

III Semana Doctoral Formación en la Sociedad del Conocimiento

2018-2019

[#IIISemanaEKS](#)

[#TEEM2018](#)



[#OAWeek](#)

OPEN



**International
ACCESS WEEK**

Prácticas y acciones por una ciencia abierta. Contribuciones desde el Doctorado.

22 | oct | 2018

Martin Adalberto Tena Espinoza de los Monteros

PhD KnowledgeSociety | USAL (ESP)

REBIUdeG | UdeG (MEX)

mtenaespinoza@academicos.udg.mx

@mtenaespinoza



Prácticas y acciones por una ciencia abierta. Contribuciones desde el Doctorado.

Temas

- 1.- Open Science en el Doctorado?
- 2.- Qué es la ciencia abierta? – La ciencia para el siglo XXI
- 3.- Qué es la ciencia abierta? – conocimiento abierto y movimiento abierto
- 4.- Qué es la ciencia abierta?
- 5.- Cómo practico la ciencia abierta?

Open Science en el Doctorado? 🤔



Integrating Open Science in an Information Literacy workshop for PhD candidates

Article

TU Delft Library's Education Support team develops Information Literacy courses for Bachelor and Master students, as well as a workshop for PhD candidates. We aim to create awareness of issues related to Information Literacy and teach students and PhD candidates to understand that Information Literacy is an integral part of their studies or their research.

It is important to include new developments in Information Literacy and in TU Delft policy (such as Open Access publishing and Open Data) in our courses and workshop, because these developments should be part of students' and PhD candidates' day-to-day practice. We think that this can best be done by integrating these developments into existing Information Literacy courses and workshops, which are themselves integrated in students' curricula or PhD candidates' educational practices (via the TU Delft Graduate School). Additionally, we will in the near future create some separate online Open Science presentations aimed at researchers and policymakers which offer the opportunity to explore specific topics in more detail.

###Background of the workshop

The PhD workshop "How to manage your research information" was about 5 years old in 2015, and although we had continually evaluated and revised it during those 5 years, it was time for a completely new workshop.

The original workshop was based on the [ACRL's Information Literacy Competency Standards for Higher Education] (<http://www.ala.org/acrl/standards/informationliteracycompetency>), and topics included:

- * Exploration of the research subject (preparation of searching)
- * Searching (setting up a search plan, searching, evaluating results)
- * Keeping up-to-date (alerts)
- * Reference management
- * Publishing

The participants in the workshop were still, on the whole, happy with the workshop, but there were some issues with it:

- * Data management had been added to the workshop, but was underrepresented, as it had to fit into the existing set-up.
- * In Reference management the emphasis was too much on how to use the tools, and not enough on the reasons for organizing your own data and information. What are the risks of "not" organizing data and information properly?
- * New and relevant developments in Publishing had been added to our workshop over the years, but this meant that the Publishing section was no longer as coherent as it should be.
- * And finally: the very different backgrounds and entry levels of our participants (mostly 1st-year PhD candidates) meant that it was difficult to find the correct starting level for some of the topics in our workshop.

###Content

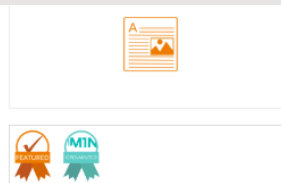
We decided to base the new workshop on the [Vitae Researcher Development Framework] (<https://www.vitae.ac.uk/researchers-professional-development/about-the-...>) instead of the International standards for Information Literacy. We felt it was important to treat Information Literacy as part of the PhD candidates' general development as researchers, and not as a separate issue.

Using the Researcher Development Framework as a starting point, we decided to focus on three skills associated with information and data:

- * Searching (exploration; search plan; evaluating results; setting up alerts)
- * Organizing (reference management; data management; sharing data and information)
- * Disseminating (impact; what do you need to know before you publish your first paper?)

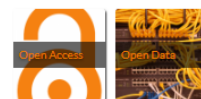
###Open Science, Open Access, Open Data

We believe that Open Science, Open Data, Open Access Publishing should be integral parts of Science, Data, and Publishing. For our workshop, this means that we have included Open Science topics in our workshops wherever relevant.



Authors: Nicole Potters
 Publication year: 2016
 Language: English (EN)
 Level of knowledge: Introductory: no previous knowledge is required
 Usage rights:
 Attribution - CC-BY

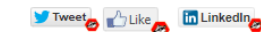
Topics



Audience

Librarians and Repository managers

Share



Open Science and Scholarship Changing your research workflow

August 7-11 2017

summer school 2017
 UTRECHT



Contents

- [Friendly URL](#)
- [Location](#)
- [Lecturers / co-lecturers](#)
- [Course overview](#)
- [Programme per day](#)

Friendly URL

- The programme and all materials can be found at <https://tinyurl.com/sumsopenscience2017>

Location

- [Utrecht University Library Uithof](#)
 Heidelberglaan 3 Utrecht
 Room: Buchelius, 6th floor





Open Science en el Doctorado? 🤔



UNIVERSIDAD DE GRANADA Administración electrónica

ESCUELA INTERNACIONAL DE POSGRADO

Curso de Ciencia Abierta (10-11/2017)

Profesorado

- Juan Julián Merelo Guervós** es catedrático de universidad en el Departamento de Arquitectura y Tecnología de computadores y director de la Oficina de Software Libre.
- Germán Martínez Maldonado** es técnico en la Oficina de Software Libre, graduado en Ingeniería Informática y experto DevOps.
- José Alonso Arias** es técnico en la Oficina de Software Libre, graduado en Ciencias Políticas y con un máster en Administraciones Públicas, aparte de técnico de grado superior en Sistemas Informáticos. Es uno de los encargados de la producción del portal de datos abiertos de la UGR.
- Manuel Cogoludo Vallejo** es experto en software libre y ha trabajado como técnico en la Oficina de Software Libre.

Duración, lugar y fecha

- Duración:** Curso de 20 horas, 10 horas presenciales y 10 horas virtuales (a través de Git o usando Prado).
- Lugar:** Lugar: Escuela Técnica Superior de Ingenierías Informática y de Telecomunicación (ETSIT). Calle Periodista Daniel Saucedo Aranda s/n, <http://etsitit.ugr.es/pages/escuela>.
- Fechas y horario:** 19, 20, 26, 27 de octubre, 3 de noviembre. De 18.00 a 20.00 h.

Plazas y perfil

- 25 plazas.
- Dirigido a todos los alumnos/as de doctorado de los programas de la Escuela de Doctorado de Ciencias, Tecnologías e Ingenierías. El orden de prioridad será decreciente según el número de años en el programa, es decir, tendrán menor prioridad los del primer año.

Justificación académica

Trabajar con una metodología de ciencia abierta no sólo permite cumplir una obligación ética de mantener a la sociedad informada de los desarrollos que se hacen con fondos públicos, también lleva una serie de buenas prácticas que resultan en flujos de trabajo más eficientes que permiten que el camino desde la idea a la publicación sea mucho más rápido. Al usar también una serie de herramientas que permiten publicar todo tipo de "artefactos", desde código a gráficos pasando por comentarios a experimentos fallidos, crean una práctica de comunicación que se acerca más a la divulgación, pero que a la vez permite crear trabajos con revisión entre pares más fáciles de realizar y que, eventualmente cuando se publican, recibirán más atención y más citas al estar en abierto.

Este curso introduce la metodología, las prácticas habituales y los recursos usados en ciencia abierta, con el objetivo esencial de ayudar al estudiante a acercar la práctica a la sociedad y también mejorar sus propias prácticas de experimentación y de publicación de esos experimentos.

Objetivos educativos, profesionales y competencias generales adquiridas

El alumno:

- Sabrà qué es la ciencia abierta y como se relaciona con los conceptos de software libre y datos abiertos.
- Entenderá el concepto de licencia y como se aplica a contenido, software y datos.
- Comprenderá las motivaciones principales para abrir todo o parte de su trabajo y como contribuirá a su carrera científica.

El alumno será capaz de:

- Liberar contenido, software y datos de la forma adecuada y con el mayor impacto posible en su carrera.
- Trabajar con herramientas libres que permitirán establecer flujos y actualizaciones más eficientes.
- Entender el concepto de reproducibilidad y cómo se aplica a flujos de trabajo.
- Usar repositorios de datos abiertos para su propia investigación.

Programa de Doctorado Formación en la Sociedad del Conocimiento
Universidad de Salamanca

Inicio Información Calidad Miembros Seminarios Evidencias Publicaciones Tesis Calendario Repositorio Ayuda

Vicio / Seminario "Investigación y Ciencia Abierta"

Seminario "Investigación y Ciencia Abierta"

Ediciones anteriores: 23/10/2017 - De 10:00 hasta 14:00
23/10/2017 - De 16:00 hasta 20:00

Docentes: Francisco J. García-Peñalvo
Martín Adalberto Tena Espinosa de los Monteros

Aula: 12A del IUICE

Del 23 al 29 de octubre del 2017 se celebrará la 10ª Semana Internacional del Acceso Abierto (International Open Access Week). La #OpenAccessWeek es una iniciativa y una celebración anual global que busca concientizar, así como difundir y compartir acciones y experiencias, que contribuyan a la promoción y adopción de los principios y prácticas del movimiento internacional por un acceso abierto.

En este contexto y en el marco de la celebración de la #OpenAccessWeek 2017, el Programa de Doctorado en Formación en la Sociedad del Conocimiento de la Universidad de Salamanca (FpSocKnowledgeSociety) se suma a los eventos de promoción e impulso por un acceso abierto, motivo por el cual convoca a un seminario-taller entre sus estudiantes, con el objetivo de reflexionar desde la perspectiva del estudiante de doctorado sobre la importancia de la investigación y la ciencia en abierto.

El seminario se celebrará el día 23 de octubre en horario de mañana y tarde el aula 12A del Instituto Universitario de Ciencias de la Educación (IUICE) de la Universidad de Salamanca. Para asistir es necesario inscribirse aquí.

Objetivo:

- Reflexionar sobre el movimiento por una ciencia abierta en el contexto de la investigación y formación doctoral

Contenidos:

- Principios del acceso abierto
- Principios de una ciencia abierta
- Prácticas, experiencias, barreras y oportunidades de la investigación abierta
- Reflexión: "Acceso Abierto para..."

Se recomienda traer su portátil.

Materiales:

Presentación del seminario
<https://www.slideshare.net/secret/1uHR2Am568rv>
Tipo de contenido: Documentos



Open Science en el Doctorado? 🤔



Tips for PhD students

Necessary Open Science Skills for Academic Researchers

Last updated: May 21, 2018



WE TRAIN RESEARCHERS ABOUT OPEN SCIENCE



Psychology students in Serbia learn how to foster open science in their daily workflows. The training was a part of the FOSTER (Facilitate European Science Training for European Research) programme.

THE CHALLENGE

As a result of current data capture methods and data malpractice, approximately 50% of all research data and experiments is considered not reproducible, and the vast majority (likely over 80%) of data never makes it to a trusted and sustainable repository, according to a report on research published by the European Commission in 2016.

