Improving the Status of Japanese Academic Librarians Through Better Implementation of Online Information Literacy Tutorials

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Abstract

This paper reviews the state of academic librarianship in Japan and the ongoing efforts to improve the low professional status of Japanese academic librarians. The current use of online information literacy tutorials on Japanese academic library websites is examined through a quantitative content analysis of academic library websites in the United States, Canada and Japan. The data gathered indicates a significant gap between the use of online information literacy tutorials in the United States and Canada and their use in Japan. Improved professional development in Web 2.0 tools and technologies for Japanese academic librarians is suggested as a means to achieving both the broad societal goals of information literacy education and the specific goal of improving the professional status of academic librarians in Japan.

Keywords: academic libraries, information literacy, online tutorials, Japan

Introduction

The ability to effectively locate, evaluate, and utilize information using a wide range of technologies has become a core component of the educational process in the information age. At present, the integration of information literacy (IL) education into the Japanese university system could be hampered by structural, educational, and economic priorities. Despite general support for the goals of information literacy, various forces are at work that may impede the inclusion of comprehensive IL instruction into the university curriculum and the Japanese academic library. Of particular importance is the non-professional status of academic librarians within the Japanese educational system.

This paper will examine the gradual development of information literacy as an important educational objective, the current state of academic librarianship in Japan, and the possibility of better implementation of online IL tutorials in Japanese academic libraries as a means to achieving broad IL educational goals while improving the status of academic librarians generally. A preliminary content analysis of thirty academic library websites will offer insights into the use of online IL tutorials at the top universities in Japan, the United States, and Canada.

Literature Review

Information literacy defined

The goals of producing information literate individuals and encouraging the creation of an information literate society have been actively pursued for well over two decades. With the continuous evolution and complexity of the information landscape these goals have only increased in importance. Originally coined by Paul Zurkowski in 1974, the concept of information literacy (Zurkowski, 1974) has become increasingly connected to the mission of educational institutions and libraries. In its simplest conception IL is the ability to find and use

information effectively, but more detailed definitions offer better insights into the broader implications of IL.

The Association of College and Research Libraries (ACRL) defines IL as the ability to "recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information" (American Library Association [ALA], 1989). In relation to the objectives of higher education, the ACRL adds:

by insuring that individuals have the intellectual abilities of reasoning and critical thinking, and by helping them construct a framework for learning how to learn, colleges and universities provide the foundation for continued growth throughout their careers, as well as in their roles as informed citizens and member of communities ("Information Literacy Competency Standards," 2000, p. 4).

An even broader conception is offered by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Federation of Library Associations (IFLA) in 'The Alexandria Proclamation on Information Literacy.' It emphasizes empowering "people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals" *and* to achieve social justice through better access to emerging opportunities offered by new technologies in the interests of redressing economic and social disadvantages (IFLA, 2005). These lofty aspirations are an indication of the wide conceptual boundaries of IL and despite the danger of losing touch with its practical applications, they form an important dimension of the meaning of IL on a global scale.

IL delivery methods

Information literacy education in the US and Canada is typically offered through information literacy sessions taught by librarians at the K-12 and university levels. These

sessions may be one-shot focusing on a specific, practical or conceptual objective; they may be stand-alone courses offered at universities; or they may be course-integrated lessons that focus on specific educational goals at the student's point-of-need. It is widely accepted that an ideal delivery method for IL instruction is a traditional classroom led by a teacher/facilitator in which an active learning environment allows students to engage with the material and discover knowledge for themselves (Jacobs, 2008; Conger, 2001; Keyser, 2000). Regrettably, not every university has the qualified staff and administrative/faculty support to guarantee such a learning environment. Added pressure is caused by the increasing cost of electronic resources and shrinking library budgets which stretch library resources to the limit (Blummer, 2007). In such an environment, providing "relevant library resources through a user-friendly web-design interface" (Blummer, 2007, p. 46) has become all the more important.

