

An Open Science Guides Collection



Front Matter and Introduction

Authors: Simon Worthington, Ina Blümel, Ludwig Hülk.

Tags / topics: open science, introduction, motivation

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Open Science has become an indispensable part of modern science. There are several definitions of "openness" in relation to different aspects of science - the Open Definition sets out principles as follows "Open means anyone can freely access, use,

modify, and share for any purpose (subject, at most, to requirements that preserve provenance and openness).”

Practical guides for the implementation of those principles in different areas such as research data or publishing are of great importance because they can be used right away. In this compendium, we compile important guides with their specific features and fields of application. The book was written as part of a student seminar at the Hanover University of Applied Sciences and Arts.

Open Science and Knowledge Justice

Kaan Ilgaz Ümit Günes My Linh Nguyen Thi Lorenzo Vassao

Tags: Knowledge Justice; Social Justice; equity; Gerechtigkeit

Knowledge Justice: An Opportunity for Counter-expertise in Security vs. Science Debates



Science as Culture

 Routledge
Taylor & Francis Group

ISSN: 0950-5431 (Print) 1470-1189 (Online) Journal homepage: <http://www.tandfonline.com/loi/csac20>

Knowledge Justice: An Opportunity for Counter-expertise in Security vs. Science Debates

Philip R. Egert & Barbara L. Allen

Guide Name: "Knowledge Justice: An Opportunity for Counter-expertise in Security vs. Science Debates"

Guide citation insert from Zotero: 1

Type:

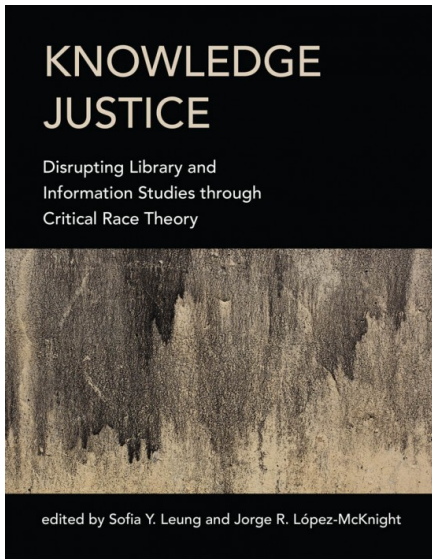
Summary:

Knowledge Justice (Wissensgerechtigkeit) verbindet Prinzipien der sozialen Gerechtigkeit in wissenschaftliche Umgebungen. Dabei soll jeder die Möglichkeit haben, etwas dazu beitragen zu können oder Wissen zu erlangen. In letzter Zeit sieht man aber andersrum in den USA, wie versucht wird an Wissen über die H5N1 bzw. der Vogelgrippevirus zu gelangen. Dadurch löste sich eine Debatte zwischen Wissenschaftlern und Politikern über die Forschung. Zudem ist das Virus bereits ein Problem für Drittweltländer, die dieses Wissen sowieso nicht besitzen.

Das Konzept des Knowledge Justices zielt eine neue Denkweise über die Wissenschaft, wo alle betroffenen die nötige Expertise besitzen, um Probleme gemeinsam zu lösen.

1. Philip R. Egert and Barbara L. Allen, "Knowledge Justice: An Opportunity for Counter-Expertise in Security vs. Science Debates," *Science as Culture* 28, no. 3 (June 21, 2017): 351–74, <https://doi.org/10/gjn3hd>.

Knowledge Justice: Disrupting Library and Information Studies through Critical Race Theory



Guide Name: "Knowledge Justice: Disrupting Library and Information Studies through Critical Race Theory"

Guide citation insert from Zotero: 2

Typ der Guide Parts: Situationsbeschreibungen

Zusammenfassung:

In Knowledge Justice beziehen sich die Wissenschaftler aus den

2. Sofia Leung and Jorge López-McKnight, *Knowledge Justice: Disrupting Library and Information Studies through Critical Race Theory* (The MIT Press, 2021), https://www.amazon.com/Knowledge-Justice-Disrupting-Information-Critical/dp/0262043505#detailBullets_feature_div.

verschiedenen Ethnien, auf die kritische Rassentheorie, um die grundlegenden Prinzipien, Werte und Annahmen der Bibliotheks- und Informationswissenschaft in den Vereinigten Staaten in Frage zu stellen. Dies soll den Berufsstand dazu zu bringen zu verstehen, wie die "weiße" Vorherrschaft Praktiken, Dienstleistungen, Lehrpläne, Räume und Richtlinien beeinflussen.

