

# Locked up science



Tearing down paywalls in  
scholarly communication

Claudia Frick - @FuzzyLeapfrog

#35c3

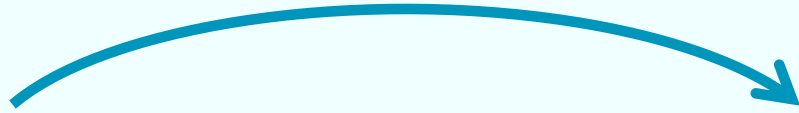


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Cite with <https://doi.org/10.5281/zenodo.1495601>

# Science

Science

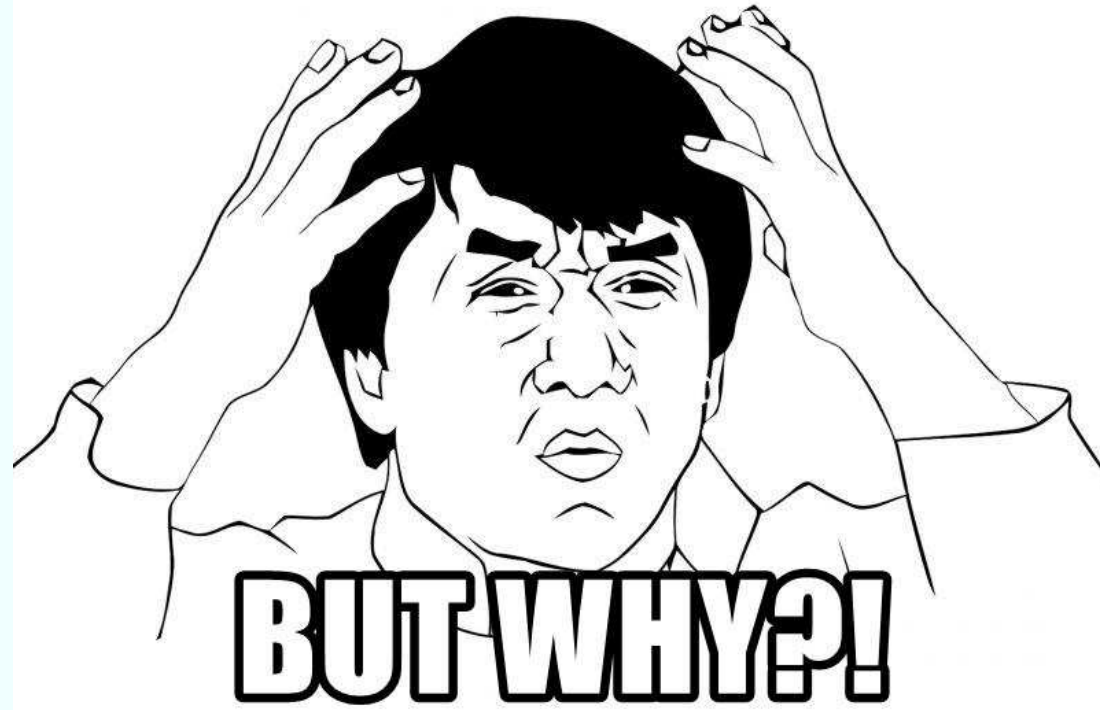


Library

Science



Library





# Science ...?

- Education and decision-making

# Science ...?

- Education and decision-making
- Health and diseases

# Science ...?

- Education and decision-making
- Health and diseases
- Environmental challenges

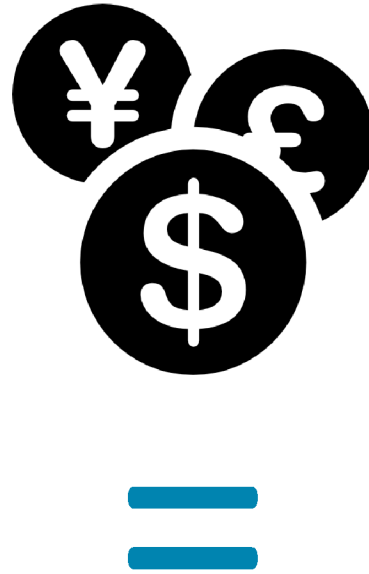
Restricting access to science

≠

Benefit for society



72% of scientific publications  
are locked up behind paywalls



# Access to science

*“**Open Access** describes the goal of making global knowledge accessible and re-usable in digital form **without financial, technical or legal barriers.**”*

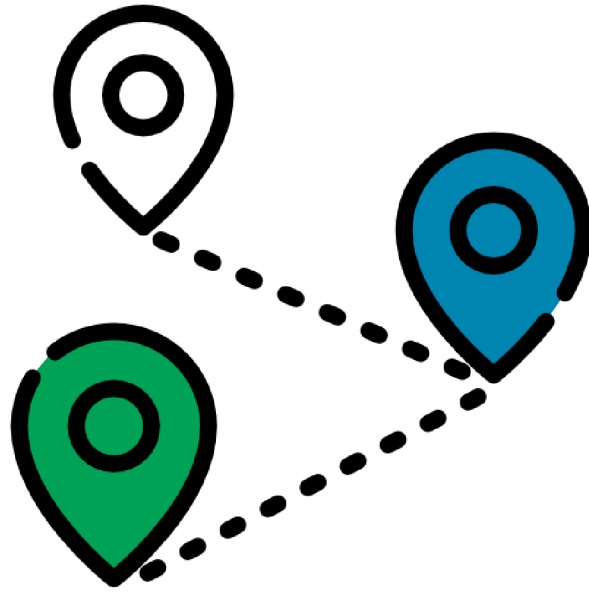
# Roadmap



How can we **tear down**  
**the paywalls?**



# Roadmap

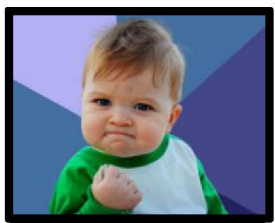


What does the **most common way of scientific publishing** look like?

How can we **tear down the paywalls?**



Scientist



Scientist



Scientist

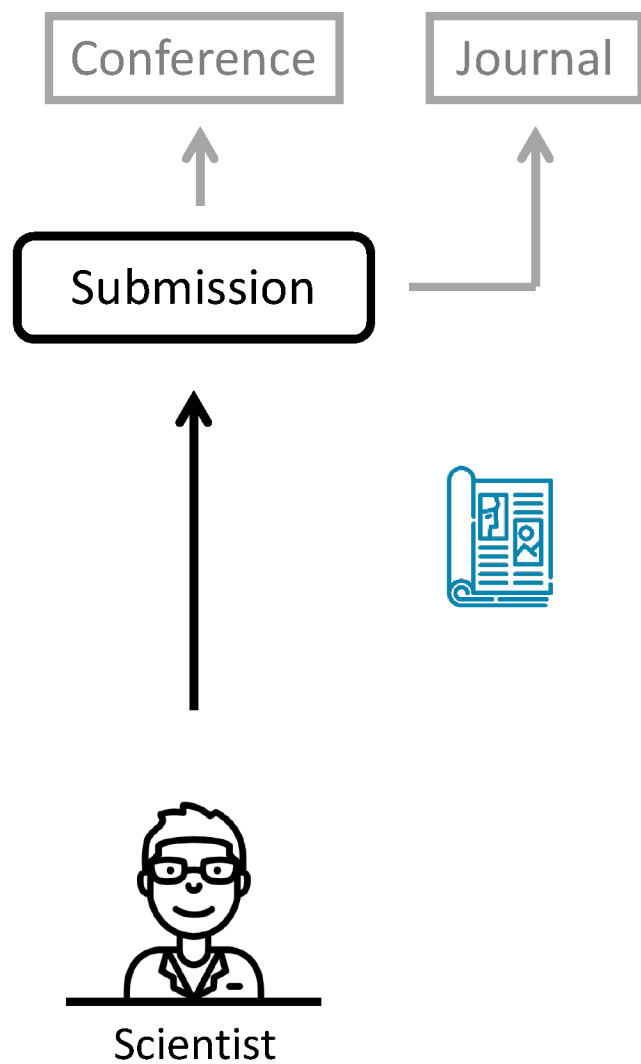


Scientist

Put it on the internet!



Scientist



Publisher

Journal

Submission

Preprint



Scientist



Publisher

Journal

Submission

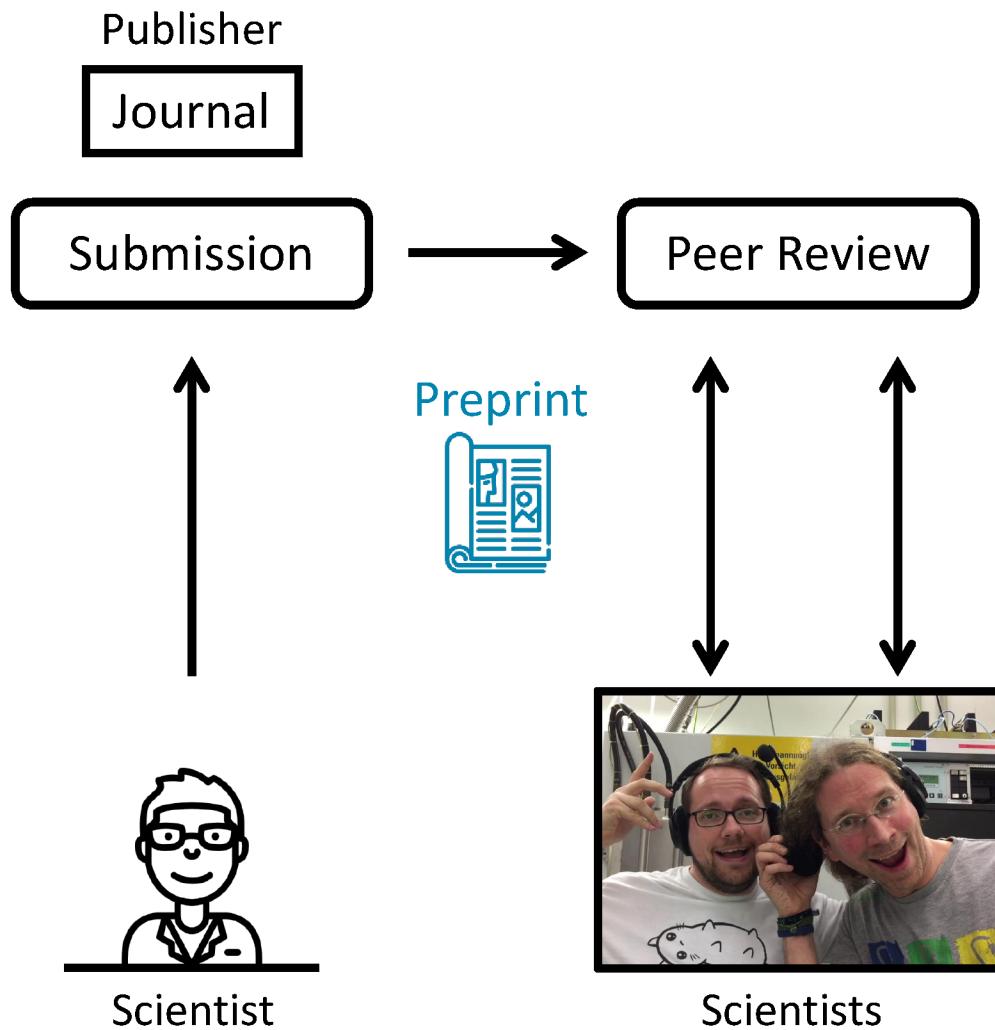
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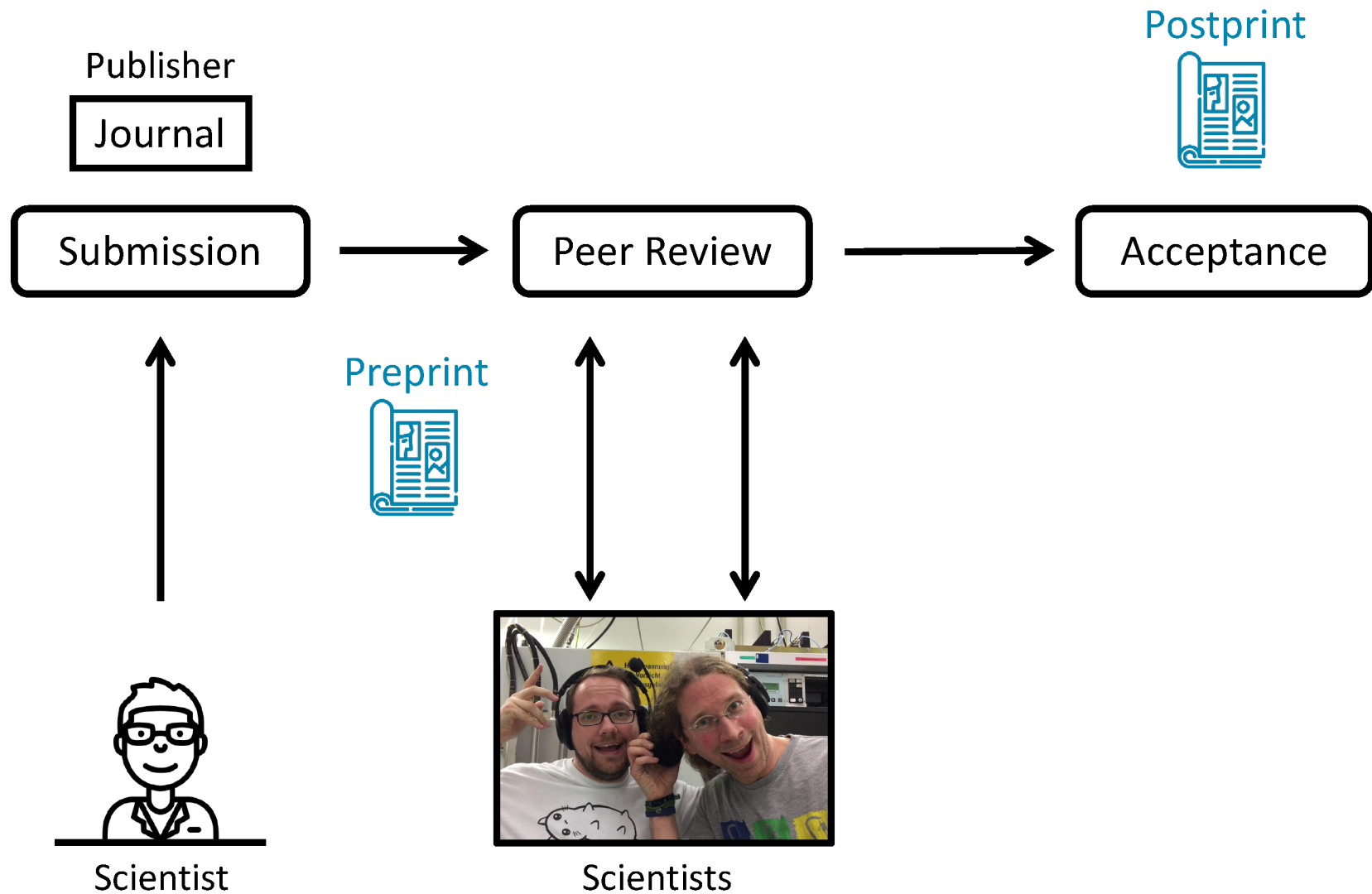


