

LA BIBLIOTECA CON LA INVESTIGACIÓN: ACCESO ABIERTO A LA PRODUCCIÓN CIENTÍFICA Y NORMALIZACIÓN DE AUTORÍA

Acceso Abierto a la Producción Científica

- 1. ¿Qué es el Acceso Abierto (Open Access)?
- 2. Vías para alcanzar el Acceso Abierto: Repositorios Institucionales
- 3. Directrices sobre el Acceso Abierto de los resultados de investigación
- 4. UVaDOC. Repositorio Institucional. Nuevas funcionalidades: Normalización de Autores UVa y DOIs en las Tesis Doctorales
- 5. Conexión del Repositorio Institucional con el Portal de investigación de la UVa

Normalización de autoría: firma y perfiles de autor

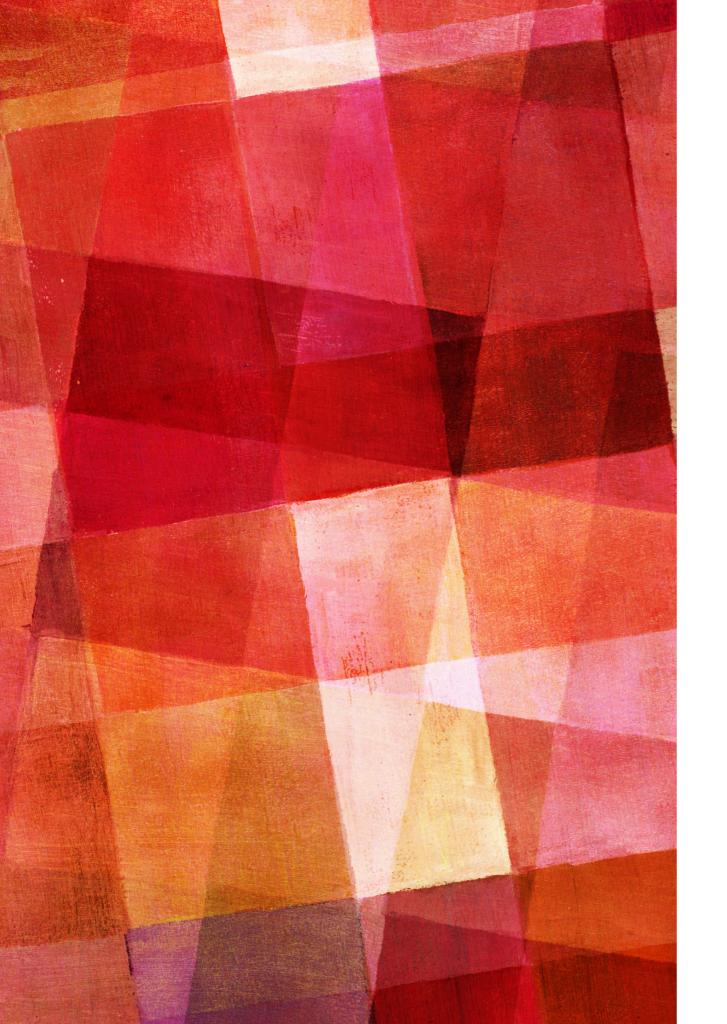
- 1. Importancia de la unificación de firma y afiliación institucional
- 2. Identificadores de autor

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DIRECTORA BIBLIOTECA FACULTAD CC. ECONÓMICAS Y EMPRESARIALES

CLARISA PÉREZ GOYANES

TÉCNICO ASESOR. BIBLIOTECA UNIVERSITARIA



ESTRATEGIAS Y HERRAMIENTAS PARA LA CIENCIA ABIERTA: BENEFICIOS PARA LOS INVESTIGADORES

- 1. Introducción: Qué es la Open Science. Beneficios y retos
- 2. Hacia un nuevo modelo de comunicación y evaluación científica. Ejemplos y beneficios para los investigadores
- 3. Gestión y publicación de datos FAIR (Findable, Accessible, Interoperable, Reusable)
- 4. Herramientas y buenas prácticas en Open Science

ISABEL BERNAL

RESPONSABLE DE LA OFICINA TÉCNICA DEL REPOSITORIO DIGITAL DEL CSIC CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

Estrategias y herramientas para la Ciencia Abierta: Beneficios para los Investigadores

Isabel Bernal

Oficina Técnica de DIGITAL.CSIC

Unidad de Recursos de Información Científica para la Investigación (URICI), CSIC

UVA, Escuela de Doctorado, 27 de febrero, 2020





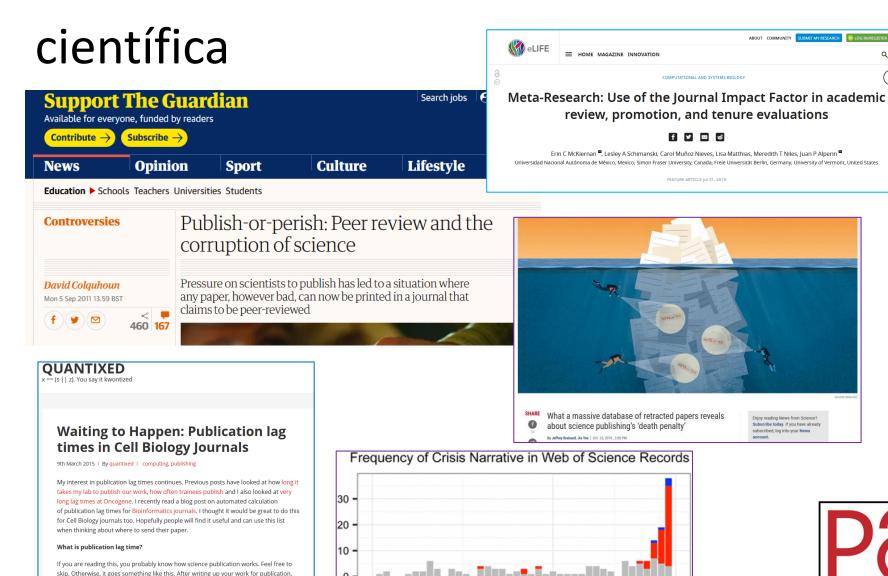
- Introducción: Qué es la Open Science. Beneficios y retos
- Hacia un nuevo modelo de comunicación y evaluación científica. Ejemplos y beneficios para los investigadores
- Gestión y publicación de datos FAIR (Findable, Accessible, Interoperable, Reusable)
- Herramientas y buenas prácticas en Open Science

La crisis del sistema dominante de comunicación

2017

2000

other/non classifiable endorses crisis questions crisis



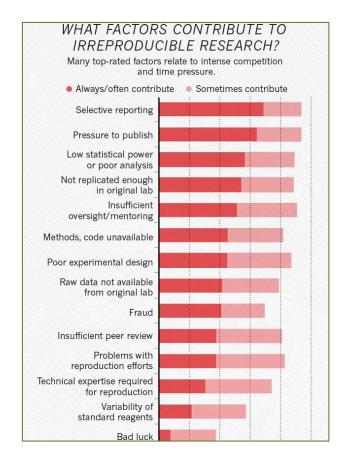
1975

skip. Otherwise, it goes something like this. After writing up your work for publication, you submit it to a journal. Assuming that this journal will eventually publish the paper

(there is usually a period of submitting, getting rejected, resubmitting to a different

journal etc.), they **receive** the paper on *a certain date*. They send it out to review, they collate the reviews and send back a decision, you (almost always) revise your paper further and then send it back. This can happen several times. At some point it gets

accepted on a certain date. The journal then prepares the paper for publication in a scheduled issue on a specific date (they can also immediately post papers online without





Hacia un sistema con mayor apertura y transparencia













ROAR- Registry of Open Access Repositories



The Directory of Open Access Repositories



DIRECTORY OF OPEN ACCESS
JOURNALS



Code All source code written specifically to process data for a published paper must be available to the reviewers and readers of the paper.

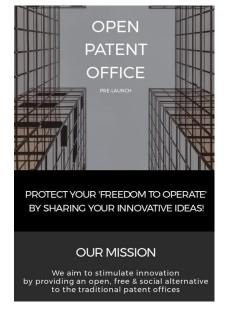
opyright The copyright ownership and license of any released source code must be

Citation Researchers who use or adapt science source code in their research must credit the code's creators in resulting publications.

redit Software contributions must be included in systems of scientific assessment,

uration Source code must remain available, linked to related materials, for the useful lifetime of the publication.









An informal definition of Open Science

- Open science is the idea that scientific knowledge of all kinds should be openly shared as early as is practical in the discovery process.
- ...when the journal system was developed in the 17th and 18th centuries it
 was an excellent example of open science. The journals are perhaps the
 most open system for the dissemination of knowledge that can be
 constructed if you're working with 17th century technology. But, of
 course, today we can do a lot better.

