

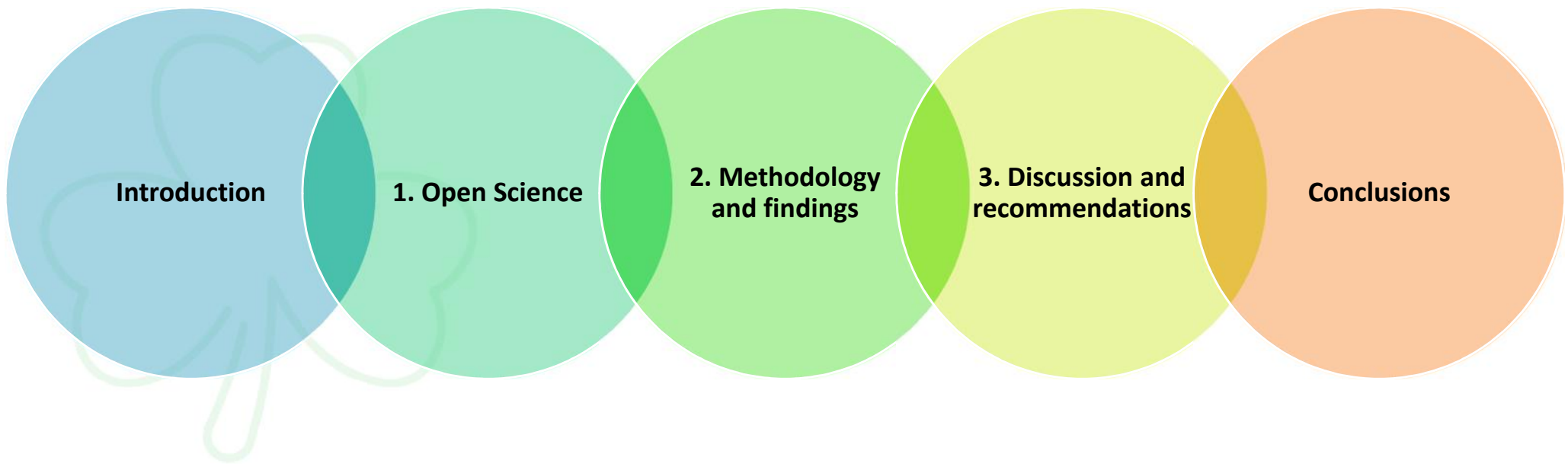
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Functions of Scholarly Libraries to Encourage Open Science: Analysis to Face Desinformation



Agenda



Introduction



Transition of scholarly communication for openness of research outputs



Lack of a path on collaboration of libraries to implement open science and eradicate desinformation



