Como aplicar os princípios FAIR ao ciclo de vida dos dados?

Data Talk no âmbito do grupo de trabalho

Formação e Competências para Gestão e Dados FAIR

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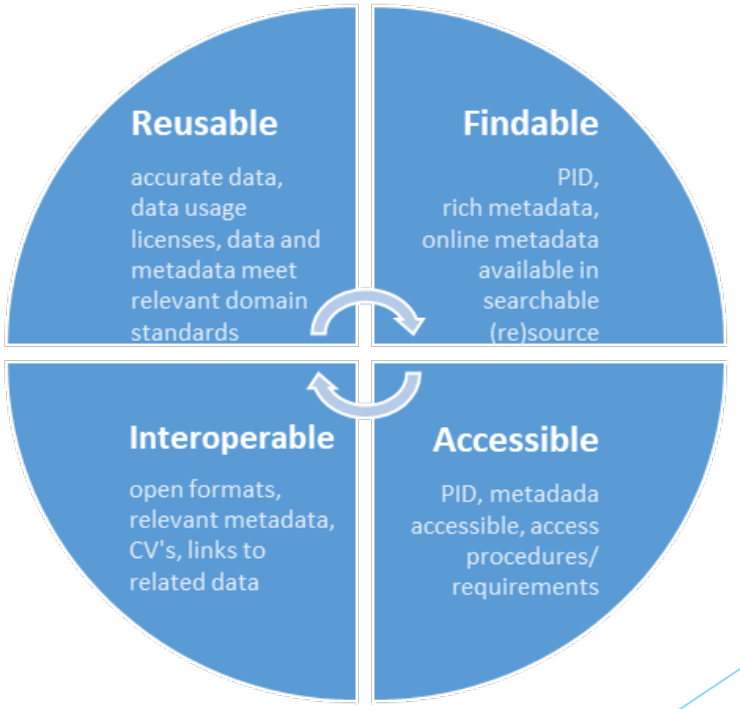
- **DMEG (Data Management Expert Guide):** designed by European experts to help social science researchers make their research data Findable, Accessible, Interoperable and Reusable (FAIR); different chapters of the guide correspond to the diverse but interrelated phases of Data Life Cycle.

- **DMP (Data Management Plan):** DMP contains descriptive aspects of the project's data acquisition, processing, analysis, preservation, publishing, and sharing (public access).



Documenting Data ⟺ the importance of Metadata ⟹ FAIR is 90% metadata

> The attention of researchers is increasingly directed to the phases of the research lifecycle in which data are published, shared, discovered and reused. One of the perceived ways to achieve *optimal reuse* is to make data FAIR (Findable, Accessible, Interoperable and Reusable) (Force 11, 2014; Wilkinson, et al., 2016). The FAIR Guiding Principles for scientific data management and stewardship. Sci. Data 3: 160018 https://doi.org/10.1038/sdata.2016.18

FAIR Data Stewardship ⟹ (FAIR) Data Stewardship is a responsibility of every researcher working with data

"Data Stewards are trained to professionally 'handle data'.

They ensure that research carried out at institutes, companies and in projects produces FAIR data along the data life cycle."

Importantly, data should not only be FAIR for humans but also for machines, allowing, for instance, automated search and access to data. Funders like the European Commission have drafted Guidelines on FAIR Data Management for the H2020 programme (European Commission, 2016).

Good Data Management is one way to support the FAIR Principles.