(Michael Nielsen)

http://openscience.org/an-informal-definition-of-openscience/

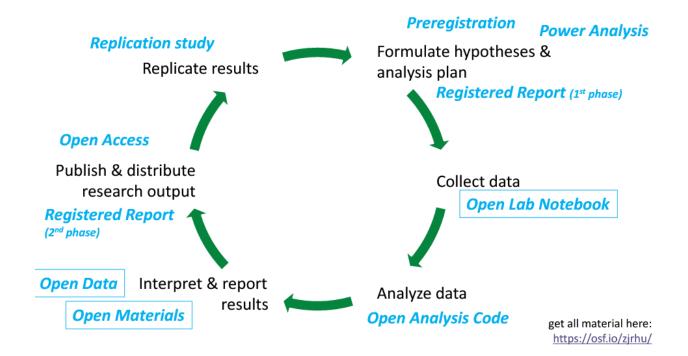
La actividad investigadora en el punto de mira

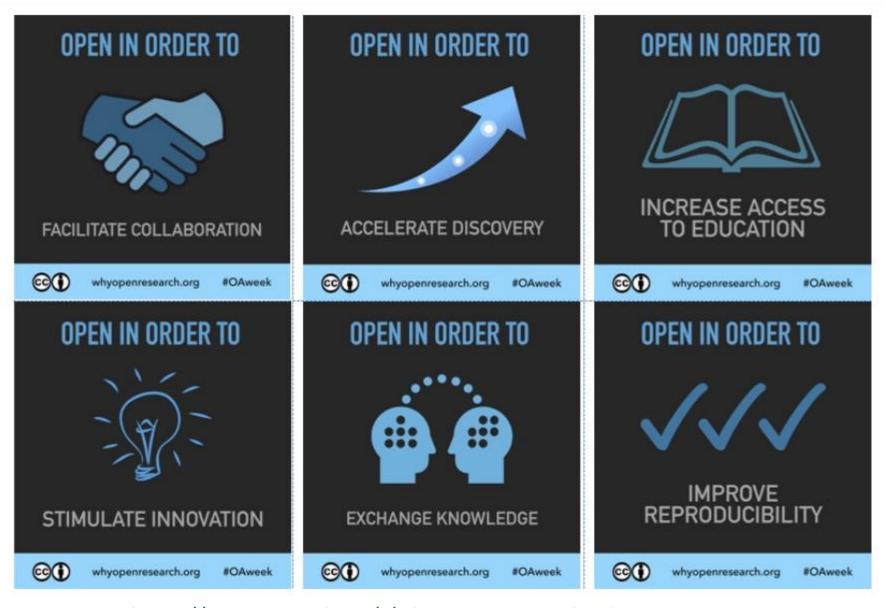


La ciencia abierta dentro de la actividad investigadora

Open Science in the research process





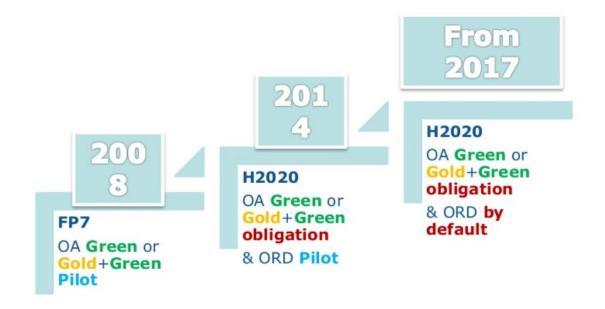


https://www.rri-tools.eu/-/why-open-research-advance-your-career-by-sharing-your-work-

La Ciencia Abierta en la agenda europea (1/3)

OS policy in the EC is there since 2005

2005 first decisions, leading to

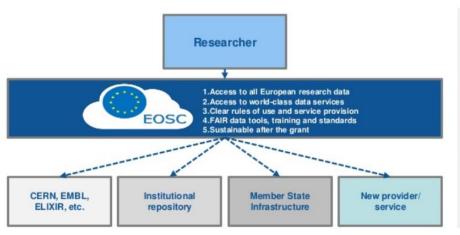


Europe's Open Science Policy and Policy Platform/Jean-Claude Burgelman

La Ciencia Abierta en la agenda europea (2/3)

EOSC: a researcher-centric project

EOSC will allow for universal access to open research data and create a new level playing field for EU researchers



- Easy access through a universal access point for ALL European researchers
- Cross-disciplinary access to data unleashes potential of interdisciplinary research
- Services and data are interoperable (FAIR data)
- Data funded with public money is in principle open (as open as possible, as closed as necessary)



EOSC will provide a comprehensive and evolving set of services supporting an open science-friendly knowledge production lifecycle.

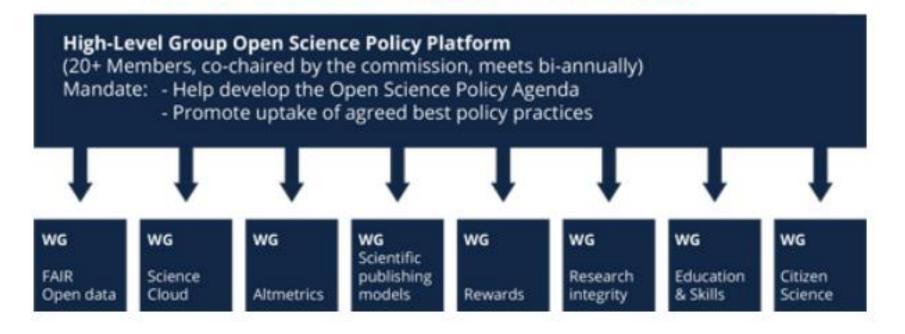
Such EOSC services will include:

- scientific instruments;
- 🚨 data;
- applications, workflows, software;
- storage, compute and network connectivity;
- written knowledge (e.g. scientific publications, educational and training resources);
- services for enabling federated access, like federated identity service provisioning, authentication, authorization, and accounting;
- collaborative services enabling the sharing, use and reuse of digital capabilities.

A National Approach to Open Research Data in Ireland, 8 September 2017

La Ciencia Abierta en la agenda europea (3/3)

OPEN SCIENCE POLICY PLATFORM



Políticas nacionales de Ciencia Abierta

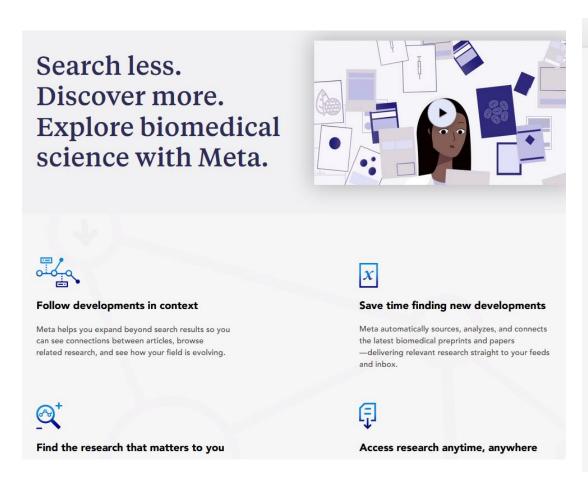


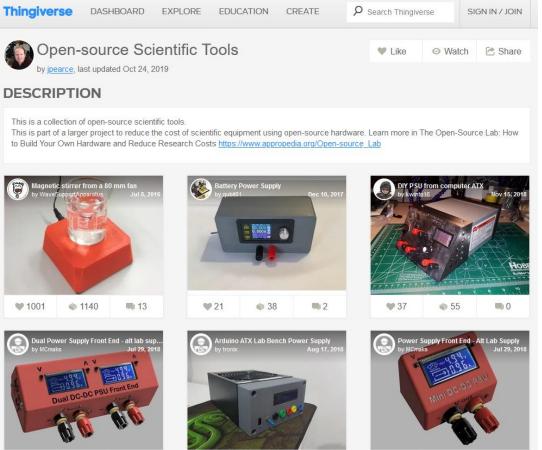




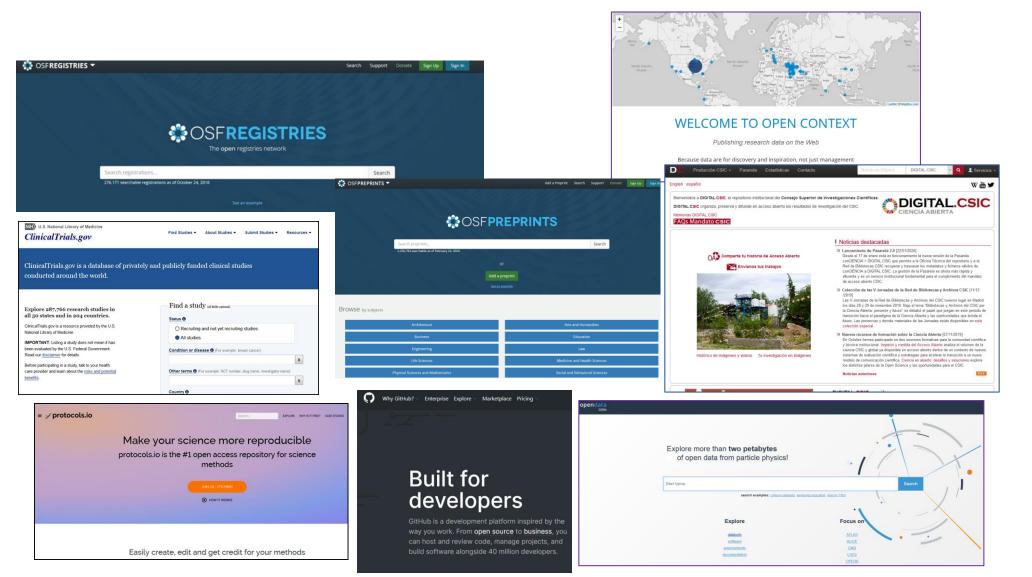


La multiplicación de fuentes y herramientas de información





Los repositorios de acceso abierto, un pilar fundamental en la comunicación científica



- Repositorios institucionales
- Repositorios de datos
- Repositorios de preprints
- Repositorios de ensayos clínicos
- Repositorio de métodos científicos
- Repositorios de preprints de editoriales
- Repositorios de software

Buscadores de preprints



PrePubMed

PrePubMed indexed preprints for 2 years from arXiv q-bio, PeerJ Preprints, bioRxiv, F1000Research, preprints.org, The Winnower, Nature Precedings, and Wellcome Open Research. More information can be found at the Help page.