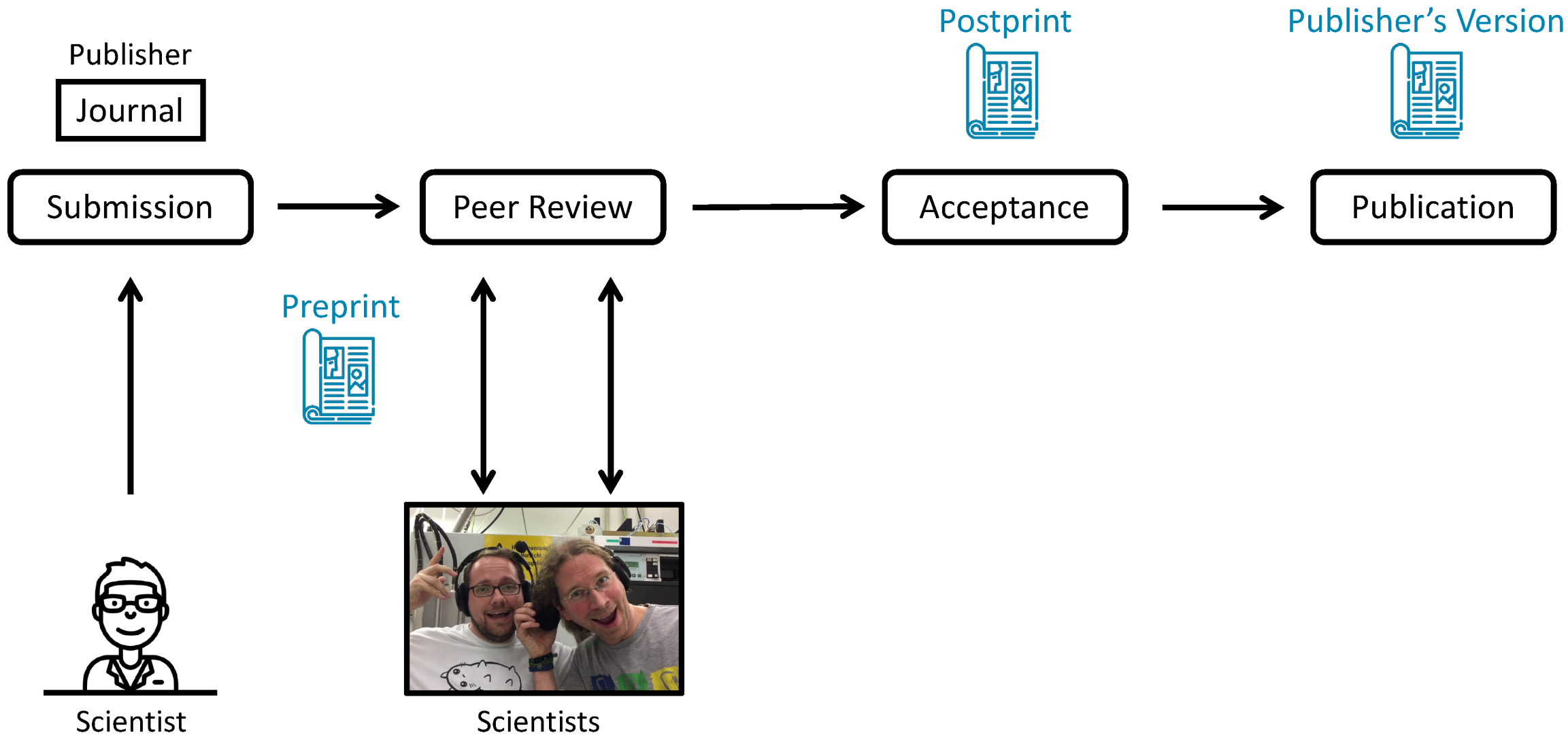
Preprint

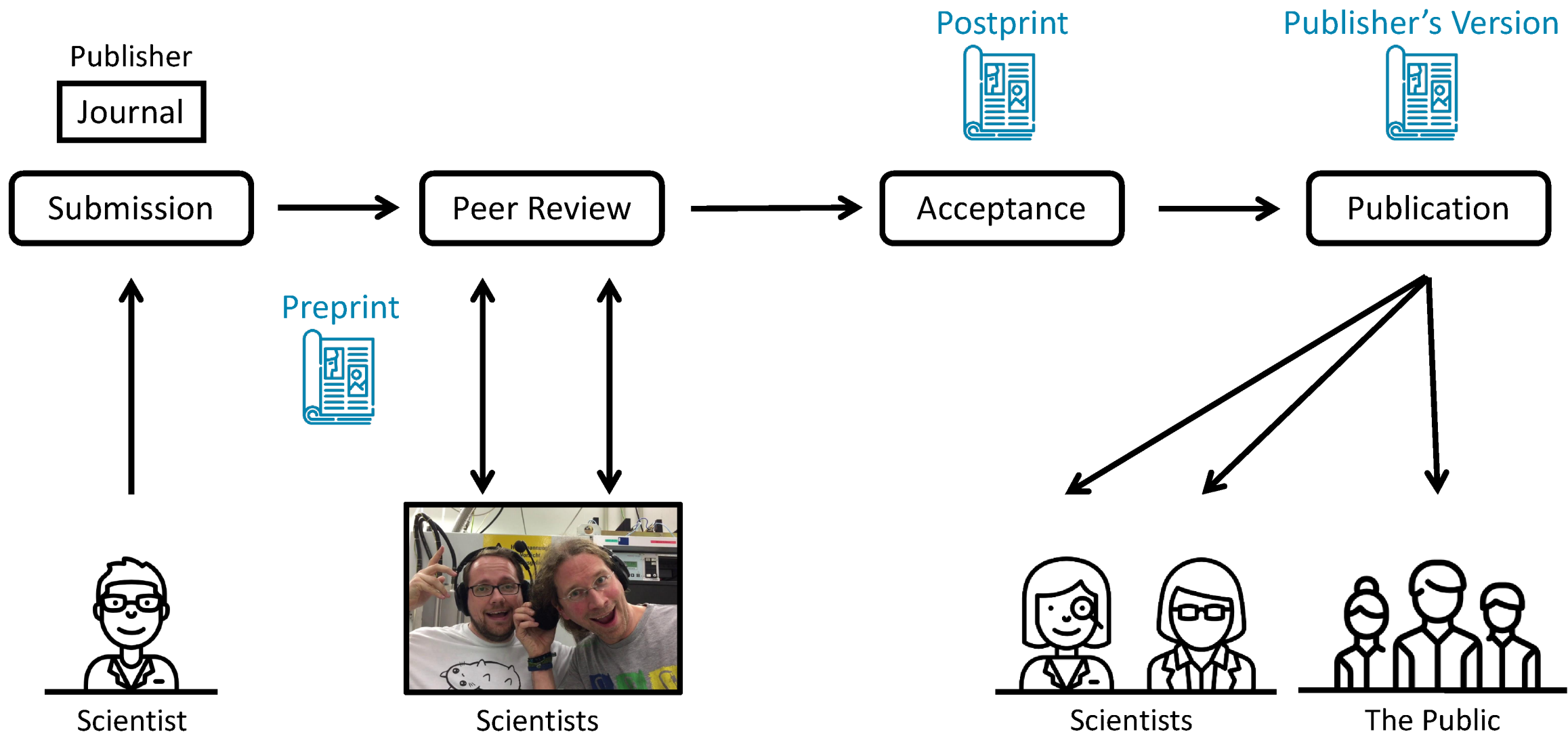


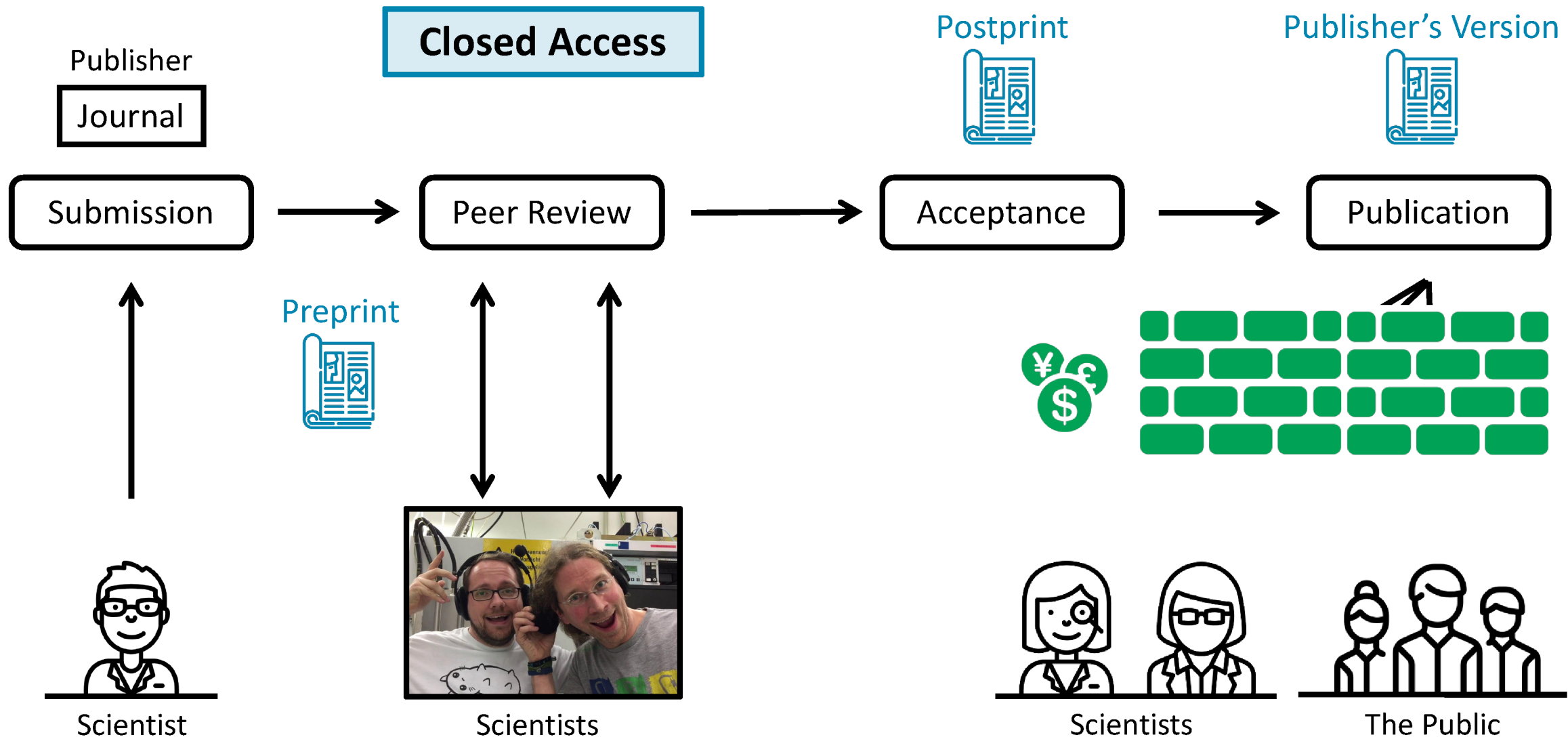
Scientist

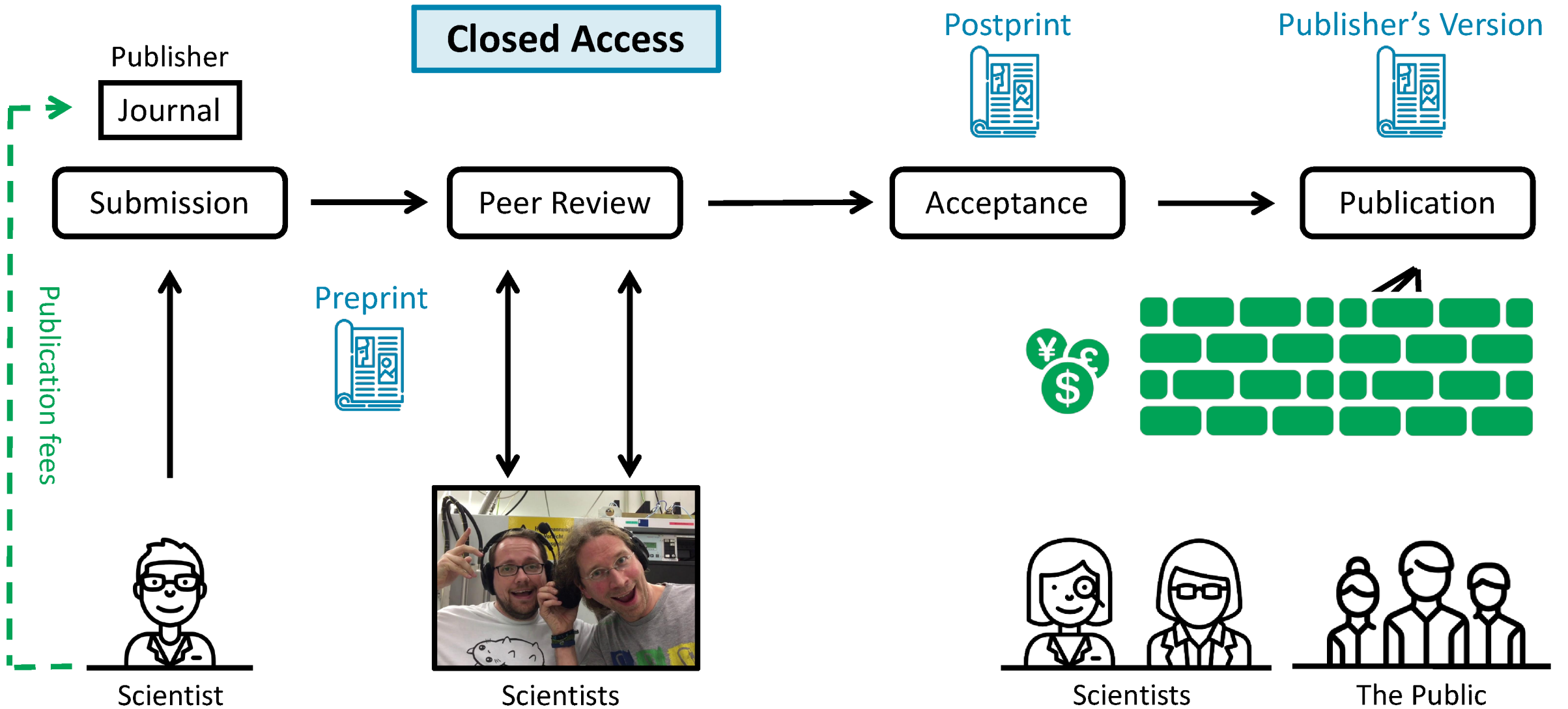




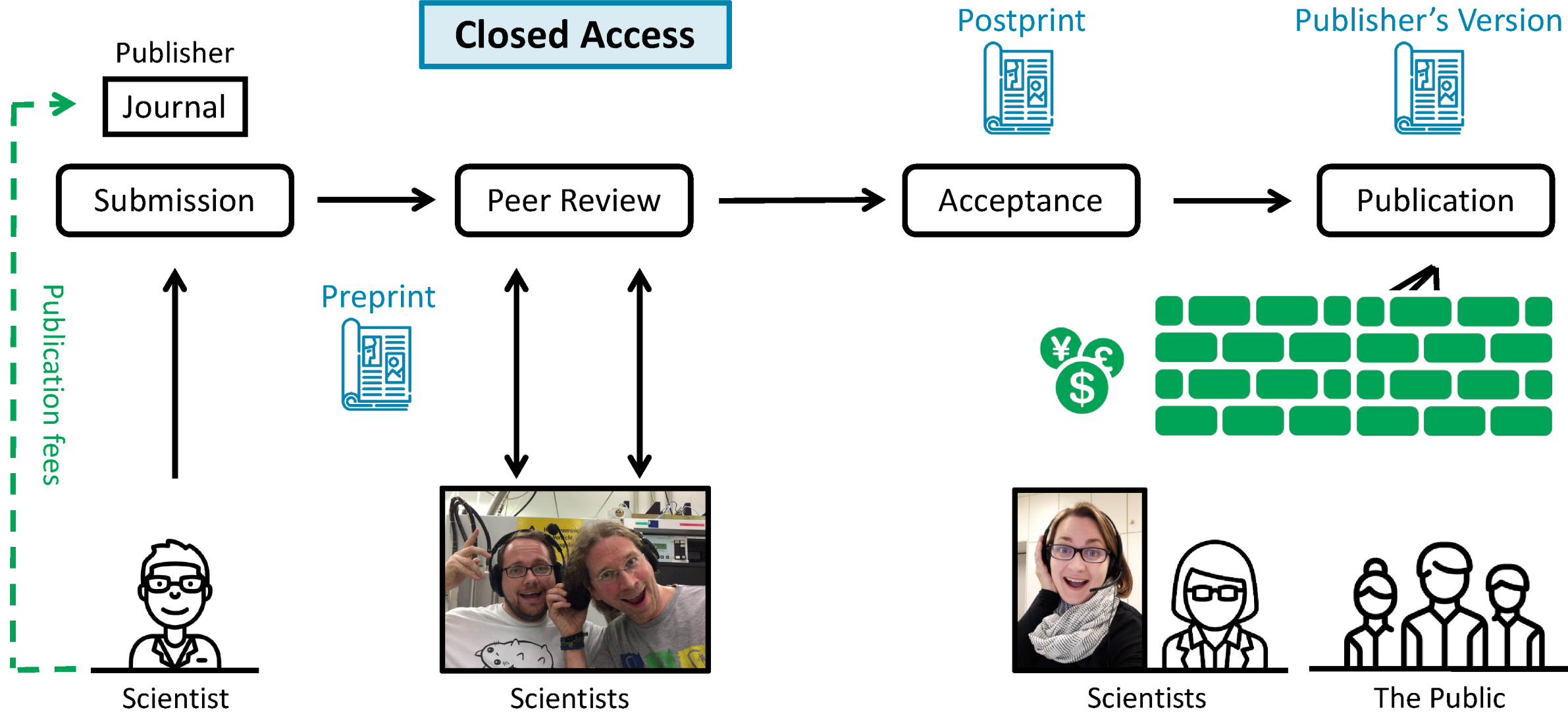






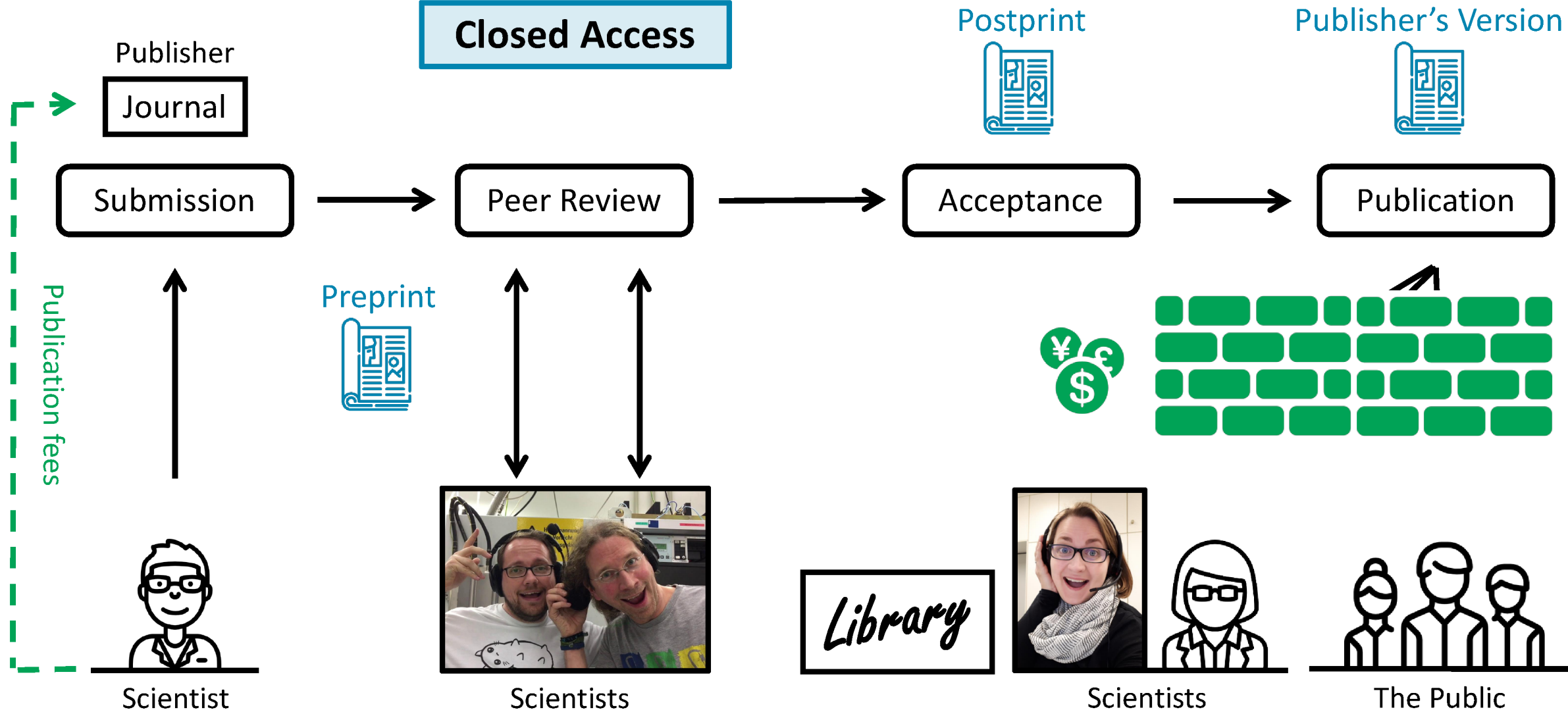


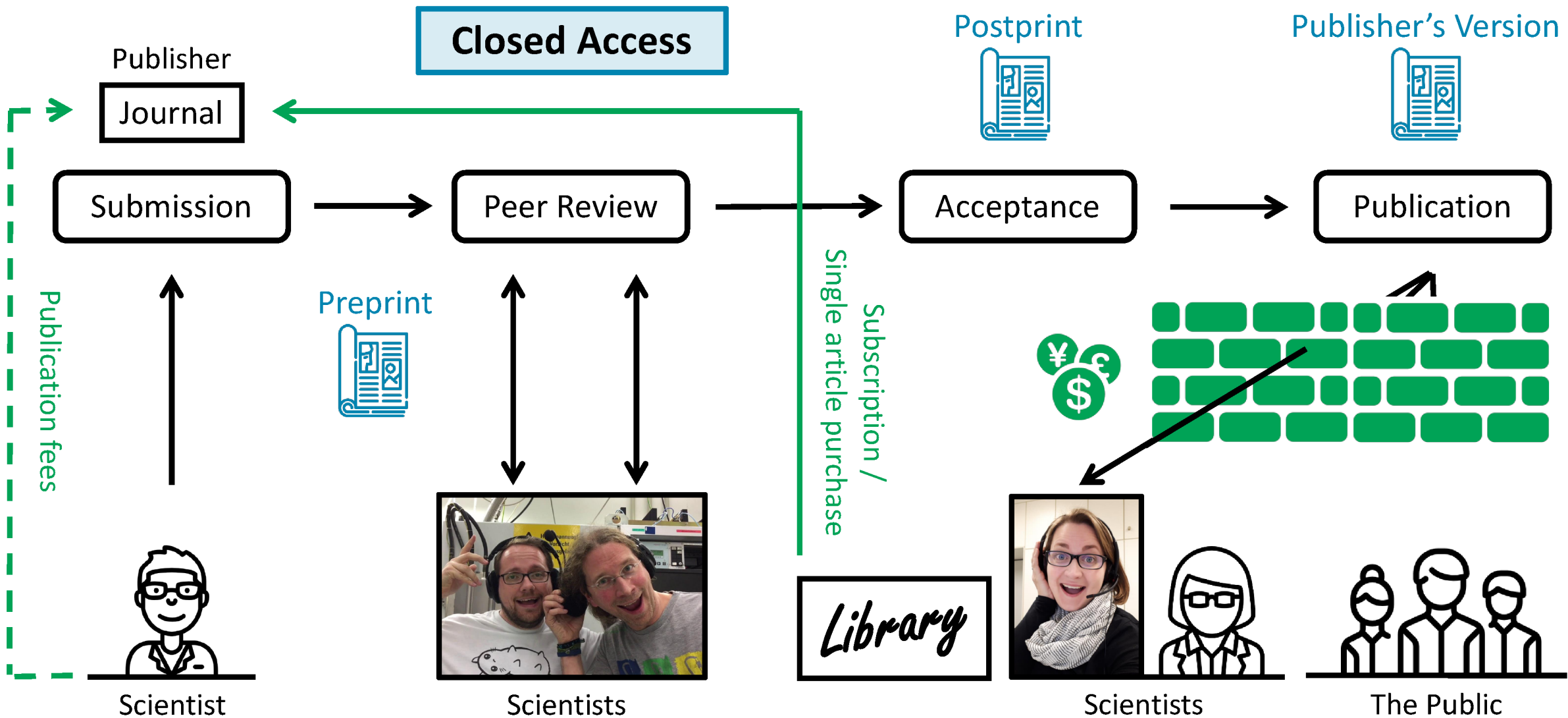
**Closed Access**

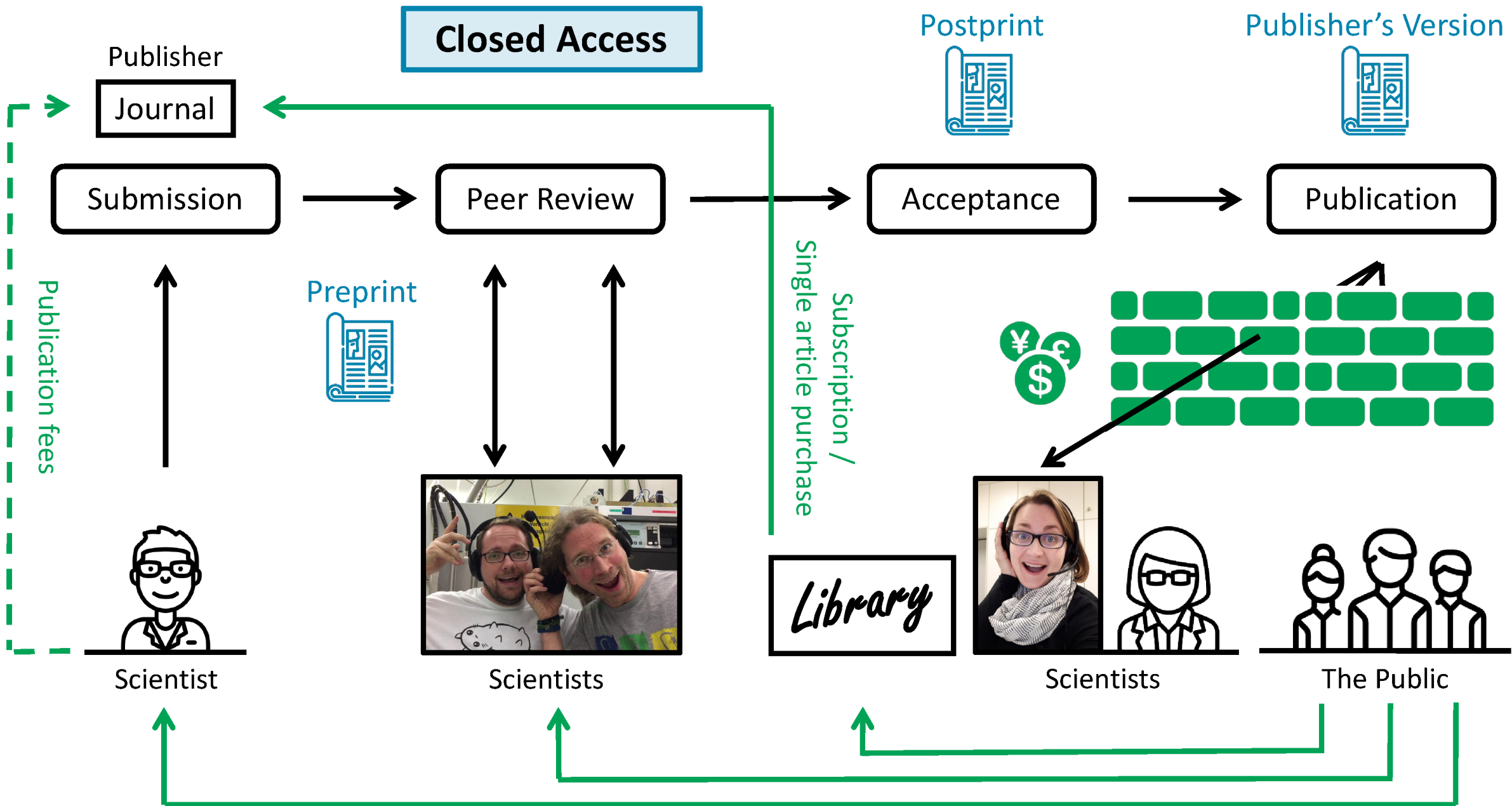


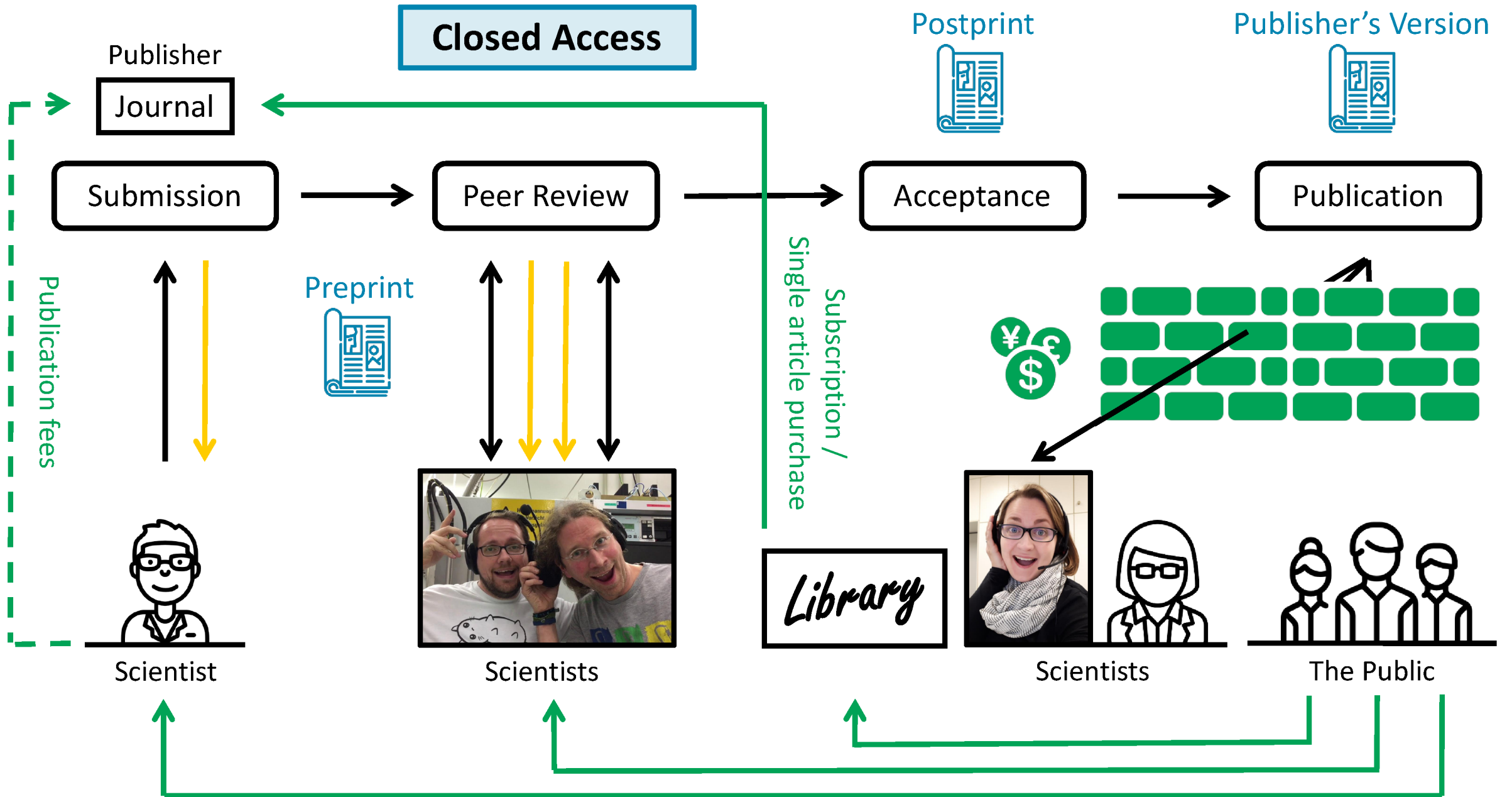


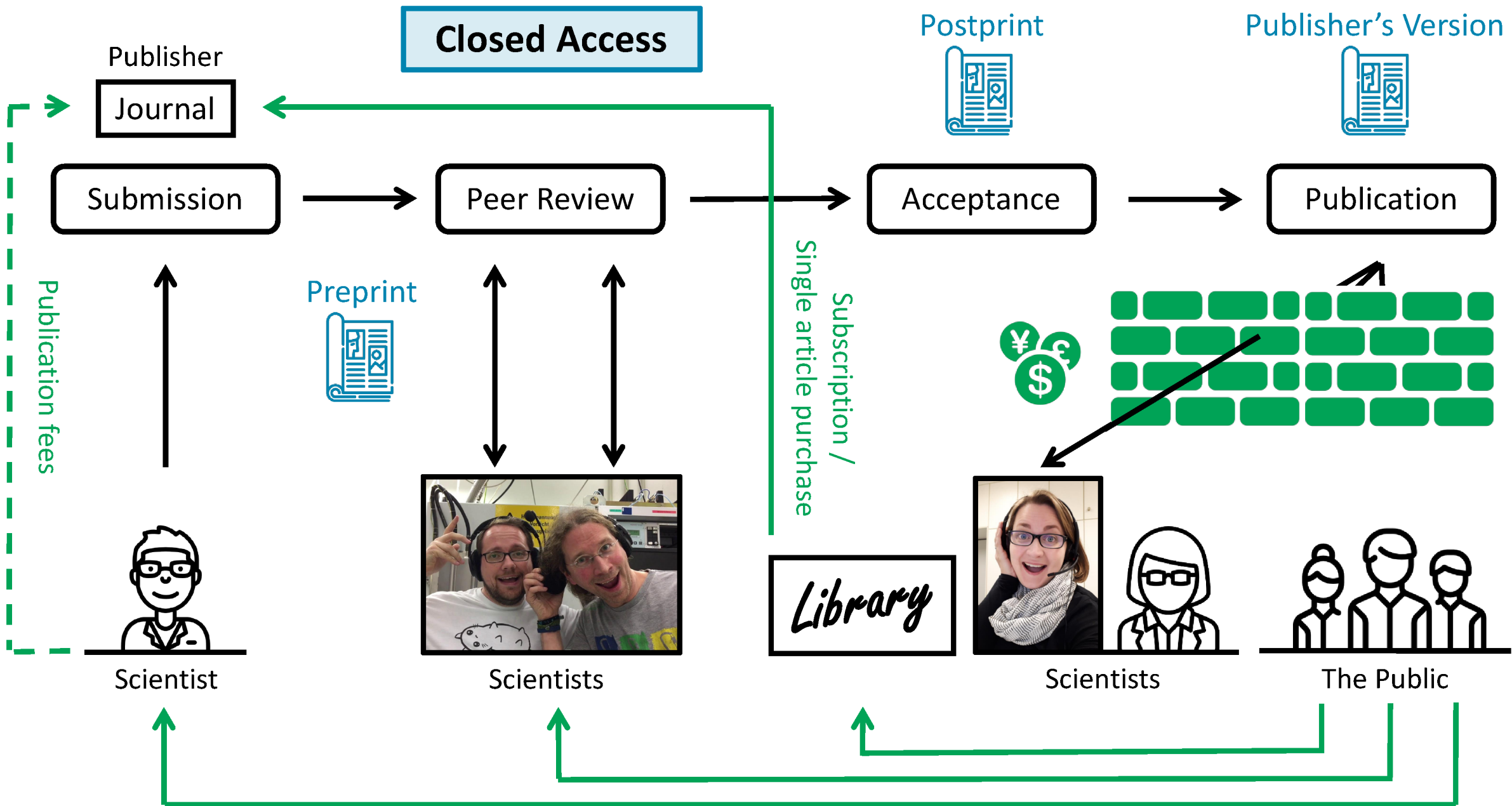
**Closed Access**



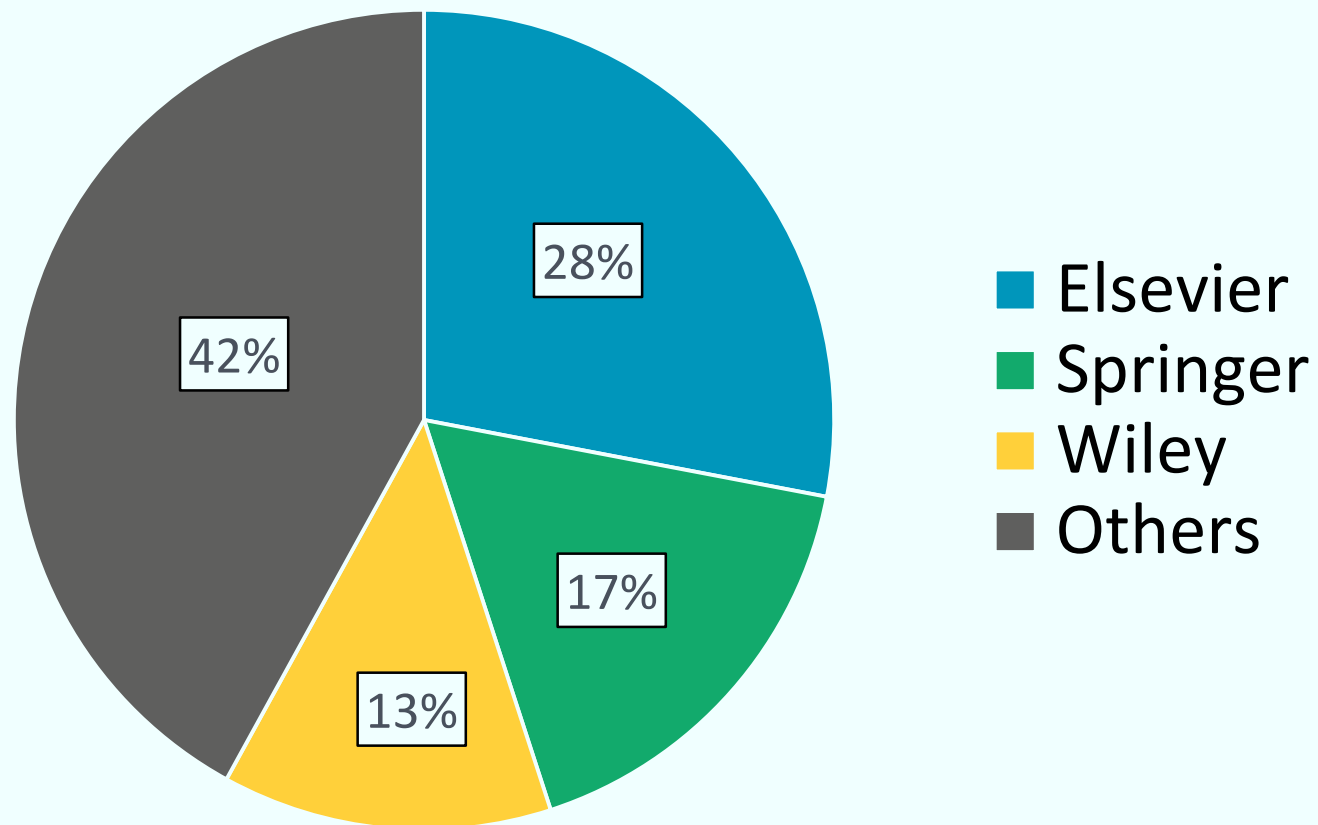








# Market shares of major academic publishers



# Profit margins of major academic publishers

Profit	Company	Industry
10%	BMW	automobiles
23%	Rio Tinto	mining
25%	Google	search
29%	Apple	premium computing
<b>35%</b>	<b>Springer</b>	<b>scholarly publishing</b>
<b>37%</b>	<b>Elsevier</b>	<b>scholarly publishing</b>