Open science is seen as a way of improving the quality of research. It is an approach that makes research processes and data open and transparent at all stages, from planning to dissemination of results, and which encourages collaboration among researchers. Transparency means that problems in methodology and data capture can be identified and solved sooner; openness means that results can be validated more quickly. Early feedback adds to

quality of research outcomes.

More and more scientists across the world are introducing open science practices into their work. However, there are diverse approaches to open science in different disciplines, regions and institutions, and there is still a lack of practical guidance and training for researchers.

Through practical training, EIFL supports researchers and their institutions to integrate open science into their daily workflows.

Providing researchers with the skills and competencies they need to practise Open Science

Open Science Skills Working Group Report

Written by the Working Group on Education and Skills under Open Science
July - 2017

Research and Innovation

Qué es la Ciencia Abierta?



La Ciencia para el Siglo XXI



Budapest,
Hungary
26 June-1 July 1999



Science for the Twenty-First Century

A new Commitment

World Conference on Science

DECLARACION SOBRE LA CIENCIA Y EL USO DEL SABER CIENTIFICO

Adoptada por la Conferencia mundial sobre la ciencia
el 1º de julio 1999 - Texto final

*La mayor parte de los **beneficios** derivados de la **ciencia** están **desigualmente distribuidos** a causa de las asimetrías estructurales existentes entre los países, las regiones y los grupos sociales, así como entre los sexos.*

*Conforme el **saber científico** se ha transformado en un factor decisivo de la producción de riquezas, su distribución se ha vuelto más **desigual**. Lo que distingue a los pobres (sean personas o países) de los ricos no es sólo que poseen menos bienes, sino que la gran mayoría de ellos está excluida de la creación y de los beneficios del saber científico...*

La Ciencia para el Siglo XXI



Budapest,
Hungary
26 June-1 July 1999



Science for the Twenty-First Century

A new Commitment

World Conference on Science

DECLARACION SOBRE LA CIENCIA Y EL USO DEL SABER CIENTIFICO

Adoptada por la Conferencia mundial sobre la ciencia
el 1º de julio 1999 - Texto final

*en el siglo XXI la **ciencia** debe **convertirse** en un **bien compartido** solidariamente en **beneficio de todos** los pueblos, que la ciencia constituye un poderoso instrumento para comprender los fenómenos naturales y sociales y que desempeñará probablemente un papel aún más importante en el futuro a medida que se conozca mejor la complejidad creciente de las relaciones que existen entre la sociedad y el medio natural...*

*que el **acceso** al saber científico con fines pacíficos desde una edad muy temprana forma parte del **derecho** a la educación que tienen todos los hombres y mujeres, y que la enseñanza de la ciencia es fundamental para la plena realización del ser humano, para crear una capacidad científica endógena y para contar con ciudadanos activos e informados...*

La Ciencia para el Siglo XXI



Budapest,
Hungary
26 June-1 July 1999



Science for the Twenty-First Century

A new Commitment

World Conference on Science

DECLARACION SOBRE LA CIENCIA Y EL USO DEL SABER CIENTIFICO

Adoptada por la Conferencia mundial sobre la ciencia
el 1º de julio 1999 - Texto final

que la **investigación científica** y sus **aplicaciones** pueden ser de gran **beneficio** para el crecimiento económico y el desarrollo humano sostenible, comprendida la **mitigación** de la pobreza, y que el futuro de la humanidad dependerá más que nunca de la **producción**, la **difusión** y la **utilización equitativas** del saber...

la imperiosa necesidad de **reducir** las **disparidades** entre los países en desarrollo y los desarrollados mejorando las capacidades e infraestructuras científicas de los países en desarrollo...

la revolución de la información y la comunicación ofrece **medios nuevos** y más eficaces para **intercambiar** los **conocimientos** científicos y hacer progresar la educación y la investigación...

La Ciencia para el Siglo XXI



Budapest,
Hungary
26 June-1 July 1999



Science for the Twenty-First Century

A new Commitment

World Conference on Science

*la importancia que tiene para la investigación y la enseñanza científicas el **acceso libre y completo** a la **información** y los **datos de dominio público**...*

DECLARACION SOBRE LA CIENCIA Y EL USO DEL SABER CIENTIFICO

Adoptada por la Conferencia mundial sobre la ciencia
el 1º de julio 1999 - Texto final

La Ciencia para el Siglo XXI



ICSU/Unesco: World Conference on Science Supplement



In this supplement

- [Comment](#)
- [News](#)
- [Opinion](#)
- [Interview](#)
- [Diary](#)

The first global meeting to cover the complete range of issues concerning contemporary science and its relationship to society for almost 20 years, took place in Budapest from 26 June to 1 July 1999, jointly organized by the United Nations Educational, Scientific and Cultural Organization (Unesco) and the International Council for Science (ICSU).

International Council for Science (ICSU).

La ciencia para el siglo XXI
Un nuevo compromiso

Budapest, Hungría, 26 de junio – 1º de julio de 1999

Conferencia Mundial sobre la Ciencia

Documentos Principales

**DECLARACION SOBRE LA CIENCIA
Y EL USO DEL SABER CIENTIFICO**

**PROGRAMA DE ACCION EN PRO DE LA CIENCIA
– MARCO GENERAL DE ACCION**

Harnessing science to society

Analytical report

to governments and international partners on the follow-up to the

World Conference on Science

Science for the Twenty-First Century
A New Commitment
Budapest, Hungary, 26 June–1 July 1999



Paris, December 2002

Qué es la Ciencia Abierta?



No seamos impacientes, aún nos falta hablar del concepto y el movimiento abierto (*open definition and openness movement*)...

Conocimiento Abierto y Movimiento Abierto



Open Definition

Knowledge is open if anyone is free to access, use, modify, and share it.



The Open Definition

The **Open Definition** sets out principles that define “openness” in relation to **data and content**.

It makes **precise** the meaning of “open” in the terms “**open data**” and “**open content**” and thereby ensures **quality** and encourages **compatibility** between different pools of open material.

It can be summed up in the statement that:

*“Open means **anyone** can **freely access, use, modify, and share** for **any purpose** (subject, at most, to requirements that preserve provenance and openness).”*

Put most succinctly:

*“Open data and content can be **freely used, modified, and shared** by **anyone** for **any purpose**”*

Conocimiento Abierto y Movimiento Abierto

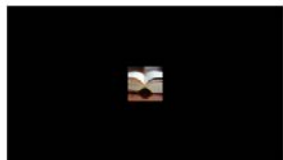


Science Home News Journals Topics Careers

SHARE Scientists Embrace Openness

By Chelsea Wald | Apr. 9, 2010, 8:00 AM

History is replete with stories of scientists who hid their ideas from their competition; consider Leonardo da Vinci, whose odd backward writing may have been partly motivated by fear of thieves, or Isaac Newton, who concealed one idea by writing it in the form of an anagram. Science has long been a dog-eat-dog world.



(PHOTO: COMA)

“Everybody makes mistakes. And if you don't expose your raw data, nobody will find your mistakes.” --Jean-Claude Bradley

So it may seem odd that a handful of scientists are going to similar lengths to share not just their results but also, sometimes, their raw data – even their lab notebooks – often in real time. They're part of a movement called Open Science, or, more specifically, Open Notebook Science, whose motto is “no insider information.” (For more open-science terminology, see the **box below**.)



(Karin Higgins) Jonathan Eisen

At first glance, going “open” would seem like a serious career risk – years of work could be for nothing if a competitor uses your work to beat you to publication – but many practitioners of openness say the benefits outweigh those risks. The benefits include increased opportunities for collaboration, more feedback from colleagues, and a greater likelihood that the research will get to the people who can use it. Counterintuitively, practitioners say that being open supports their claims of priority and relieves their anxiety about getting ripped off.

“I definitely believe that science in general is more effective the more open people are,” says evolutionary biologist Jonathan Eisen of the University of California (UC), Davis, who keeps much of his research open. “There are unquestionably risks for people that come with [openness], but the benefits to society are enormous. Given that taxpayers are paying for our work, I think that the default should be to be open unless you can prove that it's a bad idea.”

nature International weekly journal of science

Home | News & Comment | Research | Careers & Jobs | Current Issue | Archive | Audio & Video

Archive > Volume 515 > Issue 7527 > Column: World View > Article

NATURE | COLUMN: WORLD VIEW

عربي



Emi Manning/UC Davis

Openness in science is key to keeping public trust

Silence stifles progress, says Mark Yarborough. The scientific enterprise needs a transparent culture that actively finds and fixes problems.

19 November 2014

PDF Rights & Permissions

The Economist Topics Current edition More

Open Future

An explosion of openness is about to hit scientific publishing

Major European countries are mandating that publicly-funded research should appear only in open-access journals



Getty Images

Open Future > Sep 7th 2018 | by A.B.



Qué es la Ciencia Abierta?



Ahora sí! Hablemos sobre
Ciencia Abierta...



Qué es la Ciencia Abierta?

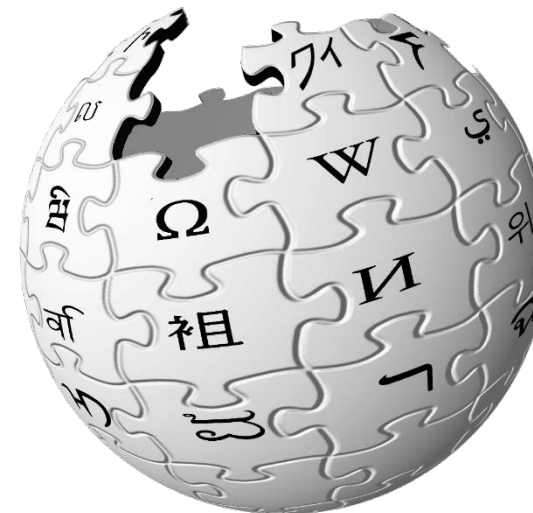


Open science

From Wikipedia, the free encyclopedia

Open science is the movement to make scientific research, data and 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^[2]. It encompasses practices such as publishing [open research](#), campaigning for [open access](#), encouraging scientists to practice [open notebook science](#), and generally making it easier to publish and communicate scientific knowledge.

Open science began in the 17th century with the advent of the [academic journal](#), when the societal demand for access to scientific knowledge reached a point where it became necessary for groups of scientists to share resources^[3] with each other so that they could collectively do their work.^[4] In modern times there is debate about the extent to which scientific information should be shared.^[5] The conflict is between the desire of scientists to have access to shared resources versus the desire of individual entities to profit when other entities partake of their resources.^[6] Additionally, the status of [open access](#) and resources that are available for its promotion are likely to differ from one field of academic inquiry to another^[7].



WIKIPEDIA
The Free Encyclopedia

Qué es la Ciencia Abierta?



Open Science is scholarly research that is collaborative, transparent and reproducible and whose outputs are publicly available. The European Union will not remain competitive at the global level unless it promotes Open Science, and relatedly, Open Innovation. The time to act is now.

At its core, Open Science aims at: "increasing research quality, boosting collaboration, speeding up the research process, making the assessment of research more transparent, promoting public access to scientific results, as well as introducing more people to academic research"¹. By taking advantage of Open Science, researchers can enhance the quality of curiosity-driven research, maximise the value and potential impact of their work to create new avenues of knowledge, and drive scientific progress and Open Innovation within Europe and beyond². Open Science also makes research more transparent and accessible to citizens, and helps involve citizens more actively in research activities. Open Science thus "provides policymakers, research institutions, funding bodies and researchers themselves with an opportunity to critically consider: what does and should count as high-quality research; what goals researchers should pursue; how research results should be evaluated and disseminated; and how research should be supported and embedded within society"³.