Die Autoren beschreiben, dass eine falsche Vorstellung der Neutralität und Objektivität der Bibliotheks- und Informationswissenschaft durch den Einfluss der verschiedenen Ethnien der Wissenschaftler zustande kommt. Durch tiefgreifende Analysen von Bibliotheks- und Archivalsammlungen, wissenschaftlicher Kommunikation, Macht hierarchien, epistemischer Vorherrschaft, Kinderbibliotheken, Lehren und Lernen, digitalen Geisteswissenschaften und dem Bildungssystem wird durch Knowledge Justice gefordert, die sogenannte "weiße Vorherrschaft" abzuschaffen, um die Rassengerechtigkeit für jede Menschengruppe zu erschaffen.

Open Science and Knowledge Justice: How It Started – How It's Going?

Open Science and Knowledge Justice: How It Started – How It's Going?

Posted by [Gen R](#) | Apr 12, 2021 | [Blog](#), [Gen R Blog](#), [Knowledge Justice](#) | 2 

Guide Name: "Open Science and Knowledge Justice: How It Started – How It's Going?"

Guide citation insert from Zotero: [3](#)

Type: Analysis

Zusammenfassung: The article deals with the development of Knowledge Justice and Open Science. In recent decades, Open Science is said to have become increasingly relevant through many initiatives and other movements, and even Unesco (United Nations Educational, Scientific and Cultural Organization) has made recommendations in this regard. Open Science has changed the culture and this change should be promoted. GenR offers to help with these changes by working with the community.

Open Science Promotes Diverse, Just, and Sustainable Research and Educational Outcomes

Open Science Promotes Diverse, Just, and Sustainable Research and Educational Outcomes

Jon E Grahe , Kelly Cuccolo , Dana C Leighton , , , Leslie D Cramblet Alvarez

[Show less ^](#)

First Published August 18, 2019 | [Review Article](#) |  [Check for updates](#)

<https://doi.org/10.1177/1475725719869164>

Guide Name: "Open Science Promotes Diverse, Just, and Sustainable Research and Educational Outcomes"

3. , GenR, "Open Science and Knowledge Justice: How It Started – How It's Going?," December 4, 2021, <https://genr.eu/wp/open-science-and-knowledge-justice-how-it-started-how-its-going/>.

Guide citation insert from Zotero: 4

Type: Analysis for evaluation purposes

Summary: Open science initiatives have become increasingly popular in recent decades. They offer the opportunity to promote diversity, equity and sustainability by supporting diverse, equitable and sustainable outcomes. This review examines models that demonstrate these aspects in the psychological economy and describes how open science initiatives promote these values. Diversity, equity and sustainability questions are offered that can be used to evaluate research outcomes.

Literaturverzeichnis

GenR, „Open Science and Knowledge Justice: How It Started – How It’s Going?,” December 4, 2021. <https://genr.eu/wp/open-science-and-knowledge-justice-how-it-started-how-its-going/>.

Grahe, Jon E, Kelly Cuccolo, Dana C Leighton, and Leslie D Cramblet Alvarez. “Open Science Promotes Diverse, Just, and Sustainable Research and Educational Outcomes” 19, no. 1 (August 18, 2019): 5–20. <https://doi.org/10/gf75bp>.

Leung, Sofia, and Jorge López-McKnight. *Knowledge Justice: Disrupting Library and Information Studies through Critical Race Theory*. The MIT Press, 2021. https://www.amazon.com/Knowledge-Justice-Disrupting-Information-Critical/dp/0262043505#detailBullets_feature_div.