<http://wp.me/ph4jF-km> CC-BY Alex Holcombe

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<http://wp.me/ph4jF-km> CC-BY Alex Holcombe



Global journal subscription spendings

=

EUR **7,600,000,000** per year

# Harvard University says it can't afford journal publishers' prices

**University wants scientists to make their research open access and resign from publications that keep articles behind paywalls**



▲ A memo from Harvard's faculty advisory council said major scientific publishers had made scholarly communication 'fiscally unsustainable'. Photograph: Corbis

# What can I do?

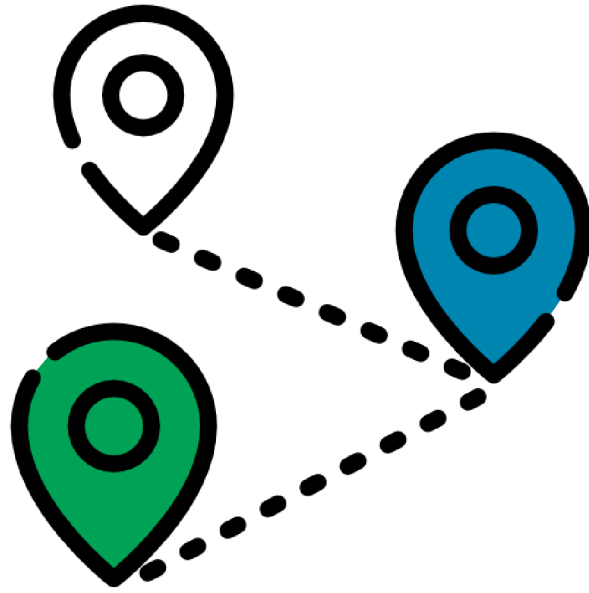
1. Tear down the paywalls

# What can I do?

1. Tear down the paywalls
2. Become an academic publisher



# Roadmap



What does the **most common way of scientific publishing** look like?

