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Abstract. In April 1997 the Electronic Journals Committee of the Princeton University Library conducted a campus-wide survey on the use of electronic journals at Princeton. A total of 1,800 questionnaires were distributed, 300 each to random samples of the following groups: 1) undergraduate students, 2) graduate students, 3) faculty, 4) administration, 5) office, clerical and library staffs, and 6) professional librarians and technical research staff. Although the percentage of questionnaires returned was lower (26%) than hoped (100%), the responses given in the 470 returned questionnaires have given us a much better sense of the use of electronic journals at Princeton.

1. Introduction

Many years ago when I was a graduate student studying dragonflies at the University of Canterbury in New Zealand, an important part of my work was reviewing the extant literature, trying to find everything that had been written previously about New Zealand’s dragonflies. I spent many long hours in the library tracking down journal articles that often had to be borrowed on interlibrary loan from Australia. As I recall, it often took six weeks or more for the articles to arrive, and by that time, I had frequently forgotten that I had even requested them!

When I contrast those document delivery experiences with my current subscription to Science Online – which allows me to log on early each Friday morning and read the news and articles a week or more before the paper edition of Science arrives – I am truly amazed and happy to be living in these times!

2. The Electronic Journals Committee

In December 1995, the Deputy University Librarian established an Electronic Journals Task Force (affectionately known as the EJTF) to examine the issues surrounding the migration of scholarly journal literature from the traditional paper format to new digital formats accessed and delivered electronically via the World Wide Web. The EJTF was comprised of eleven librarians: five representing science and engineering libraries, and six representing systems, acquisitions, cataloging, social sciences and the humanities. One of our main charges was to conduct a survey of the use of electronic journals at Princeton.
3. The E-journal Survey

In mid-March 1997, members of the Electronic Journal Task Force met with Prof. Herb Abelson of the Survey Research Center at Princeton University to discuss survey research methods and prepare the survey questionnaire. In mid-April 1997, 1800 copies of the e-journal survey (see Appendix 1) were distributed via campus mail to randomly-selected individuals from the following six groups: 1) undergraduates, 2) graduate students, 3) faculty, 4) professional librarians and technical research staff, 5) biweekly clerical staff, and 6) administrative staff. In spite of the fact that e-mail reminders were sent twice to the recipients, only 470 questionnaires were returned by September.

4. Survey Results

Of the 470 respondents, 10% said they did not use any of the campus libraries, while only three people (0.6%) said they did not use a computer! The overwhelming majority (see Fig. 1) said they had *not* used the Library’s Electronic Journal Web page\(^1\). The fact that 19% replied that they had “*just now*” used the EJ Web page *after receiving the questionnaire*, revealed that, if nothing else, the survey served the purpose of publicizing the Web page’s existence!

On the other hand, 37% said they *had* used an e-journal or a paper journal in its electronic form (see Fig. 2). Again, however, the majority (56%) said they *had not*. The main reasons given for *not* using e-journals were:

1. I prefer to read articles printed on paper, not on the computer screen (60%)
2. I haven’t had the time to learn about electronic journals (32%)
3. I prefer paper journals, not electronic, for browsing (28%)
4. The journals important to me do not yet have electronic version (27%)
5. I am more inclined to use electronic “preprints” than e-journals (14%)

When the 169 e-journal users are broken down by group (see Fig. 3), we see that most belonged to the professional technical, research and library staff, the faculty and the graduate students. Of the 262 respondents who had *not* used an e-journal (see Fig. 4), the largest percentages belonged to the clerical staff and administration. The smallest percentages of both users and non-users were – curiously – the undergraduates. (This may reflect their preoccupation with approaching final exams and/or the end of the spring term!)

5. Discussion

It is interesting to note that the main reason given (by 60% of the survey respondents) for *not* using e-journals was that they preferred to read articles printed on paper, not on the computer screen. This is *not* an insurmountable obstacle. Users are discovering that it is often easier and more convenient to locate a

\(^1\)http://infoshare1.princeton.edu:2003/cgi-bin/journals/SortData
Figure 1

Figure 2
Figure 3

Yes...I’ve used an e-journal.

- Undergrads: 11%
- Grad: 17%
- Faculty: 22%
- Professional Staff: 31%
- Admin: 8%
- Clerical: 11%

N=169 respondents

Figure 4

No...I’ve not used an e-journal.

- Undergrads: 8%
- Grad: 16%
- Faculty: 11%
- Professional Staff: 18%
- Admin: 21%
- Clerical: 26%

N=262 respondents
journal article online and print it on a nearby or attached laser printer, than to locate and photocopy an article from a bound journal shelved in the library.

The next most-frequently given reason for not using e-journals was simply that the survey respondents have not had the time to learn about electronic journals, which is perfectly understandable in this day and age!

Others said they preferred paper journals, not electronic, for browsing. As users discover that following a trail of hyperlinks in the online version constitutes a different but equally valid sort of serendipitous browsing, this preference may change.

Twenty-seven percent of the survey respondents said that the journals important to them do not yet have electronic versions. In the spring of 1997 there were, in fact, only two hundred titles on Princeton’s “EJ Web Page”, and these tended to be in physics, astronomy and mathematics, economics and the humanities. Many other disciplines have since made online versions available.