Scholarly libraries and open science are linked by common goals

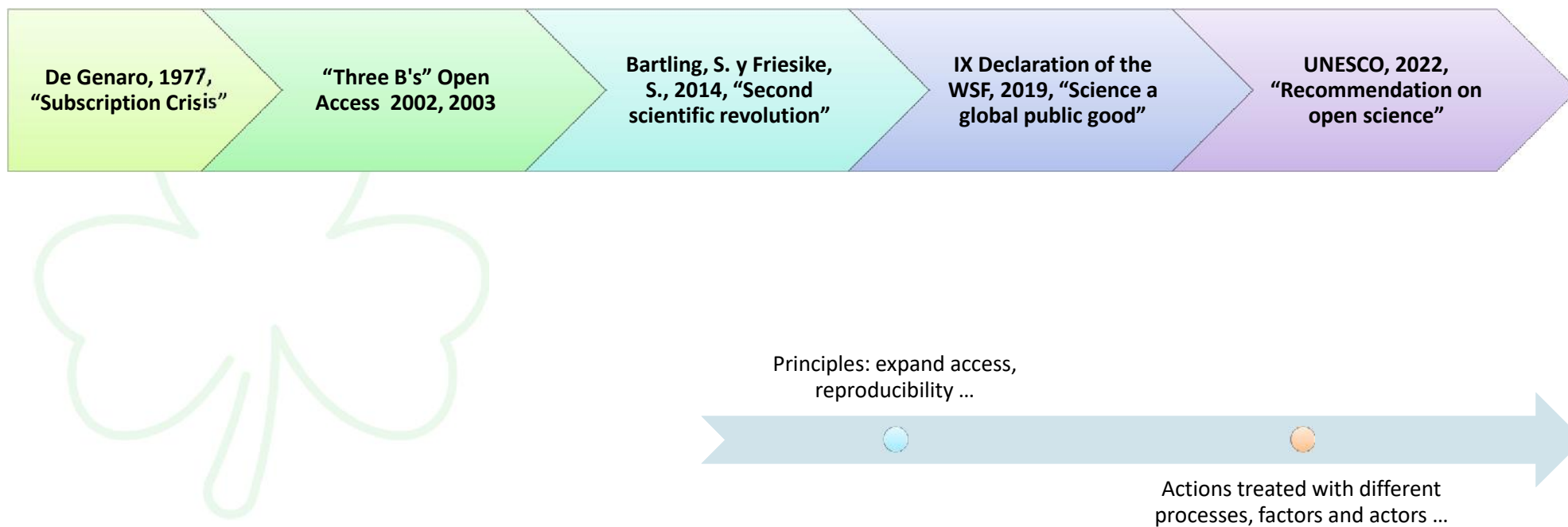


A core factor to Open Science is declarations and actions of actors



Aim: study relationship between open science and scholarly libraries a global level

1. Open Science: background



1. Open Science: concept

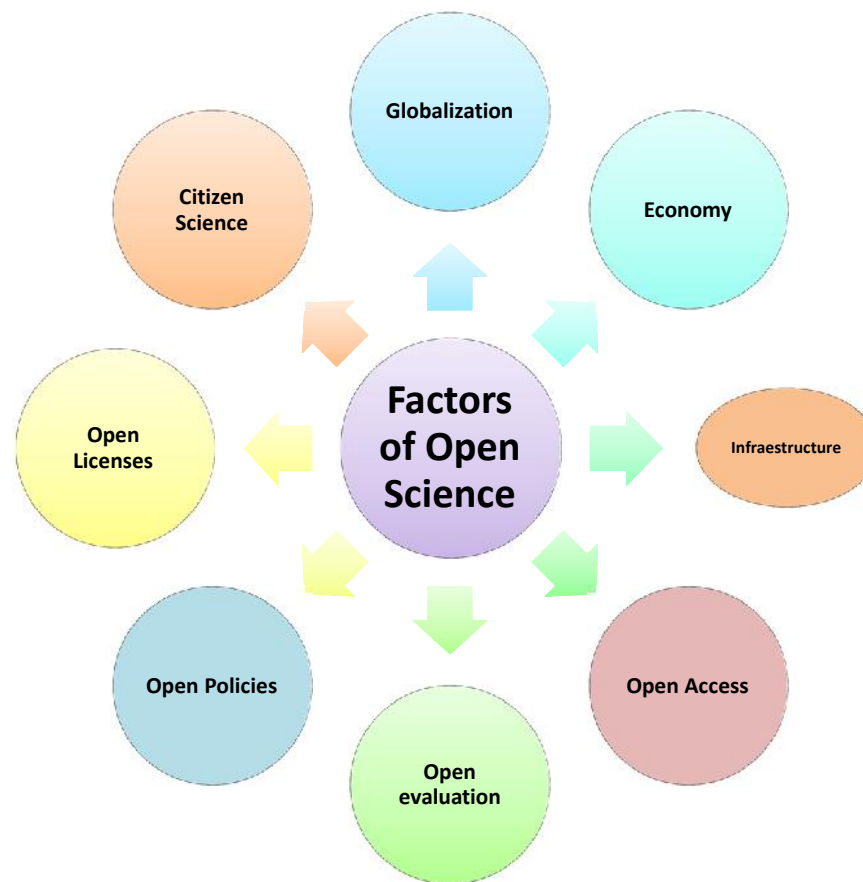
Concept:

“ ... inclusive construct that combines diverse movements and practices with the aim of making scientific knowledge openly available, accessible and reusable for all, to increase scientific collaborations and the exchange of information for the benefit of science and society, and to open the processes of scientific knowledge ... is based on the following key pillars: open access to scientific knowledge, open scientific infrastructures, open science communication, open participation of social actors and open dialogue with other knowledge systems. “

- UNESCO, 2021. “*Recommendation on Open Science*”.



