Thinking critically about scholarly communication:

Helping researchers integrate inclusive practices in the research lifecycle

Hello!

Anna Craft (she/her/hers)
Coordinator of Scholarly Communications
UNCG University Libraries
arcraft@uncg.edu

Hello!

Jenny Dale (she/her/hers)
Head of Research, Outreach, and Instruction
UNCG University Libraries
jedale2@uncg.edu

Land acknowledgement

Image credit: "Greetings from Greensboro N.C." in North Carolina Postcard Collection (P052), North Carolina Collection Photographic Archives, Wilson Library, UNC-Chapel Hill

We acknowledge that the land on which we live and work has long served as the site of meeting and exchange amongst a number of Indigenous peoples, specifically the Keyauwee and Saura. We also want to acknowledge the long history and lasting legacies of slavery on these lands.

The plan for this session

1. Define key terminology

2. Describe the research lifecycle

3. Apply the research lifecycle model to an example research topic

4. Explore inclusive practices that can be integrated throughout the research lifecycle

Throughout, we hope you are able to reflect on opportunities to integrate these practices into your day-to-day work

But first, a poll!

We'd like to know a bit about you! You can use the QR code, head to the link in the Zoom chat, or go to www.menti.com and enter the code **5216 8778** to answer two questions!

Results

What is information literacy?

What is information literacy?

"Information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning." (ACRL, 2015)

What is scholarly communication?

Please share in the chat…

What does the term "scholarly communication" mean to you?

Scholarly communication

"The system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use." (ACRL, 2003)
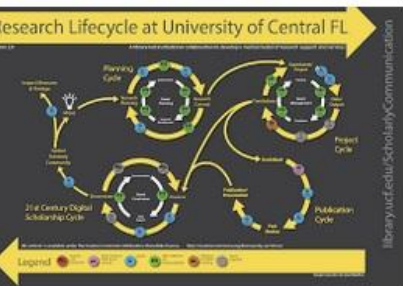
In other words:

Scholarly communication is faculty, students, and other researchers engaging in **research and academic inquiry**, undergoing **peer review**, and **sharing** their **findings and results** with the larger scholarly and academic community–creating connections between researchers. Scholarly communication includes and supports the research lifecycle.

What is the research lifecycle?

Research Lifecycle at University of Central FL

Planning Cycle

21st Century Digital Scholarship Cycle

Legend

Overview: Research Lifecycle - UCF ...
library.ucf.edu

Plan
Acquire
Process
Analyze
Preserve
Share Results
Discover & Re-use

Research Lifecycle Guide | Princeton...
researchdata.princeton.edu

CLOSEOUT
Final financial and research reporting, dissemination of data, and records retention.

PLAN / PROPOSE
From the development of a sponsored research project to final proposal submission.

MANAGE
Managing award funds, reporting, and post-award changes.

SETUP
Setting up the infrastructure for successful management of your award.

CLOSEOUT
PLAN/PROPOSE
MANAGE
SETUP

MyResearch Project Lifecycle

W

The UW MyResearch Lifecycle with the ...
washington.edu

ACCESS & REUSE
PLAN & DESIGN
STORE & MANAGE
Data Series Data Security Manage Series
COLLECT & CREATE
SHARE & DISSEMINATE
EVALUATE & ARCHIVE
ANALYZE & COLLABORATE

Biomedical Data Lifecycle | Da...
datamanagement.hms.harvard.e...

Manage the research process
Identify opp
Disseminate findings
Analyse research data

The research lifecycle | D...
researchgate.net

Support for Your Research
Researcher and Library Partnership

Conception
Planning
Proposal
Research
Publish
Preserve
Re-Use

esearch lifecycle | SCU RAISE
cuhdrtraining.com

Plan
Collect
Process
Analyse
Preserve
Share
Re-use

The research data lifecycle
reading.ac.uk

Compliance, Training & Supervision
Design, Plan & Propose
Proposal Writing
Partners
Ideas
Study Preparation
Set-up & Conduct
Process & Analyse Data
Methods & Data Collection
Writing & Publication
Knowledge Utilization
Archiving & Open Data
Reporting, Review & Knowledge Utilization

Research Lifecycle | APH Quality Handbook
aph-qualityhandbook.org

Results or output stage
Preparatory stage
Research Lifecycle
Research and development stage
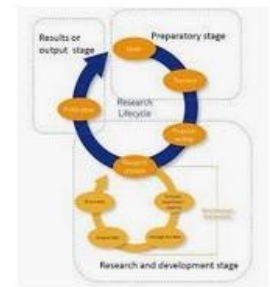
JISC Research Lifecycle ...
researchgate.net

RESEARCH LIFE CYCLE

Research Life Cycle | Noclor
noclor.nhs.uk

Reuse
Plan
Collect & capture
Preserve
Research data lifecycle
Process
Publish & Share
Analyse

esearch Data Management Lif...

