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Closed Stacks: Image Resources and the Future of Artistic Research Practice During the COVID-19 Pandemic

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Closed Stacks: Image Resources and the Future of Artistic Research Practice During the COVID-19 Pandemic

Abstract
Decades of research on information behavior of studio art and design students, faculty, and practitioners has emphasized the importance of image resources, in a variety of formats, to their creative processes. Artists have traditionally sought out images in library print collections, following their curiosity and browsing through books, magazines, and catalogs for fine art reproductions, photographs, illustrations, diagrams, charts, maps, advertisements, and other graphic forms in all subjects. Artists' preference for browsing the library stacks for serendipitous inspiration from visual materials in print books also highlights the importance of the library itself as a vital and generative site for many artists. However, this year's new studio art students, just beginning their formal practices in remote or hybrid teaching and learning environments, will not have the same opportunities as the emerging artists before them to freely browsing through books, looking for images and ideas due to the COVID-19 pandemic. A survey was conducted to provide a snapshot of art information professionals' experiences and perceptions of studio art and design students and instructors' use of image resources in different formats during the pandemic. While survey participants reported continued use of print books and physical materials as image resources by studio art and design students and faculty pre-pandemic, during fall 2020, usage of print and physical materials for image research was down, while demand for digital images was up – even though students and faculty do have at least nominal access to print collections and library stacks at many institutions. The question remains, though, about the long-term impact of this period may have on the information behavior of studio art students going forward, since this is the first truly global pandemic of the digital age. While digital alternatives for image research, especially those that focus exclusively on fine arts images, do not yet provide an experience analogous to that of print browsing, it may be that emerging studio artists who do not have formative encounters with books in the stacks during their early education may continue to engage in image research primarily through digital means. Further research on the image information behavior of emerging artists will be needed.

This article has undergone a double-blind peer review process.

Keywords
visual resources, digitization, research, instruction, databases, studio artists, information behavior, image resources, print books, art books, eBooks, digital image collections, image databases

Author Bio & Acknowledgements
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Introduction

At the present moment, it is difficult to tell what the long-term impact of the COVID-19 pandemic will be on just about anything, least of all the research practices of studio art and design students and faculty. Writing now, at the end of the fall 2020 semester, amid a new surge in case numbers, and as initial vaccine plans are going through approvals, it is not clear when – or even if – operations for academic and fine arts libraries, art and design school libraries, or visual resource centers will return to whatever “normal” was, pre-pandemic. However, looking toward spring and the likelihood that remote learning and restricted access to academic buildings and library facilities will continue until our public health situation improves, it does seem that student and faculty use of physical information spaces will continue to be limited for at least the near future.

As an art librarian, working since March of this year at quite a distance from my library’s stacks, I find myself thinking often about the role that print and archival collections, as well as the library as a space, play in the creative research habits of artists. In particular, while developing a research workshop for an online-only studio arts foundations seminar (required of new majors), it occurred to me that this year’s new students, just beginning their formal practices in remote or hybrid environments, will not have the same opportunities to freely browse through books in search of images, ideas, and inspiration, as did the emerging artists before them. While our current predicament may be temporary, my question is whether the studio art and design students’ lack of access to print collections now will effect a noticeable shift in their information behavior regarding image resources going forward.

This paper considers the above question by exploring the impact of COVID-19 on access to and use of physical and digital image resources by students and instructors in visual art and design disciplines. It begins with a review of the literature on artists’ information behavior, giving special attention to the role of image resources in the creative process. This is followed by a look via a survey at current operations in art information spaces on college and university campuses, and how the pandemic is affecting creative practitioners in terms of access to print and other analog or physical materials. Finally, a discussion of the survey results highlights the observations and experiences of art information professionals as they supported the resource needs of visual art and design students and faculty during the fall 2020 term. My conclusion is that, while it is too soon to know whether the browsing and print-usage habits of emerging artists will shift long-term, this issue will continue to deserve the consideration of art information professionals who support new artist-researchers in their pursuit of visual resources post-pandemic.

Artists’ Information Behavior and Use of Image Resources

Decades of research on information behavior of studio art and design students, faculty, and practitioners has emphasized the importance of image resources, in a variety of formats, to their creative processes.¹ Challener summarizes it as follows: among the many types of information that artists need, “most characteristic is their need for images…”² For artists at all levels, images serve as a source of inspiration and provide visual references for their work, which may also include remixing or appropriating imagery created by others, in whole or in part.³ Because artists’ information needs are truly multidisciplinary, they rarely limit themselves to fine art images. Rather, they seek visual materials from a range of disciplines and experiences, including history, literature, philosophy, religion, geography, mathematics, science, and medicine, as well as documentation of everyday ephemera, such as social media selfies, cookbooks, technical manuals, and crafting patterns.⁴ These wide-ranging interests are the primary reason why neither slide libraries nor digital visual resources collections alone have met the image resource needs of artists.⁵

Artists have traditionally sought out images in library print collections, following their curiosity and browsing through books, magazines, and catalogs for fine art reproductions,
photographs, illustrations, diagrams, charts, maps, advertisements, and other graphic forms.\textsuperscript{vi} And, while many studies from the literature about artists’ information seeking and use were conducted before e-books or digital image collections were widely available and using the internet had become a part of everyday life for billions of people, all signs in more recent scholarship point to the continued use of print books by artists for inspiration-seeking and idea-gathering, usually in addition to digital resources.\textsuperscript{vii} For example, Brinkman and Krivickas found that the visual arts students and faculty in their study all disagreed to some extent with the statement “If I had to choose, I would trade the physicality of print books for the advantages of e-books” and are generally in favor of libraries continuing to collect both print and e-books because they serve different purposes for artists.\textsuperscript{viii} Additionally, as both artists and art librarians have pointed out, many internet search tools and image-based social media platforms filter or reorder what users see based on ad-tracking data, sponsored content programs, recommendation algorithms, and IP ranges, issues that have no analog with a print collection.\textsuperscript{ix}