FAIR Implementation Profile

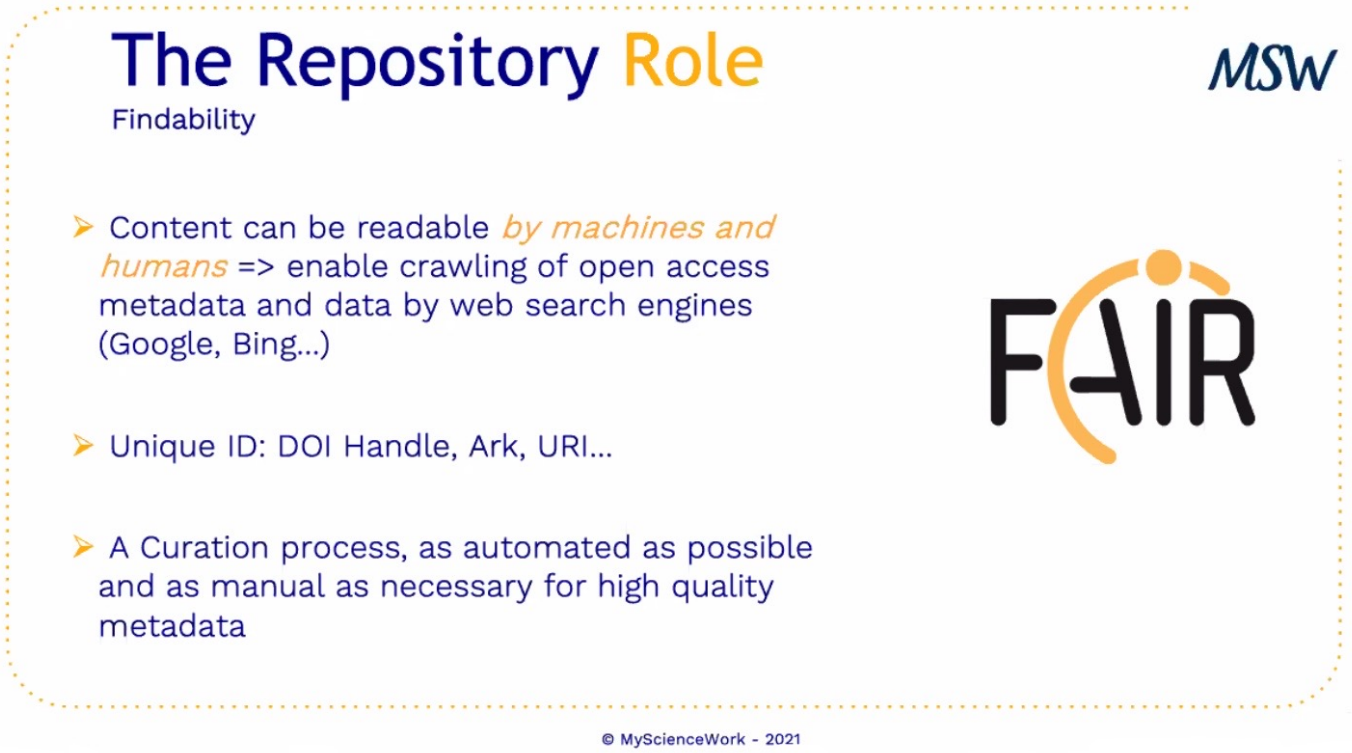
Formas de operacionalizar os princípios FAIR

FAIR Implementation Profile

FAIR principle	Question	FAIR enabling resource types	Your answers
F1	What globally unique, persistent, resolvable identifiers do you use for metadata records?	Identifier type	*e.g. PURL, DOI*
F1	What globally unique, persistent, resolvable identifiers do you use for datasets?	Identifier type	
F2	Which metadata schemas do you use for findability?	Metadata schema	
F3	What is the technology that links the persistent identifiers of your data to the metadata description?	Metadata-Data linking mechanism	
F4	In which search engines are your metadata records indexed?	Search engines	
F4	In which search engines are your datasets indexed?	Search engines	
A1.1	Which standardized communication protocol do you use for metadata records?	Communication protocol	
A1.1	Which standardized communication protocol do you use for datasets?	Communication protocol	
A1.2	Which authentication & authorisation technique do you use for metadata records?	Authentication & authorisation technique	
A1.2	Which authentication & authorisation technique do you use for datasets?	Authentication & authorisation technique	
A2	Which metadata longevity plan do you use?	Metadata longevity	
I1	Which knowledge representation languages (allowing machine interoperation) do you use for metadata records?	Knowledge representation language	
I1	Which knowledge representation languages (allowing machine interoperation) do you use for datasets?	Knowledge representation language	
I2	Which structured vocabularies do you use to annotate your metadata records?	Structured vocabularies	
I2	Which structured vocabularies do you use to encode your datasets?	Structured vocabularies	
I3	Which models, schema(s) do you use for your metadata records?	Metadata schema	
I3	Which models, schema(s) do you use for your datasets?	Data schema	
R1.1	Which usage license do you use for your metadata records?	Data usage license	
R1.1	Which usage license do you use for your datasets?	Data usage license	
R1.2	Which metadata schemas do you use for describing the provenance of your metadata records?	Provenance model	
R1.2	Which metadata schemas do you use for describing the provenance of your datasets?	Provenance model	