A survey of 114 ARL (Association of Research Libraries) member libraries, conducted by Carol A. Wright in August 2002 and June 2003, found that around two-thirds included Internet searching support in the form of search engines, guides and *tutorials* (Wright, 2004). Since 2003, online tutorials have become increasingly common as a method of delivering IL instruction through academic library websites. This is partly due to increasingly powerful, yet affordable, screencasting technology, which allows for the recording and editing of actions on your screen. Such easy-to-use software offers a diverse group of users point-of-need, self-paced access to "student-controlled and student-directed" IL tutorials (Reece, 2007, p. 487). These tutorials can incorporate many interactive features that maximize learning potential through immediate feedback, informal online quizzes and exercises, decision-tree design that allows the user to select study sequence and difficulty level, internal looping functions, research simulations and other types of problem sets (Reece, 2007, p. 487-488). Online tutorials that include audio

and narration have been shown to be more effective than standard text/image-based online tutorials (Tempelman-Kluit, 2006). Including an active, visual environment through the use of screencasting can trigger both the visual and verbal processing channels and provide "the opportunity for learners to connect and create representations between each mode of information" (Tempelman-Kluit, 2006, p. 366).

Overall, the use of advanced technological capabilities and interactive features in an online IL tutorial offers unique and effective opportunities for IL instruction delivery. In an environment where instructional librarians cannot present live tutorials, online tutorials offer students an alternate means of achieving IL objectives. Whether these tools can be properly utilized on behalf of the Japanese university student will depend on who creates them and why. This is of particular importance because the state of academic librarianship in Japan may be tied to the success of general IL initiatives.

Japanese librarian certification

Librarianship in Japan is currently facing a set of transformative issues that have placed the field in a fragile position. Whether Japanese librarianship can adapt and evolve will depend on many factors, and the increased inclusion of IL into the sphere of librarianship should offer promising areas for positive growth. A consideration of the attributes of librarianship in Japan will illustrate both the barriers and opportunities that lie ahead.

The official qualification for librarians, as set by Japanese Library Law, is called 'shisho'. This certification is issued by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) (Cullen & Nagata, 2008; Matsuoka-Motley, 2011). It requires "a university degree and twenty credits of library science knowledge, which may be part of the candidate's degree studies" (Cullen & Nagata, 2008, p. 164). It can also be obtained by taking a special

training program. It is important to note that this certificate is not an academic degree and is reasonably easy to obtain. According to Matsuoka-Motley (2011) it "is not comparable with MLS or MLIS degrees" (p. 275). Surprisingly, many shisho certification instructors do not have a background in Library and Information Science (LIS) and only 51.4% have a Master's degree. In addition, about 26% have had no experience as an information professional (defined as less than 1 year experience) (Tsuji, Yoshida, Miwa, Takeuchi, Muranashi, & Shibata, 2006). The number of shisho instructors who teach certification courses without any professional LIS qualifications or experience is one troubling indicator of a questionable future for Japanese academic librarianship.

In addition, there is widespread agreement among scholars that the ease with which the shisho certification is obtained has led to an overabundance of certifications that far exceeds available jobs (Cullen & Nagata, 2008; Matsuoka-Motley, 2011; Tsuji et al., 2006). Approximately 10,000 certificates are awarded annually despite the fact that "there are only about 14,000 public librarians in Japan" (Tsuji et al., 2006, p. 238). This means that fewer than 5% of certificate holders find employment in libraries (Cullen & Nagata, 2008; Matsuoka-Motley, 2011). Comparable degree completion/job placement ratios in the US show much greater balance. One possible explanation for this abundance of shisho-holders is the desire to obtain certifications in a Japanese economy that has been in the doldrums for decades. Many students look to acquire numerous certifications to make themselves more marketable in a variety of fields. This is supported by the results of a survey of 835 full- or part-time instructors of shisho certification; about half of whom felt that "many students have little awareness, motivation or interest in anything other than certification" (Tsuji et al., 2006). It seems that obtaining the shisho certification represents just another job option rather than a career path for

many who pursue it.

