

# Search Data Privacy in Academic Libraries: Qualitative Perspectives of Members of Marginalized Groups

Laura W. Gariepy\*

This article examines undergraduate students' attitudes towards search data privacy in academic libraries, with a focus on the experiences and perspectives of members of underrepresented groups. Using the qualitative framework of interpretive description and constant comparative analysis, 27 undergraduate students at Virginia Commonwealth University—an urban research institution in the southeastern region of the United States—were interviewed. Most students were comfortable with search data collection if it benefited them; however, a notable number of those who opposed it expressed strong concerns about potential harm to vulnerable or underrepresented groups. These privacy concerns were primarily voiced by members of marginalized groups, emphasizing the importance of considering student perspectives, especially those who may be most vulnerable to adverse effects of data use as academic libraries increasingly employ learning analytics and individual-level data. The purpose of this article is to amplify those voices.

## Introduction

To fulfill requirements for accountability, demonstrate value, and effectively cater to users, libraries must embrace the practice of assessment and evaluation (Oakleaf, 2010; Prindle & Loos, 2017). Data about how individual students interact with library resources and services can facilitate the implementation of evidence-based assessment techniques. Nevertheless, librarians' longstanding commitment to user privacy has resulted in limited collection of search-related data, including information about users' search queries, borrowing patterns, and downloads (Malinconico, 2011; Town & Matthews, 2012; Shuler, 2004). This well-meaning reluctance to collect such data has constrained the range of evaluation strategies employed by libraries in the past. However, more libraries have recently begun incorporating student data into learning analytics models that establish direct connections between library usage and indicators of student success (Jones, 2021; Jones et al., 2020b; Oakleaf, 2010; Oakleaf, 2018b). Learning analytics can be described as the utilization of student data to enhance student learning, student success, or institutional effectiveness and efficiency (Jones et al., 2020b).

Although many publications address librarians' views on the importance of search data privacy for library users, studies focused on users are less present in the literature. For

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\* Laura W. Gariepy is associate dean for research and learning at Virginia Commonwealth University Libraries, email: [lwgariepy@vcu.edu](mailto:lwgariepy@vcu.edu). ©2026 Laura W. Gariepy, Attribution-NonCommercial (<https://creativecommons.org/licenses/by-nc/4.0/>) CC BY-NC.

the purposes of this article, “library search data” is information about what a user consults, searches for, downloads, reads, or uses in library settings. A few studies examine student attitudes about search data privacy in libraries in the United States (Asher et al., 2022; Gariepy 2019, 2021; Johns & Lawson, 2005; Jones et al., 2019; Jones et al., 2020a), and the results paint a mixed picture of student perspectives.

At the same time, libraries’ commitment to social justice and equity has increased in the past decade, as evidenced by the burgeoning library and information science (LIS) literature focused on inclusion, diversity, social justice, and equity (Jones et al., 2022), including some publications focused specifically on equity and justice in assessment work (Magnus et al., 2018). This article seeks to contribute to a body of literature that advances libraries’ ability to balance their need to demonstrate the impact of services and collections on student achievement while also respecting the preferences and concerns of students, particularly those whose voices may not have been prioritized in the past.

## **Literature Review**

Statements from professional organizations affirm the importance of privacy in libraries (American Library Association, 1986, 2019a, 2019b, 2021; International Federation of Library Associations and Institutions, 2015; National Information Standards Organization, 2015). Additionally, the LIS literature reflects librarians’ continued interest in safeguarding user privacy: over 1,000 articles were published between 2013 and 2023 with “privacy” and “librar\*” in the subject terms in a combined search of Library Literature and Information Science Index and Library, Information Science, and Technology Abstracts databases. It is not uncommon for libraries to retain minimal data about what their users are searching for and reading in an effort to guarantee unfettered access to information, and to prevent the scrutiny of library users’ search habits by third parties (Malinconico, 2011; Shuler, 2004; Town & Matthews, 2012). There have been some exceptions, such as librarians’ analysis of anonymized user search logs for the purpose of understanding user search behavior or systems’ search performance, a practice which has been undertaken by some researchers for nearly as long as libraries have had online catalogs (Peters, 1993). However, more generally, prevailing philosophy in librarianship has been that users cannot search freely for information if their searches are accessible to others, and thus libraries often endeavor to minimize the amount of data they have about user search data (American Library Association, 1986, 2019a, 2019b, 2021; International Federation of Library Associations and Institutions, 2015; Malinconico, 2011; Town & Matthews, 2012; Shuler, 2004).

