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Library and information science (LIS) journal usage in masters' dissertations: experiences at the University of Wales Aberystwyth

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### Abstract:

This paper reports on research undertaken into the use made of LIS journals for their dissertations by students undertaking the masters course in Information and Library Studies at the University of Wales Aberystwyth. To support the students in their studies and research, the Thomas Parry Library at the University of Wales Aberystwyth has a world-renowned collection of LIS journals, many of which are now accessible in electronic form as well as in print form. Analysis of the citations of 50 recent (post 2000) dissertations submitted gives an indication of the range of material used in dissertations. In addition, responses to questionnaires given to students (and some staff) provides information about how relevant papers are found from LIS journals.

# **1.** Background to the Department of Information Studies, University of Wales Aberystwyth(DIS/UWA)

DIS/UWA celebrates its 40<sup>th</sup> birthday in 2004 having been founded as the College of Librarianship Wales (CLW) in Aberystwyth in 1964. CLW was initially envisaged as an

institution to "produce bi-lingual librarians - i.e. equally fluent in English and Welsh" and, it was thought, would comprise about 30 or so students (New, 1978). Organisations, such as the then UK Library Association and the Association of British Library Schools, were opposed to the setting up of such a school as it was felt that there were enough library schools in the UK, it would be too small to be effective, and that Aberystwyth (which is situated on the west coast of Wales) was remote and not easy to access. These views did not prevail and the first Principal of CLW, Frank Hogg adopted a principle of 'thinking big'. The initial intake comprised 12 students but within three years CLW became the largest library school in the UK with over 400 students and 40 or so full-time academic teaching staff. The international character of CLW was evident from the start. At the time of its opening a talk was given on the BBC World Service - the first ever about a British school of librarianship and the Principal's invitation went round the globe: "we would welcome students from overseas". In 1969 Hogg presented a paper on library education and research in Britain at IFLA in which he noted the importance of international and comparative studies in the education of future librarians (Hogg, 1969). By 1973 CLW possessed a fine purpose-built 'library of librarianship', a lecture hall capable of holding 240 students, a refectory and social centre, an 'academic block' of lecture rooms, seminar rooms and specialist rooms to produce audiovisual materials (including a television studio) and halls of residence, and, with the University of Pittsburgh in the US, had started a series of annual International Graduate Summer Schools in librarianship (Tedd, 1997). In 1989 CLW ceased to exist as a 'monotechnic' college and became a department of the University of Wales Aberystwyth (UWA). Ever since its inception CLW had maintained a close working relationship with the university in Aberystwyth and many of its courses resulted in degrees of the University of Wales being awarded to students.

DIS/UWA is the only library and information studies department in Wales and is therefore very important for training and developing skills for the Welsh library community. For instance, staff from DIS/UWA were involved in the training of public librarians in Wales (in both Welsh and English) as part of the UK's People's Network project (Tedd, 2003). DIS/UWA offers a range of masters courses covering information and library studies, records management, archive administration and health information management for full-time and distance learning students as well as undergraduate courses. The department has been a pioneer in distance learning courses in LIS in the UK having started in 1986. Since 1992 there has been a specialist Open Learning Unit within DIS/UWA to support the distance learners who come from all around the world. As far as masters students are concerned, for instance, they have come from 40 countries from Australia to the West Indies, and from Iceland to Mozambique. Currently there is a total student population in DIS/UWA of almost 1,000, the vast majority of which are distance learners. For those studying the taught (as opposed to research) masters courses, after successfully completing the assessments in specific modules, they prepare a dissertation of some 15,000 words on an appropriate topic. This paper is based on an analysis of the LIS journals cited in a selection of dissertations which have been submitted since 2000, and on data obtained from information and library science masters students and DIS/UWA staff on their information gathering habits with respect to articles in LIS journals.

