

Collection Management Initiative

Report on Interviews
conducted at
University of California, Santa Barbara
and
University of California, San Diego
May-June, 2002

Submitted by: John Vasi

This report is submitted as part of the work conducted under Independent Consultant Agreement #8085CCB82700.

Background

During May-June, 2002, 40 individuals drawn from UC faculty and students from the UCSB and UCSD campuses were interviewed on their use of digital and print journal subscriptions available through the California Digital Library. Individuals interviewed were chosen to represent a wide range of academic disciplines: faculty, graduate students, and undergraduates were included at both campuses. Names of possible interview subjects were suggested by librarians. The individuals actually interviewed were those who agreed to participate and whose schedule could accommodate the times available for interview. All interviews were conducted face-to-face by John Vasi

The interview instrument was a formal questionnaire consisting of three sections:

- Section 1: Thirteen questions on user preferences and use patterns for digital and print subscriptions. In addition to collecting objective information on frequency and patterns of journal use, the questionnaire also requested that subjects explain their reasons for preferences and habits in journal usage.
- Section 2: Four questions on the subjects' technical environment at work and home, including: computer operating systems, age of equipment, and specific technical problems.
- Section 3: Demographic information for each of the subjects.
- In addition, at the completion of the interview, subjects were asked to offer any thoughts on their experience with digital journals that had not already been covered in the interview.

The interviewer administered the questionnaire by asking the formal questions, following up as needed with predetermined or ad hoc prompts, and collecting answers by writing down the subjects' responses. Prior to taking the questionnaire, subjects were told the purpose of the project and told that their responses would be anonymous.

RESULTS

The primary purpose of this round of interviews was to test the clarity of the interview questionnaire and its ability to elicit relevant information:

- Do the interview results provide the type of information the University needs to make decisions on the future role of digital journal subscriptions?
- Could any of the questions be improved, clarified, or eliminated?

It is tempting to draw some conclusions from the interviews on how digital journals are perceived by the UC community. However the small sample sizes, especially when sorted by discipline, make such conclusions unreliable. In some comments and recommendations listed below, this report does provide information on the preferences and habits of the interviewees. Those portions of the report are included to demonstrate the type of information that the questionnaire can provide. Their value is limited, however, as evidence of user preferences or behavior that could be extrapolated to any larger groups.

Listing of Subjects

A listing of individuals interviewed, including academic rank and affiliation, is included as Appendix 1.

Comments and Recommendations on Specific Questions

General comments on the overall project are included at the end of this report. The comments and recommendations on each interview question shown below may be useful in considering how the questionnaire might be improved.

Section 1

- 1. How often would you estimate you use journals in print form?**
[Prompt with; Daily, Weekly, Monthly, Seldom, Never]
- 2. How often would you estimate you use journals in their digital form?**
[Prompt with; Daily, Weekly, Monthly, Seldom, Never]
- 3. When was the last time you used a print journal from the library collection?**
- 4. When did you last retrieve, read, or download a digital journal article or abstract?**
[Prompt with; Yesterday or today, Within the last week, Within the last month, Longer than a month ago, Never]

Comments on questions 1-4: These four questions are the most objective in Section 1. It was usually not difficult to get definite responses. Prompting with the time frames (daily? weekly?, etc.) was almost always done to give the subjects a frame of reference for their answer. The four questions can be considered as a group for comments/recommendations.

Recommendations:

Question 1 needs to specify whether it refers to journals from the library or whether it includes print journals from other sources—e.g. personal subscriptions, departmental copies, etc. That is not an issue for Question 2 because no one had a personal digital subscription to a journal. Questions 1 & 2 need to be parallel.

Question 3: Several faculty asked whether that meant a physical trip to the library by the faculty member, or whether it included sending an assistant to retrieve an article or whether it included a delivered ILL article. I said it meant the last time a print journal article was in the hands of the interviewee. The question should be clearer.

Questions 1-4: Many interviewees said that these questions posed a problem because their use of journals came in spurts of activity, rather than on a regular basis. This was especially true for students, who made use of journals much more heavily when they approach deadlines for papers. I asked those subjects for their best estimate of regular use.