In recent years, however, some librarians’ perspectives on how search data might be collected and used have evolved. Some support de-identifying and protecting the privacy and confidentiality of students’ search data instead of deleting it, enabling evaluation approaches aligned with increasingly prominent learning analytics models on university campuses (Brown & Malenfant, 2015, 2016, 2017; Davidson et al., 2013; Oakleaf, 2010; Oakleaf, 2018a; Oakleaf, 2018b; Town & Matthews, 2012). Standards documents from some professional organizations expressly support the thoughtful collection, retention, and protection of library user data to improve services and collections (National Information Standards Organization, 2015).

Although the literature abounds with articles about user privacy in libraries, including librarians’ efforts to navigate the ethics of use of student data (Jones, 2021), relatively few studies address user perspectives about this topic in the United States. Johns and Lawson

(2005), surveying undergraduate students, reported that few respondents felt it was appropriate for university libraries to use students' private online data to enhance library services. Some indicated that it may be acceptable for libraries to view private online information, but only with informed consent, for a clearly stated purpose, and with the understanding that it would not be disseminated to third parties. In recent years, several qualitative studies have made important contributions to the literature regarding student perspectives on privacy in libraries. Jones et al. (2019, 2020a) published findings about student perspectives on privacy and learning analytics, including an emphasis on data collection in academic libraries. In addition, I conducted interviews with undergraduate students about their perspectives on search data privacy in academic libraries (Gariepy, 2019, 2021).

In these studies (Gariepy, 2019, 2021; Jones et al., 2019; Jones et al., 2020a), students were generally accepting about data collection in academic libraries if it benefited them, and they saw potential advantages of using data to improve access to resources and provide personalized search results (Jones, 2019, 2020a). Students expressed trust in libraries and universities and believed libraries' usage was well-intentioned. They assumed that their institutions collected data about them and expected that it would only be used within the institution in ways that would advance student success. They opposed the idea of universities or libraries sharing any data about them with third parties, excepting vendors such as learning management systems, or library databases. Overall, students favored de-identifying data or using it in aggregate to protect privacy (Gariepy, 2019, 2021; Jones et al., 2019, 2020a).

Similarly, Jones et al. (2019, 2020a) found that students viewed learning analytics in higher education to be useful if the focus was on educational purposes and helping students. However, students were unable to detail specific practices that might achieve this purpose, given their limited familiarity with learning analytics. In my research (Gariepy, 2019, 2021), I found more mixed responses from students about their perspectives on learning analytics as it relates specifically to libraries, with some study participants suggesting that library use is a shoddy indicator of students' academic success.

Jones et al. (2019, 2020a) and I (Gariepy, 2019, 2021) both found that most students expressed general trust and comfort with libraries' use of their search data in order to improve services, collections, and/or the student experience; however, some students stated that their relaxed privacy attitudes should not outweigh perspectives of peers who may feel differently, and acknowledged that students in vulnerable groups may have greater concerns about data collection. In addition, I found that students who had the greatest concerns about library search data privacy were usually focused on potential harm to vulnerable groups. Similarly, more recent quantitative work by Asher et al. (2022) revealed that while most students were unbothered about use of their search data for learning analytics in academic libraries, a consistent minority expressed concern about this practice. Non-White students expressed less trust in academic libraries than their White peers.

This is consistent with some findings in broader information privacy research. For example, Auxier et al. (2019) found that Black Americans express more concern than their White peers about the information that friends, family, colleagues/employers, and the government may be able to access about them. Black and Hispanic Americans are more likely to express concern about what law enforcement knows about them than their White counterparts and are also more likely to believe that the government is tracking them. In addition, research suggests that cultural factors and the regulatory environment in which

people live or have lived may influence individuals' perceptions about data collection and surveillance (Bellman et al., 2004; Cho et al., 2009; Milberg et al., 2000; Thompson et al., 2020). These findings demonstrate the importance of understanding the perspectives of students who are members of underrepresented groups as related to search data privacy in academic libraries.

## Purpose

The purpose of this article is to present rich, detailed qualitative findings about undergraduate students' perspectives about academic library search data privacy as they pertain to vulnerable or marginalized groups. Findings presented in this article are derived from a larger dissertation research study (Gariepy, 2019) that examined other facets of student perceptions about search data privacy in academic libraries. The two research questions that revealed the themes shared in this article were:

1. What are undergraduate students' attitudes about whether academic libraries should collect and maintain user search data, and why?
2. What are acceptable and unacceptable uses of students' library search data according to undergraduate students, and why?

I detailed findings of these two questions, articulating major themes that emerge from the data, in a previous article (Gariepy, 2021). In this article, I expound on participants' responses that address membership in or awareness of marginalized or underrepresented groups, providing rich detail on students' perspectives. While there has been growth in recent years in the number of publications addressing student perspectives on search data privacy in academic libraries, including how perspectives vary by race/ethnicity (Asher et al., 2022), none provide the depth and nuance offered in this article.