R. Egert, Philip, and Barbara L. Allen. “Knowledge Justice: An Opportunity for Counter-Expertise in Security vs. Science Debates.” *Science as Culture* 28, no. 3 (June 21, 2017): 351–74. <https://doi.org/10/gjn3hd>.

4. Jon E Grahe et al., “Open Science Promotes Diverse, Just, and Sustainable Research and Educational Outcomes” 19, no. 1 (August 18, 2019): 5–20, <https://doi.org/10/gf75bp>.

Open Science and Data Science

Authors: Falkewitz, Philip; Görzen, Linda; Matern, Johannes;
Shahbazi, Kian

Tags / topics (4): Data Science; Machine Learning; Python; Best
practices; Reproducible research

Guide for Data science and Machine Learning

A Quick Guide to Data science and Machine Learning

MOHAMMED, NADEL. DECEMBER 21, 2020. [LOGIN TO BOOKMARK THIS ARTICLE](#) 

Guide name: A Quick Guide to Data science and Machine Learning

Guide citation insert from Zotero: 1

Type: step-by-step, instructions

Target group:

Summary:

Data science and machine learning dominate the digital world, with artificial intelligence being the future. There has been advancement in this field. Deep learning, also a part of artificial intelligence and a subset of machine learning. The application of Deep Learning has become increasingly popular, widely used with neural networks, which are similar to the way neurons work in our brains. It has a deeper, layered approach to solving business problems. For example, self-driving cars from Tesla extensively use Deep Learning and also machine learning. This piece focuses on data science and its influence on machine learning.

The data science life cycle:

1. data acquisition
2. data pre-processing
3. exploratory data analysis (EDA)

1. Philip R. Egert and Barbara L. Allen, "Knowledge Justice: An Opportunity for Counter-Expertise in Security vs. Science Debates," *Science as Culture* 28, no. 3 (June 21, 2017): 351–74, <https://doi.org/10/gjn3hd>.

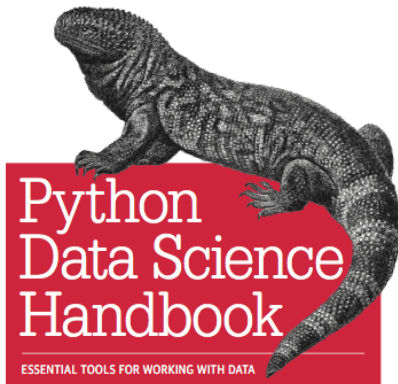
4. model building
5. evaluation of the model
6. use of the model

by Kian Shabazi

Python Data Science Handbook

Cover image:

O'REILLY



Jake VanderPlas

Python Data Science Handbook Cover

Guide name: "Python Data Science Handbook"

Guide citation insert from Zotero: 2

Type: step-by-step, instructions

Target group:

Summary: For the field of data science the programming language Python is becoming more and more important. The possibilities of storing, manipulating, gaining insight from data is enormous. A huge amount of libraries and a large community makes it very attractive for users. This book combines in depth information from the most important and popular libraries, to give you the best

2. Sofia Leung and Jorge López-McKnight, *Knowledge Justice: Disrupting Library and Information Studies through Critical Race Theory* (The MIT Press, 2021), https://www.amazon.com/Knowledge-Justice-Disrupting-Information-Critical/dp/0262043505#detailBullets_feature_div.

possible starting point to get into data science, using python. The features and libraries features in this handbook include:

- **IPython and Jupyter** are the most common used computer environments for data scientists, especially when using Python.
- **NumPy** is one of the most popular used Python libraries when it comes to storing and manipulating data arrays.
- **Pandas** includes DataFrames for efficient storing and manipulating of datasets. In addition to NumPy you can label and sort the datasets more freely.
- **Matplotlib** is capable of visualizing datasets in Python in various ways, and can be customized to any extend.
- **Scikit-Learn**: is a implementation for machine learning algorithms. It is very efficient and one of the most important implementations. by Philip Falkewitz

Support Your Data

Cover image:

Support Your Data: A Research Data
Management Guide for Researchers

✦ John A Borghi, Stephen Abrams, Daniella Lowenberg, Stephanie Simms, John Chodacki

Guide name: Support Your Data: A Research Data Management Guide for Researchers

Guide citation insert from Zotero: 3

Type: Toolset for self-assessment, series of short guides

Target group: researchers working in different institutional and disciplinary contexts

Summary : Researchers are faced with rapidly evolving expectations about how to manage and share their data, code and other research materials. To help them meet these expectations and generally manage and share their data more effectively, there are series of tools called Support Your Data.