Questions 1-4: Since these questions are objective in nature, it would be useful to consider forcing the respondents into a multiple-choice set of answers. Those answers should be parallel so that preferences between digital and print can be compared cleanly. Although the prompts for Questions 1 & 2 are parallel and specific (daily, weekly, monthly, seldom, never), some interviewees gave answers outside of the prompts: bi-weekly, a couple times a month, every other day, hardly ever, etc. Questions 3 & 4 should be parallel, but one has prompts and one does not.

Appendices 2-4 illustrate how a standardization of responses might be accomplished and the results that could be achieved. For Questions 1 & 2 on frequency of use, I translated each response into a slightly revised set of prompt categories. For Questions 3 & 4 on most recent use, I assigned responses to the same revised set of categories: daily/today, week, month, >month, never. I then assigned weights to the categories of frequency of use:

Daily/today	4 points
Week	3 points
Month	2 points
>Month	1 point
Never	0 points

Appendices 2-4 then compute the scores of the respondents by discipline or academic rank, showing, for example, that Life Sciences faculty use digital journals at a higher frequency than Arts/Humanities faculty (a score of 3.3 compared to 2.5). These tables are not a recommendation on how the multiple-choice categories should be determined and weighted, but a suggestion on how the objective data in Questions 1-4 might be collected and reported cleanly.

5. Assuming that both print and digital formats of a journal of interest are readily available, under what circumstances would you prefer to use the print version?

[If prompting ask about unique features of print that are important to the individual, uses for which print is particularly suited, library services that support the use of print or discourage the use of digital, academic activities that might require the use of print, cost and quality of print reproduction, or personal observations or assumptions about why print is a better choice than the digital counter part.]

Comments on Question 5: A good number of interviewees replied that they use print because the digital title is not available. That's not, I believe, the intent of the question. After prompting, the question is clearer, and people regularly cited preferences for the ease of reading print as opposed to a monitor, easier navigation and browsing in a print source, better quality of images in print, etc. No one mentioned any library services related to their use of digital or print, even when prompted. Several people noted that they know how to find something in print, but didn't know how in digital. Only one faculty member said that he would pay for access to digital; most respondents that were aware of pay-for-use situations were adamant that they would not pay.

Recommendations: It was often difficult to get people to address the specific issue raised by this question. It poses a hypothetical question that doesn't reflect anyone's actual experience. Several interviewees even noted that such a situation was impossible, or questioned exactly what was meant by "readily available"—my office? the library? my home, etc. I'd suggest a different approach on this question, or a rethinking of what information CMI is trying to elicit. It's too broad as it reads now; even after prompting, it was not easy to extract the specific information desired.

6. Would your decision to use print change if you had to request the print journal from a storage location?

[Although a Yes No answer listen for reasons this may or may not change the choice.]

Comments on Question 6: This is pretty straightforward. Almost all people answered that they would use digital if the only other option were retrieval from storage. Many interviewees gave me a look that suggested this is a dumb question: who would possibly want to wait to retrieve something from storage if it was available on screen?

There's a problem with the relationship of this question to Question 5, which asks in what situations people prefer to use print. Some people answered that they would never prefer print, so Question 6 is sort of a non sequitur.

Recommendations: I think only one or two interviewees considered it possible that they would want to wait for storage retrieval—and those were in special circumstances where they "needed" the print copy for a specific reason. In essence, it wasn't a preference: they needed the print illustration or photograph or something unavailable through the digital source. Also, Question 6 probably needs to specify a time frame for retrieval from storage. Several people asked how long retrieval would take. I replied: 24 hours.

I don't believe this question revealed anything that wasn't obvious. Quoting one interviewee: "It's a no-brainer."

7. What are the reasons that you choose to use the digital version of a journal rather than the print version of the journal?

[If prompting ask about unique features of digital that are important to the individual, uses for which digital is particularly suited, library services that support the use of digital and discourage the use of print, academic activities that might require the use of digital, cost and quality of digital reproduction, or personal observations or perceptions about why digital is a better choice than print.]

Comments on Question 7: The initial answers to this question all centered around the obvious. People like the convenience of digital access, of not leaving their offices, and of assured access to the material (i.e., it's not checked out or slit out of the issue). Some interviewees also volunteered that digital had better search capabilities, but most did not mention that unless I prompted it—and then they agreed. No one tied any digital preference to any library service—e.g. ILL or document delivery. Several interviewees in the sciences noted that they use digital articles as a type of reference tool to provide quick look-up of facts. They know where to find a fact or a graph or table in a digital article, and they can reach it quickly.