For Open Science to be successful, it must become embedded at every level and in every aspect of the scientific endeavour and not be perceived as separate from (or even in competition with) current practice. Open Science needs to stimulate research integrity and quality, which includes sensitivity to disciplinary differences and confidentiality issues around knowledge sharing. Open Science requires a systemic shift in current practices to bring transparency across the system, to ensure ongoing sustainability for the associated social and physical infrastructures, and to foster greater public trust in Science.

Open Science es investigación que es colaborativa, transparente y reproducible y cuyos resultados están disponibles públicamente.

En su esencia, Open Science apunta a: "aumentar la calidad de la investigación, aumentar la colaboración, acelerar el proceso de investigación, hacer que la evaluación de la investigación sea más transparente, promover el acceso público a los resultados científicos, así como introducir a más personas a la investigación académica"



Open Science: One Term, Five Schools of Thought

Benedikt Fecher & Sascha Friesike

Open Science is an umbrella term encompassing a multitude of assumptions about the future of knowledge creation and dissemination.

“Open Science” is an umbrella term that encompasses almost any dispute about the future of knowledge creation and dissemination, a term that evokes quite different understandings depending on the viewpoint of its respective advocates and leads to many quarrels under the same flag—yet with varying inducements and targets.

Open Science o Ciencia Abierta es un término general (“umbrella term”) que abarca una multitud de supuestos sobre el futuro de la creación y divulgación de conocimiento.

“Ciencia abierta” es un término general que abarca casi cualquier disputa sobre el futuro de la creación y diseminación de conocimiento, un término que evoca entendimientos muy diferentes según el punto de vista de sus respectivos defensores y conduce a muchas disputas bajo la misma bandera, pero con diferentes variantes incentivos y objetivos.



Open Science Definition

Open Science is the practice of science in such a way that others can collaborate and contribute, where research data, lab notes and other research processes are freely available, under terms that enable reuse, redistribution and reproduction of the research and its underlying data and methods.

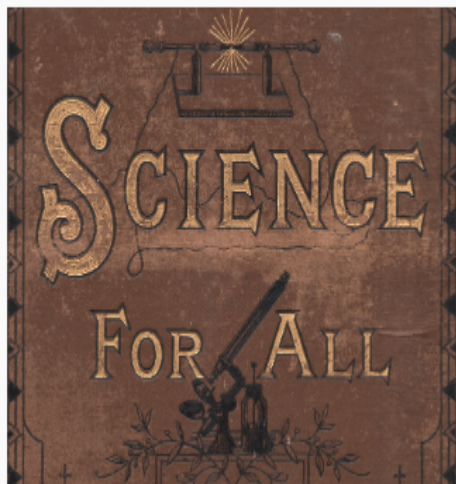
*Open Science es la **práctica de la ciencia** de tal manera que **otros puedan colaborar y contribuir, donde los datos de investigación, las notas de laboratorio y otros procesos de investigación están disponibles** de manera gratuita, bajo términos que permiten la reutilización, redistribución y reproducción de la investigación y sus datos y métodos subyacentes.*

Qué es la Ciencia Abierta?



Open Science

Open science encompasses unhindered access to scientific articles, access to data from public research, and collaborative research enabled by ICT tools and incentives. Broadening access to scientific publications and data is at the heart of open science, so that research outputs are in the hands of as many as possible, and potential benefits are spread as widely as possible:



- Open science promotes a more accurate verification of scientific results. By combining the tools of science and information technologies, scientific enquiry and discovery can be sped up for the benefit of society.
- Open science reduces duplication in collecting, creating, transferring and re-using scientific material.
- Open science increases productivity in an era of tight budgets.
- Open science results in great innovation potential and increased consumer choice from public research.
- Open science promotes citizens' trust in science. Greater citizen engagement leads to active participation in scientific experiments and data collection.

La ciencia abierta abarca el **acceso sin obstáculos** a los artículos científicos, el acceso a los datos de la investigación pública y la investigación colaborativa que permiten las herramientas y los incentivos de las TIC. La ampliación del acceso a publicaciones y datos científicos está en el corazón de la ciencia abierta, por lo que los resultados de la investigación están en manos de tantos como sea posible, y los beneficios potenciales se difunden lo más ampliamente posible.

+La ciencia abierta promueve una **verificación más precisa** de los resultados científicos. Al combinar las herramientas de la ciencia y las tecnologías de la información, la investigación y el descubrimiento científicos pueden acelerarse en beneficio de la sociedad.

+La ciencia abierta **reduce la duplicación** en la recopilación, creación, transferencia y reutilización de material científico.

La ciencia abierta **aumenta la productividad** en una era de presupuestos ajustados.

+La ciencia abierta da como resultado un **gran potencial de innovación** y una mayor elección por parte de los consumidores de la investigación pública.

+La ciencia abierta **promueve la confianza** de los ciudadanos en la ciencia. Una mayor participación ciudadana conduce a una participación activa en experimentos científicos y en la recopilación de datos.



Qué es la Ciencia Abierta?



Global Open Access Portal

Open Science is the movement to make scientific research and data accessible to all. It includes practices such as publishing open scientific research, campaigning for open access and generally making it easier to publish and communicate scientific knowledge. Additionally, it includes other ways to make science more transparent and accessible during the research process. This includes open notebook science, citizen science, and aspects of open source software and crowdfunded research projects.

The many advantages of this movement include:

- Greater availability and accessibility of publicly funded scientific research outputs;
- Possibility for rigorous peer-review processes;
- Greater reproducibility and transparency of scientific works;
- Greater impact of scientific research.

Open Science utilizes the prevalence of the Internet and associated digital tools to enable greater local and global research collaboration. Numerous documents, organizations, and social movements advocate wider adoption of open science and open science data. These initiatives foster the development and implementation of scientific research communication strategies that are inclusive, effective, and conducive to scientific collaboration and discovery across scientific fields.

Historical statements of principles such as the Budapest Open Access Initiative of 2001 and the Panton Principles as well as new statements such as the Amsterdam Call for Action on Open Science presented to the Dutch Presidency of the Council of the European Union in May, are driving forces which are trying to regularize licenses and disclosure for scientific data and scientific literature.

Open Science es el movimiento para hacer que la investigación científica y los datos sean accesibles para todos. Incluye prácticas como la publicación de investigaciones científicas abiertas, campañas para el acceso abierto y, en general, facilita la publicación y la comunicación del conocimiento científico. Además, incluye otras formas de hacer que la ciencia sea más transparente y accesible durante el proceso de investigación. Esto incluye la ciencia de cuaderno abierto, ciencia ciudadana y aspectos del software de código abierto y proyectos de investigación financiados por crowdfunding.

Las muchas ventajas de este movimiento incluyen:

- +Mayor disponibilidad y accesibilidad de los resultados de la investigación científica financiada con fondos públicos;*
- +Posibilidad de rigurosos procesos de revisión por pares;*
- +Mayor reproducibilidad y transparencia de los trabajos científicos;*
- +Mayor impacto de la investigación científica.*

Qué es la Ciencia Abierta?



Journal of Business Research 88 (2018) 428–436



ELSEVIER

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Journal of Business Research

journal homepage: www.elsevier.com/locate/jbusres



Open Science now: A systematic literature review for an integrated definition

Ruben Vicente-Saez*, Clara Martinez-Fuentes

University of Valencia, Faculty of Economics, Department of Business Administration, Avinguda dels Tarongers, s/n, 46022 València, Spain



ARTICLE INFO

Keywords:
 Open science
 Definition
 Open access
 Open innovation
 Responsible research and innovation
 Research and innovation management

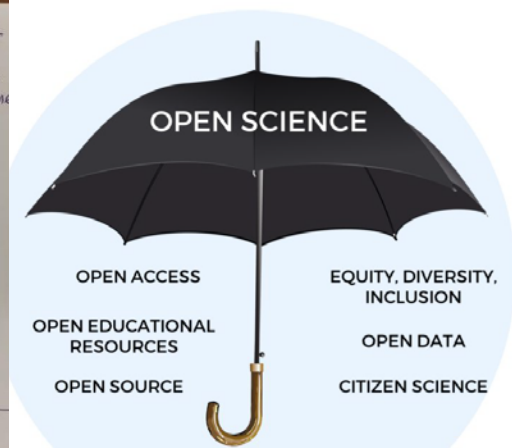
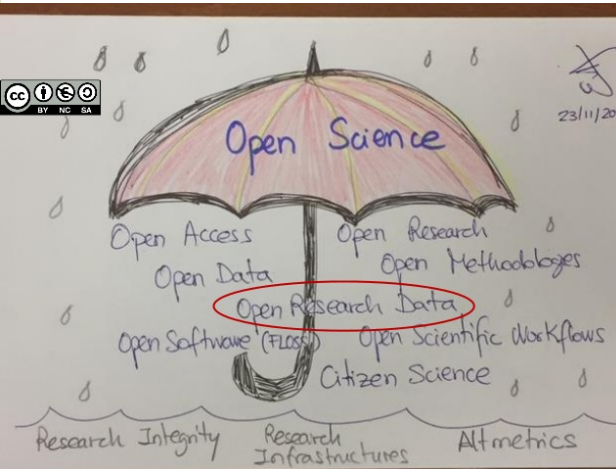
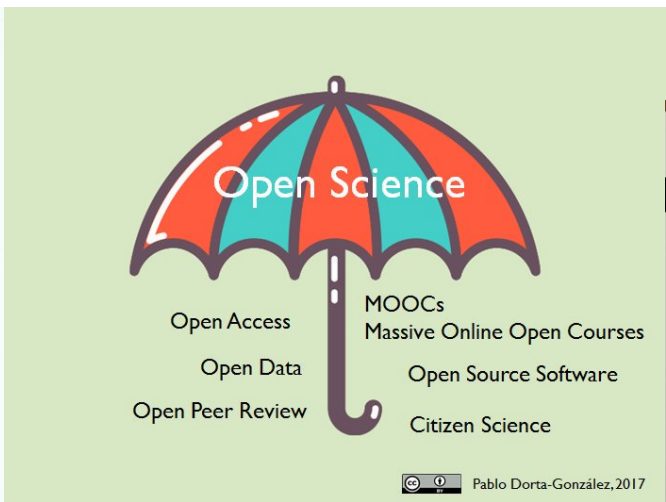
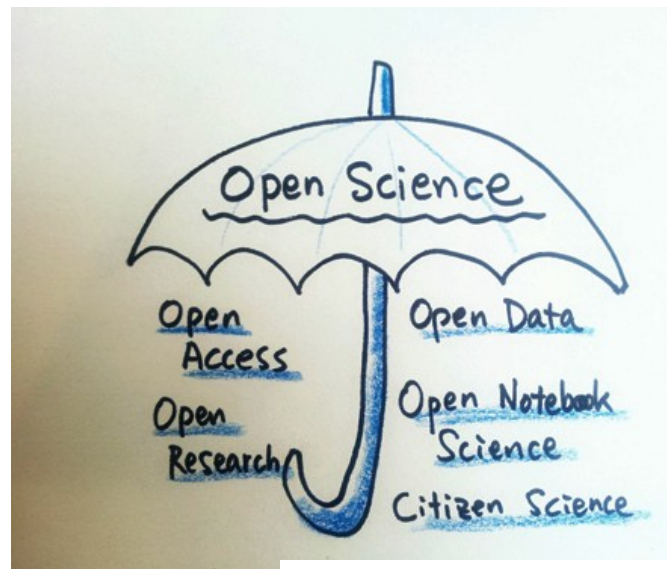
ABSTRACT

Open Science is a disruptive phenomenon that is emerging around the world and especially in Europe. Open Science brings about socio-cultural and technological change, based on openness and connectivity, on how research is designed, performed, captured, and assessed. Several studies show that there is a lack of awareness about what Open Science is, mainly due to the fact that there is no formal definition of Open Science. The purpose of this paper is to build a rigorous, integrated, and up-to-date definition of the Open Science phenomenon through a systematic literature review. The resulting definition “Open Science is transparent and accessible knowledge that is shared and developed through collaborative networks” helps the scientific community, the business world, political actors, and citizens to have a common and clear understanding about what Open Science is, and stimulates an open debate about the social, economic, and human added value of this phenomenon.