Design
Plan
Track
Collect, Find, Acquire
Publish, Preserve, Archive
Process, Visualize Analyze
Prepare
Store
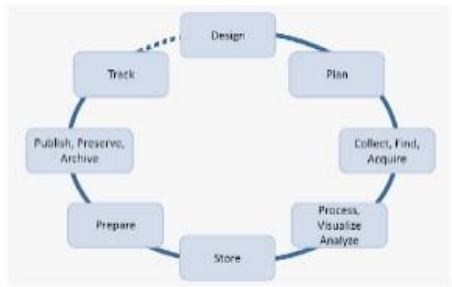
A Research Lifecycle Model, prepared by ...

My Research Lifecycle

Reactions
News
Ideas & observations
Factoids
Tweets
Waves
Explanations
Notifications
Market Overviews
Long reports
Blogs
Best Practices
Free Paid
Facts
Total Economic Impact
Opinions
Case studies
Short reports
Client Inquiries
Questions
Advice
Data Overviews
Triage
Memos
Forum sessions

Blogs and My Research Lifecycle

CONCEPT & PLANNING
IMPACT & ENGAGEMENT
RESEARCH LIFECYCLE
EXPLORING & ORGANISING
OUTPUTS & PUBLICATIONS
COLLECTION & ANALYSIS

Library Resource - Research Lif...

POST-AWARD
IMPACT
YOUR RESEARCH STRATEGY
PRE-AWARD
THE RESEARCH LIFECYCLE
PUBLICATION
DEVELOPING YOUR PROPOSAL
RESEARCH PROCESS

BU Research Lifecycle diagram ...

Research lifecycle: Basic processes
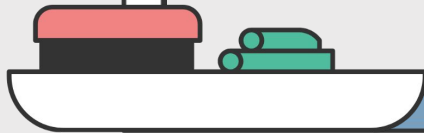
Idea: birds are not drones

Are Birds Actually Government-Issued
Drones? So Says a New Conspiracy Theory
Making Waves (and Money)

*Hatched by a 20-year-old college student, the Birds Aren't Real movement
has drawn intrigue and scorn on Instagram, Reddit, and Twitter.*

o Alfonso

16, 2018

is Story

livia

BIRDS
AREN'T
REAL

ories

Research: But are birds real?

In-flight RCS measurements of drones and birds at K-band a

Authors: Samiur Rahman, Duncan Alexander Robertson

Article 2019
in IET Radar, Sonar & Navigation v13 n2 (February 2019): 300-30

Peer-reviewed

✔ Available
UNCG University Libraries

Access Online

Classification of drones and birds using convolutional neura spectrogram images

Authors: Samiur Rahman, Duncan A Robertson

Article 2020
in IET Radar, Sonar & Navigation v14 n5 (May 2020): 653-661

Peer-reviewed

✔ Available
UNCG University Libraries

Access Online

Create:

BIRDS: FOR REAL

A manuscript submitted to a peer-reviewed journal

Abstract:

An efficient integration of philosophy and biology is crucial to understanding the reality of avian species. In spite of this high relevance, and although cognitive theories provide clear conceptual frameworks, the neurobiological basis of claims that birds are drones remains insufficiently understood. In a double-blind, randomized placebo-controlled behavioral study, we examine the perceptions of humans regarding birds in relation to themes of the special issue.

Here is the text of this article, which includes research, data, findings, conclusions, and future directions for research in this important area.

Share:

In this issue:

Find & consume:

Generate new ideas:

One more poll!