Valid searches

Jordan Anaya Anaya J Anaya J cancer TCGA "prognostic genes"

Quick Guide

Titles

Authors

Affiliations

Text

Terms

Invalid searches

Anaya J [au] cancer AND TCGA peptide OR protein Berkeley

Double Quotes! Simply type name Advanced Search

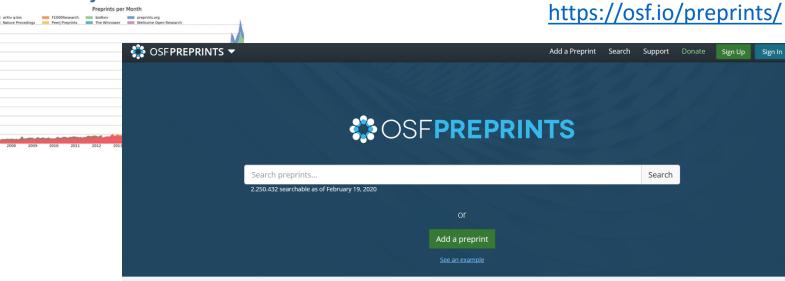
Exact match AND logic

PrePubMed Tools

Data Thugging RSS Feed Wall of Shame

Monthly Statistics

Browse by subjects



http://www.prepubmed.org/

Nuevos tipos de revistas

Journal of Brief Ideas Home New idea Trending ideas All ideas About Search Contact

Stonehenge: Solstice Opens Path to a Neolithic Afterlife

Stonehenge was a massive effort for a calendar when the climate supports year round crops. Cups and Rings stones found throughout the UK were more likely the working calendars. They marked the field indicating when/where/what -Overlay journals crop to harvest,... continue reading

0 votes

Fluidized bed for coffee brewing

Recent ideas

Experimental and theoretical studies of the coffee brewing process have shown that most coffee preparation methods are affected by uneven particle distribution and uneven exposure of coffee grounds to hot water. This results in overextraction... continue reading

0 votes

Florilege: a mapping method and memory aid for mass collaboration and information overload management

Florilege is a mind-mapping method adapted to endeavors involving multiple minds or lines of thought. Florilege ma introduce the dimension of time to register open, iterative, sometimes errant, thought processes, Like traditional florilegia and... continue reading

0 votes

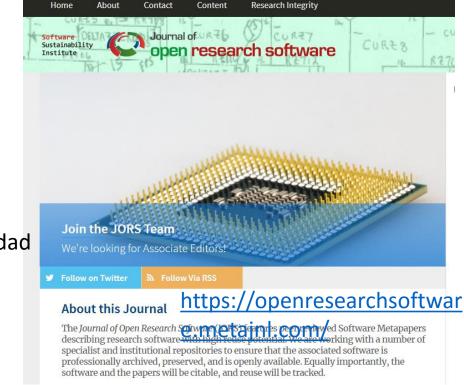
Bayesian Judges

Building on Eric Posner and Adrian Vermeule's valuable insights about the Bayesian nature of the judicial process their paper "The Votes of Other Judges"), I propose a simple method for improving judicial decision-making, a meth have... continue reading

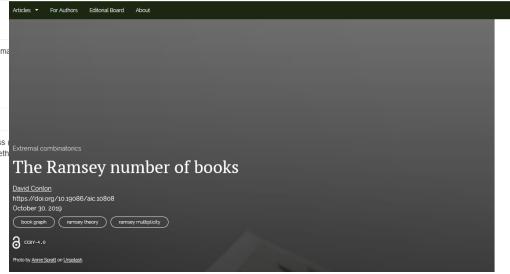
http://beta.briefideas.org/



- -Resultados negativos
- -Revistas con foco en la reproducibilidad
- -Data papers
- -Software papers



Advances in Combinatorics



Editorial introduction

Read article at ArXiv

Ramsey's Theorem is among the most well-known results in combinatorics. The theorem states that any two-edge-coloring of a sufficiently large complete graph contains a large monochromatic complete subgraph. Indeed, any two-edge-coloring of a complete graph with $N=4^{t-o(t)}$ vertices contains a monochromatic copy of K_t . On the other hand, a probabilistic argument yields that there exists a two-edge-coloring of a complete graph with $N=2^{t/2+o(t)}$ with no monochromatic copy of K_t . Much attention has been paid to improving these classical bounds but only improvements to lower order terms have been obtained so far.

A natural question in this setting is to ask whether every two-edge-coloring of a sufficiently large complete graph contains a monochromatic copy of K_t that can be extended in many ways to a monochromatic copy of K_{t+1} . Specifically, Erdős, Faudree, Rousseau and Schelp in the 1970's asked whether every two-edge-coloring of K_N contains a monochromatic copy of K_t that can be extended in at least $(1 - o_k(1))2^{-t}N$ ways to a monochromatic copy of K_{***} A random two-edge-coloring of K_{**} witnesses that this would be best possible. While

Apertura de comentarios, revisiones, valoraciones



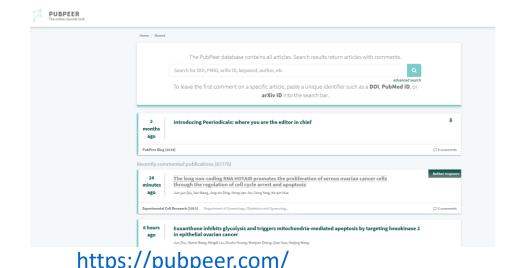
DIGITAL.CSIC / Servicios Centrales CSIC English español OPRM: Open Peer Reviews : [8] With the support of OpenAIRE, the researcher organization Open Scholar has coordinated a consortium of 5 partners to develop the first Open Peer Review Module (OPRM) for open access repositories. DIGITAL.CSIC participates as one of the 2 repositories to test the pilot module. The OPRM envisions the gradual conversion of existing repositories into fully-functional evaluation platforms. It allows an unlimited number of reviewers to evaluate any research work available in DIGITAL.CSIC (preprints, published articles, presentations, conference outputs, datasets, book chapters and books, working papers...). In its current version, reviewers will be invited through the system (i.e, following an author's request) and at a later stage it is foreseen that any researcher, CSIC-affiliated or from other institution, may volunteer to review any object of the repository. In both cases, reviewers will receive the request by email and will be asked to complete their review on the repository platform. The review generates a new item on the repository, which is under a Creative Commons CC-BY license, linked to the original research work and openly accessible and citable. The OPRM also includes an annotation subsystem which adds an interreviewer-level by allowing reviewers to comment other reviews on the same research object. Only constructive comments will be accepted and the system will not allow for the publication of offensive or non-scientific contributions. The OPRM module displays the name and affiliation of the reviewer and in addition to reviewing research works, the reviewer will be able to evaluate other reviews of the same work. The module has been built by DSpace provider ARVO and developed as an extension of DSpace workflow and submission

The module has been built by DSpace provider ARVO and developed as an extension of DSpace workflow and submission capabilities. The reputation algorithms were developed as separate plugins, allowing their easy adaptation to other reputation models. The reputation assessment model by the CSIC Artificial Intelligence Research Institute (IIIA) is based on peers evaluating not only each other's research works but also each other's reviews. A full explanation about the reputation algorithms is available at the paper Reputation at the Academic World. (http://digtalc.sc.es/handle/10261/130842)

Buscar

Fecha Publicación Autor Título Palabras Clave Agencia Financiadora Fecha Envío

https://digital.csic.es/handle/10261/131210



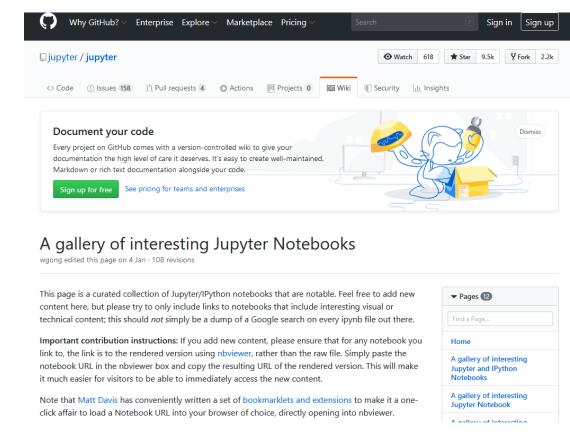
https://peerlibrary.org/

Cuadernos de laboratorios



Open-source web application that allows you to create and share documents that contain live code, equations, visualizations and narrative text. Uses include: data cleaning and transformation, numerical simulation, statistical modeling, data visualization, machine learning, and much more.

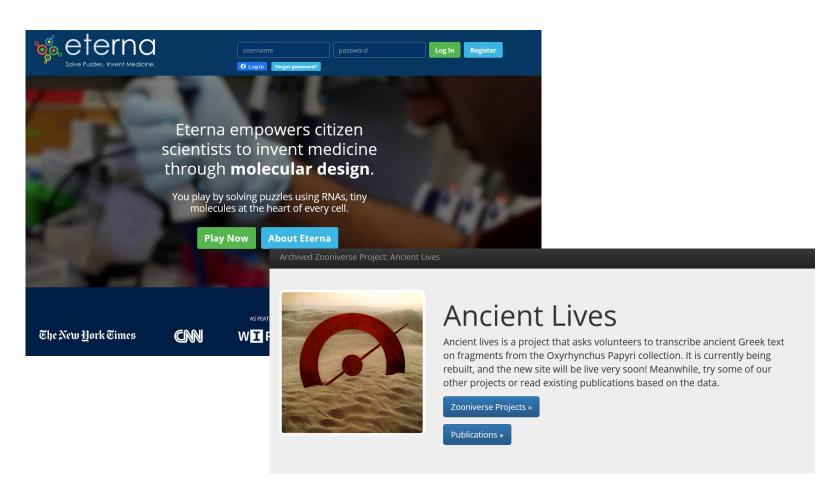
https://jupyter.org/



Ejemplo de notebook público:

https://nbviewer.jupyter.org/gist/darribas/412 1857

¿Ciencia ciudadana o Ciudadano científico?



Research Policy 43 (2014) 1-20



Contents lists available at ScienceDirect

Research Policy

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





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collaborative projects

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Crowd science: The organization of scientific research in open

ARTICLE INFO

Article history: Received 15 November 2012 Received in revised form 12 July 2013 Accepted 13 July 2013 Available online 14 August 2013

Citizen science Crowdsourcing

ABSTRACT

A growing amount of scientific research is done in an open collaborative fashion, in projects sometime referred to as "crowd science", "citizen science", or "networked science". This paper seeks to gain a more systematic understanding of crowd science and to provide scholars with a conceptual framework and an agenda for future research. First, we briefly present three case examples that span different fields of science and illustrate the heterogeneity concerning what crowd science projects do and how they are organized. Second, we identify two fundamental elements that characterize crowd science projects — open participation and open sharing of intermediate inputs — and distinguish crowd science from other knowledge production regimes such as innovation contests or traditional "Mertonian" science Third, we explore potential knowledge-related and motivational benefits that crowd science offers over alternative organizational modes, and potential challenges it is likely to face. Drawing on prior research on the organization of problem solving, we also consider for what kinds of tasks particular benefits o challenges are likely to be most pronounced. We conclude by outlining an agenda for future research and sing implications for funding agencies and policy makers.

