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Since the advent of the COVID-19 pandemic, North Carolina's public libraries have had to adapt their services and programs. This study compares data provided to the State Library of North Carolina from a purposive stratified sample of North Carolina's public libraries with the researcher's own content analysis of the sample's websites. The comparisons showed that there were useful adaptations to programs and services made by the sample libraries but that these programs and services were not always readily identifiable on the sample libraries' websites.

Headings:

> Community information services
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> Internet access for library users
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> Library cards
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> Library public services
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> Library websites
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> Public libraries
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> Public library digital resources

PUBLIC LIBRARY RESPONSE TO THE COVID-19 PANDEMIC IN THE TAR HEEL STATE: A CONTENT ANALYSIS OF NORTH CAROLINA'S PUBLIC LIBRARY WEBSITES.

by
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Introduction

The COVID-19 pandemic turned the world upside down. No public health crisis has had as great an impact since the influenza outbreak of 1918, more than 100 years ago. Restaurants and stores closed or had to make do with pick-up and delivery services. White collar workers started working from home in droves. Schools closed, and teachers and parents had to adapt to online learning. Within this landscape, public libraries and public librarians had to adapt their services and programs as well. Many of these have migrated online or been adjusted according to the latest community health guidelines, including the addition of curbside or outside pickup of library materials. Programs went virtual. The need for internet services increased, and many public libraries which did not already offer it added free external Wi-Fi capabilities. Accurate health information from trusted sources became ever more important as misinformation spread about the virus, its treatment, and the vaccines created to prevent it.

Despite the challenges, public libraries and public librarians have showed determination and creativity in finding ways to meet patrons' information needs during this unprecedented time.

Literature Review

There has been a great deal of debate about the role of the public library in the 21st century. With the advent of the Internet and handheld mobile devices, information and e-books are available at the touch of a screen. At the same time, budgets are

shrinking, and most publicly funded institutions are being asked to do more with less. Increasingly, public libraries are being pressured to justify their existence; after all, who needs books?

However, public libraries are more than just books. Most Americans may have all the information that they could want, but they may not have the ability to distinguish the accurate from the inaccurate. One important example is health information. Poor health literacy is a growing public health problem in the United States. According to the Centers for Disease Control and Prevention (2019):

> The Patient Protection and Affordable Care Act of 2010, Title V, defines health literacy as the degree to which an individual has the capacity to obtain, communicate, process, and understand basic health information and services to make appropriate health decisions.

Unfortunately, only 12% of U.S. adults have proficient health literacy (Kutner et al., 2006). In underserved communities, where systemic inequities in the quality and availability of health information exist, these numbers are even more dire: 24% of African American adults and 41% of Hispanic adults have below basic health literacy (Kutner et al., 2006). Health literacy is a complex issue which goes beyond reading and writing skills to communication skills and is embedded within cultural and familial networks (Parker & Kreps, 2005). Yet online health information websites, even those geared toward the general public, aren't designed with that in mind. In fact, many sites, especially those affiliated with academic institutions, use scientific language that is not appropriate for the average user (Daraz et al., 2019).

Health information and education must be tailored to meet diverse needs, and public librarians have the capability to pinpoint their communities' health information needs, to find quality information that meets those needs, and to present it in a culturally appropriate way (Parker & Kreps, 2005). And it is encouraging to note that patrons agree; a survey by the Pew Research Center found that "73% of all those ages 16 and over say libraries contribute to people finding the health information they need" (Horrigan, 2015). Even underserved populations like people experiencing homelessness find libraries "useful" in this regard (Mi et al., 2014).

With the advent of the COVID-19 pandemic in March of 2020, patrons' need for quality health resources, in addition to other services and programs, became more acute. At the same time, public libraries were hampered by restrictions related to the pandemic. Most physical locations were closed for months, and those that have reopened often have limited operating hours, time and capacity restrictions, and social distancing guidelines in place. Yet libraries have still found ways to meet patrons' information needs.

One example is the process of applying for library cards. As C. Anderson (2021) notes, the "sign-up process for most public libraries is clunky and slow" because of "policies and procedures that haven't changed with the times" (p. 67). This is especially appropriate considering that most libraries' catalogs are online, and many patrons order books, both physical and electronic, on libraries' websites. For this reason, many public libraries are beginning to use online applications to issue virtual library cards, thus streamlining the process and eliminating at least one barrier to access.

Another barrier to access is providing services to patrons with lower levels of technological literacy. This often disproportionately affects the 34% of Americans ages

50 and older who belong to the pre-internet generations. According to A. M. Kleiman and F. Perkins, quoting a Pew Research study from 2017, "only 4 out of 10 seniors own a smartphone" and "only 1 in 3 of them own tablets" (p. 63). Yet suddenly, older adults and others "with limited computer experience-or no computer experience at all-were now expected to know how to use 'Zoom' or learn how to go online to access almost everything a public library had to offer" (p. 64). Public libraries are still struggling with how to bridge this divide.

Methods

I was interested in investigating how North Carolina's public libraries have adapted to the challenges of COVID-19. Since patrons have for the most part been forced to interact with their public libraries online, I focused on North Carolina's public library websites. The State Library of North Carolina has detailed data tables from the Statistical Report of North Carolina Public Libraries, which include not only circulation numbers for electronic resources, but a report specifically related to COVID-19 adaptations. With that information, I conducted a content analysis of a sample of North Carolina's public library websites, comparing the information listed on them to the data from the State Library of North Carolina's Statistical Reports in order to determine if information about COVID-19 program and service adaptations were readily identifiable to patrons.

According to the State Library of North Carolina (2021), there are 412 public library locations in North Carolina. However, reporting is done by library system and not by individual location, which brings the number down to 83. Most systems are county-based, with a few larger, regional systems and a very few municipal libraries. I chose to

stratify the sampling frame by region: mountains, piedmont, and coast. Within each region, I chose a purposive sample of the largest system, the smallest system, and a municipal library to see if size or type of governance affected the data. To determine the size of a library system, I looked at the number of branches, the total square footage, and the number of employees.

For the mountains, Buncombe County Public Libraries was the largest for 2 out of the 3 categories (total square footage and number of employees), so I chose it as my largest library system. Transylvania County Library has the smallest number of branches (1 and a bookmobile), but it has a much higher square footage and number of employees (34,976 square feet and 17.76 full-time employees) than the two libraries with the smallest square footage (Rutherford County Library at 17,281 square feet with 3 branches and 9.42 full-time employees) and the smallest number of employees (McDowell County Public Library at 22,290 square feet with 2 branches and 9 full-time employees). Because Rutherford County Library and McDowell County Public Library are so similar in all three areas, I tossed a coin to choose between them, with the result being the Rutherford County Library as my smallest library. As the mountains do not have any municipal libraries, there are none from the mountains in this sample category.