The shisho certification process is a reflection of the low status of librarians in Japan as compared to other countries. The shisho certificate is the standard qualification for working in all types of libraries (academic, public and special), yet in Japan currently "less than 50% of library staff … hold a professional qualification" such as a shisho certificate or Master's degree (Cullen & Nagata, 2008, p. 164). This state of affairs is also connected, in part, to the Japanese practice of 'job rotation' in which employees are rotated among different departments and specialties every few years in order to achieve generalized knowledge. It has long been practiced in companies and local/prefectural government offices. In the context of Japanese universities, university library staff have traditionally been selected from a pool of general, low-level, administrative staff who may or may not have shisho certification (Matsuoka-Motley, 2011). These staff members are then rotated in and out of the academic library every five years or so to create "multiskilled generalists" (Cullen and Nagata, 2008, p. 167). This practice, meant to encourage wide-ranging experience and revitalize staff through new challenges, may limit the development of expertise among university library staff and could contribute to the growing trend toward outsourcing library staff positions to commercial companies.

The National University Corporation Law and Outsourcing

In 2003, national universities acquired corporate status through the National University Corporation Law. Traditionally under strict MEXT regulations, this change in legal status allowed the powerful, national universities to develop "distinct educational and research functions through a more autonomous management policy" (Cullen & Nagata, 2008, p. 163). This change resulted in immediate economic pressure and cost-cutting measures. Due in part to the low status of librarians, many of their traditional job functions were outsourced to

commercial vendors who now provide services such as "public services operations, reference desks, circulation desks and user education" (Matsuoka-Motley, 2011, p. 273). This outsourcing has allowed universities to "take advantage of external expertise" (Matsuoka-Motley, 2011, p. 273). As of 2008, "72% of academic libraries implemented at least a partial outsourcing system and 3.2% implemented comprehensive outsourcing" (Matsuoka-Motley, 2011, p. 274). Many shisho certificate holders now seek employment with a commercial vendor in order to secure employment in an academic library. This has led to a system in which university library staff work alongside commercial library staff in many academic libraries. In this fractured system, the commercial library staff are more likely to have shisho certification, while the university library staff are more intimately connected to the mission of the broader institution. This has led to communication problems and poor information sharing that may negatively impact library operations (Matsuoka-Motley, 2011).

In general, academic library users probably benefit from the targeted expertise of the contract employees through some improvements in the quality of service, but the disconnect between the commercial vendor's objectives and the university's educational objectives could create missed opportunities, particularly in the area of information literacy. In the course of observing a database vendor's instructional session at Ritsumeikan Asia Pacific University in Beppu, Oita, Japan in June 2011 the author had the opportunity to briefly interview a vendor representative. On that occasion the vendor representative was quite direct in stating that his company's primary goal was to increase student use of the database in order to ensure future contracts with the university. The instructional session itself was rushed and unfocused, focusing mainly on quickly illustrating as many features as possible during the 90-minute session. The instructor was visibly tired, possibly due to his hectic schedule, which required him to visit over

100 Japanese universities per year. Such vendors, with contracts at many universities, are more likely to seek generalized, low-cost solutions to requests for new services and the absence of academic librarians to assist with the unique and changing IL needs of a particular student body could ultimately prove detrimental to the university's mission. Japanese academic universities are currently trying to provide users with "the courses or tools to make them information literate" (Hosono, 2006, p. 126), including web tutorial systems at several universities. A broad comparison of the availability and quality of online IL tutorials on Japanese, American and Canadian academic library websites could help to identify potential areas for improvement and reveal whether this valuable tool is being fully utilized to the benefit of Japanese university students and academic librarians alike.

Methodology

Content analysis of online IL tutorials

A preliminary content analysis of academic library websites was conducted by the author `in July 2011 to compare the current use of online IL tutorials on academic library websites in the US, Canada and Japan. The top 10 universities in these three countries were selected for analysis using the *US News & World Report* National University Rankings and World's Best Universities Rankings (Table 1). These rankings are based on "such widely accepted indicators of excellence as retention and graduation rates and the strength of the faculty" ("How U.S. News Calculates," 2010).