## Methods

Additional detail on the methods of this study can be found in my prior article (Gariepy, 2021), which details all themes and subthemes that emerged from the study.

### *Interpretive Description*

This study was conducted using the qualitative approach of interpretive description, a methodology developed by Sally Thorne (Thorne, 2016; Thorne et al., 1997, 2004). Interpretive description, introduced in LIS literature by Gariepy (2021), is a framework for gaining in-depth understanding of a phenomenon and/or subjective knowledge in clinical or applied disciplines. Interpretive description is not a discrete method, but rather an overall approach. It encourages the thoughtful utilization of methods from various qualitative traditions to answer specific research questions, which are posed in a way that allows answers to be resituated within the context of the applied field.

In this study, I conducted in-depth, semi-structured interviews with undergraduate students at Virginia Commonwealth University (VCU), a diverse, public, doctoral university in Richmond, Virginia, with approximately 29,000 students. Data collection took place in 2019.

### *Recruitment and Sampling*

Study participants were recruited through emails to faculty and students, posts in the VCU daily newsletter, social media posts, and flyers. A \$15 Amazon gift card incentivized participation. Convenience sampling was the initial sampling method for the study (Creswell, 2013),

and 53 students expressed interest in the study. Students completed a screening survey to ensure they had used academic libraries before and to provide demographic information.

I scheduled interviews on a rolling basis over several months. Twenty-seven students were selected for interviews based in part on how their individual characteristics and demographic traits diversified the interview pool. As a result, the study participants represented a level of diversity that exceeded my expectations for a convenience sample. However, findings from this study are not intended to be generalized. The goal of including heterogeneous students was to increase the richness of the data and findings.

Characteristics of the students interviewed included:

- More than half of the students interviewed indicated that they were members of underrepresented racial or ethnic groups.
- Nearly half of the students were members of families with immigrant parents, and two participants were immigrants themselves.
- Most participants were women, but there were several men as well as two transgender/nonbinary students.
- Students from all undergraduate ranks were represented, from first-year students to seniors, but the highest proportion were first-years.
- Many participants were honors students. The high concentration of first-year students and honors students was largely a result of faculty members in the Honors College enthusiastically encouraging participation in the study.
- All participants were between the ages of 18 and 24.

The rich diversity of the interview participants allowed in-depth themes regarding library search data retention's potential impact on underrepresented groups to emerge. For the purposes of this article, a member of an underrepresented group includes individuals who are any of the following: non-White, non-Christian, a member of the LGBTQIAA+ community, or living with a disability or chronic illness. The phrase "underrepresented group" is used interchangeably throughout this article with other phrases such as "nondominant group," "oppressed group," and others.

Figure 1 provides a detailed summary of each student's reported demographics, to demonstrate the rich ethnic and racial diversity that enhanced this study. Each participant has been assigned a pseudonym.

As articulated in the methods section, some of this information, such as race/ethnicity and gender, were disclosed in the screening process for participants. Others, such as sexual orientation or disability status, were self-disclosed by students in the interview process. It is important to note that many participants held intersectional identities, in which they identified as members of multiple underrepresented groups.

## ***Data Collection and Analysis***

Data collection and analysis occurred simultaneously using the constant comparative method (Glaser & Strauss, 1967). Interviews were held in person and audio-recorded and then professionally transcribed. The semi-structured interviews (Guest et al., 2013; Roulston & Choi, 2018; also see Appendix I) were composed of both questions and vignettes (Finch, 1987). The inclusion of vignettes, defined by Finch (1987, p. 105) as "short stories about hypothetical characters in specified circumstances, to whose situation the interviewee is invited to respond," enabled participants to respond to concrete situations to elicit more abstract ideas and attitudes (Hazel, 1995). Using ATLAS.ti (ATLAS.ti, 2019), I employed Miles et al.'s (2014) approach of First Cycle and Second Cycle Coding to develop themes.