For the coast, Cumberland County Public Library & Information Center was the largest library system for 2 out of the 3 categories (total square footage and number of employees), so I chose it as my largest library system. Three different libraries were the smallest library systems for the three categories, but I chose Scotland County Memorial Library as the smallest for two reasons. First, not counting the bookmobile, Scotland County Memorial Library only has one branch, which would tie it with the George H. &

Laura E. Brown Public Library for smallest number of branches. Also, its square footage is smaller than the George H. & Laura E. Brown Public Library by almost a third (8,400 square feet as opposed to 12,000 square feet). In addition, the three smallest libraries are very close in number of employees, with the Edgecombe County Memorial Library at 5.4 full-time employees, the George H. & Laura E. Brown Public Library at 7, and the Scotland County Memorial Library at 6.3. Edgecombe County Memorial Library also has two actual branches (no bookmobiles listed) with more than double the square footage of the other two (23,450 square feet). Therefore, Scotland Memorial Library was the best choice for the smallest library system. There are four municipal libraries on the Coast; one is much bigger and another much smaller than the middle two. I tossed a coin to choose between the middle two, which are very similar in size, with the Farmville Public Library at 7,500 square feet with 4 full-time employees (heads) and the Roanoke Rapids Public Library with 7,550 square feet and 4.94 full-time employees (tails). The result was tails, so I chose Roanoke Rapids Public Library as my municipal library.

For the piedmont, there was one municipal library and one library system that I disqualified based upon lack of data. The Given Memorial Library in Pinehurst, NC, in Moore County, listed neither square footage nor number of full-time employees in its annual report, and the Stanly County Public Library System did not list the number of full-time employees. The Caswell County Public Library was the smallest library system in all three areas, while the Charlotte Mecklenburg Library was the largest library system in 2 out of 3 areas. The municipal libraries for this region are more complicated. Excluding the Given Memorial Library, there are six municipal libraries in the piedmont. One is much smaller than the rest (Gibsonville Public Library at 2,400 square feet and

2.75 full-time employees), and another is much larger than the rest (Chapel Hill Public Library at 63,305 square feet and 34.28 employees). I decided to withdraw them on that basis. Of the remaining four, two are much smaller in square footage than the other two. Because there are no municipal libraries in the mountains, I decided to choose two municipal libraries from the piedmont for my sample, one from each of these groups of two. The Mauney Memorial Library has 13,457 square feet and 8.5 full-time employees, and the Southern Pines Public Library has 14,750 square feet and 10.45 full-time employees. The Perry Memorial Library has 38,000 square feet and 15 full-time employees, and the Mooresville Public Library has 34,000 square feet and 26.25 full-time employees. I chose the Mauney Memorial Library, which has the smallest square footage and the smallest number of full-time employees, and the Mooresville Public Library, which has only a slightly smaller square footage than the Perry Memorial Library but a much higher number of full-time employees.

For each library or library system in my sample, I looked at the annual statistical reports on the State Library of North Carolina's website to find out each library's type (regional, county, or municipal), region (mountains, coast, or piedmont), legal service population, annual budget, number of branches, total square footage, number of full-time employees, and web address. It turns out that there are no regional libraries within my data table. This could be partially due to the large size of certain counties in relation to their region (Buncombe County within the mountains, for example). Another reason is that regional libraries tend to be made up of very small libraries within a larger area. This makes them too large to be the smallest in a region and too small to be the largest in a region. Also, some span more than one region; Northwestern Regional Library, for

example, stretches across both the mountains and the piedmont. My choice to exclude regional libraries, therefore, may affect the data.

I also noted circulation numbers for eBooks, eAudio, eVideo, and ePeriodicals for the fiscal years 2019 (pre-pandemic) and 2020, as well as database use (successful retrieval of electronic information) and electronic content use from those same years. I wanted to see if there was a significant difference in the use of electronic content between a regular year and a pandemic year (when libraries were physically closed to patrons for at least part of the year).

I was interested to see that, for the fiscal year 2020, each library reported data related to the COVID-19 pandemic. Of particular interest to me were the physical closure of public library buildings, virtual library cards, additional electronic resources, the addition of outside or curbside service, the availability of pre-recorded or live-streamed programming, and the availability of external Wi-Fi. I decided to look at the homepages of my sample libraries' websites to see if this information was easily identifiable for patrons and to see if there was any health information related to COVID-19 or links to trusted sources of health information, such as the Centers for Disease Control and Prevention.

Results

The following tables are split into two different categories. Tables 1-9 show the data that I collected from the data tables of the Statistical Report of North Carolina Public Libraries on the State Library of North Carolina's website. Based on this data, I

developed my research questions, and tables 10-18 show the results of the content that I
collected on the sample libraries' websites regarding these questions.

Table 1 shows the name of each library or library system in my sample, the type
of library that it is (regional, county, or municipal), its location (mountains, piedmont, or
coast), and its website's homepage at the time of my research (March-April 2021).

Library or Library System Name	Library Type	Region	Web Address
Buncombe County Public Libraries	County	Mountains	https://www.buncombecounty.org/governing/depts/library
Caswell County Public Library	County	Piedmont	http://www.caswellcountync.gov/pView.aspx?id=9385&catid=600
Charlotte Mecklenburg Library	County	Piedmont	https://www.cmlibrary.org
Cumberland County Public Library & Information Center	County	Coast	http://www.cumberland.lib.nc.us/ccplsite
Mauney Memorial Library	Municipal	Piedmont	https://www.mauneylibrary.org/249/Mauney-Memorial-Library
Mooresville Public Library	Municipal	Piedmont	https://www.mooresvillenc.gov/225/Library
Roanoke Rapids Public Library	Municipal	Coast	http://www.youseemore.com/RoanokeRapids
Rutherford County Library	County	Mountains	http://www.rutherfordcountylibrary.org
Scotland County Memorial Library	County	Coast	http://www.scotlandcounty.org/188/Library

Table 1

Table 2 has basic information about each library or library system including their
legal service populations, annual budgets, number of branches, total square footage, and
number of full-time employees. The Charlotte Mecklenburg Library, a library system in
the piedmont, is by far the largest in all areas. The Roanoke Rapids Public Library, a

municipal library in the coastal region, is the smallest in all areas except number of branches. It is tied four ways for number of branches with the Caswell County Public Library, the Mauney Memorial Library, and the Mooresville Public Library, as each has only one.