#### 2. Library and information science journals at UWA: brief overview

There are a lot of library and information science journals. The 'library of librarianship' of the 1970s, now called the Thomas Parry Library, is part of Information Services within UWA. When CLW was formed there was an active collection development policy that resulted in the acquisition of many LIS journals and other materials published since the late nineteenth

century. In addition there are also specialist collections of international importance in library literature (annual reports and so on), library buildings and design plans, output from private presses and early twentieth century children's books

(http://www.inf.aber.ac.uk/tpl/dils/default.asp ). A listing of the LIS periodicals held (produced for this paper), resulted in a grand total of 3,000 titles, with about 600 titles being current subscriptions. This is an impressive collection, which is mainly held on open shelves and provides a unique resource for DIS/UWA students as well as other researchers from around the world. Access to the holdings of periodicals is available, with links through to the e-version if it exists, from the UWA library catalogue, based on Endeavor Information Systems' Voyager library management software (http://voyager.aber.ac.uk). In addition the Information Services at UWA, as in many other university libraries, provides a link from its webpage on Electronic Information Resources to ejournals

(http://www.aber.ac.uk/is/ejournals/index.php). At Aberystwyth this is called JoEy (Journals Electronically) and an extract of the list of the ejournals in the topic area of 'librarianship' to which the library and its users have access is shown in Figure 1.

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Bottom Line, The	Emerald         P           v.9 (1996) -         P	BIDS Ingenta v.9 (1996) -			
British Journal of Academic Librarianship (now New Review of Academic Librarianship)	MetaPress 2003 onwards (Sorry - not available until 2004 !)	•			
Bulletin des Bibliotheques de France	<ul> <li>Bulletin des Bibliotheques de France 1956 -</li> </ul>	•			
BURISA	BURISA     2001 -				

Figure 1. Extract of JoEy listing of ejournals in Librarianship available at DIS/UWA

All students, whether full-time or distance learning, are able to access the ejournals from all over the world using the ATHENS authentication system (http://www.athens.ac.uk).

### 3. Methodology of this research

The aim of this research was to investigate the use made of LIS journals by masters students within DIS/UWA. The majority of the students currently registered for our masters courses

are studying the course by distance learning methods and continue to work in libraries, information centres, archive offices, health environments throughout the world whilst undertaking the course. Each student attends a study school in Aberystwyth once a year for two years and then attends a specialist research study school in order to prepare for writing their dissertation. The submitted dissertations in LIS are deposited in the Thomas Parry Library and shelved in a special area in alphabetical order of surname. For the quantitative analysis I selected 50 dissertations that had a title reflecting an information and library science topic and which were submitted during or after 2000. For each dissertation, its submission date, and country of origin of the student and then a tally was made of the :

- total number of items in the bibliography of each dissertation;
- number of items that were from LIS journals in the bibliography of each dissertation;
- number of individual LIS journals cited within each dissertation.

This information was input into a Microsoft Excel database for analysis. In addition, a list was compiled of all the LIS journals cited within the dissertations inspected and the holdings of these journals at the Thomas Parry Library was also investigated. A tally was also made of the total number of citations to each journal, as well as the number of dissertations citing material from each journal.

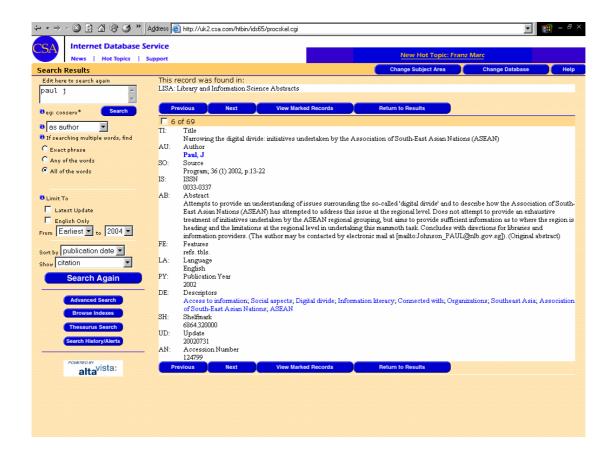
Masters students currently preparing their dissertation were asked to list between 5-10 LIS journal titles that they had found useful for their studies and for preparing their dissertation and also to indicate how they identified these. Distance learning students currently undertaking their dissertation were also e-mailed with these questions. In addition a selection of staff within the department were also asked about their use of LIS journals.

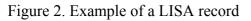
### 4. Identifying relevant material for chosen dissertation topics

The literature search is a key starting point for any research process and students were asked about the sources they used to identify relevant material for their dissertation topics. Although access to individual LIS journal titles is comparatively easy, finding out exactly which papers within the journals might contain relevant material for their dissertation can be challenging. There are a number of solutions that were referred to and some of these are described here.