**FIGURE 1**  
**Study Participants' Pseudonyms and Demography**

Name	Gender	Race/Ethnicity	Enrollment Status	Immigrant Parents
Yoofi	Male	Black/African	Junior	No
Chandler	Female	White/Caucasian	Junior	No
Angelica	Female	Black/African	First Year	No
Galina	Female	Black/African	First Year	Yes
Corey	Female	White/Caucasian	Junior	No
Abeo	Male	Black/African	Sophomore	Yes
Kavya	Female	Asian	Sophomore	No
Ava Grace	Female	Asian	Sophomore	Yes
Clayton	Male	White/Caucasian	First Year	No
Raelyn	Female	White/Caucasian	First Year	No
Selena	Female	Hispanic/Latinx	First Year	Yes
Maria	Female	Hispanic/Latinx	Sophomore	Yes
Stephen	Male	Asian	Sophomore	Yes
Tahmina	Female	Asian	First Year	Yes
Eliza	Female	White/Caucasian	First Year	No
Robert	Male	Asian	First Year	Yes
Savannah	Female	White/Caucasian	First Year	No
Lakshmi	Female	Asian	First Year	Yes
Cameron	Female	White/Caucasian	First Year	No
Samaira	Female	Asian	First Year	Yes
Alexandra	Female	White/Caucasian	First Year	No
Erica	Female	Asian	First Year	Yes
Erin	Trans/ Nonbinary	White/Caucasian	Sophomore	No
Phillip	Male	White/Caucasian	Senior	No
Rashid	Male	Asian	First Year	Yes
Spencer	Trans/ Nonbinary	White/Caucasian	Junior	No
Elliott	Male	White/Caucasian	First Year	No

## Findings

Many themes emerged from the dissertation research study from which this article stems. To contextualize student attitudes about search data privacy in academic libraries as they relate to members of underrepresented groups, I present a brief summary of the major themes of the larger study (Gariepy, 2019, 2021), as they provide an important contextual backdrop for the additional findings presented in this article and, in some cases, are inextricably linked. The themes are broken into two categories: foundational themes and participant attitudes about library search data collection and privacy.

**FIGURE 2**  
**Summary of Themes from Original Dissertation Research Study (Gariepy, 2019, 2021)**

<b>Foundational Themes</b>
<b>First-time/Evolving Thoughts and Limited Awareness of Library Practices</b>
Many students stated they were considering library search data privacy for the first time. Some participants' perspectives evolved, grew more nuanced, or changed completely over the course of the interview as they learned more about the topic through the vignettes and questions presented.
<b>Academic Libraries are Mostly Used for Academic Assignments</b>
Most students indicated that the information they searched for in academic libraries was solely to support their assignments and academic work. Many participants felt that the research they conducted for academics was impersonal and did not reflect their whole selves. Thus, they did not feel that their library search data would be especially sensitive.
<b>Acknowledgement of Different Privacy-Related Perspectives and Experiences</b>
Study participants assumed that many perspectives existed among their fellow students. This awareness was most prevalent when a student expressed low levels of concern about privacy themselves but acknowledged that others may feel differently. Participants noted that privacy may be more important for students who are members of underrepresented populations, or who are researching controversial or taboo topics. Some students shared their firsthand experiences with bias as members of underrepresented groups and described an increased need for privacy as a result.
<b>Participant Attitudes About Library Search Data Collection and Privacy</b>
<b>Comfort with Libraries Using Search Data to Benefit Students or Improve Services and Collections</b>
Participants were mostly comfortable with academic libraries using search data in ways that benefitted students. This trust stemmed from a combination of factors, including their general confidence in libraries' altruistic motives and a sense of being accustomed to online data collection due to social media and internet use. However, some expressed discomfort with this practice. Their perspective was often linked to being part of an underrepresented group or fearing potential misuse of data for such groups.
<b>Views on Use of Search Data for Individually Tailored Search Results Varies</b>
Students held a variety of perspectives about using library search data for individually tailored search results based on users' previous search history. While some saw it as a benefit, others questioned its usefulness, especially for undergraduate students who may be searching on a wide variety of topics depending on the classes they are enrolled in.
<b>Use of Library Search Data for Learning Analytics Initiatives is Controversial</b>
Participants were skeptical of library-focused learning analytics and learning analytics in general. Some felt that their library use would be invasively monitored in such a model and had particular concerns about academic advisors being alerted when students had low library use. However, some students did acknowledge the potential for these models to be helpful.
<b>Varied and Ambivalent Views on Search Data for Preventing Bad Behavior</b>
Questions around using library search data for government investigations—including crime prevention and national security—exposed a range of perspectives among participants. Some prioritized public safety, arguing that the potential to save lives justifies sacrificing some privacy. Others held a firm stance on privacy protection, even if it meant hindering efforts to prevent negative outcomes. Participants on both sides sometimes expressed their views with strong conviction. In several cases, students expressed general wariness of the government having access to search data.

