



# Trends in Scientific Publishing

ABEC 2019 / Jacco Flipsen

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**SPRINGER NATURE**

# The Research Publishing market place

# 1.0

# The Research Publishing market today

## STM: Science Technology and Medicine

## HSS: Humanities and Social Sciences

- Estimated around 10,000 journal publishers <sup>1)</sup>
- The industry employs approx. 110,000 people <sup>1)</sup>
- Close to 40,000 active scholarly peer reviewed English language STM+HSS journals (20% HSS)
- 3.4million articles per year (2018, 14% HSS)
- Number of articles grows by 3% per year in STM<sup>1)</sup>, 5% HSS
- The largest producers of articles are China (19%), USA (18%), India (5%)<sup>1)</sup>

1) STM Report, 5<sup>th</sup> Ed. (2018) Johnson, Watkinson and Mabe

# The role of the Publisher to enhance Discovery



# Accelerated change of Business

Print subscriptions to individual libraries



Print subscriptions + online access

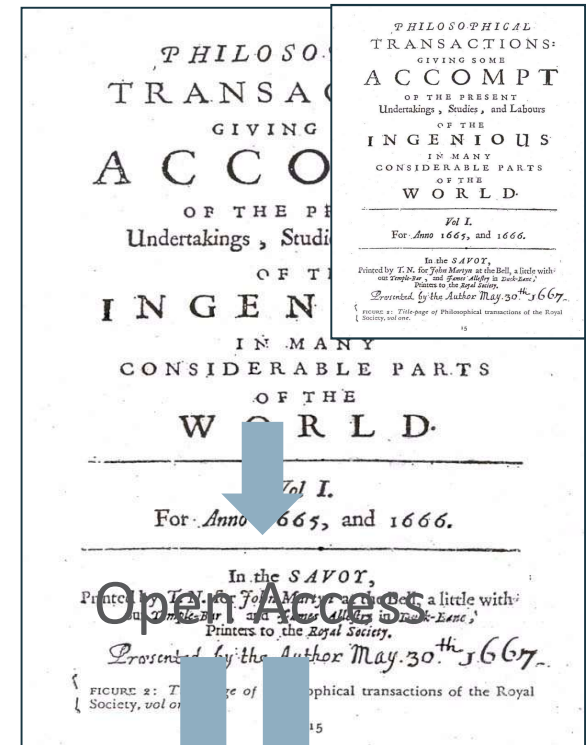


Consortia / License arrangements / Big Deal



License Deals + ...

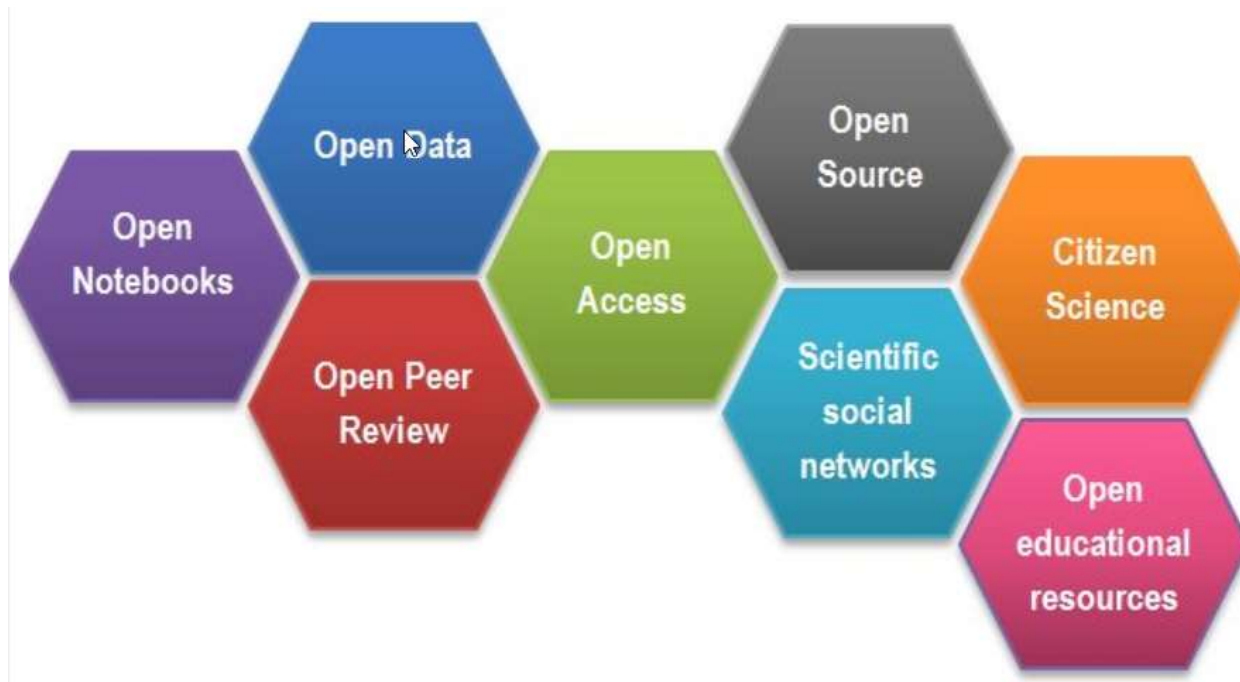
- Discovery Services
- Read and Publish (RAP)
- Publish and Read (PAR)
- Transformative Agreements