# 4.1 Specific database –LISA (Library and Information Science Abstracts)

LISA is a bibliographic database which covers some 440 journals from 68 countries in 20 languages. It has been produced by various organisations since its inception in 1969 and is currently produced and made available online, for an annual subscription fee, via CSA – Cambridge Scientific Abstracts. Records are added to the database each fortnight with about 500 being added at each batch. Following a search of LISA results are presented in the form of abstracts and further information sources must be consulted to acquire the full text. Figure 2 shows an example of a LISA record for a paper on the digital divide in ASEAN countries published in *Program: electronic library and information systems*. Information about CSA is available at http://uk2.csa.com.





# 4.2 Specific service - Web of Knowledge

The Thomson/ISI (Institute for Scientific Information) Web of Knowledge (WoK) provides access to a range of citation databases as initially conceived by Eugene Garfield (Cawkell and Garfield, 2001). LIS journals are covered mainly within the Social Sciences Citation Index (SSCI) of WoK. SSCI contains the bibliographic details of papers as well as details of the articles cited. Figure 3 shows an SSCI record for the paper in Figure 2 which includes details (and links where available) to the 16 references cited by this article.

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## Figure 3. Cited records from Web of Knowledge

The citations within SSCI and its related databases are used by ISI to produce a range of statistical measures available from the Journal Citation Reports database. Here measures, such as the impact factor, are given, broken down by specific fields, including Information Science and Library Science which covers 55 LIS journals. The Impact Factor is defined as:

No. of cites to recent articles (within the last two years)/Number of articles published in the last two years.

For 2002 the LIS journals with highest impact factors were: *MIS Quarterly, Annual Review of Information Science and Technology, Journal of the American Society of Information Science and Technology(JASIST), Journal of Documentation* whereas for 2001 the list was: *Journal of Documentation, Information Processing and Management, MIS Quarterly, JASIST.* 

Any institution has to pay to access each of ISI's databases. At UWA this is achieved via a consortial deal, arranged through the Joint Information Systems Committee (http://www.jisc.asc.uk) for all UK higher education institutions with the ISI databases being hosted by MIMAS (Manchester Information and Associated Services – http://www.mimas.ac.uk). Again access is available for all DIS/UWA students throughout the world via the ATHENS authentication system.

### 4.3 Publisher-based services - Emerald

Many publishers such as Oxford University Press, Wiley, Elsevier and so on now provide online access to their journals. Searching for the existence of a particular paper is often freely available but downloading the full text is charged for, or may be linked to an institution's subscription to the printed version of the journal. Emerald (http://www.emeraldinsight.com) is a British publisher which, inter alia, publishes about 25 LIS journals, including a number

acquired in 2002 which had previously been published by Aslib. Emerald provides free searching of its database and the Emerald record for the same paper as shown in Figure 3, is shown in Figure 4, but this time users, with the appropriate password can also access the full text of selected articles. Emerald is used by some 1,000 libraries worldwide.

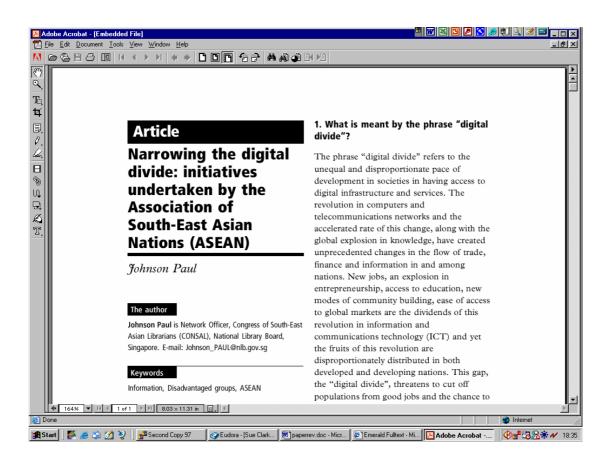


Figure 4. Record available from the Emerald Full-text service

# 4.4 Other sources

Other sources were also mentioned by some respondents and these included:

- services such as OCLC FirstSearch (http://www.oclc.org) and Dialog (http://www.dialog.com) which provide access to a range of bibliographic and fulltext databases;
- full-text services from organisations, such as ingenta (http://www.ingenta.com) or Swets (http://informationservices.swets.com/);
- current awareness services, such as ZETOC from the British Library (http://www.bl.uk/services/current/zetoc.html) which covers 20,000 journals;
- Informed Librarian (http://www.informedlibrarian.com). This free service was established in 2003 and provides a monthly compilation of the table of contents of the most recent issues of 275 LIS journals. Other information is also available as is

#### shown in Figure 5.



Figure 5. Information from Informed Librarian

#### 5. Results of analysis of dissertations

#### 5.1 Dissertation topics and journals cited

As might be expected the topics covered by masters students in their dissertations are very varied and the following list just gives a feel for this:

- The role of consortia in academic libraries: the Lebanese Academic Libraries Consortium as a case study
- Family history research in public libraries with special reference to Bath Central Library
- Connected: social exclusion and Lincolnshire Public libraries
- Human resource management in public libraries with reference to Ireland
- Portrayal of librarians in newspapers 1960-2000
- The changing nature of work in library and information services 1958-2002: skill and opportunities
- Developing information literacy in front-line staff at the University of Swansea
- An evaluation of the digital projects undertaken by the libraries of the University of Hong Kong

- Document delivery in the online age: a study of hospital authority libraries
- An investigation into the current provision of music collections and services in public libraries
- Public library provision to children of primary school age
- Provision and management of library facilities for the disabled user
- Problems of retrieving Chinese language materials in electronic catalogues.

Although half the dissertations (25) were completed by students from the UK many other countries were represented : Antigua (1), Germany (2), Greece (1), Hong Kong (8), Ireland (5), Israel(1), Jamaica (1), Lebanon (4), Netherlands (1), and US (1).

The citations given in the bibliographies referred to a variety of types of sources - books, reports, websites - as well as to articles published in LIS journals. In analysing the citations for 50 dissertations the following was found:

• The total number of references in each bibliography ranged from 16 - 352, with an average of 77 and with 12 dissertations having 100 or more references. Figure 6 gives a graphical representation of this range.

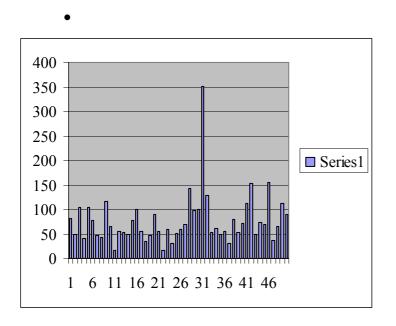


Figure 6. Total number of references in the bibliography of each dissertation

• The number of references to papers in LIS journals in each dissertation ranged from 1-113, with an average of 27. Figure 7 gives a graphical representation of this range.

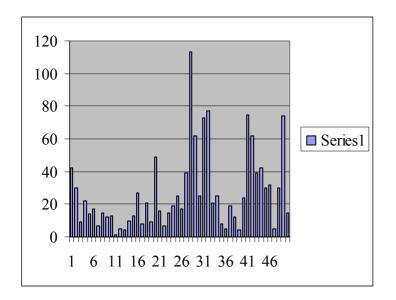


Figure 7. Number of references in LIS journals in each dissertation

• The number of individual LIS journals referred to within each dissertation ranged from 1-37, with an average of 13. Figure 8 gives a graphical representation of this range.

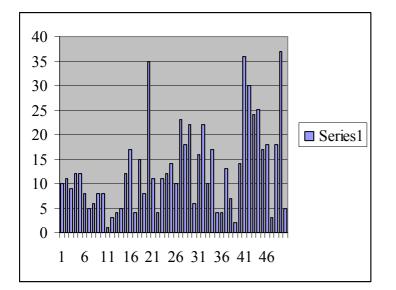


Figure 8. Number of individual LIS journal titles in each dissertation

• The total number of LIS journals covered by the dissertations was 200.