How can we **tear down the paywalls?**

# Approaches to scientific publishing without paywalls



# The players



Scientists

produce  
peer-review  
consume



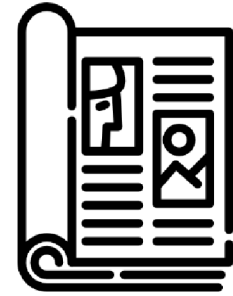
Funders

provide money



Libraries

grant access



Publishers

publish

# The players



Scientists

produce  
peer-review  
consume



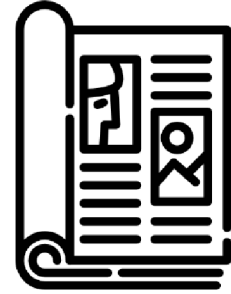
Funders

provide money



Libraries

grant access



Publishers

publish



# The players



Scientists

produce  
peer-review  
consume



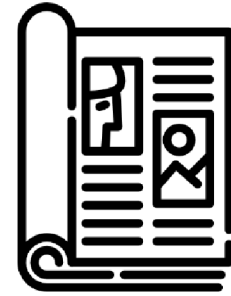
Funders

provide money



Libraries

grant access



Publishers

publish



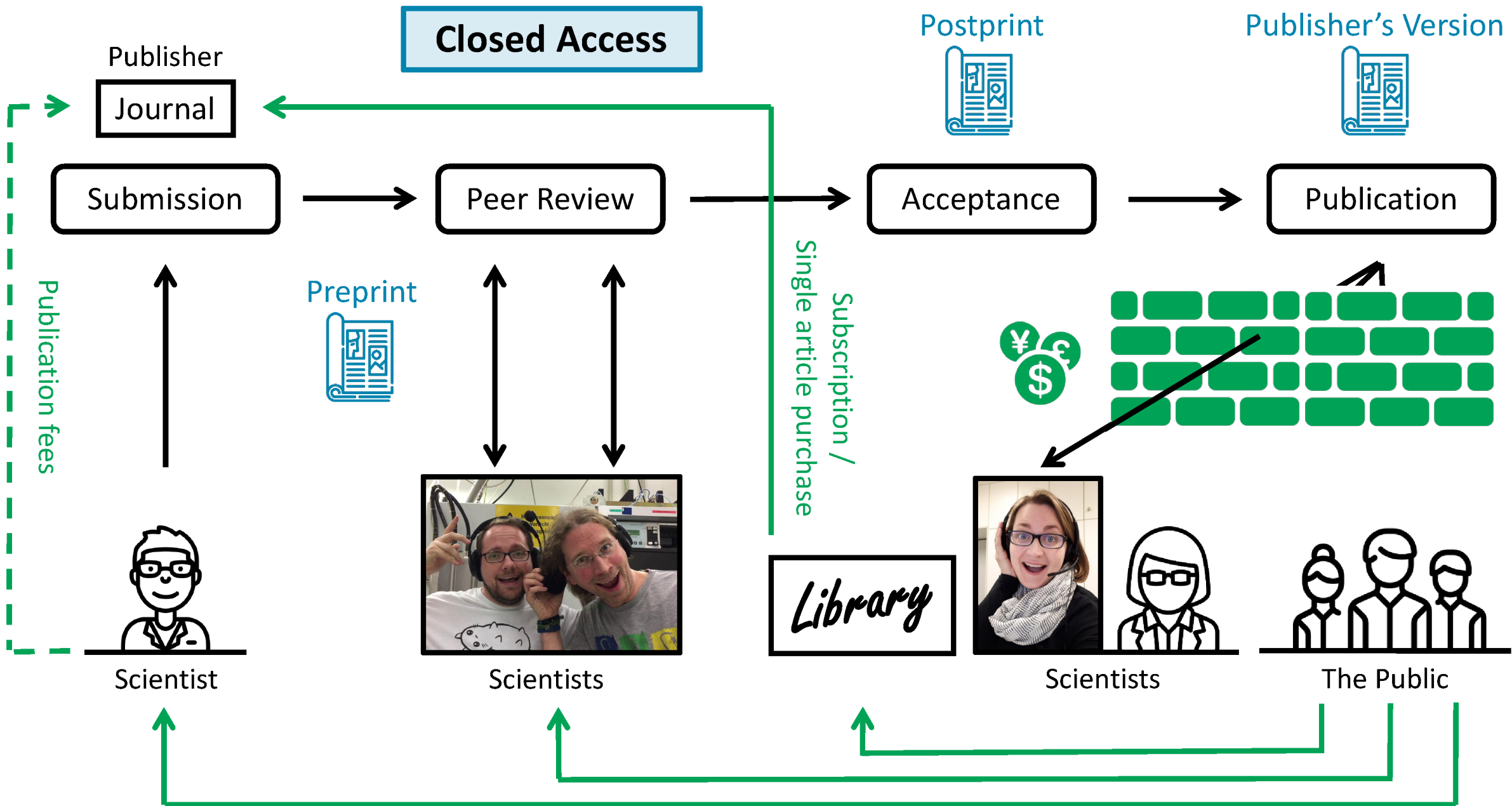
# Approaches for scientists

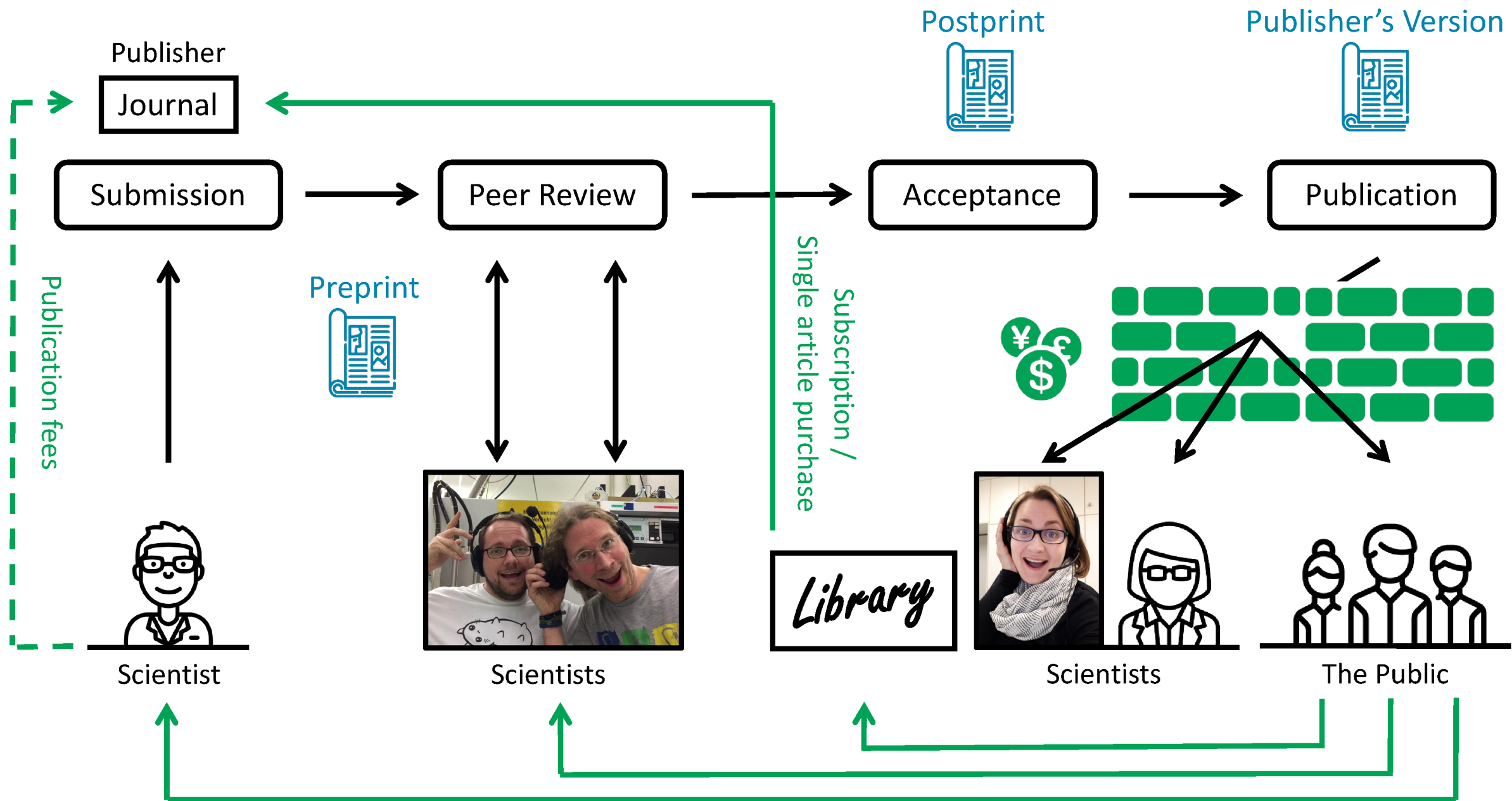


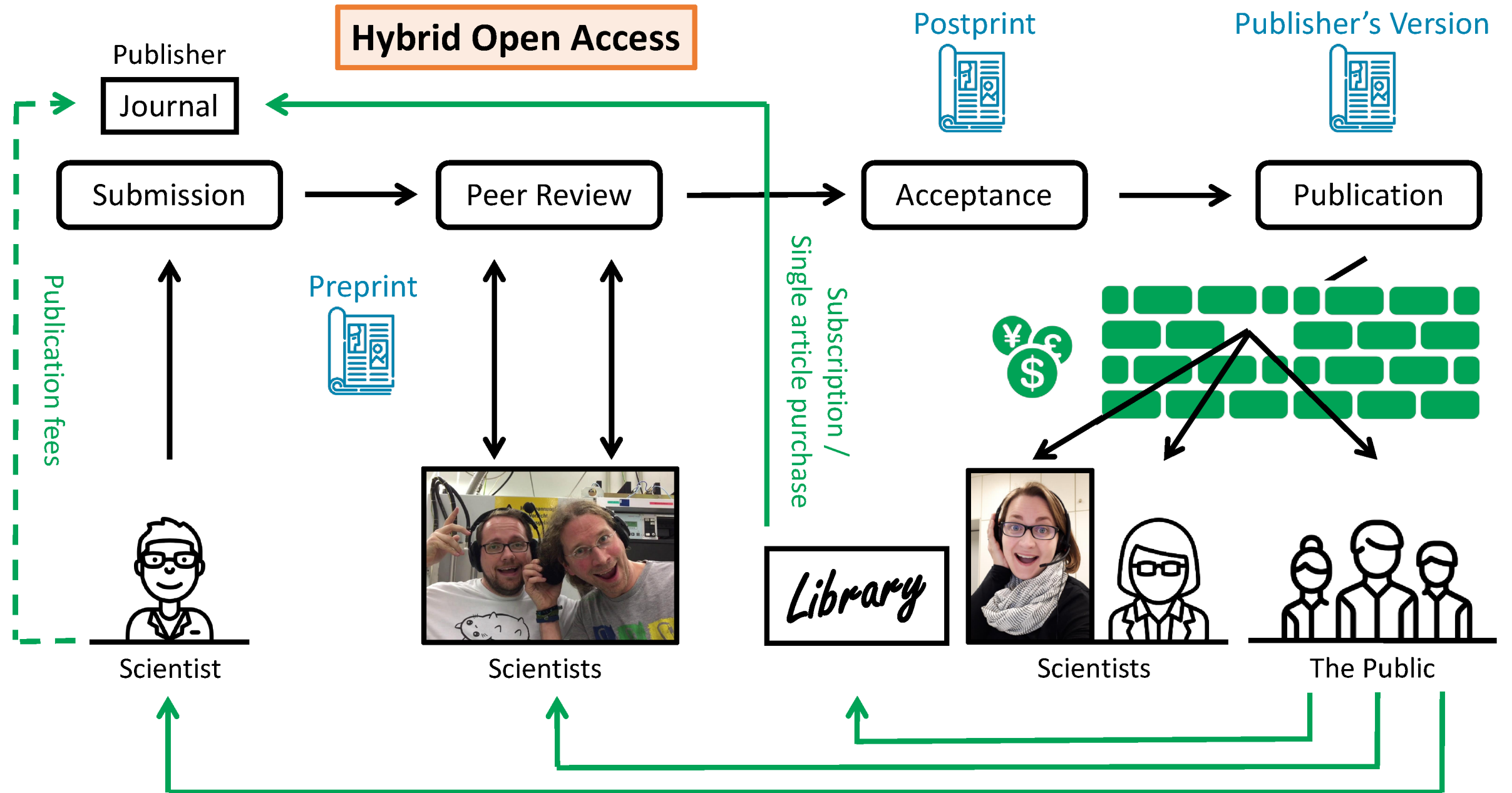
Scientists

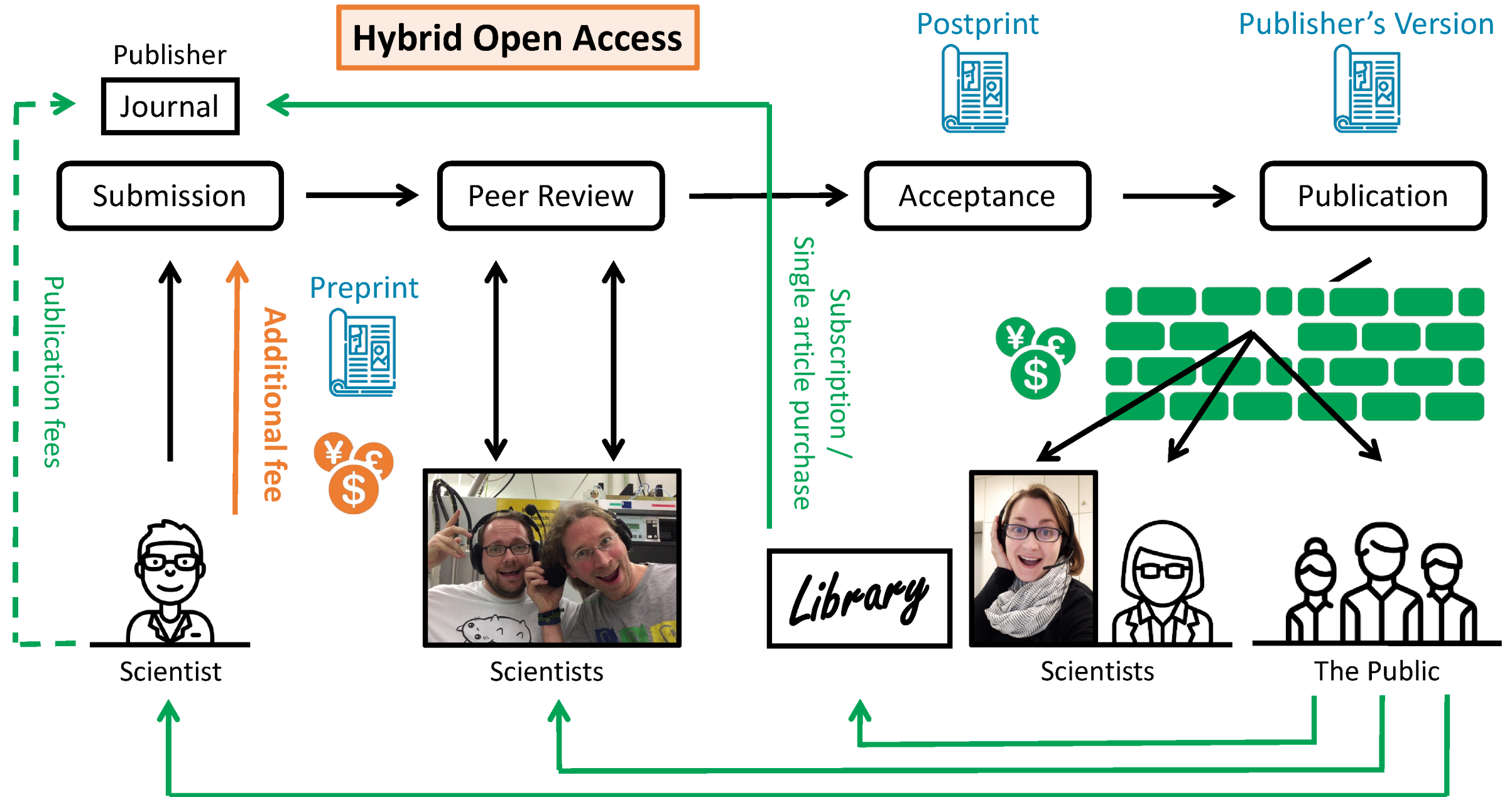
produce  
peer-review  
consume



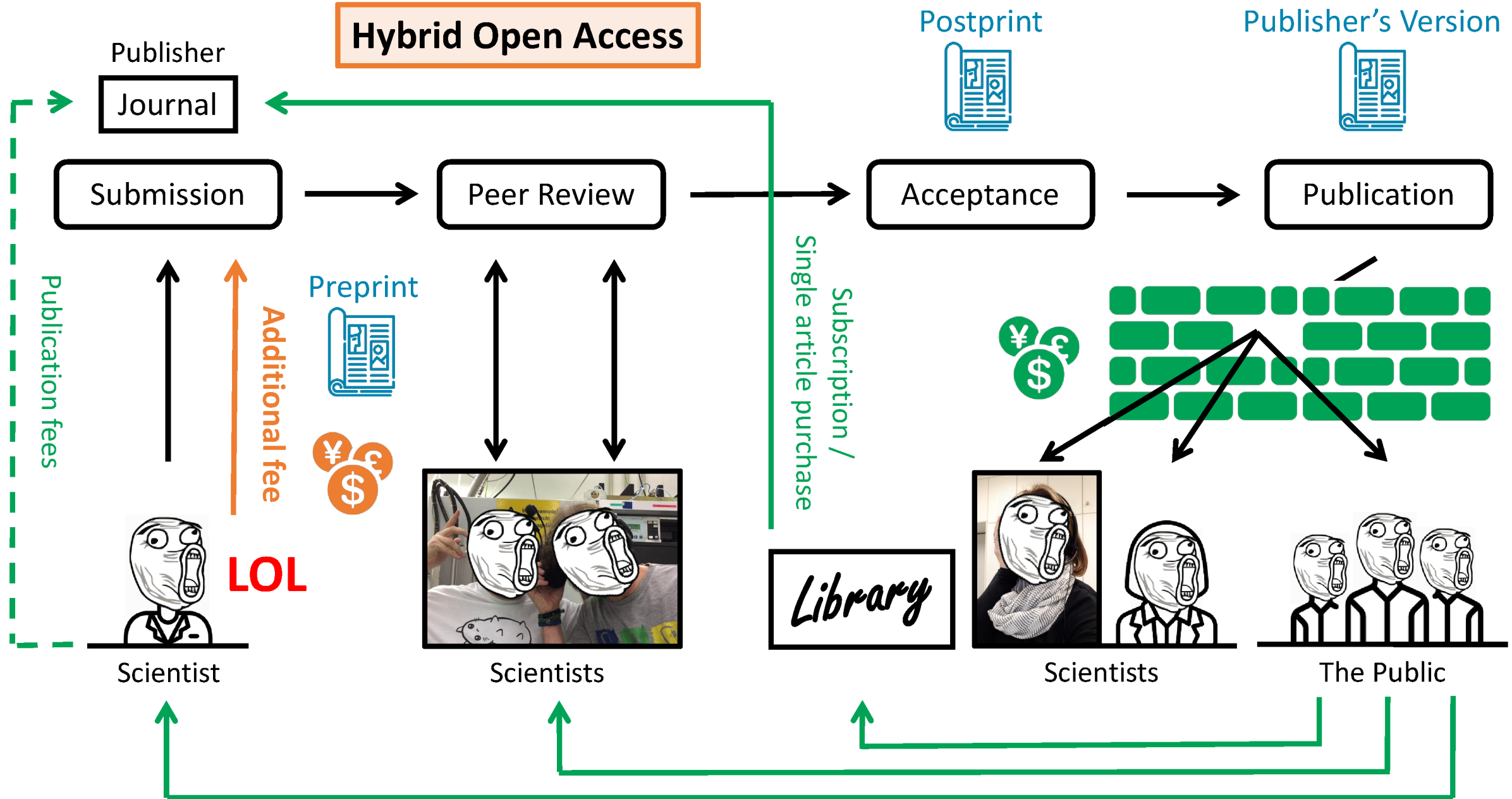








## Hybrid Open Access







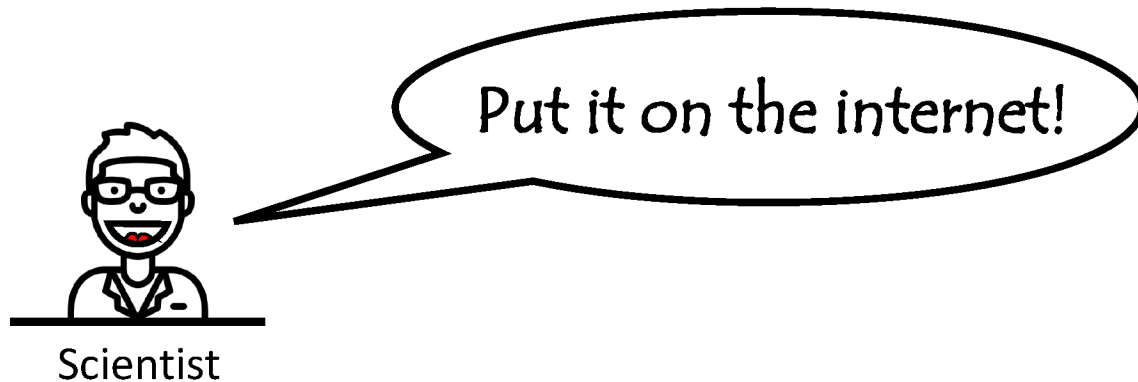


Scientist

Put it on the internet!

Secondary Publication

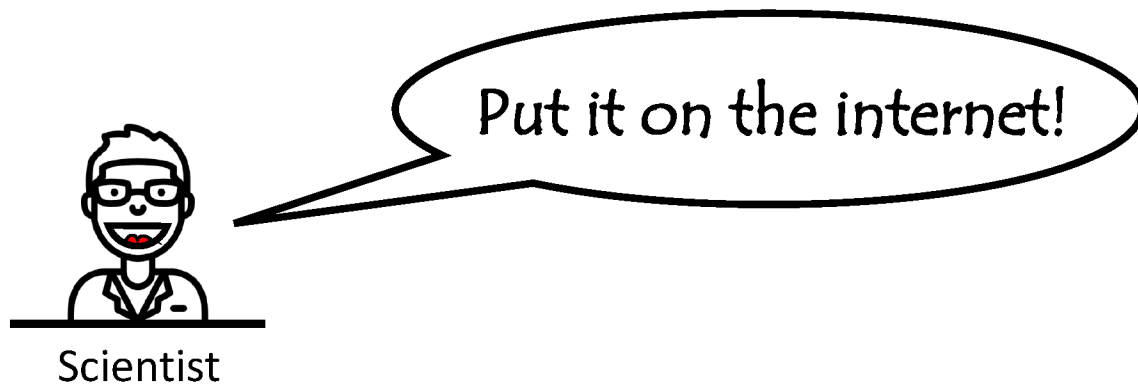
- arXiv
- Institutional repositories
- ResearchGate
- ...



Secondary Publication