FIP Mini Questionnaire http://bit.ly/FIPminiquestionnaire

"FAIR Data: From principles to best practices - The Role of Repositories, Yann Mahé, March 2021, Webinar by MyScienceWork, https://www.mysciencework.com/publication/show/fair-data-principles-best-practices-5fcff693"



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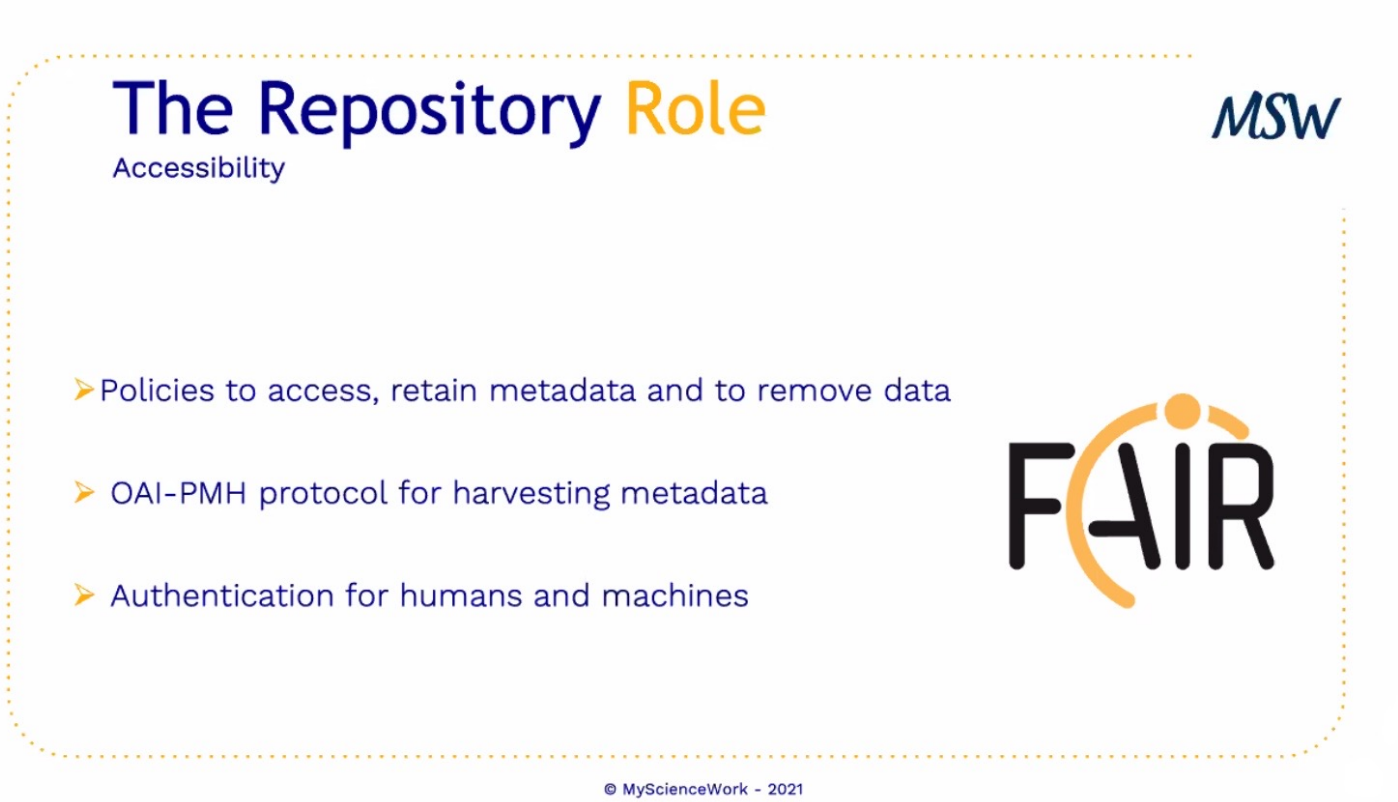

