

Carolina Digital Repository Update 2021

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Contents

Introduction	1
Key Initiatives: 1Science content	1
Key Initiatives: CDR Diversity, Equity and Inclusion Assessment	2
Key Initiatives: CV Review projects.....	2
Growth	3
Usage	3
Pageviews	3
Downloads	5
Collection Highlights	7
Faculty Work.....	8
Discussion and Future Steps.....	8

Introduction

This report summarizes activity in the Carolina Digital Repository (CDR) from January 1, 2021 through November 30, 2021. It describes key initiatives, growth and usage of the repository as well as a description of future initiatives. We would like to thank Joy M. Perrin at Texas Tech University for the inspiration and format of this report.

Key Initiatives: 1Science content

In May 2018, UNC-Chapel Hill (UNC-CH) Libraries purchased a report from 1Science, which listed 47,281 articles which were available openly and might be eligible to deposit in the CDR. Due to the size of the dataset and potential rights issues, we did not want to load all 47,281 articles into the CDR at once and elected to separate them into batches:

- Batch 1: Articles published between 2016-2018 and covered by [UNC-Chapel Hill's Open Access Policy](#)

- Batch 2: Articles published between 1980-2015 and openly available in PubMed
- Batch 3: Articles published between 1980-2015 which were not available in PubMed and have either an open license or the publisher granted permission to deposit
- Batch 4: Remaining articles which needed to be individually vetted

During the preparation phase for Batch 1, we noticed issues with the vendor-provided metadata. The project is described in the [2020 CDR Update](#) and in a [TRLN 2020 presentation](#). In 2021, we loaded 5,000 additional articles from Batch 3. Also, open access graduate assistant Karmen White vetted permissions for the Batch 4 articles, which enabled us to deposit 897 additional articles. The 1Science project is now complete and we were able to deposit a total of 34,741 open articles to the CDR over two years as a result of this project.

Key Initiatives: CDR Diversity, Equity and Inclusion Assessment

In support of the [UNC-Chapel Hill University Libraries' Reckoning Initiative](#), we conducted a baseline diversity, equity and inclusion assessment of the Content Liberation projects. The goal of this assessment was to determine whether the [Content Liberation projects](#) reflect the racial, gender and subject expertise of the UNC-Chapel Hill faculty. The [full report](#) is publicly available in the CDR. The assessment determined that the Content Liberation projects are aligned with the racial, gender and subject expertise of the University faculty, but may not align with the goals of the Reckoning Initiative. In 2022, we will undertake a more thorough assessment and design projects to support the Reckoning Initiative via the CDR.

Key Initiatives: CV Review projects

We continued to provide remote work for Library staff and students in response to the COVID-19 pandemic. This project is described in the [2020 CDR Update](#) and [2021 Content Liberation Update](#). As routine library operations resumed in 2021, the project ceased operation on July 19. In 2021, the team reviewed 225 CVs consisting of 6,583 articles. 2,387 of these articles are eligible for deposit in the CDR. We also continued to deposit articles for researchers engaged in COVID-19 related research. Additionally, we are now monitoring PubMed for new COVID-19 articles which were authored by these researchers and depositing eligible articles to the CDR as needed.

Two new CV review projects grew out of the CDR Diversity, Equity and Inclusion Assessment project. First, we increased the amount of scholarship available in the CDR which was performed by researchers who identify as women. We reviewed the list of Clarivate highly cited researchers from previous years and deposited their remaining eligible scholarship in the CDR. Twelve highly cited authors from the list used she/her pronouns and were included in this project. Their scholarship consisted of 1,208 articles which had not been deposited to CDR in previous years. Out of these articles, 533 were eligible for deposit in the CDR.

The second CV review project aims to increase the number of humanities and social sciences articles in the CDR. We have partnered with the Libraries' Research and Instructional Services departments to review CVs and contact faculty in their liaison areas. Since many humanities and social sciences faculty at UNC-CH identify as Black, indigenous or a person of color, the project should also increase the

amount of scholarship performed by under-represented groups in the CDR. The project was kicked off in 2021 and will continue into 2022.

