

Using Melvyl:

Reactions to Features New and Old

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EXECUTIVE SUMMARY

In January 2012, two features – Central Index and View Now – were activated in Melvyl for a six-month pilot. Central Index allows users to search all of the databases included in the Central Index from Melvyl's search interface. View Now aims to give users access to full-text books and documents that are freely available.¹

With the inclusion of articles and databases via the Central Index, UC Libraries have expanded the concept of what a catalog is and what it allows users to do. What used to be called a library catalog held information about only that library's books. Now, it is more of a discovery service. The potential benefits of adding more article content types outweigh the costs of adding the content, because the additional content does not increase the complexity of using the system by a substantive amount. Melvyl is difficult to use at times. The greatest frustrations for users stem from the difficulty in getting access to the items within the system, not from the inclusion of more articles. On the contrary, the prospect of being able to consolidate research activities to a single system could be very attractive.

However, merely adding more article content is not sufficient. Melvyl also needs to support the basic activities of working with the new content. For articles, the system should help users to *easily* browse journal titles and issues, as well as search for specific citations. Melvyl could do this by becoming an effective gateway to the native interfaces of journals and databases for users who wish to go there.

Connecting users with content is the aim of many features of Melvyl, and View Now attempts to provide a more direct way for users to view certain types of digital content. Unfortunately, until it can fulfill the promise of its name, most users will come away from the current experience disappointed. Five years ago, it was enough to have the possibility of getting something online. Now, users expect items to be there on demand, especially if the link is labeled "View Now".

As part of the pilot phase, the California Digital Library conducted a round of structured, task-based interviews with students to gather feedback about the new features. This report outlines these issues and other practices and preferences demonstrated by students during a round of interviews conducted in April 2012 to gather information about Central Index and View Now.

¹ <http://www.cdlib.org/cdlinfo/2011/12/19/major-melvyl-enhancements-coming-in-january-2/>

DATABASES AND JOURNALS IN MELVYL

All participants were selected because they reported using Melvyl for their academic research. Most knew that articles were available on Melvyl, but one participant did not know that databases were included in Melvyl. After learning they were, she stated that she'd start her research with Melvyl.

The only reason I go through UC Davis libraries for databases is because I didn't know Melvyl had one. So now that I know it does have one, I most likely will go through Melvyl first for everything now because it does show me if UC Davis has it.... It has the call numbers and everything, which is really convenient. ... It's harder to search the Harvest catalog sometimes.

The presence of articles could streamline the research process for some users. For the following participant, the ability to search at least the abstracts – or ideally, the full text – of articles would be necessary to make Melvyl a go-to resource for articles.

I think in some respects it would be more convenient for me to do it all in one place. That way I could see books and articles, so long as the... articles are indexed in a way that the stuff I need to find I can find, that's fine.... The reason why I end up using JSTOR... is because they do have full text and PDFs are available. The other databases I've used... some of them have full text, some of them don't. They might have abstracts, and sometime not even that. It's definitely a disadvantage - the absence of abstracts, particularly, is a disadvantage because you don't want to request an article then find out this is not even close to what I want. It's a waste of resources and a lot of time. Even on that level, if OSKICAT or Melvyl had a way of searching articles... if full text is not available, even an abstract would be very helpful.

Of course, for some users, Melvyl's Central Index will not factor into their research process.

I never actually look at the journals - like when if I see the individual articles come up. But it's [Melvyl] not a resource I go to for that, so I usually ignore them... because I've already searched other places for them. And at least the ones that I do actually scan the title of are actually ones that have come up in JSTOR. So it seems redundant. It doesn't seem to come back with more. Perhaps I could go to it [Melvyl] for those, but it's not in my habit.

This user currently ignores article results in Melvyl, but he leaves open the possibility that his process could change.

SUPPORT FOR ARTICLE-FOCUSED ACTIVITIES

Melvyl does not support browsing of journal volumes within its interface, but it does not need to. Instead, Melvyl could make it easier to get to native interfaces where journal- or database-specific activities are better supported. Currently, many clicks are necessary to get to journals through Melvyl, and the handoff to native journal and database interfaces is neither intuitive nor smooth.

Website.... What I'm looking for is for it to redirect me to their website. And then I can do search in their website.... Well, those [links] are useless because they're just a guide for how to use Medline.

