

Training of Trainers 2nd. session

Autonomous training courses

March, 8th, 2022



Introduction

Despite the main educational approach chosen by the project to train future researchers was Problem Based Learning (PBL), the consortium also propose autonomous training materials to be used in diverse scenarios.

This autonomous courses could be used in a complementary way with the PBL sessions.

First course available is:

HOW TO CHOOSE THE RIGHT JOURNAL TO PUBLISH?

General objective

The goal of the course is to learn how to analyze and compare scientific journals and target the most appropriate for your work and for you.

Choosing the wrong journal may lead to fast rejection, delayed publication, and waste of time/resources. Targeting the best journal is a complex issue, compounded by the increasing numbers of journals and the emerging changes in the publishing landscape.

Choosing the right journal for our case study is a difficult task that even for experienced researchers when submitting a work to a journal.

Main characteristics of the courses

- Target: Early-career researchers, PHD and Post-Doc in STEM disciplines
- Timing: At your pace. The course estimated workload is 30 hours in total.
- Language: English
- Learning materials: Participants are granted to the course platform to get access to training materials and references.
- Enrolment: The course is free.
- Where to enroll: <https://www.training.brainatworkproject.eu>

Some details: Who is this course for?

The course is addressed to early-career researchers, PHD and Post-Doc in STEM disciplines and includes the following steps:

- Step 1: Prepare the manuscript
- Step 2: Define the type and scope of the manuscript
- Step 3: Define the type and scope of potential journals
- Step 4: Define subjective criteria or personal aims
- Step 5: Select a Journal
- Step 6: Activity about handling journal rejection
- References and Glossary

Some details: Specific objectives

At the end of the course learners will be able to:

- Find scientific journals by topic or discipline
- Evaluate the quality of scientific journal
- Acknowledge the news issues in research assessment practices
- Acquire effective strategies
- Acquire awareness about habits and behaviour in this field.

Some details: How it looks like?

Course main page

The screenshot shows a web interface for a course. At the top, there is a header with the 'BRAIN @ WORK' logo and the text 'Co-funded by the Erasmus Programme of the European Union'. The main title of the course is 'LU1. How to choose the right journal to publish? (autonomous)'. Below the title, there is a navigation bar with 'Home', 'My courses', and 'Journal to publish' (the current page), and a 'Turn editing on' button. The main content area starts with a 'Welcome to the course!' section. The goal of the course is to learn how to analyze and compare scientific journals. The course is organized into 7 chapters, including readings, videos, and knowledge assessment activities, with an estimated workload of 30h. The course aims to help learners:

- find scientific journals by topic or discipline
- evaluate the quality of scientific journal
- acknowledge the news issues in research assessment practices
- acquire effective strategies
- acquire awareness about habits and behaviour in this field

The page also features an 'Introduction' section with a quote from the Merriam Webster dictionary: 'The Merriam Webster dictionary has defined the word "publish" as "to make generally known". To

Some details: How it looks like?

Course navigation

The screenshot displays a course navigation interface. At the top, the 'BRAIN @ WORK' logo is visible, along with the text 'Co-funded by the Erasmus+ Programme of the European Union' and the European Union flag. A navigation sidebar on the left contains icons for home, search, and other course functions. The main content area shows a list of activities:

- 6. Activity about handling journal rejection [2 hours]** (1 Page, 1 HSP)
 - This chapter provides an activity that aims to guide the student what to do when he/she receives a rejection letter from a journal. The student is guided in the activity by a branching scenario which provides her/him the steps and the necessary questions to know what to do.
 - 6.1 Activity about handling journal rejection** (Mark as done)
 - 6.2 Activity: What to do when you receive a letter from a journal after the evaluation of your article?** (Mark as done)
- 7. Glossary [1 hour]** (1 Glossary)
 - This chapter provides the acronyms and definitions of some concepts of the course. Please, browse it.