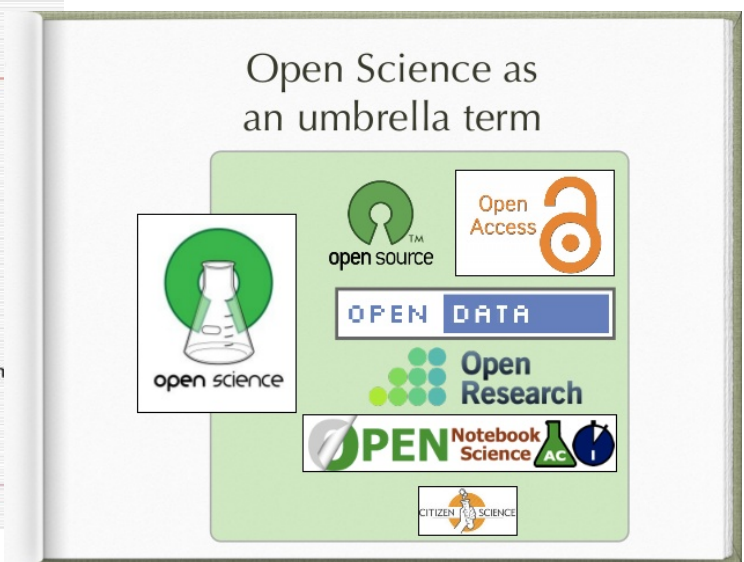
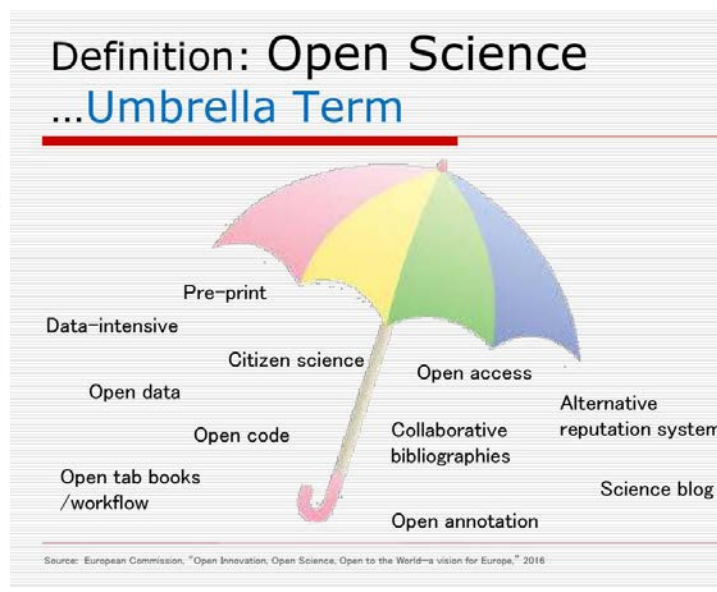
Open Science trae consigo cambios socioculturales y tecnológicos, basados en la apertura y la conectividad, en cómo se diseña, se realiza, se captura y se evalúa la investigación.

La definición resultante de Ciencia Abierta es: “un conocimiento transparente y accesible que se comparte y desarrolla a través de redes de colaboración”.

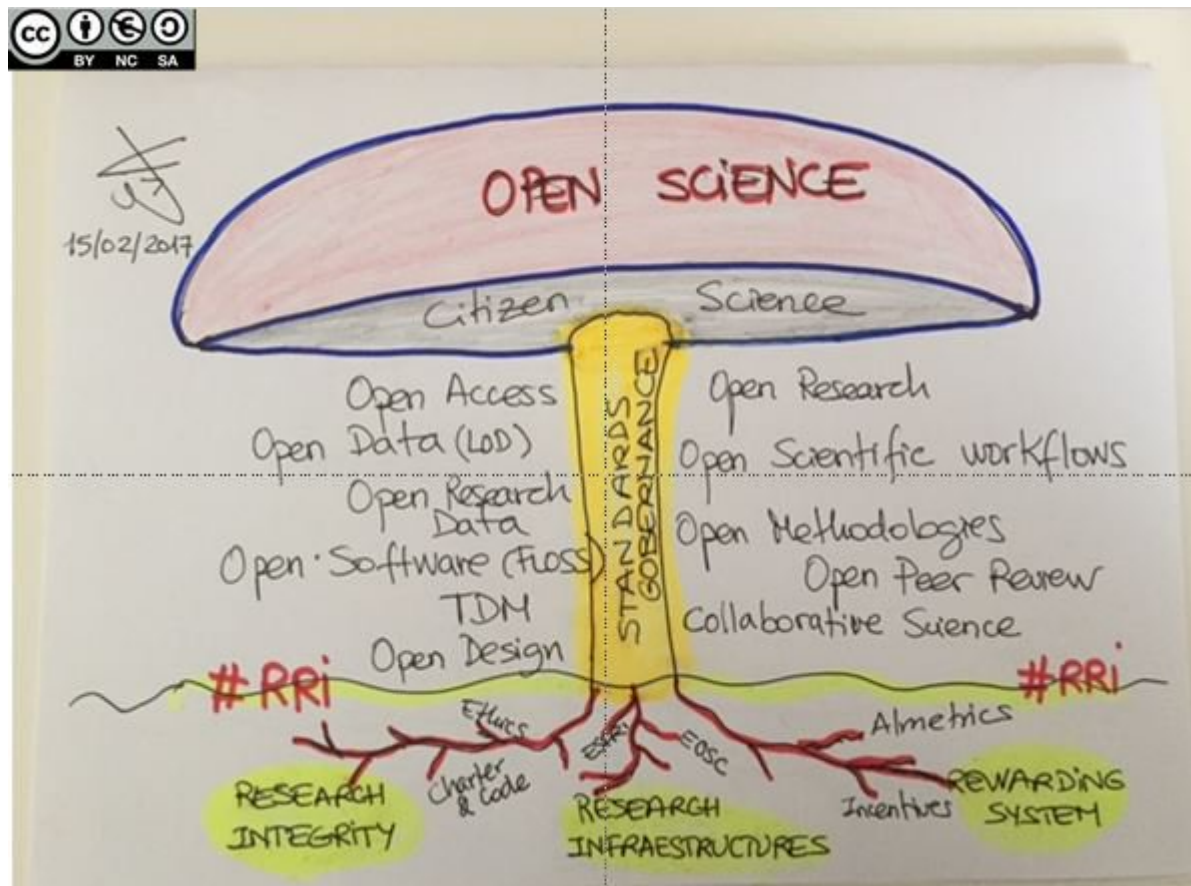
Qué es la Ciencia Abierta?



What do we mean when we talk about Open Science?
Image courtesy of Robin Champieux



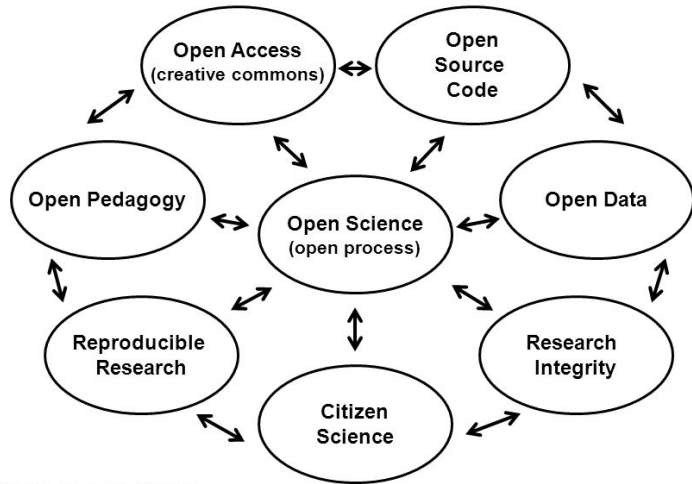
Qué es la Ciencia Abierta?



Qué es la Ciencia Abierta?