1. Open Science: factors



2. Methodology and findings

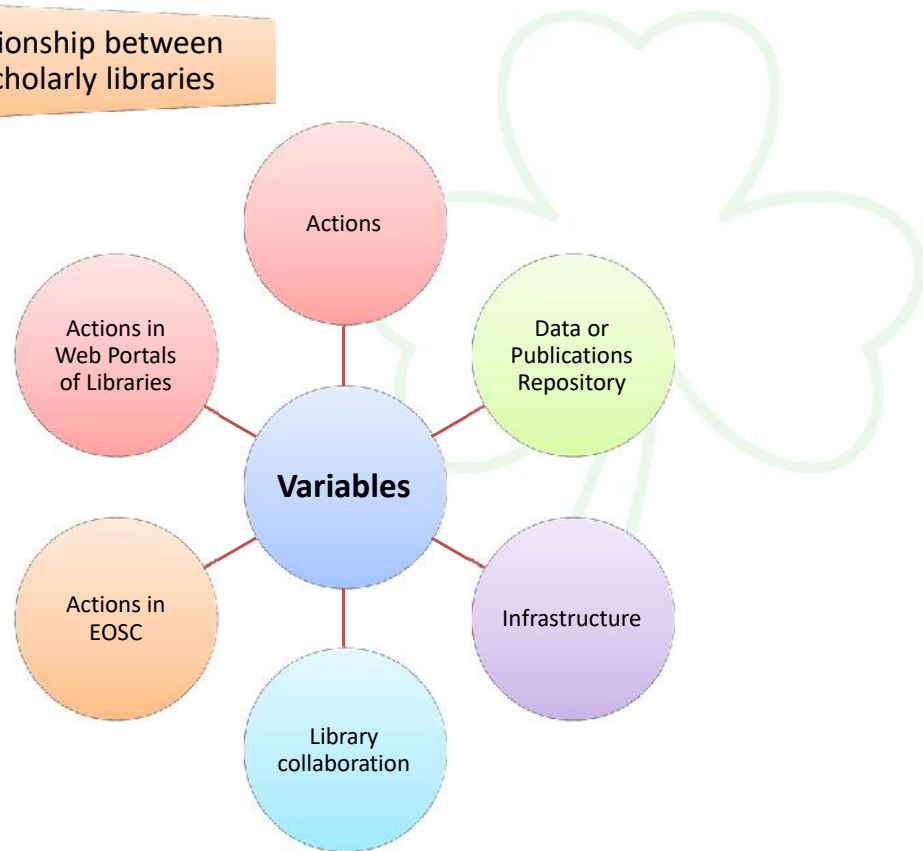
Exploratory study of declarations and actions of open science at a global level.

Purpose: study relationship between open science and scholarly libraries

Methodology

Mixed research study

- Web portals of libraries
- European Open Science Cloud (EOSC)

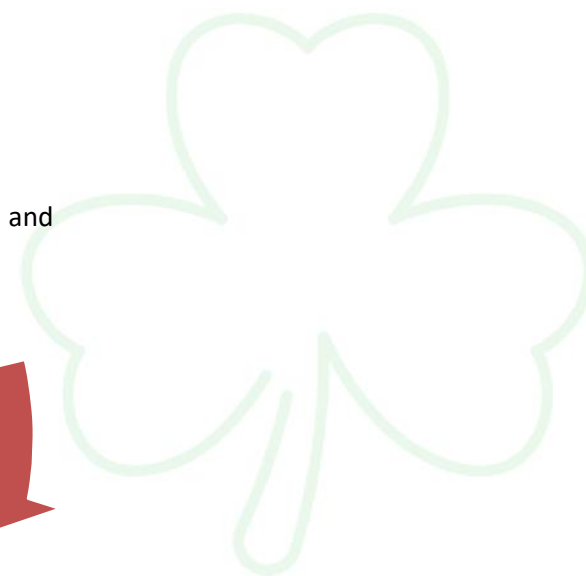


3. Methodology and findings

Findings

Country												
	Argentina	Brazil	Colombia	Chile	Ecuador	Netherlands	Mexico	Peru	Spain	United Arab Emirates	United States of America	United Kingdom
Open Science Actions	X	X	X	X	X	X	X	X	X	X	X	X
Data or Publications Repository Infrastructure	X	X	X	X	X	X	X	X	X	X	X	X
Library Collaboration	X	X	X	X		X	X	X	X	X	X	X
Actions in EOSC	X	X	X	X	X	X	X	X	X	X	X	X
Actions in Web Portals of Libraries	X	X	X	X	X	X	X	X	X	X	X	X

3. Discussion and recommendations



3. Discussion and recommendations



**Administration and
planning**

**Harmonization of
regulations**

Legal guarantees

Labor rights

*Creative Commons
Licenses*



3. Discussion and recommendations

Collection Development (CD)

- CD to open science raise updates
- implement library criteria



- Typology
- Quality
- Reliability
- Objectivity
- Date
- Functionality



- Public funds
- Formal employment
- Relation institutional
- Open licenses



3. Discussion and recommendations

Information Organization (IO)

Backbone of infrastructure for open science

IO Principles

- Founded
- Identified
- Selected
- Accessed
- Navigated
- IFLA, 2009



FAIR for Research Data

- **Findable.** Easy to find, use identifiers
- **Accessible.** Authentication and authorization
- **Interoperable.** Records integrated with metadata
- **Reusable.** Clear descriptions.