Which component(s) of the research lifecycle connect to information literacy skills? You can respond using the QR code, heading to the link in the Zoom chat, or going to www.menti.com and entering the code **3773 0544**

[Results](#)

How can we support researchers throughout the research lifecycle?
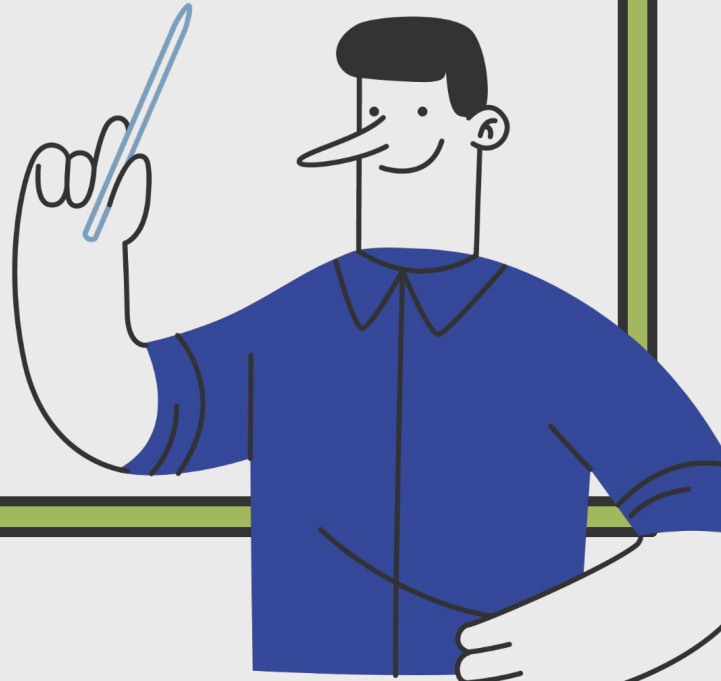
Inclusive practices at the intersection of information literacy and scholarly communications

- Selecting publication venues

- Considering peer review models

- Recognizing inclusion and exclusion in the scholarly record

- Implementing critical citation practices

- Identifying scholarly sharing practices that support inclusion

Choosing where to publish

Choosing a publication venue can be overwhelming

- Is this journal a good fit for my research?

- Is there a cost associated with publishing in this journal?

- Will this journal's publication timeline work with my own timeline?

- **Is this a predatory publication?**

- **Will this publication reach my intended audience?**

What are predatory journals?

"Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices." (Grudniewicz et al., 2019, p. 211)

Journal of Pharmacy and Pharmacology

3:02 PM Wed Jun 23   🛜 100% 🔋

🔒 academic.oup.com

OXFORD
ACADEMIC

🔍 👤 ☰

JPP Journal of Pharmacy and Pharmacology   **ROYAL PHARMACEUTICAL SOCIETY**

COVID-19 – Support for our author and subscriber community

About the journal

Journal of Pharmacy and Pharmacology (*JPP*), founded in 1870, is one of the leading pharmaceutical sciences journals publishing original research papers, critical reviews and rapid communications keeping you up-to-date with the latest developments in the pharmaceutical sciences.

Find out more

Latest Issue
Volume 73, Issue 7
July 2021

Impact Factor   2.571

Editor-in-Chief   D Jones   Queen's University of Belfast   UK   Editorial Board

---

We sincerely invite you to publish your unpublished paper (written in English) in our journal.

You can learn more about our journal on our journal website JPP, USA.

For all general enquiries, please do not hesitate to contact me.

We look forward to the opportunity to review submissions as they become available.

Have a nice week!

Thanks and Best,

Sabrina Jones

Editorial Office
Journal of Pharmacy and Pharmacology
David Publishing Company
E-mail: pharmacy@davidpublishing.com, pharmacydpc@davidpublishing.com, pharmacy@davidpublisher.com
Tel: 1-323-617-3810
Fax: 1-323-984-7374
Address: 3 Germay Dr., Unit 4 #4651, Wilmington DE 19804, USA

Unfortunately, predatory journals are a reality in many academic disciplines

Information literacy practices and techniques—like **lateral reading**—can help researchers learn to think critically when evaluating publication opportunities.

Predatory practices can affect inclusion in the scholarly record

Predatory journals often contact researchers indiscriminately, but those who have less knowledge of scholarly communications practices and less information literacy support may be more likely to fall prey to these bad actors.
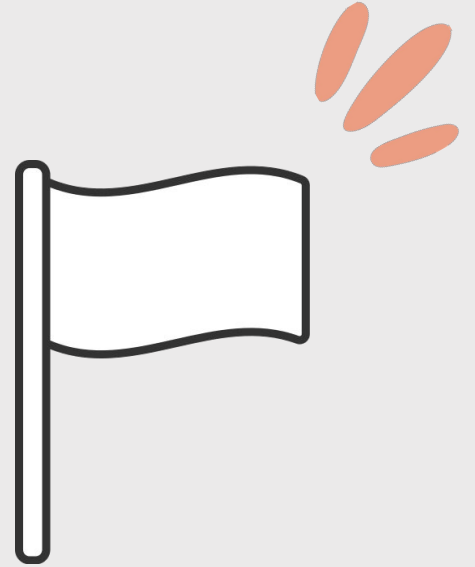
Predatory journals aren't the only publication venues reaching out to our authors

- Non-academic/commercial publications are increasingly reaching out to researchers, offering opportunities to showcase or promote scholarship to the public.