Green Open Access

- arXiv
- Institutional repositories
- ResearchGate
- ...



Secondary Publication

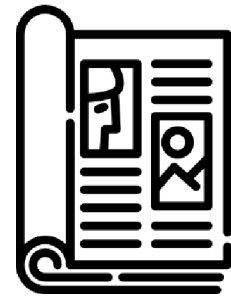
# Copyright transfer agreement

# Copyright transfer agreement



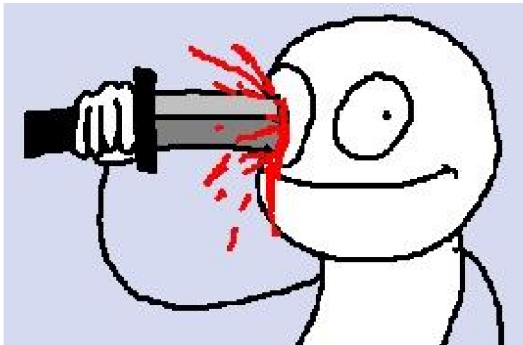
Scientists

Copyright



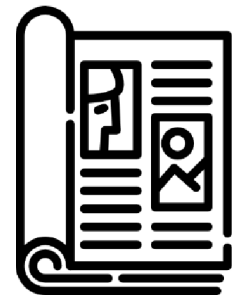
Publishers

# Copyright transfer agreement



Scientists

Copyright



Publishers

# Conditions

Green Open Access

## Version

- Preprint
- Postprint
- Publisher's Version
- ...

# Conditions

Green Open Access

## Version

- Preprint
- Postprint
- Publisher's Version
- ...

## Place

- Personal website
- Funder's repository
- arXiv
- ...



# Conditions

Green Open Access

## Version

- Preprint
- Postprint
- Publisher's Version
- ...

## Place

- Personal website
- Funder's repository
- arXiv
- ...

## Time frame

Embargo period of

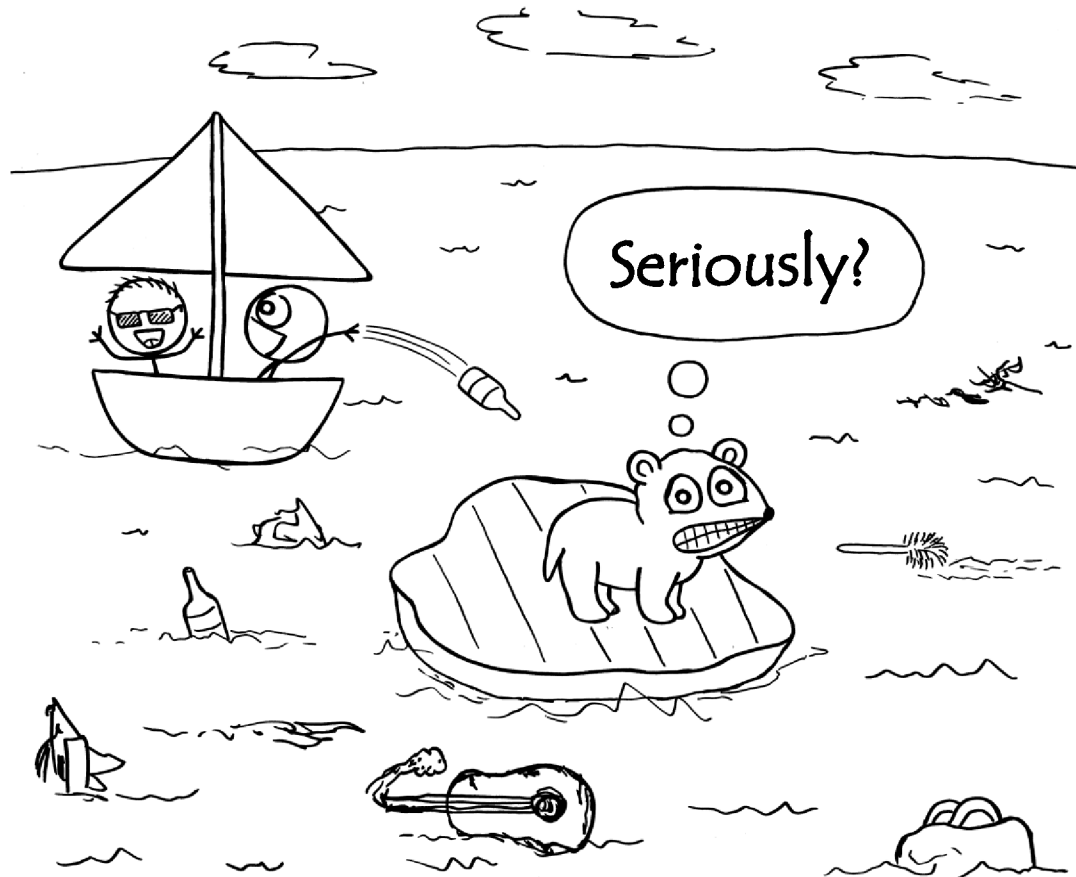
- 6 months
- 12 months
- 4 years

after publication

... and many more

# Conditions

Green Open Access



## Time frame

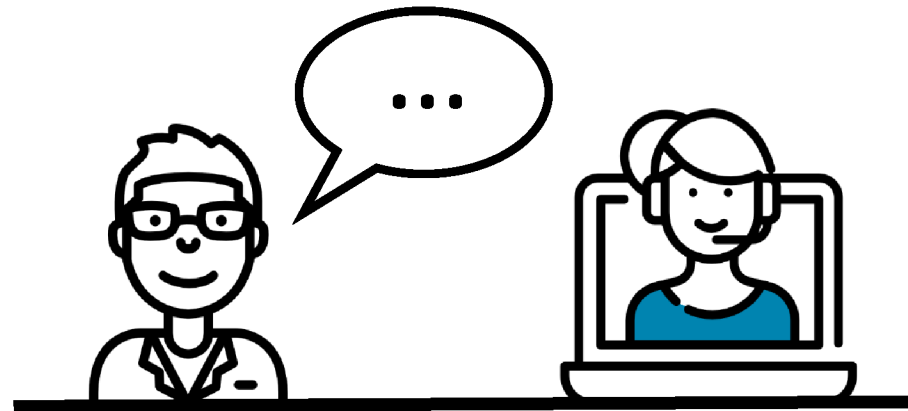
Embargo period of

- 6 months
- 12 months
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after publication

