

# **Advocating for Preprint Sharing in Rwanda and Africa**



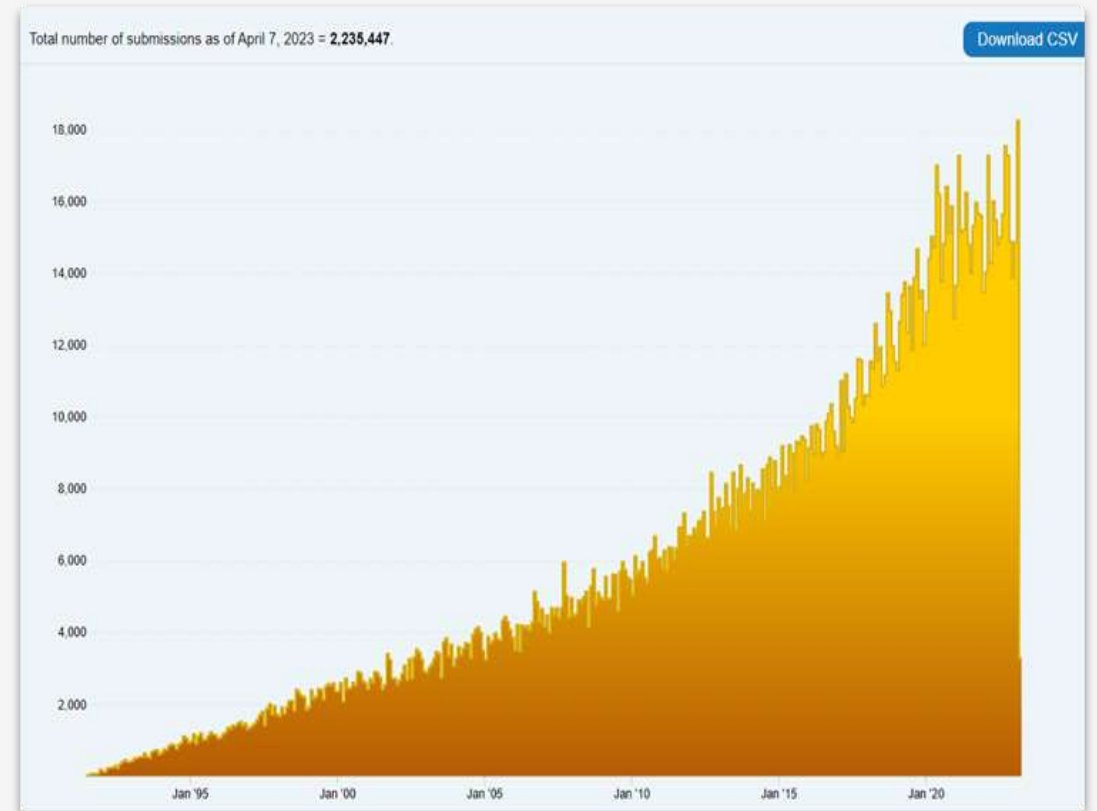
# Welcome - today we'll cover

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- Brief background on preprints and benefits of preprints
- How they support scientific progress
- Challenges and opportunities
- Sharing of experience from club members