These tools include a rubric designed to allow researchers to self-assess their current data management practices.

Included are self-assessments of their current data management practices and a series of short guides that provide actionable information on how to improve practices based on need or desire. These are designed to be easily adapted to the needs of researchers working in different institutional and disciplinary contexts.

by Johannes Matern

3. , GenR, “Open Science and Knowledge Justice: How It Started – How It’s Going?,” December 4, 2021, <https://genr.eu/wp/open-science-and-knowledge-justice-how-it-started-how-its-going/>.

Recommendations for open data science

COMMENTARY | [Open Access](#) | Published: 18 May 2016

Recommendations for open data science

[Melissa Gymrek](#)  & [Yossi Farjoun](#)

GigaScience 5, Article number: 22 (2016) | [Cite this article](#)

2060 Accesses | 5 Citations | 24 Altmetric | [Metrics](#)

Guide name: „Recommendations for open data science“

Guide citation insert from Zotero: [4](#)

Type: instructions for action

Target group: Life sciences, but also most other scientific disciplines

Summary:

The authors criticise that the computational analyses used in research are usually not published with the research results. This makes the research results non-transparent and difficult to

4. Jon E Grahe et al., “Open Science Promotes Diverse, Just, and Sustainable Research and Educational Outcomes” 19, no. 1 (August 18, 2019): 5–20, <https://doi.org/10/gf75bp>.

understand. This practice needs to change in the sense of the open science movement. For this purpose, scientific communities should follow the guidelines presented:

1. **The tool software used should be made available or cited in public repositories.**
2. **Make pipelines available or cite them in public repositories**
3. **Teach data science to researchers**
4. **Publishers and reviewers must enforce reproducibility of computations**

The authors refer to life science. However, the instructions for action can be applied to most other scientific disciplines.

by Linda Görzen

Literaturverzeichnis

Borghi, John A. "Support Your Data: A Research Data Management Guide for Researchers," September 5, 2018. <https://riojournal.com/articles.php?id=26439>.

Gymrek, Melissa, and Yossi Farjoun. "Recommendations for Open Data Science," May 18, 2016. <https://gigascience.biomedcentral.com/articles/10.1186/s13742-016-0127-4>.

Qureshi, Mohammad Nabeel. "A Quick Guide to Data Science and Machine Learning," December 21, 2020. <https://www.analyticsvidhya.com/blog/2020/12/a-quick-guide-to-data-science-and-machine-learning/>.

VanderPlas, Jake. *Python Data Science Handbook*. Handbook. Sebastopol, California: O'Reilly Media, Inc., 2016. <https://jakevdp.github.io/PythonDataScienceHandbook/>.

Open Science and Citizen Science

Franziska Ahlborn Maryna Sermus

citizen Science Bildung

Naturschutz Geisteswissenschaft Community Umwelt UK Biodiversität public understanding of science environment biodiversity nature conservation

Tags / topics (4): Citizen Science; Citizen Science to monitor biodiversity; Citizen Science to study biodiversity and the environment in the UK; Citizen Science and public understanding

Citizen science for all

A guide for citizen science practitioners



Guide citation insert from Zotero: 1

Type: Guide with practical instructions

-
1. Philip R. Egert and Barbara L. Allen, "Knowledge Justice: An Opportunity for Counter-Expertise in Security vs. Science Debates," *Science as Culture* 28, no. 3 (June 21, 2017): 351–74, <https://doi.org/10/gjn3hd>.