A primary reason for continued use of print collections by artists is that the arrangement of books and other materials by subject in the stacks enables library users to freely browse for images and other information. As Glubizzi and Glassman write in a chapter introduction for the first edition of The Handbook of Art and Design Librarianship, “Although many databases and online resources offer browsing modes, leafing through print publications remains a critical step in the design and ideation process” for artists, designers, and other creative practitioners.\textsuperscript{x} In fact, many artists see browsing for books as integral, not supplementary, to the creative practice itself.\textsuperscript{xi} As a student in one of Frank’s focus groups argued, “Browsing is all a part of making art. If I’m up in the library I’m not doing my work, but I’m looking at something. It all matters. It’s just another piece of what helps me make art.”\textsuperscript{xii} Crucially, browsing allows for “accidental” or “serendipitous” finds, and while the quality of print reproductions is one of the reasons why artists cite a preference for print materials over digital, encountering these “lucky finds” in the stacks is an experience that is difficult to replicate in image databases or internet searches.\textsuperscript{xiii} Additionally, artists cite the ability to take books into class or the studio, as well as the option to lay open books side-by-side to make comparisons between images or find interesting juxtapositions, as more reasons why they continue to use print materials.\textsuperscript{xiv}

This emphasis on browsing as the preferred method of search and open exploration, and print collections as the preferred resource for image research, also highlights the importance of the library itself as a vital and generative site for many artists. According to Patelos, “...the library is an essential physical space for artistic practice, both in research and information retrieval, and in practice and outreach” that additionally provides a place for “information processing, a point of entering discourse, and even a site of artistic intervention.”\textsuperscript{xv} Crookendale further notes that although faculty in studio art programs like painting, printmaking, sculpture, and craft rarely, if ever, request library
instruction at her institution, at least 70% of their students report visiting the library weekly or more.\textsuperscript{xvi}

However, studio art and design students who are just beginning to establish their practice overall may not discover the library as either a source of images or a place for creative work without encouragement. In fact, as Greer notes, “art students who are just beginning to formalize their personal concepts and oeuvres may neglect the library,” spending as much time in the studio as possible rather than engaging in artistic research, “despite the benefit such activities may have on their creative output…”\textsuperscript{xvii} It is therefore not surprising that both art students and faculty participating in research studies about library use report students being encouraged, or even required, to browse the stacks or locate images in print books by their instructors, sometimes as part of an assignment.\textsuperscript{xviii} Students in Frank’s focus groups even described professors bringing individual students, or whole studio classes, to the library to demonstrate how to use the print collections.\textsuperscript{xix} Additionally, fellow students can play a role in helping art and design students discover the library as an artistic space. For example, some of the students in Frank’s study reported that “they first considered the library as an art source after talking to other student artists who said they had visited the library for images or art information.”\textsuperscript{xx} Crookendale’s survey, which focused on art students’ use of the library in general (rather than as a source of images or as a creative space specifically), found that over 54% of responding students typically find out about library resources and services from other students.\textsuperscript{xxi}

Of course, art information professionals also contributed to studio art students’ introduction to the library as a creative research space and source of images and other visual media. For example, Peterson explicitly argues “librarians must assume a leading role in helping studio art students build research practices that inform and enrich their artistic practices” and describes designing library instruction sessions for jewelry design students that explicitly map the practice of browsing for images as inspiration, including for books in her library’s print collections, to the ACRL \textit{Framework for Information Literacy} “Searching as Strategic Exploration” frame.\textsuperscript{xxii} Peterson further joins Meeks, Garcia, and Vincent in writing about CREATE (conversation, revision, exploration, authority, thoughtful, experimental), a mnemonic device they collaboratively developed to connect the research and creative practices for studio art students in library instruction, again highlighting that the role of serendipitous browsing and engaging with a range of resources at the beginning of “any creative endeavor furthers the process of exploring, interpreting, and analyzing all types of relevant media.”\textsuperscript{xxx} Similarly, writing with Beene about Framework-based instruction for art and architecture students, Robinson describes modeling and building time for physically browsing the stacks together into her library instruction workshops with studio art and graphic students. Student feedback for these interactive sessions include statements like “I didn’t know where the books actually were [before]” and “I love walking around and finding books together. Could have done this for hours!”\textsuperscript{xxiv} Salisbury and Ferreira outline various methods that librarians at their institution use to encourage “generative and serendipitous modes of research” with studio art and design students, including holding a bibliodérive event in their art library with prompts for students to browse the stacks as well as collaboratively engage with creative remix of print materials.\textsuperscript{xxv}

Throughout this review of the literature, the importance of access and use of library print collections to studio art and design students’ artistic practice has been emphasized at every turn by faculty, students, and librarians in these disciplines. The reason for this is simple. As studio art professor Kenneth Steinbach writes, artists who have come of age in the digital era may eschew embodied, interdisciplinary, and interwoven engagement between experiences, analog materials, and physical objects in their research to their own creative detriment:
Not only do these forms of research allow the artist to develop new ideas within their practice, but this interwoven experience in turn also shapes the artist. Western perspectives tend to see qualities such as curiosity, openness to suggestion, and the drive to make as innate talents we are born with. They are, however, traits that a self-determining individual continually develops for him or herself; ones that expand and develop as they are used. The artist who follows a rabbit trail of an idea into the library and loses an afternoon in the stacks rarely becomes less curious after the experience. Choosing to cultivate inquisitiveness and openness to new directions will consistently (though not always predictably) be rewarded by increased capabilities in one’s work and a greater awareness of one’s artistic potential. It is a process that expands as it is used.xxvi

To that end, Lo and Chu draw on Frank, Littrell, and Lorenzen’s early studies on artists, in addition to their own research on students at the Hong Kong Design Institute, to conclude that “providing direct access to the stacks for browsing and selecting books in art and design libraries is almost a necessity.”xxvii

However, during a pandemic in which students and instructors in all disciplines have limited access to print materials within libraries, it stands to reason that new studio art and design students, including those taking courses in remote or hybrid-environments that de-emphasize physical engagement with and collaboration in campus spaces, may not be receiving this encouragement simply because it is not safe to browse for books. Instead, librarians, visual resources curators, instructors, and students are likely promoting and using digital resources, such as image search tools, subscription image databases, and open-access image collections, to support the image needs of studio art and design students at much higher rates while library stacks are off-limits. The survey conducted in relation to this article explores whether this is the case.