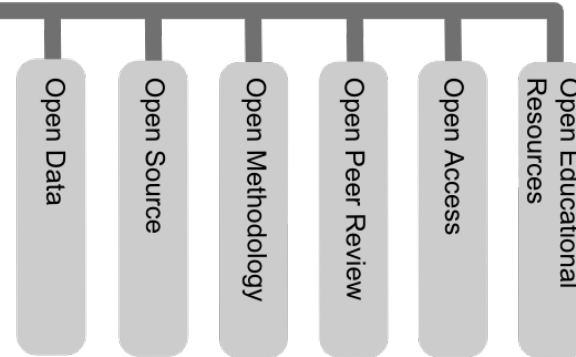


Open Science Ecosystem



With thanks to John Jungck

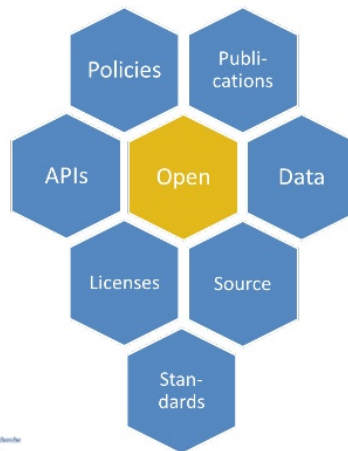
Open Science



Open science

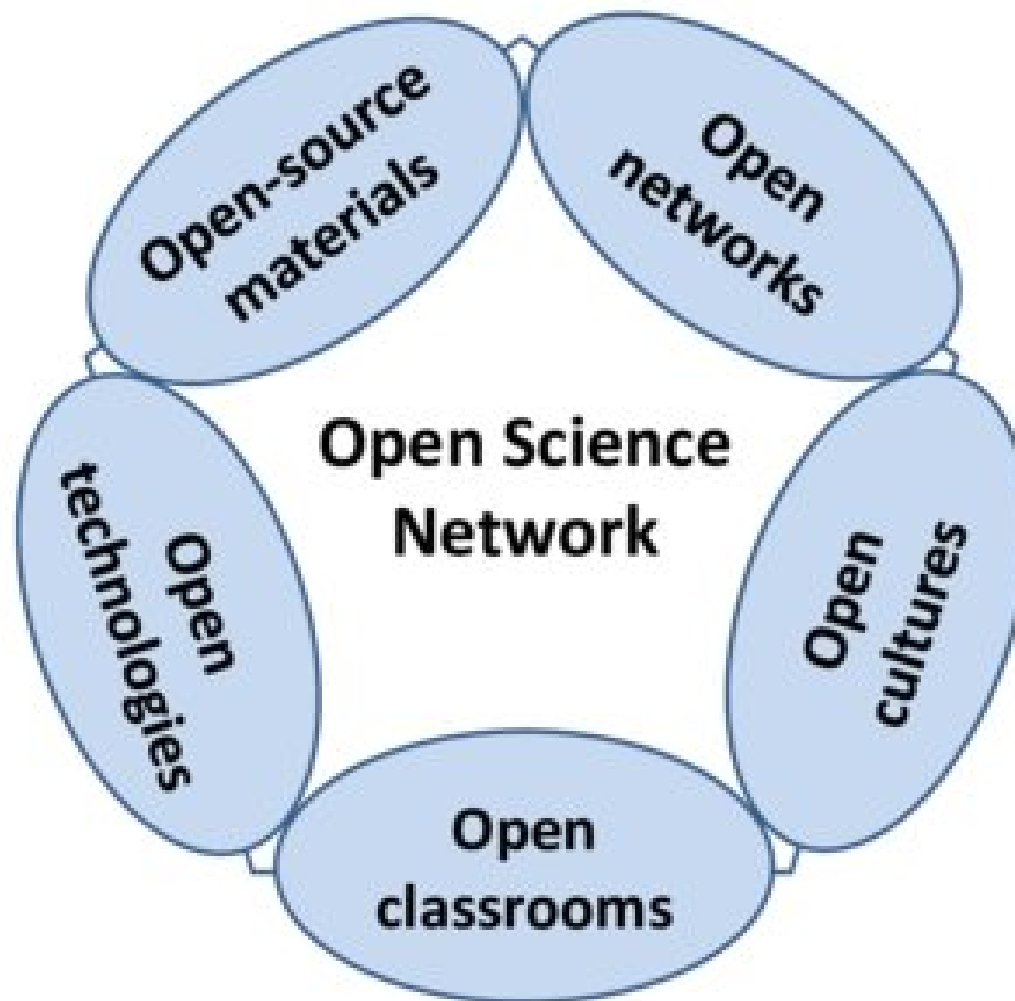


Open Science



| open | | | | The Open Ecosystem | | | |
|-------------|-----------|----------------|-----------------|--------------------|------------------|--------------|----------------------|
| | | | | | | | |
| Open Access | Open Data | Open Education | Open Government | Open Licenses | Open Scholarship | Open Science | Open Source Software |

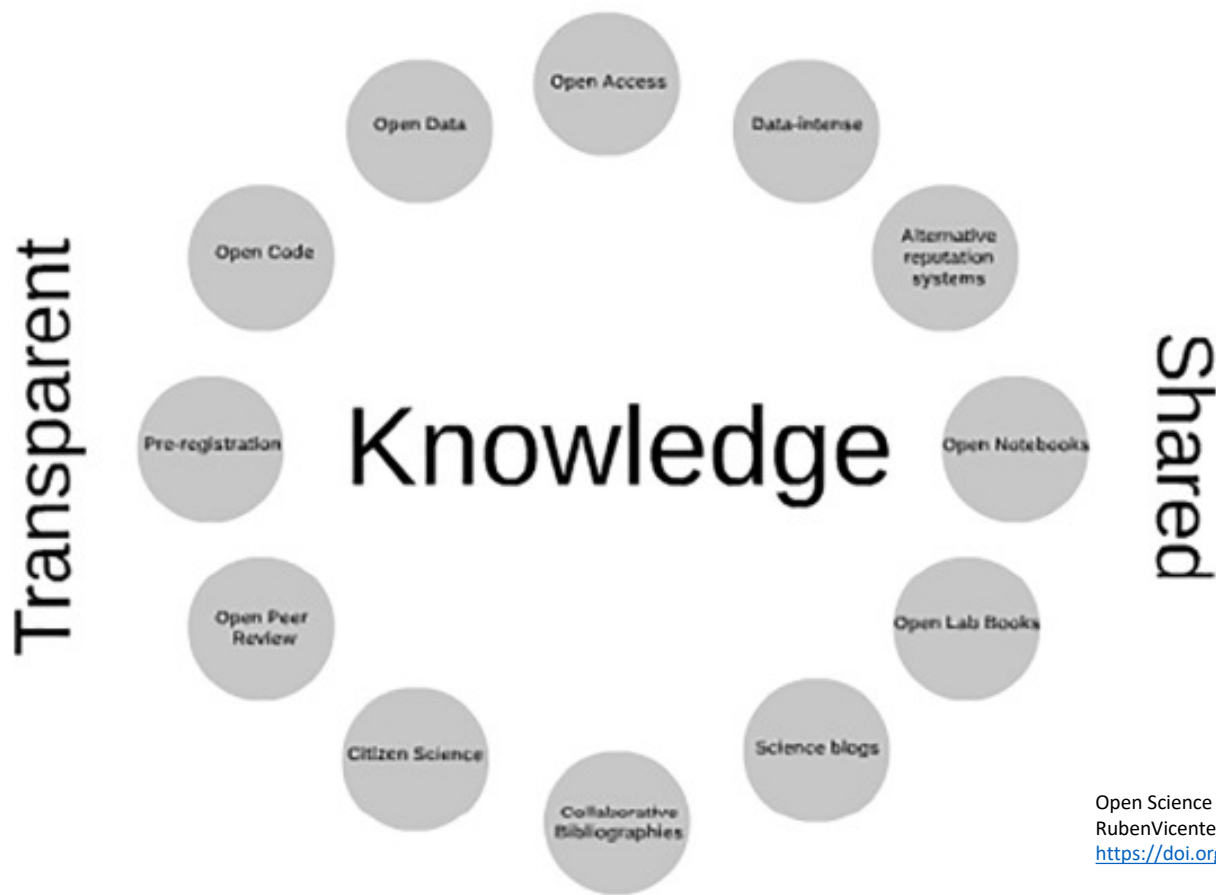
Qué es la Ciencia Abierta?



Qué es la Ciencia Abierta?