- Unfortunately, these inquiries can be as confusing as predatory solicitations.
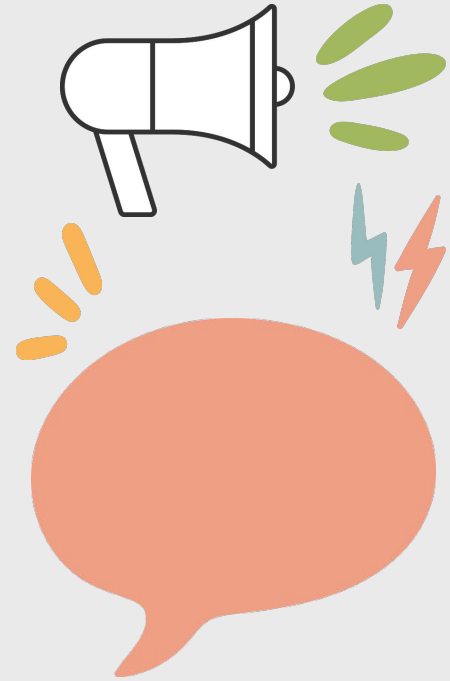
Who is your intended audience?

Dear Dr. ▮▮▮▮

I would like to speak with you concerning your work on the A comprehensive model of women's social cognition and responsiveness to infant crying: Integrating personality, emotion, executive function, and sleep paper.

Research Features are currently working on the March 2022 edition, and we are very interested in including a feature article covering your work. I understand your work is ongoing but hope this could be good timing.

At Research Features, we are committed to making all research more accessible and engaging. We distribute the content we produce strategically to people in industry, government, and the public to help bridge the gap between often complex bodies of research, and these audiences.

You may view the Research Features website here, and find out more about the

Considering different formats and audiences isn't necessarily *bad*

Dear Dr. Craft,

My name is Chris Temple with ResearchPod, based in the UK. I hope mind my sending you a brief email referencing some of your recent w

I'm a creative manager for ResearchPod.org - a new podcast service research community that works with researchers, to connect their wo a broad, engaged online audience.

ResearchPod improves research impact and AltMetric scores. When improving impact and dissemination, podcasts released with a new p part of a project's knowledge transfer strategy.

I believe our productions could have a real benefit to your work either future.

ResearchPod's mission is covered in detail on our website:

www.researchpod.org

Dear Dr. Craft,

Simplifying complex science through the power of animation

Are you struggling to get the right people to read your academic pap your research is extremely intricate and it's hard to communicate in a How can you make your research more accessible?

Allow me to introduce myself. My name is David Hamilton, Senior Pa Executive at Science Animated, the world's leading provider of anima the research community.

We can help

Have you considered using scientific animation to share your work w audience? Our animations *communicate complex scientific message* impactful and easy-to-understand way.

Our scientific animations leverage excellent results

Selecting a publication venue can be challenging

- Librarians can help authors at all levels understand how to evaluate and think critically about publication opportunities.

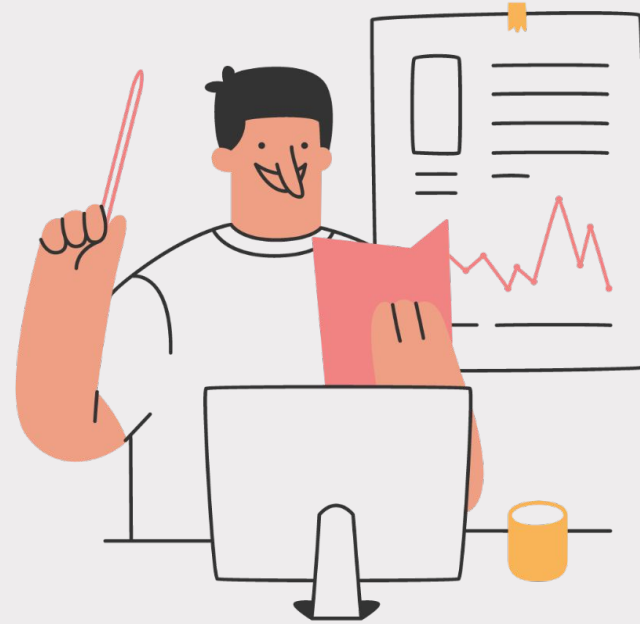- Choice of publication venue affects representation in the scholarly record.