Library or Library System Name	Legal Service Population	Annual Budget	Number of Branches	Total Square Footage	Number of Full-Time Employees
Buncombe County Public Libraries	262,483	$ 6,088,751.00	13	118,803	58
Caswell County Public Library	23,309	$ 350,120.00	1	7,584	6.02
Charlotte Mecklenburg Library	1,093,708	$ 50,642,060.00	20	539,827	416.42
Cumberland County Public Library & Information Center	329,079	$ 10,735,658.00	8	190,240	182.82
Mauney Memorial Library	10,833	$ 747,837.00	1	13,457	8.5
Mooresville Public Library	41,255	$ 2,983,737.00	1	34,000	26.25
Roanoke Rapids Public Library	14,738	$ 340,791.00	1	7,550	4.94
Rutherford County Library	68,772	$ 719,633.00	3	17,281	9.42
Scotland County Memorial Library	35,802	$ 502,920.00	2	8,400	6.3

Table 2

Tables 3-8 show circulation numbers for electronic materials (including eBooks, eAudio, eVideo, ePeriodicals, databases, and other electronic content) at each sample library for the years 2019 (pre-pandemic) and 2020.

Library or Library System Name	2019 eBook Circulation	2020 eBook Circulation
Buncombe County Public Libraries	169,397	225,671
Caswell County Public Library	1,721	1,668
Charlotte Mecklenburg Library	1,112,548	1,266,891
Cumberland County Public Library & Information Center	82,192	91,928
Mauney Memorial Library	5,669	2,665
Mooresville Public Library	51,344	53,580
Roanoke Rapids Public Library	1,047	1,619
Rutherford County Library	12,419	33,136

Scotland County Memorial Library	2,751	3,244

Table 3

Library or Library System Name	2019 eAudio Circulation	2020 eAudio Circulation
Buncombe County Public Libraries	148,404	172,511
Caswell County Public Library	779	559
Charlotte Mecklenburg Library	450,491	578,757
Cumberland County Public Library & Information Center	54,873	90,666
Mauney Memorial Library	1,856	1,283
Mooresville Public Library	42,197	38,702
Roanoke Rapids Public Library	239	282
Rutherford County Library	9,689	13,209
Scotland County Memorial Library	674	1,005

Table 4

Library or Library System Name	2019 eVideo Circulation	2020 eVideo Circulation
Buncombe County Public Libraries	1,468	1,462
Caswell County Public Library	12	17
Charlotte Mecklenburg Library	56,286	96,649
Cumberland County Public Library & Information Center	1,359	770
Mauney Memorial Library	68	6
Mooresville Public Library	1,879	1,900
Roanoke Rapids Public Library	33	6
Rutherford County Library	305	212
Scotland County Memorial Library	3	13

Table 5

Library or Library System Name	2019 ePeriodicals Circulation	2020 ePeriodicals Circulation
Buncombe County Public Libraries	8,540	8,065
Caswell County Public Library	91	82
Charlotte Mecklenburg Library	84,334	100,059
Cumberland County Public Library & Information Center	11,763	11,116
Mauney Memorial Library	192	140
Mooresville Public Library	1,557	1,568
Roanoke Rapids Public Library	73	52
Rutherford County Library	715	
Scotland County Memorial Library	92	92

Table 6

Library or Library System Name	2019 Database Use (Successful Retrieval of Electronic Information)	2020 Database Use (Successful Retrieval of Electronic Information)
Buncombe County Public Libraries	101,421	150,775
Caswell County Public Library	379	263
Charlotte Mecklenburg Library	3,217,017	8,952,976
Cumberland County Public Library & Information Center	306,429	244,635
Mauney Memorial Library	17,899	11,607

Mooresville Public Library	54,959	82,797
Roanoke Rapids Public Library	1,480	1,825
Rutherford County Library	9,946	12,661
Scotland County Memorial Library	4,193	2,853

Table 7

Library or Library System Name	2019 Electronic Content Use	2020 Electronic Content Use
Buncombe County Public Libraries	429,230	558,484
Caswell County Public Library	2,982	2,589
Charlotte Mecklenburg Library	4,920,676	10,995,332
Cumberland County Public Library & Information Center	456,616	439,115
Mauney Memorial Library	25,684	15,701
Mooresville Public Library	151,936	178,547
Roanoke Rapids Public Library	2,872	3,784
Rutherford County Library	33,074	59,744
Scotland County Memorial Library	7,713	7,207

Table 8

Table 9 shows each sample library's reporting to the State Library of North Carolina on issues related to the COVID-19 pandemic, including whether their physical locations were closed at all, if library cards were issued virtually, if electronic items were added to their collections because of COVID-19, whether outside or curbside services were offered, whether live-streamed or prerecorded programming was available, and whether external Wi-Fi access was available.

Library or Library System Name	Some or all locations closed to the public for a period of time?	Library cards issued virtually?	Electronic items were added to collection in response to COVID-19?	Outside or curbside services were offered?	Live-streamed or prerecorded programming was available?	External Wi-Fi access was available?
Buncombe County Public Libraries	Yes	Yes	Yes	Yes	Yes	Yes
Caswell County Public Library	Yes	No	No	Yes	Yes	Yes
Charlotte Mecklenburg Library	Yes	Yes	Yes	Yes	Yes	Yes
Cumberland County Public	Yes	Yes	No	No	Yes	Yes

Library & Information Center						
Mauney Memorial Library	Yes	No	No	Yes	Yes	Yes
Mooresville Public Library	Yes	No	Yes	Yes	Yes	Yes
Roanoke Rapids Public Library	Yes	No	Yes	Yes	Yes	Yes
Rutherford County Library	Yes	Yes	No	Yes	Yes	Yes
Scotland County Memorial Library	Yes	No	Yes	Yes	Yes	Yes

Table 9

I developed my research questions based on the evidence gathered from tables 1-9. They are:

1. Has the library reopened to the public in any capacity?

2. Does the library offer any adapted services such as curbside pickup of library materials, and is that information readily identifiable on the library's homepage?

3. Is there any information related to COVID-19, or are there any links to authoritative sources of COVID-19 information (such as the CDC or NCDHHS) on the library's homepage?