# Towards Open Science

# 2.0

# Towards Open Science



<https://www.fosteropenscience.eu/>

# Open Notebooks

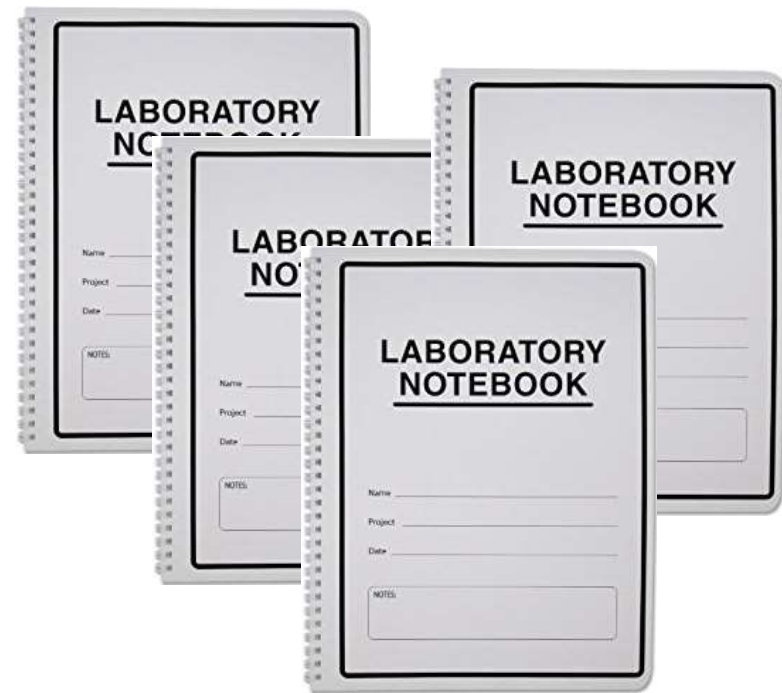




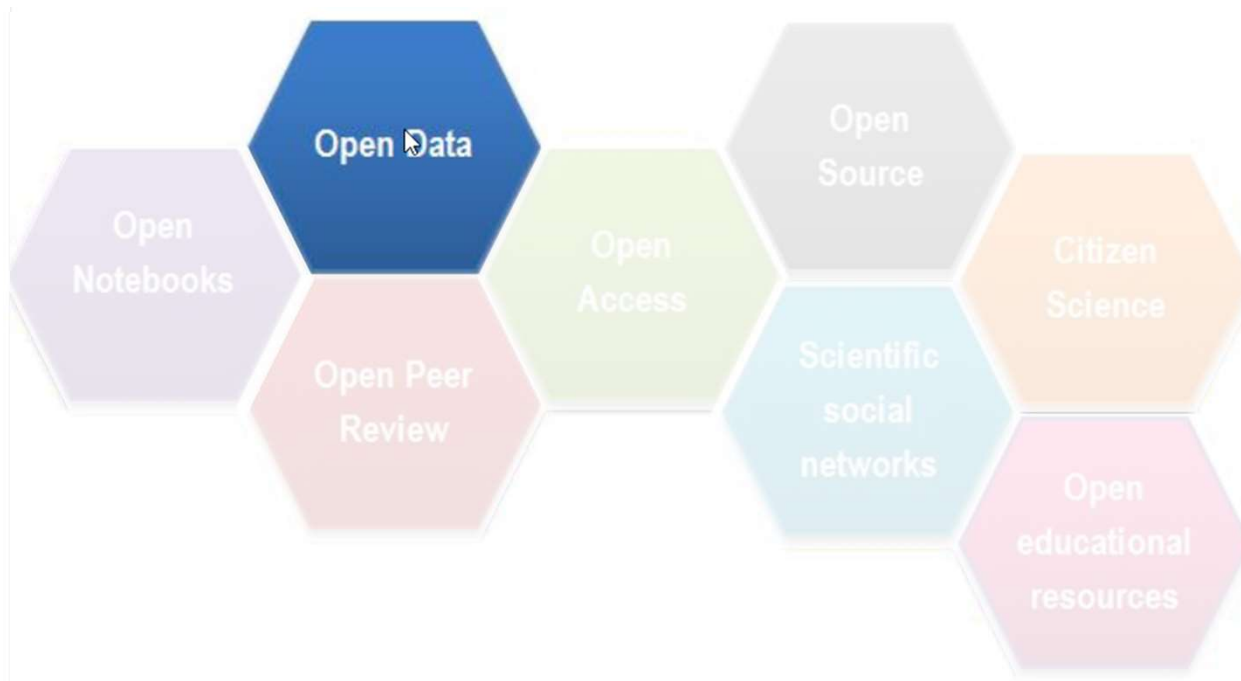
# Open Notebooks

Publicly sharing primary lab records, notes, etc

- + Avoid duplication
- + Transparency
- + Increase reproducibility
- Data theft
- Primary publication
- Data overload



# Open Data



# Why share Research Data?



## Journals and also Funders require to make data available

Various policies in place:

- Encourage data sharing
- Statement of data availability required
- Evidence of data sharing and peer review of data required