This question also revealed the wide range of computer literacy among interviewees. The people who were knowledgeable about computers sometimes described what I would call “second-level” uses of digital data. They created indexes on their computers of helpful articles or locations, they used cut-and-paste features to make use of pieces of articles in teaching, they created digital readers for students, they created their own CD’s of relevant material to take with them on field trips, etc. A number of interviewees talked of what was possible with HTML files as opposed to PDF files. It was also evident that a portion of the interviewees were not knowledgeable about computer capabilities; they made less use of the material.

Recommendations: As with the previous question, Question 7 presupposes a situation that may not exist. In this case, it assumes that all interviewees encounter situations when they would prefer digital to print. This is not true. A small group does prefer digital in any situation. Rewording of this question would solve the problem. In this regard, this question is parallel to Question 5. As I worked through the interviews, I could usually tell whether these questions might be worded inappropriately for selected interviewees. When that occurred, I added the clause “if any” to the question:

“What are the reasons, **if any**, that you choose to use the digital version of a journal rather than the print version of the journal?”

Finally, it’s a small point, but worth mentioning. One of the prompts for this question suggests that there are academic activities that might “require” the use of digital. I found that the overwhelming majority of responses referred to preferences for one form over the other. I don’t believe any academic work *requires* use of either form. I’d omit that concept in future questions.

8. Would your decision to use digital journals change if the print collection were closer at hand?
[Although a Yes No answer listen for reasons this may or may not change the choice.]

Comments on Question 8: As with Question 6, this needs some boundaries. What does “closer at hand” mean? In my office? in my department? at home? I’m not sure what situation was being explored with this question. In just about all interviews, decisions to use digital journals would not change if the print were closer. The use of digital seems to be more based on personal preference than on other factors, as does the preference for print. Interviewees who preferred print answered this question as if I asked them why they liked print: i.e. they reaffirmed the reasons that they liked print.

Recommendation: I don’t think it’s possible to reword this question to elicit any useful information, but maybe I’m missing the intent. If the question is to remain, it needs to be clarified. My recommendation, however, is that it be eliminated.

9. Have you found any barriers in using digital journals?

[If prompting ask about difficulty when accessing digital from different locations, sufficient training in searching and retrieving digital, adequate screen display, computer speed or printing equipment, comprehensiveness of digital coverage. This is a conversational question but try for specific answers.]

Is there any additional information or training that you feel would be helpful to you in making more effective use of digital journals?

Comments on Question 9: This is the most interesting question in the survey. Interviewees had no trouble understanding the question and no lack of response. The range of answers was wide, including personal preferences, computer literacy, hardware problems, printing issues, inadequacies of databases, and insufficiency of coverage. Almost everyone had some thoughts on what could be improved—even if they liked what they had currently. Several faculty took this question as an opportunity to complain about the bad pc hardware available to them in their offices—both computers and printers. The worst was a full professor with a 10 year-old Mac who needed to e-mail articles to his wife who could print them out. I was surprised at the number of times a faculty member cited hardware or telecommunications inadequacy as a reason for not making better use of digital journals. (This also emphasized the outstanding level of hardware available in the libraries.)

As I got further into the interviews, I asked specifically whether the digital titles available to each interviewee covered the basic, mainstream journals in his/her discipline. I followed that up with whether the retrospective coverage met their needs. The responses varied greatly by discipline, as one might expect. I had two instances (Music History and German History) where the interviewees said there was just about nothing available to them in digital form, although they'd like to use them.

The second part of this question (additional information or training...?) also got many interesting answers. For the most part, faculty have never attended any training sessions and don't have the time. They admit they might have benefited from formal training. Grad students may have attended training sessions, but are mostly self-taught. I didn't find any grad students who had any difficulty with any aspect of digital use. Levels of computer literacy differ greatly by discipline, and they are also evident between the student/faculty split. Students use digital material pretty seamlessly.

Recommendations: This question is a good one as it stands. However, it might be worthwhile to develop a separate, new question that addressed more thoroughly the extent of digital journal coverage in the subject areas of the respondents. I think this information would be valuable to the University. e.g.

Are most of the mainstream journals in your discipline available in digital?

Do the years of retrospective coverage for those journals meet most of your needs?