# Conditions

Green Open Access



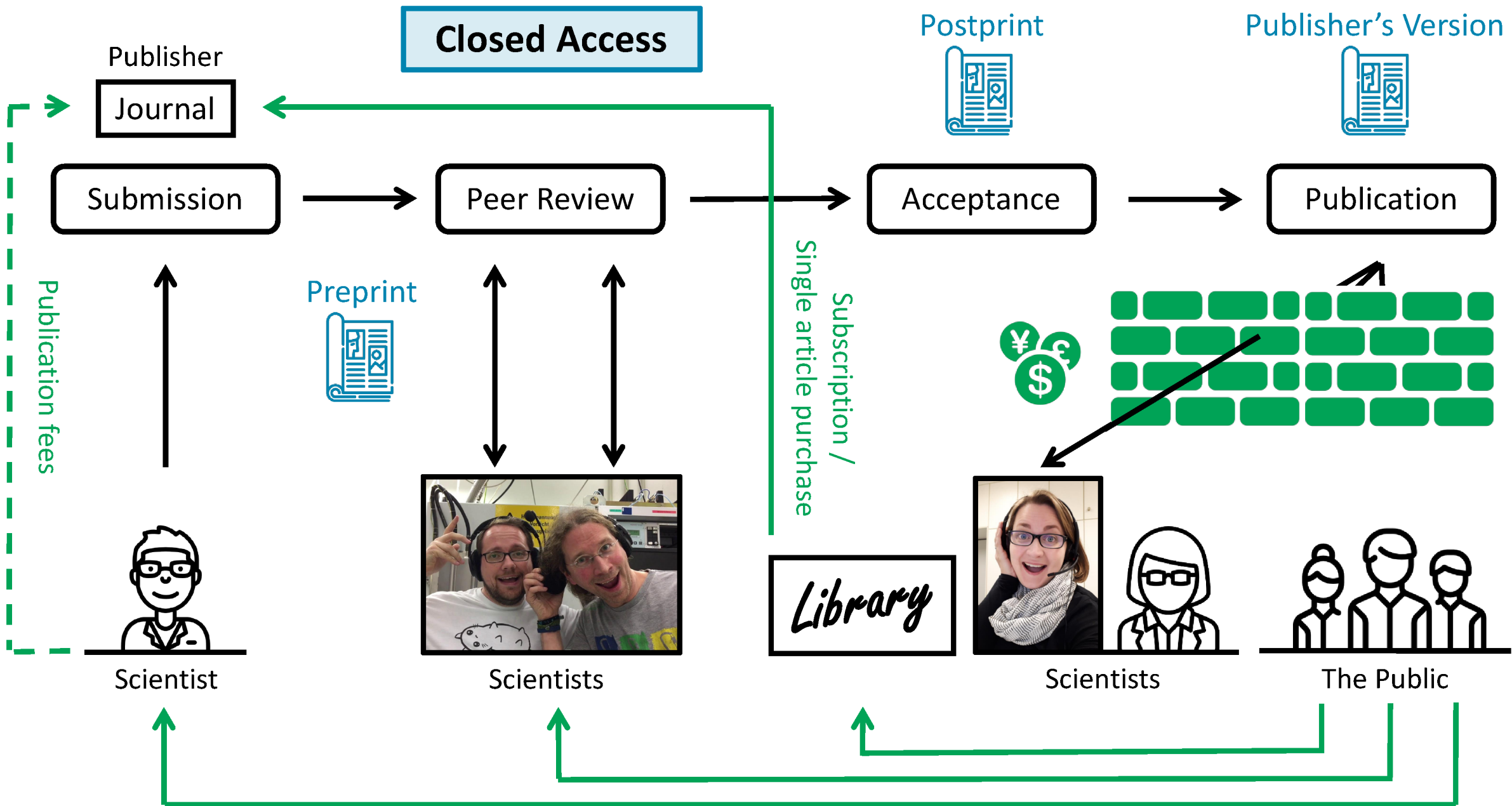
Ask your librarian

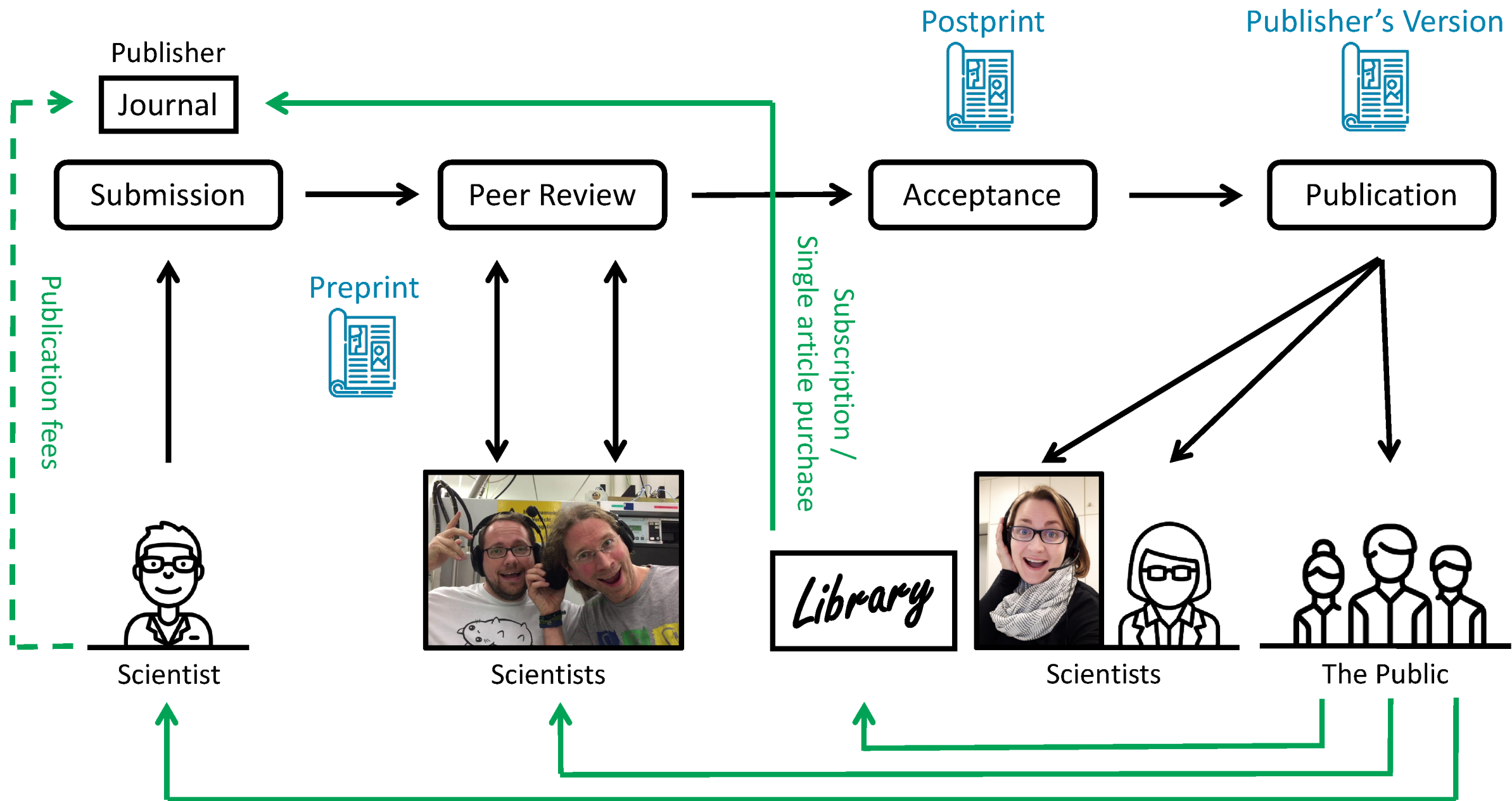
# Next time

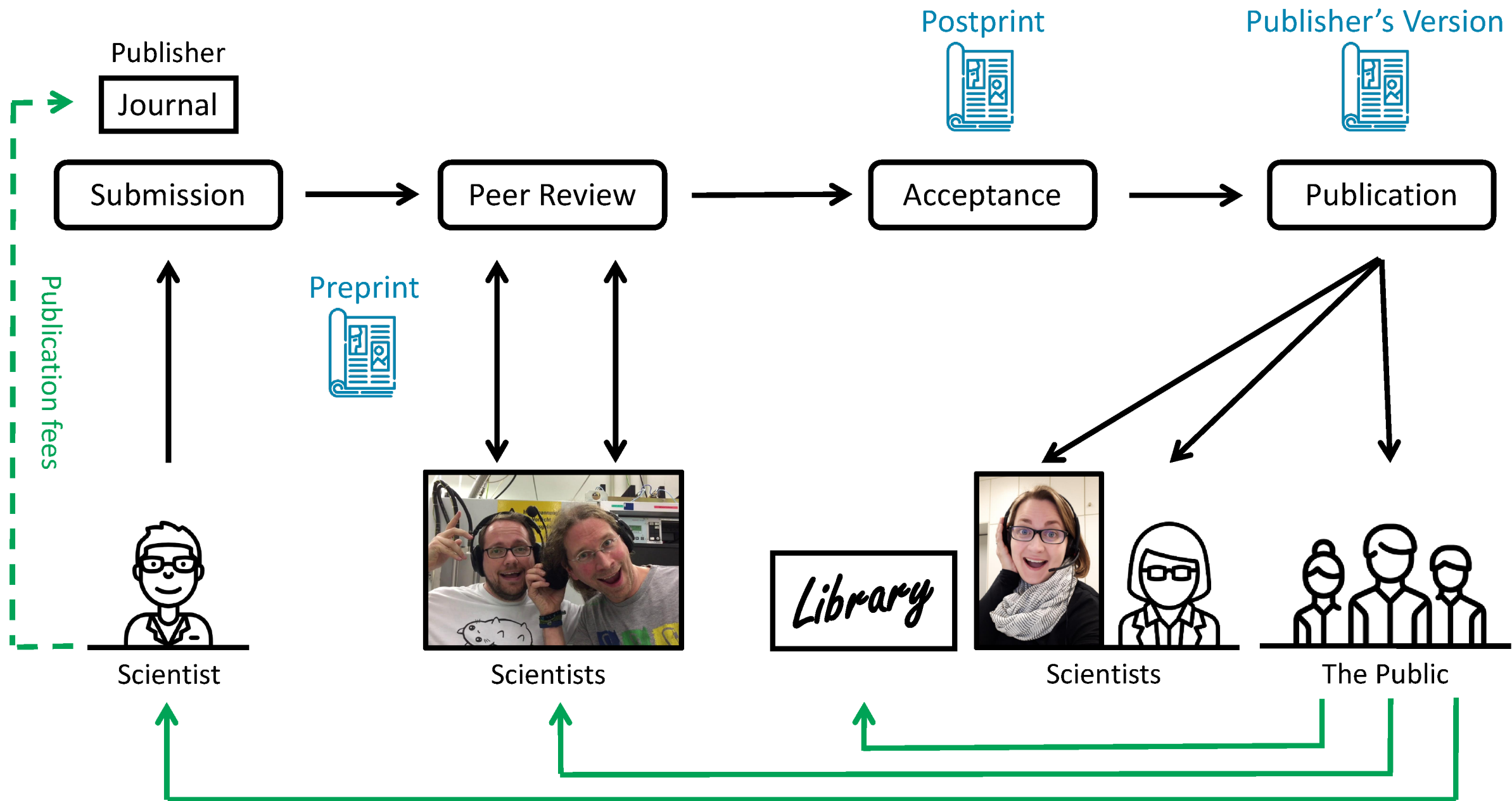
Gold Open Access

- Open Access Journal
- No paywall
- Creative Commons Licence

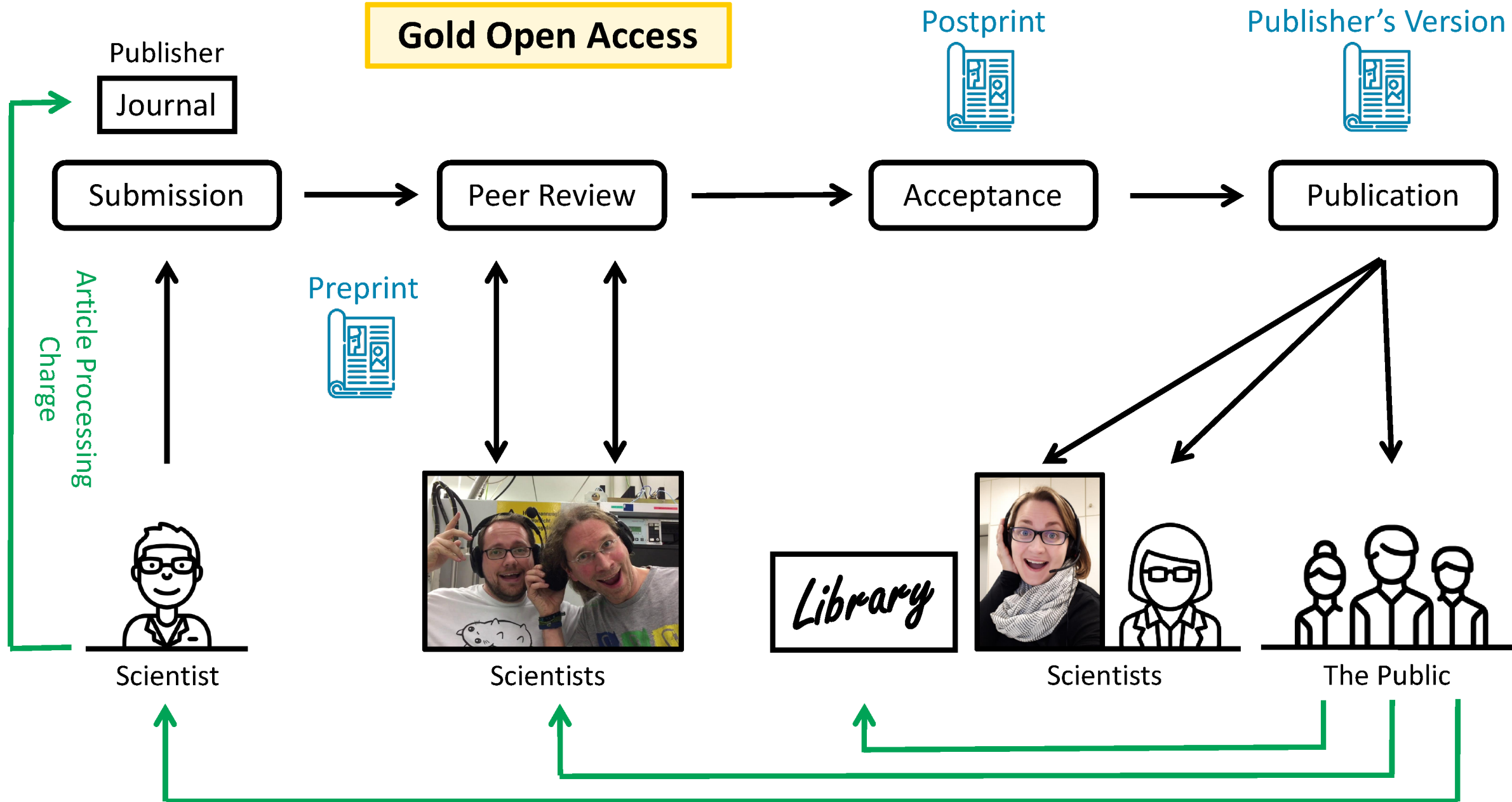




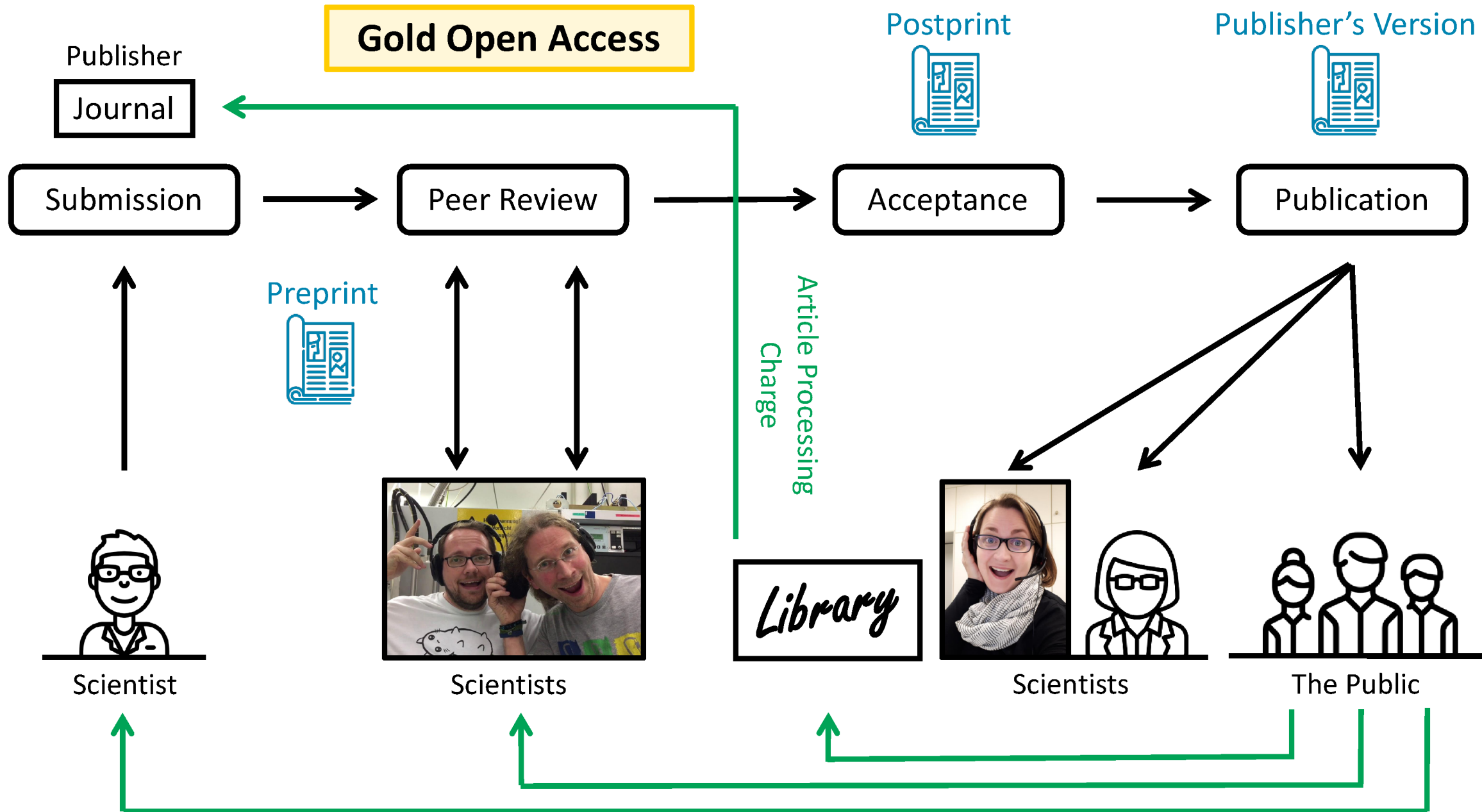


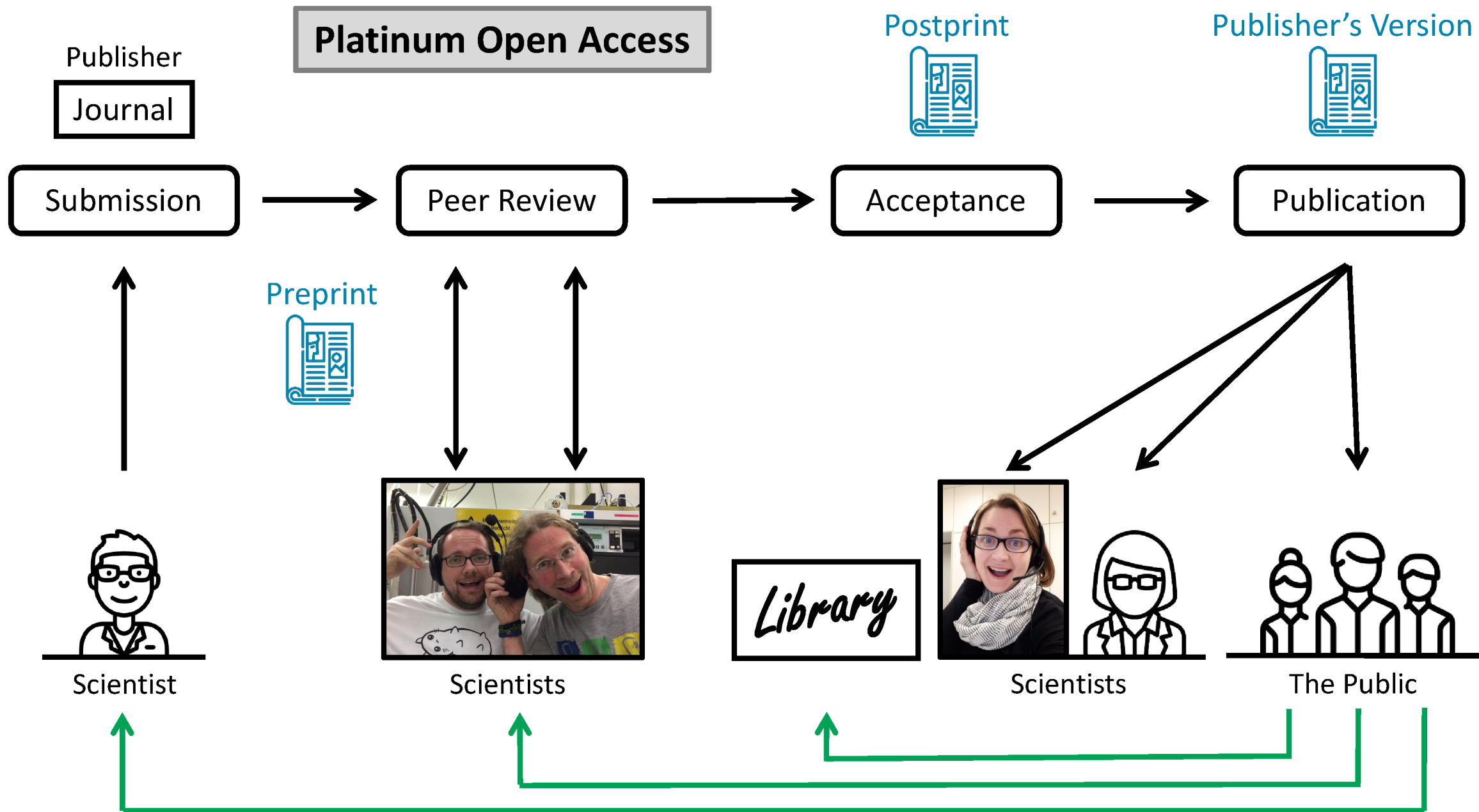


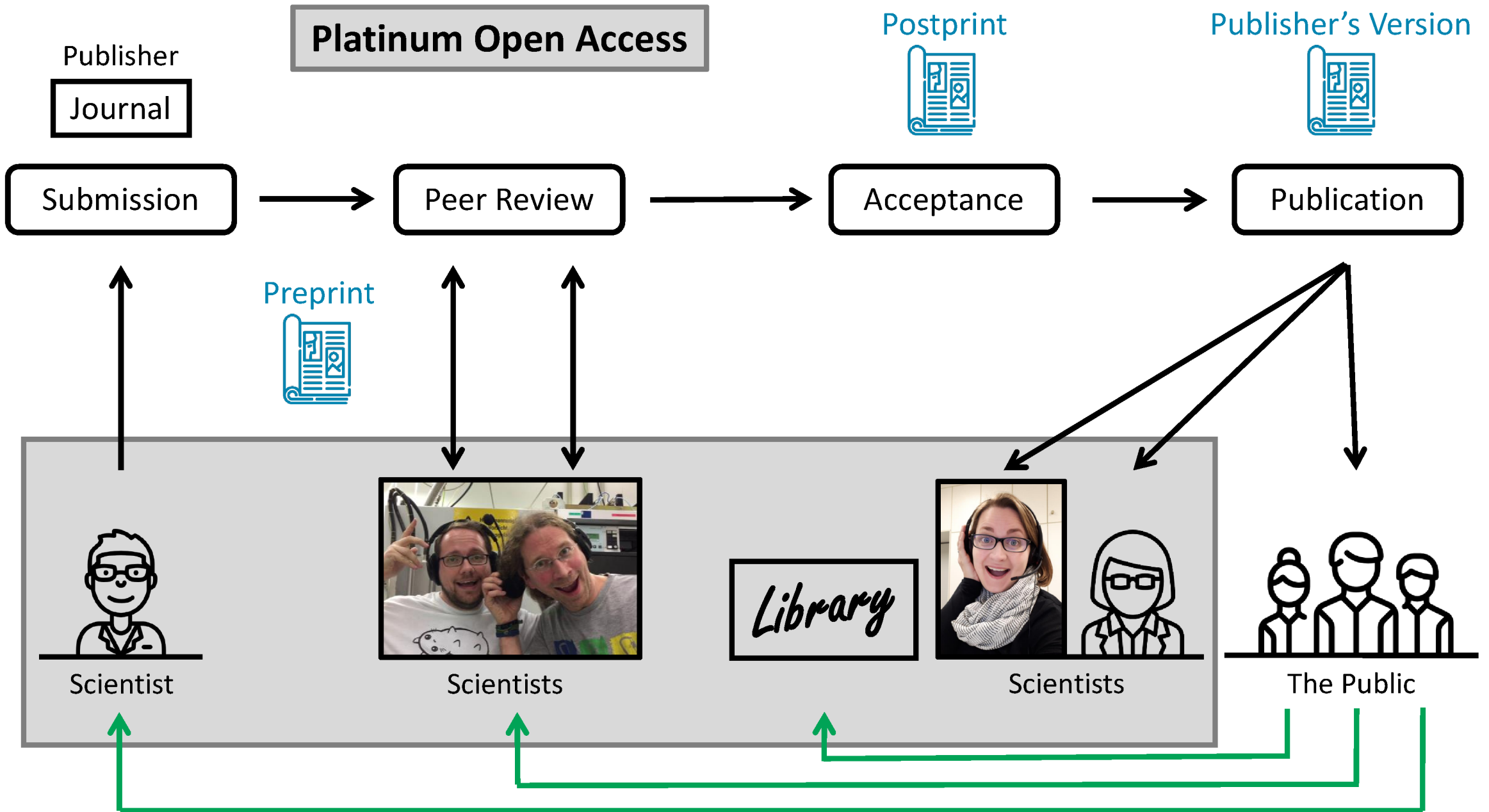
## Gold Open Access











# Approaches for scientists



Scientists

produce  
peer-review  
consume



Hybrid Open Access

Green Open Access

Gold Open Access

Platinum Open Access

# Joining forces



Scientists

produce  
peer-review  
consume



Funders

provide money



Libraries

grant access



Platinum Open Access

Repositories

Plan S

Flipping

arXiv

SCOAP3

Project DEAL

Funding

Policies

Platinum Open Access

Repositories

Plan S

Flipping

arXiv

SCOAP3

Project DEAL

Funding

Policies

# Project DEAL

- Commissioned by the Alliance of Science Organizations in Germany / Allianz der deutschen Wissenschaftsorganisationen
- Driven by scientists and librarians
- Implementation of nationwide consortium agreements with major academic publishers




Publish & Read


# Publish & Read

- Participating institutions have access to the entire portfolio of journals from the publisher


# Publish & Read

- Participating institutions have **access to the entire portfolio of journals** from the publisher
- All **publications with a corresponding author** from the participating institutions will be published **Open Access**  with the publisher

# Publish & Read

- Participating institutions have access to the entire portfolio of journals from the publisher
  - All publications with a corresponding author from the participating institutions will be published Open Access  with the publisher
- } one fee

# Publish & Read

- Participating institutions have access to the entire portfolio of journals from the publisher
- All publications with a corresponding author from the participating institutions will be published Open Access  with the publisher

one fee

Up to 16,500 publications per year with Elsevier

# State of the negotiations

Wiley	Ongoing negotiations with DEAL
Springer	Ongoing negotiations with DEAL

# State of the negotiations

Wiley	Ongoing negotiations with DEAL
Springer	Ongoing negotiations with DEAL
Elsevier	

# State of the negotiations

Wiley	Ongoing negotiations with DEAL
Springer	Ongoing negotiations with DEAL
Elsevier	DEAL currently suspended the negotiations