COVID-19 and Academic Art Information Spaces

At the outset of the COVID-19 pandemic’s impact on U.S. higher education in March 2020, it became clear that normal campus operations at the majority of institutions would be suddenly and decisively disrupted. On March 11, Ithaka S+R researchers Hinchliffe and Wolff-Eisenberg launched the “Academic Library Response to COVID-19” survey to gather self-reported information about the status of library building access, collections and services, staffing, and safety measures at colleges and universities across the United States.xxviii Between March 11 and March 27, a clear trend of academic library closures emerged as institutions scrambled to pivot from face-to-face to remote instruction and scale-down the physical presence of academic and student support units on campus in order to reduce the chance that students, faculty, and staff might become exposed to or spread the virus.xxix Many of these disruptions to the status quo continued at many academic libraries into the fall term, including limited patron (and sometimes staff) access to library buildings and physical collections, reduced face-to-face services, and remote reference and instruction.xxx

Beginning in the spring and up through the approach to the fall 2020 term, art information practitioners, such as those in the Art Libraries Society of North America (ARLIS/NA) and Visual Resource Association (VRA), regularly compared campus or facility reopening plans, shared resources, and brainstormed strategies for continuing to provide services and engage in teaching and learning remotely to support students and faculty in visual arts disciplines. These conversations took place on professional listservs, across social media and other communication platforms, and in live virtual discussion forums – many focused on familiar themes for art information work in the context of our “new normal”: What do digitization workflows and cataloging priorities look like after an unplanned, multi-month closure of many visual resource centers and libraries? Does the pandemic create any additional
considerations for fair use of copyrighted scholarly texts or image resources in online environments, particularly when many interlibrary loan services have been suspended? Does anyone have any experience with integrating institutional digital image collections into specific classes within course management systems? Should we compile shared lists of open-access resources, like open educational resource (OER) textbooks in art history or open image collections from cultural heritage institutions, in light of the limited access students and faculty (or even staff) have to print collections?"xxx

The subtext behind many of these questions, so well-known to visual resource curators and art librarians that it barely rates mentioning in these virtual conversations, is that many image-heavy publications in the fine arts, from oversize exhibition catalogs to dense art historical monographs, are not available electronically.xxxii Furthermore, those that can be purchased as e-books from publishers and vendors are often more expensive than print editions, are rarely available with licenses that allow for unlimited simultaneous use by an institution’s affiliates or downloading as digital rights management (DRM)-free PDFs, and feature low-resolution images as compared to the high-quality versions in print editions, if the images are not heavily watermarked or excised completely.xxxiii This is because copyright and use permissions for publishing art images and other visual materials typically come at an inordinately high cost, usually borne by the author of a text, and licenses for print-only runs of a publication are typically far less expensive than licenses that include digital distribution.xxxiv While no comprehensive studies about image licensing and use in book publishing outside the arts have been conducted, it stands to reason that authors and publishers of texts in other disciplines that make heavy use of copyrighted images may face similar challenges with regard to digital publishing.

At the same time, more art museums and other cultural heritage institutions have made much of their collections accessible digitally via their websites. These troves often include open image collections that allow site visitors to download, embed, remix, and otherwise make free use of images of works in the public domain, sometimes along with copyrighted images that may be used under Creative Commons licenses for non-commercial use.xxxv In combination with subscription image databases like Artstor and institutional digital visual resource collections, these sites offer instant remote access to millions of fine arts images that can support research and teaching in the visual arts. Thus, while art books may be less accessible during a pandemic that limits physical access to library print collections, it would seem that art images are as accessible as ever.

Someone less familiar with the information behavior of studio artists might conclude that these digital image resources could be sufficient for art and design students’ and instructors’ image research needs. However, as previously noted, many artists seek images from print books outside of visual art contexts and prefer to engage in image research by browsing the stacks and encountering inspiration serendipitously alongside more direct searching – neither of which behavior is broadly possible amid a pandemic that limits physical access to library buildings and collections. As I prepared for the fall semester, I began to compile a list of digital collections of non-art images, including stamp collections, historical photographs, scientific illustrations, botanical drawings, engineering schematics, and whatever else I could get my hands on, to share with printmaking and drawing faculty who typically encourage their students to seek out chance encounters with unexpected visual materials in the print collection. Additionally, I reached out to other librarians on the ARLIS-L listserv asking for recommendations for image collections outside of visual art, and received as many requests for me to share my list as I did suggestions for resources to add from others hoping to support the image resource needs of studio art and design students from afar.xxxvi These responses led me to wonder about what kinds of experiences other art information professionals were having in supporting the image research needs of studio art and design students and faculty during the fall 2020 semester. How are our students and faculty adapting to our newly closed stacks?
Survey

After receiving approval from my institutional review board, I distributed a survey to explore the experiences of art information professionals who support the image resource needs of studio art and design students and instructors during fall 2020. Participants were recruited from the ARLIS-L, VRA-L, and ACRL-IRIG listservs, as well as through retweets of the author’s Twitter account by ArLiSNAP and VRA accounts. The survey was open for two weeks and gathered 57 total responses, including partially-completed surveys. To ensure that only respondents with relevant experience were participating in the survey, those who did not pass the three screening questions did not receive the full survey. Additionally, because of branch logic and voluntary question-skipping, not all participants who completed the survey answered every question. Throughout the survey, the more inclusive term “instructor” was used instead of “professor” or “faculty member” to lessen participant confusion over whether instructors of certain faculty rank or status were meant to be included or excluded from consideration in their responses.