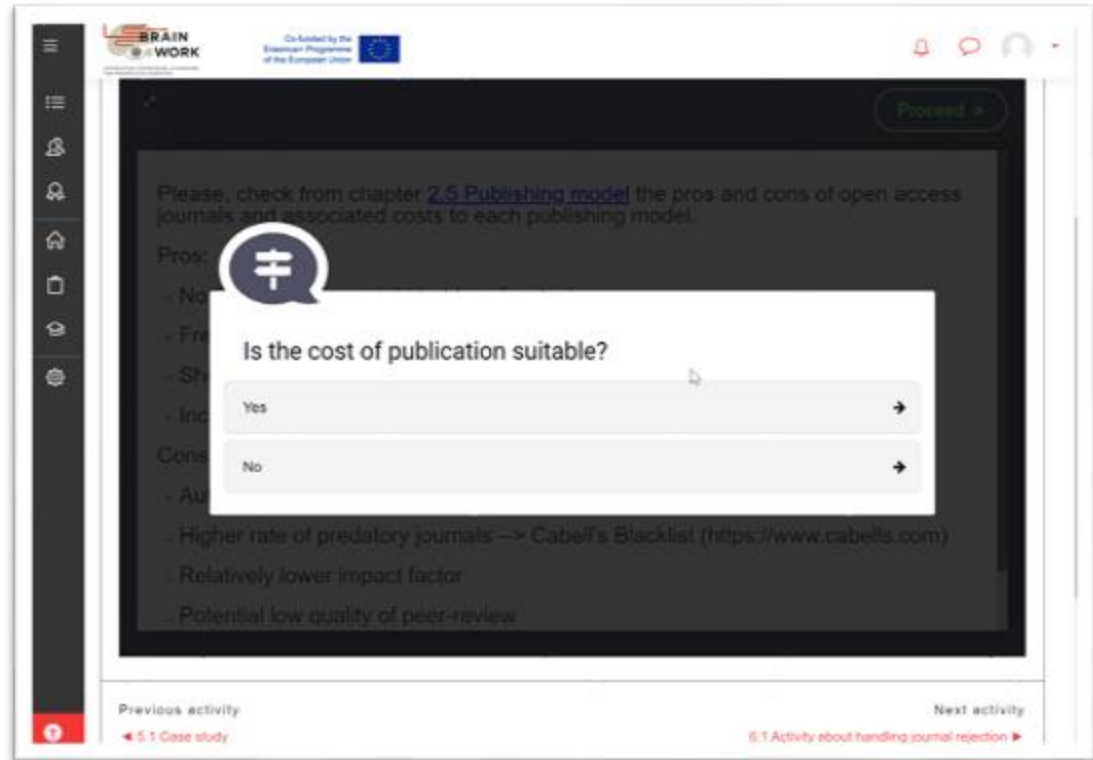
Some details: How it looks like?

Course activities

The screenshot displays a course activity interface. At the top, it features the 'BRAIN @ WORK' logo and a navigation breadcrumb: Home > My courses > Journal to publish > 2. The type and scope of the journal [8 hours] > Quiz related to chapter 2 > Preview. The main content area contains a question titled 'Question 1' with the text 'Where reviewers' identities are kept secret?'. The question is marked as 'Not yet answered' and 'Marked out of 1.00'. It includes three multiple-choice options: 'a. Single blind review', 'b. None of the options', and 'c. Double blind review'. There are icons for 'Flag question' and 'Edit question'. A 'Next page' button is located at the bottom right of the question area. To the right of the question, a 'Quiz navigation' section shows a grid of 8 numbered boxes, with the first box highlighted. Below the grid are the options 'Finish attempt ...' and 'Start a new preview'. At the bottom of the page, there is a 'Stay in touch' section with the text 'The library of CNR Bologna Research Area', a website URL 'https://www.brainatworkproject.eu/', and an email address 'biblio-education@area.bo.cnr.it'. The background of the bottom section is decorated with a pattern of various educational icons.

Some details: How it looks like?