It's a website actually.... I want to get to that website. Then from there I'm going to try to search for Asian tsunamis. But I need to actually get to that website first.... I'm going to click on the website format heading underneath the title and author... hoping it'll turn me over to the website with no real understanding where it's going to send me.

When users are looking for a specific database or journal, they want to get to that specific database or journal quickly and easily. They want to get to the native site and search and browse there. Melvyl records do not provide an obvious way to leave Melvyl and get to an external URL.

If users are looking for a specific article or item, they usually have some or all of its citation information. They want to be able to enter this information into a search interface and get the item. Melvyl does not support this user behavior; it does not handle specific citation look-ups without sophisticated knowledge of searching techniques.

For example, students can usually copy and paste citations from a syllabus or bibliography into Google and get results. In order to find a citation in Melvyl, they may have to deconstruct the citation and format it in a specific way in order to get results.

I don't really expect it [i.e., entering a citation] to work, because Melvyl's not Google or Yahoo search bars. So you don't expect to throw anything into it and have it sort out what you want.

Putting the listing exactly as stated with the bibliographic information... yields nothing in Libraries Worldwide.

Compare the Melvyl experience to the following:

I usually do it [search citations] in Google Scholar. And I type in the journal – sometimes I just type in what I've been given and usually that works.... And I'm always amazed that it works.... Usually I can just type in the article's author, the journal, and when he published it and get exactly the right answer.

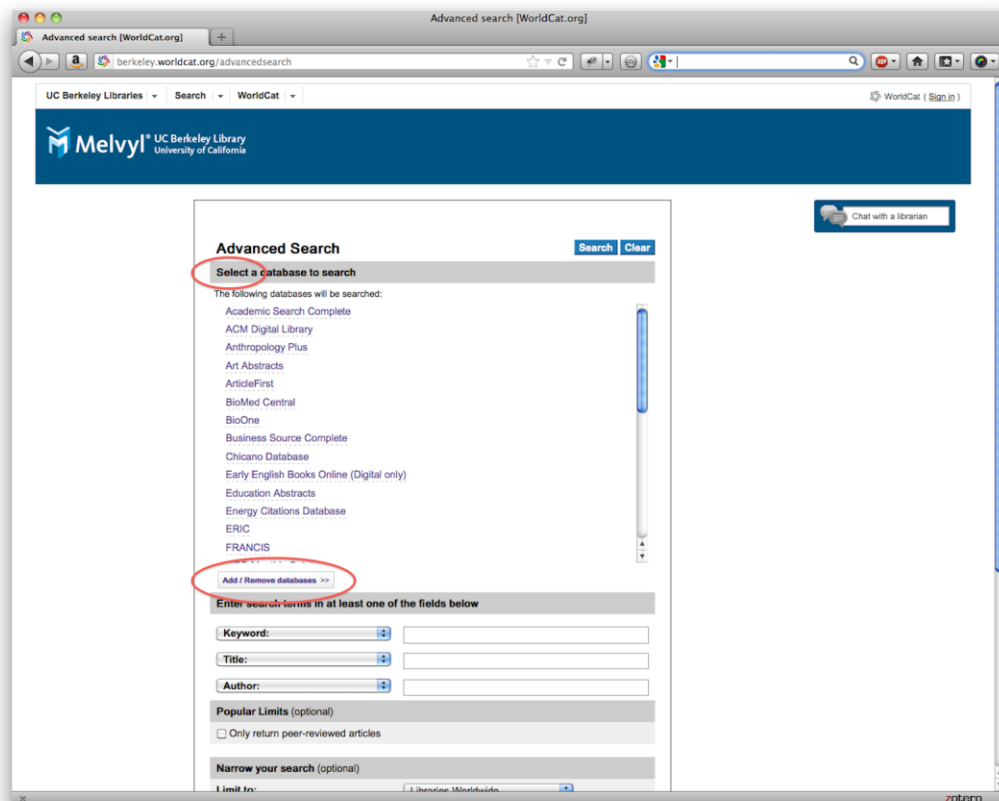
The addition of article content in Melvyl has tremendous potential to benefit students, and an intuitive user interface and support for common, article-related activities would help them take full advantage of this feature.