Considering peer review models

🖊️ 🖊️ 🖊️

What is peer review?

Peer review—evaluation by others in the field—is established and expected as a measure of quality and validity for research in many disciplines.

But peer review can be confusing and intimidating, especially for new researchers.

Peer review models

1. **Single blind:** Author doesn't know the identity of the reviewer(s); reviewer(s) do know the identity of the author
2. **Double blind:** Author doesn't know the identity of the reviewer(s); reviewer(s) don't know the identity of the author
3. **Open:** Author knows identity of the reviewer(s); reviewer(s) know identity of the author
4. **Transparent:** Reviewer report(s) are posted with the published article; reviewer identities may or may not be included
5. **Collaborative:**
   a. Two or more reviewers work together to submit a single review report
   b. Author revises manuscript under the supervision of one or more reviewers

Transparent peer review: an example

Please share in the chat…

One criticism of the peer review system that you've heard.

What's wrong with peer review?

Different peer review models can be associated with different challenges. Here are a few:

1. Exploitation of volunteer labor
2. Lack of accountability
3. Lack of transparency
4. Lack of diversity in reviewer pools
5. Lack of credit / recognition
6. Slow processes
7. And more?

(Allen et al., 2022)

Thinking critically about peer review

1. Look at the publication's website:

    a. What is their peer review policy?

    b. What peer review model(s?) do they use?

2. Is there evidence that the journal is following their stated peer review practices?

    a. Is there a list of reviewers, do they appear to be real academics? (and real people?)

    b. By doing quick search in the search engine of your choice, you may be able to learn more about others' experiences of peer review with the journal/publisher (look beyond the results that just come from the journal itself)

Reading laterally about peer review

mdpi peer review

ResearchGate
https://www.researchgate.net › post › Im_gonna_ask_wh...

I'm gonna ask whether publishing in MDPI journals is good or ...

MDPI journals are very fast, they provide well peer-reviewed reports perfectly, within 03-04 weeks and editors are cooperative. Impact Factor can be seeing as ...

924 answers · Top answer: After several negative experiences, I no longer accept to do review...

Stack Exchange
https://academia.stackexchange.com › questions › revi...

Reviewing papers for MDPI: general feeling as a reviewer

Jan 6, 2023 — To this end, MDPI's modus operandi is simply to obtain the minimal peer review evidence that makes them sufficiently reputable in order to ...

4 answers · 9 votes: Just a personal remark (that to some extent answers the question, for me...

helsinki.fi
https://www.helsinki.fi › researchgroups › news › mdp...

MDPI peer review reviewed - University of Helsinki

This is the first time we published with MDPI. Although the criticism of MDPI has not entirely gone away after its 2015 vindication from Beall's List, the ...

Inclusion and exclusion in the scholarly record

✅ X

Underrepresentation

You are less likely to be included in the scholarly record if you are:

- not male identifying
- not white
- not from an English-speaking country

Gender disparities

- Male identifying authors have been published more frequently than female identifying authors in many fields (West et al., 2013; Bendels et al. 2018, etc.).
- Even studies that controlled for other factors/variables found gender disparity (Odic & Wojcik, 2020; Williams et al., 2018).

Table 1. Gender composition from 1990–2011 for disciplines (i.e., groups at the first level of hierarchical clustering) with at least 5,000 authorships.

