Taking the Temperature of Chat Reference
An analysis of user complaints in the time of COVID-19

Introduction

This poster explores user complaints over the chat reference service Ask a Librarian, offered by a large university consortium in Ontario, Canada, both before and during the COVID-19 pandemic. During the pandemic, chat reference services experienced a surge in demand but researchers are only beginning to explore how the crisis affected the topic of chats, the nature of discourse, and the experience of chat providers. This research project aims to fill this gap by analyzing user complaints within chat transcripts.

Research questions

- What is the typical level of complaints over chat?
- Did complaints increase during the pandemic?
- What types of topics have users complained about during the pandemic?
- Did the complaint types vary by user type?

Our research aims to understand how times of crisis affect reference services and front-line reference staff. The research presented focuses on how complaints highlight user needs and preferences with respect to library services and the challenges that users face with online teaching and learning.

Methodology

To investigate user complaints on Ask a Librarian, we performed transcript analysis of chats from January 1, 2019, to December 31, 2020. This time period was chosen to compare a standard year to chats from the pandemic.

Sampling
Our sample was made up of 2,220 chats. We randomly selected chats from the winter, summer, and fall semesters of each year according to guest ID. Each semester's sample size was selected to ensure a 95% confidence level.

Data Sources
We downloaded chat session metadata and the corresponding transcripts from LibraryH3lp, the chat software. We anonymized the data to remove any identifying information about the operator and user before coding commenced.
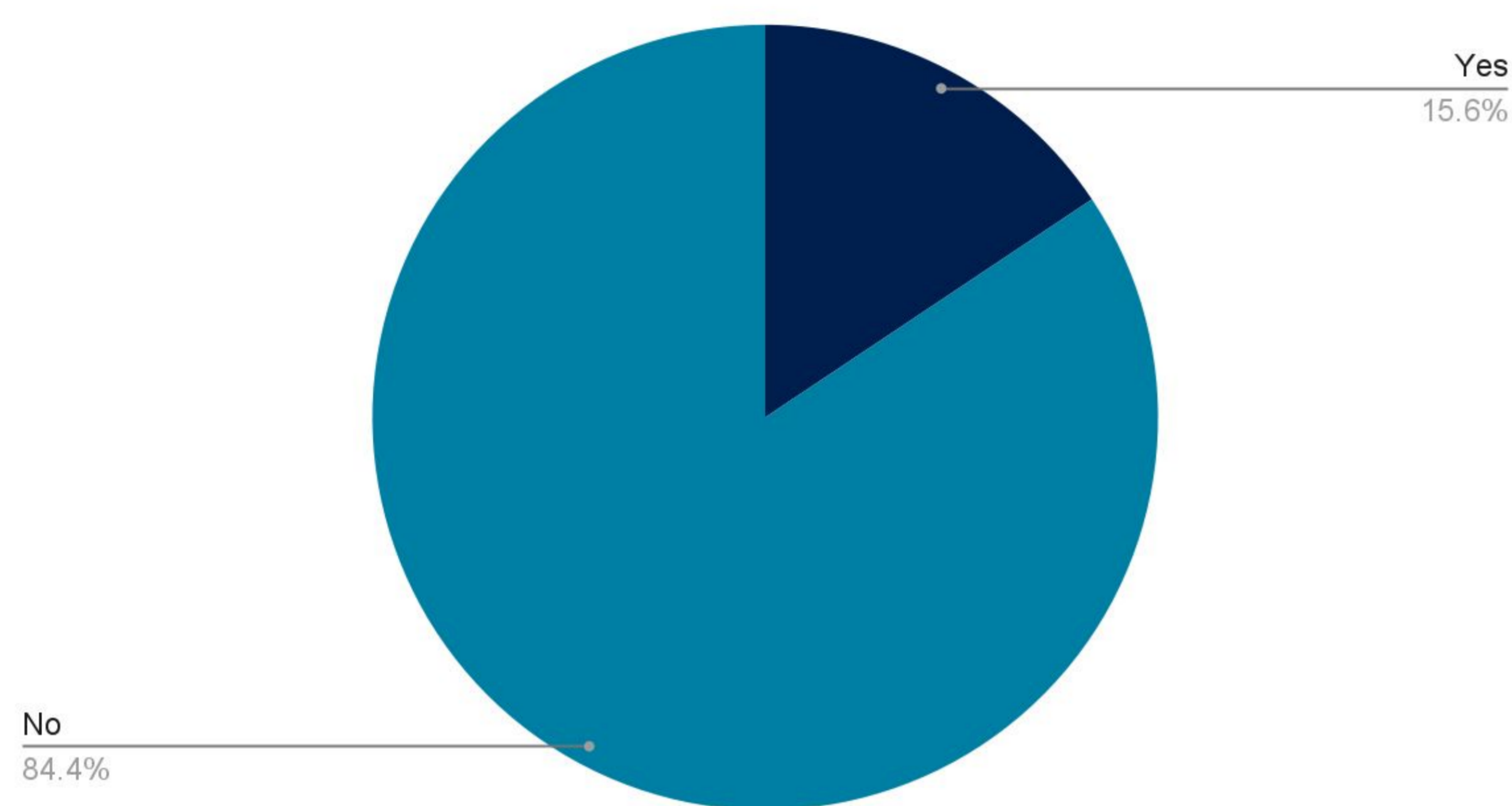
Study Variables
- **WHO:** We created a variable to record whether the chat took place before or after the WHO declared COVID-19 was a pandemic (March 11, 2020), based on the chat start date in the metadata.
- **Semester:** We created a variable to group chats into semesters according to the chat start date in the metadata. Winter = January - April; Summer = May - August; Fall = September - December.
- **Complaint:** We manually coded whether at least one complaint occurred in the chat transcript.
- **Complaint type and sub-type:** We manually coded the topic and sub-topic of the first complaint in the transcript according to a coding key developed for the Ask a Librarian service.[1]
- **Pandemic-related:** We manually coded whether the first complaint in the transcript was specific to how the library was operating during COVID-19.
- **User type:** We manually coded the user's role at the university, based on their response to a prompt requesting they provide information about themself at the beginning of the chat transcript.
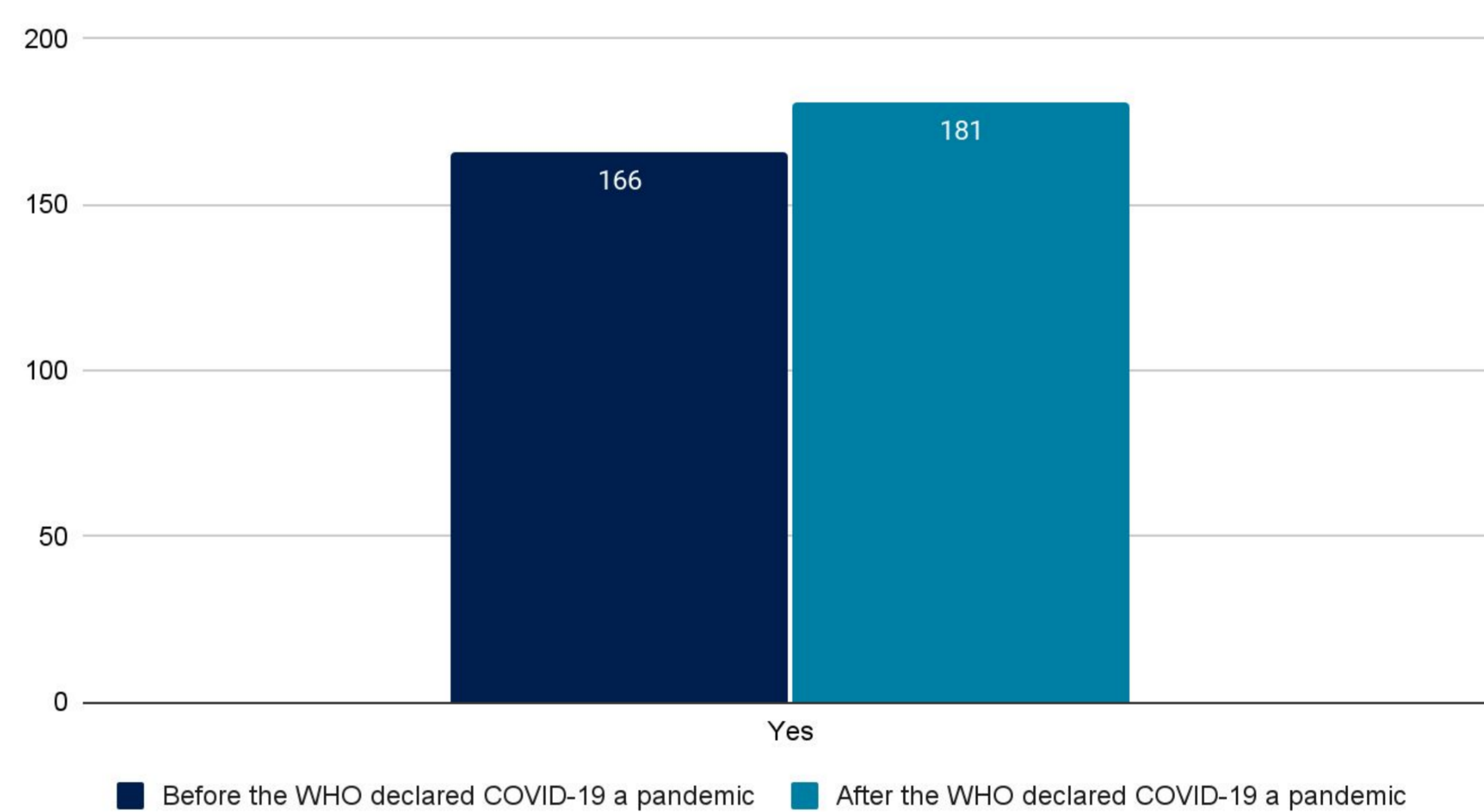
Statistical Analysis
We used SPSS to calculate descriptive statistics (frequencies) and run Pearson Chi-Square Tests of Independence to determine if there were significant relationships between variables.