# Open Peer Review



# Open Peer Review

Move from the traditional single/double blind peer review process of a manuscript submitted to a single journal to public posting of an article before any review has taken place

- Provide transparency in the peer review process
- Process and requirements vary from journal to journal



## Preprint servers

### Discipline based

- ArXiv (2001)
- BioRxiv (2013)
- ChemRxiv (2016)
- SocRxiv (2016)
- AgriXriv (2017)
- MedRxiv (2018)
- ...



### Geographic based



### Journal or Publisher based

- (PeerJ preprints)
- InReview
- Nature Precedings
- ...



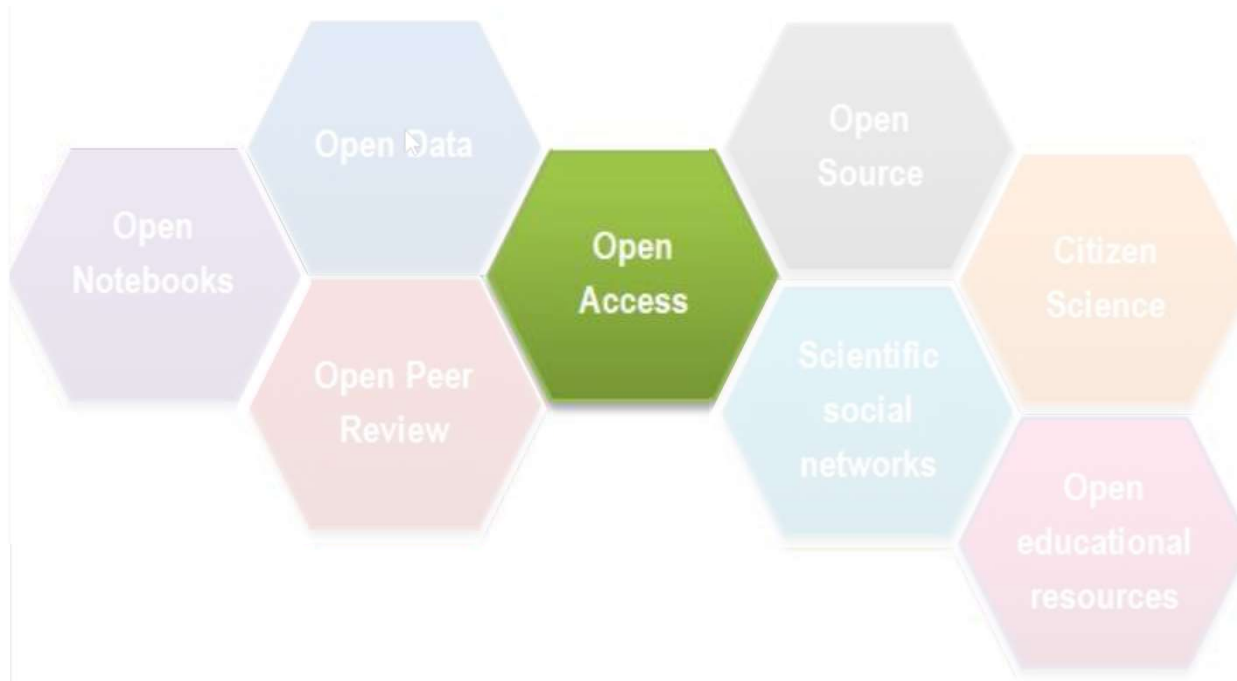
## Many other initiatives related to Peer Review