DIFFICULTIES WITH DATABASE-RELATED INTERFACE ELEMENTS

Participants encountered various challenges with working with databases in Melvyl. A few students were unfamiliar with the names of databases and didn't know what they were. Some users were looking at Melvyl's advanced search for the first time during the testing session. One user was unsure what databases were searched by default.

On the advanced search screen, the heading "Select a database to search" implies that users should select – i.e., click – a database in order to search it. The presentation of the databases does not indicate that they are being searched by default.

Figure 1: Advanced Search



Some users missed the "Add/Remove databases" button initially and tried to manipulate databases in advanced search by clicking on the name of the database itself. The placement of the button renders it below the fold at a screen resolution of 1024x768. Eventually, most discovered the Add/Remove databases button, and once they did, they returned to it as needed.

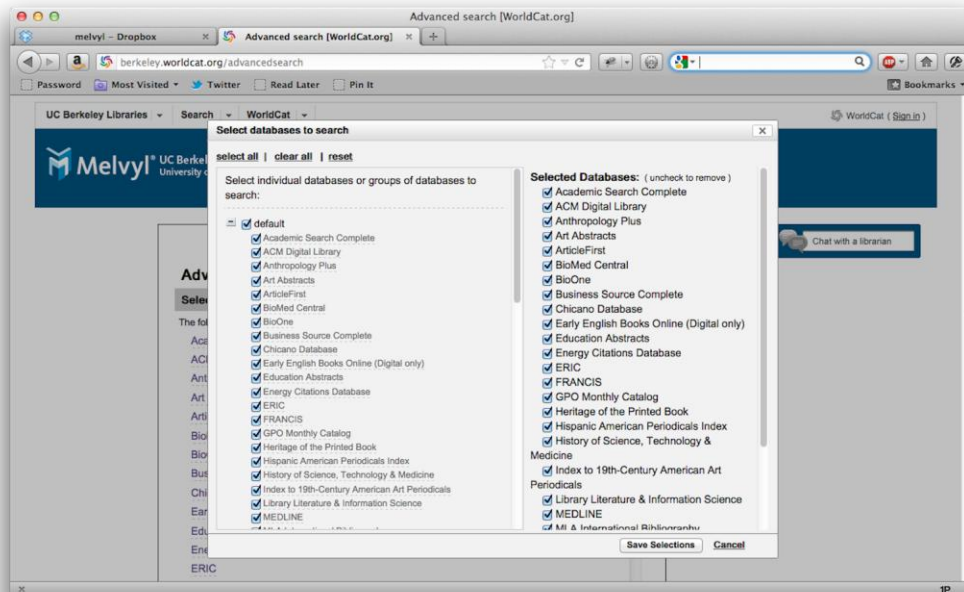
I think I saw it earlier.... I think it was under advanced search.... I clicked on "Add/Remove databases".

Once users click the “Add/Remove databases” button, a lightbox appears on the screen. The two columns of databases confused some users. One wondered what the difference between “select all” and “reset” was.

I guess you can choose specifically which database you are [in].... Maybe it'll search through all of them.

The relationship between the two columns is unclear. Unless one studies the columns carefully, this lightbox just looks like a long list of items split into two columns. In actuality, the right-hand column represents the databases that have been selected. Unfortunately, the presence of checkboxes and the length of the lists obscure this fact. The scrollbars also detract from the usability of this screen, which would benefit from a complete redesign.

Figure 2: Database List



During testing, students who changed the list of databases searched remembered to change it back as needed. However, not every user will remember this. The database limitation notification under the search box helped remind a few users.

SYSTEM CUES AND LABELING

The complexity of the Melvyl system and the nature of the research process, where there are many unknowns and unfamiliar things, compel students to identify and use any cues that might help them make sense of what they are viewing.

Participants interpreted various elements of the interface in ways that were sometimes “correct” (i.e., as they were designed to be used) and sometimes not. Given incomplete information or an imperfect understanding of a system, people try to fill in the gaps using context and their own past experiences.

One participant thought that the “article” label - versus the “e-journal” label - indicated that the item was not available online.

It's a really early page where it just says “article”. It's in English. Under document type, it just says article. And then for format it says English, but there's no other indication that says you might have e-access to this.

Generally if it says e-book without any qualifier behind it, especially in situations where, like here, it says “document”... none of these suggest to me that it's not an entire book.... Maybe “document” actually means table of contents.... Maybe the one that doesn't say anything... maybe that's a complete e-book so that I can... actually read the entire book or possibly have access to download it the way I would with e-articles.

