



Universität Stuttgart

Dr.-Sc.
Andrew
Clifton

LIKE

Open Science Course

Seminar 3: Intellectual Property

27 October 2020

Today's discussion

- 1 Introduction
- 2 Recap: The LIKE Open Science Course
- 3 Let's talk about who owns (your) science
- 4 Closing thoughts

Cover page photo by [Gunnar Bengtsson](#) on [Unsplash](#)

Introduction

1

Our goals for today

Discuss the practicalities of being open

- Who's data is it anyway?
- Patents and licensing
- Sharing data versus enabling collaboration

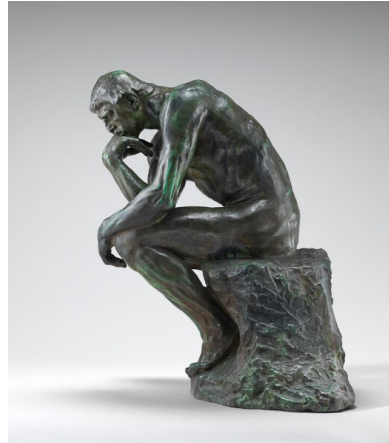


Image courtesy [National Gallery of Art, Washington](#).

Who's here?

Andy Clifton



IEA Wind Task 32
Operating Agent



Nikola Vasiljevic



Special Consultant for
Digitalization



And you



Please introduce yourselves!

Recap:
**The LIKE Open
Science Course**

2

The story so far

Seminar 1: Introducing Open Science

The story so far

Seminar 1: Introducing Open Science

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

The story so far

Seminar 1: Introducing Open Science

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](#)

Seminar 2: Introduction to FAIR and R5 Principles

- FAIR: **F**indable, **A**ccessible, ..., ... ?
- R5?

Self-study: is your group's work FAIR?

What do you think?

Course outline

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

**Let's talk about
who owns (your)
science**

3

What are the outputs of science?

Who's data is it anyway?

Your creative output at work belongs to your employer.

- It is their *Intellectual Property* (IP).

IP can take many forms:

- Formalised through patents, trademarks, copyright,...
- Also found in papers, presentations, photos, videos, audio,...

Using IP without permission is “IP Infringement” (not good).



Photo by [Bermix Studio](#) on [Unsplash](#)

A detour - open science and open source





Photo by [logan Weaver](#) on [Unsplash](#)

Let's think about this:

- What's open source software?
- Is open source software free to use?
- Why would you have to pay for open-source software?

Making software open source helps open science, but isn't essential

Identifying IP

(19)  (11)  EP 1 697 730 B1

(12) EUROPEAN PATENT SPECIFICATION

(43) Date of publication and mention of the grant of the patent: 14.11.2012 Bulletin 2012/46

(21) Application number: 04819876.0

(22) Date of filing: 15.11.2004

(51) Int. Cl.: G01K 1/92 (2006.01) G01K 3/14 (2006.01) G01N 26/72 (2006.01) G01N 1/10 (2006.01) G01N 25/06 (2006.01) G01N 25/20 (2006.01)

(86) International application number: PCT/EP2004/052355

(87) International publication number: WO 2005/054834 (16.04.2005 Gazette 2005/04)

(54) METHOD TO DETERMINE THE INTERNAL STRUCTURE OF A HEAT CONDUCTING BODY
VERFAHREN ZUR BESTIMMUNG DER INTERNEN STRUKTUR EINES WÄRMELEITENDEN KÖRPERS
PROCÉDE PERMETTANT DE DETERMINER LA STRUCTURE INTERNE D'UN CORPS CONDUCTEUR DE CHALEUR

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LU MC NL PT RO SE SI SK TR

(30) Priority: 01.12.2003 EP 03104466

(43) Date of publication of application: 06.09.2006 Bulletin 2006/36

(73) Proprietor: Alstom Technology Ltd
5400 Baden (CH)

(72) Inventor:
• CLIFTON, Andrew
CH-7278 Davos-Morstein (CH)

• SCHNIEDER, Martin
CH-5400 Emmetsboden (CH)
• ZAMBETTI, Chiara
CH-5400 Baden (CH)

(56) References cited:
US-A-3 988 668 US-A1-2003 055 954
• NIRM V. NIRMALAN, RONALD S. BUNKER, CARL R. HEDLING: "The measurement of full-surface internal heat transfer coefficients for turbine airfoils using a nondestructive thermal inertia technique" JOURNAL OF TURBOMACHINERY, 2003, pages 83-89, XP000626450 cited in the application

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

Printed by Jouve, TSOFF PAPER (FR)

EP 1 697 730 B1

IP can protect solutions, form, and content:

- Patents
- Design rights or design patents
- Trademarks
- Copyright

But it is up to you to protect 'trade secrets' from competitors!

Licenses tell people how they can use code or products

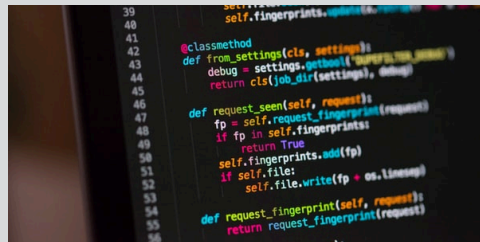
Once you have protected your IP, you can think about sharing it

Created works?