4. If virtual library cards are available, is that information clearly identifiable on the library's homepage?

5. Are links to eBooks, eAudio, eVideo, ePeriodicals, and electronic databases or content clearly identifiable on the library's homepage?

6. Are links to prerecorded or live-streamed programming clearly identifiable on the library's homepage?

7. Is information on external Wi-Fi availability clearly identifiable on the library's homepage?

Libraries across the country, including North Carolina, have shown great initiative in adapting their services for patrons during the COVID-19 pandemic. However, I wanted to see if those services were clearly identifiable on each library website's homepage for patrons who may not have a high level of technological literacy. I visited each sample library's website multiple times from mid-March through early April of 2021. Tables 10-18 show the data that I collected from each site.

Research Questions	Data from Buncombe County Public Libraries
Has the library reopened to the public in any capacity?	Yes
Does the library offer any adapted services such as curbside pickup of library materials, and is that information readily identifiable on the library's homepage?	Yes
Is there any information related to COVID-19, or are there any links to authoritative sources of COVID-19 information (such as the CDC or NCDHHS) on the library's homepage?	Yes
If virtual library cards are available, is that information clearly identifiable on the library's homepage?	No
Are links to eBooks, eAudio, eVideo, ePeriodicals, and electronic databases or content clearly identifiable on the library's homepage?	Yes
Are links to prerecorded or live-streamed programming clearly identifiable on the library's homepage?	Yes
Is information on external Wi-Fi availability clearly identifiable on the library's homepage?	No

Table 10

Research Questions	Data from Caswell County Public Library
Has the library reopened to the public in any capacity?	Yes
Does the library offer any adapted services such as curbside pickup of library materials, and is that information readily identifiable on the library's homepage?	Yes
Is there any information related to COVID-19, or are there any links to authoritative sources of COVID-19 information (such as the CDC or NCDHHS) on the library's homepage?	No
If virtual library cards are available, is that information clearly identifiable on the library's homepage?	No
Are links to eBooks, eAudio, eVideo, ePeriodicals, and electronic databases or content clearly identifiable on the library's homepage?	Yes
Are links to prerecorded or live-streamed programming clearly identifiable on the library's homepage?	Yes
Is information on external Wi-Fi availability clearly identifiable on the library's homepage?	No

Table 11

Research Questions	Data from Charlotte Mecklenburg Library
Has the library reopened to the public in any capacity?	Yes
Does the library offer any adapted services such as curbside pickup of library materials, and is that information readily identifiable on the library's homepage?	No
Is there any information related to COVID-19, or are there any links to authoritative sources of COVID-19 information (such as the CDC or NCDHHS) on the library's homepage?	No
If virtual library cards are available, is that information clearly identifiable on the library's homepage?	Yes
Are links to eBooks, eAudio, eVideo, ePeriodicals, and electronic databases or content clearly identifiable on the library's homepage?	Yes
Are links to prerecorded or live-streamed programming clearly identifiable on the library's homepage?	Yes
Is information on external Wi-Fi availability clearly identifiable on the library's homepage?	No

Table 12

Research Questions	Data from Cumberland County Library & Information Center
Has the library reopened to the public in any capacity?	No
Does the library offer any adapted services such as curbside pickup of library materials, and is that information readily identifiable on the library's homepage?	Yes
Is there any information related to COVID-19, or are there any links to authoritative sources of COVID-19 information (such as the CDC or NCDHHS) on the library's homepage?	Yes
If virtual library cards are available, is that information clearly identifiable on the library's homepage?	No
Are links to eBooks, eAudio, eVideo, ePeriodicals, and electronic databases or content clearly identifiable on the library's homepage?	Yes
Are links to prerecorded or live-streamed programming clearly identifiable on the library's homepage?	Yes
Is information on external Wi-Fi availability clearly identifiable on the library's homepage?	Yes

Table 13

Research Questions	Data from Mauney Memorial Library
Has the library reopened to the public in any capacity?	Yes
Does the library offer any adapted services such as curbside pickup of library materials, and is that information readily identifiable on the library's homepage?	No
Is there any information related to COVID-19, or are there any links to authoritative sources of COVID-19 information (such as the CDC or NCDHHS) on the library's homepage?	Yes
If virtual library cards are available, is that information clearly identifiable on the library's homepage?	No
Are links to eBooks, eAudio, eVideo, ePeriodicals, and electronic databases or content clearly identifiable on the library's homepage?	Yes

| Are links to prerecorded or live-streamed programming clearly identifiable on the library's homepage? | Yes |
| Is information on external Wi-Fi availability clearly identifiable on the library's homepage? | No |

Table 14

Research Questions	Data from Mooresville Public Library
Has the library reopened to the public in any capacity?	Yes
Does the library offer any adapted services such as curbside pickup of library materials, and is that information readily identifiable on the library's homepage?	No
Is there any information related to COVID-19, or are there any links to authoritative sources of COVID-19 information (such as the CDC or NCDHHS) on the library's homepage?	Yes
If virtual library cards are available, is that information clearly identifiable on the library's homepage?	Yes
Are links to eBooks, eAudio, eVideo, ePeriodicals, and electronic databases or content clearly identifiable on the library's homepage?	Yes
Are links to prerecorded or live-streamed programming clearly identifiable on the library's homepage?	Yes
Is information on external Wi-Fi availability clearly identifiable on the library's homepage?	No

Table 15

Research Questions	Data from Roanoke Rapids Public Library
Has the library reopened to the public in any capacity?	Yes
Does the library offer any adapted services such as curbside pickup of library materials, and is that information readily identifiable on the library's homepage?	No
Is there any information related to COVID-19, or are there any links to authoritative sources of COVID-19 information (such as the CDC or NCDHHS) on the library's homepage?	Yes
If virtual library cards are available, is that information clearly identifiable on the library's homepage?	No
Are links to eBooks, eAudio, eVideo, ePeriodicals, and electronic databases or content clearly identifiable on the library's homepage?	Yes
Are links to prerecorded or live-streamed programming clearly identifiable on the library's homepage?	Yes
Is information on external Wi-Fi availability clearly identifiable on the library's homepage?	No

Table 16

Research Questions	Data from Rutherford County Library
Has the library reopened to the public in any capacity?	Yes
Does the library offer any adapted services such as curbside pickup of library materials, and is that information readily identifiable on the library's homepage?	Yes