Summary: This guide describes how Citizen Science is practiced in Germany and how this participatory approach can be used in different research disciplines and thematic areas - such as education, nature protection or the humanities. The guide is addressed primarily to initiators of Citizen Science projects, but also to all those who participate in such projects. This includes scientists working in research institutions who want to work with citizens, but also individuals and community groups such as independent scientific groups and associations.

Contents:

Teil 1: Citizen Science Praxis

1. Was ist Citizen Science?
2. Warum Citizen Science? Was sind die Vorteile? Was sind die Herausforderungen?
3. Initiierung eines Citizen Science Projekts - Auswahl von Partnern, Methoden und Teilnehmern
4. Daten: Wichtige Themen für Citizen Science Daten
5. Kommunikation und Feedback
6. Citizen Science Projekte auswerten
7. Finanzierungsinstrumente
8. Grafik: So planen Sie ein Citizen Science Projekt - von Anfang bis Ende! **Teil 2: Citizen Science Landschaft**

9. Citizen Science im Naturschutz
10. Citizen Science und Bildung
11. Digitale Citizen Science
12. Citizen Science in den Sozialwissenschaften
13. Citizen Science in der Gesundheitsforschung
14. Citizen Science in den Kunst- und Geisteswissenschaften
15. Citizen Science International

Choosing and Using Citizen Science

A guide to when and how to use citizen science to monitor biodiversity and the environment



**Guide citation insert
from Zotero:** [2](#)

Type: Guide for a specific
Citizen Science domain of
application

Summary: Citizen Science
can serve as a very useful
"tool" for conducting
research and monitoring
while involving many
people. Citizen Science is
very diverse; there are
many different ways for
volunteers to engage with
real science.

This guide serves as a support for people considering a Citizen Science approach, particularly (but not necessarily limited to) monitoring biodiversity and the environment in the UK.

Guide to Citizen Science

developing, implementing and
evaluating citizen science to study
biodiversity and the environment in the
UK

Cover image (insert image):

Guide citation insert from Zotero: ³

Type: Guide for a specific Citizen Science domain of application

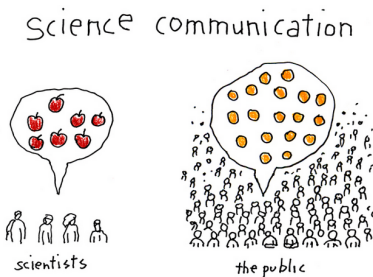
2. Sofia Leung and Jorge López-McKnight, *Knowledge Justice: Disrupting Library and Information Studies through Critical Race Theory* (The MIT Press, 2021), https://www.amazon.com/Knowledge-Justice-Disrupting-Information-Critical/dp/0262043505#detailBullets_feature_div.

3. , GenR, "Open Science and Knowledge Justice: How It Started – How It's Going?," December 4, 2021, <https://genr.eu/wp/open-science-and-knowledge-justice-how-it-started-how-its-going/>.

Summary: Much of the UK's understanding of its flora and fauna today is based on the engagement of natural scientists. Citizen Science initiatives to collect environmental data range from crowd-sourcing activities to small groups of volunteer experts collecting and analysing environmental data and sharing their findings with others. Given the different methods of collecting data, it is important that they are well planned and executed. This will not only help science, but also promote environmental awareness among citizens.

The guide aims to support people already involved in Citizen Science and those new to it within the UK. It is based on information collected and analysed as part of the UK-EOF funded project "Understanding Citizen Science & Environmental Monitoring".

Can Citizen Science enhance the public understanding of Science?



Cartoon by Tom Dunne

Guide citation insert from Zotero: 4

Type: Theoretical research work

4. Jon E Grahe et al., "Open Science Promotes Diverse, Just, and Sustainable Research and Educational Outcomes" 19, no. 1 (August 18, 2019): 5–20, <https://doi.org/10/gf75bp>.