10. As you may be aware, print and digital versions of the same journal may not be identical. For example, journals in digital format have features that may not be available in the print form such as key word searching of text. Publishers of digital journals also do not always include the same features in the digital as in the print form, such as professional announcements or letters to the editor. Are there any features that are important to you when choosing to use the journal in digital form?

[After the subject answers, prompt with specific questions not already mentioned]

Are there any differences you have noticed in the articles themselves? Text? Quality of graphics? Access to data not available in print form?

Are there any differences you have noticed in journal features? Letters to the editor? Professional announcements? Advertisements? Timeliness of publication?

Are there features of the digital format that you find more useful than those in print journals? Hypertext links? Full-text reference links? Access to multimedia data links? Ease of navigation within articles or journals?

Comments on Question 10: There are mixed results from this question. It covers a lot of different areas. Very few of the interviewees actually answered the main question unless I came back to it: whether differences in print and digital journals were important enough to make them choose one over the other. I'd say that most people choose a format that they like and deal with the features or shortcomings of that format.

I do not remember anyone volunteering information about content differences between the two formats: e.g. letters to the editor, advertisements. The vast majority were interested exclusively in the text. Some interviewees volunteered that they did appreciate hypertext links, but most didn't mention it until I asked specifically. Then, most said that, yes, they used the hypertext links.

The biggest difference people mentioned (after I brought it up) was the quality of graphics. A good number of interviewees found the graphics from digital sources inferior or inadequate for their work. This is especially true in the sciences. In most of those instances, the issue was not printer quality or image resolution. The issue is simply that a commercial printing process and quality paper produces a superior image. This was an important factor to individuals in Life Sciences (Pathology, Physiology), Geology and some Engineering. In the Social Sciences, some journals include high quality photographs that cannot be reproduced by printing from digital.

In general, people found it easier to navigate in print rather than in digital sources, although the latter allowed them to scan more material quickly and efficiently.

Examples of possible features

Journal reputation
 Abstract quality
 Ease of navigation with in journal issue or article
 Ability to search across different journal titles
 Critical mass of title (enough issues and volumes on-line)
 Equivalence of the print to the digital issue (inclusion of supplements)
 Timeliness of digital publication (before print publication)
 Current Issue size (number of pages)
 Bound volume size (to large for ease of use)
 Quality of graphics
 (Inclusion of color plates, fine line drawings, black and white photographs, graphs and charts)
 Article length
 Citation links
 Professional announcements
 Grant and funding opportunities
 Advertisements
 Position listings
 Search capabilities
 Hyper text links
 Full text reference links
 Inclusion of data sets
 Inclusion of simulations
 Inclusion of multimedia evidence
 Recorded presentations
 Compare/contrast capability

Recommendations: I'd consider splitting this question into two. The first could deal with content issues: letters to the editor, graphics, text differences. The second could deal with differences that are inherent in the digital vs. print format: searching by keyword, hypertext links, navigation with articles. Combining both in one question makes it less clear. I believe the most responsive answers will come from the most specific questions—especially in a non-mediated questionnaire.

Also, the listing of “Examples of possible features” (included in the box next to Question 10) is too detailed for this questionnaire. The general prompts for this question are equal in detail to those of other questions, and they are sufficient. The box, and its level of specificity, are not needed.

11. If you have used a digital journal that was different than the print version of the journal, are there features of the print that should be included in the digital version?

Comments on Question 11: I almost never asked this question because it was already covered in Question 10. Moreover, most people thought the answer was “no”. They are mostly interested in the text of the article—which doesn't differ, as far as my interviewees could tell.

Recommendation: Delete this question or include it in a reformulated Question 10.

12. Are there particular circumstances in which you would prefer to use the digital version rather than the print version of a journal? For example, some library users prefer the digital version to quickly scan abstracts from several articles, or to prepare an online reading list for a course.

[If prompting ask about browsing, specific searches for journal article, exchanging journal content with others, citing others work, reading for pleasure or compare and contrast several articles.]

Comments on Question 12: This is a troublesome question because most people have covered it already in previous answers. I don't think it is sufficiently different from earlier questions to warrant keeping it in. It's not that it's a bad question; if it came earlier in the interview, it would elicit some good responses. However, at the time it comes in this interview, it's already been addressed and sounds repetitive. I did have some success in getting answers when I asked specifically how/if interviewees used digital sources in their teaching. Answers included: digital readers (rather than reserves), class websites with digital references, assignments using digital resources, etc.