In trying to figure out Melvyl, some participants encountered situations where inconsistencies caused confusion or uncertainty.

So Melvyl returns something called BioOne with the capitalization that I know it's supposed to have. But it says BioOne.... Previously when I was looking at databases, it never called them websites. and here it's calling it a website, so now I feel like it may not be the right result, but I'm going to click on it anyway.... So this sounds like the database I'm looking for.... I'm still not sure why it's called a website. And it would bother me that it's called a website.... Because the other databases that I was looking through were not classified as websites. And just because it's asymmetrical, I would think that maybe something's wrong.

When users cannot rely on the information given in a system, the quality of user experience suffers. And when the system provides affirmation, users take note. Several participants expressed appreciation for auto-complete. One demonstrated how he had modified his search phrase strategy to take advantage of auto-complete. Another found validation for her choice of search terms in auto-complete.

One thing I noticed: if I start with the author name sometimes, it'll give you a list of text that pops down here and it might give you the name and the exact text you're looking for.

The thing I like about Melvyl is sometimes if you get a popular topic or a popular book title, it fills it in. It gives you the drag down button. So, sometimes you know you're doing the right search if it comes up.

Positive interactions such as the auto-complete example help build trust in the system. When it concerns cues and features, the more obvious and accurate, the better. During testing, participants encountered situations that did not fulfill their expectations. Students were drawn to resources that might be readily viewable, such as e-books, and they felt misled by format labels and icons when clicking them did not lead to the promised resources.

I clicked on the third one because it said it was an e-book. If it [hadn't had the e-book icon] I would've clicked on the first one because I usually click on the first one.

It's one of those where I would have gotten really excited that I should've been able to read this and then got there and went, "Ugh, I've got to walk across campus to the library." Whereas if it just told me ahead of time, "This is a table of contents. or even just I'm not a real e-book. You can have a peek, but know ahead of time that maybe everything from Google books is mostly a preview.'

When one participant entered the exact title of an item, he expressed surprise or confusion when it did not appear as the first item in the search results. He expected it to be the first result and concluded that since it was not, the item probably didn't exist in Melvyl.

So because the first result isn't the book that I'm looking for and I provided the exact title, I'm assuming they're not going to have it. But I'll check the whole page. [User scans page.] So, I would assume their not having it.

This failure is similar to the case in which Melvyl returns zero results when a full citation is entered into search.

UC-eLINKS

UC-eLinks is an extremely complex and valuable service, and there are many technical challenges to providing this service that students don't see. However, as end-users they shouldn't have to think about what happens in the back end of the systems they use. They just care about getting results... instantly. The following user expressed surprise and delight when UC-eLinks provided a direct link to the full-text of the article she had sought.

Maybe I can get it online.... When possible, I try to avoid EBSCO just because they give you giant stacks of articles to sift through, which is great but if I'm looking for something specific, I just want it to give me that....

It looks like this one's come right up and I can even grab it as a PDF. So that is really surprising. I would not have expected that had I actually clicked on UC-eLinks, I actually would have gotten an article that I could download. I would have expected that I'd have to go to the library to find it.

In the instance above, direct linking resulted in a successful and positive user experience. In general, however, students had difficulty finding electronic/digital copies within Melvyl, and UC-eLinks received mixed reviews. One participant reported looking forward to seeing the link, because it meant that she could get access to the item. Others recalled that many of the links in the UC-eLinks window don't work or they lead to the main page of websites where they have to re-enter their search. Several participants felt that the statement of online availability in the UC-eLinks window was often misleading, and they equated UC-eLinks with having to do more work to get items.

When I see the UC-eLinks thing, I usually avoid it unless it's an article I absolutely think I should be looking at. Because I know that this requires multiple steps, and that taking the steps is not one of those things where it will lead to something. Oftentimes, I'll go and find out that we have the title, but we don't have the issue in question.

I really don't like UC-eLinks because I've used it before. And it's just confusing because sometimes you're limited on time and you have maybe 30-45 minutes to look for articles. And when you're able to pull them up and just skim through the articles, it's easy to see what you need and what's not going to relate to your topic. And sometimes UC-eLinks is kind of confusing because you think you could get access to it and sometimes you can't find it.