Course activities



The screenshot displays a course activity interface. At the top, there are logos for "BRAIN @ WORK" and "Co-funded by the European Programme of the European Union". A navigation sidebar on the left contains icons for home, search, and other functions. The main content area features a dark background with white text. A question is displayed: "Please, check from chapter 2.5 Publishing model the pros and cons of open access journals and associated costs to each publishing model." Below this, a list of pros and cons is partially visible. A white pop-up box is overlaid on the content, containing the question "Is the cost of publication suitable?" and two radio button options: "Yes" and "No", each with a right-pointing arrow. At the bottom of the interface, there are links for "Previous activity" (5.1 Case study) and "Next activity" (5.1 Activity about handling journal rejection).

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Proceed

Please, check from chapter 2.5 [Publishing model](#) the pros and cons of open access journals and associated costs to each publishing model.

Pros:

- No
- Fre
- Sh
- Inc

Cons:

- Au
- Higher rate of predatory journals → Cabell's Blacklist (<https://www.cabells.com>)
- Relatively lower impact factor
- Potential low quality of peer-review

Is the cost of publication suitable?

Yes →

No →

Previous activity
◀ 5.1 Case study

Next activity
5.1 Activity about handling journal rejection ▶

References

- [1] Bahadoran, Z., Mirmiran, P., Kashfi, K., & Ghasemi, A. (2020). Scientific Publishing in Biomedicine: How to Choose a Journal?. International journal of endocrinology and metabolism, 19(1), e108417. <https://doi.org/10.5812/ijem.108417>
- [2] Webinar: Help your research flourish: find the best-fit journal for your manuscript. <https://clarivate.com/webofsciencegroup/campaigns/help-your-research-flourish-find-best-fit-journal-for-your-manuscript>
- [3] Thompson, P. J. (2007). How to choose the right journal for your manuscript. Chest, 132(3), 1073-1076. [https://journal.chestnet.org/article/S0012-3692\(15\)36678-2/fulltext](https://journal.chestnet.org/article/S0012-3692(15)36678-2/fulltext)
- [4] El-Omar, E. M. (2014). How to publish a scientific manuscript in a high-impact journal. Advances in Digestive Medicine, 1(4), 105-109. <https://www.sciencedirect.com/science/article/pii/S2351979714000838>
- [5] Woolley, K. L., & Barron, J. P. (2009). Handling manuscript rejection: insights from evidence and experience. Chest, 135(2), 573-577. <https://core.ac.uk/download/pdf/15127289.pdf>
- [6] Shoja, M. M., Walker, T. P., & Carmichael, S. W. (2019). How to Find a Suitable Journal for Your Manuscript. A Guide to the Scientific Career: Virtues, Communication, Research and Academic Writing, 389-402. <https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118907283.ch42>

Second course on development

Second course available would be:

Publishing open data

Making data public opens opportunities to get academic credit for collecting and curating data during the research process

Access to data accelerates progress. According to the 2019 State of Open Data report, more than 70% of researchers use open datasets to inform their future research.