Is there any information related to COVID-19, or are there any links to authoritative sources of COVID-19 information (such as the CDC or NCDHHS) on the library's homepage?	Yes
If virtual library cards are available, is that information clearly identifiable on the library's homepage?	No
Are links to eBooks, eAudio, eVideo, ePeriodicals, and electronic databases or content clearly identifiable on the library's homepage?	Yes
Are links to prerecorded or live-streamed programming clearly identifiable on the library's homepage?	Yes
Is information on external Wi-Fi availability clearly identifiable on the library's homepage?	No

Table 17

Research Questions	Data from Scotland County Memorial Library
Has the library reopened to the public in any capacity?	Yes
Does the library offer any adapted services such as curbside pickup of library materials, and is that information readily identifiable on the library's homepage?	No
Is there any information related to COVID-19, or are there any links to authoritative sources of COVID-19 information (such as the CDC or NCDHHS) on the library's homepage?	Yes
If virtual library cards are available, is that information clearly identifiable on the library's homepage?	No
Are links to eBooks, eAudio, eVideo, ePeriodicals, and electronic databases or content clearly identifiable on the library's homepage?	Yes
Are links to prerecorded or live-streamed programming clearly identifiable on the library's homepage?	Yes
Is information on external Wi-Fi availability clearly identifiable on the library's homepage?	No

Table 18

The data shows that each of the libraries sampled was physically closed to the public at some point during the COVID-19 pandemic. Out of the nine libraries, only one remains physically closed: the Cumberland County Library & Information Center. I found this surprising, as it is the second largest library system in the sample for legal service population, annual budget, total square footage, and number of full-time employees. On the library's homepage, there is no indication why this might be or when it might reopen; there is just the following text in red at the top of the page: "All Cumberland County Libraries remain closed to the public." (Cumberland County Library & Information Center, 2021).

Six of the nine sample libraries have hours of operation and physical addresses listed directly on their websites' homepages; however, four out of the six have only one physical location (not including bookmobiles). Another library, the Mauney Memorial Library, has its physical address listed on its homepage, but to find the library's hours of operation, patrons need to click on a link titled "Locations & Hours" in a vertical menu on the right-hand side of the homepage (Mauney Memorial Library, 2021). The Charlotte Mecklenburg Library has 20 branches, so it is unsurprising to find that the location names but not the physical addresses of each are listed on the website's homepage. A large gray block in the center of the homepage with the word "branches" on it links to a page with a list of branches, their physical addresses, their location on a map, and the ability to sort by amenity, including computer access, public transit access, career center, and park/school nearby (Charlotte Mecklenburg Library, 2021). However, there is no information on hours of operation except for a list of "Branch Holidays" beneath the map (Charlotte Mecklenburg Library, 2021). Even the library website's homepage has no readily identifiable link to hours of operation. However, at the top of the homepage in a blue text box, there is a link titled: "All Libraries return to Level 2 services March 1, 2021. Click here for more information" (Charlotte Mecklenburg Library, 2021). Clicking on the link takes patrons to a library blog post in which updated library hours are listed near the top. The blog post also has information about which services (ability to browse inside the library, use of express computers, etc.) are available at which locations, with links for more information. A phone number for the library's telephone reference desk and information about online chat are also listed, giving patrons multiple options for learning more.

The data from the State Library of North Carolina's website shows that 8 out of 9 sample libraries reported offering adapted services such as curbside pickup of library materials. Of those eight, only three had that information readily identifiable on their websites' homepages. In addition, the sample library that reported that it did not have these services available, the Cumberland County Library & Information Center, did have them, and that information was easily identifiable on the library's homepage.

Only 4 out of 9 sample libraries reported offering library cards virtually to patrons. Of the four, only one, the Charlotte Mecklenburg Library, had that information readily identifiable to patrons on its website's homepage. In addition, one sample library that reported that it did not offer library cards virtually, the Mooresville Public Library, did have a virtual library card option for patrons for electronic books and resources only.

Every sample library reported offering eBooks, eAudio, eVideo, ePeriodicals, electronic databases or electronic content to patrons, and this information was readily identifiable on the sample libraries' homepages. Similarly, every sample library reported offering prerecorded or live-streamed programming to patrons, which was also readily identifiable on the sample libraries' homepages.

Every sample library reported offering free external Wi-Fi services to patrons, but only one, the Cumberland County Library & Information Center, had this information readily identifiable on its homepage.

Finally, 7 out of 9 sample libraries had authoritative sources of health information about COVID-19 readily identifiable on their websites' homepages.

Discussion

According to the 2019-2020 data tables of the Statistical Report of North Carolina Public Libraries on the State Library of North Carolina's website, every library in the sample offered adapted services during the COVID-19 pandemic, such as curbside or outside pickup of library materials, except for the Cumberland County Public Library & Information Center. However, that library's homepage tells a different story. In large blue letters near the top, there is a sentence stating: "For information on curbside and remote reference services please call (910) 483-7727 or chat (via the "Ask Us" button below) Monday - Friday, 9 a.m. - 4:45 p.m." (Cumberland County Library & Information Center, 2021). It is possible that these services were added after the library submitted its annual report to the State Library of North Carolina, or they may have been misreported. It is unclear from the library's homepage which is true. However, the fact that these services are now available is beneficial to patrons, especially since this is the only library in my sample that remains physically closed to the public.

On the other hand, five out of eight libraries in my sample that reported having outside or curbside services available do not have this information readily identifiable on their websites' homepages, including all three municipal libraries. Four out of the five have only branch (not including bookmobiles), which may affect how these services are advertised. I could not find any reference at all to outside or curbside pickup on the websites of the Mauney Memorial Library, the Roanoke Rapids Public Library, or the Scotland County Memorial Library. The Charlotte Mecklenburg Library's homepage did not have information on curbside or outside services, but this information, like the hours of operation, is available if you click the link in the blue text box near the top of the homepage titled: "All Libraries return to Level 2 services March 1, 2021. Click here for

more information" (Charlotte Mecklenburg Library, 2021). However, it is unclear where

"holds pickup" takes place, despite information about specific drop boxes for returns

(Charlotte Mecklenburg Library, 2021). Finally, on the Mooresville Public Library's

homepage, if you click on "Services" in the vertical menu on the left-hand side of the

page, you are taken to a page with information about the pickup of library materials in

lockers at a local YMCA, including instructions on requesting items (both online and by

phone), picking up items, and returning items (Mooresville Public Library, 2021).