Trends Metadata

"authority control" moves to "**identity management**" (Smith, 2020)

Go from "**inside out**" (Dempsey, 2021)

Services based on metadata

Reduce ambiguous terms

Analyze metadata schemas

3. Discussion and recommendations



- go from being providers to being collaborators.
- Go “inside out”.
- Data Repositories.
- Scientific skills literacy.
- Management plans.



Conclusions

Open science foster a paradigm shift for openness to content financed with public funds

Societies have never before had such a need for openness to information as to date to eradicate desinformation.

Research data repositories are becoming increasingly relevant and need continue to study

Findings of analysis of open science at Global level show that their progress is gradual and need regulation

Libraries are open science laboratories because this entities have elements that encourage of movement.

References

- ANID. (2020). *Propuesta de Política de acceso abierto a la información científica y a datos de investigación financiados con fondos públicos de la ANID*. Chile: Agencia Nacional de Investigación y Desarrollo (ANID) https://s3.amazonaws.com/documentos.anid.cl/estudios/Politica_acceso_a_informacion_cientifica_version_final_26-05-2020.pdf
- Bartling, Sönke y Friesike, Sascha. (2014). Towards Another Scientific Revolution, en *Opening Science: The evolving guide on how the Internet is changing research, collaboration and scholarly publishing*. 3-15. Springer Open. <https://link.springer.com/book/10.1007%2F978-3-319-00026-8>
- Bowley, Chealsey. (2022). New international recommendations for open access publishing – #BOAI20. *SciELO in perspective*. <https://blog.scielo.org/en/2022/04/08/new-international-recommendations-for-open-access-publishing-boai20/#.YsOviXbMK00>
- Biblioteca Arturo Agüero Chaves. (8 julio 2021). *Kimuk Repositorio Nacional de Costa Rica*. Obtenido de archivo de video. <https://www.youtube.com/watch?v=nysQC9AGsI>
- Campbell, C. (2021). Breaking down barriers and building an open future. In Proceedings WLIC. Session: Power of Transformation: open Access and Library Collections. IFLA. <https://www.ifla-wlic2021.com/events/sessions/power-of-transformation-open-access-and-library-collections>
- Colombia. (2018). *Lineamientos para una política de ciencia abierta en Colombia*. Colombia: Colciencias. https://minciencias.gov.co/sites/default/files/ckeditor_files/Lineamientos%20ciencia%20abierta%2017-dic-2018-doc.pdf
- CONACyT. (s.f) "Lineamientos específicos para repositorios". México: Consejo Nacional de Ciencia y Tecnología. [s.a.] <https://www.sicyt.gob.mx/index.php/normatividad/2-conacyt/1-programas-vigentes-normatividad/lineamientos/lineamientos-especificos-para-repositorios/4704-lineamientos-especificos-para-repositorios/file>
- Creative Commons. (2017). *About The Licenses*. <https://creativecommons.org/licenses/?lang=en>
- Cross, W. (2016). Libraries Support Data-Sharing Across the Research Lifecycle. *Library Journal*. <https://www.libraryjournal.com/?detailStory=libraries-support-data-sharing-across-the-research-lifecycle>
- Dataverse Project. <https://dataverse.org/>
- De Gennaro, R. (1977). Escalating Journal Prices: Time to Fight Back. *American Libraries*, 8(2), 69–74.
- Dempsey, L. (2021). Library Collection in an Open Access world. In Proceedings WLIC Power of Transformation: open Access and Library Collections. IFLA. <https://www.ifla-wlic2021.com/events/sessions/power-of-transformation-open-access-and-library-collections>
- European Commission. (2017) "H2020 Programme. Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon 2020. Version 3.2, 21 march". http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf
- FOSTER. (2019). *Open Science Taxonomy*. <https://www.fosteropenscience.eu/taxonomy/term/7>
- Fressoli, M. (2018). Los desafíos que enfrentan las prácticas de ciencia abierta. *Teknokultura*, 15(2), 429-448. <https://revistas.ucm.es/index.php/TEKN/article/view/60616>
- GoFAIR. (2016). *FAIR Principles*. <https://www.go-fair.org/fair-principles/>
- Gómez, Nancy-Diana; Méndez, Eva; Hernández-Pérez, Tony (2016). "Social sciences and humanities research data and metadata: A perspective from thematic data repositories". *El profesional de la información*, 25: 4, 545-555. <http://dx.doi.org/10.3145/epi.2016.jul.04>