Summary: In der Publikation werden starke Belege bereitgestellt dafür, dass die wissenschaftlichen Ergebnisse von Citizen Science gut dokumentiert sind, insbesondere für Projekte zur Datenerhebung und Datenverarbeitung, auch um bei den Teilnehmern von Citizen Science-Projekten einen Wissenszuwachs über wissenschaftliche Kenntnisse und Prozesse erzielen, das öffentliche Bewusstsein für die Vielfalt der wissenschaftlichen Forschung erhöhen und den Hobbys der Teilnehmer eine tiefere Bedeutung verleihen.

Citizen Science kann positiv zum sozialen Wohlergehen beitragen, indem es die Fragen, die behandelt werden, beeinflusst und den Menschen eine Stimme bei lokalen Umweltentscheidungen gibt. Um dies zu erreichen, erfordern Citizen Science-Projekte Anstrengungen in diesen vier Bereichen: (1) Projektdesign, (2) Ergebnismessung, (3) Einbindung neuer Zielgruppen und (4) neue Forschungsrichtungen.

Contents:

Inhalte:

1. Einleitung
2. Überblick über die Leistungen von Citizen Science
 - Projekte zur Datenerfassung
 - Projekte zur Datenverarbeitung
 - Lehrplanbasierte Projekte
 - Gemeinschaftswissenschaft
3. Wohin geht das Feld von hier aus?
 - Projektdesign
 - Ergebnisse Messen
 - Neue Zielgruppen ansprechen

- Erweiterte Forschung

4. Schlussfolgerung

Literaturverzeichnis

Bonney, Rick, Tina B. Phillips, Heidi L. Ballard, and Jody W. Enck. "Can Citizen Science Enhance Public Understanding of Science?" *Public Understanding of Science*, 2015, 1–15.

<https://doi.org/10.1177/0963662515607406>.

Citizen Science for All. A Guide for Citizen Science Practitioners. Bürger Schaffen Wissen (GEWISS), 2016.

https://www.buergerschaffenwissen.de/sites/default/files/grid/2017/11/20/handreichunga5_engl_web.pdf.

Pocock, M.J.O., D.S. Chapman, L.J. Sheppard, and H.E. Roy. *Choosing and Using Citizen Science: A Guide to When and How to Use Citizen Science to Monitor Biodiversity and the Environment*. Centre for Ecology & Hydrology, 2014.

https://www.ceh.ac.uk/sites/default/files/sepa_choosingandusingcitizenscience_interactive_4web_final_amended-blue1.pdf.

Tweddle, J.C., L.D. Robinson, M.J.O. Pocock, and H.E. Roy. *Guide to Citizen Science: Developing, Implementing and Evaluating Citizen Science to Study Biodiversity and the Environment in the UK*. Natural History Museum, NERC Centre for Ecology & Hydrology for UK-EOF, 2012.

<https://www.ceh.ac.uk/sites/default/files/citizenscienceguide.pdf>.

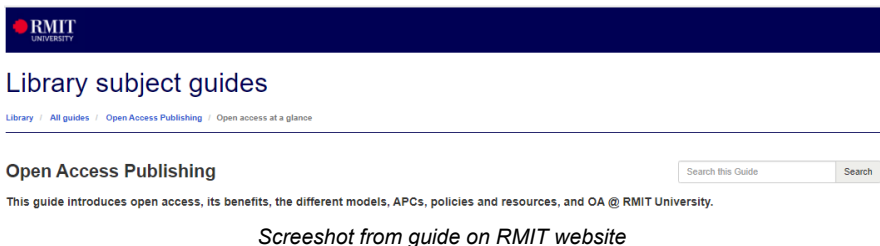
Open Science and Open Access Publishing

Authors: Maria Sael, Sabrina Gaab, Mohammad Al Nasouh, Edith Reschner

Tags / topics: Open Access, Open Science, Open Access Publishing, Open Licence, Scholarly publishing, APCs, author rights, copyright.