Virtual library cards, according to the 2019-2020 data tables of the Statistical

Report of North Carolina Public Libraries on the State Library of North Carolina's

website, are only offered by four libraries within my sample. These include the three

largest libraries: Buncombe County Public Libraries in the mountains, Charlotte

Mecklenburg Library in the piedmont, and Cumberland County Library & Information

Center in the coastal region. The fourth library is also located in the mountains: the

Rutherford County Library. Despite this, information about virtual library cards is only

readily identifiable on the homepage of the Charlotte Mecklenburg Library. On the

Cumberland County Library & Information Center homepage, information on library

cards is only visible if you hover the cursor over "USING THE LIBRARY" on the

horizontal menu at the top (Cumberland County Library & Information Center, 2021).

This pops up a vertical menu, and the second option from the top is "GETTING A

LIBRARY CARD" (Cumberland County Library & Information Center, 2021).

Similarly, on the Buncombe County Public Libraries homepage, information on library

cards is only visible if you hover the cursor over "Library Services" on the horizontal

menu at the top (Buncombe County Public Libraries, 2021). This also pops up a vertical

menu, and the second option from the top is "Get a Library Card" (Buncombe County Public Libraries, 2021). However, I could find no information on library cards, virtual or otherwise, on the Rutherford County Library's website.

Contrary to its reporting, the Mooresville Public Library has a readily identifiable virtual option for obtaining a library card. There is a vertical menu on the left-hand side of the library's homepage with an option for "Library Cards." Clicking on this takes you to a page with information on library cards, including "Online Access Only Library Cards" that "allow access to digital books, audios, and other online resources" (Mooresville Public Library, 2021). There is also a link to fill out an online application. It is possible that this card option was not reported because it is not the main library card, which is called the "All Access Library Card" and is listed first on the page and because it does not provide access to everything within the library. However, it is still a good option for patrons who do not yet feel comfortable visiting the library's physical location and have a basic level of technological literacy.

Each library in the sample offers access to electronic resources, including eBooks, eAudio, eVideo, ePeriodicals, electronic databases, and other electronic content. In addition, those resources are readily identifiable on each library's homepage. Circulation data for these is also available in the data tables of the Statistical Report of North Carolina Public Libraries on the State Library of North Carolina's website, which enhances our understanding of the role that electronic resources have played during the pandemic. Comparing circulation data from 2019 (the year before the pandemic) to circulation data from 2020 for each of the nine libraries produced some surprises, however. For example, two of the libraries in my sample (the Caswell County Public

Library and the Mauney Memorial Library) had a lower eBook circulation in 2020 than in 2019. For the Mauney Memorial Library, the 2020 eBook circulation was less than half of what it was in 2019. Both libraries also had lower eAudio circulation in 2020 than in 2019, as did the Mooresville Public Library. The circulation numbers for eVideo fluctuated wildly. For the Charlotte Mecklenburg Library and the Scotland County Memorial Library, there was a steep increase in eVideo circulation from 2019 to 2020; for the Cumberland County Library & Information Center, the Mauney Memorial Library, the Roanoke Rapids Public Library, and the Rutherford County Library, there was a steep decrease in eVideo circulation. A similar dynamic can be seen in the successful retrieval of electronic information from databases. Some libraries (Buncombe County Public Libraries, Charlotte Mecklenburg Library, the Mooresville Public Library, and the Rutherford County Library) showed sharp increases from 2019 to 2020, with a slight increase for the Roanoke Rapids Public Library. Meanwhile sharp decreases from 2019 to 2020 were seen in the Caswell County Public Library, the Cumberland County Public Library & Information Center, the Mauney Memorial Library, and the Scotland County Memorial Library. For other electronic content, circulation numbers went up from 2019 to 2020 at the Buncombe County Public Libraries, the Charlotte Mecklenburg Library, the Mooresville Public Library, the Roanoke Rapids Public Library, and the Rutherford County Library but went down at the Caswell County Public Library, the Cumberland County Library & Information Center, the Mauney Memorial Library, and the Scotland County Memorial Library.

It is interesting to note that two of the three largest libraries showed, for the most part, large increases in the usage of electronic resources, except for a small decrease in

the circulation of eVideos and ePeriodicals at the Buncombe County Public Libraries.

But the Cumberland County Public Library & Information Center, the other large library

system, showed an increase only in the circulation of eBooks and eAudio. The circulation

data does not show where the electronic content was accessed, and it could be that the

Cumberland County Public Library & Information Center's continued closure, along with

any available computers for public use, has affected patrons' use of electronic resources.

Similarly, for the smaller libraries which saw the greatest decreases in the usage of

electronic resources, it would be helpful to know if those numbers were lowest during the

time of the libraries' physical closure and if they started to increase again as libraries

opened, and computers were available for public use. This information could help

librarians determine how the digital divide affects their communities and provide data in

support of expanding these services.

It would also be useful to know which types of electronic content saw the greatest

increases in usage. Were patrons accessing information on learning from home? Were

they accessing job and career resources? Were different types of resources used more

often at different points during the pandemic? That type of information could help

librarians better understand the needs of their communities during and after the COVID-

19 pandemic and adjust collections and services accordingly.

In a similar vein, it would be helpful to have usage data for live-streamed and

prerecorded programming. Every library in my sample reported having either live-

streamed, prerecorded, or both types of programming available for patrons, and links to

these were readily identifiable on the homepages of every library. However, those links

did not always provide helpful information. The Scotland County Memorial Library had

a link to a "Calendar of Activities," but the calendar itself was empty (Scotland County Memorial Library, 2021). I scrolled through the calendar backward month by month from April 2021 until April 2020. There was nothing listed, and there were no links to follow. The Scotland County Memorial Library also had links for "Area Book Clubs," but it is unclear whether these are affiliated with or separate from the library itself. In addition, the links only provided a list of books being read by each book club, and out of the seven listed, only two had books listed for 2019-2020. None had books listed for 2021.

Though the types of programming varied, there were two that showed up frequently. Every library except for the Roanoke Rapids Public Library offered some type of book club or book group, and every library except for the Scotland Memorial Public Library offered some type of children's story time. It may be that Roanoke Rapids Public Library does have book clubs or book groups, and Scotland County Memorial Library may offer children's story time. However, these were not readily identifiable on their websites.