Because my 2021 article was intended to offer an overview of the findings of the full research study—aiming for breadth more than depth—I did not provide an in-depth account of every theme in that publication. For example, the article only briefly addressed the fact that students who were most privacy-concerned often spoke of the need to be mindful of the experiences of members of underrepresented groups (see Figure 2, theme Acknowledgement of Different Privacy-Related Perspectives and Experiences). I also only briefly addressed a perspective that was passionately held by a faction of study participants:

Although most students felt comfortable with the idea of academic libraries using search data if the intent was to benefit students, this was not universal. Some students favored routine data purging—or never collecting it to begin with—in order to protect academic freedom and the ability to search without interference. *Participants who had the most fervent opinions about maintaining user privacy in libraries often spoke of their experiences as members of minoritized or oppressed groups, or similar experiences of others, which significantly contributed to their perspectives on search data privacy.* (Gariepy, 2021, p. 30, emphasis added)

In my dissertation (Gariepy, 2019) that served as the basis for the 2021 article, this finding was presented as a subtheme under the larger “Comfort with libraries using search data to benefit students or improve services and collections” theme. The subtheme was titled: “Preferences for privacy are infrequent but strong and often relate to concerns about bias and oppression” (Gariepy, 2019, p. 126). Threads of this type of thinking also emerged in relation to other major themes identified in the study.

In this article, I highlight participants’ perspectives that speak to the relationship between library search data privacy and potential impact on members of underrepresented groups. I present numerous quotes from students who expressed such attitudes to achieve the “thick description” (Geertz, 1973; Lincoln & Guba, 1985; Ryle, 1949) that is a key aim of qualitative research.

### ***Preferences for Privacy***

Preferences for privacy are infrequent but strong and often relate to concerns about bias and oppression. Despite many students’ general comfort with some or all the ways academic libraries might collect search data, there were strong dissenting voices. Although the view that academic libraries should purge search data was not held by many participants, those with that perspective held it with a level of conviction that exceeded that of their peers who were unconcerned or even positive about academic libraries collecting search data. One student referred to her desire to have “just one place” (Selena) where her search data was not being tracked. Others directly expressed their preference that library search data should be purged: “I would like to see the purging of information. I would also like to see that that’s made widely available that you do that” (Spencer).

All the students who preferred an approach in which libraries do not collect or maintain search data were members of underrepresented groups (although not all participants who identified as members of underrepresented groups were concerned about library search data privacy). They also expressed heightened awareness of bias-related issues as compared to other students who were interviewed.

### ***De-Identification of Search Data***

Many students expressed a preference for de-identification of search data. They felt that separating users' identities from their library search data would strike a good balance, allowing the library to maintain search data that could be used to enhance students' experiences, while still protecting academic and intellectual freedom. Some students referenced their own need for that type of protection due to their affiliation with an underrepresented group or their awareness that others may need that protection.

When asked if they preferred if their name was or was not attached to their search data, one transgender/nonbinary participant shared the following:

I personally don't mind that much, but I can see where people would mind. So ... I err on the side of, like, separate the information, if not for my sake then for theirs. Because ... while I have a very accepting family and things like that, there are people in my community who do not, so I just sort of feel like sometimes privacy is more important for them than it is for me, and it's good to sort of consider that. (Erin)

### ***Transparency and User Control of Data***

Some participants recommended models of search data collection that center on library users' ability to control their own data. They suggested opt-in or opt-out models in which students either consent to data collection or, if the default is to collect data, allow people the option to request to be omitted from that process. One student with an intersectional identity associated with multiple underrepresented groups said:

I think this [transparency and user control of data] is the best route to go, and I think that there are other ways to design those tools to inform what people need that's actually consensual ... that whole fully informed, freely giving kind of thing. Instead of just, you know, check the box of "we collect cookies" or whatever, because I don't think that's consent. Which I think is what a lot of the user agreements at VCU do: like they don't really give you an option to not consent, which isn't consent anymore. (Spencer)

### ***Third-Party Access***

The most passionately held convictions were shared when students were asked about the potential use of library or internet search data to protect public safety or for other potential third-party uses (whether authorized or unauthorized).

Specifically, participants were asked about their perspectives on library search data potentially being used by the government or law enforcement to prevent "bad behaviors" such as crime and terrorism. Opinions varied significantly on the use of library search data for this purpose. One student with strong preferences for privacy described:

My understanding of how these things work is that ... the whole Patriot Act thing is like "but we're trying to catch the bad guys," but like the people who end up being the bad guys are, you know, people of color, queer people, disabled people, you know, all that stuff. So really, I—Fuck that. And so, I'd rather you just not have the information. (Spencer)

This same student, and some others, favored non-collection and/or routine purging of library search data to protect academic freedom and the ability to search without interference, especially regarding research that may touch on controversial topics, particularly as they pertain to underrepresented or vulnerable groups.

