Today's discussion

Cover page photo by Alex Holyoake on Unsplash

Our goals for today

- Tell you about the course
- Introduce open science
- Share experiences of COVID-19

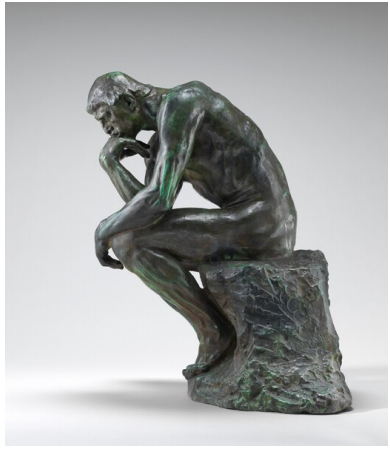

Image courtesy National Gallery of Art, Washington.

Who's here?

Andy Clifton

IEA Wind Task 32
Operating Agent

Nikola Vasiljevic

Special Consultant for
Digitalization

And you

Please introduce yourselves!

What is this “Open Science” thing anyway?

> *Open science is the movement to make scientific research and its dissemination accessible to all levels of an inquiring society, amateur or professional.*
>
> *Open science is transparent and accessible knowledge that is shared and developed through collaborative networks.*
>
> —*Wikipedia*

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It is...

- A philosophy
- A set of tools
- An old idea

It is not...

- Difficult
- Expensive
- Rewarded directly

Course goals

We want you to be successful.

This course will:

- Tell you about open science
- Give you a toolbox
- Help you use these tools

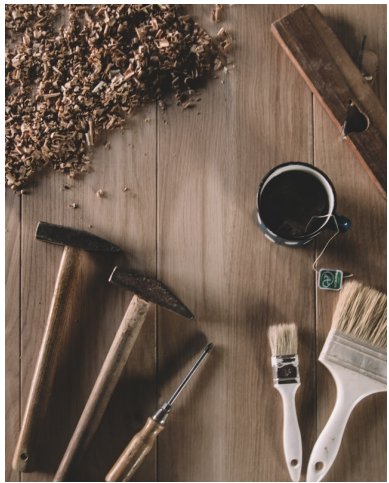


Photo by Milan Popovic on Unsplash

Course outline

Seminar	Self-study	Assignment
1. Introducing open science		
	1. Background reading	
2. Guiding principles		
	2. Is your group's work FAIR?	
3. Open science and intellectual property		
	3. Implementing open science	
4. Communicating your science		
	4. Communications strategies	
		1. Implementation case study
5. What are data management plans and why do they matter?		
	5. Draft a data management plan	
Workshop: Open science in LIKE		
	6. Revise data management plan	
		2. Data management plan

Course logistics

Grading

- No exams, but..
- Complete assignments to get a participation certificate.

Questions?

- No office hours!
- Use slack and ask each other

Errors, suggestions, corrections...

- Help improve the material

Your feedback

This is a new course!

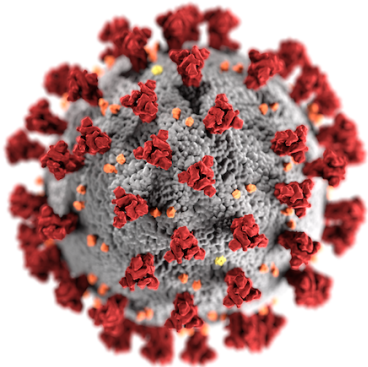
- Get in touch at any time
- Survey at the end

Why would we want to talk about COVID-19?

COVID-19 is...

- something we've all experienced,
- international, and
- recent,

... and a great example of how we experience and share science!



The SARS-CoV-2 Virus

Source: Public Health Image Library #23312.
Credit: Alissa Eckert, MSMI, Dan Higgins, MAMS.

How did we learn about COVID-19?

Mainstream media

- Traditional news
- Social media

Scientific media

- Researchers' websites
- Paper repositories

Personal experience

- Directly affected
- Rumours and gossip

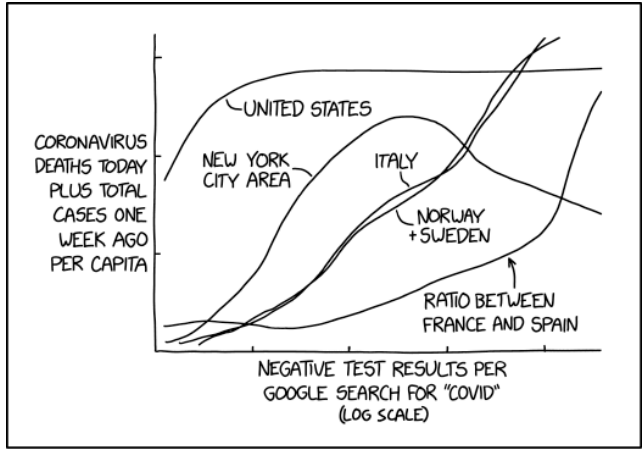
What do you think?

- What makes information useful?
- What makes you take action?
- What can we learn from this?

How did we respond to COVID-19?

The ARENA2036 team and many others made face shields to protect against coronavirus. Source: U. Stuttgart

How was scientific information shared?



I'M A HUGE FAN OF WEIRD GRAPHS, BUT EVEN I ADMIT SOME OF THESE CORONAVIRUS CHARTS ARE LESS THAN HELPFUL.

Source: xkcd

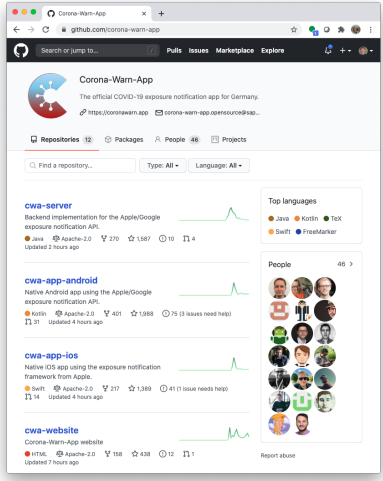
Lessons learned from COVID-19

Openness has advantages:

- Monitoring spread of the SARS-CoV-2 virus
- Sharing treatment plans across continents
- Developing technical solutions

But it brings new challenges for STEM experts:

- Communicating (uncertain) results
- Making scientific information useful



The German COVID-19 exposure notification app source code is shared through GitHub

Seminar summary

You've learned:

- About the course
- A first definition for "open science"
- How openness helps fight COVID-19
- Some challenges with being open

Photo by Mathew Schwartz on Unsplash

What to do now

Self-study 1: Background reading

Read about how open science has been used to fight COVID-19, for example...

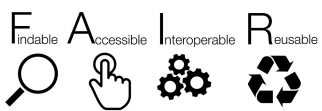
- Open science takes on the coronavirus pandemic (Nature, 2020)
- "Data Sharing in a Time of Pandemic" (Patterns, 2020)
- "Open Science against COVID-19: how Zenodo and OpenAIRE support the scientists" (CERN, 2020)

Seminar 2: Guiding principles

What are the basic principles of open science? How can you implement them, and what do they mean for your organisation?

- Seminar materials on GitHub

Let's make this presentation open



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Interoperable

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