The only demographic data collected on participants was in relation to Question 6.1 at the end of the survey, which asked respondents to choose an answer corresponding to their current work setting. As Table 1 indicates, about two thirds of respondents indicated that they work in either a main library or branch library on a college or university campus. Remaining responses came from those who work in art and design school libraries (16%) or visual resource centers within an art department or school on a college or university campus (13%). The only respondent who provided a free-text response for the choice of “other” indicated that they work at a campus art gallery.

| Main academic library, college or university campus | 48% |
| Branch library, college or university campus | 19% |
| Art and design school library | 16% |
| Visual resources center within art department or school, college or university campus | 13% |
| Other | 3% |

To establish a baseline about whether print collections were still used by studio art and design students and faculty for image research at respondents’ institutions pre-pandemic, respondents who began their current position in or prior to September 2019 were asked a series of questions about their experiences “in a normal semester or term,” with the caveat that “although there may be no such thing as a ‘normal’ or ‘typical’ semester, this phrase is used to describe instructional periods at your institution prior to the onset of the COVID-19 pandemic in early spring 2020.” Following this guidance, 88% of respondents who began their current position in or

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1The three screening questions were (emphasis original): 1. Are you an art information professional (such as a librarian, a library specialist or technician, or visual resources professional) who works in a higher education setting? 2. Do you provide reference, research, or instruction services to students and/or instructors in studio art or design disciplines? 3. Do you assist students and/or instructors in studio art or design disciplines with image resource needs?

2While 57 responses may not be statistically significant, they nonetheless represent one tenth the number of responses to the most recent census of art information professionals conducted by ARLIS/NA, which was open for much longer (seven weeks) and drew from a much larger pool of potential respondents, including art information professionals who do not provide reference or instruction to studio art and design students and faculty. See Stacey Brinkman, “Census of Art Information Professionals: Preliminary Report of Findings” (Art Libraries Society of North America, February 21, 2017), https://www.arlisna.org/images/researchreports/Census_PreliminaryResultReport_Feb212017.pdf.
prior to September 2019 indicated that in a “normal semester,” they refer students and/or instructors in studio art or design disciplines to their institution's print or physical collections for image resource needs. Furthermore, at least 75% of respondents indicated in a follow-up question that they refer studio art and design students to circulating fine arts books, circulating books in other Library of Congress classes, archival and special collections materials, and print journals and magazines for image resource needs (see Fig. 2).

![Figure 2: All responses to Q4.4 (“In a ‘normal’ semester, to which of the following materials do you refer students and/or instructors in studio art or design disciplines for image resource needs? (Check all that apply)” by percentage of responses.](image-url)

Additionally, respondents to the above questions were asked, “What are some reasons you might refer students and/or instructors in studio art or design disciplines to print or physical materials for image resource needs instead of or in addition to digital collections or tools?” Their free-text responses generally fell into at least one or more of the following categories: the materials in question are either not available digitally through a publisher or are unique holdings that have not been digitized; print books contain contextual information about the images that databases and other online tools often lack; the image reproductions in books are of better quality than available digital reproductions; students and instructors continue to prefer using print and physical materials for the object-based experience they offer; that print and physical materials in libraries and archives are curated in a way that digital images may not be; that library stacks are browsable in a way that digital resources may not be; that print and physical collections offer additional breadth and depth to digital collections; and that the needed resources may be difficult to locate online. (See Appendix A for the full responses.)

Following questions about “normal” semesters, participants were asked questions about their perceptions about and experiences with studio art and design students and instructors’ image research needs and behaviors during the fall 2020 semester. First, respondents were asked about how they perceived demand or use of print or physical materials for image resource needs by students and faculty in art and design disciplines, as compared to before the onset of the pandemic. As Figure 3 shows, nearly 70% of respondents indicated that they perceive the demand or use of print and physical materials to be lesser in fall 2020 than before the onset of COVID-19, with 20%
reporting they perceived demand or use of these materials to be “about the same.” Just 3% of respondents indicated that they perceive demand or use of print or physical materials for image resource needs to be greater than pre-pandemic, and in a free-text follow up to this question, one respondent who chose this answer specified that they believed they were seeing greater demand because requests for print materials were going directly to the respondent, as students and faculty were not able to access the requested materials themselves (see Table 2).

Figure 3: All responses to Q5.2 (“How do you perceive demand or use of print or physical materials for image resource needs by students and/or instructors in studio art or design disciplines as compared to before the onset of the COVID-19 pandemic?”) by percentage of responses.

Table 2. Selected representative responses to Q5.3 “What has contributed to or impacted this perception?” as a follow-up to Q5.2 (see Fig. 3 above).

<table>
<thead>
<tr>
<th>Greater than before</th>
<th>I think I'm seeing more requests because students and faculty don't know what to do when they can't access the print book themselves.</th>
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<tbody>
<tr>
<td>About the same</td>
<td>I get as many questions about images, but I am more likely to steer students to digital sources at this time, especially to undergraduates who are studying remotely. Students who do have access to onsite materials at this time have limited time in the library space with all of the safety guidelines in place, so they are seeking out digital resources to use in conjunction with print materials. I am having less reference interactions, so less questions about images overall. But proportionally they seem about the same.</td>
</tr>
<tr>
<td>Less than before</td>
<td>We have limited curbside pickup to 5 items at a time. All instruction is online and faculty have been encouraged to restrict demands to online resources. Nearly all classes at our university are online in fall 2020. Very few students are coming to the library. I mean that the demand/use of physical materials as less than before is because there are digital options now that are only available because we are remote. For example, HathiTrust Digital Emergency Library has helped make previously print-only materials in our collection available electronically. Also, we have come up with strategies for Special Collections and Artist Book requests that allow for video viewing or scans.</td>
</tr>
</tbody>
</table>
They don't have the option of visiting print or physical collections so therefore they must do with digital. Which is primarily what they were using, anyway.