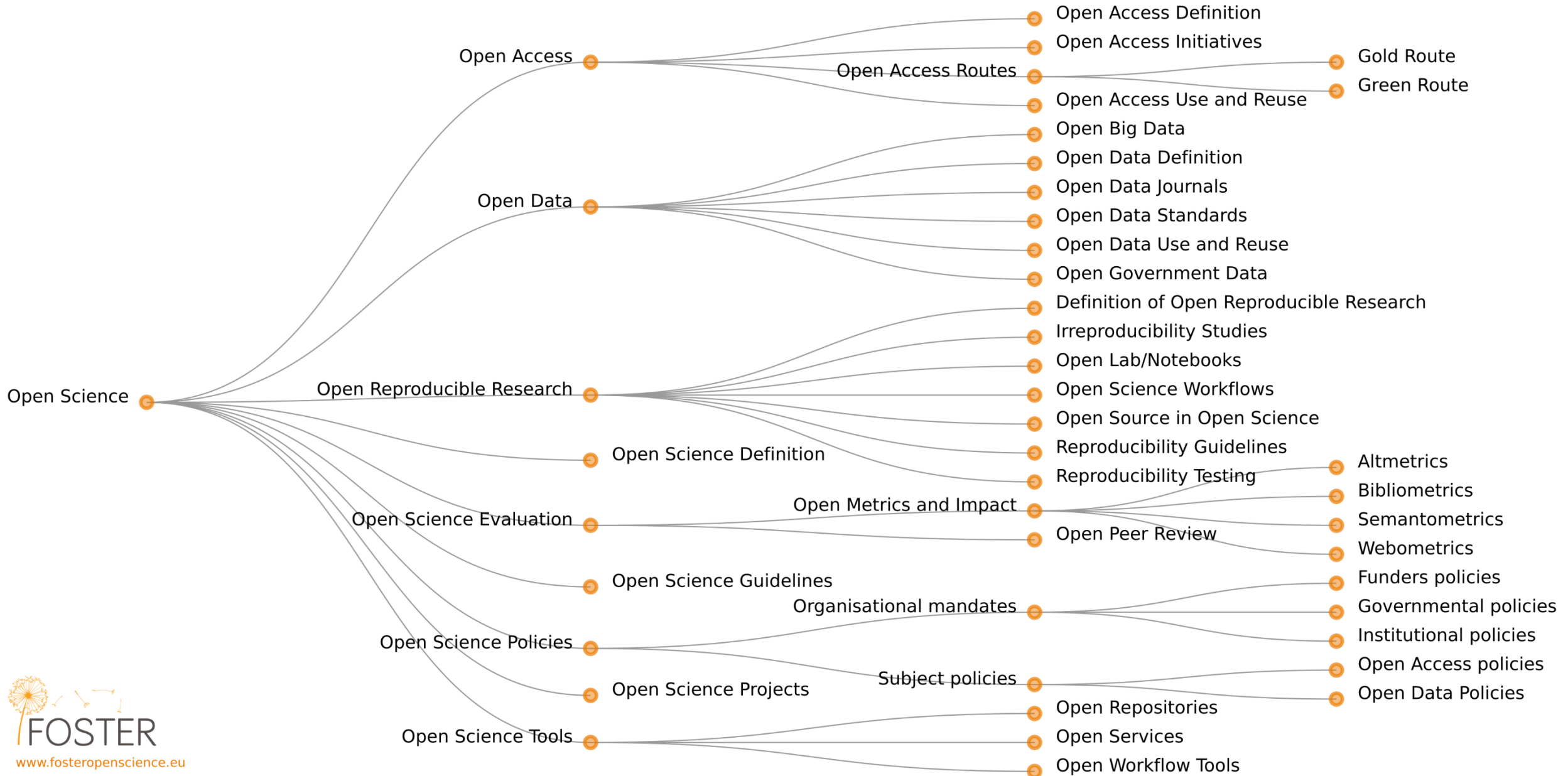
Accessible



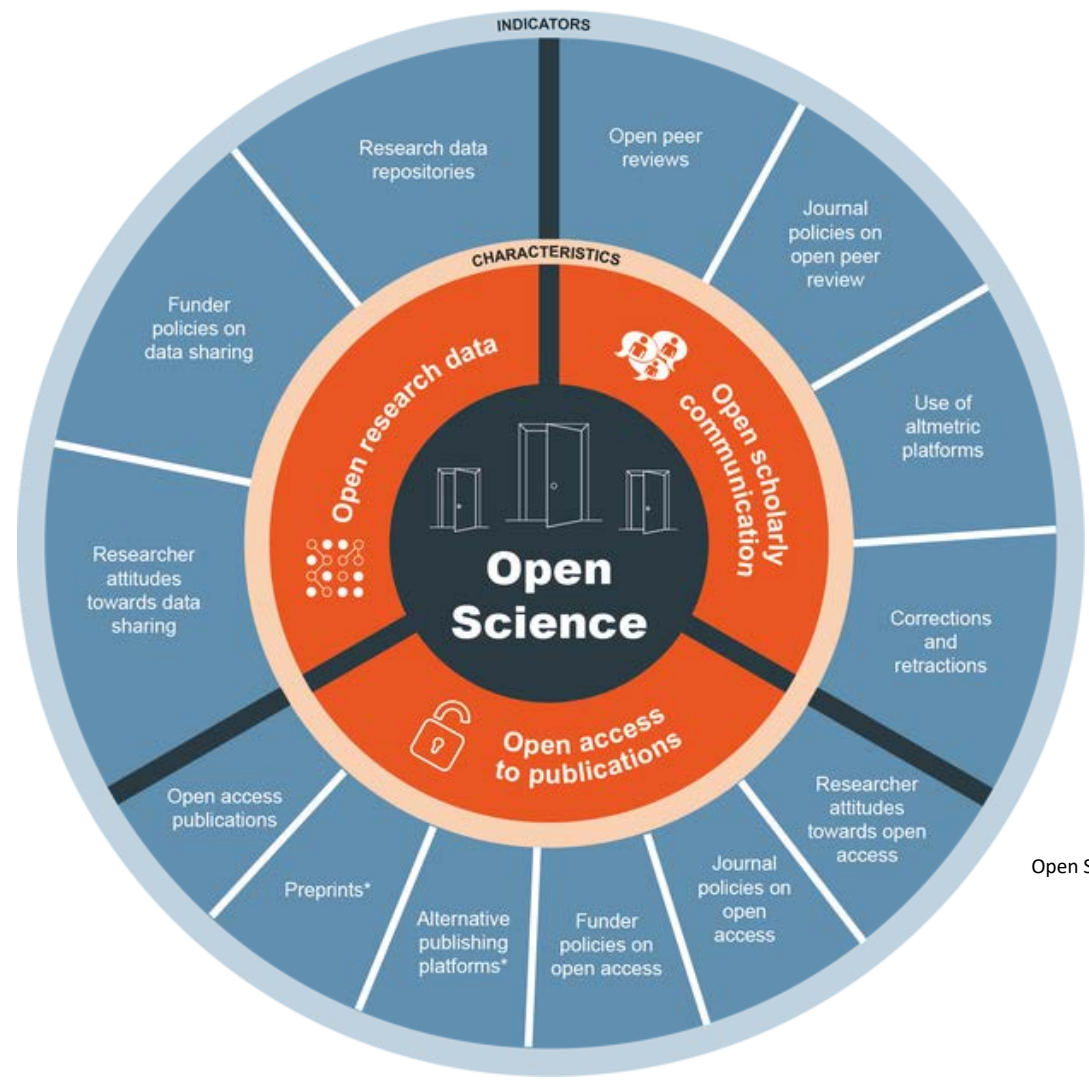
Collaborative-developed

Open Science now: A systematic literature review for an integrated definition
 RubenVicente-Saez & ClaraMartinez-Fuentes
<https://doi.org/10.1016/j.jbusres.2017.12.043>

Open Science Taxonomy

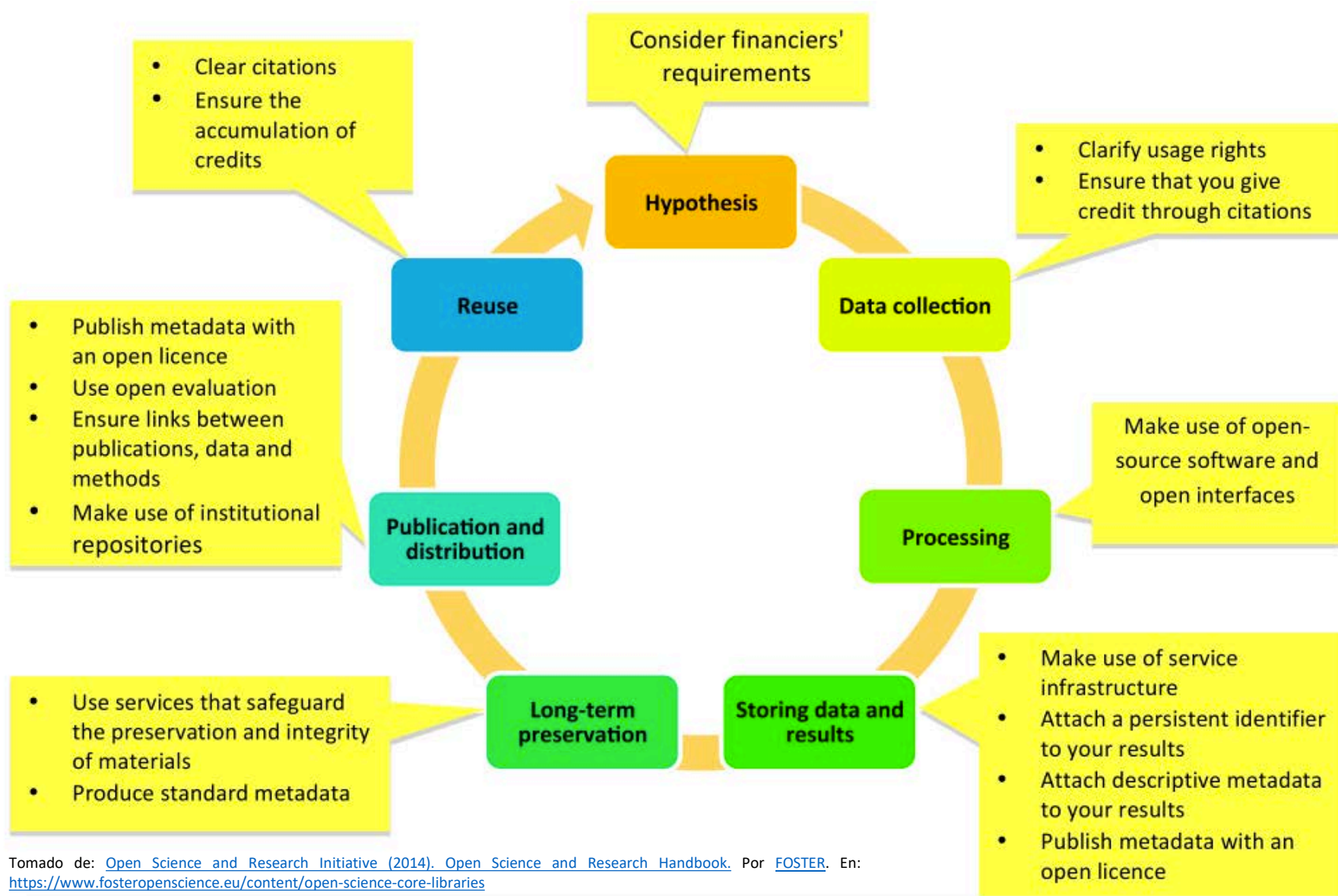


Qué es la Ciencia Abierta?



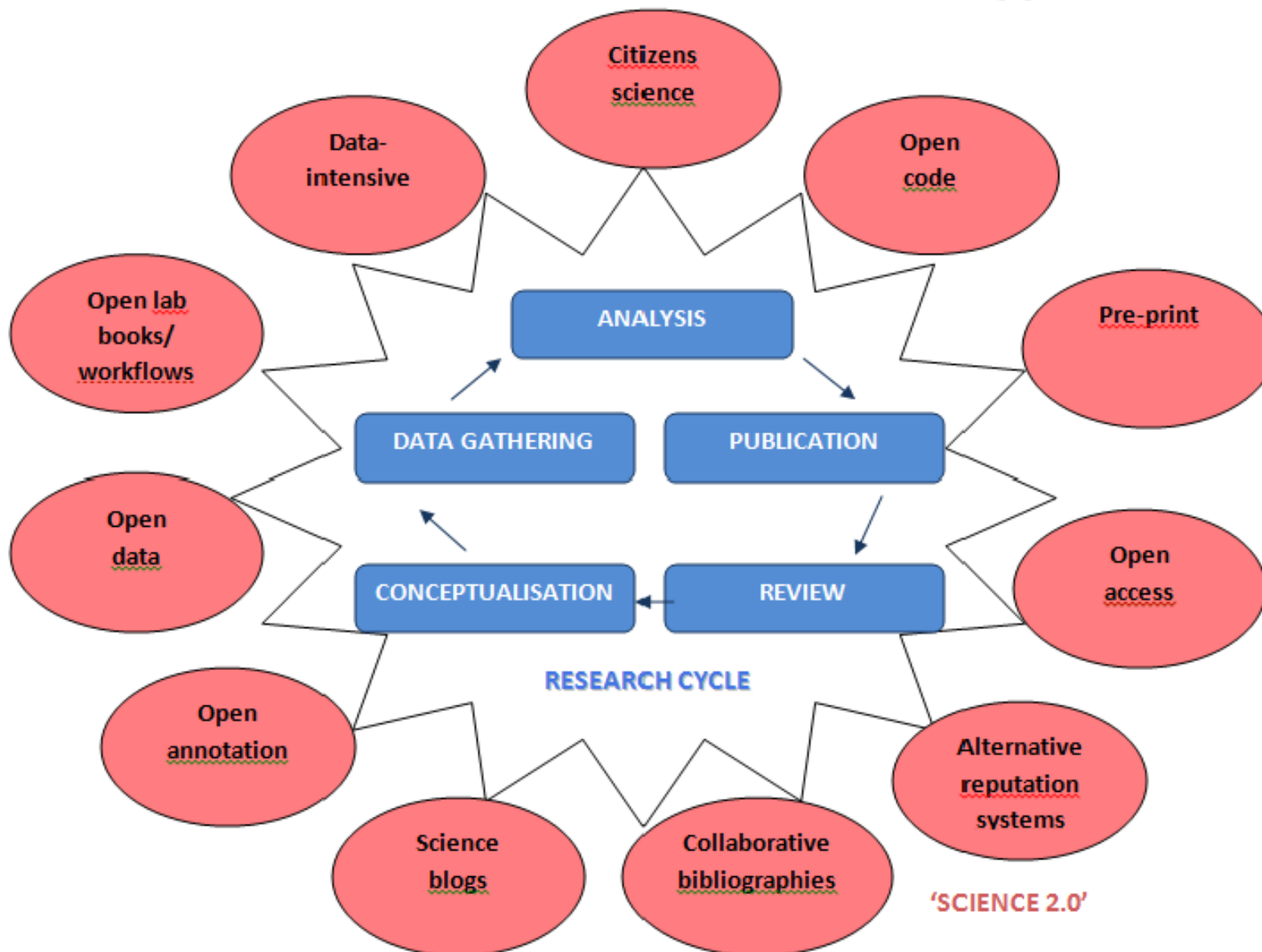
Open Science "Wheel" by Open Science Monitor

Qué es la Ciencia Abierta?



Tomado de: [Open Science and Research Initiative \(2014\). Open Science and Research Handbook](#). Por [FOSTER](#). En: <https://www.fosteropenscience.eu/content/open-science-core-libraries>

Qué es la Ciencia Abierta?