Field	% female	authorships
Mathematics	10.64	6134
Philosophy	12.04	12190
Economics	13.68	69142
Probability and Statistics	18.11	28324
Political science - international	19.07	14908
Political science-US domestic	19.09	15705
Ecology and evolution	22.76	279012
Law	24.21	18503
Organizational and marketing	25.44	32119
Physical anthropology	27.05	16296
Radiation damage	27.69	7825
Classical studies	28.88	6372
Molecular & Cell biology	29.25	277032
History	30.47	15585
Veterinary medicine	31.81	10960
Cognitive science	32.12	12786
Anthropology	36.46	19900
Pollution and occupational health	37.57	32108
Sociology	41.41	44895
Demography	41.90	7600
Education	46.35	28635

doi:10.1371/journal.pone.0066212.t001

(West et al., 2013, p. e66212)

Beyond the numbers

- Research shows gender disparities in:
  - Publication rates, even in fields with higher percentages of female identifying scholars (Odic & Wojcik, 2019; Williams et al., 2018)
  - The methods used by researchers (Williams, et al., 2018, p. 41; Plowman & Smith, 2011)
  - "Prestigious authorships" and the 5-Year-Impact-Factor of journals with higher representation of females with these authorships (Bendels et al., 2018, pp. 4;8)
  - Receiving credit for their authorship work (Ni et al., 2021)
  - The impact of the COVID-19 pandemic on authorship (Son & Bell, 2022, p. 6)

Racial, ethnic, and geographic disparities

- Bibliometric and citation analysis research indicates that non-White authors tend to be underrepresented in the research literature of many disciplines (Chakravartty et al., 2018; Kozlowski et al., 2022; Willis et al., 2021; etc.).
- Scholars from non-Anglophone countries are less likely to be published in journals (Harris et al., 2017; Mertkan et al., 2017; Ramírez-Castañeda, 2020; Smith et al., 2023).

Critical citation practices

🖊️🔨

Underrepresented and undercited

The groups that are underrepresented in the scholarly record are also likely to be undercited:

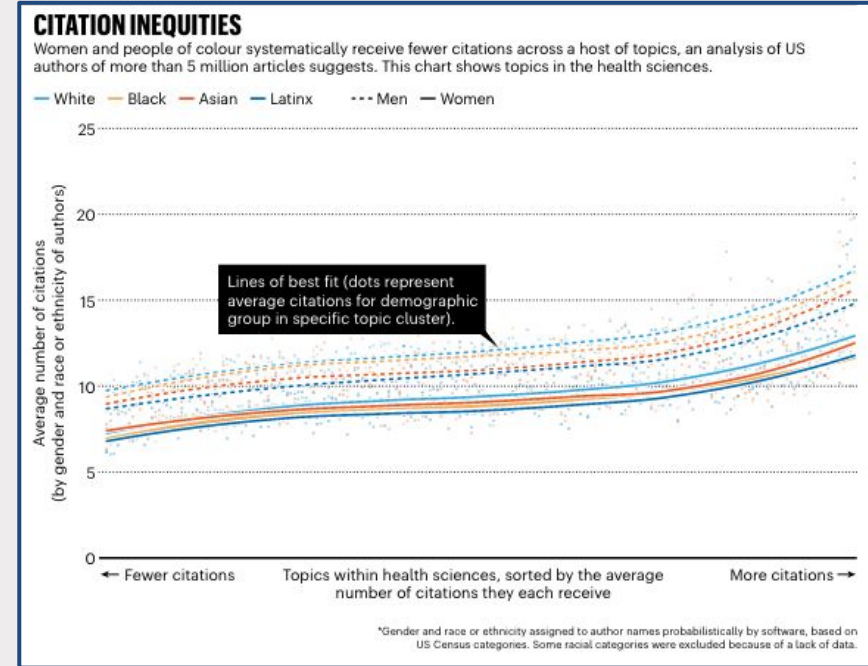- Women are cited less frequently in many disciplines, including astronomy (Neven et al., 2017), communication studies (Wang et al., 2021), geography (Mott & Cockayne, 2017), neuroscience (Dworkin et al., 2020), physics (Teich et al., 2022), and tourism (Nunkoo et al., 2019), among others.
- Non-white authors are also cited less frequently in many disciplines (Bertolero et al., 2020; Kwon, 2022; Kozlowski et al., 2022; etc.).

Intersectionality and citation

- "Researchers have also shown that there are cumulative disadvantages for people who are part of more than one under-represented group" (Kwon, 2022, p. 569).
- Research from Bertolero et al. (2020), Koslowski et al. (2022), and Smith & Garrett-Scott (2021) - among others - takes up the topic of intersectionality specifically.

CITATION INEQUITIES
Women and people of colour systematically receive fewer citations across a host of topics, an analysis of US authors of more than 5 million articles suggests. This chart shows topics in the health sciences.

— White   — Black   — Asian   — Latinx   --- Men   — Women

Average number of citations (by gender and race or ethnicity of authors)

Lines of best fit (dots represent average citations for demographic group in specific topic cluster).