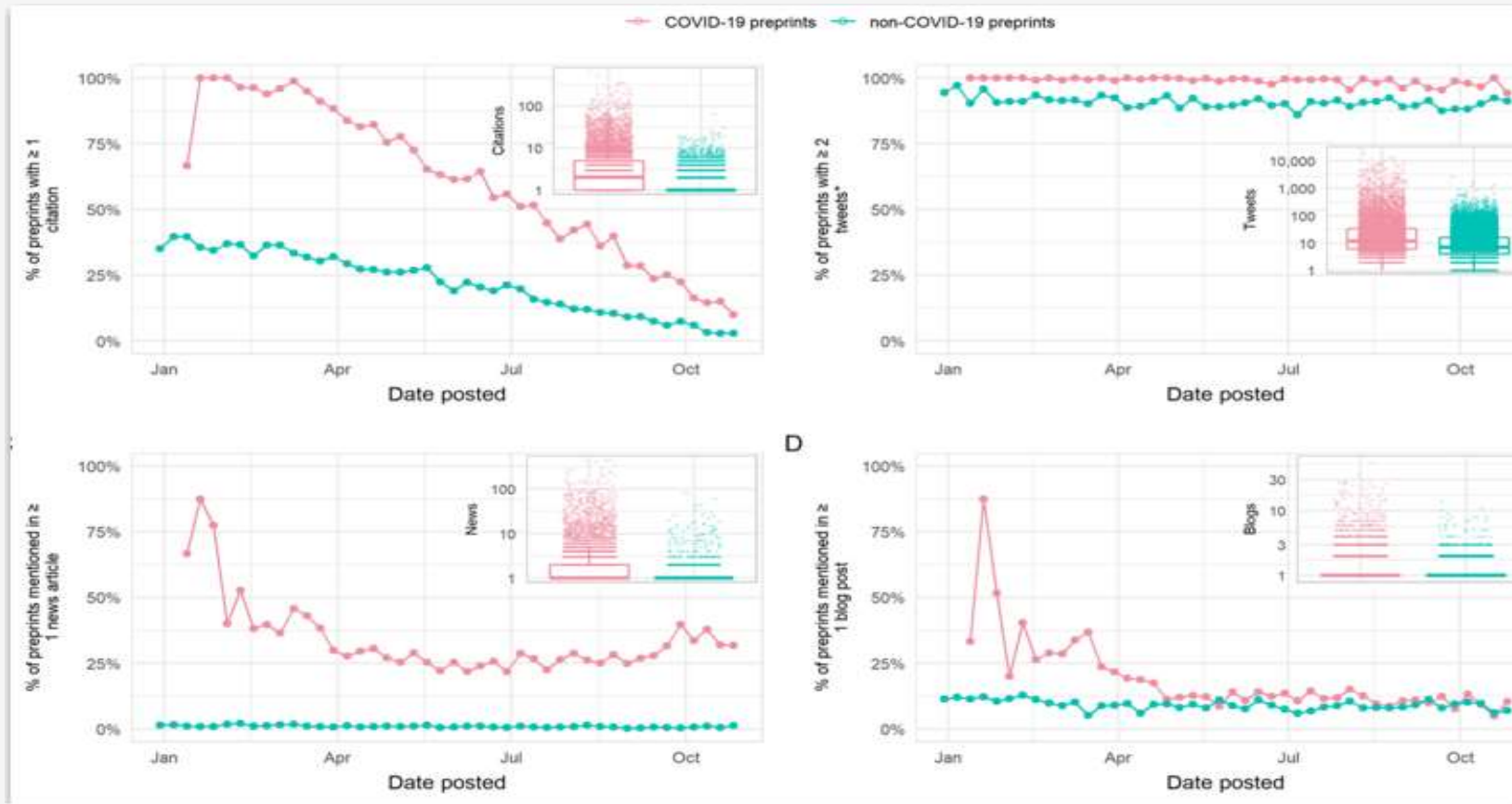
# Brief Background on preprints

- ❖ arXiv was founded in 1991 by Paul Ginsparg
- ❖ Initially started as email list by Joanne Cohn, who used it to distribute TeX files of string theory papers to physicists members of the list
- ❖ Total number of submissions as of September 17, 2024 = 2,562,269.
- ❖ Covers diverse topic areas
- ❖ Quantitative biology section since 2003 (1.2% of submissions in 2021)



Monthly submissions to arXiv since August 1991.  
[https://arxiv.org/stats/monthly\\_submissions](https://arxiv.org/stats/monthly_submissions)

# Brief Background on preprints, CTD



COVID-19 preprints received higher citations & attention

Fraser N, Brierley L, Dey G, Polka JK, Pálffy M, Nanni F, et al. (2021) The evolving role of preprints in the dissemination of COVID-19 research and their impact on the science communication landscape. *PLoS Biol* 19(4): e3000959.

<https://doi.org/10.1371/journal.pbio.3000959>

# Brief Background on preprints, CTD

- There are more than 50 preprint servers globally.



Image modified from a compilation by Jeroen Bosman (@jeroenbosman) via Bianca Kramer (@MsPhelps) s)

# Preprints make work available almost immediately



# Benefits of preprints



Receive persistent identifier  
- citable object



No publication fee  
No subscription fee or paywall



Opportunities for feedback &  
collaborations



Allow versioning  
Easy updates & corrections



Journal compatible



Scoop protection - date-  
stamped record



Step 1: You write a draft of your research paper and share it publicly

This is your preprint



Step 2: Your paper is peer reviewed and accepted



Step 3: Your paper is published on the journal website

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# How Preprints Support Scientific Progress



# Enhanced Research Quality

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Preprints allow researchers to receive early feedback from a wider audience

This can lead to improvements in methodology and analysis before formal publication

Benefits of early feedback:

- Identify potential methodological issues
- Refine analysis and interpretation
- Strengthen overall research quality
- Early feedback has significantly improved studies