# Joining forces



Scientists



Libraries

# Joining forces



Scientists

... stop their cost-free work for Elsevier.  
*authorship, peer review, editorship*



Libraries

# Joining forces



## Scientists

... stop their cost-free work for Elsevier.  
*authorship, peer review, editorship*

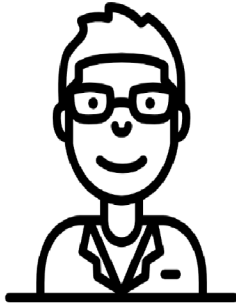


## Libraries

... cancel subscriptions to Elsevier journals.

200 German institutions are currently without Elsevier subscriptions.

# Joining forces



## Scientists

... stop their cost-free work for Elsevier.  
*authorship, peer review, editorship*

... use alternative ways to get access.



## Libraries

... cancel subscriptions to Elsevier journals.

200 German institutions are currently without  
Elsevier subscriptions.

... support alternative ways to get access.

# Joining forces



## Scientists

... stop their cost-free work for Elsevier.  
*authorship, peer review, editorship*

... use alternative ways to get access.

Repositories

Inter-library-loan

Scholarly sharing

Document delivery

#icanhazpdf

Unpaywall



## Libraries

... cancel subscriptions to Elsevier journals.

200 German institutions are currently without Elsevier subscriptions.

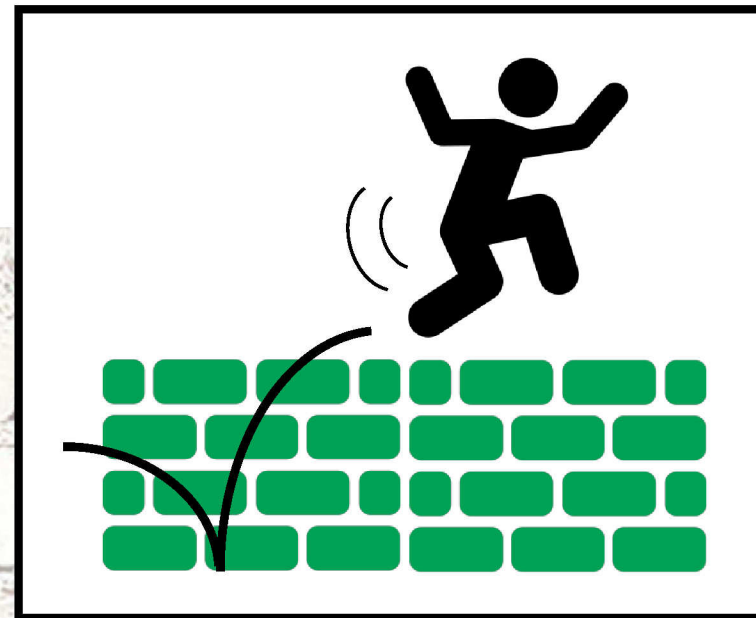
... support alternative ways to get access.



# SCI-HUB

...to remove all barriers in the way of science

enter URL, PMID / DOI or search string



# Publishers and Sci-Hub

Filed a lawsuit 

# Publishers and Sci-Hub

Filed a lawsuit 

Requested blocking 



## SCI-HUB

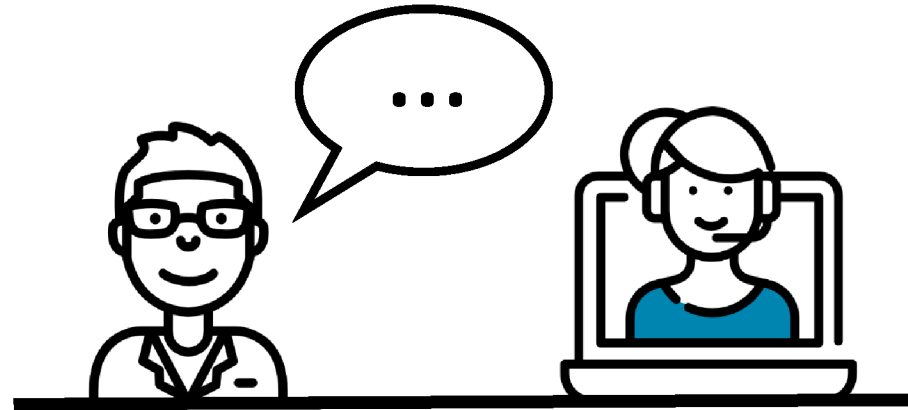
## Swedish ISP blocks Elsevier after blocking request for Sci-Hub

The Swedish internet provider Bahnhof is forced by the academic publisher Elsevier to block access for users to file-sharing platforms such as Sci-Hub. In the absence of a legal alternative, Bahnhof is following the request, but is defending itself in its own very special way.

5. November 2018, 10:28 Uhr, Sebastian Grüner

Dear scientists ...

# Dear scientists ...



## Talk to your librarian

# Unlocked ~~Locked up~~ science



Tearing down paywalls in  
scholarly communication

Claudia Frick - @FuzzyLeapfrog

#35c3



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Cite with <https://doi.org/10.5281/zenodo.1495601>

# Acknowledgements

I thank all my colleagues and friends for their feedback and input for the talk, particularly this one special colleague for reviewing my English slides and my pronunciation. I also thank [@islieb](#) for the comic strip especially made for this talk.