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For the last century, scientific activity has been firmly placed in universities or other academic organizations, government laboratories, or in the R&D departments of firms. Sociologists and economists, in turn, have made great progress understanding the functioning of this established system of science (Merton, 1 Zuckerman, 1988: Dasgunta and David, 1994: Stephan, 2012). The ast few years, however, have witnessed the emergence of projects that do not fit the mold of traditional science and that appear to follow distinct organizing principles. Foldit, for example, is a largescale collaborative project involving thousands of participants who advance our understanding of protein folding at an unprecedented speed, using a computer game as their platform. Galaxy Zoo is a project involving over 250,000 volunteers who help with the collection of astronomical data, and who have contributed to the discovery of new classes of galaxies and a deeper understanding

of the universe. Finally, Polymath involves a colorful mix of Fields Medalists and non-professional mathematicians who collectively solve problems that have long eluded the traditional approaches mathematical science.

While a common term for these projects has yet to be found, they are variously referred to as "crowd science", "citizen science" "networked science", or "massively-collaborative science" (\ 2010; Nielsen, 2011; Wiggins and Crowston, 2011). Even though there is significant heterogeneity across projects, they are largely characterized by two important features; participation in a project is open to a wide base of potential contributors, and intermedial inputs such as data or problem solving algorithms are made openly available. What we will call "crowd science" is attracting growing attention from the scientific community, but also policy maker funding agencies and managers who seek to evaluate its potentia benefits and challenges. Based on the experiences of early crowd science projects, the opportunities are considerable. Among others, crowd science projects are able to draw on the effort and knowl edge inputs provided by a large and diverse base of contributors,

Ancient Lives and The Zooniverse

The Zooniverse is the world's largest platform for people-powered research. This research is made possible by hundreds of thousands of people around the world who come together to assist professional

Similar Projects

Ancient Lives is one of many Zooniverse projects dealing with text transcription.

Here are some others you can try out while you wait for the project to return:

Publications

Ancient Lives has resulted in 2 published papers to

You can view them at www.zooniverse.org/publications and you can read more about what the team have been doing with the data they have gathered at

Corresponding author, Tel.: +39 2 2399 4823; fax: +39 2 2399 2730.

¹ For example, scientific journals have published special issues on citizen science the topic has been discussed in managerial outlets such as the Sloan Management Review (Brokaw, 2011), national funding agencies in the US and other countries actively fund crowd science projects, and the Library of Congress is discussing how crowd science artifacts such as blogs and data sets should be preserved and curates

Nuevas colaboraciones público-privado







About *

Science

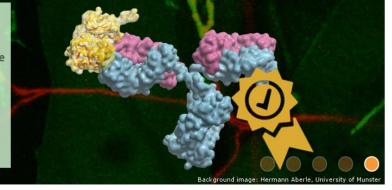
Reagents & Resources

People

News & Outreach *



Open Science to enable consistent data and accelerate reliable discoveries in Amyotrophic Lateral Sclerosis





Latest Structures



UHRF1: Human ubiquitin like with PHI and ring finger domains 1, SRA



New Publications

Effects of epigenetic pathway inhibitors on corticotroph tumour AtT20 cells Endocrine-Related Cancer



Chemical Probes

SGC6870 - A chemical probe for PRMT6 24th June 2019



News from SGC

U of T Researchers Uncover Versatility of an Ancient DNA Repair Factor Posted on 2nd December 2019

- A public-private partnership that supports the discovery of new medicines through open access research.
- The SGC catalyses research in new areas of human biology and drug discovery by focusing explicitly on less well-studied areas of the human genome .

The SGC accelerates research in these new areas by making all its research output available to the scientific community with no strings attached, and by creating an open collaborative network of scientists in hundreds of universities around the world and in nine global pharmaceutical companies.

Together, this network of academic and industry scientists is driving a new scientific and drug discovery ecosystem whose primary aim is to advance science and is less influenced by personal, institutional or commercial gain.

https://www.thesgc.org/

Hacia la reforma del sistema de evaluación: recomendaciones de la Comisión Europea

Research Indicators and Next-Generation Metrics

Evaluations of individual researchers or of research groups should not use journal brand or Impact Factor as a proxy for research quality. Those responsible for hiring, promotion, funding and/or the evaluation of researchers and varied context of the must use a broader, tailored range of quantitative and qualitative indicators of research activity, progression and impact that incentivises and rewards open research practice. All publication venues must prominently display a broad range of indicators for all research outputs.

Quantitative and qualitative indicators need to be identified and developed for research assessment that captures the full range of contributions to the knowledge system. These should reflect the complexity research environment, the specific characteristics of the research being undertaken, as well as the new kinds of questions and results that might emerge in an open

Experiments, pilots and case studies assessing the validity of such indicators need to be undertaken urgently, and included as part of FP9 with appropriate funding allocated to support them. The results and data of these pilots must be made publicly available as exemplars for further implementation.

All researchers need to be identified through an ORCID ID. Best practice for CV/biosketch evaluation should be developed and publicly showcased to encourage a broader recognition of the range of verifiable (and especially open) contributions individuals make to the knowledge system, including teaching and peer review, and the production of a broad range of output types. The career narrative should be central to the evaluation of individual researchers as it provides the crucial context in which indicators can be interpreted.

The data, metadata and methods that are relevant to research evaluation, including but not limited to citations, downloads and other potential indicators of academic re-use, should be publicly available for independent scrutiny and analysis by researchers, institutions, funders and other stakeholders.



- Evaluations of individual researchers or of research groups should not use journal brand or Impact Factor as a proxy for research quality. Those responsible for hiring, promotion, funding and/or the evaluation of researchers must use a broader, tailored range of quantitative and qualitative indicators of research activity, progression and impact that incentivises and rewards open research practice (...).
- The data, metadata and methods that are relevant to research evaluation, including but not limited to citations, downloads and other potential indicators of academic re-use, should be publicly available for independent scrutiny and analysis by researchers, instit
- **Open Science Policy Platform** Recommendation sutions, funders and other stakeholders

Predicando con el ejemplo: JIF e H-Index, fuera del sistema de evaluación

Reporting Preprints and Other Interim Research Products

Notice Number: NOT-OD-17-050

Key Dates

Release Date: March 24, 2017

Effective date for application: Applications submitted for the May 25, 2017 due date and thereafter

Effective date Research Performance Progress Report (RPPR): RPPRs submitted on or after May 25, 2017

Related Announcements

NOT-OD-17-006- Request for Information (RFI): Including Preprints and Interim Research Products in NIH Applications and Reports

Issued by

National Institutes of Health (NIH)

Purpose

The NIH encourages investigators to use interim research products, such as preprints, to speed the dissemination and enhance the rigor of their work. This notice clarifies reporting instructions to allow investigators to cite their interim research products and claim them as products of NIH funding.

Definitions

Interim Research Products are complete, public research products that are not final.

A common form is the preprint, which is a complete and public draft of a scientific document. Preprints are typically unreviewed manuscripts written in the style of a peer-reviewed journal article. Scientists issue preprints to speed dissemination, establish priority, obtain feedback, and offset publication bias.

Another common type of interim product is a preregistered protocol, where a scientist publicly declares key elements of their research protocol in advance. Preregistration can help scientists enhance the rigor of their work.

Notes

- . Awardees are not required to create interim research products through their NIH award
- . Applicants are not required to cite interim research products as part of their grant applications
- . Since preprints are not published in peer-reviewed journals, they do not fall under the NIH public access policy.
- This guide notice does not apply to clinical trial registration. See ClinicalTrials.gov about registration of clinical trial protocols.

Citing interim research products in applications, proposals and reports

Interim research products can be cited anywhere other research products are cited. These sections include the following:

- R&R Other Project Information Form, Bibliography & References Cited
- R&R Senior/Key Person Profile (Expanded) Form, Biographical Sketch
- PHS 398 Research Plan, Progress Report Publication List
- PHS 398 Career Development Award Supplemental Form, Progress Report Publication List
- PHS Fellowship Supplemental Form, Progress Report Publication List
- RPPR, section C Products

The University of Cambridge and Cambridge University Press announced on 8 July 2019 that they have signed up to the San Francisco Declaration on Research Assessment (DORA), a set of recommendations agreed in 2012 that seek to ensure that the quality and impact of research outputs are 'measured accurately and evaluated wisely'.

DORA's recommendations & call for institutions not to use journal-based metrics, such as Journal Impact Factors, as a surrogate measure of the quality of individual research articles when assessing researchers' contributions in hiring, promotion, or funding decisions. It encourages universities, researchers and others to assess research on its own merits rather than on the basis of the journal in which the research was published and highlights the need to capitalise on the opportunities provided by online publication.

Professor Chris Abell, Pro-Vice Chancellor for Research at Cambridge, said: "The University of Cambridge is committed to producing excellent research. By signing up to DORA, we want to demonstrate to our researchers that we value the quality and content of their research regardless of how and where it is published."

We want to demonstrate to our researchers that we value the quality and content of their research regardless of how and where it is published

"

- Chris Abell

Professor Steve Russell from the University's Department of Genetics, will chair the DORA Working Group, which will oversee the implementation of the DORA recommendations.

"This is an important step for the University, particularly for early career researchers where all too often career progression is based on judgments using flawed metrics," says Professor Russell. "By signing DORA the University is making very positive step towards developing a culture where research excellence is assessed by the quality of the work and not by the title of the Journal where it is published."

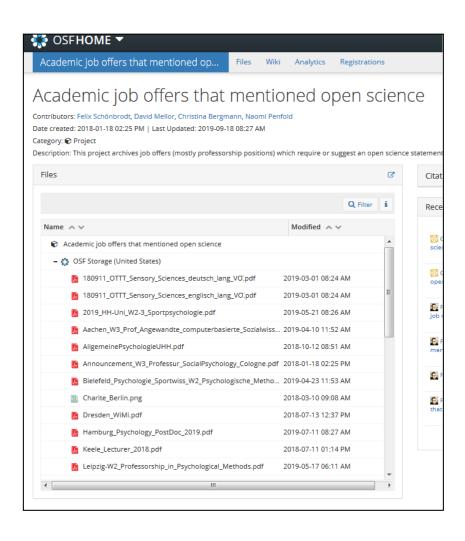


DORA calls on institutions to be explicit about the criteria used to reach hiring, tenure, and promotion decisions, clearly highlighting, especially for early-stage researchers, that the content of a paper is much more important than publication metrics or the identity of the journal in which it was published.