← Fewer citations   Topics within health sciences, sorted by the average number of citations they each receive   More citations →

*Gender and race or ethnicity assigned to author names probabilistically by software, based on US Census categories. Some racial categories were excluded because of a lack of data.

(Kwon, 2022, p. 571)

Every citation is a choice

"We argue for a *conscientious engagement* with the politics of citation that is mindful of how citational practices can be tools for either the reification of, or resistance to, unethical hierarchies of knowledge. Our approach is qualitative and conceptual, and offers a productive way to understand how citation can be rethought as a feminist and anti-racist technology." (Mott & Cockayne, 2017, p. 956)

Critical citation praxis example #1

Sara Ahmed, *Living a Feminist Life:*

"In this book, I adopt a strict citation policy: I do not cite any white men. My citation policy has given me more room to attend to those feminists who came before me. Citation is feminist memory. Citation is how we acknowledge our debt to those who came before; those who helped us find our way when the way was obscured because we deviated from the paths we were told to follow." (Ahmed, 2017, pp. 15-16)

Critical citation praxis example #2

nina de jesus, [Locating the Library in Institutional Oppression](): "A note about the research/citation methodology of this article: I've decided to make a principled stance about only citing open access resources. The exception within the paper is monographs, which haven't been considered by the OA movement in the same way. But as far as articles and other scholarly resources are concerned, if I wasn't able to find a non-paywalled copy, I haven't cited or used it within this paper. There are obvious and unfortunate limitations when strictly adhering to such a principle, since much relevant research remains locked up behind publisher paywalls." (de jesus, 2014)

Citation diversity statements

"A Citation Diversity Statement is a paragraph placed before the reference section of a publication in which the authors address the diversity and equitability of their references in terms of gender, race, ethnicity, and other factors. The statement typically reports the percentages of different diversity categories for first and last authors, the method used to determine these percentages, and the method's limitations." (Ray et al., 2022, p. 5)

Sample citation diversity statement

"Citation Diversity Statement

Recent work in several fields of science has identified a bias in citation practices such that papers from women and other minorities are under-cited relative to the number of such papers in the field [2., 3., 4., 5., 6.]. Here we sought to proactively consider choosing references that reflect the diversity of the field in thought, form of contribution, gender, and other factors. We obtained predicted gender of the first and last author of each reference by using databases that store the probability of a name being carried by a man or a woman [4]i. By this measure (and excluding self-citations to the first and last authors of our current paper), our references contain 42.9% woman(first)/woman(last), 28.6% man/woman, 7.1% woman/man, and 21.4% man/man. This method is limited in that: (i) names, pronouns, and social media profiles used to construct the databases may not, in every case, be indicative of gender identity, and (ii) it cannot account for intersex, non-binary, or transgender people. We look forward to future work that could help us to better understand how to support equitable practices in science." (Zurn et al., 2020)

Things to keep in mind

- This work takes time
- When making intentional choices about who to cite, you'll end up making assumptions about the authors' identities
  - Making these choices is not always possible - it depends on your project, your field, your level of autonomy, etc.
- This isn't just about adding citation diversity to your reference lists, it's about that "*conscientious engagement*" that Mott & Cockayne discuss
  - Citation isn't the only way we can or should engage with the work of those underrepresented in the literature, like Black women (see Nash, 2021)

"We're talking about acknowledgement. We're talking about engagement. We're talking about recognition, and the valorization of ideas. Just changing the proportion of authors from minoritized groups in reference lists is not enough… If you're only inserting Black women onto a bibliography, but you're not actually allowing those ideas to influence the way that you think about and see the world, then what you're engaging in is superficial diversity work, and not true, fundamental change."
-Christen Smith, founder of [Cite Black Women](#), qtd. in Kwon, 2022, p. 571)

Class/training session activity ideas

- Have participants search for citation analyses that have been conducted in their fields (or related fields) and summarize their findings
- Put participants in small groups and provide guided questions to help them analyze pre-selected citation diversity statements
- Do a "citation audit" of a recent article in a journal relevant to the field
  - [Here's an example of a completed citation audit activity that Jenny led for library personnel in 2021](#)

Identifying scholarly sharing practices that support inclusion

Consider open access (OA)

In open access publishing and sharing, scholarly content is made fully available online to all readers, with no barriers.