Recommendation: Eliminate this question or recast it to emphasize a different aspect of digital use than has already been covered: e.g.

Have you used the features inherent in digital journals in your teaching/coursework?

13. When you find an article of interest in a digital journal, what do you do with it?

[If prompting ask about reading on the screen and book marking, or printing off for saving, or sending to another machine for storage.]

Comment on Question 13: Not a good question. Most frequent response to the basic question was a blank stare. When I prompted with: “read it on the screen? bookmark it? save it?”, most interviewees answered that they did all of those, depending on the article and their level of interest in it. There are a few people who said they print everything because they don’t read off the screen. Few people bookmarks articles—they say they don’t ever get back to them. I asked whether people had set up organized storage areas on their pc’s for saved articles. Most said they sort of did, and a few admitted to a truly organized plan.

I don’t know what information this question was intended to provide. Since almost everyone said they did almost all of the options at one time or another, the value of this question is doubtful. After the first few interviews, I altered the question to say:

When you find an article of interest in a digital journal, what do you **most often** do with it?

But even after getting that answer, I didn’t know were to go with the question.

Recommendation: Unless there is some meaningful way to use the responses, eliminate this question. I don’t see what useful information the responses can provide.

Section 2 Technical Environment

1. What is your operating environment (at work?) (at home?)
Mac/Windows/Unix

2. About how old is your computer (at work?) (at home?)

Home:

Work:

3. From what location do you most often access the digital journal collections (e.g., work/home/library/computer lab)? What other locations do you use to access the digital journal collection?

[Prompt for campus office, public computing labs, library terminals and print services, home office.]

4. When you print digital journal articles have you experienced problems? What type of problems have you experienced? What was your location when you experienced these problems?

Comments on Questions in Section 2, Technical Environment: These questions are straightforward and posed no problems. Almost all faculty interviewees said that they accessed digital material from both office and home. Printing problems from home usually centered on older printers or telephone modem telecommunications. A surprising number of faculty were not aware of proxy services or how they worked. This issue sometimes came up in the discussion of home access.

Recommendations on Section 2, Technical Environment: Although the questions themselves were easy to ask and answer, I don't know how the answers will be used. After interviewing about 40 people, I think that acceptance and use of digital resources is not closely correlated to age or type of hardware. Those people that are comfortable using computers have few problems, regardless of the age of their machines.

I'd question whether collecting the information in this section is worthwhile. The question about printing problems (#4) could easily be included in Section 1. Actually, it was usually already answered in Question 9:

“Have you found any barriers in using digital journals?”

Section 3

1. In this section we would like you to briefly describe yourself

Campus

Department

Age range (20 or under) (21-30) (31-40) (41-50) (51-60) (61-70) (71 or over)

Sex

Highest degree held

Year highest degree granted

Status

Undergraduate student

Graduate student

Academic Staff

Library Staff

Other UC Staff

Other UC

Comments on Question 1: The demographic information posed no problem, but I admit that I was embarrassed on a few occasions to ask the age of the interviewee. This usually happened when the person was older. I decided that I would not ask this question of an older woman in Women's Studies. It just seemed wrong to me—probably my problem. However, I repeat a point I made above. I doubt that there's much correlation among age, sex, or degree held and use of digital material. Or at least, I doubt that the expanded CMI study will be used to demonstrate any correlation. So I'd recommend that if the data doesn't have a predetermined use, it might be best not to collect it.

2. Is there anything pertinent to your experience with digital journals, or your views about them, that we have not discussed in this interview?

Comments on Question 2: This is a good question. It brought some unexpected comments and provided a sense of closure to the interview. Most frequent response was from the interviewees who liked digital journals. They said that the University should get more.

Recommendation: This question doesn't belong in the Demographic section. It would be better to include it at the end of Section 1.

General Comments on Responses and the Interview Process

The comments and recommendations above usually pertain to specific questions. This section contains more general thoughts about the entire project. They are grouped by large categories:

Follow-up studies

Follow-up study: The larger study to be done this fall needs some additional thought. I believe that a high percentage of the useful information gathered at UCSB and UCSD came through the follow-up questions rather than the initial responses of the people being interviewed. If the survey is to be completed by users without any follow-up, some questions need to be more specific. The initial answers for many interviewees were “yes” or “no”. Prompts were very helpful in producing meaningful answers. Also, I think that a good percentage of users will not want to write essay-type answers. Prompts on the current interview might become multiple choices for some of the questions for the larger survey.

