Preprints – the pathway to publishing innovation?

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Preprints have changed the game.

Why...

1. Embraced by the research community

2. Not upsetting the status quo*

*(yet, but they might do...)*
We have lift off...

Preprints per Month

- arXiv q-bio
- F1000Research
- bioRxiv
- preprints.org
- Nature Precedings
- PeerJ Preprints
- The Winnower
- Wellcome Open Research

Chart by Jordan Anaya, prepubmed.org
Explosion of preprint venues

Image courtesy of Bianca Kramer and Jeroen Bosman
Why are researchers embracing preprints?
Putting your flag in the sand

“Preprinting saved me from scooping myself.”

While I was working to resubmit a manuscript, collaborators of mine decided it was time to submit a second paper related to the work. We had no way to reference my manuscript which laid the foundations for the second paper. Being able to submit a preprint saved me because within 48 hours I could submit my primary manuscript to bioRxiv and get a DOI for the second paper to reference.”

Steph Hays
PhD student, Harvard Medical School

Photo by Alina Chan

ASAPbio.org
Showcasing your research

"My preprint got me a faculty job."

“My preprint was the deciding factor when the UT Southwestern hiring committee was deciding whether to give me an interview or not. Once they saw my latest paper on bioRxiv, then they gave me the invitation. I'll be starting as an Assistant Professor in January.”

Jeffrey Woodruff
Postdoc, MPI-CBG
Journals now go window shopping!

“I don’t have to shop around.”

“Soon after my manuscript appeared (on bioRxiv), an editor from an open access journal group contacted me saying that she would like to consider it for potential publication. [During the review process] I received another invitation letter from another open access journal editor for the same manuscript asking for the submission. So I don’t have to shop around so to speak.”

Baki Agbas
Associate Professor of Biochemistry
Kansas City University
“Sharing at the speed of science”

“Preprints move science along faster!”

“People started using our software, we got citations, and fellowship applications in a new area had credibility faster!”

James Fraser
Associate Professor, UCSF
Cool paper from Pennacchio lab. But 4.5 years (years! almost 5!) in revision! Yikes. nature.com/articles/s4158...

Noncoding deletions reveal a gene that is cr...
An intestine-critical region on human chromosome 16, and its regulation of PERCC1, a newly identified gene, is shown to underlie the...
nature.com

Siri, why do people use bioRxiv?

Cool paper from Pennacchio lab. But 4.5 years (years! almost 5!) in revision! Yikes. nature.com/articles/s4158...
Preprints complement the current status quo.
All the actors playing together
Preprint and Journals – a symbiotic relationship

Direct transfer from preprint servers to journals (internally and externally)

- BioRxiv B2J/J2B programs
- Publishers with their own preprint servers

Clear journal policies about preprints are important influencers of behaviour
2/3s of preprints are published within 2 years

Abdill & Blekhman; eLife 2019;8:e45133 DOI: 10.7554/eLife.45133 (preprinted in December)
But... preprints don’t have peer review or recognised “prestige”

Without peer review there is no control in scientific communication (n=1980)

35% Strongly agree
48% Agree
9% Neither
6% Disagree

n=2004, P. 8, Mark Ware Consulting PRC survey, 2016
Growth of community peer review systems
Open research publishing
How it works:

- Articles that pass peer review will be fully indexed in Europe PMC, PMC, PubMed, Scopus, Google Scholar and other bibliographical databases.
Changing requirements of funders/institutions

Demand for rapid access

Drive to open & collaborative research

Demand to accelerate impact

Drive towards open data, software and materials
Funder-based publishing platforms
Where will we be in 10 years...
The article of the future?
Thank you.

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