Other features and initiatives completed this year include:

- Automated testing of CDR features
- Bug fixes
- Platform upgrades
- Bulkxax upgrades
- Metadata updates

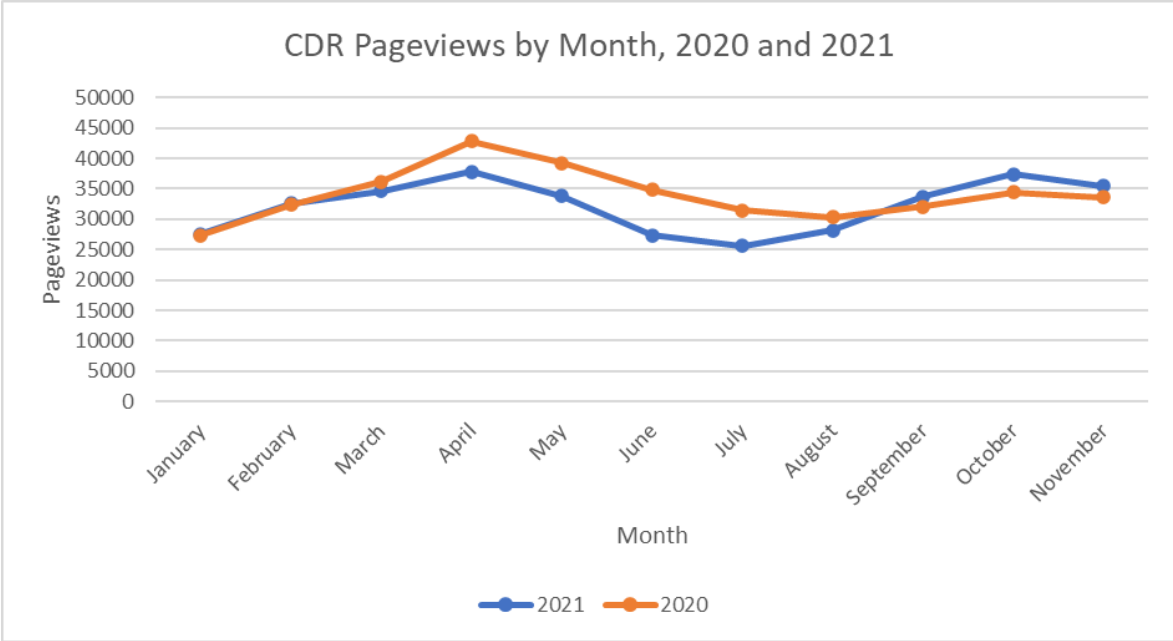
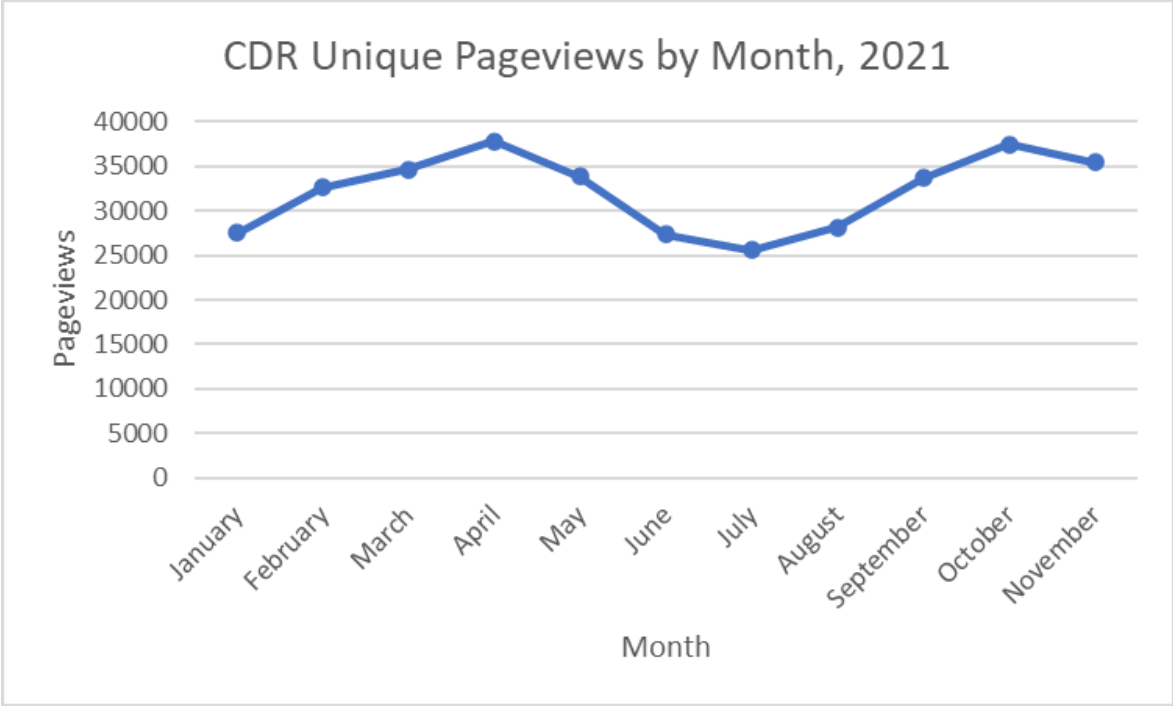
Growth

