



Introduction to the world of scientific publishing

**Studium
Generale**

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Vocabulary

Science

Publishing

Research

Scientific journal

Editing

Proofreading

Primary research article

Review article

Take a minute to check the meaning, with your neighbours!

Introduction

Publish or perish: True or false?

What is Scientific Publishing?

Why do we publish scientific papers?

Why do you think it is important to publish scientific research?

Think about it for a minute!

What is Scientific Publishing?

Synonym: Research publication

- Process where by results and knowledge obtained from scientific research and experimentation are shared and taught to others worldwide.
- A specific kind of publishing that reports and distributes scientific research and scholarship.

Why do we publish scientific papers?

Why do you think it is important to publish scientific research?

- Allows researchers to validate their work, and from a bigger picture perspective, create novel solutions to complex problems through dialogue with fellow researchers.

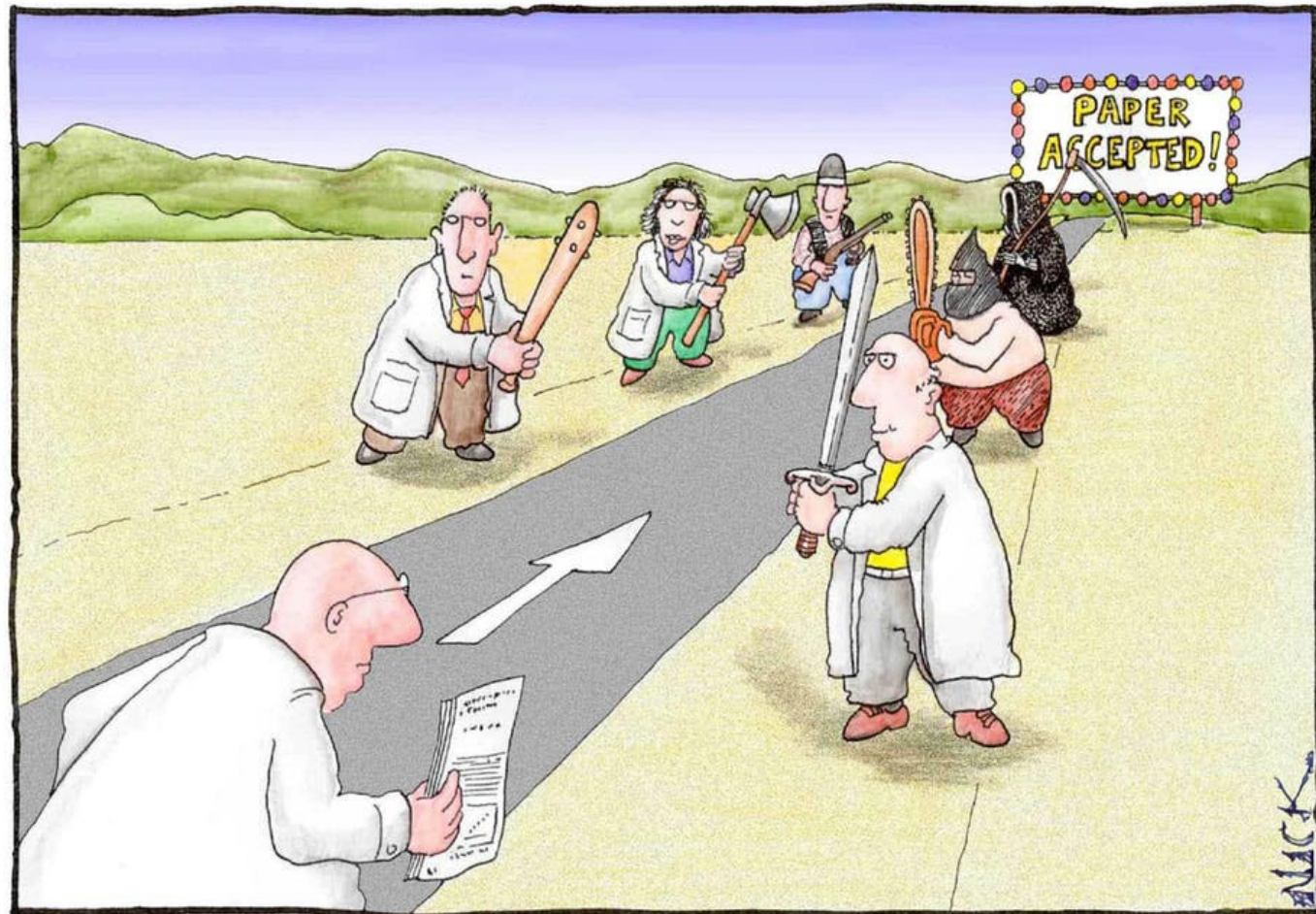
Publish or perish: True or false?