Just as important as the types of programming offered were the platforms used for accessing them. Some of these platforms have barriers to access for different reasons. For example, Roanoke Rapids Public Library and Caswell County Public Library offer their programming on Facebook. However, Facebook will only allow access to its content to those with a Facebook account. Though it is free to join, not everyone feels comfortable with social media. Limiting programming information and access to Facebook might be a barrier for patrons who choose not to have social media accounts. On the other hand, platforms like Zoom, which charge organizations for membership and only allow limited access for free accounts, might be cost prohibitive for smaller libraries. The only small

library that offered programming via Zoom was one of the municipal libraries, the Mauney Memorial Library, which has the smallest legal service population of all nine sample libraries but the fifth largest annual budget.

Some libraries do not even provide information about which platforms are used for virtual programming. The Mooresville Public Library, for example, does not list any programming platforms, even on their "Event Details" pages (Mooresville Public Library, 2021). The events listed as virtual had no links for accessing them. Patrons must call or email the library to obtain that information because I could not find it on the website. One of the events listed had a sentence that read: "Register to receive the online meeting code" but no information about where to enter it. A lack of clear instructions could provide a barrier to access for some patrons.

One library, the Cumberland County Public Library & Information Center, uses a platform called Bookclubz. According to the "About Us" page on their website, Bookclubz is an online management tool for book clubs with both a website and an app that is free for users (Bookclubz, 2021). Their funding comes from an affiliate partnership with several book retailers from whom members can purchase books from the Bookclubz website. It would be helpful to know more about the site's privacy policies and how that might affect public libraries' commitment to protect patrons' data.

One way that public libraries are addressing the digital divide is by offering free external Wi-Fi service to patrons, and North Carolina's public libraries are no exception. All nine libraries in my sample reported offering free external Wi-Fi access to patrons, but information on accessing it was not always readily identifiable on their homepages. In fact, the only library in my sample with the word "Wi-Fi" on its homepage was the

Cumberland County Library & Information Center: "Wi-Fi is available on library property and book drops are open" (Cumberland County Library & Information Center, 2021). As helpful as this is, it does not provide patrons with any information about how to access the Wi-Fi network. At the very least, to connect with a Wi-Fi network, patrons need to know the name of the network. They often need a password as well. Without these, it is unlikely that patrons will be able to access the Wi-Fi network without help, especially if they have a lower level of technological literacy.

This becomes even more challenging when information about external Wi-Fi access is not readily identifiable on the library's homepage. On the Buncombe County Public Libraries' homepage, patrons must hover over "Library Services" on the horizontal menu bar at the top of the page, which pops up a vertical menu. Choosing "Policies" takes patrons to a page with a section titled "Internet Access" (Buncombe County Public Libraries, 2021). However, there is no information about network name or password in that section.

Similarly, to get Wi-Fi information on the Caswell County Public Library's website, patrons must click on "Library Policies and Procedures" in the vertical menu on the left-hand side of the homepage (Caswell County Public Library, 2021). They must then click on a link titled "Internet Use Policy" which takes them to a page where there is one sentence addressing Wi-Fi: "WiFi available –ask at front desk for password" (Caswell County Public Library, 2021). With the physical location of the library first closed and now open but with time and capacity limits, this adds an additional barrier to access.

On the Charlotte Mecklenburg Library's website, patrons wanting to access free Wi-Fi must click on the box labeled "Services" on the library's homepage, then scroll all the way to the bottom of the "Services" page to click on the box labeled "Computers, Technology, and Internet Services" (Charlotte Mecklenburg Library, 2021). This takes patrons to a page titled "Hotspots, Computers & Other Technology" (Charlotte Mecklenburg Library, 2021). A section titled "Internet Access" is second from the bottom, but patrons will then need to click on another link for "Wireless Access Network Policy" (Charlotte Mecklenburg Library, 2021). Though there are detailed instructions on that page, they seem to assume a certain level of technological literacy. For example, under "How do I connect?" there is the following sentence: "In most cases, you should be able to connect with the wireless network by simply scanning for the network and opening up a browser to start surfing" (Charlotte Mecklenburg Library, 2021). There is nothing to indicate the name of the network or how to identify it despite a "proliferation of Wi-Fi networks" that allow patrons to "access other Wi-Fi networks within the branch that are not provided by the Library" (Charlotte Mecklenburg Library, 2021).

One thing that the Charlotte Mecklenburg Library offers, though, is rentable Wi-Fi hotspots. This allows patrons access to high-speed internet service in other locations, with the ability to connect multiple devices at one time. Unfortunately, there is a rental fee ($20 for 7 days, $35 for 14 days, and $50 for 21 days), and there are steep late fees of $3 per day and a replacement fee totaling $100 after 7 days. Since the digital divide is receiving more publicity within the technological community, it might be beneficial to research whether there are grants available which might help cover the fees that otherwise would come from patrons or the library's own budget.

To access information on external Wi-Fi on the Mauney Memorial Library's website, patrons must hover over the "Our Services" option on the horizontal menu at the top of the homepage, which pops up a vertical menu with "Technology" as the top option (Mauney Memorial Library, 2021). Clicking on "Technology" takes patrons to a page with a very brief but useful sentence: "WiFi is provided free of charge (MMLPublic, no password required)," the first library in the sample that gives both network and password information (Mauney Memorial Library, 2021).

The Mooresville Public Library provides information on external WiFi access on their "Services" page, which is accessed by a clicking on the appropriate link in the vertical menu on the left-hand side of the homepage (Mooresville Public Library, 2021). However, it gives no information other than a brief sentence: "Free WiFi is available for anyone with their own device" (Mooresville Public Library, 2021).

The Roanoke Rapids Public Library reported having external Wi-Fi available for patrons, but the only information that I could find on their website was for "WiFi Printing," an option that pops up in a vertical menu that appears when patrons hover over "SERVICES" in the vertical menu on the left-hand side of the page (Roanoke Rapids Public Library, 2021). One interesting thing about this library's homepage, however, is that it advertises the North Carolina Broadband Survey, "a statewide survey offered through the N. C. Department of Information Technology's Broadband Infrastructure Office and the Friday Institute for Education Innovation at North Carolina State University" (Roanoke Rapids Public Library, 2021). This survey is "designed to gather information on locations in the state without adequate internet access and speeds" and encourages patrons to participate in it (Roanoke Rapids Public Library, 2021). This is an

excellent step toward determining the community's internet needs and finding ways to bridge the digital gap.

Only one library other than the Mauney Memorial Library provided information about a network name: the Rutherford County Library. External Wi-Fi information is accessed by clicking on the "Technology Services" link in the vertical menu on the right-hand side of the homepage.

Also, the Scotland County Memorial Library, despite reporting that external Wi-Fi is available for patrons, has no mention of it on their website that I could see.