A Muslim study participant of Middle Eastern descent revealed his concerns about the assumptions people or agencies might make about him based on search history, particularly if the content of searches in any way related to terrorism, violence, or national security. To express his concern about bias based on his religion and race/ethnicity, he simply said: "I'm just a guy, you know?" (Rashid).

Similarly, another student of Middle Eastern descent shared that her similar concerns affect her searching:

Well, I know Muslim communities have faced a lot of monitoring, especially in a post-9/11 America. So sometimes I will not Google a recent terrorist attack that has happened or like, I don't know—I just always stay aware of like my ethnicity, my background, and what I'm searching, and how it may connect me to certain events. (Tahmina)

One participant who immigrated to the United States when she was 5 years old shared the following when asked about search data collection for the purposes of maintaining public safety:

And of course, let's say someone who's Muslim does search up information about ... past terrorist attacks, just for a pure curiosity, and the federal government was observing that person and realized who they are, what their ethnicity is, what their religion is. They're definitely more inclined to consider that individual as a dangerous person. (Galina)

Not all these students' comments pertained exclusively to library search data privacy as opposed to other types of information privacy such as internet searching. However, their comments reveal the students' awareness of how their identity might influence the way third parties view their search habits in various environments, including libraries.

### ***Other Potential Misuse of Library Search Data***

Although some participants acknowledged that learning analytics approaches could be helpful to students, many felt that such models could be invasive, viewing the entire learning analytics movement with skepticism. One student specifically acknowledged how such a model could be inaccurate or harmful to students with disabilities:

Absolutely not. That's not okay. ... That's absolutely inappropriate. If someone has a disability, they could be using other resources. And that would be putting them under scrutiny with their advisors where they would be forced to disclose, which is not okay. (Corey)

She also indicated that she would drop out of VCU if such a model were implemented, given her perception that it would place students with disabilities at particularly high risk for privacy violations.

Along the same lines, another participant revealed that they had been uncomfortable, and at times cautious, about what they searched for at VCU Libraries because they did not know the extent to which VCU Libraries collected search data, and were concerned about third-party access. It stands to reason that if VCU Libraries was ever in a situation in which library search data was being routinely monitored by government agencies that this individual may cease their use of VCU Libraries.

Additionally, participants were cognizant of the risks of stereotyping or oversimplifying certain user groups in models relying on quantitative data alone, even when the intent is well-meaning. For example, one participants stated: “Like you kind of have to be careful with the groups because there is that like sort of tendency that we have as humans to generalize and stereotype” (Erin).

## Discussion

Study participants expressed the particular importance of protecting library search data privacy for students who are members of underrepresented groups. This finding is consistent with Asher et al.’s (2022) work, which showed that non-White students were less trusting of librarians and libraries, and were more likely to have concerns about use of data for library learning analytics. Some of the perspectives expressed by students also align with evidence that nationality, cultural values, and the regulatory environment in specific municipalities are related to attitudes about privacy (Bellman et al., 2004; Cho et al., 2009; Milberg et al., 2000). In addition, the participants who held the most conservative privacy views in this study, while not ethnic/racial minorities nor children of immigrant parents, were members of other minoritized groups, such as the LGBTQIA+ or disabled communities. This is a new contribution to the literature.

The findings of the study, combined with other literature, can be useful in shaping library policies that respect user privacy as we also seek to develop effective assessment and evaluation strategies that may rely on individual-level user data. Several of the concerns that study participants raised are consistent with concerns that underpin librarians’ historical commitment to privacy, such as guaranteeing unfettered access to information and preventing the scrutiny of library users’ search habits by third parties (Malinconico, 2011; Shuler, 2004; Town & Matthews, 2012). However, many—although not all—of the students who expressed concerns about search data privacy for members of underrepresented groups also recommended strategies such as increased transparency, opt-out options, and anonymization of data to mitigate some of these concerns. These views are consistent with shifting perspectives over the past decade in librarianship regarding thoughtful, intentional, collection of data (Brown & Malenfant, 2015, 2016, 2017; Davidson et al., 2013; Oakleaf, 2010; Oakleaf, 2018a; Oakleaf, 2018b; Town & Matthews, 2012).

These findings invite librarians to develop appropriate data collection and retention policies that are respectful of students who express the most desire and most need for privacy or confidentiality. Even if the students who hold this view do not constitute a quantitative majority, it is an important consideration especially given the finding that some people who hold the most passionately held privacy-related attitudes are members of vulnerable or minoritized groups. Librarians should seek ways to enhance transparency and user control of what data

is collected about them and how it is used. We should also advocate that third-party library vendors adopt privacy practices consistent with what our users need.