Try [creative commons](#).

Open-source software?



Try [ChooseALicense.com](#)

Get a lawyer involved!

Photo credit: Photos by [Patrick Tomasso](#) (left) and [Chris Ried](#) (right) on [Unsplash](#)

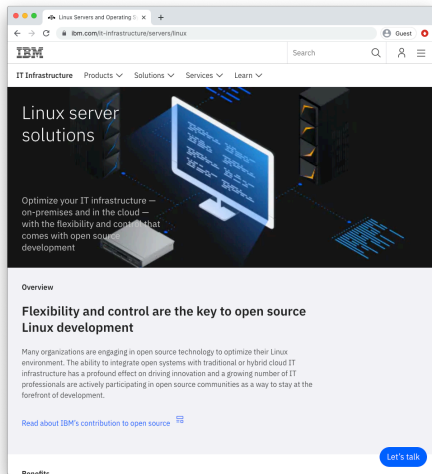
An example from the COVID-19 response

Amazon, Facebook, Fujitsu, Hewlett Packard Enterprise, IBM, Intel, Microsoft, NASA JPL, Sandia National Laboratories, and Uber are among the dozens of companies and institutions that have used the Open COVID Pledge to make their patents and copyrights open to the public in support of solving the COVID-19 pandemic.

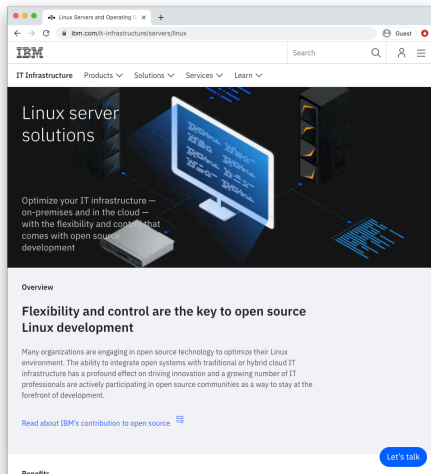
—Creative Commons Is Now Leading the Open COVID Pledge—Here's What That Means. Creative Commons, 27 Aug 2020

But can you make money like this?

How can you make money from open science?



How can you make money from open science?



Like any business, you need to add value.

- Deploy it for customers
- Provide training
- Customize it
- Develop add-ons
- Create an ecosystem

How can you make money from open science?



Photo by [Waldemar Brandt](https://unsplash.com/s/photos/bikeUnsplash) on <https://unsplash.com/s/photos/bikeUnsplash>

How can you make money from open science?



Photo by [Waldemar Brandt](https://unsplash.com/s/photos/bikeUnsplash) on <https://unsplash.com/s/photos/bikeUnsplash>

Good solutions are

- Flexible but focused
- Modular
- Easy to use

Closing thoughts

4

Seminar summary

You've learned:

- What intellectual property is
- How licenses can help you
- How openness doesn't stop you making money
- That you need to get a lawyer involved.

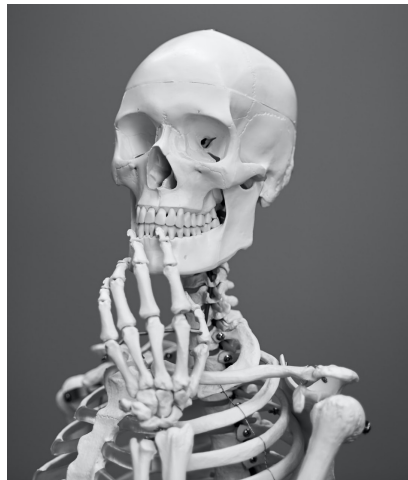


Photo by [Mathew Schwartz](#) on [Unsplash](#)

What to do now

Further reading

- The Birth of Linux: How Linux Got Started. (Linux.com, 2020)
- The open Bike Initiative

Self-study 3: Implementing Open Science

Improve the openness of a paper using the ideas you identified in self-study 2.

- See the guidance on GitHub.

Seminar 4: communicating your science

Selling your brand and research through social media, professional networks, etc., and other strategies to make people aware of your work.

- See the Seminar materials on GitHub

Let's make this presentation open

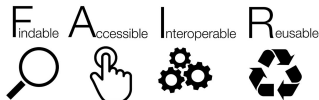
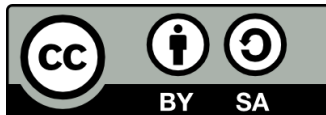


Image source: [Wikimedia](#). Credit: [SangyaPundir](#).
Reused under the [CC BY-SA 4.0 license](#)



Findable

This presentation has a DOI:
([10.5281/zenodo.4034469](https://doi.org/10.5281/zenodo.4034469)) and has been
tagged with appropriate metadata.

Accessible

This presentation is archived at
Zenodo.org.
The source code is available through
GitHub.

Interoperable

This material is produced using the \LaTeX
'Beamer' package.

Reusable

This material is reusable under the
[CC-BY-4.0 license](#).



Universität Stuttgart



Andy Clifton

Institute of Aircraft Design (IFB), University of Stuttgart

eMail clifton@ifb.uni-stuttgart.de

Telefon +49 711 685 683 25

Web www.uni-stuttgart.de/windenergie