In addition to research publications DORA

https://grants.nih.gov/grants/guide/notice-files/not-od-17-050.html

La Ciencia Abierta entra en el mercado laboral



<u>University of Toronto, Assistant</u> Professor - Social Psychology-1803593:

- Our department embraces the values of open science and strives for replicable and reproducible research.
 We therefore support transparent research with open data, open material, and pre-registrations.
- Candidates are asked to describe in what way they have already pursued and/or plan to pursue open science

"Open data is data and content that can be freely used, modified and shared by anyone for any purpose."

Open Knowledge Foundation

¿Qué son los datos FAIR?

To be Findable, data must have unique identifiers, effectively labeling it within searchable resources

To be Accessible, data must be easily retrievable via open systems and effective and secure authentication and authorization procedures.

To be Interoperable, data should "use and speak the same language" via use of **standardized vocabularies**.

To be Reusable, data must be adequately described to a new user, have clear information about data-usage licenses, and have a traceable "owner's manual," or provenance.

SCIENTIFIC **DATA**

Comment | Open Access | Published: 15 March 2016

The FAIR Guiding Principles for scientific data management and stewardship

Mark D. Wilkinson, Michel Dumontier, [...] Barend Mons □

Scientific Data 3, Article number: 160018 (2016) | Cite this article 83k Accesses | 1157 Citations | 1461 Altmetric | Metrics

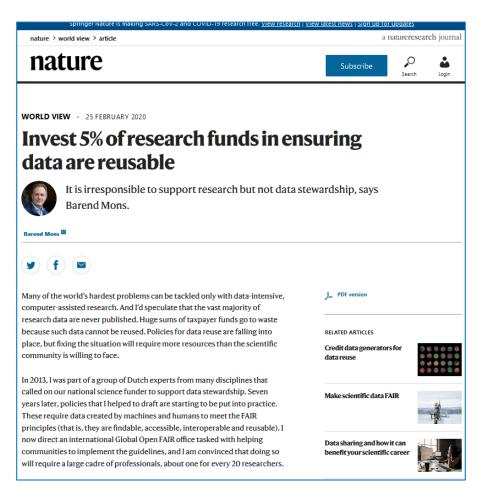
1 An Addendum to this article was published on 19 March 2019

Abstract

There is an urgent need to improve the infrastructure supporting the reuse of scholarly data. A diverse set of stakeholders—representing academia, industry, funding agencies, and scholarly publishers—have come together to design and jointly endorse a concise and measureable set of principles that we refer to as the FAIR Data Principles. The intent is that these may act as a guideline for those wishing to enhance the reusability of their data holdings. Distinct from peer initiatives that

https://www.nature.com/articles/sdata201618

Gestionar los datos es una inversión (además, de una buena práctica científica)



- I tell research institutions that, on average, 5% of overall research costs should go towards data stewardship. With €300 billion (US\$325 billion) of public money spent on research in the European Union, we should expect to spend €15 billion on data stewardship. Scientists, especially more experienced ones, are often upset when I say this. They see it as 5% less funding for research.
- (...) if data are treated properly, researchers will have significantly more time to do research. Consider the losses incurred under the current system. Students in PhD programmes spend up to 80% of their time on 'data munging', fixing formatting and minor mistakes to make data suitable for analysis — wasting time and talent.
- https://go.nature.com/2vjP75L

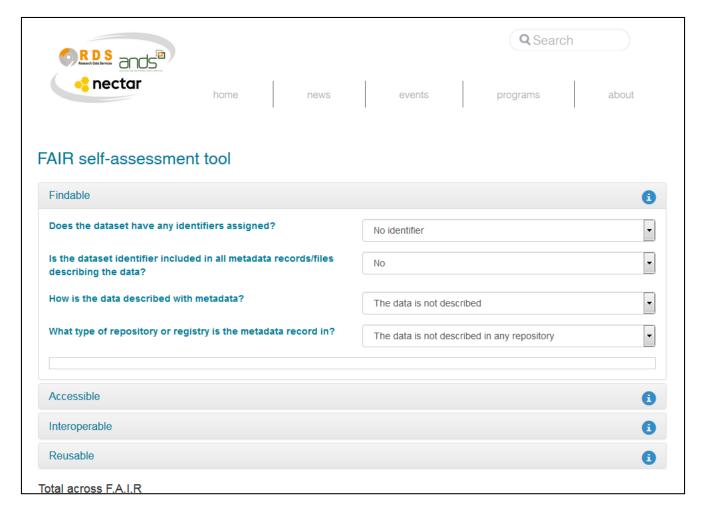
Open Science **Principios FAIR**

Propiedad intelectual

EXCEPCIONES LIMITACIONES USO

Otros factores: legislación, normativas, LICENCIAS DE contratos, políticas, cultura científica, datos personales, sensibles...

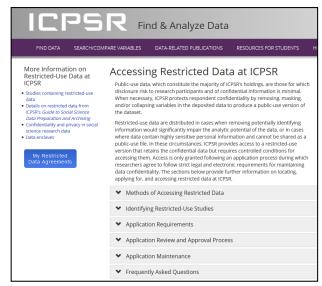
Midiendo el "Fairness" de los datos



https://www.ands-nectar-rds.org.au/fair-tool

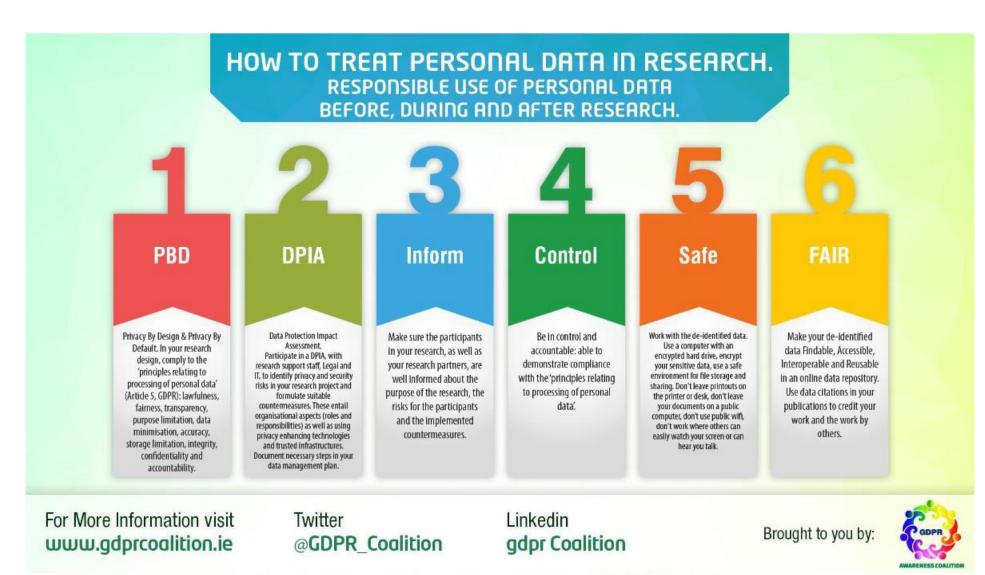
Circunstancias que limitan el acceso abierto a datos

- Protección de información personal (GDPR)
- Leyes de confidencialidad
- Protección de especies en peligro
- Protección de recursos culturales
- Protección de recursos genéticos
- Periodos de uso exclusivo de datos de investigación
- <u>Ejemplo de datos</u> <u>anonimizados en</u> <u>repositorio</u>





GDPR y FAIR Data



Created in collaboration with the GDPR Coalition

Gestión de datos personales/sensibles

PUBLISHING AND SHARING SENSITIVE DATA When and how to publish sensitive data as openly and ethically as possible For more information see: ands.org.au/sensitivedata Sensitive data identifies individuals, species, objects or locations, and carries a risk of causing discrimination, harm or unwanted attention

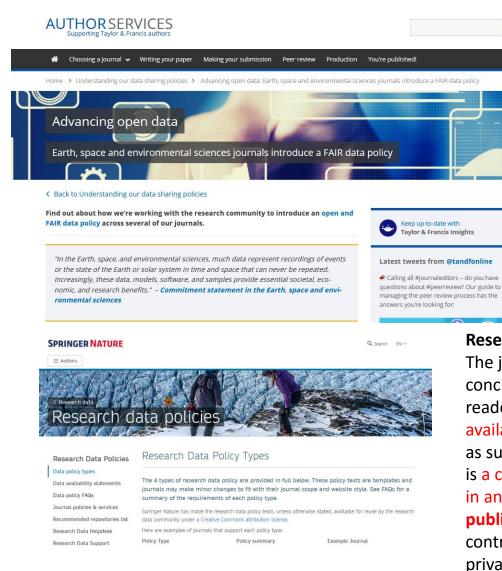
	Do I Have Sensitive Data?	If you are collecting new data start planning for sharing in your application to ethics
Data collection	TIES THE STATE OF	committees.
	Was the data previously collected by you?	You should cite data collected by others.
Ownership		
	Do you have the right to publish?	<u></u>
Confidentialise		You may be able to publish metadata alone if it does not include identifiable information.
	Can the data be made non-sensitive?	
Research ethics	Ţ.	
	Was consent for data sharing given by research participants?	
	1 1 1 1 1 1 1 1 1 1	In some cases confidentialise data may still be shared if this was not precluded in the information given to participant
	Was data publication approved by an Ethics Committee?	
Licensing	T	
	Is the data licensed for reuse and attribution?	Licensing removes uncertainty around how your data can and can't be reused.
Discoverability	VIE	Most metadata can be made
	Can you publish data with metadata?	publicly available. You can place conditions around access or reuse of data.
Publishing & sharing	Keep in mind	
,	 Publish your data and metadata according to pa approval and licensing For confidentialised sensitive data, it is often ap 	
	metadata and conditional access to the data itse	

	PRIVACY BY DESIGN STRATEGY	DESCRIPTION	
1	Minimize	The amount of personal data should be restricted to the minimal amount possible (data minimization).	
2	Hide	Personal data and their interrelations should be hidden from plain view.	
3	Separate	Personal data should be processed in a distributed fashion, in separate compartments whenever possible.	
4	Aggregate	Personal data should be processed at the highest level of aggregation and with the least possible detail in which it is (still) useful.	
5	Inform	Data subjects should be adequately informed whenever processed (transparency).	
6	Control	Data subjects should be provided agency over the processing of their personal data.	
7	Enforce	A privacy policy compatible with legal requirements should be in place and should be enforced.	
8	Demonstrate	Data controllers must be able to demonstrate compliance with privacy policy into force and any applicable legal requirements.	