The LIS journals cited within the dissertations could be classified in a number of ways:

a) International, refereed, high quality journals, such as those covered by SSCI

Examples include: *Electronic Library*, *JASIST*, *Journal of Information Science(JIS, Journal of Librarianship and Information Science (JOLIS)*, *Information Technology and Libraries*, *Program: electronic library and information systems* 

b) National or regional (may or may not be refereed) journals

Examples include: African Journal of Academic Librarianship, American Libraries, Asian Libraries, Australian Academic and Research Libraries, Canadian Journal of Information and Library Science, Cape Librarian, Scandinavian Public Library Quarterly

c) Journals covering a specific type of library

Examples include: Bulletin of the Medical Library Association, Education Libraries Journal, Health Libraries Review, Law Library Journal, School Librarian

d) Journals covering a specific function within the library

Examples include: Cataloging and Classification Quarterly, Collection Management, Library Acquisitions: Practice and Theory, Serials Review

e) Journals linked to the Library Association, or similar professional body, of a particular country

Examples include: *Feliciter* (Canadian Library Association), *Fiji Library Association* Journal, Jamaican Library Association Bulletin, Journal of the Hong Kong Library Association, Library Association Record (UK)

f) Newsletters of special groups

- Assignation newsletter of the Aslib Social Sciences Group
- *Brio* newsletter of the UK branch of the International Association of Music Librarians
- East Asian Library Resources Group of Australia Newsletter.

Based on the total number of references cited in all the dissertations the most popular LIS journals were (with the total number of references given in parentheses):

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Library Association Record (104)
Library Management (49)
Library Trends (43)
Library Review (33)
Information Outlook (32) and Special Libraries (32)
Library Journal (31)
Ariadne (28)
American Libraries (26) and Journal of Academic Librarianship (26).
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It should be noted that there was also a number of journals in the 20-25 bracket: *Computers in Libraries, Information Technology and Libraries, JIS, JOLIS, New Library World, Program: electronic library and information systems* and *Public Library Journal.* 

However the order of journals is different when based on the number of dissertations (given in parentheses) which include a specific journal title:

Library Management (20) Library Association Record (17) JOLIS (15) Library Trends (14), Library Journal (14) New Library World (13) American Libraries (12), Electronic Library (12)

College and Research Libraries (11), JIS (11)

Ariadne (10), Interlending and Document Supply (10), Journal of Academic Librarianship (10), Program: electronic library and information systems (10).

The largest number of citations in a dissertation to any one journal was 41. This was to items published in the *Library Association Record* in a dissertation on "Building the British Library: an analysis of attitudes". This dissertation was also the one with the highest number of items in its bibliography (352).

Of the 200 journals, the Thomas Parry Library had print holdings for most titles and enabled electronic access to more recent (mid-late 1990s typically) editions of 85 titles. Some of the LIS journals used by students for their dissertations were only available electronically (and all these are freely available). Examples include:

- Ariadne http://www.ariadne.ac.uk
- *CLIR (Council on Library and Information Resources) Issues* http://www.clir.org/pubs/issues/issues.html
- *D-Lib Magazine* http://www.dlib.org
- Free Pint http://www.freepint.co.uk
- Information Research http://informationr.net/ir/
- RLG DigiNews http://www.rlg.org/preserv/diginews/

These are all examples of open access journals and more details of these, and other open access journals are maintained at Lund University in Sweden (http://www.doaj.org). In mid-April 2004 there were about 840 journals listed, of which 27 were in the LIS area.

Some students need access to historical material for their dissertations and then access to archives of LIS journals becomes important. Within the Thomas Parry Library archives exist for most of the subscribed journals. Examples of titles used by students in their dissertations for which extensive archives are available include:

An Leabharlann 1930-Aslib Proceedings 1949-Australian Library Journal 1951-Journal of Documentation 1945-Law Library Journal 1908 – The Librarian and Book World: an independent professional journal for the professional man 1911-1961

Library Journal 1876 – Library Quarterly 1931-

As with many journal publications the journals in LIS used within the dissertations have:

• changed name over time e.g. *American Documentation* (1950-1969) became the *Journal of the American Society of Information Science* (1970-2000) and then *JASIST* in 2001;

- changed publishers e.g. *Aslib Proceedings, Journal of Documentation*, and *Program* moved, in 2002, from being published by Aslib to being published by Emerald;
- ceased publication e.g. *Emergency Librarian* (1990-1998) and *Librarian Career Development* (1993-1996).