I knew from experience that preprints were extremely popular in astrophysics, but I was nevertheless surprised that as many as 14% of the survey respondents said they were more inclined to use electronic “preprints” than electronic journals. (In economics and several other fields, these are often referred to as “working papers”.) I believe these reflect the desire in many disciplines to use the increased speed and connectivity of modern communication technologies to facilitate the exchange of scholarly information and increase the knowledge base on a much-compressed time scale and a much-expanded global scale.

6. Conclusions

This survey has revealed many interesting characteristics of our user population. However, it is probably most important as a benchmark to which we can compare future use of electronic journals to that which existed in the spring of 1997, just one year after many e-journals were first introduced!

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This survey has been sent to a random sample of Princeton students, staff, and faculty. We would be grateful if you would take a few minutes to complete it. The information you give will be used for research purposes only. Please feel free not to answer any question that you don’t want to answer. Your participation is voluntary, and your responses will be kept completely confidential. If you would like to receive a copy of the survey results, please complete section 16 at the end of the questionnaire.

1 Which Princeton University library do you visit most often?
   a Firestone Library
   b Astrophysics Library (SO) in Peyton Hall
   c Biology Library (SZ) in Guyot Hall
   d Chemistry Library (SQ) in Frick Laboratory
   e Engineering Library (ST) in the Engineering Quadrangle
   f Mathematics and Physics Library (SM), (SK) in Fine Hall
   g Geosciences Library (SG) in Guyot Hall
   h Gest Oriental Library and East Asian Collections (Gest) in Palmer Hall
   i Marquand Library of Art and Archaeology (SA) in McCormick Hall
   j Mudd Manuscript Library
   k Music Listening Library (MLis) in Palmer Hall
   l Near East Collections Library (SY) in Jones Hall
   m Plasma Physics Laboratory Library (PPL) at Forrestal Campus
   n Population Research Library (SPR) at 21 Prospect Avenue
   o Psychology Library (SW) in Green Hall
   p School of Architecture Library (UES) in the Architecture Building
   q Woodrow Wilson School Library (SPIA) in Robertson Hall
   r I don’t use any of the libraries.
   s Other (specify)

2 Which computer(s) do you use at the University?
   a PC
   b Mac
   c Unix workstation
   d Other (specify)
   e I don’t use a computer.

3 Which printer(s) do you use at the University?
   a None
   b Laser printer attached to my computer
   c Dot-matrix printer attached to my computer
   d I share a networked printer.
   e Other (specify)
4 Have you used an electronic journal or a paper journal in its electronic form?
   a  No (skip to question 7)
   b  Yes (go to question 5)
   c  Not sure (skip to question 7)

5 If you answered “yes” to question 4, when was the most recent time you used the electronic version of a journal?
   a  Within the past month
   b  One to six months ago
   c  More than six months ago
   c  Not sure

6 In the space below, write the title(s) of the journal(s) you have most recently used.

7 Please circle the letters below for as many comments as apply:
   a  In my field, books are more important than journals.
   b  I prefer paper journals, not electronic, for browsing.
   c  I prefer to read articles printed on paper, not on the computer screen.
   d  I am more inclined to use electronic “preprints” than electronic journals.
   e  My computer cannot access electronic journals on the Web.
   f  The journals important to me do not yet have electronic versions.
   g  The computer I use doesn’t have a laser printer nearby.
   h  I haven’t had the time to learn about electronic journals.
   i  Other (specify)

8 Which scholarly journal(s) do you regard as the most important in your field?

9 How many years have you spent at Princeton University?
   a  Fewer than 5 years
   b  Between 5 and 10 years
   c  More than 10 years

10 Which term below best describes your status or position?
   a  Undergraduate student
   b  Graduate student
   c  Faculty
   d  Administration
   e  Biweekly Staff
   f  Professional Staff
   g  Other (specify)
11 From the Library’s home page (http://libweb.princeton.edu:2003) you can open the Web page for electronic journals by clicking on “journals” under “Digital Collections”. Have you used our Electronic Journals Web page?
   a Yes, I have used it more than 10 times.
   b Yes, I have used it more than once.
   c Yes, I just took a look at it.
   d No

12 If the library you visit most often had an “Electronic Journals” computer with laser printing capabilities – and library staff trained to assist you in obtaining printed copies of electronic journal articles – would you use this facility?
   a Yes  b Probably  c Probably not  d No  e Not sure

13 The Library recognizes that it is essential to keep paper archival copies of all journals to which we subscribe. However, in numerous instances we maintain more than one paper subscription to a given title. If publishers made more of these paper journals available electronically, and electronic journals became easily accessible and convenient to use across campus, then, in your opinion:
   a One paper subscription would be sufficient.
   b More than one paper copy of titles like —— would still be needed.
   c No paper copy would be necessary as long as I could easily consult the electronic version.
   d Other

14 The Library plans to provide instruction in the use of electronic journals. How would you like these training sessions to be conducted?
   a Small group in Firestone library  b Small group in a branch library
   c Small group at a computer cluster  d By appointment, in your office
   e Other

15 Additional comments?

16 Optional information (please print):
   Name:
   Department:
   E-mail address:
   ○ Please check here if you would like to receive a summary of our survey results.
   ○ Would you be interested in discussing any of these questions further?
   ○ Please check here if you would like us to call you and set up an appointment to show you how to use electronic journals.

Your answers will be most useful to us if you return the questionnaire by 1 May 1997. Fold in half so that the return address is visible, staple, and send by campus mail.

Thank you for completing this questionnaire.