- Guajardo, M. (2020). Factores determinantes para la implementación del esquema de metadatos para repositorios de datos de investigación de la Política de Ciencia Abierta en México. In: Rodríguez, A. (Coord.) *La revolución de los datos bibliográficos, científicos y culturales*. (pp. 143-160). UNAM, Instituto de Investigaciones Bibliotecológicas y de la Información. http://ru.iibi.unam.mx/jspui/handle/IIBI_UNAM/8
- Howard Hughes Medical Institute. 2003. *Bethesda Statement on Open Access Publishing*. <http://legacy.earlham.edu/~peters/fos/bethesda.htm>
- IFLA. (2009). *Statement of International Cataloguing Principles*. https://www.ifla.org/wp-content/uploads/2019/05/assets/cataloguing/icp/icp_2009-en.pdf
- Max Planck Society. 2003. *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities* <http://openaccess.mpg.de/Berlin-Declaration>
- McNeill, Katherine. (2016). "Repository Options for Research Data". En *Making institutional repositories work*. United States of America: West Lafayette, Indiana: Purdue University Press.
- Mullen L.B. (2011). Open Access and Collection Development in Academic Libraries: Digitization to Discovery. Rutgers University. https://scholarship.libraries.rutgers.edu/discovery/fulldisplay/alma99103154985504646/01RUT_INST:ResearchRepository
- OMPI. (2016). *Principios básicos del derecho de autor y los derechos conexos*. OMPI. http://www.wipo.int/edocs/pubdocs/es/wipo_pub_909_2016.pdf
- Open Society Foundations. 2002. *Budapest Open Initiative*. <https://www.budapestopenaccessinitiative.org/read/>
- PUCP. (2019). *Portal de Datos Abiertos*. Perú: Pontificia Universidad Católica del Perú (PUCP). <https://datos.pucp.edu.pe/>
- Registry of Research Data Repositories. <https://www.re3data.org/>
- Revez, J. (2019). Opening the Heart of Science: A Review of the Changing Roles of Research Libraries Reprinted from Publications. In Oberländer, A. & Reimer, T. (Ed) *Open Access and the Library*. MDPI.
- SciELO Data. <https://scielo.org/es/sobre-el-scielo/scielo-data-es/>
- Smith, K. (2020). *Transitioning to the Next Generation of Metadata*. OCLC. <https://doi.org/10.25333/ragd-b343>
- Solano, V. (2021). *Costa Rica fortalece la gestión de datos de investigación, las visiones de acceso abierto y ciencia abierta*. Costa Rica: Consejo Nacional de Rectores. <https://www.conare.ac.cr/noticias/282-costa-rica-fortalece-la-gestion-de-datos-de-investigacion-las-visiones-de-acceso-abierto-y-ciencia-abierta>
- UN (2015). *Goals 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels* ODS 16.10. <https://sdgs.un.org/goals/goal16>
- UN. (2019). *Article 27. Universal Declaration of Human Rights*. https://www.ohchr.org/EN/UDHR/Documents/UDHR_Translations/eng.pdf
- UNAM. (2015). Lineamientos para la Integración y Publicación de las Colecciones Universitarias Digitales en el Portal de Datos Abiertos UNAM Colecciones Universitarias. *Gaceta UNAM*, 4727, 24-28. https://datosabiertos.unam.mx/informacion/docs/GA_D_LI_CCUD_20150924_Integracion_Publicacion_Colecciones_PDA_UNAM.pdf
- UNESCO. (1999) *Declaration on Science and the Use of Scientific Knowledge. Science for the Twenty-First Century: a new Commitment*. http://www.unesco.org/science/wcs/eng/declaration_e.htm
- UNESCO. (2021). *Draft text of the UNESCO Recommendation on Open Science*. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000376893?posinSet=7&queryId=64f6c09b-9508-4258-82a1-e195d9d38368>
- University of Leicester. (2020). "Research Data Definitions". https://www2.le.ac.uk/services/research-data/old-2019-12-11/documents/UoL_ResearchDataDefinitions_20120904.pdf
- University of Minnesota. (2020). "What is data?". <https://www.lib.umn.edu/datamanagement/whatdata#rep>
- Universidad del Rosario. (2016). *Portal Institucional de Ciencia Abierta*. https://cienciaabierta.urosario.edu.co/?_ga=2.6183541.73949541.1625717635-999329532.1625717635
- UNT (2020). *Collection Development Policy for Open Access and Born-Digital Resources*. <https://library.unt.edu/policies/oa-collection-development/>

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Thank You!!!