Table 1. *Top 10 universities in the United States, Canada, and Japan*

TABLE 1		
TOP 10 UNIVERSITIES -US	TOP 10 UNIVERSITIES -CANADA	TOP 10 UNIVERSITIES -JAPAN
Harvard University	*McGill University*	*The University of Tokyo*
Princeton University	*University of Toronto*	*Kyoto University*
Yale University	*University of British Columbia*	*Osaka University*
Columbia University	*University of Alberta*	*Tokyo Insitute. of Technology*
Stanford University	*Queen's University*	*Nagoya University*
University of Pennsylvania	*Université de Montréal*	*Tohoku University*
California Institute of Technology	*University of Waterloo*	*Kyushu University*
Massachusetts Inst. of Technology	*McMaster University*	*University of Tsukuba*
Dartmouth College	*Univ. of Western Ontario*	*Waseda University*
Duke University	*University of Calgary*	*Keio University*

Each university's academic library website was surveyed for online IL tutorials and assessed based on several factors. First, the *presence or absence* of online IL tutorials was noted, and the online tutorials were identified as either basic library orientation tutorials or as tutorials including IL objectives. This helped identify whether the tutorials were being used to pursue the goal of improved information literacy.

Then, the *prominence* of the link to the tutorials was measured by checking the location and visibility of the links. A high level of prominence was given for sites with IL tutorial links in prominent, highly visible locations on the library homepage; a medium level for sites linked from drop-down menus on the homepage; a low level for sites which required two or more clicks to locate; and a very low level for tutorials that were scattered at locations deep within the site.

Next, the *quantity* of tutorials was measured. The numbers were divided into three groups: ten or more, five to ten, and less than five. This was meant to measure if the number of tutorials covered a broad range of IL objectives.

The *producer* of the content was ascertained where possible and divided into groups:

university production, other university production, and vendor production. This illustrated whether the university itself was creating IL tutorials tailored to its own students' needs.

Finally, the *format* of the tutorial was identified as screencast/slidecast (frame by frame slideshow) with audio, screencast/slidecast (frame by frame slideshow) without audio, interactive text tutorial (review quizzes and immediate feedback functionality), or text only tutorial. This last category may appear quite similar to a text-only research guide and would only be included if the tutorial were extensive and focused exclusively on IL. In addition, the presence or absence of onsite library *workshops* for library orientation or IL was noted.

Each individual website was observed for ten minutes over the course of three different observational sessions. Any tutorials that could not be located within this timeframe were not included in the results. As a preliminary survey, the intention of these observations was to get a broad view of the use of online tutorials for IL instruction at the academic library websites of the top universities in the US, Canada and Japan.

Results

The data from the content analysis were compiled and tabulated on an Excel spreadsheet (Table 2). The results reveal several interesting differences in the use of IL instruction at the top universities in these three countries.

Table 2. *Content analysis results*

TABLE 2	**Online Tutorials** (Y/N)		**Prominence**	Library Homepage Link	Homepage Dropdown menu link	Two clicks away	very well hidden		**Quantity**	more than 10	between 5 and 10	less than 5		**Depth of IL Content**	Library orientation only	Orientation & IL		**Production**	University	other university	Vendors		**Tutorial Format**	Screencast/Slidecast with Audio	Screencast/Slidecast witout Audio	Interactive text tutorial	Text Only		**Workshops** (Y/N)
Harvard University	N																												N
Princeton University	N																												N
Yale University	Y			x						x						x		x					x						Y
Columbia University	Y				x					x						x		x					x						Y
Stanford University	Y			x							x					x		x								x			Y
Univ. of Pennsylvania	Y					x				x						x		x										x	Y
CIT	Y						x			x						x				x			x						Y
MIT	Y			x						x						x		x					x						Y
Dartmouth College	N																												Y
Duke University	Y					x				x					x			x						x					Y
US	7			3	1	2	1			6	1	0			1	6		6	0	1			4	1	1	1			8
McGill University	N																												Y
University of Toronto	Y					x				x						x			x	x			x						Y
UBC	Y						x					x				x			x				x						Y
University of Alberta	Y			x						x						x		x		x			x						Y
Queen's University	Y				x					x						x		x					x						Y
Université de Montréal	Y			x						x						x		x					x						Y
University of Waterloo	Y					x				x						x		x		x			x					x	Y
McMaster University	Y				X					x						x		x					x			x			N
Univ. of Western Ontario	Y			x								x			x			x		x			x					x	N
University of Calgary	N																												N
CANADA	8			3	2	2	1			6	0	2			1	7		6	2	4			8	0	1	2			7
The University of Tokyo	Y						x			x						x		x						x					Y
Kyoto University	Y					x				x						x				x			x						Y
Osaka University	Y				x							x			x			x								x			N
Tokyo Inst. of Technology	N																												N
Nagoya University	Y				x					x						x				x			x						Y
Tohoku University	Y						x									x				x			x						Y
Kyushu University	N																												Y
University of Tsukuba	N																												N
Waseda University	Y					x				x						x		x					x						N
Keio University	Y				x							x			x			x						x					N
JAPAN	7			0	3	2	2			4	0	2			2	5		4	0	3			4	2	1	0			5