Normally what happens when I follow it through is you get the main page to the journal and then you've still got to sift through for the table of contents anyway. And so once you've gone to Melvyl, bounced through trying to find the journal, clicked through to get to the site itself, you're still looking for the table of contents. And so it's faster to go, "Google can take me to it. I'm sure they have a website."

So the UC-eLinks is broken. It says the item may not be available online. And I always find it frustrating that the UC-eLinks button exists, but when you click it the item isn't there.

Currently, direct linking to articles is not supported for the Central Index. When users search for journals and books, all available options are show since they have not specified a year or volume. However, when users search for articles, direct links would be ideal. If Central Index moves from pilot to production, the California Digital Library is prepared to attempt to determine source identifiers for articles from WorldCat Local and support direct links for them.

VIEW NOW

For the pilot, View Now was turned on for free resources in three categories: the HathiTrust Digital Library, .gov/.edu documents, and Internet Archive/Project Gutenberg items. Currently, View Now is the best way to surface the three million public domain items in HathiTrust to students.

Like UC-eLinks, View Now aims to make it easier for users to get to a resource by providing a hyperlink in the item's record view. However, many participants had difficulty getting to their desired resource. Considering the name of the feature, users expected View Now to immediately provide a view of the item, and they expressed disappointment or confusion when it did not. Links to HathiTrust materials at least led to full-text views. Non-HathiTrust items seemed to lead to webpages that users were not interested in deciphering.

I guess there's a little icon here too. "View now". There's a little "e". [Clicks.] Never mind, I don't know what this is.

Better labeling may help users find their way to success. "HathiTrust Digital Library" doesn't mean anything to most users. There is neither recognition nor recall of the name, so additional descriptive text may be warranted in this case.

Okay, the View Now did not actually help. But maybe it will if I follow it [the HathiTrust link]... Okay, it's a digital library. That was unclear. So when I followed this resource, I wasn't sure what would happen.... So the View Now suggested that instead of the usual hunting through the title to follow out the links, I could just literally view now.... I sort of expected - unless there's more information in this popout - that if I hit that, it would just open a new tab and open the book itself.

Given that View Now seems to work best for HathiTrust materials and not so well for the other categories of materials, it may be best in terms of user experience to keep View Now only for HathiTrust. When effective links to full-text are consistently available for the other categories, they can be considered for activation. Until then, however, View Now should be limited to HathiTrust.

STARTING POINTS

Many students reported beginning their research with Google or Google Scholar.

It depends on whether I'm first looking for books or journal articles in particular. Usually I actually head straight to Google because it's just fast.... It's normally Google scholar that I'm looking at.

So if I were just wanting to read this [Q2 article], I wouldn't use Melvyl to do it. I would use probably Google Scholar because it would give me.... It seems to give me everything Melvyl would give me plus more.... Well, it seems like more.... It seems to be consistently able to find things that are available to me.

Google experiences influence tactics and expectations. Sometimes, students use Google as a tool to supply missing information that they use to search other systems, including Melvyl.

Sometimes if I can't find the [item using the] title, I'll Google it and see who the author is and try to search it that way.

When in doubt, with Google I always just type in as much stuff as I can and then see what comes up. [User entered entire citation from Q5.] What I'm looking for is the title of the article. As soon as I find that I can go through Melvyl and then see if I can get something from there.... If I'm lucky enough, I can find the article just right here through Google. Then I don't even have to go through Melvyl.

More experienced researchers who want to find articles on specific topics often start with the library's electronic resources directories. One common path is Library Homepage → Electronic Resources page → Publisher's/Resource's website. These researchers reported going to specific journal websites for articles.

I usually go to the library homepage and then go to journals and then find the general databases. And via title I either find the access point or sometimes the publishing company....

I would probably skip Melvyl and just Google "Medline database" and then see what I can get. Or if not, I would go through the UC Davis libraries webpage, not the catalog.... And then search through databases and then go through the search. I wouldn't use Melvyl.

I usually go through the main library website and the on the side there's articles and electronic databases and I search through there. I find that it's a lot easier if you go through a wider subject search than limiting yourself to a specific database. And PubMed is really good because it's a science base and nutrition is more science and it's really wide. So I can look through there and go through advanced searches and narrow it down to the specific articles I need.