This year, we added 9,892 works to the CDR. Most of these works were articles which were added via the 1Science report, which is explored in-depth above. Other works were added as a result of the CV review projects.

Usage

Pageviews

The CDR recorded 354,082 unique pageviews between January 1, 2021 and November 30, 2021. Our busiest day was Thursday, October 28, 2021 during which we received 2,288 pageviews.



On average, the CDR received around the same number of pageviews in 2021 as it did in 2020. 2020 pageviews were slightly higher between April and August. This is somewhat surprising, since we added a substantial amount of content at the end of 2020 and continued to add more content throughout 2021. Therefore, we expected to see higher pageview counts in 2021. We did see a marked increase in download counts, so it is likely that users are accessing CDR content via other methods such as Unpaywall and Google Scholar. These other methods bring users directly to the PDF, bypassing the work show page, and are not included in pageview counts.

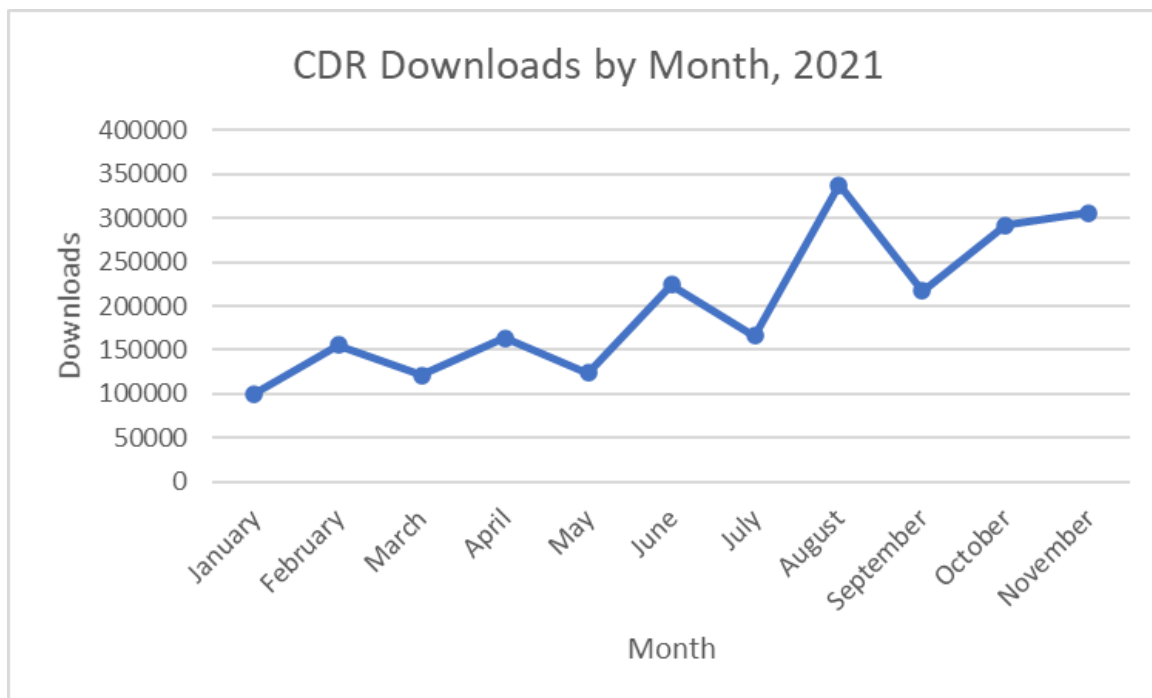
Most Viewed Works, 2021

Work Title	Resource Type	Number of Unique Pageviews
Social Media Use and Its Impact on Body Image: The Effects of Body Comparison Tendency, Motivation for Social Media Use, and Social Media Platform on Body Esteem in Young Women	Masters Thesis (Journalism)	1,851
Filled-in vs. Outline Icons: The Impact of Icon Style on Usability	Masters Paper (SILS)	1,343
Effects of heterogeneous and homogeneous grouping on student learning	Masters Thesis (Education)	963
On-Campus Parking: Problems and Solutions	Masters Paper (City and Regional Planning)	795