Publishing open data

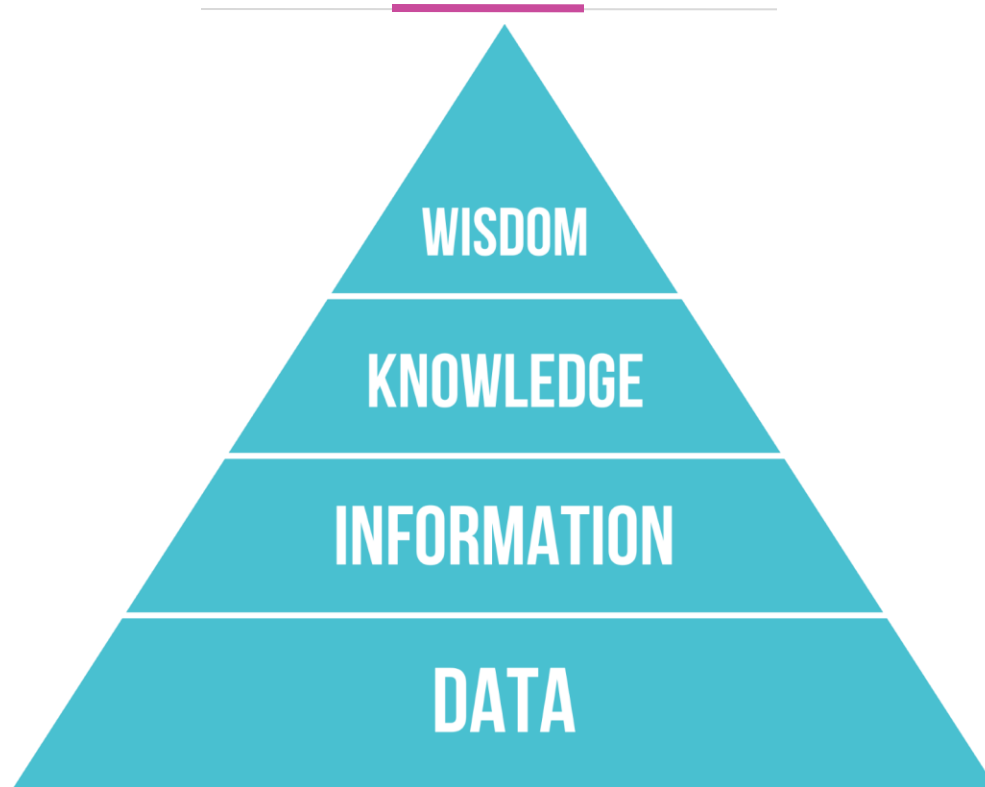
- Chapter 1. Introduction to Open Data
- Chapter 2. Steps for data publishing
- Chapter 3. Publish in the best place: Creating a dataset with a doi through Zenodo or other journals / platforms
- Chapter 4. Describe your data
- Chapter 5. Use the best file format: 5-star Open Data
- Chapter 6. Licenses to publish the data
- Chapter 7. References

Publishing open data



Figure 1. Data extracted from <https://opendatabarometer.org>

Publishing open data



Publishing open data

- [Determine if you can publish your data](#): Before you decide to publish your data, check to ensure your legally and ethically allowed to.
- [Publish in the best place](#): There are many places to publish data. It's up to you to decide if you want to publish in a discipline specific repository that contains data like yours, the University's institutional repository, or a general repository such as Figshare.
- [Describe your data](#): Publishing a thorough description of your data along with the dataset means that others will be able to understand and reuse your data.
- [Use the best file format](#): choosing an open or standard file format means that everyone will be able to open your dataset.
- [License your data](#): Applying a licence to your data enables others to understand how your data can be used.
- [Get a persistent identifier](#): Persistent identifiers, like DOIs and ORCiDs, are the easiest way of linking items together, such as a dataset to a related publication. They also make your data easier to cite and enable you to measure the reuse of your data through metrics.

Publishing open data

- Zenodo
- [Scientific Data \(nature.com\)](https://www.nature.com/scientificdata/)
- [Data in Brief - Journal - Elsevier](https://www.elsevier.com/locate/dib)
- [Data | An Open Access Journal from MDPI](https://www.mdpi.com/journal/data)
- [Datasets Documentation | Kaggle](https://www.kaggle.com/datasets)

Publishing open data

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REVIEW ARTICLES

Datasheets for Datasets

By Tinsit Gebru, Jamie Morgenstern, Briana Vecchione, Jennifer Wortman Vaughan, Hanna Wallach, Hal Duménil, Kate Crawford
Communications of the ACM, December 2021, Vol. 64 No. 12, Pages 85-92
10.1145/3458723
Comments (3)

VIEW AS: [Icons] SHARE: [Icons]



Credit: GoodStudio

Data plays a critical role in machine learning. Every machine learning model is trained and evaluated using data, quite often in the form of static datasets. The characteristics of these datasets fundamentally influence a model's behavior: a model is unlikely to perform well in the wild if its deployment context does not match its training or evaluation datasets, or if these datasets reflect unwanted societal biases. Mismatches like this can have especially severe consequences when machine learning models are used in high-stakes domains, such as criminal justice,^{1,2,3,4} hiring,⁵ critical infrastructure,^{6,7,8} and finance.⁹ Even in other domains, mismatches may lead to loss of revenue or public relations setbacks. Of particular concern are recent examples showing that machine learning models can reproduce or amplify unwanted societal biases reflected in training datasets.^{10,11} For these and other reasons, the World Economic Forum suggests all entities should document the provenance, creation, and use of machine learning datasets to avoid discriminatory outcomes.¹²

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Key Insights

- There are currently no industry standards for documenting machine learning datasets.