Our campus is open but our library is seeing very little traffic, many studio art and design classes are in hybrid form and faculty members are emphasizing online materials

Much of the use in the past has been on-site, exploratory or "serendipitous" discovery of image resources. While I've talked with some faculty about ways to supplement this while our stacks are closed, most have shifted to asking for digital-only resources for students.

About half the student body is off campus and cannot access print materials; students on campus are doing less browsing of the stacks that would lead to finding catalogs and other print image resources

Students currently cannot browse the shelves. Print material is available for pickup or delivery, so it is still technically available, but requires extra steps to get into students' hands

With remote learning, seeing actual objects is less possible. Faculty and staff are relying more heavily on digital works, but they are finding these on their own.

Not sure

It's hard to say who would prefer print or physical because most of our students are not "on campus" and the physical library only recently opened for limited in person services. So far, there has not been a great use of the facility since it opened. There has been steady use of contactless pick up.

I am around them less so can speak less assuredly about their research practices. We had access to the HathiTrust emergency library this summer, so a lot of researchers could use these ebooks whereas during a regular semester they would have checked out the print titles. I can only assume that digital image use has gone up, but I don't have data to support that hunch.

Likewise, over 60% of respondents indicated that they perceived demand or use of digital image collections by studio art or design students or instructors for image research as “greater than before” the onset of the pandemic (see Fig. 4). Additionally, some respondents who indicated that their perception was demand or use for digital image collections was “less than before” followed up to explain that their institution’s enrollment was down or that they were not seeing any image requests (see Table 3). Respondents seeing increased use or demand for digital image resources frequently cited students' lack of campus or library access or use during the pandemic, and remote teaching and learning, as reasons behind the uptick (see Table 3).
How do you perceive demand or use of digital image collections by students and/or instructors in studio art or design disciplines as compared to before the onset of the COVID-19 pandemic?

**Figure 4:** All responses to Q5.4 (“How do you perceive demand or use of digital image collections by students and/or instructors in studio art or design disciplines as compared to before the onset of the COVID-19 pandemic?”) by percentage of responses.

**Table 4.** Selected representative responses to Q5.5 “What has contributed to or impacted this perception?” as a follow-up to Q5.4 (see Fig. 4 above).

<table>
<thead>
<tr>
<th>Greater than before</th>
<th>When working remotely, it is easier to search an image database than to request scans from onsite print materials if they’re not sure exactly what they are looking for.</th>
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<tbody>
<tr>
<td></td>
<td>The need is greater, but they are locating resources on their own more often.</td>
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<td></td>
<td>Students and instructors are not able to come into Archives &amp; Special Collections; as such, they’ve requested that we digitize (either scan, photograph, or make videos of) specific materials. If we have something but have not digitized it, but we know another institution has something very similar or that meets the research needs of the instructor or student, we point them to that other institution’s collection.</td>
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<tr>
<td></td>
<td>Since the transition to online learning the need for visual resources has grown. I am hearing from instructors who never used our resources before. Also, courses like life drawing have been forced to use digital images rather than the live model.</td>
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<td></td>
<td>Significant increase in faculty requests for workshops / support for themselves and students using digital image collections.</td>
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<tr>
<td></td>
<td>Requests from faculty for recommendations for digital image collections or new course guides, online chats from students looking for e-books only (not print books), low library traffic; this is all anecdotal but I have to believe use of digital resources is up and print is down</td>
</tr>
<tr>
<td></td>
<td>Our library has redone our online digital collections—so we are advertising this resource more. Also too, more collection resources have been added. Also too, beyond our own collection, faculty are creating projects that want their students to draw on these online resources.</td>
</tr>
<tr>
<td></td>
<td>Online courses, students being away from campus. Led more by necessity than desire.</td>
</tr>
<tr>
<td></td>
<td>Neither faculty nor students are using in-house resources as much as previously.</td>
</tr>
<tr>
<td></td>
<td>I’ve been covering this in even more detail than before (I almost always cover databases such as Artstor in instruction sessions anyway). I also created a video on</td>
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accessing Artstor and made a Youtube channel, where I can see the analytics. The video for Artstor is the second most watched video.

**Covid. People are more likely to use materials they can access without coming in contact with people and materials that might infect them with coronavirus**

<table>
<thead>
<tr>
<th>About the same</th>
<th>We have not gotten any significant requests for just digital images, and I haven't had a large number of students request images for class. I have been trying to grow my list of any open/free digital collections in the event that a student or faculty member has a need.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Most of our image resources for art and design are already online.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Less than before</th>
<th>No reference requests for images thus far.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fewer enrolled students</td>
</tr>
</tbody>
</table>

| Not sure | Really hard to tell... I haven't really seen much of an increase in demand. |

The survey also asked respondents to indicate the degree to which they were promoting or recommending five specific categories of digital image content to students or instructors in art or design disciplines. These were: subscription-based fine arts or cultural heritage image databases (such as Artstor or CAMIO); closed-access institutional visual resources collections; open-access gallery, museum, library, or archive collections (anyone can search and view); free stock photo or design asset collections (anyone can use; licenses may apply); and image search engines or directories (such as Creative Commons search or the Open Image Collections portal through NTU). For each of the categories, about half of respondents indicated that they recommend or promote the resources in question “about the same,” except for open-access cultural heritage collections, to which over 65% of respondents indicated they were recommending or promoting at rates greater than before the onset of the pandemic (see Fig. 5). The only resources that any participants noted promoting or recommending less frequently than they did pre-pandemic were subscription-based image databases (3%) and institutional visual resource collections (6%).