Online tutorials offered

In terms of the percentage of websites that offered online IL tutorials, the three countries were roughly the same. The US and Japan academic university websites offered online tutorials at 7 out of 10 websites while Canada offered them at 8 out of 10. The differences were illustrative. Both the top two universities in the US (Harvard and Princeton) and the top university in Canada (McGill) did not have any online IL tutorials on offer. The top two US universities also did not offer or did not prominently display library workshops. This could be a reflection of the belief that any students who have gained acceptance to these prestigious institutions already have the IL skills necessary to succeed and there may be a measure of truth to this. On the other hand, the third-ranked university in the US (Yale) has one of the most comprehensive and well-crafted sets of online IL tutorials of the 30 websites observed, so there may be another side to this debate.

Prominence

A large discrepancy can be observed when viewing the prominence of the online tutorials within the websites. Both the American and Canadian academic library websites linked to their online IL tutorials either from a link on the homepage or within a homepage dropdown menu on about 60% of sites which included online IL tutorials (hereafter referred to as 'sites with tutorials'). The Japanese websites did so on just 42% of sites with tutorials.

In the case of the highest level of prominence an even greater dissimilarity is revealed. None of the Japanese sites had a visible link to online IL tutorials on the homepage. This was sharply contrasted with the US and Canadian sites with tutorials in which 38-43% of sites linked directly from a link visible on the homepage. This suggests a stronger belief in the usefulness and importance of online IL tutorials within the US and Canadian educational systems.

At this point, it bears mentioning that prominence was evaluated at face value, without consideration given to the impact of high/low context cultural tendencies and their impact on website design. High context cultural considerations that may impact website design include power distance, individualism vs. collectivism, masculinity vs. femininity, uncertainty avoidance, and long-term vs. short-term orientation (Hofstede, 2014). High context cultures like Japan tend towards uncertainty avoidance, which means that websites should have limited choices and be designed to "prevent users from becoming lost" (Marcus & Gould, 2001, p. 16). On the other hand, as a culture with a long-term orientation, Japanese website designers should generally design sites that expect "patience in achieving results and goals" (Marcus & Gould, 2001, p. 19). The contradictory nature of information regarding whether or not cultural tendencies have a significant impact on the placement of specific information displayed on Japanese academic library websites led the author to simply view the information presented on the website in hierarchical form. The presumption was that information displayed on the top level would be regarded as having the greatest degree of relevance to the user and information deeper within the site as having comparatively less relevance. The findings of this study should be considered with this in mind. A deeper examination of the implications of cultural factors on the specific design of Japanese academic library websites would be a fruitful area for future study.

Quantity

The overall results for quantity mirror those for prominence. Both the US and Canadian sites offered 10 or more online IL tutorials on 75~85% of sites with tutorials. The Japanese academic library websites offered more than 10 online IL tutorials on just 57% of sites with tutorials. This suggests a broader range of IL educational opportunities offered through online

tutorials on both US and Canadian academic library websites.

Depth of IL Content

Tutorials related to IL objectives (use of resources in physical and electronic formats, organizing a search strategy, content evaluation and analysis, critical thinking skills) rather than basic, physical library orientation were included in about 85% of American and Canadian sites with tutorials. This contrasted with about 70% for Japanese sites with tutorials.