Given such changes it is necessary that libraries, particularly national libraries, are able to provide access to the print and electronic archive of these journals for future student research.

#### 5.2 Responses from students and staff on sources used

The original intention had been to gather information on sources used by sending an e-mail questionnaire to a selection of existing students currently writing their dissertations. In February 2004 a first attempt was made by sending the questionnaire to 10 students. This resulted in just two responses. It was therefore decided to wait until the dissertation study school in April 2004 when I handed out a questionnaire before the start of a session and gave the students five minutes to complete. This resulted in a 100% response (14 further questionnaires) from students studying the masters course in Information and Library Science. In order to expand this aspect further I also gathered information from nine staff within DIS/UWA on the LIS journals they use and the ways in which they track down materials.

The number of different LIS journals identified by the 25 (2+14+9) respondents as key sources was 43. The majority of these were also included in the list of 200 LIS journals used in the selection of already submitted dissertations analysed - but there were some that were not. These were: Children's Literature, Children's Literature Association Quarterly, Children's Literature Review, Children's Literature in Education and the ejournal First Monday. The most cited journals were Ariadne, and Library and Information Update, the successor to the Library Association Record and which is the monthly journal of the LIS professional body in the UK CILIP - the Chartered Institute of Library and Information Professionals both with a score of 9. Library Management followed with a score of 5 and then Aslib Proceedings and Program: electronic library and information systems both had a score of 4. JOLIS, and School Librarian were noted by three respondents: Computers in Libraries, Education for Information, Electronic Library, Information Processing and Management, Information Research, Information World Review, International Journal of Information Management, JASIST, Journal of Documentation, Library Review, Library Trends, Managing Information, Public Library Journal, School Library Journal and Vine were each noted by two respondents and the remaining 21 journals being mentioned just once.

The method used by most respondents in identifying relevant articles in LIS journals was, not surprisingly, LISA with a score of 16. Searching on the Web using Google came next (7), then the specific services mentioned were: OCLC FirstSearch and Emerald (5), WoK (4), Dialog (2), ingenta (2). Four respondents indicated that they browsed the contents of ejournals online via the UWA website and a further two indicated that they did this and browsed hard copies of journals when they could. Specific bibliographic databases mentioned (by one respondent each) included: Children's Literature Abstracts, ERIC, Information Science Abstracts and the International Bibliography of the Social Sciences. Current awareness services such as Current Cites (from the University of Berkeley), Informed Librarian and ZETOC were also noted as sources for identifying current literature in LIS journals in specific topics. Several respondents indicated that having identified an appropriate article they 'chained' through the references to find further similar articles.

#### 6. Conclusions

This research is obviously limited – both by the topics covered by dissertations selected for the study and by the rather small number of responses from students on their information gathering habits. There is plenty of scope for further study. One, to me, rather unexpected result was that most students cited, on average, material from only 13 different LIS journals. Journals with a practical bias seemed to be more used than those more research-oriented journals with high impact factors. With developments in electronic publishing more and more material is becoming available on the Web and in many instances students cited web-published papers/reports/presentations in their dissertations, i.e. not material published in a recognisable LIS journal. Although I have edited an LIS journal for very many years, and also been involved in educating students for very many years I was, nevertheless amazed at the quantity and range of LIS journals available worldwide and which were being cited by students in their dissertations. As I was completing this paper I received an e-mail from one of the current full-time masters students who was in the middle of her literature review for her dissertation:

"I am going to have to make a generalisation (which always makes me nervous) based on my general impressions and which I can't verify with anything specific I have read. I wondered if you could tell me if you think this is justified?- That academic libraries began to develop their own web sites in the early to mid 90s."

I replied that I was able to remember that until about 1993 university sites had 'gophers' ... these were text-based menus of electronic information 'matters' and at a conference in Ireland in September 1994 I saw an early website developed for Sheffield University. The paper I had given at the conference "An introduction to sharing resources via the Internet in academic libraries and information centres in Europe" had been published in an LIS journal and was available in the Thomas Parry Library for her to read.... including screenshots of gophers and early websites. How quickly 'things' have progressed. Let us hope that LIS journals continue to be published and available to serve the researchers and dissertation writers of the future.

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