Guide 1

- **Cover image:**



- **Guide name:** "Open Access Publishing"

- **Guide citation insert from Zotero** : 1
- **Type of guide, parts** : A guide was written by Karen Macvean and published in the online library RMIT - Global University of Technology, Design and Economics to explain everything about Open Access briefly using different exploration methods such as text, explanatory videos, charts, and illustrations.
- **Summary:**

The guide explains the idea behind Open Access, its models such as Gold, Hybrid, and Green Open Access. An illustration also shows the benefits of open access in different disciplines. The difference in the citation volume of Open Access publications compared to non-Open Access publications is also shown in a diagram. Further tips on how to make research more open are listed as well as information on what preprints are, why, and how preprints can be shared are listed. The guide includes a list of open-access resources, such as Organizations, Directories, and Tools. The guide addresses FAIR principles, policies, and ethics, data planning, storing, and sharing data. Reading this guide will help with choosing the right type of publication, be it in journal articles, books and book chapters, conference papers, or non-traditional research (NTRs). The guide also provides an overview of copyrights and Information on Article Processing Charges (APCs) that should be checked before paying a journal.

By: Maria Sael

1. Philip R. Egert and Barbara L. Allen, "Knowledge Justice: An Opportunity for Counter-Expertise in Security vs. Science Debates," *Science as Culture* 28, no. 3 (June 21, 2017): 351–74, <https://doi.org/10/gjn3hd>.

Guide 2



Abbildung 1: Cover: "Von Open Access zu Open Science"

Guide name: "Von Open Access zu Open Science: Zum Wandel digitaler Kulturen der wissenschaftlichen Kommunikation"

Guide citation insert from Zotero: 2

Type of Guide: With the help of an experiment, this handbook presents the chances of and barriers to Open Access.

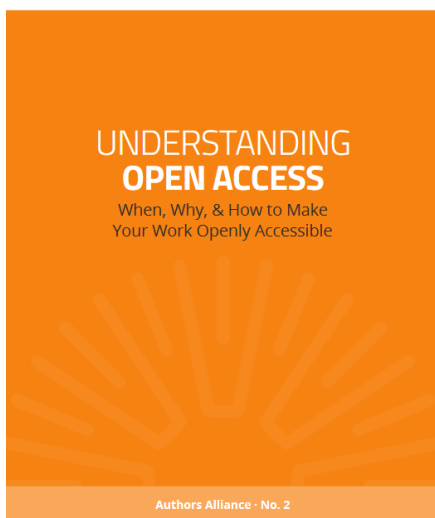
2. Sofia Leung and Jorge López-McKnight, *Knowledge Justice: Disrupting Library and Information Studies through Critical Race Theory* (The MIT Press, 2021), https://www.amazon.com/Knowledge-Justice-Disrupting-Information-Critical/dp/0262043505#detailBullets_feature_div.

Summary (Main Topics): The call for free access to scientific research results and an opening up of the research process goes hand in hand with digitisation in science. Open Access and Open Science are the key terms of this transformation process, which is euphorically welcomed by some and strongly rejected by others. Based on a quantitative survey and a reflexive experiment, the book provides insight into the current debates on the opportunities as well as the obstacles of opening up science.

By Edith Reschner

Guide 3

Lexi Rubow · Rachael Shen · Brianna Schofield
Samuelson Law, Technology, and Public Policy Clinic



Cover

Guide name:

Understanding Open Access. When, why, & how to make your work openly accessible

Guide citation insert from Zotero:

3

Type of Guide:

The basic structure of this step-by-step guide traces the process of how an author would decide whether and how to make a work openly accessible. Therefore, this design is intended to help with each step of the decision-making-process when

thinking about Open Access Publishing. The aim is to provide real-life strategies and tools that authors can use to work with publishers, institutions, and funders to make their works available on the terms most consistent with their dissemination goals.

On another note, this guide is the product of extensive interviews with authors, publishers, and institutional representatives who shared their perspectives on open access options in today's publishing environment. The information, strategies, and examples included in this guide reflect the collective wisdom of these interviewees.

Target Group:

The guide is for authors of all backgrounds, fields, and disciplines, from the sciences to the humanities.

Summary:

This Guide "Understanding Open Access" provides a scholarly author-oriented look at the ins and outs of open access publishing. The guide addresses common concerns about what "open access" means, how institutional open access requirements work, and why authors might consider making their work openly accessible online.