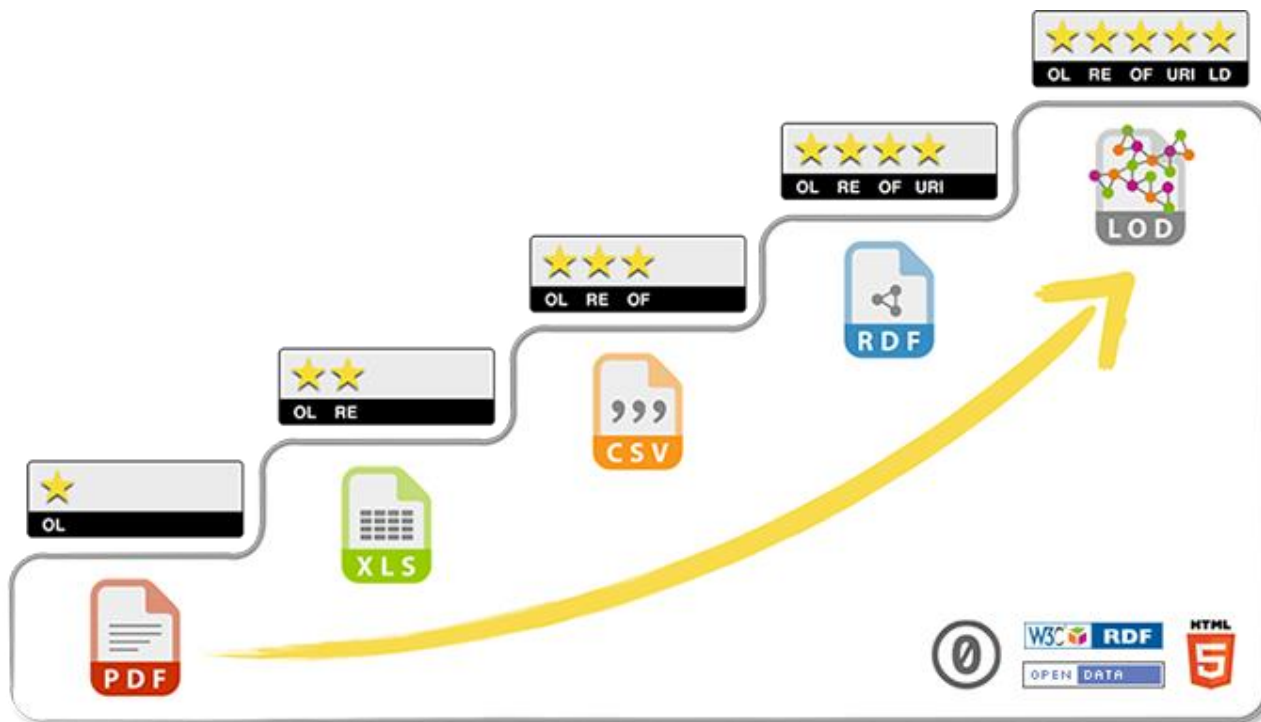
[These Neural Networks Know What They're Doing](#)
MIT Series

[The Inevitability of Trusted Third Parties](#)
OneZeroMedium

[How Does One Divide with Napier's Rods?](#)
Herbert Bruderer

<https://cacm.acm.org/magazines/2021/12/256932-datasheets-for-datasets/fulltext>

Publishing open data



Publishing open data

- More courses and references available at <https://theodi.org/events/courses/>
- Wiki about publishing open data https://www.wikidata.org/wiki/Wikidata:Open_data_publishing
- FAIR Tools <https://www.fairsfair.eu/tools-software>

Thank you