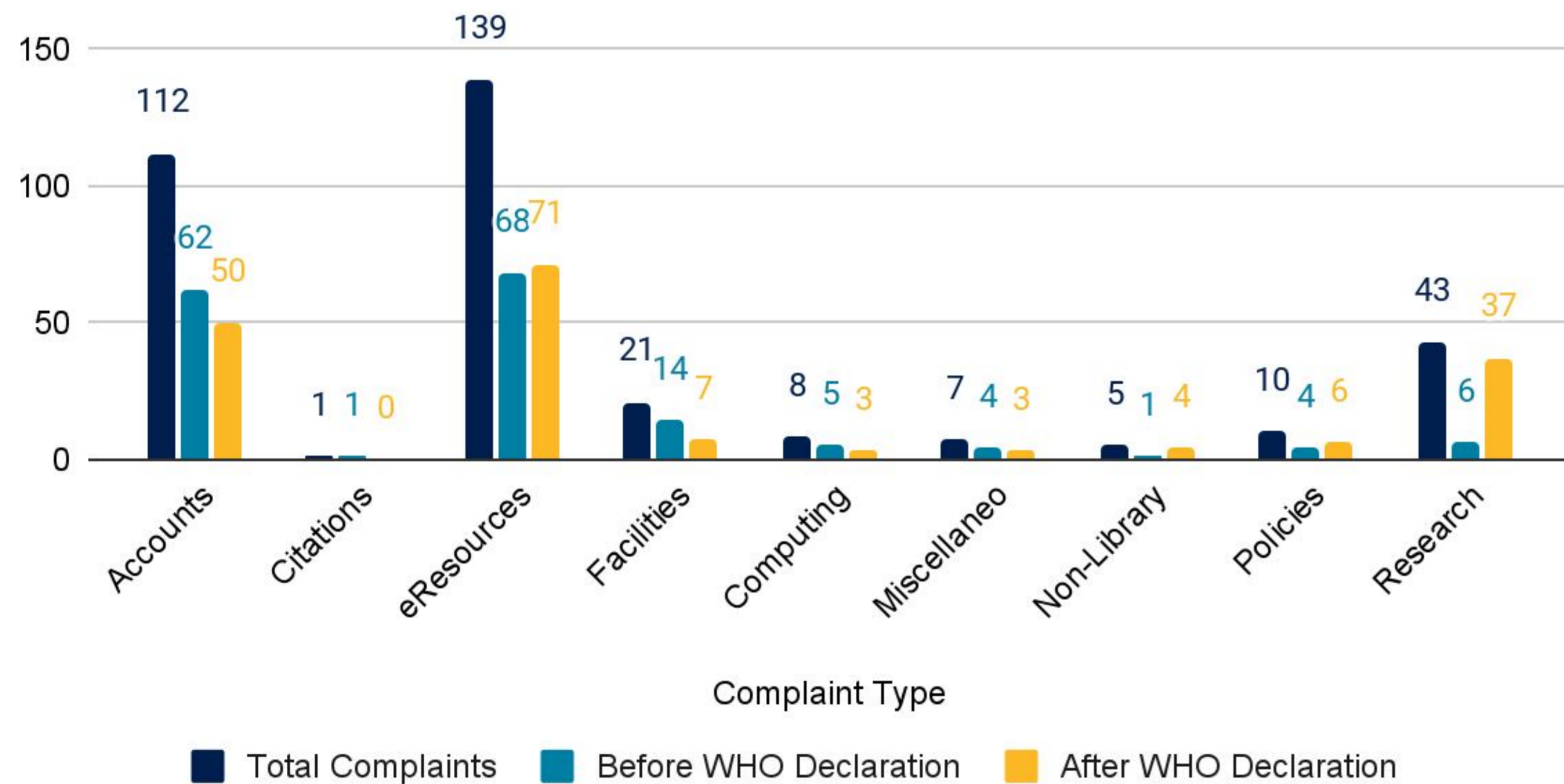[1] Maidenberg, K., Greenberg, A., Whyte Appleby, J., Logan, J., & Spence, M. (2012). Reference query coding key. https://tspace.library.utoronto.ca/handle/1807/94126

