

Searching for Music in the Digital Age

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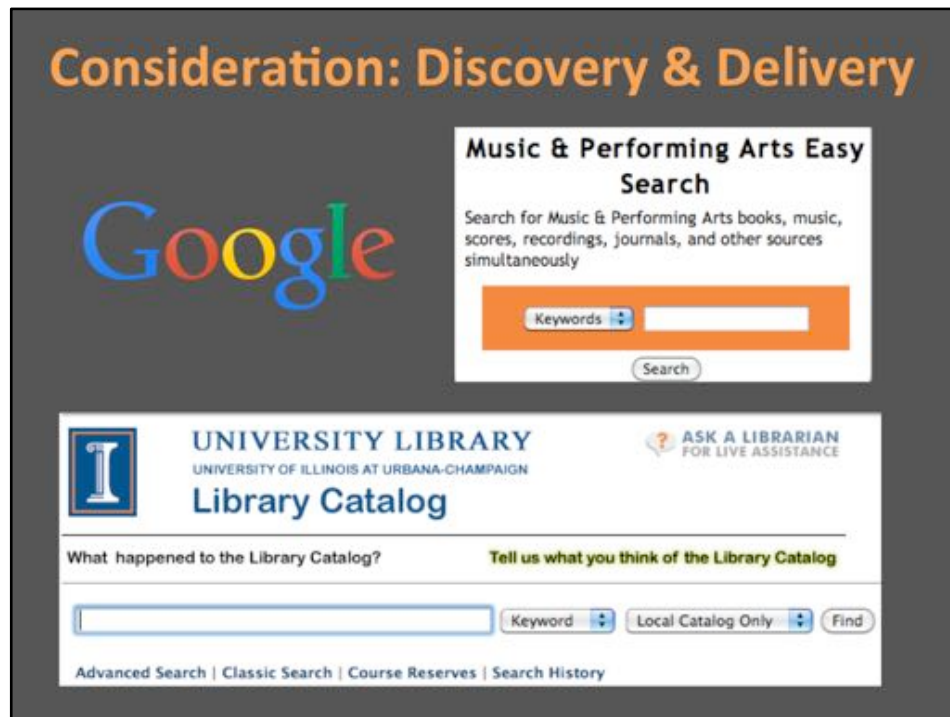
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IAML 2015 NYC

Finding the right notes: an observational study of score and recording seeking behaviors of music students

This is a follow-up to an earlier study of mine that surveyed ~80 students to ask them about their searching choices and behaviors, but while that provided some useful information, observing behaviors can lead to richer data and understanding.

This study used direct observational methods in addition to interviews to investigate how undergraduate and graduate music students undertake finding music scores and recordings in an academic setting given the complexities inherent in searching for music and the plethora of starting points. It explored what tools and search strategies music students employ, and whether they are more disposed to use YouTube or Google rather than trying to make sense of the wide array of choices and interfaces libraries offer.



I want to look at three major considerations in the environment of finding music in an academic setting. While there are other considerations and setting and context will have an effect on user actions and sometimes there is overlap, I'm focusing here on the discovery of music materials for academic music purposes, either creation, study, or performance of music.

The **first** I want to lay out is discovery—there are a multitude of entry points both to our collections and to related resources outside of the library—where to start? Discovery and delivery becoming intertwined more than ever with link resolvers in our catalogs, etc.

When this study was conducted, we had two catalog interfaces, a local federated search tool called Easy Search (upper right above), and the Primo web scale discovery tool as ways for patrons to search items in our physical and many, but not all, of our electronic holdings.

Consideration: Discovery & Delivery



Discovery and Delivery continued

There are library and non-library sources

Some are silos, some not, which is important for a variety of reasons, but especially since musicians frequently need multiple formats

Consideration: Description

Quatuor[s] à cordes : op. 18, no.1[-6] /
L. van Beethoven.

Streichquartette, op. 18, Nr. 1-6, und
Streichquartettfassung der Klaviersonate, op. 14 I.

The Early string quartets [sound recording] /
Beethoven.

Uniform Title: Quartets, strings, no. 1-6, op. 18

The Second consideration is the multitude of title forms can make it difficult for searchers both to search and to evaluate what they have found. This also includes problems that result from unhelpful titles like “Celebrated quartets” or “24 Italian Songs and Arias”.