Cómo practico la Ciencia Abierta?



Pero... Cómo practico la Ciencia Abierta?

Cómo practico la Ciencia Abierta?



Open Science Training Courses

The **FOSTER taxonomy** defines Open Science as the movement to make scientific research, data and dissemination accessible to all levels of an inquiring society.

Sounds good but what does Open Science (OS) mean in a practical sense? These courses answer some of the most common questions you might have about putting open science into practice. Each course takes about 1-2 hours to work through and you'll receive a badge upon completion. The courses include practical tips on getting started with OS as well as providing information on discipline specific tools and resources you can use. There is no specified order through the courses – just explore topics that you want to learn more about at your own pace.

Cómo practico la Ciencia Abierta?



What is Open Science?

This introductory course will help you to understand what open science is and why it is something you should care about.

Best Practices

This course introduces some practical steps for opening up your research practices and how to meet expectations relating to openness from funders, publishers and peers.

Managing and Sharing Research Data

In this course, you'll focus on which data you can share and how you can go about doing this most effectively.

OSS and Workflows

This course introduces Open Source Software (OSS) and workflows as an emerging but critical component of Open Science.

Data Protection and Ethics

This course helps you to get to grips with responsible data sharing.

Open Licensing

This course helps you to find the best open license for your open research outputs.

Cómo practico la Ciencia Abierta?



Open Access Publishing

This course will help you become skilled in making your publications openly accessible in line with funders' requirements and in the wider context of Open Science.

Sharing Preprints

This course introduces the practice of sharing preprints and helps you to see how it can support your research.

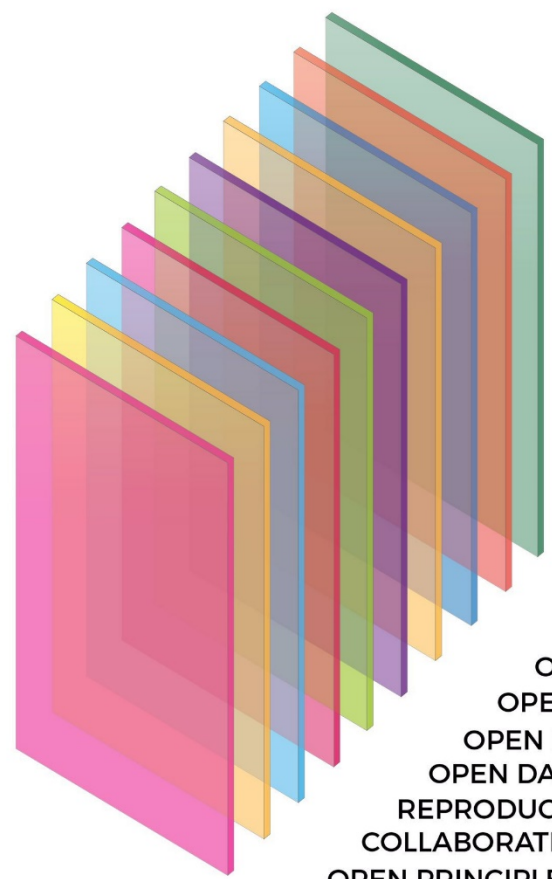
Open Peer Review (OPR)

This course will introduce you to OPR and let you know how you can get started with it.

Open Science and Innovation

This course will show you how Responsible Research and Innovation is accelerated through Open Science.

Cómo practico la Ciencia Abierta?



OPEN SCIENCE MOOC

FREE | OPEN | LEARNING

- OPEN ADVOCACY
- OPEN EDU RESOURCES
- CITIZEN SCIENCE AND COMMS
- OPEN PEER REVIEW
- OPEN ACCESS
- OPEN RESEARCH SOFTWARE
- OPEN DATA
- REPRODUCIBLE RESEARCH
- COLLABORATIVE PLATFORMS
- OPEN PRINCIPLES

Este MOOC está diseñado para ayudar a equipar a los estudiantes e investigadores con las habilidades que necesitan para sobresalir en un entorno de investigación moderno. Reúne los esfuerzos y recursos de cientos de investigadores y profesionales que han dedicado su tiempo y experiencia a crear una plataforma comunitaria para ayudar a impulsar la investigación.

El contenido de este MOOC se destilará en 10 módulos principales. Cada módulo comprenderá una gama completa de recursos que incluyen videos, artículos de investigación, conjuntos de datos y códigos ficticios, así como tareas para completar como individuos o grupos.

El MOOC será alojado a través de un proveedor de código abierto. Esperamos que en el futuro se desarrollen diferentes sistemas de certificación, incluidas las credenciales de finalización. También tenemos la intención de construir un foro para la discusión abierta del MOOC y cualquier tema relevante.

Cómo practico la Ciencia Abierta?



OSFHOM ▾

Open Science Course | Files | Wiki | Analytics | Registrations

Open Science Course

Contributors: [Ulf Toelch](#), [Dirk Ostwald](#)

Date created: 2017-08-25 03:08 AM | Last Updated: 2018-08-06 08:14 AM

Identifiers: DOI [10.17605/OSF.IO/X6892](#) | ARK [c7605/osf.io/x6892](#)

Category: Project

Description: Material and Presentations for an Open Science Course

License: CC-BY Attribution 4.0 International

News | About | Get Involved

P2PU +

Welcome to the School of Open!

We are a global community of volunteers providing free online **courses**, face-to-face **workshops**, and innovative **training programs** on the meaning, application, and impact of “openness” in the digital age. Learn how to add a Creative Commons license to your work, find free resources for classroom use, open up your research, remix a music video, and more!

Start by navigating the projects below. You can also [start your own](#).

| | | |
|---|--|--|
| <h4>Courses</h4> <p>Take a free online course on the “open” topic of your choice, with others or independently. Create and run a course of your own!</p> <p>Read More</p> | <h4>Workshops</h4> <p>Find out if there is a School of Open workshop happening in your town. Learn how to design your own collaborative workshop!</p> <p>Read More</p> | <h4>Training programs</h4> <p>Learn about our programs for high school students, librarians, young scientists, and more all around the world.</p> <p>Read More</p> |
|---|--|--|

Cómo practico la Ciencia Abierta?



Open Science Training Handbook

- Readme**
- Introduction
- Open Science Basics >
- On Learning and Training
- Organizational Aspects
- Examples and Practical Guidance
- Glossary
- References
- About the Authors & Facilitators
- Languages

Readme

Last updated 6 months ago

[Edit on GitHub](#)



CONTENTS

- The Open Science Training Handbook
- Help us making the handbook better
- Let's run an Open Science training together
- How to refer to the handbook
- The Authors and the Book Sprint facilitators
- Thank you to
- Copyright statement
- Funding

Cómo practico la Ciencia Abierta?



INNOVATIONS IN SCHOLARLY COMMUNICATION

Changing Research Workflows

101 Innovations in Scholarly Communication: how researchers are getting to grip with the myriad new tools



There has been a surge of new scholarly communication tools in recent years. But how are researchers incorporating these tools into their research workflows? **Jeroen Bosman** and **Bianca Kramer** are conducting a global survey to investigate the choices researchers are making and why. Insights from these surveys will be valuable for libraries, research support, funders,

but also for researchers themselves.

Cómo practico la Ciencia Abierta?



Example workflows (ongoing)



Rainbow of open science practices (various formats available on Zenodo), January 2018

Cómo practico la Ciencia Abierta?



Turning the wheel of Open Science interactive visualization showing variety in Open Science practices (full image and individual practices also available on [Figshare](#)), January 2017

| | | |
|--|---|--|
| ANALYZE | R SPSS MATLAB EXCEL IPYTHON NOTEBOOKS ROPERNICI D3MCX | |
| ARCHIVE/SHARE PUBLICATIONS | ARXIV PUBMED CENTRAL INSTITUTIONAL REPOSITORY BIORxIV WORKING PAPERS RESEARCHGATE (SHARE PUE) SSRN | |
| ARCHIVE/SHARE POSTERS & PRESENTATIONS | SPEAKERDECK SLIDESHARE FLICKR POSTERS SCIENCEOPEN POSTERS PREXIMUS (POSTERS) ZENODO (POSTERS) VIMMO | |
| SHARE PROTOCOLS/ NOTEBOOKS | OPEN SCIENCE FRAMEWORK MIXPERIMENT BENCHLING PROTOCOLS.JID BENCHFLY SCIENTIFIC PROTOCOLS PROTOCOLS ONLINE | |
| ARCHIVE/SHARE DATA/ CODE | GITLAB FIGSHARE (DATA) ZENODO (DATA) DRYAD DATAVERSE PANGAEA BITBUCKET | |
| OUTREACH | WIKIPEDIA RESEARCHBLOGGING.ORG WORDPRESS YOUTUBE FAMILAB POINT OF SCIENCE TWITTER | |

Interactive table of tool combinations used together more or less often than expected by chance (colour-blind safe version also available), November 2016

Cómo practico la Ciencia Abierta?



OPENCON2018

Empowering the Next Generation to Advance Open Access, Open Education and Open Data

Open Access Week 2018

Designing Equitable Foundations for Open Knowledge

October 22 - 28

Open Education Week 2019

March 4-8, 2019

Open Education Week is a celebration of the global Open Education Movement. Its goal is to raise awareness about the movement and its impact on teaching and learning worldwide.

About Open Education Week

What is this? Map of events Who is this for? Events resources Support scheme EN

WHAT IS OPEN DATA DAY?

Open Data Day is an annual celebration of open data all over the world. For the ninth time in history, groups from around the world will create local events on the day where they will use open data in their communities. It is an opportunity to show the benefits of open data and encourage the adoption of open data policies in government, business and civil society.

All outputs are open for everyone to use and re-use.

OPEN DATA DAY 2019

For Open Data Day 2019, we want keep the community growing. We'll give mini-grants on key areas that we believe open data can solve. You can see the past topics below

- Open research data
- Tracking public money flows
- Open mapping
- Data for equal development

Cómo practico la Ciencia Abierta?



Open Science Network

Home | Stem Mentoring Cafe | Events | Join | Donate | About | Contact Us

YOUR community science lab

Welcome to **Open Science Network**, Vancouver's first Community Science Lab. We are a community of scientists, artists, makers, engineers, writers, tinkerers, hackers, citizen scientists, and professional scientists who have banded together to create an open community lab where we can gather to share ideas, knowledge, equipment, and opinions in a friendly and collaborative atmosphere.

OSN is committed to science outreach, participating in many local events including the Richmond Public Library Science Bash and UBC Woodward Library Science Literacy event. OSN also hosts the [STEM Mentoring Cafe](#) which provides high school students to find out more about STEM fields such as engineering, molecular biology, physics, etc. By inviting STEM Mentors to the event, the students are given the opportunity to engage directly with the mentors.



[About](#) | [Projects](#) | [Events](#) | [Partners](#) | [Blogs](#)

[The Team](#)

About the CCL

At Citizen Cyberlab, we are developing methods and studying motivations for new forms of public participation in research. We are researchers from a diversity of backgrounds – history, informatics, learning, linguistics, medicine, physics, psychology and more. Jointly, we initiate projects and organise events that encourage citizens and scientists to collaborate in new ways to solve big challenges. From online crowdsourcing to in-person hackathons, we are exploring and expanding the limits of citizen science and human computation.