The findings presented in this article set forth many potential paths for future research. Studies focused on the perspectives of individuals associated with underrepresented groups—such as LGBTQIAA+ students, students with disabilities, students of color, and/or students who are children of immigrant parents—could add great value to the literature. Qualitative studies would allow for in-depth exploration of these groups' attitudes about search data privacy in academic libraries. Asher et al.'s (2022) survey and findings on student trust related to library learning analytics is a tremendous contribution, but it is also important to engage qualitative methods that privilege the complexity, nuance, and depth of students' perspectives, in addition to serving as a springboard for future quantitative research that may focus on specific user groups and result in generalizable results. A limitation of this study was the use of convenience sampling, which resulted in a particularly "young" sample of undergraduate students, most of whom were first-years and none of whom were older than 24. Accordingly, future studies might seek the perspective of older students and/or employ other sampling strategies to do so.

## Conclusion

The intent of this article is to amplify voices of those from marginalized groups who were most privacy concerned about library search data. It makes an important contribution to the small body of literature about user perspectives on search data privacy in academic libraries. The findings add to the rigorous scholarship that has been published in recent years (Asher et al., 2022; Gariepy, 2021; Jones et al., 2019, 2020a) both by deepening the library profession's nuanced knowledge about student perspectives through qualitative research, and especially by elevating the perspectives of students who express concerns about the implications of search data practices on members of underrepresented groups.

As new methods emerge to study students' perspectives on this matter quantitatively, qualitative data adds richness, deepened understanding, and a whole-person view of students' attitudes and experiences as they use libraries. Given libraries' and higher education's histories of exclusion—and our current focus on equity and belonging—it behooves librarians to place special importance on the voice of members of marginalized groups, even if those voices are fewer than those of the dominant group. Their perspectives about search data privacy should be critical components of how balance our need for data with user preferences for privacy and confidentiality.

Library workers must think about the ways we can be the best possible stewards of the data we collect or could collect, while simultaneously respecting people who are most concerned about their privacy. These concerns are sometimes rooted in the lived experiences and/or well-reasoned perspectives of members of underrepresented communities. To ensure that libraries facilitate the ability to search for information without interference, we must prioritize efforts to protect the privacy and confidentiality needs of users, while equally supporting efforts to ensure that users are aware of our privacy-related practices.

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## Appendix I

### Interview Guide

Since semi-structured interviews are intended to be flexible and evolving, the questions below are tentative. They exemplify the nature of questions that will be asked of study participants, but the questions themselves may change and evolve over the course of participant interviews. Although questions are loosely ordered by domain, both the interviewer and the participants will be free to be responsive to the discussions the interview facilitates, and questions may be asked in a different order.

Throughout the interview, probing questions will be used as appropriate in which participants are invited to further explain their answers. Frequently used follow-up questions will include:

- Could you tell me more about that?
- Why do you think you feel/think that way?

### Introduction

- Introductions; small talk to establish rapport.
- Researcher seeks permission to record the interview.
- “This study is about understanding students’ perceptions about privacy when it comes to searching for data and checking things out in academic libraries. You’ll hear me refer to that throughout the interview as “search data privacy”—the things you search for, download, or borrow from academic libraries. Although the focus is on searching for information in an academic library environment, I might also ask some questions about your attitudes on searching for information in other environments, like on the internet, in order to contextualize the conversation.”
- “There are no right or wrong answers to any of the questions; your perspective is what I’m interested in! And there’s no such thing as talking too much; I’m interested to hear what you have to say.”
- “I’m interested in this research because I think it will be helpful for libraries to understand student perspectives on this issue when developing policies on search data privacy, and to help us use data to improve our services appropriately.”
- “Throughout the interview, I will make reference to ‘using academic libraries’ and being ‘in academic libraries.’ However, academic libraries are not limited to physical locations, so experiences you have related to searching academic libraries’ websites, for example, are equally relevant.”
- “I’ll also ask you to share some information about yourself with me, such as where you and your parents or family grew up. I’m interested in this because there’s some indication that people’s nationality or cultural background might help shape their views on privacy, and I’d like to better understand that.”
- Offer a brief overview of privacy and libraries, acknowledging that many students haven’t had a chance to think about this.

### Questions About the Participant

- What year are you at URU?
- What’s your major?

- Where did you grow up? Tell me a little bit about the place you lived.
  - Diversity
  - Political climate
  - Overall experience
- Where did your parents/family grow up?
  - What brought you to [where they grew up]?
  - Did you visit there often?