- Reviewer Finder
- Blockchain technology to safeguard the process and authors content
- Transfer Desk at publishers as a service to the authors
- Giving credit to reviewers
- Authenticate Authors





# Open Access

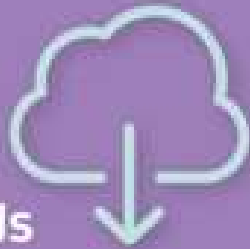


## Obvious advantages for publishing Open Access

A significant advantage for open access (OA) articles

On average:

**4x**  
more  
downloads



of OA articles than  
non-OA articles

**1.6x**  
more  
citations



of OA articles than non-OA  
articles across all subjects

**2.5x**  
more Altmetric  
attention



OA articles attracted  
1.9x more news mentions and  
1.2x more policy mentions

<https://doi.org/10.6084/m9.figshare.6396290>



## ... while realizing most journal output is subscription based

Publishers focus on:

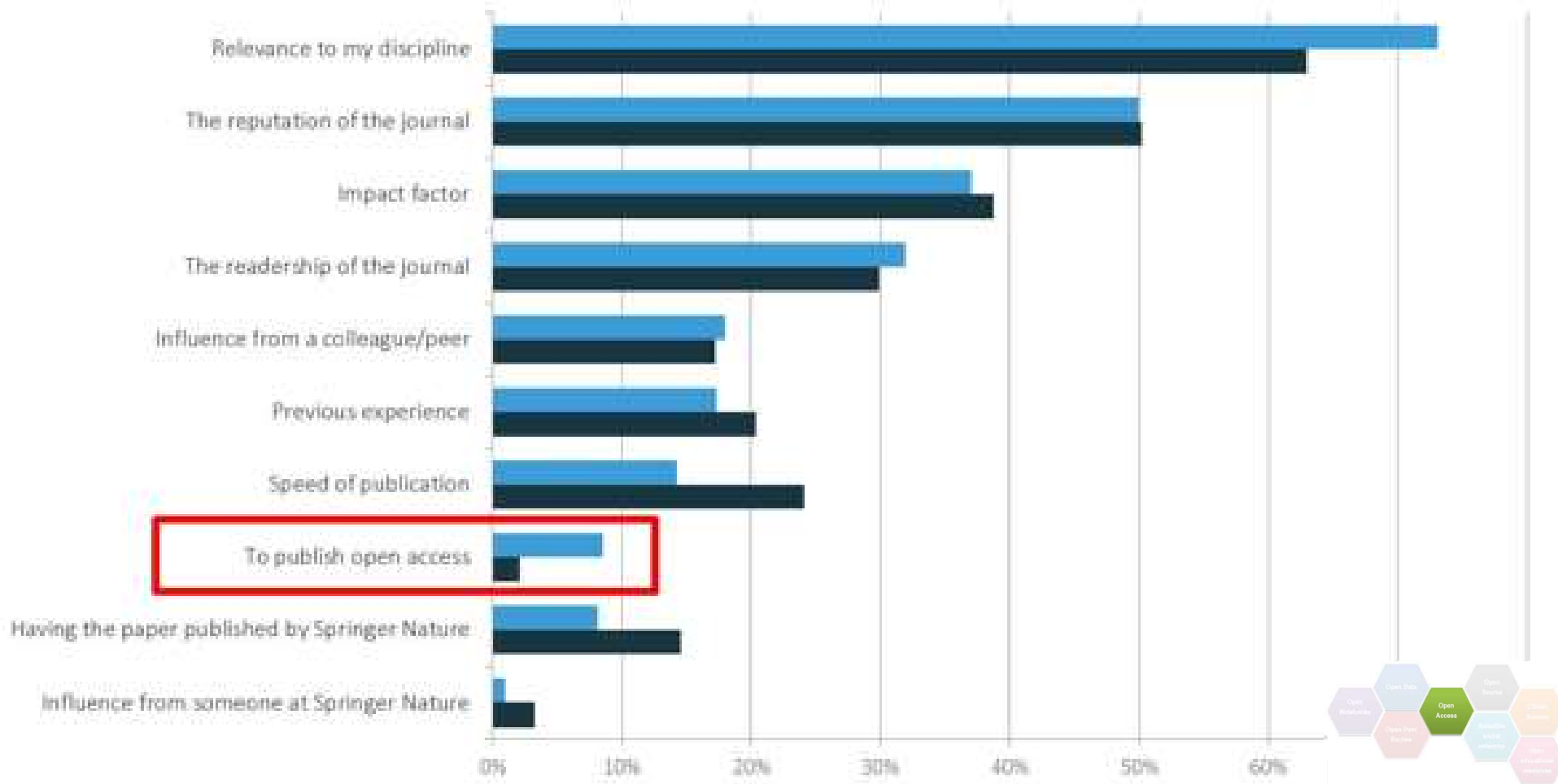
- Maximizing journal distribution
- Usage of their journal content on their platforms
  - Avoiding usage leakage to unknown platforms
  - Syndication
- Optimizing access opportunities for customers
- Countering piracy, e.g. Sci-Hub