Students have developed habits and preferences for doing library research. However, they are quick learners, and they aren't tied to any one method. Students are pragmatists and will adapt their tactics and strategies based on new information. The following participant had stated a preference for Google prior to completing an exercise involving the use of Melvyl to find an article.

That's [Q6: book review question] one that I would use either Melvyl or Google. Google sometimes gives too much. Reviews are difficult to find.

One reason students may start using Melvyl to search for articles is that it searches all the databases in the Central Index at once. It would eliminate the step of having to identify and choose a more specific starting point. Some students will, of course, need to adjust their article search tactics in the current Melvyl. Participants accustomed to using native database interfaces seemed to search for database names first before entering their keywords. Students who paired the name of the database with the keywords in the search field were more successful at completing two, article-searching tasks (Q7 and Q8) during testing.

It would have been easier to go Medline Asian tsunamis from the very first queue. Instead of looking for the database itself to search it, I could have searched directly through Melvyl and I would have come up with articles or works.... it comes up as being in the database from Medline in the last line there.... You learn something everyday. If I need to find something from a specific database, it would be easiest just to search that database name without the word database and then the keywords I'm looking for.

If Melvyl connected users to external websites more easily, then the participants who began with the database name search would probably have completed the tasks successfully using the native database sites.

SEARCHING MELVYL

Most participants entered their search terms into the basic search box and left the default collection scope – Libraries Worldwide at UC Davis, University of California Libraries at UC Berkeley – in place. A few used advanced search almost exclusively, while others reported that they had never used advanced search before. In most instances, students put year and year ranges in the basic search box to specify a publication date. If they decided to use advanced search, they entered the year in the appropriate field.

Two students discussed how they used Melvyl to do research, not just find research materials. They and other participants used the “editions and formats” link during the course of testing.

I click on that [editions and formats link] to see if there's other options instead of searching through all the hits that I get from a general Melvyl search.

Participants are adept at switching scope and have specific reasons for doing so.

The dropdown menu [for the search box]... It really depends on the extension and scope of the project. If it's an immediate need, keep it local. If it's something for longer term that I need to be very comprehensive, take it as far out as possible and see if an Ivy League institution would send it out here in hard copy.

One participant stated, “I've noticed that since we've switched to the WorldCat system that we get lots of things from other places as well, but I'm not actually clear on how to use those resources.”

FACET USABILITY

Most students demonstrated competence using facets to manage their results. Even those who hadn't noticed or used facets before had no trouble narrowing their results using the facet checkboxes.

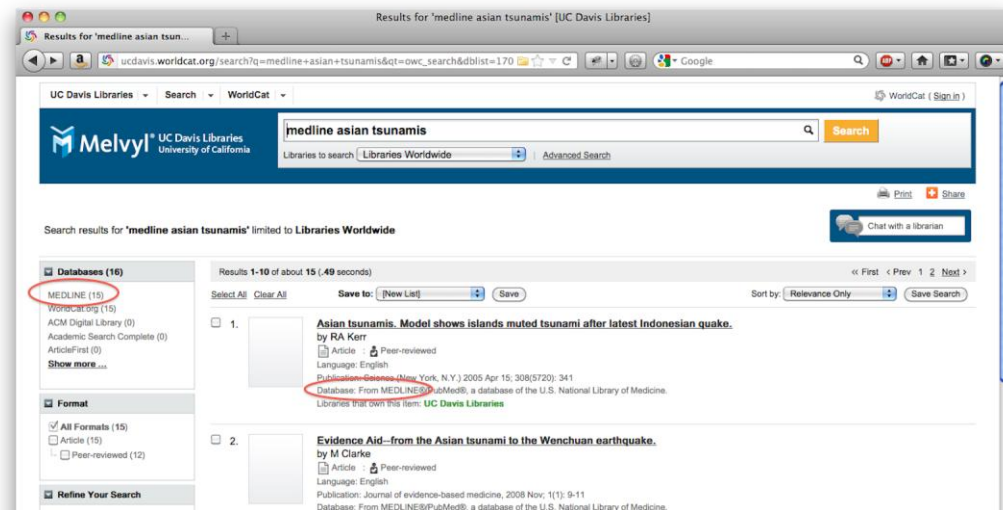
I totally missed that one [database facet]. So for the last question, I would probably click on BioOne and then it would just bring up the ones that are in the BioOne database.