## Domain 1: Experiences with Searching for Information

- Tell me a little bit about your experiences using academic libraries. How have you used them?
  - What kinds of information are you looking for when you search academic library resources?
  - Describe academic and/or personal uses of academic libraries.
- How do your experiences searching at an academic library differ from your experiences searching elsewhere, like on the internet?
  - Do you search for different types of information?

## Domain 2: Perceptions of and Expectations for Privacy When Searching for Information

- Have you ever thought about whether your search habits were being monitored either in an academic library or in another search environment like the internet? If so, please describe how that made you feel.
  - If you assume that your search habits are being monitored, does it affect the way you search? In what ways?
  - Do you use any other strategies to further protect privacy of your search activities?
- Who do you feel should or should not have access to data about what you search for, both on the internet and in academic libraries?
- Scenario A: For this question, I'm going to present a scenario, and then I would like you to share your reaction with me about how it makes you feel about privacy in that particular context. "An academic library wishes to improve its search features. To do so, they decide to collect and maintain data about what individuals search for, so that when that person logs into the library system, their results will be tailored based on their previous searches. An undergraduate student who uses the library regularly notices that when she searches for books and articles on the library website, that some of the results seem related to things she's downloaded in the past."
  - How do you feel about this scenario?
  - Can you think of benefits or risks of this scenario?
  - Have you had any experiences that affect the way you think about this scenario?
  - If you were to consider privacy and convenience on a spectrum of importance, with each at opposite ends, please talk about where you would fall on the spectrum. Do you value privacy, convenience, or both?
- Scenario B: For this question, I'm going to present a scenario, and then I would like you to share your reaction with me about how it makes you feel about privacy in that particular context. "An academic library wishes to use data about what students search for,

check out, and borrow to assess use of the collection and ways we might improve it. The library maintains a record of each student's search data so that librarians can do data analysis by individual and group (for example, biology majors) about library use. This allows the library to make adjustments to the collection and to the services offered like teaching and outreach to serve students as effectively as possible."

- How do you feel about this scenario?
- Can you think of benefits or risks of this scenario?
- Have you had any experiences that affect the way you think about this scenario?
- How would you feel if your search data were de-identified from your name and other identifying information?
- Scenario C: An academic library maintains a record of each student's search data. The library uses the data to explore the relationship between use of library materials and academic success (like GPA and grades). When students have not used the library at all but are enrolled in courses that usually necessitate library use, librarians notify those students' academic advisors as an early warning that the student could have academic issues.
  - How do you feel about this scenario?
  - Can you think of benefits or risks of this scenario?
  - Have you had any experiences that affect the way you think about this scenario?
- Please describe feelings of trust or distrust you have for academic libraries, if any, and why you feel that way.
- Does the level of trust you have for libraries differ from the degree to which you trust Google or other internet search engines? Why?
- Scenario D: For this question, I'm going to present a scenario, and then I would like you to share your reaction with me about how it makes you feel about privacy in that particular context. "An academic library elects to routinely purge any data about what library users search for, and what they check out, as soon as items are returned. The decision to do so was made because many librarians believe that people can only search freely for information if there is no possibility of someone else (be it the library or a third party) having access to what they search for. In routinely purging records, libraries forego data that could be useful in helping them design search tools and purchase collections that would serve library users' needs."
  - How do you feel about this scenario?
  - Can you think of benefits or risks of this scenario?
  - Have you had any experiences that affect the way you think about this scenario?
  - What do you think the right balance is between libraries collecting data about students' search habits in order to improve services and protecting user privacy?

#### **Domain 4: Concerns About Access to Search Data/Borrowing Histories From Third Parties**

- Scenario E: For this question, I'm going to present a scenario, and then I would like you to share your reaction with me about how it makes you feel about privacy in that particular context. "Google maintains data about what people search for in order to better understand user search habits in order to improve the search experience and provide targeted advertisements. In an effort to prevent terrorism, the federal government begins routinely monitoring Google search data to look for suspicious searching behavior."

- How do you feel about this scenario?
- Can you think of benefits or risks of this scenario?
  - Are there particular circumstances you can imagine in which it would be appropriate for third parties to access data about what people have searched for?
- Have you had any experiences that affect the way you think about this scenario?
- Would your perspective be different about this scenario if we replaced Google search data with library search data/records?

## Closing Questions

- We've talked about a lot of things today. Can you offer me a quick summary of your views on privacy of search data in academic libraries as they are right now?
- Do you think any of your life experiences or influences to date have shaped your views about how your search data should be handled when searching online or at the library?
  - Ask for expansion of previously mentioned influences
  - Are you on social media? Do you feel that your use/non-use of social media has affected your views on privacy in general?
- Is there anything else you would like to share with me that you think would be important to this study?