Characterization of Human Antibody Responses to Dengue Virus Infections in a Sri Lankan Pediatric Cohort	Dissertation (Microbiology and Immunology)	793
A Systematic Review of Diagnostic Test Accuracy for Identifying Developmental Language Disorder in Bilingual Children	Poster (Speech and Hearing Sciences)	732
Talking Animals: A Literature Review of Anthropomorphism in Children's Books	Masters Papers (SILS)	707
Heterologous Gene Expression from Transmissible Gastroenteritis Virus Replicon Particles	Article (Microbiology and Immunology)	604
Constructive Journalism: The Effects of Positive Emotions and Solution Information in News Stories	Dissertation (Journalism)	591
Online Questionnaire Software Advantages/Disadvantages	Masters Paper (SILS)	571

Student papers (dissertations, masters theses and masters papers) continue to be the most popular category of works in the CDR. The lone article on this list (“Heterologous Gene Expression from Transmissible Gastroenteritis Virus Replicon Particles”) was loaded as part of the second batch of 1Science articles and was linked in a [New York Magazine article](#) in early January 2020.

Downloads

The CDR received 2,208,949 downloads during the same time period. This represents an increase of 1,118,052 downloads from 2020.



We added a substantial amount of content to the CDR at the end of 2020, which would likely have been indexed in external sources like Unpaywall and Google Scholar around the same time. In general, the CDR tends to get few downloads of many works, so an increase in the number of works would also increase the download count.