When asked, “In fall 2020, have you or your colleagues received any questions from students and/or instructors in studio art or design disciplines specifically about digital image collections?”, 85% of participants indicated that they had received such questions. Responses to the follow-up question “What kind(s) of questions(s) have you received? How did you respond to the question(s)?” range from descriptions of scanning or digitization inquiries, questions about copyright and fair use for digital images and off-campus access to subscription resources, requests for newly-curated image collections or instructional materials for specific assignments or courses, and the need to provide students with alternatives to Google Images or support digital browsing. (The full free-text responses to this question have been recorded in Appendix B.) Similarly, when asked, “In fall 2020, have you added any new links or content related to digital image collections in your teaching or instructional materials (including course or subject guides) for students and/or instructors in studio art or design disciplines?”, over 80% of participants responded affirmatively. Appendix C

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3 See https://blogs.ntu.edu.sg/openimagecollections/.
Finally, while my assumption going into this survey and reviewing responses to the above questions was that students and instructors at the majority of participants’ institutions would not have access to print or physical materials in the fall 2020 semester, over 60% of respondents indicated that studio art and design students and faculty do in fact have access to these materials (see Figure 6). In fact, very few participants (3%) indicated that students and instructors have no access to print or physical materials at all. The remaining respondents who selected “Other, please explain” (35%) described an array of scenarios somewhere in between full access and zero access, including closed stacks with pickup or shipping services, faculty-only access with no access for students, or limited access through digital surrogates (see Table 5). As one participant in this group noted, “Yes, but many students are not living in the area, so their access to our facilities is a moot point.” It would similarly seem from responses to previous questions that although students and faculty at the majority of institutions have nominal access to their library facilities, the perception is that it is not safe or reasonable to use print or physical image resources, even if they are preferred.
Figure 6: All responses to Q5.13 (“In fall 2020, do your institution’s students and instructors have access to print or physical materials in your library facility?”) by percentage of responses.

Table 5. All free-text responses to “Other (please explain)” for Q5.13 (see Fig. 6 above).

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grab and go for circulating books. Research appointments for those affiliated with the university to access archives.</td>
</tr>
<tr>
<td>By pickup only</td>
</tr>
<tr>
<td>Limited access</td>
</tr>
<tr>
<td>In summer 2020 they did not, but we opened the service back up in the early fall</td>
</tr>
<tr>
<td>Yes—but mail and pick-up only—they couldn’t browse</td>
</tr>
<tr>
<td>Faculty have some access; students have none</td>
</tr>
<tr>
<td>There is a mix! Our stacks are closed, but users can request to borrow items. However, many of our titles are inaccessible due to our HathiTrust arrangement, and can only be viewed online.</td>
</tr>
<tr>
<td>Some do; about half don’t</td>
</tr>
<tr>
<td>Limited, but yes, they can pick up or have items shipped to them</td>
</tr>
<tr>
<td>Limited access—Hathi Trust etc.</td>
</tr>
<tr>
<td>Yes, but many students are not living in the area, so their access to our facilities is a moot point</td>
</tr>
</tbody>
</table>

Discussion and Future Research

This survey was intended to provide a snapshot of art information professionals’ experiences and perceptions of studio art and design students and instructors’ use of image resources in different formats during the COVID-19 pandemic. Based on participant responses, it seems that art information professionals who support the image resource needs of students and faculty in studio art and design disciplines were both seeing and promoting continued use of print resources, often in combination with serendipitous browsing, before the onset of the pandemic. However, after campus operations were disrupted nationally in spring 2020 and institutions pivoted to remote learning and reduced building occupancy, survey participants reported that usage of print and physical materials
for image research was down, while demand for digital images was up – even if students and faculty did have at least token access to print collections and library stacks. The question remains, though, about what the long-term impact of this period of almost universal restricted access to library facilities and print materials may have on the information behavior of studio art students going forward, since this is the first truly global pandemic of the digital age. As Greer notes, studies of the research practices of art practitioners suggest that “habits formed early tend to persist.”\textsuperscript{xxxvii} Gregory goes further, arguing that “Art students who are not introduced to the library by their faculty will absorb the attitude that the library is not important to artists. Some of these students will go on to teach studio art, and they will pass this message on to another generation of students.”\textsuperscript{xxxviii}

It remains true that digital platforms for image resources, especially those that focus on the fine arts, do not yet provide the same potential opportunities for serendipitous exploration and interdisciplinary connection-making as can be had by simply browsing the library stacks, which is one of the reasons why artists continue to engage in these analog methods of image research. However, emerging studio artists who did not have similarly formative encounters with print materials early in their educations as previous generations of artists may continue to develop their image research practice almost entirely digitally once the pandemic has subsided. On the other hand, the metaphorical and actual closed stacks in 2020 and beyond may have no lasting impact on studio artists’ information behavior. In either case, this issue deserves further research, including studies of and with emerging artists themselves.
Appendix A