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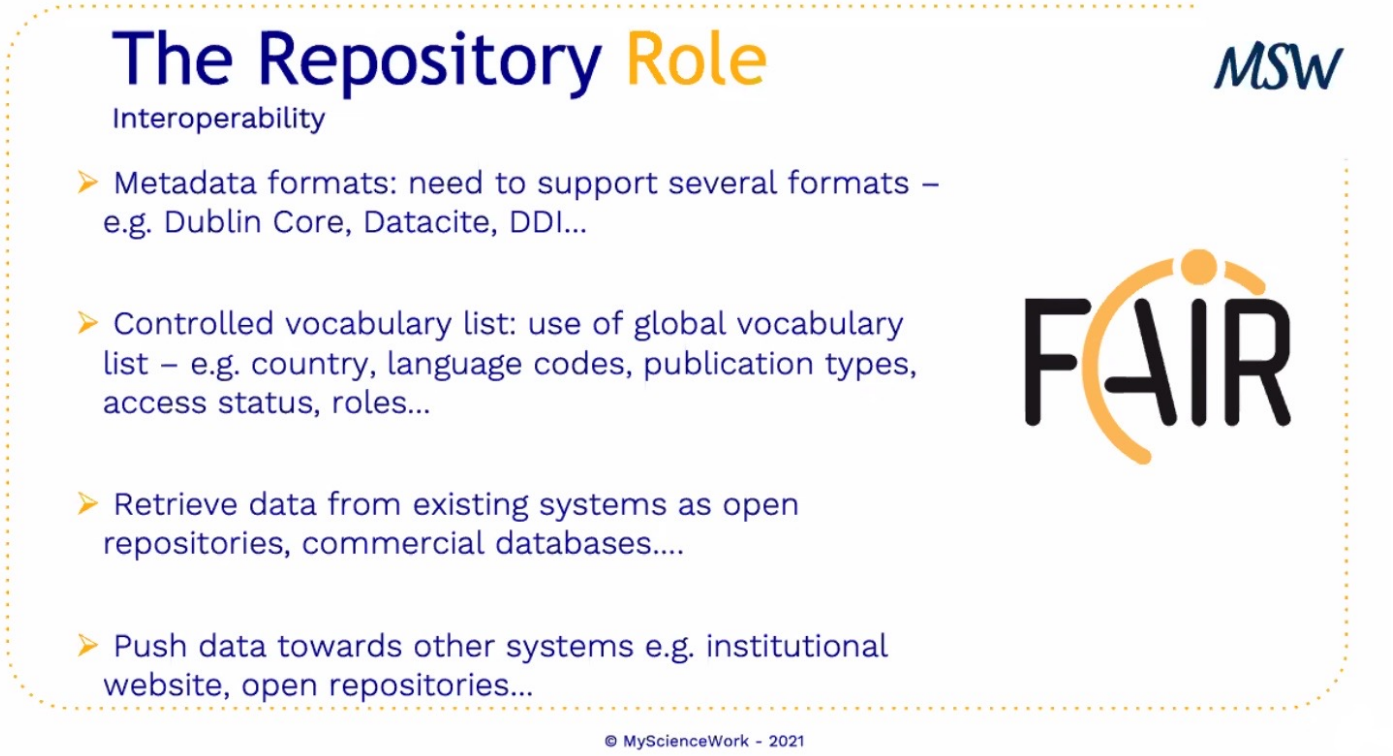