Table 1: Privacy by design strategies [6]

- Consent form templates
- Anonymization tools

Políticas editoriales de gestión de datos



- •Authors must deposit data in a <u>FAIR aligned</u> <u>repository</u> that can mint a persistent digital identifier (e.g. DOI)
- •Data must be made freely available, under a CC BY, CCO license or equivalent
- •Authors must include a <u>data availability</u> <u>statement</u> (even where the data cannot be made open)
- •Data citation is mandatory

Research Data Policy Type 4

The journal requires that all datasets on which the conclusions of the paper rely be available to reviewers and readers. Authors must deposit their datasets in publicly available repositories prior to peer review, or include them as supplementary information files with their manuscript. It is a condition of publication that authors deposit their data in an appropriate repository, and agree to make the data publicly available without restriction, unless reasonable controls on data access are needed to protect human privacy or biosafety. Please see Springer Nature's information on recommended repositories.

¿QUÉ DICE EL PROGRAMA H2020 SOBRE LOS DATOS DE INVESTIGACIÓN?

PILOTO DE DATOS EN H2020

Preparar un Plan de Gestión de Datos

Identificar un repositorio válido

Generar los datos y hacer la investigación

Depósito y publicación de datos FAIR en el repositorio

Calendario para proyectos H2020

- ✓ Un plan de gestión de datos es un documento vivo que evoluciona con el proyecto de investigación
- ✓ Un plan de gestión de datos para todo el proyecto y para todos los datasets, con la participación de todas las instituciones del consorcio
- ✓ Crear un plan de gestión de datos no implica la apertura (=publicación en acceso abierto en un repositorio) obligatoria sino que precisamente ofrece el marco para explicar qué datasets no se publicarán y por qué

Evaluación 6 meses Preparación de Revisión final después de periódica por la la propuesta de del proyecto Comisión iniciar el proyecto Europea proyecto Visión general Primera versión Actualización del Plan para

Visión general

de la gestión de

datos. NO PLAN

Gestión de Datos

para la Comisión

Europea

Actualización del Plan para recoger los cambios en el consorcio, tipos de datos creados, otros aspectos de su gestión

Última versión del Plan de Gestión de Datos

La inercia/desconocimiento de los investigadores

- "60.8% of researchers do not self-archive their work even when it is free and in keeping with journal policy."
- "In a field where OA seems of practical and ethical importance for the sharing of knowledge promoting health equity, it is surprising that researchers do not make their papers available when they are legally able to do so without any cost."

Knowledge sharing in global health research – the impact, uptake and cost of open access to scholarly literature

https://health-policysystems.biomedcentral.com/articles/10.1186/s12961-017-0235-3

Date of Publication	CSIC Research Articles
2008	3633
2009	3930
2010	3572
2011	3566
2012	3623
2013	3330
2014	4561
2015	4045
2016	3911
2017	4327
2018	5689

Table 7. Volume of CSIC research articles that could be made Open Access via repository deposit.

 Unos 60.000 artículos de investigación CSIC de los últimos 10 años (2008-2018) ya están en acceso abierto (porque se han publicado en acceso abierto o porque hay una copia gratuita de autor en repositorios) y se estima que otros 44.000 que ahora están solo en revistas de suscripción podrían estar también en acceso abierto haciendo uso de los repositorios

https://doi.org/10.3390/publications703

Barreras y necesidades

8.1 Barriers

The responses described the obstacles in detail and included excellent suggestions for improvement. Figure 14 shows what all respondents from the evaluated organisations felt about the barriers.

	Not significant	Some significance	Moderately significant	Significant	Most significant
Insufficient training and instructions	7	13	19	16	6
Uncertainties in fulfilling legal demands	2	6	18	31	14
Descipline-specific differences	7	11	19	14	11
Researchers have to fulfil disproportionate standards	5	6	9	28	17
Conflicting incentives	5	10	13	22	16
Obstacles in open research communication	12	21	11	8	6
Merit system	9	7	18	17	11
Insufficient funding and resources	4	6	16	23	17

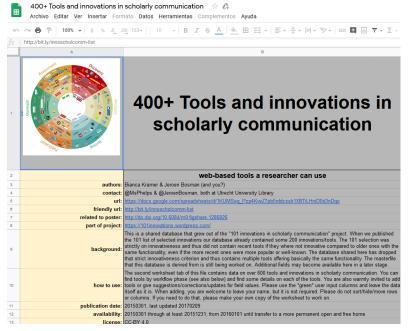
Figure 14: Compilation of all answers to questions about barriers in open science and research. Colour code: Red: > 20, Orange: > 15, Yellow: >10, Light green: > 5 and Blue: < 5 references

The compiled development needs are depicted in Figure 15.

	Not significant	Some significance	Moderately significant	Significant	Most significant
Merit system and incentives	0	0	0	2	4
Chracteristics of actors	0	0	0	0	1
Cost provisioning of publications	0	1	1	3	6
Re-use of materials	0	0	1	0	1
Deeper collaboration	0	0	0	3	2
Developing skills	0	0	1	2	2
Managing costs of openness	0	3	1	6	2
Trust, conficence and resources	0	0	0	2	2

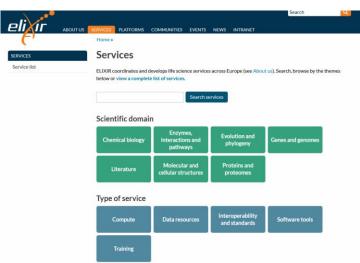
Figure 15: The compiled development needs. Colour code: Red: > 5, Orange: 3-4, Yellow: 2, Light green: 1 and Blue: 0 references

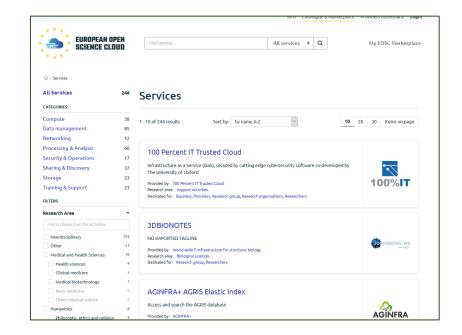
Recursos de interés: herramientas para investigadores











Herramientas de interés

La Ciencia abierta en la práctica

OPEN SCIENCE MADE EASY



steps towards transparent and reproducible research



1. Create your own OSF account

Open Science Framework: (one possible) online platform to document and present your research process transparently



- Go to https://osf.io/
- · Register: name, email, password
- Create new project: 'My Projects' → 'Create project' → Insert title → 'Create'
- The URL of the project will not be changed -> can be referenced in your paper
- The account can be used for all the following. aspects of Open Science (OS)
- When you are ready: Change project status from private to public



3. Open Materials

Make methods and materials transparent and available



- Upload documents describing all processes. methods and variables to your OSF project
- Add the OSF link in your paper
- . Basic lists as well as detailed code books
- If possible upload the original questionnaires (be cautious with copyrighted materials!)



2. Pre-register your own studies

Describe your hypotheses, methods and analyses before running the study in your pre-registration



- In OSF: 'Project overview' 'registrations' -'New registration'
- Choose and complete a template
- . Make it public immediately or use the embargo (up to 4 years) to postpone public access.
- Pre-registrations can ...
- be brief or very detailed
- be made before/during/after data collection
- include confirmatory, but also exploratory and open research questions



4. Open Data

Make your research data publicly available



- · Notify your participants in the informed consent form
- . Make all primary data available that is necessary to reproduce your results
- · Guarantee anonymity (if necessary delete variables, collapse, ...)
- Prepare your code book
- . Upload your data files and code book to the OSF project, add the link in your paper
- Make vour data citable (doi)
- . Cf. the DGPs recommendation for open data sharing: http://bit.lv/dqpsdata_en



5. Reproducible Code

Make your analyses transparent and your results reproducible



- Prepare your final, well-commented analyses scripts (for example R code, SPSS syntax)
- Upload your scripts into your QSF-project and add the link to your paper
- Make sure your script, if run on your data. produces the exact result outputs that you describe in your paper
- · Your analytic code is helpful even if you cannot make your data publicly available



7. Do open research and talk about it ...

Open science can promote your research career and foster research collaborations



- Refer to your OSF-account on your homepage
- Emphasize your OS activities in your CV and iob applications
- Refer to your materials, data, scripts in your further work and ask colleagues to do the same if they used your materials
- · Encourage your supervisor, colleagues and your students to practice open science
- Make your commitment to open science public, e.g. http://www.researchtransparency.org/
- Use the chances of sharing data to establish research collaboration
- Establish vour own local Open-Science-Initiative at your institution, see https://osf.io/tbkzh/

Supported by:





Resources: http://www.bitss.org | https://osf.io/preprints/psyarxiv/ https://cos.io/ | https://cos.io/our-services/open-science-badges-details/ |



6. Open Access



Make Pre/Postprints available A X

- What am I allowed to make publicly open? Check the journal guidelines at http://www.sherpa.ac.uk/romeo/
- Before the review process starts
- Compile a preprint document (i.e., your manuscript before peer review)
- For example, upload at https://osf.io/preprints/psyarxiv
- Ask the community for feedback
- The preprint can be linked to an OSF-project (for example for supplementary material)
- As soon as your paper is in press
- Compile a postprint document (i.e., final version of your manuscript after review)
- Update the preprint at PsvArXiv by replacing it with the postprint. Indicate the final reference and doi of the PDF version of your article provided by the journal
- · Papers that are made available as a preprint are cited more frequently!

Additional information and helpful links: https://osf.io/x3s5c/wiki/Open Science Infos/

@ August 2017:

Mitja Back, Friederike Hendriks, Felix Schönbrodt and the Network for Open Science Initiatives (NOSI). Send your questions, suggestions, comments to

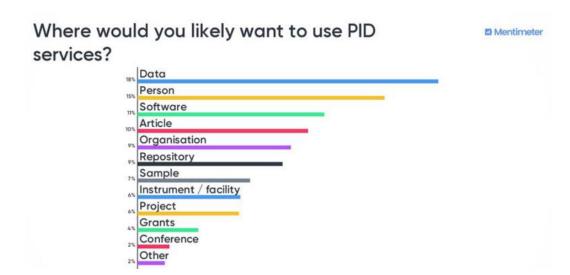
felix@nicebread.de



¿Para qué sirven los identificadores persistentes?