Production

The US and Canadian library websites offered online IL tutorials that were produced by the universities themselves on 75~85% of sites with tutorials. Canadian sites also made extensive use of vendor-produced IL tutorials and many sites featured tutorials which were both university- and vendor-produced. The Japanese academic library websites featured university-produced tutorials on just 57% of sites with tutorials and vendor-produced tutorials on the remaining 43%. This greater reliance on vendor-produced online IL tutorials could impact both the specificity of the learning objectives, the relevance of the material to the students, and the intentional integration of IL objectives with the university's mission. Point-of-need assistance through tailored IL instruction at academic libraries in Canada and the U.S. has received positive feedback from both students and faculty (Lange, Canuel, & Fitzgibbons, 2011; Sachs, Langan, Leatherman & Walters, 2013), though the design of IL instruction sessions or tutorials must be constantly adapted to the changing needs and expectations of diverse populations.

Format

The format of the online IL tutorials revealed a tendency among Canadian academic libraries to utilize the latest technologies when producing or selecting online IL tutorials. All Canadian universities that featured tutorials included screencasts that included audio narration.

This compares with just 57% of sites with tutorials at both US and Japanese universities. Whether this is attributable to a government policy or each university's individual priorities, it suggests an active attempt to maximize the effectiveness of online tutorial design through developing technologies.

Workshops

As an added indication of an academic library's commitment to IL education, the prominent display of scheduled, onsite workshops was noted. The results indicated a pronounced difference with 80% of US academic libraries, 70% of Canadian libraries, and only 50% of Japanese libraries offering scheduled, onsite workshops.

Discussion

The results of the preliminary content analysis indicate a significant gap in the provision of IL instruction via online tutorials on Japanese academic library websites when compared to those in the US and Canada. This represents a lost opportunity as online IL tutorials represent an effective and powerful means of delivery for information literacy instruction. The millennial generation enters university equipped with a level of digital literacy and comfort with technology that makes them well-suited to delivery of educational content through web-based instruction. In a study of thirty-seven high-quality online IL tutorials in academic libraries, Su and Kuo (2010) concluded that rather than settle on their use as a supplement to IL instruction, "librarians should contemplate taking a stride forward and focusing on designing and developing web-based tutorials towards supplanting in-class library literacy instruction" (p. 327). This forward-thinking idea may be ideally suited to Japanese academic libraries due to the nature of Japanese university students and the current state of academic librarianship in Japan. The creation of such online IL tutorials by Japanese academic library staff could offer evidence of the unique value of these

librarians to the academic mission of the university, and the productive use of online IL tutorials by university students might then attract the ongoing support necessary to build on past successes.

The Japanese university student

Japan has long held some of the highest mobile internet penetration rates in the world and the average university student has been carrying a mobile internet-enabled handset since junior high school. Virtually all university students are completely comfortable with cell phones and continuously use them as browsers, dictionaries, cameras, MP3 players, QED readers, mirrors and even occasionally as telephones. This general ease with technology is borne out by the results of the recent 2009 Organization for Economic Cooperation and Development (OECD) Program for International Student Assessment (PISA) survey in which Japan finished fourth out of 19 countries participating in the digital literacy test (OECD, 2009). It is important to define digital literacy so as not to confuse it with information literacy. Though there is considerable debate as to what exactly digital literacy means, Kenton and Blummer (2010) suggest that it leans towards the acquisition of technical competencies involving digital technologies, tools, and devices that help the user achieve information literacy. Sometimes referred to as e-literacy, digital literacy entails the development of "new skill sets to function in the digital age" (p. 93). There is little doubt that Japanese university students have acquired a high level of competency with digital technologies and it seems highly likely that Japanese students, who have been using a wide range of high-tech devices from a very young age, would be quite receptive to the delivery of IL content through online tutorials.

The future of Japanese academic librarianship

In addition to advantages for Japanese students, more widespread development of online

tutorials on Japanese academic library websites could work to the advantage of those who favor an increased level of status for academic librarians in Japan. The three-year Library and Information Professions and Education Renewal (LIPER) research project (2003-2006) dispatched an academic library team to conduct focus group interviews at ten university libraries between 2003 and 2004. Among many interesting findings, the research team discovered that library directors "recognized the need for a new qualification system for university library staff more advanced than the current certificate for public library professionals"; management personnel seemed more focused on the cost-savings offered by outsourcing; while mid-level personnel were disappointed by the lack of a "clear image of the current position" caused by the constant staff rotation which "prevent[s] them from developing professional skills" (Ueda, Nemoto, Miwa, Oda, Nagata, & Horikawa, 2005, p. 6). Mid-level personnel were "nonetheless highly motivated to develop advanced skills" (Ueda et al., 2005, p. 6). Despite the realities represented by the budgetary priorities of management personnel, there is significant support for the idea of better educational opportunities and career advancement among university library staff.