Most Downloaded Works, 2021

Work Title	Resource Type	Number of Downloads
The Kongo Rule: The Palo Monte Mayombe Wisdom Society	Dissertation (English and Comparative Literature)	13,140
Social Media Use and Its Impact on Body Image: The Effects of Body Comparison Tendency, Motivation for Social Media Use, and Social Media Platform on Body Esteem in Young Women	Masters Thesis (Journalism)	12,502
Gender, Bodies, Sex, Technology: Dismantling Heterosexual Male Subjectivity and Desire in Transnational Film	Dissertation (Romance Studies)	7,164
Research Note: More on improving service quality measurement	Article (Business)	5,509
A Detailed Journey into the Punk Subculture: Punk Outreach in Public Libraries	Masters Paper (SILS)	4,368

The nature and determinants of customer expectations of service	Article (Business)	4,232
Customer contributions and roles in service delivery	Article (Business)	3,551
The endless pursuit of truth: subalternity and marginalization in post-neorealist Italian film	Dissertation (Romance Studies)	3,435
Cuba's Anglo-American Colony in Times of Revolution (1952-1961)	Dissertation (History)	3,303
The Intellectual as a Detective: from Leonardo Sciascia to Roberto Saviano	Dissertation (Romance Studies)	3,052

Student papers are the most popular category of downloaded content. The three articles on this list are all works by Valarie Zeithaml from the Kenan-Flagler Business School and were deposited as part of the Highly Cited Researchers project. The CDR is the primary source of open content for two out of the three articles in both Unpaywall and Google Scholar, which is likely driving some of the traffic.

The CDR has more downloads than pageviews, which shows that users encounter CDR content through venues other than the CDR's interface. The top referrers to CDR content include:

- Google Scholar
- Facebook
- UNC LibGuides
- UNC Library Catalog
- Wikipedia

Collection Highlights

We continue to support student paper deposit, as well as self-deposit of faculty work. Our notable new partnerships in 2021 included:

[The Internationalist: Undergraduate Journal of Foreign Policy](#)

The Internationalist is an interdisciplinary undergraduate student journal sponsored by the Office of Undergraduate Research and the Carolina International Relations Association which publishes research on global affairs and current events.

Masters Papers

The CDR has partnered with several new departments to facilitate deposit of masters papers:

- Curriculum in Global Studies
- Department of Biostatistics

- Masters of Public Health and MPH@UNC programs

[North Carolina Archaeological Society Publications](#)

This collection was previously available in the Digital Collections Repository but migrated to the CDR in 2021. This collection contains back issues of *Southern Indian Studies*, *North Carolina Archaeology*, *Bulletin of the Archaeological Society of North Carolina*, *Newsletter of the Archaeological Society of North Carolina*, *Newsletter of the Friends of North Carolina Archaeology Inc.*, and the *Newsletter of the North Carolina Archaeological Society*.

[North Carolina Journal of European Studies](#)

The *North Carolina Journal of European Studies* is an undergraduate research journal dedicated to issues in contemporary Europe.

Faculty Work

We've made great progress this year preserving faculty work due to our 1Science, COVID-19 authors and CV review projects detailed above. As reported in previous updates, faculty are not self-depositing into the CDR at a sustainable scale. Additionally, the university does not have a faculty activity tracker which has been used at other institutions to semi-automate the deposit process. Therefore, it is important that CDR staff continue to identify and deposit faculty work. Although the CV review project requires more manual work on the part of the CDR staff, we have found that it is a useful way to identify underrepresented scholarship for deposit. We will continue to use CV review for faculty work. Additionally, we will look for more automated methods of deposit.

Discussion and Future Steps

Over the past year, we have focused our efforts on completing the 1Science project and assessing the Content Liberation projects. As a result, we have added thousands of new articles to the CDR, ensuring that they will be preserved and remain publicly available. We also now have a baseline assessment which we can build upon to enhance the diversity of content available in the CDR. Additionally, while our pageview numbers have stayed roughly the same as previous years, our download numbers have sharply increased. This demonstrates that CDR content is being discovered and used and emphasizes the importance of optimizing the CDR for indexing on external sites.

We anticipate much progress over the next year. Max Kadel joined the CDR team as Technical Lead and we hope to use his expertise to enhance the CDR platform and streamline the article upload process. We will also load open access articles provided to us by SAGE and further refine the Content Liberation project assessment process to inform further equity work.