That means:

- No subscriptions
- No access costs (paywalls)
- No sign-ins or requirements to register

Benefits of open access

More exposure for your work

Practitioners can apply your findings

Higher citation rates

Your research can Influence policy

The public can access your findings

Compliant with grant rules

Taxpayers get value for money

Researchers in developing countries can see your work

Sometimes OA publishing is associated with an article processing charge (APC)

- Author-side payment of a processing fee to the publisher

- Common in hybrid and fully open access journals

- Can be quite expensive (hundreds to thousands of dollars; average ~$3,000)

- Sometimes paid by the author's funding agency or employer

Want to share your scholarship openly, but don't have funding for APCs?

Consider sharing via **Green OA**, in an institutional repository!

What's an institutional repository (IR)?

- An IR is a type of digital library, often associated with an academic or research institution

- IRs generally share open access scholarly materials that are associated with the institution (but there are also disciplinary repositories that focus on certain subject areas)

- IRs might be used to share digital copies of published articles, presentation slides, electronic theses and dissertations, and other scholarly materials

What is green open access?

- Also known as self-archiving or repository-based open access

- In green OA sharing, the author chooses to post a copy of an article that may have been published elsewhere (such as in a closed-access journal)

- Not all scholarship can be shared via green OA. Publisher copyright policies apply to published articles; [Sherpa Romeo](#) can help clarify publisher sharing policies

Authors can also consider sharing preprints

- What's a preprint? These are preliminary versions of manuscripts—not yet formally reviewed—that authors share by posting to online platforms known as preprint servers

- This practice is established and heavily used in some disciplines (especially math and physics)

- Sharing via preprint allows authors to get early feedback that may help them prepare for journal submission

- Sharing via preprint can also allow authors to demonstrate the precedence of their discoveries

- Many journals are accepting of this practice, but authors should always think critically before sharing through this method!

Any questions?
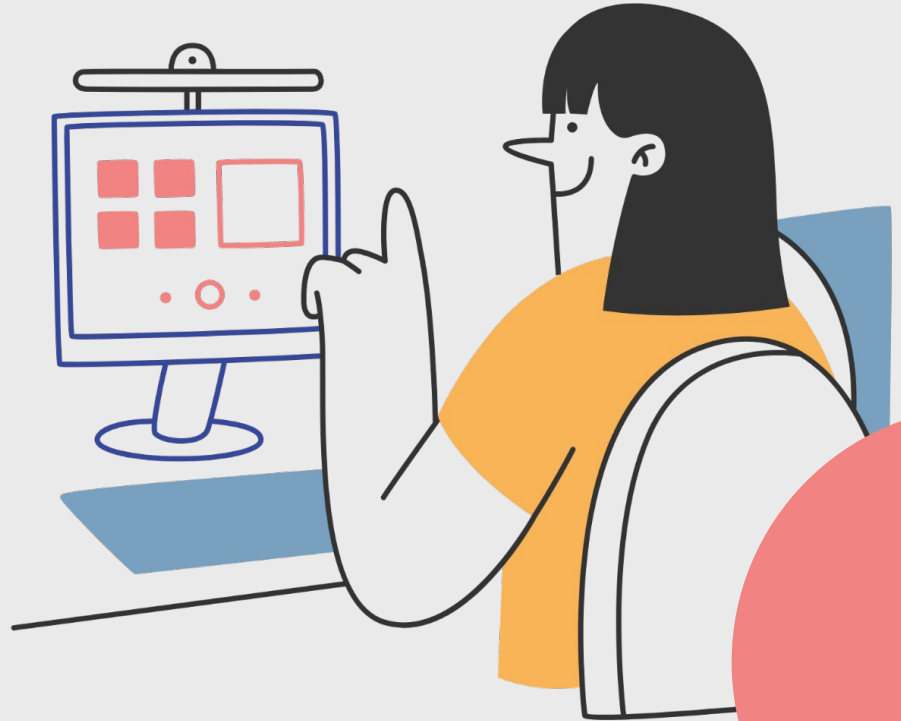
Thank you!

Jenny: jedale2@uncg.edu

Anna: arcraft@uncg.edu

Slides: https://go.uncg.edu/gicoil2023

Reference list: https://go.uncg.edu/gicoil2023references

Acronym reference list

- **ACRL**: Association of College & Research Libraries

- **APC**: Article processing charge

- **IL**: Information literacy

- **IR**: Institutional repository

- **OA**: Open access

- **UNCG**: the University of North Carolina at Greensboro

Credits

This presentation template is free for everyone to use thanks to the following:

SlidesCarnival for the presentation template