Based on the results of the LIPER project the ultimate goals for librarianship in Japan include designing a graduate education curriculum; shifting the shisho certification curriculum to the new core curriculum of LIS; and proposing an LIS Achievement Examination (Nemoto, 2006). Such "self-evaluative examinations" are carried out in some academic fields in Japan such as "mathematics, law, economics and management" for the purpose of "self-promotion in job hunting" (Nemoto, 2006). As part of the LIPER2 project, researchers are also studying global LIS education programs and suggesting ways to promote accreditation and credit exchange within the Asia-Pacific Region (Miwa, Kasai, & Miyahara, 2008). These are all seen as ways to

gradually adapt the current organizational system to a new one that better connects LIS education to the practice of librarianship. The ongoing assessments conducted by LIPER, LIPER2 and the universities themselves offer "an opportunity for libraries to indicate strategically their importance and needs – for example, to demonstrate their contribution to research and education" (Hosono, 2006, p. 129). Librarians in Japan could encourage an increase in status and create a space for more highly qualified, professional academic librarians by connecting their contributions in the form of IL to the achievement of student's educational goals, the university mission, and improved research capacity.

Online tutorials tailored to students' needs

In the US and Canada many university library websites are designed and administered by academic librarians or library staff in whole or in part. In a study of seventy-two academic library websites at libraries that have been designed as Information Commons (IC) areas, Leeder (2009) found that 73% of survey respondents stated that the library or the library's own IT department administered the IC website. As the IC website is related to library services (43% included online tutorials), Leeder (2009) recommends that libraries run the IC sites because IC sites "administered by IT department *tend to have fewer library related features and less focus on learning* " [emphasis mine] (p. 545-546). A library or IC website should be overseen by academic librarians who are knowledgeable in the best use of current web technologies to achieve better service outcomes. Miho Ose, university library staff member at Kinugasa Library, Ritsumeikan Asia Pacific University in Beppu, Oita, Japan, explained that the university IT department designs the academic library website with input from the university library staff, but the site is maintained solely by the university library staff on a day-to-day basis. The commercial library staff members are not involved with the library website in any way and all changes and

improvements to the site are handled by the university library staff members (with Academic Office approval) (personal communication, August 2, 2011). This area of relative autonomy represents an opportunity for professional development and improved status through the addition of targeted IL tutorials produced by the university's academic library staff.

Conclusion

Japanese academic library staff are in need of skills that will help them to achieve greater status and job satisfaction, universities want to encourage students to become fully-engaged citizens with both the digital and information literacy skills necessary to thrive in a globalized economy, and the government and academic library consortia want to promote information literacy as a broad social goal (Cullen & Nagata, 2008). All these goals can be strengthened through increased professional development opportunities for academic library staff in the most current web tools and technologies used for creating online information literacy tutorials. There is a need for more librarian input into the design and placement of these important educational tools in the Japanese academic library's virtual environment. This is also an opportunity to reach tech-savvy students unaccustomed to asking reference librarians for assistance. With institutional support, increased use of online IL tutorials could be a catalyst for improvements in both information literacy education and the professional status of Japanese academic librarians.

Future study

This study is a preliminary attempt to identify potential gaps in the provision of IL education at Japanese universities. The current study only identified the prominence, quantity, depth, production and format of online IL tutorials of the top ten universities in Japan, the US and Canada. A random selection of universities might yield more balanced results. In addition, future research on the depth of content of Japanese online IL tutorials could identify the extent to

which online IL tutorials specifically focus on library orientation, library services, academic tools, or concepts of information literacy. It might also be worth investigating the production quality of Japanese IL tutorials as they relate to achieving IL learning objectives and the impact of design attractiveness on the user.

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