Was there at least one complaint in the chat transcript?

Yes 15.6%
No 84.4%

Was there at least one complaint within the chat transcript?

166 — Before the WHO declared COVID-19 a pandemic
181 — After the WHO declared COVID-19 a pandemic

What was the general type of the first complaint in the chat transcript?

Legend: Total Complaints / Before WHO Declaration / After WHO Declaration

Complaint Type	Total	Before	After
Accounts	112	62	50
Citations	1	1	0
eResources	139	68	71
Facilities	21	14	7
Computing	8	5	3
Miscellaneo	7	4	3
Non-Library	5	1	4
Policies	10	4	6
Research	43	6	37

Complaints by User Type

Legend: Total Complaints / Pandemic-Related Complaints

User Type	Total	Pandemic-Related
Alumni	17	1
Faculty	39	7
Graduate	100	13
Member of Public	6	2
Staff	5	0
Undergraduate	70	5
Other	11	0
Unknown	99	15

Results

Within our overall sample (n = 2220), 15.6% of transcripts included at least one complaint.

There was a statistically significant relationship between the incidence of complaints and the WHO's declaration of a pandemic, x^2 (1, N = 2220) = 24.953, p = < .001. After COVID-19 was deemed a pandemic, there was a higher than expected count of complaints, indicating that complaints increased during the pandemic. Semester was also significantly related to the presence of complaints, x^2 (5, N = 2220) = 33.949, p = < .001. There were a greater number of complaints during the winter 2020, summer 2020, and fall 2020 semesters.

The most common complaints types within the sample related to the topics of eResources (n = 139), accounts (n = 112), and research (n = 43). There was a statistically significant relationship between the WHO's declaration of COVID-19 as a pandemic and question type, x^2 (9, N = 2220) = 55.819 p = < .001. During the pandemic, there were more complaints than expected about accounts, eResources, policies, and research, especially related to the sub-topics of fines or blocked accounts, interlibrary loan or intercampus delivery log-in or use, online library accounts, trouble accessing eResources, borrowing or e-access eligibility, locating known journal titles, requests for document delivery (including curbside pickup), and help searching

Within the overall sample, graduate students (n = 100) had the most complaints, followed by undergraduates (n = 70) and faculty (n = 39). User type was significantly related to complaints, x^2 (7, N = 2220) = 38.081, p = < .001, with alumni, faculty, and graduate students complaining more than expected, and members of the public and undergraduate students less than expected. User type was also significantly related to pandemic-related complaints, x^2 (14, N = 2220) = 46.809, p = < .001, with graduate students and faculty submitting pandemic-specific complaints more than expected.

Discussion

Our preliminary research confirms our initial assumption that the frequency of complaints from users of our consortial chat reference service did increase during the COVID-19 pandemic. Chat users complained more than would have otherwise been expected about both account issues and collection access issues. Faculty, grad students, and alumni had more complaints than would have been expected but undergrads and member of the public had fewer complaints. We hypothesize that faculty and grad students complained more frequently during the pandemic because they had a greater need for specialized in-library resources and alumni had more complaints during the pandemic because the closure of our libraries' physical spaces cut them off from library services almost entirely until in-person service resumed.

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