# A Tool for Career Development

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Establishing research presence for early career researchers

Preprints can lead to:

- Invitations to speak at regional conferences
- Collaborations with researchers in-country and neighboring countries
- Increased visibility within East African scientific community
- Increased citations



# Tool for Career Development

PLOS ONE

PUBLISH

ABOUT

BROWSE

SEARCH

advanced search

 OPEN ACCESS  PEER-REVIEWED

RESEARCH ARTICLE

## Knowledge, attitudes and practices regarding rabies and its control among dog owners in Kigali city, Rwanda

P. Ntampaka , P. N. Nyaga, F. Niragire, J. K. Gathumbi, M. Tukei

Published: August 20, 2019 • <https://doi.org/10.1371/journal.pone.0210044>

190  
Save

31  
Citation

6,874  
View

1  
Share

*"I chose to post a preprint as a way of sharing of findings earlier. It is important because a preprint is accessible online before the review process is completed. Furthermore, a preprint can be cited and readers can comment on it. The comments may be incorporated when the author is addressing reviewers' remarks."*

AUTHOR OF [Knowledge, attitudes and practices regarding rabies and its control among dog owners in Kigali city, Rwanda](#)

# Addressing Publication Bias



- Traditional journals often favor positive results, leading to publication bias
- Preprints provide a platform for sharing negative results and replication studies
- This helps build a more complete and accurate scientific picture
- Importance of transparency in research
- Preprints can help combat the "file drawer problem" where negative results often remain unpublished

# Rwandan Research Context

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- Preprints as a tool for equalizing scientific communication.
- Bypass publication barriers
- Increase visibility of Rwandan research globally
- Preprints as a tool for showcasing Rwanda's growing research capabilities



## Finally

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### Choosing the right preprint server:

- E.g. AfricArXiv for increased regional visibility
- Use discipline-specific servers for targeted audience

### Best practices for Rwandan researchers:

- Clearly state local context and implications

### Importance of metadata:

- Include "Rwanda" as a keyword for better discoverability
- Clearly state any connection to national research priorities

# Wayforward

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- Preprints support scientific progress: speed, visibility, addressing bias, fostering open science
- The potential for preprints to accelerate scientific advancement in Rwanda and across Africa
- Using preprints in research
- Advocate for their adoption in their institutions

# Challenges of Sharing Preprint

Limited Awareness  
and Adoption

Concerns About  
Intellectual Property

False Perception on  
the Credibility

Sustainable Funding

Support by the  
traditional  
publishing/academic  
system

Priority for 'high-  
impact' publishing

Regulatory and  
Ethical Concerns



# Opportunities



ACCELERATING  
KNOWLEDGE  
DISSEMINATION



INCREASED  
VISIBILITY AND  
COLLABORATION



ADDRESSING  
PUBLICATION BIAS



CAPACITY  
BUILDING/PREPRINT  
CLUBS



COST-EFFECTIVE  
PUBLICATION



RECOGNITION AND  
IMPACT



PUBLIC-PRIVATE  
FUNDING  
PARTNERSHIPS



PUBLIC PROTECTION  
PROOF SYSTEMS

# Sharing of experience from club member

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## **Preprint Journal Peer Review Experience**

My first encounter with a preprint journal occurred during my involvement with the Rwanda preprint. I actively participated in an open peer review process alongside fellow researchers on a particular manuscript.

Despite my extensive experience in reviewing manuscripts for many years and my recognition in local and international indexed journals, this experience with the Rwandan preprint offered me a fresh perspective on the academic approach to manuscript review.

**From: -**

**Nuhu Lawan**

# Particularly impressed and inspired by:

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1. The collaboration of multiple reviewers working simultaneously on a manuscript in real time.
2. The well-structured review framework facilitates a comprehensive evaluation of the manuscript.
3. The precision and coordination demonstrated by the editorial team.
4. The inspiring exchange of information and ideas among colleagues.
5. The mutual respect and orderliness that characterized the entire process.
6. The academic strength generated by the collective effort of the team by far surpasses individual contributions as a separate peer reviewer.
7. Preprint journals are indeed fast, accurate, transparent, and constructive, significantly enhancing the quality of researchers' ideas.

# Experience from another club member

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## Different sessions have :

- ❖ Shaped and sharpened my skills in scientific writing,
- ❖ Improved critical thinking and analytical skills regarding scientific papers,
- ❖ Helped draft and develop a manuscript for preprint,
- ❖ Allowed me to contribute to the preprint review session,
- ❖ supported in networking and professional growth.

**From: Patience S.**

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**Thank you**