# Working towards a global level playing field

What were the three most important reasons for choosing to submit to the journal XYZ?

Funded by cOAlition S, EU and ERC All authors





# Funder requirements to make content publicly available

Green Open Access

Gold Open Access

**CHORUS** *Advancing Public Access to Research*



<https://www.coalition-s.org/principles-and-implementation/>









# Funder requirements to make content publicly available

## cOAlition S

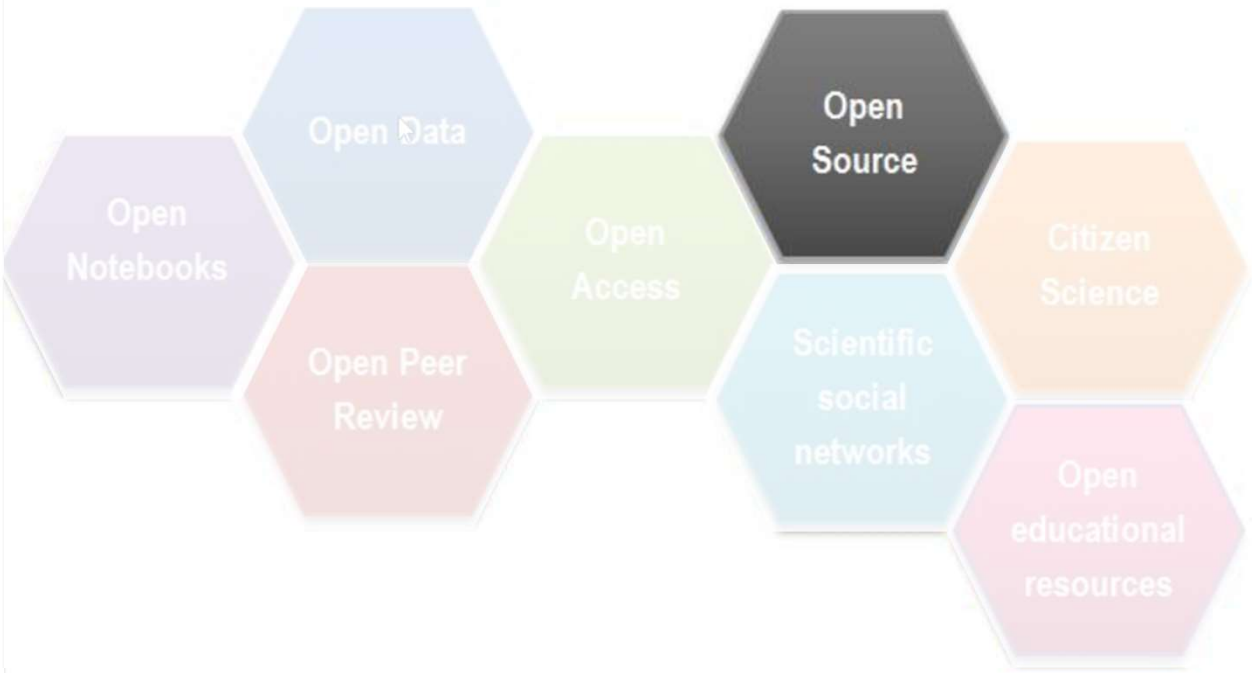
- Authors retain copyright (CC-BY)
- Criteria that OA journals/platforms/repositories need to fulfill need to be set
- OA fees are covered by funders/institution
- Cost for OA fees need to be transparent
- Transitional pathways to full OA are acceptable within a clearly defined timeframe
- Starting date January 2021