Next steps: Several faculty wanted to know what the next steps would be in this project. Two suggested that since usage of digital resources varies by discipline, it might be a good next step to have focus groups of users discuss what’s needed.

Training issues

Training issues: Although it may not be a surprise, it’s sobering to interview so many people who know very little about the programs and assistance available at libraries. Several people at UCSB were unaware of the existence InfoSurf, the library’s website. A good number of faculty did not know that proxying existed. Most faculty interviewed have never had a formal training session or class by a librarian in using digital resources in their subject area. Those that had training generally found it very helpful.

No time for training: Faculty and grad students many times felt they did not have time for training. A medical student said training out to be included in their classwork. If it’s a separate time, they won’t go.

Limitations of digital journals

Graphics: It was surprising to me that graphics were so important to a large number of the interviewees. As mentioned above, digital journals don't provide the high-quality graphics that some print journals do. For some of the interviewees, this was not a matter of preference--it was essential. The pathologist looks at electron microscopy photographs in print journals; the physiologist looks at detailed drawings from older works; the geologist looks at fine-line topographical maps and charts. For these individuals, digital is not an acceptable choice.

Frustration issues: Often mentioned was the fact that all digital titles are not available at all campuses. This is more understandable to most people for print, but when they find what they want on CDL and then discover that their campus doesn't subscribe, it's very frustrating. I think it's because the user is one click away from getting what he wants, but then can't do it. Many people assumed that since a title is available in digital within UC, it ought to be available at all campuses. I explained that subscription costs were as important in digital as in print.

JSTOR: This was mentioned by a lot of people. It seems to provide a wealth of information, but several people mentioned that printing is not simple in JSTOR. Reasons varied, but it was singled out as a printing problem. Also, the unavailability of recent issues in JSTOR was described as a big problem by several people.

Access to information, indexing: Several of the science people and a few of the social science types mentioned that what's needed is a more universal index to digital articles. They believe that indexes for print materials are more general and comprehensive, but that indexes to digital material cover less territory. The result for them is that they need to know where to look and how to use a lot of individual indexes when searching digital material. I am not familiar enough with this issue to comment on whether they are right or not.

Related to this were several comments that differing formats of digital indexes and the journals themselves made things hard to find. People can navigate intuitively in print within a journal, but not necessarily in digital. A couple people thought users should be able to click directly from MELVYL right to the article without and middle steps. One Chemistry faculty said that the indexing is more important than the digitizing; if you can't find it in an index, it's useless.

MEDLINE vs. PubMed: I think three science people told me that the new PubMed interface is inferior to the old MEDLINE interface. Again, I have no personal experience with it, but they implied that it took longer to use the new one than the old one. It's something like when old ACSII Melvyl went to CDL. I think they were very familiar and proficient with MEDLINE searching, but find PubMed cumbersome.

Digital holdings: I had several comments that using digital journals would be improved greatly if the web pages of the libraries listed which issues of a title were available in digital form. Here's the problem: a person finds a citation, goes to the InfoSurf listing of digital journal titles, sees the title he wants, clicks on it and finds that the issue he needs is not available in digital form. What would be a big help and convenience is a holdings statement for digital issues associated with each title.

Tables of Contents: A number of people noted that the excellent searching capability in digital sources has a drawback. People find a hit on their specific subject, got directly to the article, and never see the surrounding material. After hearing this a few times, I often asked interviewees if they ever looked at tables of contents in digital journals. Most said that they did not, and that not seeing them was unfortunate. Sometimes an entire issue of a journal might be on the same topic as the selected article. That would be hard to miss in a print situation, but easy to overlook in digital. Someone suggested that a table of contents link should be a prominent icon on the title page of a digital article. Others were aware that they could find tables of contents, but said they rarely did it when using digital sources. The serendipity of finding similar or related material is being lost in all disciplines.

Miscellaneous

HTML & PDF: Some people understand the difference between HTML and PDF. They much prefer the flexibility of HTML, and make use of it in various ways. Knowing the differences would help faculty and students make better use of the digital resources.