The option to limit by peer-reviewed articles is greatly appreciated. Some students used facets to limit to specific years or to see what the most recent holdings were. However, the inconsistent behavior of the database list caused confusion. Sometimes, the individual databases are clickable; other times, they are not.

Am I able to click on these [database facets]? Oh no. I'm not able to click on the databases. Hmm. Oh, it actually says database from Medline, so I'm in the correct area.

Figure 3 below highlights the interface elements the previous user was referring to.

Figure 3: Search Results



Another bug that appeared was an “artcl-” link in the format facet. One user chose this link to limit results to articles.

CONCLUSION

Expectations for user experience evolve, but the underlying need for information remains constant. In the case of Melvyl, adding more article content gives researchers more information to explore. Of course, there are costs, as well as benefits, but keeping information out would be more detrimental to the research process and the goals of students. The key to improving user experience lies in providing interactions that are consistent with user expectations. Students are adaptable and can address any challenges introduced by additional content more easily and willingly than they can tolerate the repeated frustrations they encounter while using Melvyl.

Melvyl is a powerful, complex tool for discovery, but it is not easy to use. Both librarians and students have roles and responsibilities in making full use of Melvyl's strengths. Student could learn tips and tricks through library classes and their own experimentation. Librarians could work to improve Melvyl's user interface so that the most common tasks that students and researchers perform are easily accomplished.

Both new features examined in this round of study have the potential to add to Melvyl's power and complexity. UC Libraries should decide the fate of the Central Index and View Now pilots based on the lessons learned from these interviews and continue to work to improve the general usability of Melvyl.

APPENDIX

Target Objectives

The main goal of this assessment was to inform the decision as to whether or not UC Libraries should move the Central Index/View Now features from pilot stage to production. In order to do this, the assessment explored the following objectives:

1. How participants view Melvyl and its content
2. How participants use Melvyl
3. Any perceived or real costs or benefits of added content
4. What services or features would complement the addition of content

Participants

The assessment targeted upper-level undergraduate and graduate students in the humanities and sciences who have used Melvyl in their studies. Using print flyers, email announcements, and web announcements, Lynn Jones and John Kupersmith recruited students at UC Berkeley, and Melissa Browne recruited students at UC Davis. Ten participants – five from each campus – were selected from the pool of students who responded to a recruitment survey that was included in the announcements. The following table shows their years and areas of study.

Year of Study	Area of Study
4 th year	Biology/Molecular Cellular Biology
2nd year	Chemistry
3rd year	Communications
3rd year	Clinical Nutrition
3rd year	Community and Regional Development
PhD	Spanish & Portuguese
PhD	Anthropology (Biological)
PhD	Mechanical Engineering
PhD	South and Southeast Asian Studies
PhD	East Asian Languages and Cultures

Methodology

The assessment consisted of structured interviews with task-based questions. Five sessions took place at UC Davis on April 24, 2012, and five took place at UC Berkeley on April 26, 2012. Each session lasted about one hour, and participants were asked to complete eight questions. Felicia Poe facilitated the sessions. Jane Lee observed and recorded visual observations via hand-written notes and audio using a digital recorder.

Questions

Q1. You want to read the e-book *Community-Level Determinants of Child Growth* (2000). Is it available online using Melvyl?

Q2. You want to read the article "Words, Music, Opera" by Terry Teachout. Is it available online using Melvyl?

Q3. You are researching the life of John Muir and want to read his 1911 memoir, *My First Summer in the Sierra*. Can you locate an electronic copy (e-book) using Melvyl?

Q4. You would like to see a list of the articles published in the most recent issue of *The Harvard International Review*. Where will you go to do that?

Q5. You have a citation to an article that you would like to read: *Physics Today*, v65, issue 4, page 56, April 2012. What are your options for retrieving this article using Melvyl?

Q6. You're reading Thomas Friedman's book *The World is Flat* and would like to know if any book reviews have been written about the book. How will you do that using Melvyl?

Q7. You would like to see a list of articles on the subject of Asian tsunamis available in the MEDLINE database. How will you do that using Melvyl?

Q8. You would like to locate some articles on the song structure of hummingbirds and have been told to look in the BioOne database. Are any articles on the subject available using Melvyl?