<https://www.coalition-s.org/principles-and-implementation/>



# Open Source



# Open Source

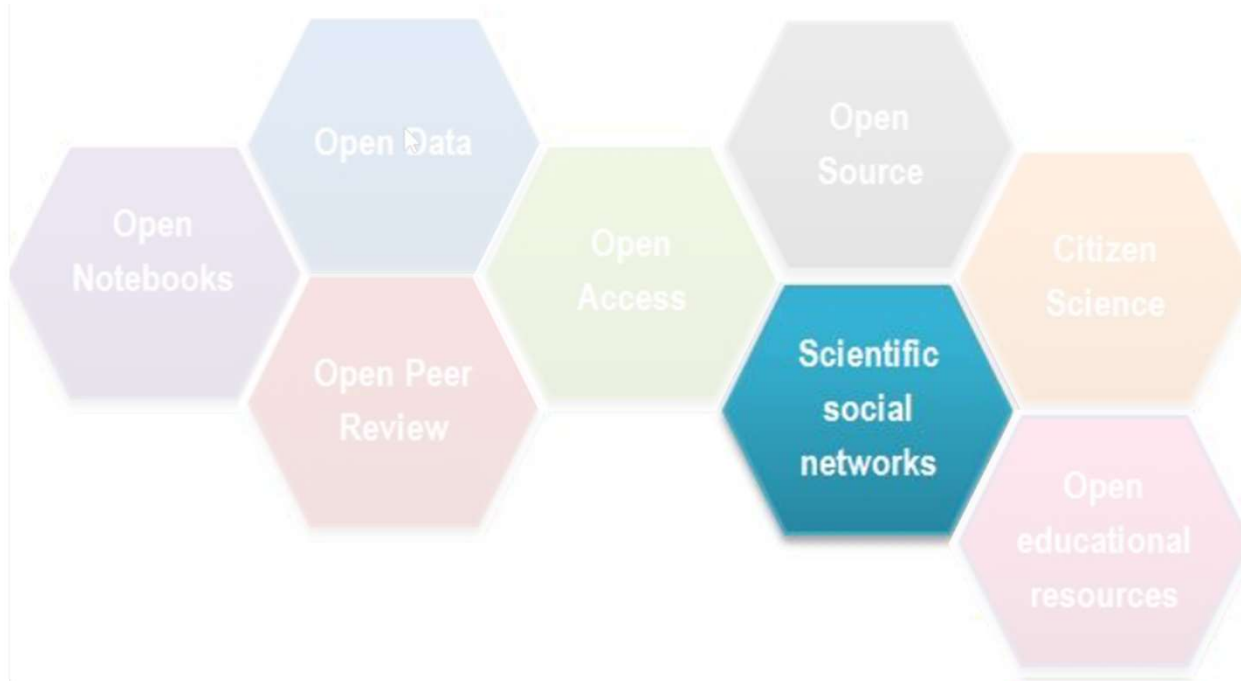
Open up source code, software, content for alternative use