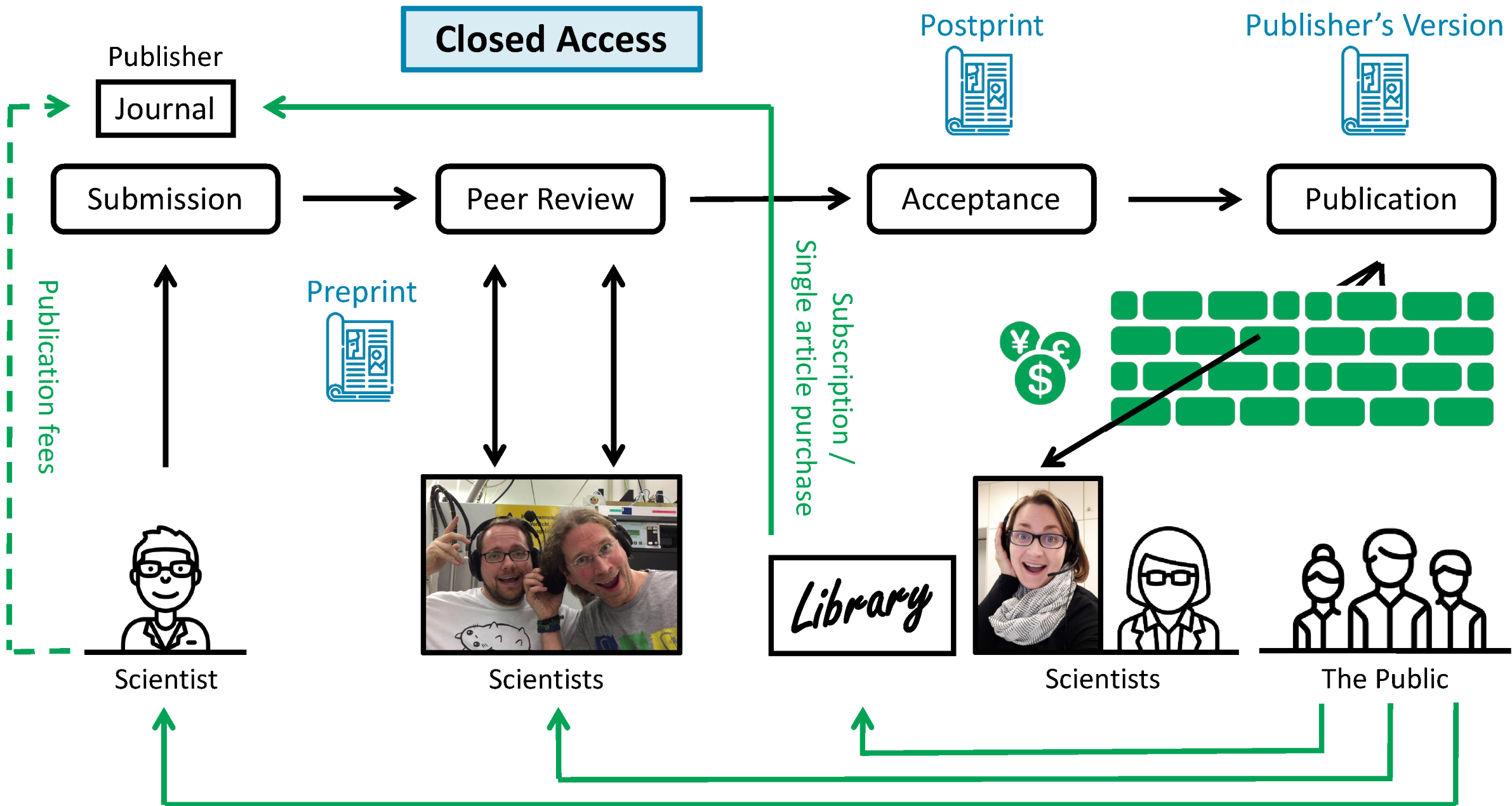
——  
**THANK  
YOU**

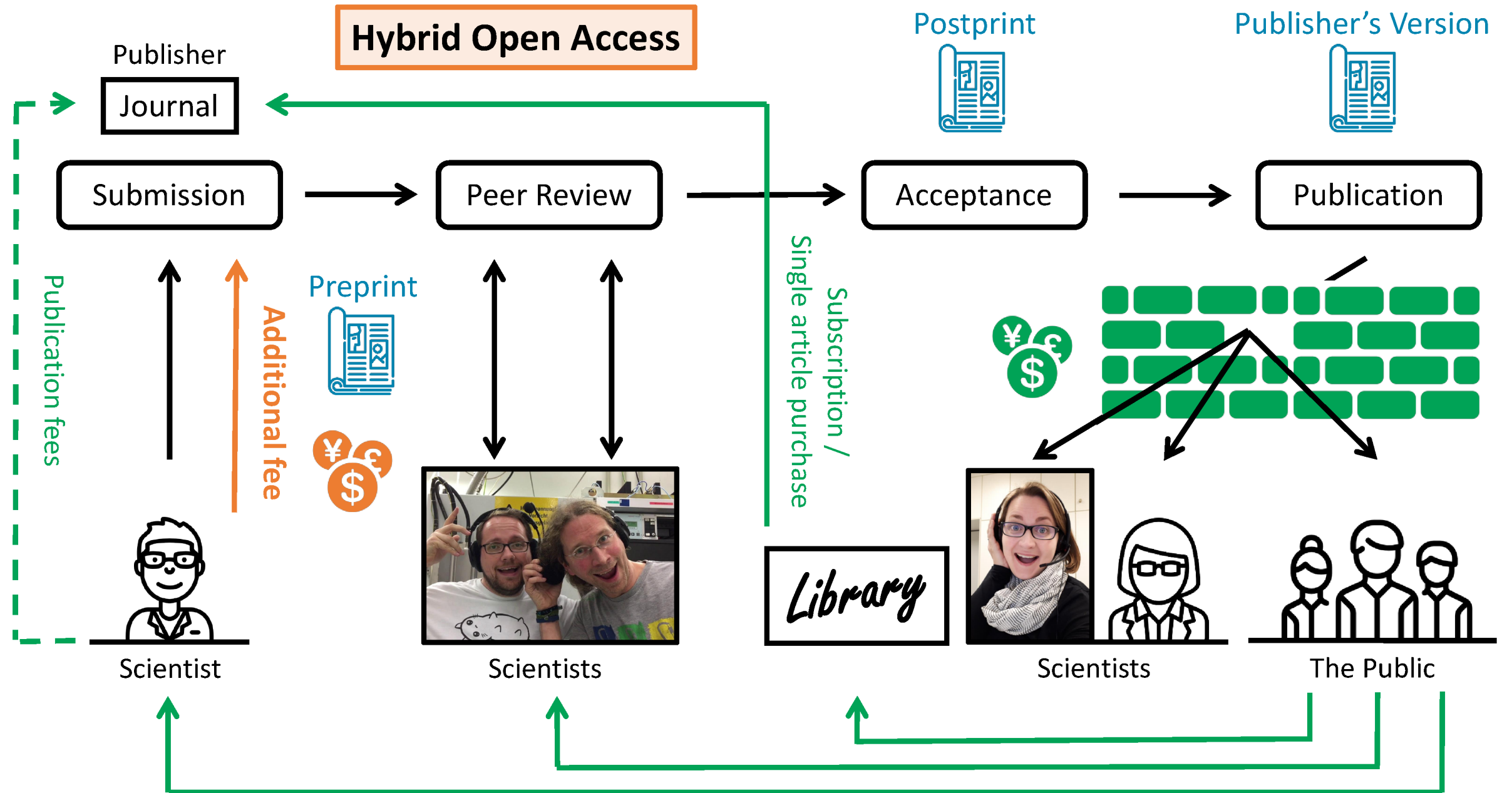


Sorry [@MInkorrekt](#)  
... but this picture was just too damn good.



# Roads to Open Access







# Conditions

Green Open Access

## Version

- Preprint
- Postprint
- Publisher`s Version
- ...

## Place

- Personal website
- Funder`s repository
- arXiv
- ...

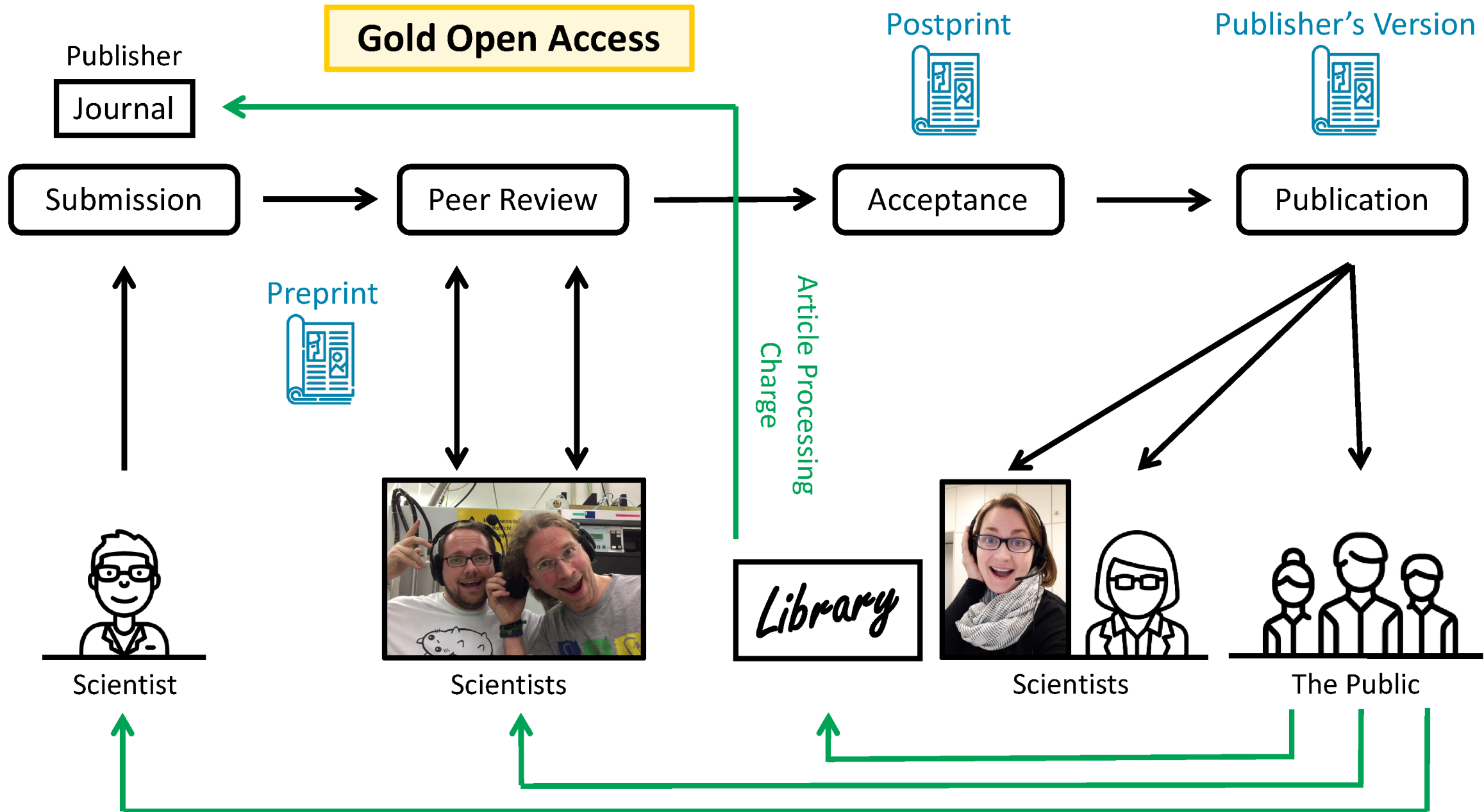
## Time frame

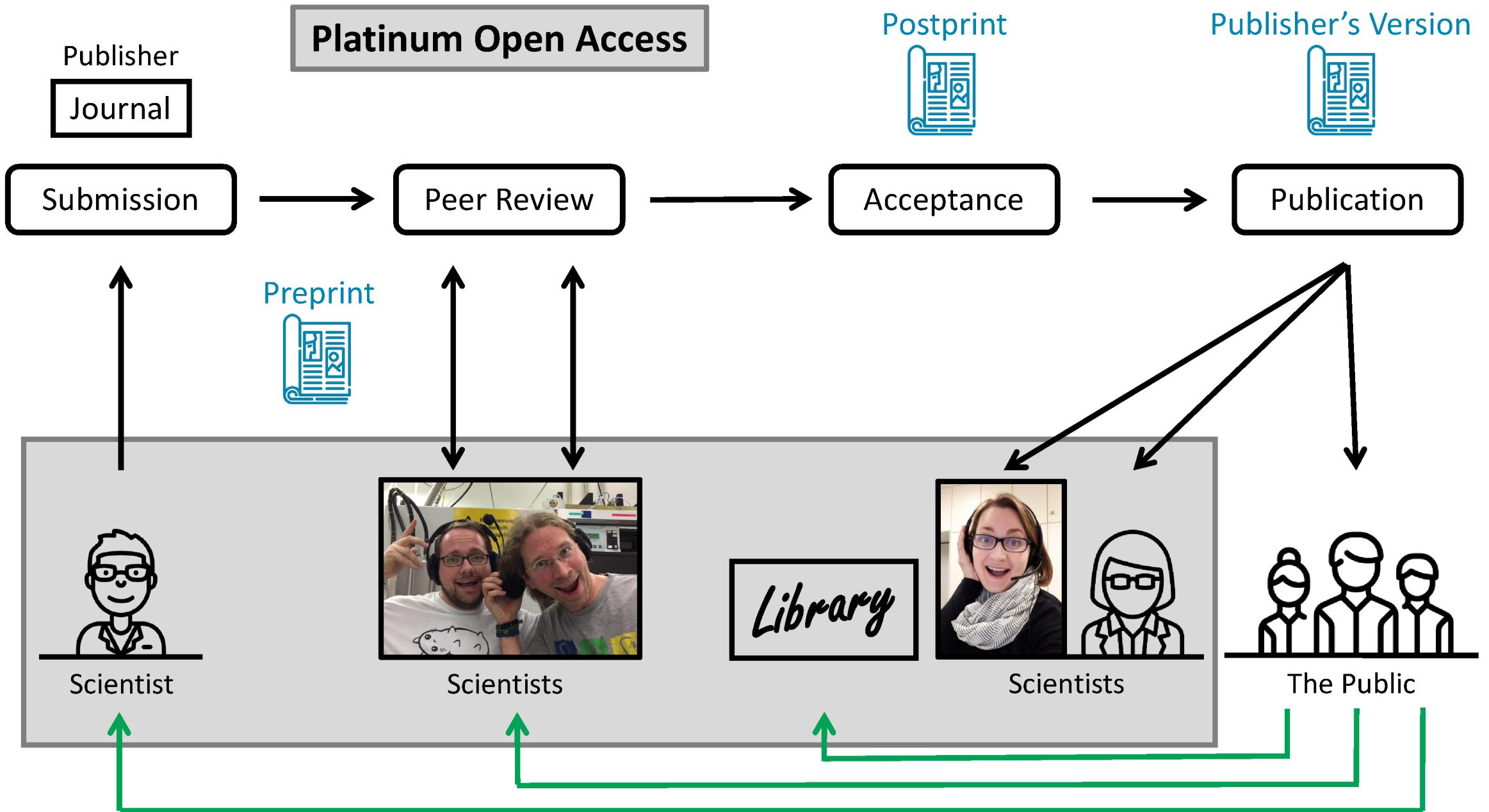
Embargo period of

- 6 months
- 12 months
- 4 years

after publication

... and many more





Further  
information

# Subscription fee per publication

Global journal subscription spending	EUR 7.6 billion per year
Total estimated articles output	2.0 million papers
Calculated expenses per article (rounded)	<b>EUR 3,800</b>

# Elsevier

## 2017 financial performance

	2017 £m	2016 £m
Revenue	<b>2,478</b>	2,320
Adjusted operating profit	<b>913</b>	853
Profit margin	36.84%	36.76%

Subscription sales generated 72% of revenue

# A librarian's life without Elsevier



# Joining forces

## UCLA Memorandum

**To: All Faculty**

Dear Colleagues:

As you may know, the UC Libraries are negotiating a new contract with the scholarly journal publishing giant Elsevier. We are deeply concerned with these negotiations because of the amount of money involved and the control Elsevier exerts over the intellectual efforts of UC's faculty, researchers, and staff.

UC is collectively paying Elsevier more than \$11.5 million for its journals, products, and services. In addition, countless UC faculty members, researchers, and staff members write and review articles published in those journals and serve on their editorial boards. The company's profit margin is 40%, much of it earned from your intellectual capital and unpaid work. This current situation is unsustainable for the UC system.

While these negotiations are going on, we urge you to consider:

- Declining to review articles for Elsevier journals until negotiations are clearly moving in a productive direction.
- Looking at other journal publishing options, including prestigious open access journals in your discipline.
- Contacting the publisher, if you're on the editorial board of an Elsevier journal, and letting them know that you share the negotiators' concerns.
- Using UC's open access policies to make your final pre-publication manuscript publicly accessible.

We will update you if there is any substantive news to report from the negotiations. Elsevier has begun contacting journal editors at some campuses, and its message doesn't fully represent all sides of the issue or what is being discussed in the negotiations. If you receive the Elsevier message and would like to discuss it, please contact Joseph Bristow ([jbristow@senate.ucla.edu](mailto:jbristow@senate.ucla.edu) or 310-825-4173) or Ginny Steel ([vsteel@library.ucla.edu](mailto:vsteel@library.ucla.edu) or 310-825-1201).

The UC Libraries are working on [alternative access methods](#) should they become necessary; while we very much hope that will not be the case, we will nevertheless notify you immediately if negotiations reach that point.

Thank you for your attention to this important issue.

Sincerely,

**Scott L. Waugh**

Executive Vice Chancellor and Provost

**Joseph E. Bristow**

Chair, Academic Senate

Distinguished Professor, English

**Ginny Steel**

Norman and Armena Powell University Librarian



# LUMCON canceled all subscriptions

LUMCON = The Louisiana Universities Marine Consortium



**Dr. G**  
@guertin

"So a couple of weeks ago, LUMCON made a bold move. We canceled all of our paid journal subscriptions. Every. Single. One. Of. Them." - @DrCraigMc is showing us that the "L" in @LUMCONscience also stands for "Leader"

@guertin (2018) <https://twitter.com/guertin/status/1064594155052113922>

Dr. M (2018) <http://www.deepseanews.com/2018/11/tipping-points-for-profit-scientific-publishing-and-closed-science/>