Dr Barbara McClintock

- *Awarded the Nobel Prize in Medicine (1983)*
- *40 years after her pioneering work on “jumping genes” (genetic transposition).*
- *It took 30 years for the scientific community to acknowledge the validity of her work.*



Publish or perish?!



Scientific publishing...

- Final step in the research process

Did you know...?

- Phases in the research process: PRP

P = Planning; R = Research; P = Presentation (final step)

Research findings are worth nothing unless they are shared = *PUBLISHED!*

The Final Step

Get a promotion?

Become a professor?

Become rich?

Share results?

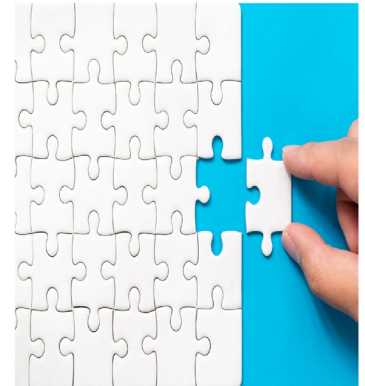
Add to the existing body of
scientific evidence?



Part 1: The bigger picture

Contributing to Science

Person A discovers X, person B discovers Z.
Together X and Z explain Y!



Part 1: The bigger picture

Person A discovers ...

What should they do next?

Publish where?

Publish how?

Publish in what language?

Part 1: The bigger picture

International science publications are in English.
Country-specific publications are in the local languages.

Advantages and disadvantages of publications in a common international language.

Advantages and disadvantages of local-language publications.

Part 1: The bigger picture

Small results - smaller journals

Big results - bigger journals

Imagine steps...steps...steps...then a jump!...then steps again...steps...steps...jump.

The small steps are also very important - they help the scientific community get closer to the jumps.

But big journals - and most of use general readers - are only interested in the jumps!

Part 1: The bigger picture

Person A discovered...

What if they were wrong? What if they made a mistake? What if they made up their results?

Effect of their data: accurate or inadequate?
Reproducible or not?

Part 1: The bigger picture

Imagine you are carrying out experiments.

Your boss wants to prove their own ideas, but your results do not support them...

One time the experiment turns out as they “wanted”, but you find out you made a mistake in the protocol.

What would you do?

Think about it for a minute!

Part 2: Publishing in the natural VS social sciences

1. Differences between the sciences

Natural Sciences

- Often lab-based research: Requirements for large funding (equipment, space, people)
- Long time from initial project idea to results and publications

Social Sciences

- Often idea-based research: Less dependent on large funding
- Shorter time between project idea to results and publications

Part 2 Publishing: natural VS social sciences

Summary question: Think of publishing research in your field of science (natural or social).

What rules/trends can you identify on how and where people perform research and publish?

Think about it for a minute, turn to your neighbours and share!

Part 3: Research career overview

A career in scientific research

1. Undergraduate degree
 2. Master's degree
 3. Doctoral degree
 4. Post-doctoral fellow
 5. Researcher
 - At university (Academia)
 - At company (Industry)
- How much independence do people have to make decisions at each stage of a scientific career?
 - Who decides what is to be researched and what is to be published?
- Alternative career paths

Think about it for a minute!

Part 3 Research career overview

Alternative careers in science

After Bachelor degree:

- Science school teacher
- Lab. technician

After Master's:

- Science school teacher
- Company technician/ researcher

After PhD:

- Science editing, writing, science communication
- Science management
- Science education
- Research fund management
- Consulting

Part 3: Research career overview

(My path as a physician-scientist)

Advantages of an alternative career path:

Coping with life challenges

Life changes

Migration and transition

Part 3

Opinion question: An alternative career path is a sign of failure

True or False?

Think about it for a minute!

Summary / Conclusion

Summary question:

Keeping in mind today's lecture content, what is YOUR PERSONAL responsibility for the research you will be doing?



Think about it for a minute!

THANK YOU!

For CREDIT students only: REPORT questions