➔ Text and Data Mining





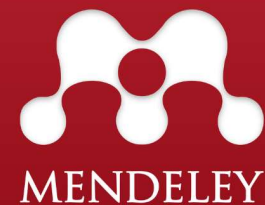
# Social Collaboration Networks (SNCs)



## Social Collaboration Networks (SNCs)

Online meeting places for academics fostering discussion, collaboration, sharing content

➔ Increasing involvement of Publishers

The logo for ResearchGate, featuring the text "ResearchGate" in white on a teal background.The logo for SSRN (Social Science Research Network), featuring the text "SSRN" in a blue, serif font.The logo for Mendeley, featuring a white stylized icon of three people above the text "MENDELEY" in white on a red background.

# Public Involvement and Education



## Public Involvement and Education

- Being relevant in what is being published
- Opening up relevant content in terms of crisis (Ebola, Zika)
- Massive Open Online Courses (MOOCs)



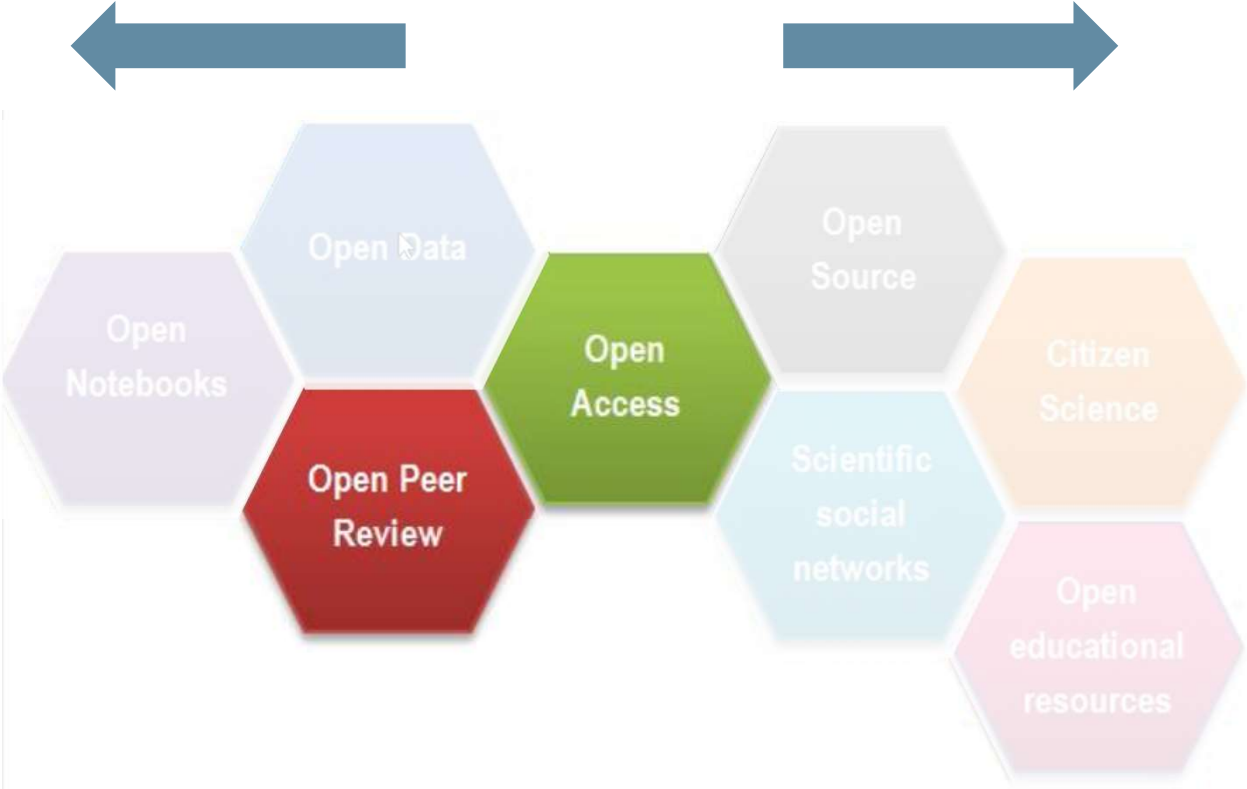


In conclusion....

**3.0**

Getting involved earlier

Staying connected



# Thank you

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