This guide will help to determine whether open access is right for the interested party and their work and, if so, how to make it openly accessible. This primer on open access explains what "open access" means, addresses common concerns and misconceptions you may have about open access, and provides you with practical steps to take if you wish to make your work openly accessible.

3. , GenR, "Open Science and Knowledge Justice: How It Started – How It's Going?," December 4, 2021, <https://genr.eu/wp/open-science-and-knowledge-justice-how-it-started-how-its-going/>.

Following the Introduction, there are three more sections at hand: Section II helps to evaluate whether to make the work openly accessible. When the decision is made, to make the work openly accessible, the reader can go on to the next section. Section III then explains how to do so by giving advices on how "open" to make the work at hand, where to make it openly available to the public and also how to secure the right to use third-party content in the later openly accessible work. Also included are strategies on how to make the work openly accessible while also publishing it through a conventional publisher. Finally, the guide concludes with Section IV, a window on the future of open access.

By Sabrina Gaab

Guide 4

4.1.



Cover image

Guide name: Open Access publizieren – Fragen & Antworten

Guide citation insert from Zotero: [4](#)

Type of Guide: This guide gives an overview of what to consider when publishing on open access.

Summary:

More and more knowledge is being generated and this knowledge is the most important resource for Germany's competitiveness and prosperity. It is thus important to make the generated knowledge as accessible and usable as possible for readers and other researchers through simple online research with the help of search engines. Open Access (OA) accomplishes precisely this task. In principle, all scientists and scholars can publish their research results on OA. This publication can be easily accessed free of charge, digitally and worldwide. This has many advantages. Firstly, scientists are noticed internationally. Secondly, knowledge is shared across the world. Citizens also benefit from this by their ability to find solutions. For example, tackling the problem of climate change, on the basis of this knowledge. There are more and more authors who publish their work on OA. For this reason, it is important to understand the issues involved in OA. This guide gives an overview of what to consider when publishing on OA.

The following questions are clarified:

1. who can publish on OA?
2. what is „Gold“ and „Green“ Roads to OA?
3. how do you finance an OA publication?
4. what do you have to consider in terms of copyright?

By Mohammad al Nasouh

4. Jon E Grahe et al., "Open Science Promotes Diverse, Just, and Sustainable Research and Educational Outcomes" 19, no. 1 (August 18, 2019): 5–20, <https://doi.org/10/gf75bp>.

Guide 5



Cover image

Guide name: Open-Access-Publikationsworkflow für akademische Bücher

Guide citation insert from Zotero: 5

Type of Guide: In the present manual a sustainable and ideal workflow for producing and publishing academic books is presented. That workflow enables universities to publish their publications both as Open Access and printed books in a state-of-the-art way and without any restrictions regarding the license, the variety of formats, print run etc.

5. David Böhm et al., *Open-Access-Publikationsworkflow Für Akademische Bücher* (HTWK Leipzig / OA-HVerlag, 2020), <https://doi.org/10.33968/9783966270175-00>.

Summary:

"The immediate, transparent and sustainable dissemination of verifiable scientific results is one of the essential requirements for scientific communication and infrastructure. Open Access, i.e. the open and free use of scientific literature, is the basic prerequisite for this. Colleges and universities are usually the institutions where scientists generate new research results and prepare them for publication in book form. In addition to traditional academic publishers, more and more university presses are therefore publishing academic publications. In the present manual a sustainable and ideal workflow for producing and publishing academic books is presented. That workflow enables universities to publish their publications both as Open Access and printed books in a state-of-the-art way and without any restrictions regarding the license, the variety of formats, print run etc. This workflow model will be demonstrated as a proof of concept using selected case studies and reflects the current state of technical and economic technical and economic possibilities in the publishing sector. On the basis of the case studies, the time, costs and personnel involved were also recorded, so that other higher education institutions and universities can be given pointers for the necessary investments in founding and operating their own OA university publishing houses are provided."

By Mohammad al Nasouh

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