Though it was not a part of the 2019-2020 data tables of the Statistical Report of North Carolina Public Libraries on the State Library of North Carolina's website, I felt that it was important to see if there were any links to authoritative sources of COVID-19 information on each library's homepage. The importance of accurate health information is essential during a global pandemic. With the proliferation of misinformation regarding the virus, its treatment, and the vaccines designed to prevent it, the importance of having links to authoritative sources of health information on public library websites cannot be overstated. All but two of my sample libraries had links to reliable sources of COVID-19 information.

The Buncombe County Public Libraries homepage had some the most up-to-date information on COVID-19 that I found. At the very top of the homepage is a banner with: "COVID-19 Updates, Testing and Vaccines" and "Stay up to date with most current information" (Buncombe County Public Libraries, 2021). Clicking anywhere on the banner takes patrons to the Buncombe County Public Health department's COVID-19 homepage. This page has everything from vaccine statistics (number of first doses

received and total first and second doses administered) to links to community resources for patrons affected by the pandemic to an embedded video of COVID-19 FAQs done by the county's the Interim Public Health Director. Phone numbers for more information are listed on the page, and there are options for multiple languages. There is also a link to the Centers for Disease Control and Prevention (CDC). And that is just the homepage! It is thorough, authoritative, and readily identifiable from the library's own homepage, as it is located at the very top.

Like the Buncombe County Public Libraries, the Cumberland County Library & Information Center's library homepage has a readily identifiable link to its county public health department's COVID-19 homepage, which appears to be as complete and authoritative as Buncombe's. One thing that the Cumberland County Library & Information Center has that I thought was an excellent resource is a "What is COVID-19?" page specifically for children. It has links to other websites (such as National Geographic Kids – Facts about coronavirus), a list of library books about COVID-19 geared toward children, and embedded videos with COVID-19 information, also geared toward children. The only downside is that the page is difficult to find on the library's website. Patrons must click on a box on the right-hand side of the homepage with the words "Learning While School is Out," which takes them to a LibGuide titled "The World of Online Learning" (Cumberland County Public Library & Information Center, 2021). There is a vertical list of tabs at the top of the page, and "What is COVID-19?" is the second tab. Clicking on the tab brings up the page. Since these are such useful resources, it would be great if there were a readily identifiable link to the "What is COVID-19?" page on the library's homepage.

The Mauney Memorial Library has a banner at the top of its homepage with a large red dot and the words: "IMPORTANT NOTICE" and "Coronavirus Information & City Operations" (Mauney Memorial Library, 2021). Clicking on it takes patrons to the city of King's Mountain's Coronavirus Information page. Though it is not nearly as detailed as the county health departments' pages, it does provide links to the North Carolina Department of Health and Human Services (NCDHHS) and the CDC, both authoritative sources of health information.

The Mooresville Public Library is very similar to the Mauney Memorial Library in that it has a banner at the top of its homepage with a red dot and a link to its town's COVID-19 information page. However, the town of Mooresville has a more robust COVID-19 information page, with links to funding and resources for small businesses and nonprofits and FAQs about face coverings and financial leniency, as well as links to the CDC and the Iredell County Health Department.

The Roanoke Rapids Public Library has links to authoritative sources of COVID-19 information directly on its homepage, including links to the CDC, the NCDHHS, the Halifax County government, and the city of Roanoke Rapids. It also has a link to the New York City School Library System: COVID-19 Children's eBook Collection, which is an excellent resource for children that can be found on the Cumberland County Library & Information Center's "What is COVID-19?" page as well.

The Rutherford County Library has a link to a "COVID-19 Resources" page at the top of the vertical menu on the right-hand side of its homepage (Rutherford County Library, 2021). These include health resources (such as links to the CDC, the NCDHHS, and a COVID-19 FAQ), business resources, Rutherford County resources, and

educational resources. It is useful to have links to so many sources, sorted by category, on the library's website.

The Scotland County Memorial Library's homepage has a link to "COVID-19 Resources" at the bottom of its homepage (Scotland County Memorial Library, 2021). This takes patrons to the Scotland County Health Department's COVID-19 page, which has links to information on symptoms, treatment, testing, and vaccines. Surprisingly, it had no links to the CDC or the NCDHHS, but the health department itself is still an authoritative source.

Only the Caswell County Public Library and the Charlotte Mecklenburg Library did not have links to COVID-19 information on their homepages. This was especially surprising for the Charlotte Mecklenburg Library, as it is the largest library system in my sample, with a legal service population of 1,093,708. Even a simple link to the CDC, the NCDHHS, or the Mecklenburg County Public Health department could make a big difference.

Limitations

This study is confined to a purposive sample within a stratified sampling frame: nine libraries out of 83 public library systems, including 412 public library locations, in 100 counties. My goal was to get an overall snapshot of how North Carolina's public libraries are responding to patrons' needs during the COVID-19 pandemic, with small and large libraries, municipal and county libraries, and each of the state's three major regions represented. This sample is therefore not representative of every public library within North Carolina.

Also, I confined my content analysis to each library's website. I did not branch out onto their social media pages. Since some of the smaller libraries appear to rely on their Facebook accounts to advertise their programs and services, it would be interesting to see researchers look at these in the future.

I viewed the websites' content through the lens of current patrons, but it would be interesting for researchers to see if and how public libraries are reaching out to underserved populations during the pandemic, especially as the public health and economic effects of the COVID-19 pandemic appear to be greater in these communities.

Also, though I touched briefly on the digital divide as it applies to external Wi-Fi access, much more research is needed to understand it, both in rural and urban communities, and among groups of different socioeconomic levels, races, ethnicities, neurodiversity, ability, and ages.

Conclusion

The COVID-19 pandemic is the worst global public health catastrophe in over a century, and it has changed how we go about our lives in numerous ways. It has required people, families, communities, businesses, and governments to adapt to this new reality as it continues to change. Public libraries have shown great initiative in adapting their programs and services to the changing public health requirements to continue to meet patrons' information needs. With the closure of physical library spaces, limited operating hours, time and capacity restrictions, and social distancing guidelines, most patron and library interactions have migrated online. However, the adapted services and programs that libraries offer are not always readily identifiable on their websites, especially for patrons who may not have a high level of technological literacy. Despite this, it is

gratifying to see the creativity that public libraries and librarians have shown and

continue to show in adapting their services and programs in new ways to meet the

information needs of their patrons during the COVID-19 pandemic and beyon

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