Consideration: Display

Ludwig van Beethoven
Published c2011
Call Number: DVD M1001 .B44no.4 2012
Location: Music & Performing Arts Media Collection
• Available
University of Illinois at Urbana-Champaign



DVD

Symphonies nos. 1 & 2
Published p2011
Call Number: DVD M1001 .B73no.1 2011
Location: Music & Performing Arts Media Collection
• Available
University of Illinois at Urbana-Champaign



DVD

The third consideration I want to share is catalog display systems that don't make it easy to see what you have found without clicking several times.

Some of you may have more control over how things display in your catalogs and discovery systems, but in our system, you have to click at least one more time and sometimes two or three times to see a table of contents or full notes. Since searchers (and I would not say this is limited to students) don't want to click through multiple pages or screens, this can lead them to make less good choices from what they can see easily or to give up in assumption that the library does not have what they need.

Goals & Methodology



The goal of the study was to determine

- 1) which tools students chose to use and in what order they used these tools (i.e., was the library catalog a last resort, or did students start there, but abandon it in frustration?),
- 2) how many searches/steps they took,
- 3) which search techniques were used (keyword, advanced, subject, title, author, Boolean or other operators, pre- or post-search limits on format, etc.),
- 4) how often participants clicked through to a full record and how many screens of results they scanned,
- 5) How they evaluated items returned in searches, and finally,
- 6) which format they chose.

15 students were recruited on a first-come first serve basis

- 10 undergraduates
- 5 graduate students
- across music sub disciplines

--Observation of six tasks (including five known-item searches and one genre search) and brief interview.

--The sessions were recorded with Camtasia software that captured screen activity/

Tasks

1. Find a **recording** of Beethoven's 5th symphony conducted by Bruno Walter
2. Find an **audio or video recording** of folk or traditional music (i.e., not pop music) from Thailand.
3. Find a **video** recording of Rahsaan Roland Kirk performing Seasons

cont'd...

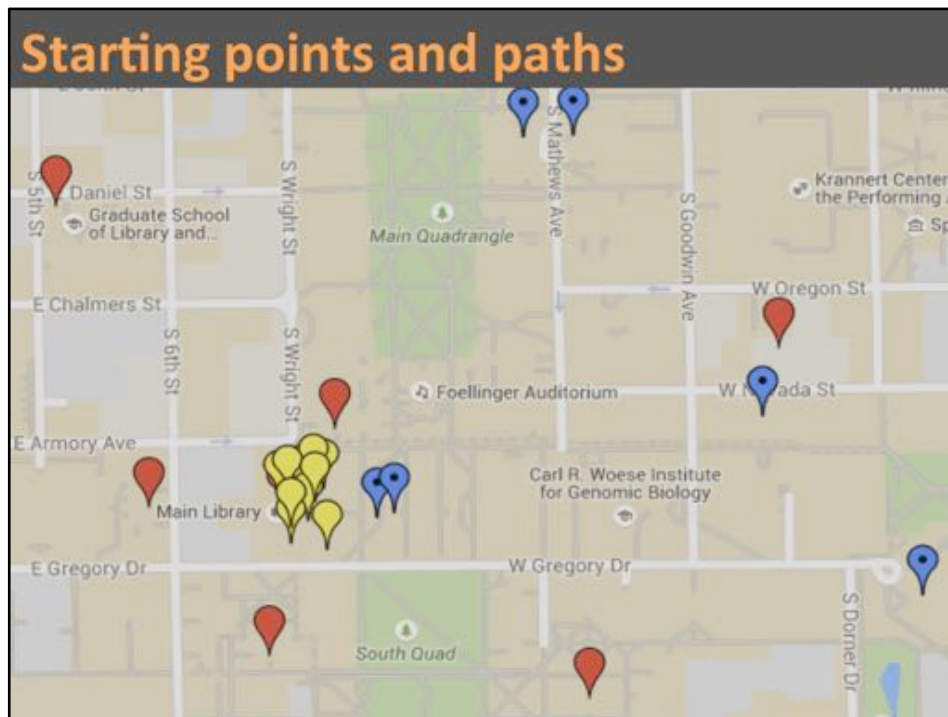
Participants were briefed generally on the study, and told that we wanted to learn where and how they searched for music for school/studio purposes.