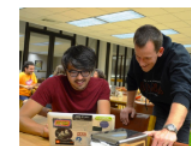
Citizen Cyberlab is based on a partnership between the [European Particle Physics Laboratory, CERN](#), the [UN Institute for Training and Research, UNITAR](#), and the [University of Geneva](#).

Activities

Citizen Cyberlab supports the following activities:



Learning: we do research on the cultural, social, political and ethical dimensions of citizen science and the evolving role of science in society.



Creating: we develop open source tools for public participation in research that involve the Web, mobile phones and low-cost DIY instruments.



Collaborating: we organize hands-on hackathons that promote public participation in research, and accelerate the adoption of open source technologies for this purpose.



Sharing: We provide training about science, technology and citizenship, both online and in the classroom, addressed to the general public, civil society organizations, and schools.

Cómo practico la Ciencia Abierta?



MEDIALAB PRADO

ES EN

[MEDIALAB](#) [LABORATORIOS](#) [PROGRAMAS](#) [ACTIVIDADES](#) [MULTIMEDIA](#) [COMUNIDAD](#)

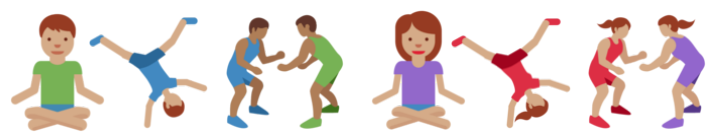
Inicio / Laboratorios / Cicilab



Más información → Ir a blog →

Promueve actividades donde las personas participan o desarrollan procesos de investigación científica. La ciencia ciudadana busca contribuir a que la investigación científica sea más democrática y transversal y que integre perspectivas diversas. CiCiLab coordina en España el proyecto europeo DITOs, liderando las actividades relacionadas con sostenibilidad medioambiental.

Cómo practico la Ciencia Abierta?



ABOUT THE NETWORK

[En Español](#)
[En Français](#)

The Open and Collaborative Science in Development Network (OCSDNet) is composed of twelve researcher-practitioner teams from the Global South interested in understanding the role of openness and collaboration in science as a transformative tool for development thinking and practice. Research teams are supported by a team of four [External Advisors](#) and a [Network Coordination Team](#). The project is funded by the [International Development Research Centre \(IDRC\)](#) in Canada and the [Department for International Development \(DFID\)](#) in the UK.

Quick Summary

OCSDNet Goal:
Nurture an interactive community of Open Science practitioners and leaders in the Global South to learn together and contribute towards a pool of open knowledge on how networked collaboration could address local and global development challenges. We take a critical approach to examining the embedded assumptions behind various models of open collaboration and theories of change.

Who We Are

We're a **global network** of researchers, librarians, students, policy-makers, publishers, data-curators, coders, entrepreneurs, activists and citizens **who believe that open science is better science**. We volunteer our **time and expertise** to develop projects, advocate openness and foster a **core community** of open scientists.

- [Our Global Network](#)
- [Our Coordination Team](#)
- [Our Advisory Board](#)
- [Meet some members!](#)
- [Our colleagues in open science](#)
- [Contact us](#)

We work openly! Find out more on the [wiki](#)

Prácticas y acciones por una ciencia abierta. Contribuciones desde el Doctorado.

“Science and access to knowledge as a Commons — Lets invent together a research more open and transparent”

Ciencia y acceso al conocimiento como algo común — Inventemos juntos una investigación más abierta y transparente.



[H@ckYourPhd](https://twitter.com/HackYourPhd)
[@HackYourPhd](https://twitter.com/HackYourPhd)

Prácticas y acciones por una ciencia abierta. Contribuciones desde el Doctorado.

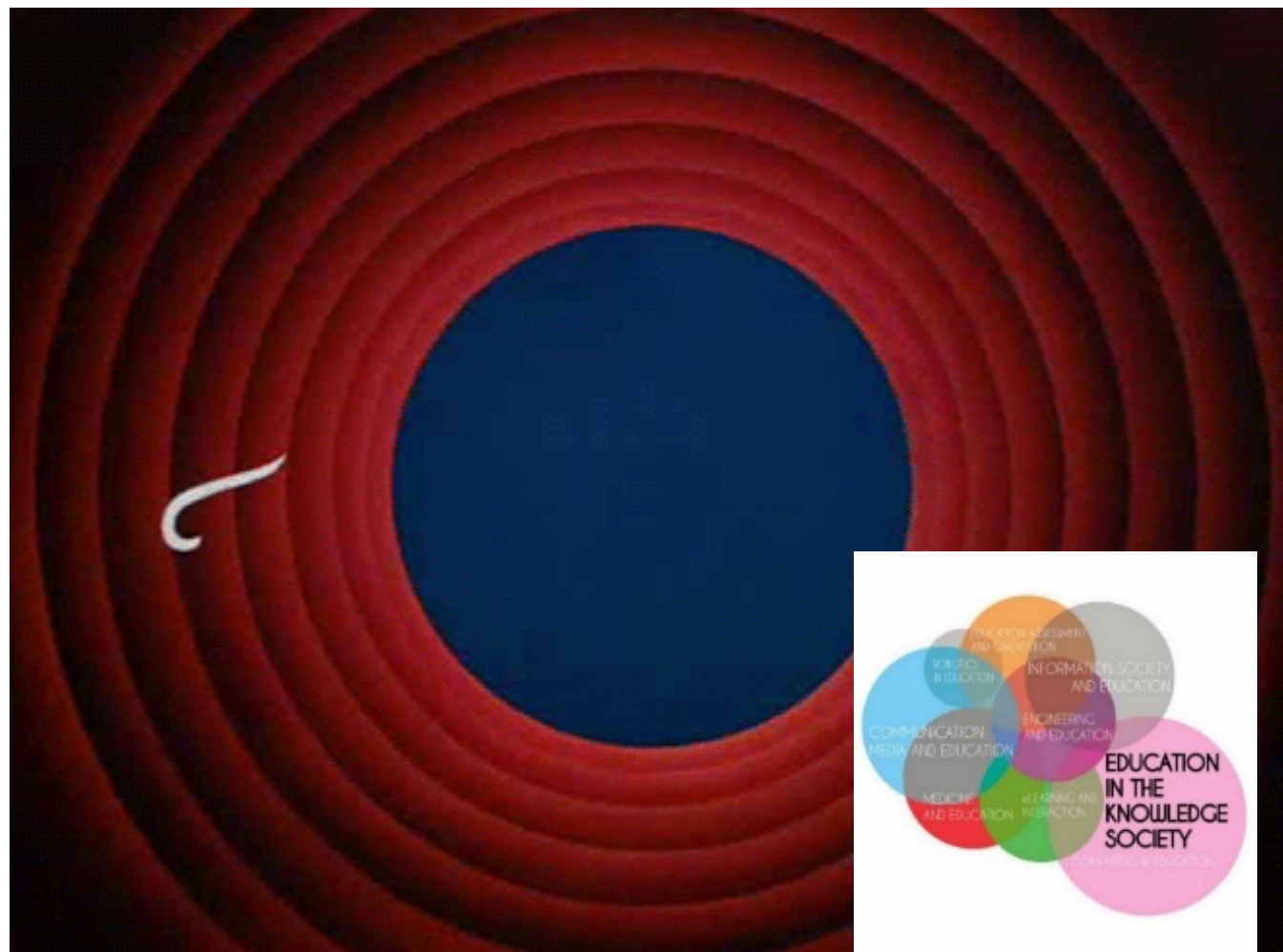
"Together we know everything, together we have everything"

Juntos lo sabemos todo, juntos lo tenemos todo



[P2P Foundation](#)
[@P2P Foundation](#)

Prácticas y acciones por una ciencia abierta. Contribuciones desde el Doctorado.



Prácticas y acciones por una ciencia abierta. Contribuciones desde el Doctorado.

Historial

Este material está basado en ediciones de los siguientes seminarios

García-Peñalvo, F. J. & Tena-Espinoza-de-los-Monteros, Martin - Adalberto (2017). *Investigación y Ciencia Abierta*. Salamanca, España: Programa de Doctorado Formación en la Sociedad del Conocimiento - Universidad de Salamanca.

Prácticas y acciones por una ciencia abierta. Contribuciones desde el Doctorado.

Referencias

- European Commission (2017). Providing researchers with the skills and competencies they need to practise Open Science. En: https://ec.europa.eu/research/openscience/pdf/os_skills_wgreport_final.pdf
- European Commission (2018). Open Science Policy Platform Recommendations. En: https://ec.europa.eu/research/openscience/pdf/integrated_advice_opssp_recommendations.pdf#view=fit&pagemode=none
- FOSTER. (????) .Open Science at the Core of Libraries (Course). En: <https://www.fosteropenscience.eu/content/open-science-core-libraries>
- LERU. (2018). Open Science and its role in universities: A roadmap for cultural change. En: <https://www.leru.org/files/LERU-AP24-Open-Science-full-paper.pdf>
- Nature. (1999). ICSU/Unesco: World Conference on Science Supplement. En: <https://www.nature.com/collections/ptgkhjzpzw>
- OECD. (2015). Making Open Science a Reality. En: https://www.oecd-ilibrary.org/science-and-technology/making-open-science-a-reality_5jrs2f963zs1-en
- Sönke Bartling & Sascha Friesike (eds). (2014). Opening Science. The Evolving Guide on How the Web is Changing Research, Collaboration and Scholarly Publishing. En: <http://book.openingscience.org/>

Prácticas y acciones por una ciencia abierta. Contribuciones desde el Doctorado.

Referencias

- UNESCO. (1999). La ciencia para el siglo XXI: una nueva visión y un marco para la acción. En: <http://josemramon.com.ar/wp-content/uploads/La-ciencia-para-el-siglo-XXI.-Una-nueva-visi%C3%B3n-y-un-marco-para-la-acci%C3%B3n.pdf>
- UNESCO. (2000). La ciencia para el siglo XXI: un nuevo compromiso. Declaración sobre la ciencia y el uso del saber científico. Programa de acción en pro de la ciencia – margo general de acción. Documentos principales. En: <http://unesdoc.unesco.org/images/0012/001229/122938so.pdf>
- UNESCO. (2002). Harnessing science to society. Analytical report. To governments and international partners on the follow-up to the World Conference of Science. En: http://www.unesco.org/science/wcs/report_wcs.pdf
- Ruben Vicente-Saez, R. & Martinez-Fuentes, C. (2018). Open Science now: A systematic literature review for an integrated definition. En: <https://www.sciencedirect.com/science/article/abs/pii/S0148296317305441>

III Semana Doctoral Formación en la Sociedad del Conocimiento

2018-2019

[#IIISemanaEKS](#)

[#TEEM2018](#)



[#OAWeek](#)

OPEN



**International
ACCESS WEEK**

Prácticas y acciones por una ciencia abierta. Contribuciones desde el
Doctorado. 22|oct|2018

Martin Adalberto Tena Espinoza de los Monteros

PhD KnowledgeSociety | USAL (ESP)

REBIUdeG | UdeG (MEX)

mtenaespinoza@academicos.udg.mx

@mtenaespinoza