- DOIs
- Handles
- PURL
- URN
- ARK
- •
- Video:

 https://www.youtube.com/watc
 h?v=AUvMLzdgB3Y&feature=you
 tu.be



La tendencia es usar esquemas de identificadores y de metadatos así como vocabularios controlados que soportan PIDs.

Ejemplos:

Esquema de metadatos DataCite Vocabularios LOC

Herramientas para encontrar publicaciones en acceso abierto

- Unpaywall
- OA Button
- <u>Lazy Scholar</u> (extensión web)
- Bielefeld Academic Search Engine (BASE)
- Core
- OpenAire
- Google Scholar

Recupera tus manuscritos revisados de autor





Direct2AAM: Helping Authors Find AAMs

Background

To make it easier for authors to self-archive simply, quickly, and correctly we've produced guides to turn the too often unsuccessful hunt for Author Accepted Manuscripts into a simple set of instructions that should always bring results. Read more in our release blog post.

In these guides

The guides, available for most major journals, provide simple to follow instructions for authors to obtain an Author Accepted Manuscript from their Journal Submission System, where the AAM is stored during the publishing process. There are guides for the following systems and publishers:

ScholarOne: T&F, CUP, Emerald.

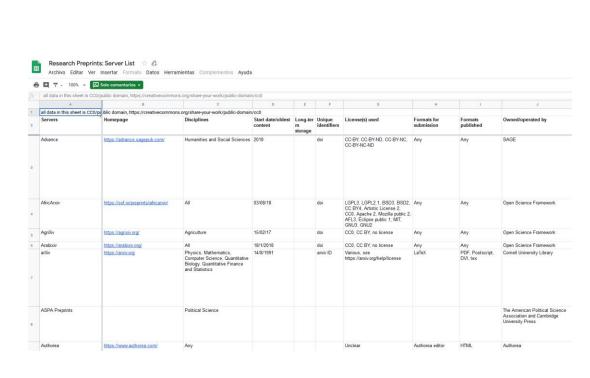
3

Ranking de revistas según niveles de transparencia



- The Transparency and Openness Promotion Guidelines (PDF and HTML) include eight modular standards, each with three levels of increasing stringency. Journals select which of the eight transparency standards they wish to implement and select a level of implementation for each. These features provide flexibility for adoption depending on disciplinary variation, but simultaneously establish community standards.
- Standards: Data Citation | Data, Materials, and Code Transparency | Design and Analysis | Preregistration | Replication
- **Levels**: Disclose, Require, or Verify
- https://www.topfactor.org/

Listado de repositorios preprints. Herramienta sobre políticas preprints/peer review de revistas

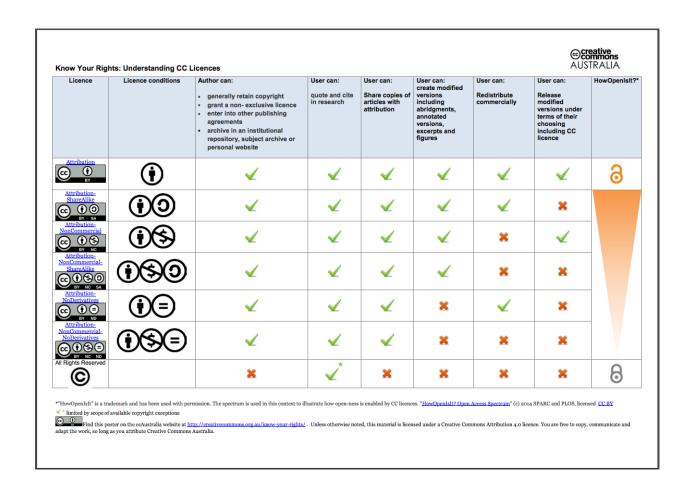


User Stories Transpose More Information About Stats A database of journal policies Add record on peer review, co-reviewing, and preprinting Transpose database All Add Filter Journal V Publisher V OA V Date V 3047 search results Journal of the World Federation of Orthodontists Elsevier 22124438 2/15/2020 The International Journal of Medical Investigation International Journal of P-ISSN: 2/10/2020 2322-2913 Medical Investigation F-ISSN: 2345-640) Physical Activity Review 2300-5076 PPHU Projack 10.16926/par 2/6/2020 Indian Drugs Indian Drug 0019-462X 2/4/2020 Manufacturers' Accordation Independent Journal of Management & Production Instituto Federal de 10.14807/ijmp 2/3/2020 2236-269X EDucação, Ciência e Tecnologia de São European Journal of Mental Health 2/3/2020 Semmelweis University 10.5708 1788-7119 Institute of Mental Health Advances in Science, Technology and Engineering 10.25046/astesj 2415-6698 1/29/2020 ASTES Publishers Systems Journal The Journal of V. N. Karazin Kharkiv National University, V. N. Karazin Kharkiv 10.26565/2226-0994 22260994 1/23/2020 24145904 Series "Philosophy, Philosophical Peripeteias" National I Iniversity

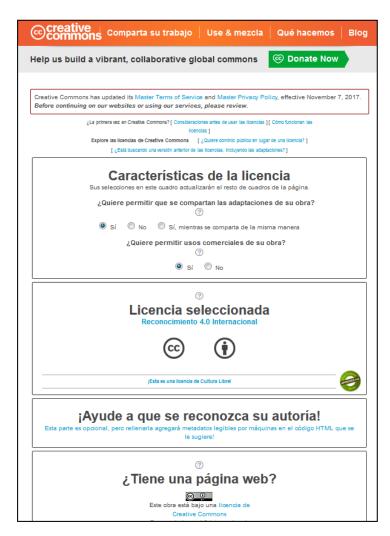
https://docs.google.com/spreadsheets/d/17RgfuQcGJHKSsSJwZZn0oiXAnimZu2sZsWp8Z6ZaYYo/edit#gid=0

https://transpose-publishing.github.io/#/

Selector de licencias Creative Commons

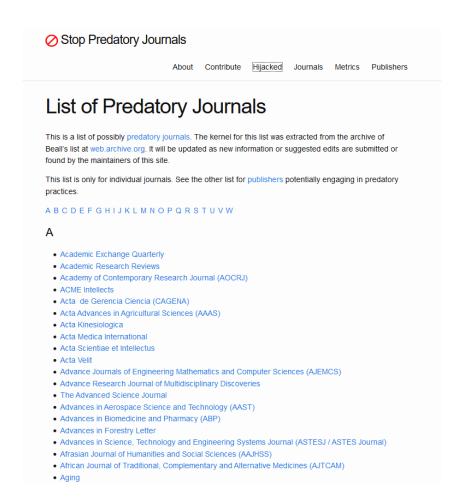


 https://creativecommons.org/share-your-work/licensingexamples/

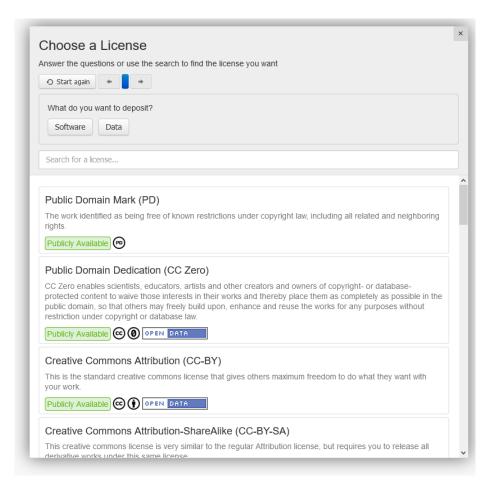


¿Cómo identificar a las revistas depredadoras?

- ¿Cuánto tiempo lleva en existencia la revista?
- ¿Cuántos volúmenes y cuántos artículos ha publicado?
- ¿Qué calidad tienen los artículos ya publicados en la revista?
- ¿Qué aspecto tiene la web de la revista?
- ¿El editor proporciona detalles completos y transparentes del proceso de revisión por pares?
- ¿Está la revista indexada en las principales bases de datos académicas (p.e, JSTOR, Scopus, Web of Science, Directorio de revistas de acceso abierto (DOAJ)?
- ¿Tus colegas de la disciplina han publicado o están familiarizados con la revista?
- ¿Revisiones por pares demasiado rápidas o inexistentes?
- ¿Poca o ninguna transparencia en las APCs?
- ¿Errores ortográficos en la web?
- ¿Qué indicadores de impacto muestra? ¿Están actualizados?
- ¿Envía spam bajo la forma de invitación para publicar?



Herramientas para elegir una licencia para datasets/software



Para datasets con información personal/sensible/restricciones de acceso/uso:

- DataTags: http://datatags.org/,
- https://dvnwebvm1.hmdc.harvard.edu/models/ data-deposit/7/
- CLARIN Licenses: https://www.clarin.eu/content/c larin-licensing-framework

https://ufal.github.io/public-license-selector/

Buscadores de repositorios de datos, registros y agregadores

BUSCADORES

- https://search.datacite.org/
- https://datasetsearch.research.g oogle.com/
- https://explore.openaire.eu/
- https://scholexplorer.openaire.e
 u/#/
- https://osf.io/

REGISTROS DE REPOSITORIOS

- https://www.re3data.org/
- https://repositoryfinder.datacite.org/
- https://fairsharing.org/
- https://www.nih.gov/healthinformation/nih-clinical-researchtrials-you/list-registries

¿Qué información hay que incluir en el plan de gestión de datos de un proyecto de investigación?