Participants were not told where to start or even which browser to use, but were encouraged to think out loud so we could try to understand why they were making the choices they made. At times the moderator would ask clarifying questions, but did not give guidance to participants if they got stuck on a task.

Tasks cont'd

4. Find a **vocal score** of the musical *Wicked*.
5. Find **parts** for Schubert's "Death and the Maiden" string quartet.
6. Find a **vocal-piano score** of the aria "Voi, che sapete" by Mozart.

There was a mix of formats in the tasks and while most were known-item searches, one (folk music of Thailand) was broader.



We measured a variety of things in the users' actions:

1) Starting points and paths between tools

They started with library tools most often.

In only seven of the 90 instances (15 participants x six tasks) did students switch between library and non-library tools within a task due to dissatisfaction with or difficulty interpreting the search results.

In five of the instances students switched from an external resource to a library resource, and in only two of the instances did they switch from a library resource to an external one.

A distinct pattern emerged of students using Google as a reference tool first when they didn't know what something was and allowing it to direct them to Wikipedia or other sites. No one used MPAL's primary reference tool Grove Dictionary of Music and Musicians or any of the other online reference tools we have such as the Garland Encyclopedia of World Music. Overall, there is little evidence of students' knowledge of the library's subscription online audio and video streaming tools. However, it's also possible that this is in fact a classic silo problem. YouTube has no limits on scope, so



2) Which tools did they choose

Our library catalog (and/or Easy Search) was used more often than other tools such as ASP or YouTube.

Overall, graduate students tended to use more tools and engage in more steps, which goes against expectations that they would be the more efficient searchers. In some cases it was because they examined multiple items and/or looked for background information in the process of the search.

<https://www.flickr.com/photos/docman/36125185>



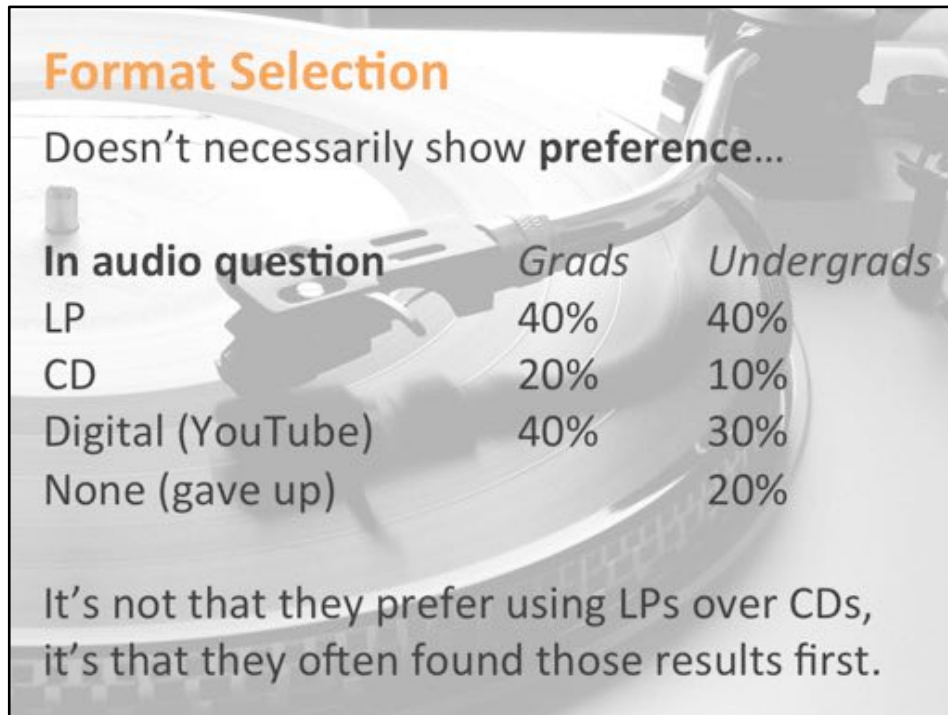
3) Search techniques used

Boolean? Quotes? Author or keyword?
Pre or post faceting?

