has continued to expand as an enormously powerful tool for providing services and resources to distance education students, significant numbers of libraries have turned to Web-based tutorials to provide instruction and promote information literacy skills. Although some institutions still utilize CDs as an option for reaching a certain segment of distance learners, there is an overwhelming trend to transition from CD to Web access (Jones, 2004; Arnold, Sias, and Zhang, 2002). Web-based tutorials, many of which are in-house creations, can work effectively, especially for introductory information, but they do vary greatly in quality, and those lacking active learning components appear to be the least effective (Viggiano, 2004). According to Paul Hrycaj, almost sixty percent libraries

in the Association of Research Libraries (ARL) have created their own tutorials, and in addition, approximately sixty percent have active learning components—a learning process involving the gathering of information, critical thinking, and problem solving (Hrycaj, 2005). The *TILT* (Texas Information Literacy Tutorial), developed by the University of Texas is probably the best known of the Web-based tutorials, and many institutions have developed tutorials around that model (Orme, 2004; Fowler & Dupuis, 2000). A significant number of institutions have developed effective, interactive tutorials for distance education students and other remote users, including Western Michigan University (Behr, 2004), Deakin University (Churkovich and Oughtred, 2002), Shippensburg State University (Cook, 2002), University of Illinois at Chicago (Koenig and Martin, 2003), University of Wyoming (Kearley and Phillips, 2002), and the Resource Discovery Network in the United Kingdom (Place and Dawson, 2002). A trend seems to be shifting toward the use of mini-tutorials or short-tutorials, focusing on particular subjects or research techniques, so that students do not have to go through long tutorials containing information superfluous to their particular needs. In addition to the use of Web-based tutorials, the University of Calgary has utilized Web-based worksheets for instruction, so that students can follow along interactively during hands-on instruction, or they can use the worksheet later asynchronously after the session (MacMillian, 2004). For the last ten years, the UI Libraries supported an introductory tutorial, *Library Explorer*; however, since the tutorial lacked interactive components, the Libraries terminated support for the tutorial in 2005, turning to more active models, such as a *PsycINFO* tutorial co-developed with Kirkwood Community College.

Conclusion

The particular delivery method used for library instruction is usually mirrored by (or determined by) the nature of the particular program or course being supported. When institutions offer courses in a variety of formats utilizing a variety of technologies, instructional methods are necessarily offered in a variety of modalities, and they should include a full array of instructional services, from high-tech to low-tech. Librarians must be flexible; they must understand the variety of learning styles; and they should provide instruction to distance education students through a variety of learning environments. According to Holly Heller-Ross and Julia Kiple, “Instruction formats are usually closely connected to the technology and format of the other academic course offerings.” Heller-Ross and Kiple also noted that “every possible format is currently in use somewhere. . . . (but no particular one) is any better than the others—(t)hey have developed from the practical experiences and philosophical ideas of the librarians who shaped them and represent different institutional profiles in terms of size and types of degrees offered” (Heller-Ross and Kiple, 2000). Johana Tunon reinforced the conclusions of Heller-Ross and Kiple when she observed that no particular instructional technique or format is a “silver bullet,” offering the perfect solution for library instruction. Offering flexibility and variety in the instructional process are the keys to success, but Tunon also noted a political campus reality, “Decisions about whether to offer library training online or in a face-to-face format often are made by academic programs, and are based on the administrative and political constraints of those academic programs and curricula rather than fundamental pedagogical considerations” (Tunon, 2002, pp. 525-526).

The University of the West Indies and the University of Iowa have very different off-campus and distance education programs, but the librarians at both institutions are using many of the same teaching techniques and technologies to provide library instruction and information literacy training to their distance learners. All colleges and universities with distance learning programs must support the informational, research, and instructional needs of all of their off-campus students and faculty, regardless of course format or location. Face-to-face instruction continues to be a very important and very effective method of teaching, but increasingly, new technologies are providing important and useful alternatives for reaching many distance learners who would otherwise not receive instruction. The challenge to each distance learning librarian is how to use staff time and resources to provide a particular variety of instructional options that best fits his/her institution’s course offerings and student needs.

Appendix A
E-mail Sent to University of Iowa Distance Education Faculty
Prior to the Start of Each Semester

Dear Professor X:

As the Coordinator of Library Services for Distance Education, I am writing to inform you about the library resources and services that are available to you and your students enrolled in 021:120, "Design of Automated Systems." If you think that your students will find it useful, I will be glad to work with you on adding a library component to your ICON course site, and I also will be glad to give a presentation to your class on research strategies and how students can best use library resources and services. In addition, if you would like, I can set up an electronic reserve module for your class reading list.

I have attached a handout that summarizes library services for distance education students. Your students should have received a copy of this handout in their course registration packets from the Center for Credit Programs. The handout emphasizes the "Library Services for Distance Education Web Site" located at the following URL:

<http://www.lib.uiowa.edu/disted>

Through the Web site, students have access to the following:

- **Shortcuts to Electronic Resources:** Each shortcut links to a list of resources relevant to a particular subject, and I believe that many of your students will find the shortcut to "Library Science" useful.
- **Document-Delivery Service:** For a small fee, students can request that articles be faxed to them, mailed, or sent by desk-top delivery. Students also can request that books be sent to them by UPS.
- **Reference Service, by E-mail and Toll-Free Telephone:** Students can ask for help developing basic research strategies, finding information, and using library resources and services.

If I can assist you or your students in any research or library matter, please feel free to contact me at any time.

Sincerely,

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