Q4.6 - What are some reasons you might refer students and/or instructors in studio art or design disciplines to print or physical materials for image resource needs instead of or in addition to digital collections or tools?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often interest in image resources are accompanied by interest in more than just the image, so a book, magazine, exhibition catalogue may be of use. Sometimes, patrons are interested in non-digital resources as well.</td>
<td></td>
</tr>
<tr>
<td>I manage artist and architecture archives in a research library. Most of the collections under my care have not been digitized. There are subject specialist librarians in both art and architecture for books and journals.</td>
<td></td>
</tr>
<tr>
<td>For images like architectural drawings that are not easily found as online media.</td>
<td></td>
</tr>
<tr>
<td>As Wolfgang Freitag pointed out in the 1980's, art libraries are image libraries. Print collections contain carefully curated and published images, often of high quality, in context to their origin, creation, provenance, etc. Print collections in libraries help weed out the noise of what is on the web, help users make sense of the relationship of the content, and can be scanned and made digital.</td>
<td></td>
</tr>
<tr>
<td>Many images are not easily findable digitally--this enables students to find multiple images in one place on a particular subject or by a particular artist. Usually recommended in conjunction with ArtStor and other image collections.</td>
<td></td>
</tr>
<tr>
<td>Bibliographic research, provenance, materials are only in print format</td>
<td></td>
</tr>
<tr>
<td>Unique design collections that the library's Special Collections department holds that are not digitized</td>
<td></td>
</tr>
<tr>
<td>We like to work with specific materials that are held by our institution. We have a very small Archives &amp; Special Collections department, and as such not all of the materials we have are digitized. We have plans to digitize some materials, but in certain cases (for example, our typography and printmaking classes) we want students to feel the materials--the raised text on a page or the way a printmaking block feels, for example--and this is something that we haven't figured out how to duplicate in a digital way.</td>
<td></td>
</tr>
<tr>
<td>For books--the browsability is a plus--especially when students are just starting a project. Print books also help put the images in context, which can lead the student to new ideas or research avenues. My library is lucky to have a good collection of artist books and interacting with these in-person is preferable to online, so students and faculty can handle the actual object. Artists books don't translate to a digital format well. Also, much of this material hasn't been digitized (both the artists books and other special collections materials).</td>
<td></td>
</tr>
<tr>
<td>Encouraging students to browse in the stacks to develop their research practice, helping students encounter images in context of catalogs or other curated works rather than in the vacuum of a database or social media platform, faculty looking for new publications or better reproductions,</td>
<td></td>
</tr>
<tr>
<td>We might suggest physical materials for rare books we don't have photographed, a hard to scan journal (like a tightly bound older volume), or a dvd for a film that probably isn't on the internet.</td>
<td></td>
</tr>
</tbody>
</table>
| There is one particular assignment where I refer students to print resources for images, in which students are asked to research a specific work of art from a local museum. While many have seen it in person, we regularly look for exhibition catalogs that show this work in context with other artworks or from previous exhibitions. This is often *in addition to* looking at digital versions of the image, but I find my primary reason now for referring them to the print copy is because of the embedded contextual information in the print source. (Even with a source like Artstor, while the image quality itself may be better, the contextual metadata can be lacking or insufficient for their assignment's needs, and a museum or gallery website may only provide details on a single instance of the work's display or context.) In other cases, students may be looking for images of preparatory materials or alternate versions of works that do not
exist in a digital format. Though less common this semester, I usually work with a few classes each semester that include a guided exploration of our art & design stacks, usually if they have a more generalized prompt from their instructor to "explore the resources." When students have a more specific assignment, we might first start by looking at subject categories and searching in the catalog prior to going to specific parts of the book stacks.

To see images in the context of an exhibition catalog with access to essays; sometimes better quality reproductions of images than available digitally; not available in digital form

Certain resources are not available in digital form, only in hard copy

Color quality, citation, print preference for some researchers

Things look different in the physical form, sometimes that is the only place to find the image. For periodicals our professors like students to look at them not just for the art, but the other things they will find, such as ads and announcements. It gives a good sense of the bigger art world picture

At my institution, many of the instructors prefer that their students rely on physical images when it is possible to access them in physical format.

Lesser known works (no digital reproduction available), quality of reproductions, lesser known and/or underrepresented artists not available in image repositories

If we have original works of art that are pertinent, I would rather share those than digital objects and records. Actual art objects have a presence (and communicate scale and condition) that digital representations often lack.

Although our image database has over 250,000 it is not possible for it to be completely comprehensive, so I recommend our print collection to supplement the digital images

So there's enough materials to sustain their inquiry. In other words, not everything is online.

I usually try to provide both options and it just depends on the needs of the researcher.

Because in many digital collections certain images are not available (such as contemporary art) or in older journal articles where an image has been scanned the image quality can be very poor.

limitations of copyright in relation to contemporary artists' work, limitations of reproduction quality available online, ability to find images serendipitously or to browse rather than understanding retrieval and searching skills for finding specific images, limitations of reliable images related to design disciplines or museum installation/performance
### Appendix B

<table>
<thead>
<tr>
<th>Q5.10 - What kind(s) of question(s) have you received? How did you respond to the question(s)?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General questions from incoming students.</strong></td>
</tr>
<tr>
<td>Requests for scans of fine art prints and requests for scans of architectural drawings. I have scanned prints and I have scanned some architectural drawings and mostly took snapshots on request when we were not allowing any researchers in the library (Late March to July). Small amounts of images are sent via email; large batches by filedrop.</td>
</tr>
<tr>
<td>We have received questions from faculty asking us to inform them and their students of what is available. We have received questions from students and faculty about scanning resources at a significantly higher rate.</td>
</tr>
<tr>
<td>How do I find images? What images can I use that's fair under copyright? How can I tell if I can use an image?</td>
</tr>
<tr>
<td>We needed to create an image resource for our life drawing classes. Some of the images came from our collections as well as ARTstor. However, the instructors wanted their regular models available in photos that were non-downloadable. We created a project in JSTOR Forum and published it to our ARTstor institutional collections. I have also been in touch with animation and cartooning instructors.</td>
</tr>
<tr>
<td>In general, people are just asking for where to find particular types of images. We provide them with what we've found. We've also been asked to digitize things for our own digital collections and do so when we can.</td>
</tr>
<tr>
<td>One big question has been about ARTstor and downloading/access images and how that's impacted by being off campus.</td>
</tr>
<tr>
<td>I'm including e-books here, lots of requests for digital/digitized exhibition catalogs, questions about access to stock photo collections (including specific ones like Alamy or Getty; we refer those to free/CC-licensed collections because we don't have institutional access to stock photo agency work), questions about copyright and fair use of digital images.</td>
</tr>
<tr>
<td>Some questions related to rights and reproduction mostly. I explained Fair Use and directed them to the institutional forms for requesting permissions.</td>
</tr>
<tr>
<td>One instructor replaced his usual Nina Katchadourian-inspired &quot;book spine poetry&quot; assignment with a guided exploration of Artstor. I am currently redesigning a tutorial for students to explore Artstor using its browsing/category features, based on a previous activity I taught at another institution.</td>
</tr>
<tr>
<td>Faculty request special attention to image searching for design thesis courses</td>
</tr>
<tr>
<td>Mostly questions about where to find images of certain types of things such as medieval manuscripts or artwork. I helped them find what they needed in databases we have access to or through open access resources.</td>
</tr>
<tr>
<td>They were mostly questions about how to access and use images from the image databases.</td>
</tr>
<tr>
<td>Where can I find images for my research project? I respond by either pursuing a research consultation or directing them to research guides that have been updated to include a higher number of digital image collections that they can peruse on their own.</td>
</tr>
<tr>
<td>Mostly keeping flickr albums up to date, adding metadata and improving image quality.</td>
</tr>
<tr>
<td>where they can find images, ability to print images from in-house collection. we granted the ability to download to students (768 px on the long side) to students within the last month (first time in the 15 year history of the digital image collection this has been the case).</td>
</tr>
</tbody>
</table>
Can we digitally archive their content? Yes.