Overall, participants did not use advanced searching techniques extensively (only 18 of 90 instances, or 20 percent), in part because the VUFind catalog no longer requires use of Boolean operators.

On only three occasions during the entire study did participants look beyond the first page of search results, regardless of which tool they used. This included two graduate students and one undergraduate.

<https://www.flickr.com/photos/pleuntje/7557559670/>



4) Formats chosen

Both surveys and observational studies have to be taken together when looking at this issue because neither shows the whole picture. During searching, participants uttered the following statements: from graduate students ranged from, “LPs aren’t my favorite,” to “I’d take LPs too so I’d have access to earlier recordings,” and “I don’t like YouTube and much prefer DVDs.”

In the task involving **just audio** (#1), 60% of grads and 50% of undergrads chose physical recordings while the rest chose content on YouTube or gave up.

In the task in which **just video** was sought (#3), grads were more likely than undergrads to turn to YouTube. When the task allowed for **either audio or video** (#2), 60% of grads and undergrads chose online options (including both subscription resources and YouTube).

When asked to find string quartet parts (#5), undergraduates overwhelmingly picked print via the library (80%), while 60% of the grads used the IMSLP online public domain score library to find digital options. However, in the task in which participants were asked to find a vocal score for which both online and physical score options existed (#6), 80% of both undergrads and grads chose physical scores.



5) Success rates

Grad students were more likely to pick “good” items, where applicable (such as a complete recording instead of just movements).

A student’s level of familiarity with a piece or its genre (e.g., how many movements are in a Beethoven symphony or that Rahsaan Roland Kirk is a jazz musician) plays a significant role in how confident they are with searching for something and whether they know they have found an acceptable item/version. This seems so obvious, but a student won’t always be searching for something known to them and faculty members do not always give students very specific details criteria for searching (e.g., whether the piece is from a larger work or what edition to get)

The “goodness” of searchers’ choices also relies in large part on what and how the search results display, not just how they are interpreted. For example, conducting the Beethoven search in the classic Voyager catalog delivers better results than in VUFind, because relevancy ranking is not determined in the same way.

Students generally did not look very closely at publisher or edition (in the Schubert and Mozart printed music questions) and often settled for the first thing they found that seemed to meet their criteria (e.g., name of



Purpose

When asked, participants occasionally made a distinction between how/where they searched for academic purposes vs. for fun, but didn't make a distinction in their choices if they needed materials for lessons or papers. Many more use catalog than assumed; although some did say they would use YT for fun stuff.

Comfort

I don't know how to use the catalog. If I can't find it on the Internet or the library website [resources pages], then I ask a librarian.'

Location

Location counts (if at library, use library); some don't have internet at home.

"The library requires you to physically visit. I'm here a lot but it's more convenient if I don't have to be here. Especially with scores – then I can print it off at home, keep it, write on it, don't have to turn it back in. I haven't explored the online parts of the library."

End Use

In some cases students want a library copy because it is expensive to buy a physical copy or print a digital copy, but some prefer to buy their own copy to annotate and

So what next?

- Information literacy efforts
- Advocacy efforts on behalf of music
- Gain better understanding of user behavior



Continue what we've always done

Info lit regarding library collections and tools and differences between them and YouTube

Advocate for library catalogs/interfaces/displays/and tools that work better for music materials

Historically we've held that the goal of a catalog is to completely and clearly list what a library has by a given composer. And while that's still a goal we should strive toward obviously, the proliferation of sources and formats makes this harder than ever to do. In order to best help library patrons, librarians have to get beyond the ideal of completeness, for it is most likely an unobtainable goal in many settings for many reasons. Rarely is the average searcher looking for a complete inventory of the library's holdings. Rather, they need the best example that will meet their needs, and/or allow them to follow along to other sources from it (by clicking on subject headings, etc.)

We have to keep striving to understand our patrons and why they do what they do when looking for music.

Thank you! Questions?

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Full study results:

Dougan, Kirstin. 2015. Finding the Right Notes: An Observational Study of Score and Recording Seeking Behavior of Music Students. *The Journal of Academic Librarianship* 41: 61-67.
DOI: [10.1016/j.acalib.2014.09.013](https://doi.org/10.1016/j.acalib.2014.09.013)