Roles Responsabilidades Presupuesto

Características de los datasets (tipología, estructura, formato, dimensiones)

Descripción de los datasets

Identificación y depósito en un repositorio
Publicación en acceso abierto
Licencias de uso
Aspectos éticos

Sostenibilidad Accesibilidad y preservación a largo plazo

La herramienta de facto para hacer los planes

Información y plantillas para planes de gestión de datos según requerido por las agencias financiadoras

Hartstichting (Dutch Heart

European Commission (Horizon 2020)

Medical Research Council

National Science Foundation

Cancer Research UK (CRUK)

Swiss National Science

Council (NERC)

Health Research Board (HRB) 4/9/2019

Natural Environment Research 22/5/2018

Qatar National Research Fund 18/5/2019

Cancer Research UK (CRUK) 18/10/2018

16/5/2019

population of Austria by altitude Correlating LA Museum Visitors to

MRC data sharing webpage | Trypanosome Cell Processing example

Data Management Plan

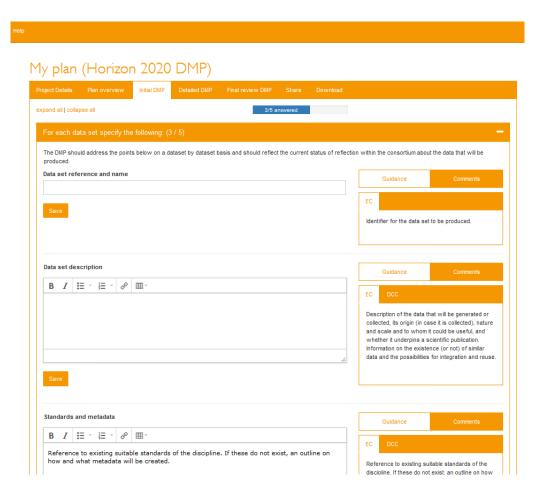
Foundation)

Acceso a planes reales públicos

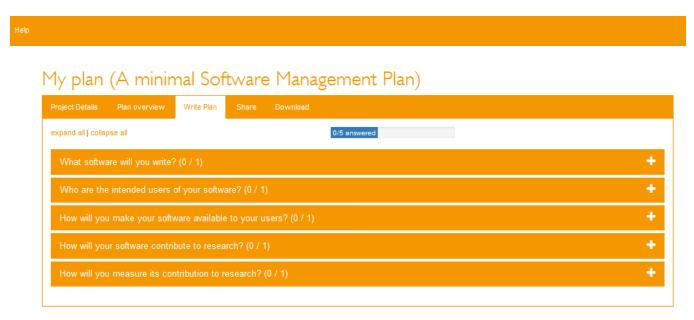
My Dashboard Create plans 🗐 Reference - Ayuda

https://dmponline.dcc.ac.uk/ Funder requirements Templates for data management plans are based on the specific requirements listed in funder policy documents. The DCC maintains these templates, however, researchers should always consult the funder guidelines directly for authoritative information. My plan (Horizon 2020 DMP) Hartstichting Health Research Board Plan overview Horizon 2020 DMP MRC Template This plan is based on the "Horizon 2020 DMP" template provided by European Commission (Horizon 2020). The Commission is running a flexible pilot under Horizon 2020 called the Open Research Data Pilot (ORD pilot). NERC Template Projects participating in the pilot must submit a first version of the DMP (as a deliverable) within the first 6 months of the project. The DMP needs to be updated over the course of the project whenever significant changes arise. NSF - generic Further details are provided in the Guidelines on FAIR Data Management in Horizon 2020 (v.3, 26 July 2016). Population Research Committee Template Template version 0, published on 09 marzo 2018 QNRF-QNL MoU Demo SNSF DMP template

Es una herramienta gratuita y colaborativa

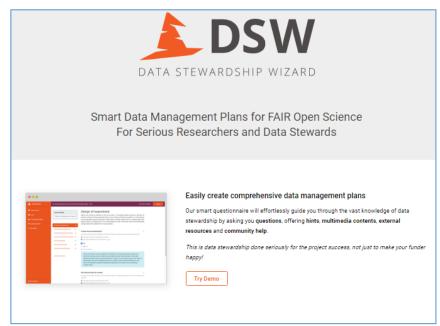


Plantillas de diferentes agencias financiadoras, con ayuda y recomendaciones



Plantilla para planes de software de investigación

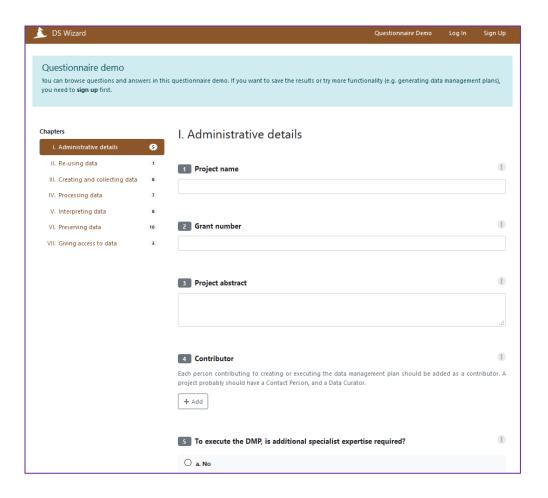
Otros generadores de Planes de Gestión de Datos



https://ds-wizard.org/

En fase demo: a través de un cuestionario en torno a diversas cuestiones se guía a los creadores de datos a lo largo del proceso para generar un plan de gestión

Design of experiment
Data design and planning
Data Capture/Measurement
Data processing and curation
Data integration
Data interpretation
Information and insight



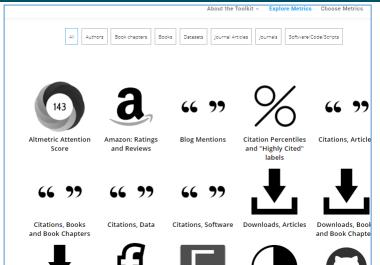
Buenas prácticas en la gestión de datos

Open data is	Which ideally means	So preferably not
Freely available to download	a) There is no cost to access the data b) Access is via an internet accessible download c) Data is in a form that can be readily downloaded. Large or complex data is located close to high performance computing or specialised services that enable access to the data in situ or the compilation of sub-sets	a) Costed at more than reproduction cost b) Burned to a DVD and posted via 'snail mail' c) Only available in huge packages that are difficult to reuse and/or take days to download
Licensed	An open license such as CC-BY is applied.	A restrictive license, or worse, no license at all. If no license is applied, no reuse is permitted.
Well described	Standards based metadata is used with details of data elements and inclusion of data dictionaries. Describe the purpose of the collection, the characteristics of the sample and the method of data collection.	Metadata descriptions that are very brief or will not be widely understood. Avoid jargon and abbreviations and don't assume prior knowledge of the data or subject domain.
Provided in an open format	The data is in a convenient, modifiable and open format that can be readily retrieved, downloaded, indexed and searched. Where possible, formats should be machine-readable and non-proprietary formats are preferred. For example, prefer netCDF over .xls.	Obscure formats or formats that require proprietary software to open and reuse.
Well managed	The data is managed on an ongoing basis with a point of contact designated to assist with data use.	Data that is loaded on to a server and forgotten.

- Formatos preferentes
- ¿Quiénes han producido los datos? ¿Qué rol para para autor?
- ¿Es el título lo suficientemente específico?
- ¿Por qué han sido creados los datos?
- ¿Qué limitaciones tienen los datos (por ejemplo, datos confidenciales han sido eliminados)?
- ¿Cómo deben interpretarse los datos?
- ¿Hay lagunas en los datos o dan una visión completa del tema estudiado?
- ¿Qué procesos han generado los datos?
- ¿Qué miden los datos en las columnas de los ficheros?
- ¿Qué software es necesario para poder leer los datos?
- ¿Cómo deben citarse los datos?
- ¿Pueden reutilizarse los datos? ¿Qué licencia de uso tienen asignada?
- ¿Existen más versiones de los datos? ¿Dónde?
- ¿Se han definido los términos técnicos y acrónimos a los que hacen referencia los datos?
- ¿Se han cualificado los parámetros geográficos y cronológicos de los datos?
- ¿Las palabras clave son suficientemente específicas a los datos? ¿Se basan en algún tesauro?
- ¿Cómo se llama el proyecto de investigación en que se encuadran los datos?
- ¿Quién ha financiado la producción y la gestión de los datos?
- http://digital.csic.es/bitstream/10261/81323/4/Datasets DC plantilla.pdf

Metrics Toolkit





- The Metrics Toolkit provides evidence-based information about research metrics across disciplines, including how each metric is calculated, where you can find it, and how each should (and should not) be applied. You'll also find examples of how to use metrics in grant applications, CVs, and promotion dossiers.
- https://www.metricstoolkit.org/choose-metrics/

El cambio que está en ti

Your Own Activities

		Always	Partly	Neve
Open A	pplication			
2.1.	Open research proposals			
2.2.	Open reviews of research proposals			
2.3.	Open funding decisions and funding allocation			
Open M	ethodology			
2.4.	Open governance of projects through online meetings, open minutes, transparent governance rules			
2.5.	Project and collaboration budgets available online			
2.6.	Open design processes to create, revise, and comment on projects			
2.7.	Clear open, and transparent research processes, such as open lab books, open research meetings, etc.			
2.8.	Preregistration of data collection initiatives			
2.9.	Open output management plan			
2.10.	Availability and use of open infrastructure through which to access and comment on outputs, etc.			
Open O	utcomes			
2.11.	Materials generated by the collaboration are openly shared to all that ask, except where there is a limited supply of materials			
2.12.	Where materials are in limited supply, the existence of a clear set of criteria and open governance structure to decide to whom to send materials			
2.13.	Outputs generated by the collaboration are openly available without further restriction on use, except to protect the privacy of patient or donor information			
2.14.	Outputs, including materials, are subject to open annotations			
2.15.	Publications are open access, with open license, open citations and machine actionable full text			
2.16.	The outcomes of the collaboration are not subject to intellectual property rights that restrict free and open use and reuse			
2.17.	All tools and software are openly accessible and reusable			
2.18.	Reporting standards are openly shared			
2.19.	Review of projects and of the collaboration are openly available			
2.20.	Ethics reviews and reasoning are openly available			
2.21.	Any exceptions to openness are transparently and openly shared			

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¿Piensas que estas acciones son beneficiosas para el avance científico?

- Los resultados de investigación están en acceso abierto, con licencias abiertas estándar
- Publicación de propuestas de investigación en acceso abierto
- Revisiones abiertas a propuestas de investigación
- Registro de metodologías/hipótesis científicas
- Planes de gestión de datos disponibles en repositorios
- Código abierto de las herramientas que se usan para hacer investigación
- Publicación de anotaciones, comentarios a resultados científicos
- Cualquier excepción a la apertura/publicación de resultados está documentada y publicada

GRACIAS

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