Who likes digital more?: In general, the science people like and use digital journals more than the social science and humanities people. After interviewing both camps, I offer the following generalizations (always dangerous to generalize):

Science likes digital because:

- They are generally more comfortable with computers. They can find the things they want, they can manipulate the data, they can print without problem, they can cut and paste, etc.
- They are more interested in current information—a lot of which is available in digital..
- Their information is sometimes in short chunks that can be read quickly.
- Most of their mainstream titles are available.
- They do not like to move from their offices and labs.

Social Sciences/Humanities like digital less than Sciences because:

- They are less comfortable with using computers.
- They depend more than scientists on older material not likely to be available in digital.
- The sense of an article is what is often important—not a smaller piece of the article or a table or graph. Reading from the screen is less desirable for longer articles.
- They see the library as more of a second office.
- They seem to value browsing bookstacks more than science types.

Pedagogical issues: a UCSB faculty member is concerned about what students are being taught. Research skills in primary materials may be eroding because of keyword searching. Another faculty (science) said that if material is not available digitally, it “doesn’t exist” for students.

Note-taking: Many interviewees said that they print articles because they like to highlight sections and make margin notes. No one seemed to know of any good software that would allow someone to do that and save the edited file easily. Something is available in the full version of Acrobat, but it’s not very good.

Perpetual access to data: Several faculty familiar with digital publishing were wary of publishers. A surprising number of faculty mentioned that they were involved with journal publishing or served on editorial boards. Some expressed concern about the relationship between the University and publishers of digital materials. They emphasized the need to acquire perpetual access to data that UC has bought. Access to purchased subscriptions should be available whether the University cancels its subscription or whether the publisher goes out of business.

Appendix 1

Name	Campus	Rank	Category
Jack Talbott	UCSB	Faculty	Arts/Humanities
Patricia Fumerton	UCSB	Faculty	Arts/Humanities
Harold Marcuse	UCSB	Faculty	Arts/Humanities
Lawrence Badash	UCSB	Faculty	Arts/Humanities
Kathy Lowry	UCSB	Faculty	Arts/Humanities
Jonathan Pearl	UCSB	Grad Student	Arts/Humanities
Karen Bishop	UCSB	Grad Student	Arts/Humanities
Bruce Tiffney	UCSB	Faculty	Phys Sciences/Engineering
Bill Kaska	UCSB	Faculty	Phys Sciences/Engineering
Thomas Pettus	UCSB	Faculty	Phys Sciences/Engineering
Forrest Brewer	UCSB	Faculty	Phys Sciences/Engineering
Rene Perez	UCSB	Grad Student	Phys Sciences/Engineering
Jeremy Johnson	UCSB	Grad Student	Phys Sciences/Engineering
Carol Blanchette	UCSB	Faculty	Life Sciences
Jim Cooper	UCSB	Faculty	Life Sciences
Julie Kellner	UCSB	Grad Student	Life Sciences
Eileen Boris	UCSB	Faculty	Social Sciences
Bruce Bimber	UCSB	Faculty	Social Sciences
Mark Aldenderfer	UCSB	Faculty	Social Sciences
Roberto Melville	UCSB	Faculty	Social Sciences
Nick Tripcevich	UCSB	Grad Student	Social Sciences
Derek Sinutko	UCSB	Grad Student	Social Sciences
Emily Hebard	UCSB	Undergraduate	Not applicable
Gwyn Wood	UCSB	Undergraduate	Not applicable
Ann Branting	UCSD	Undergraduate	Not applicable
Heather Mackey	UCSD	Undergraduate	Not applicable
Cynthia Walk	UCSD	Faculty	Arts/Humanities
David Luft	UCSD	Faculty	Arts/Humanities
Jane Stevens	UCSD	Faculty	Arts/Humanities
Mohan Paturi	UCSD	Faculty	Phys Sciences/Engineering
Amy Sung	UCSD	Faculty	Phys Sciences/Engineering
Tongye Shen	UCSD	Grad Student	Phys Sciences/Engineering
Chris Wills	UCSD	Faculty	Life/Health Sciences
Kim Barrett	UCSD	Faculty	Life/Health Sciences
Thomas Patterson	UCSD	Faculty	Life/Health Sciences
Henry Powell	UCSD	Faculty	Life/Health Sciences
Keith Cross	UCSD	Grad Student	Life/Health Sciences
Boris Igic	UCSD	Grad Student	Life/Health Sciences
Ross Frank	UCSD	Faculty	Soc Sciences
Mervi Howard	UCSD	Grad Student	Soc Sciences