Many of our questions have been in regards to our in-house image database or studio students looking for images in new ways (aka digital instead of browsing the stacks)

Some questions from new students about where to locate images online besides/other than Google Images

Questions re: sources for images for undergraduates, questions re: digital art history tools and projects incorporating images
### Appendix C

**Q5.12 - What have you added? Why did you add these resources or content?**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>I added LibGuides to serve as virtual brochures covering the archival collections under my care and a couple of subject specific guides about art in Hawaii. I had wanted to create these since I was hired nearly three years ago, but there was never enough time to focus on this until classes and researchers stopped coming.</td>
<td>To provide easy access to archival collections.</td>
</tr>
<tr>
<td>World Bank Photos</td>
<td>We are redesigning our LibGuides to include more robust &quot;Finding images&quot; pages to each genre of studio practice, (animation, ceramics, drawing, painting, performance art, etc.) and relying less on our old &quot;Finding Images&quot; LibGuide since there are too many resources to add to that one guide. Better to spread the list out to the appropriate locations.</td>
</tr>
<tr>
<td>I've created content / built an asynchronous online image collection course with focus on Canadian content to fulfill the instructional needs of the Fine Arts faculty.</td>
<td>To support the instructional needs of the Fine Arts faculty.</td>
</tr>
<tr>
<td>Our library has been highlighting our collections in the daily newsletter of the college as well as the faculty newsletter. We have been trying to reach the greatest number of patrons possible and let them know what kind of resources are available to them.</td>
<td>To increase awareness of available resources.</td>
</tr>
<tr>
<td>To museums/galleries--because of projects professor is assigning</td>
<td>Content related to Black and Indigenous-focused collections, as well as other marginalized groups, in order to stay relevant and current to students’ concerns on social justice, decolonization, Eurocentrism, etc.</td>
</tr>
<tr>
<td>Lots of open access museum image collections, the Creative Commons search website, adding these to the general art guide as well as new guides for online studio art instruction</td>
<td>To expand the availability of image resources.</td>
</tr>
<tr>
<td>A lot of guides I inherited in the past year had outdated links so I dug around to find additional resources, like Material District.</td>
<td>To keep up with the latest resources.</td>
</tr>
<tr>
<td>These are just meant to be some examples: we've added a few links to article databases that opened up resources partly for free, some websites that we might not have previously suggested off hand (like the National Film Board of Canada), Gallica BnF, etc.</td>
<td>To increase access to free resources.</td>
</tr>
<tr>
<td>I've looked for and added open-access/freely-available archives specifically related to graphic design and other communication arts topics, though this is partly COVID-19 related and partly due to new courses/better faculty connections in graphic design that prompted more library instruction/resource requests.</td>
<td>To support learning during the pandemic.</td>
</tr>
<tr>
<td>more museum collection links to guides; more online sites for high-resolution and/or public domain images</td>
<td>To provide high-resolution images for research and instruction.</td>
</tr>
<tr>
<td>Primarily museum digital collection sites and the FIT history of fashion website.</td>
<td>To support fashion research.</td>
</tr>
<tr>
<td>Many more artbook collections (Canadian Artbook Collection is one), Detroit Institute of Art's exhibition catalogue collection, Getty Publications, MetPublications, Museum of Modern Art exhibitions, Online Scholarly Catalogue Initiative, OAPEN Arts Titles, LACMA Publications, Sketchbook Project. For open access image databases for image reuse (mostly added to Design research guide): Nappy, Unsplash, Jay Mantri, Magdaleine, Old Book Illustration...</td>
<td>To support art research.</td>
</tr>
</tbody>
</table>
Mostly new flickr albums that feature works from our permanent collection. Flickr is easily navigated by students and faculty alike.

revamped the entire library website and it now includes lots of information on OA resources as well as in-house digital image collection

Many links to open access collections, especially to my instruction materials and libguides. I want researchers to know that these options are out there and that they can still do their research without 100% needing to come into the library building.

Frankly, I have wholesale created new guides. But I have focused on image aggregators rather than having huge lists of individual institutions with digital collections

Notes


Patelos, “Research Intersections within Practice.”


Patelos, “Research Intersections within Practice,” 47.


Katie Greer, “Connecting Inspiration with Information: Studio Art Students and Information Literacy Instruction,” Communications in Information Literacy 9, no. 1 (2015): 84.


Ibid, 447.

Crookendale, “The Art School and the Library.”


LO and Chu, “Information for Inspiration,” 103.


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