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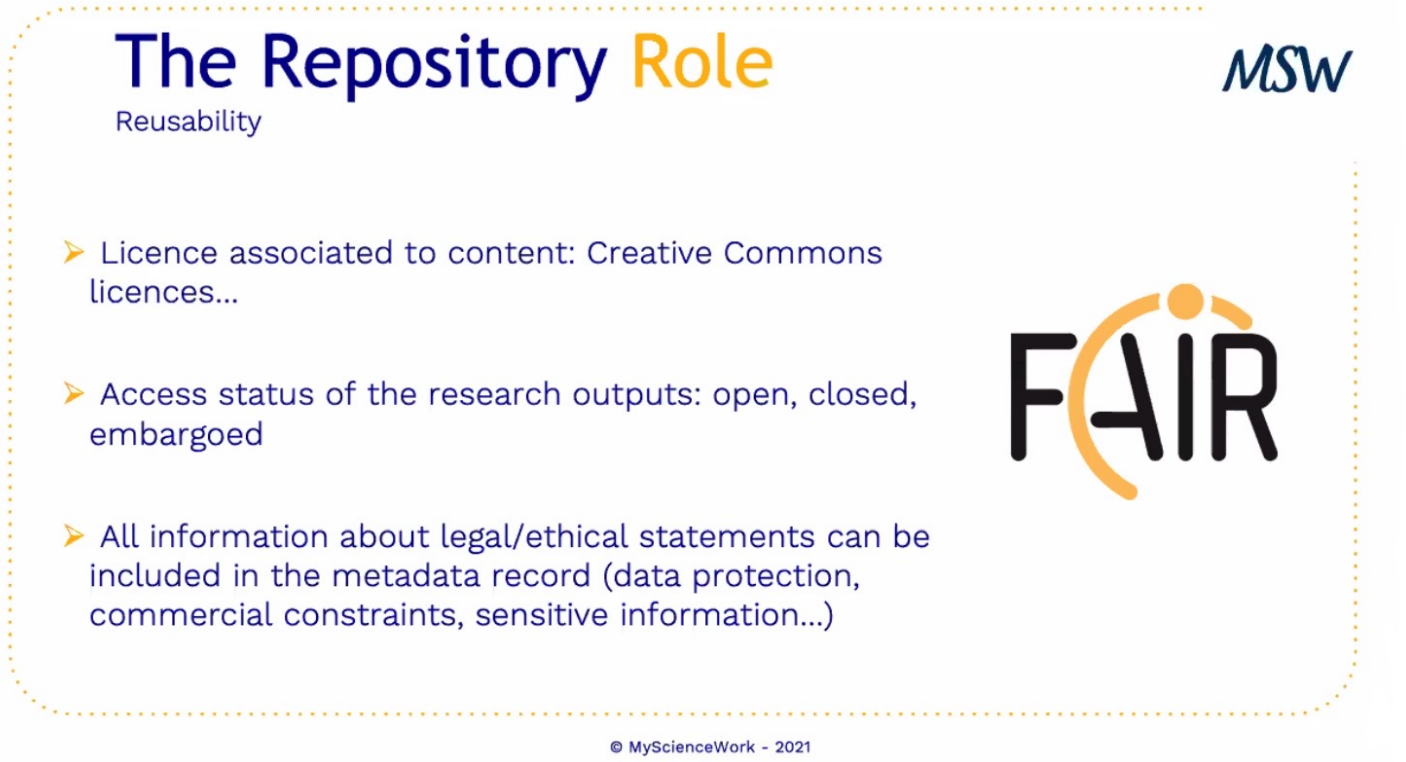

- https://www.fairsfair.eu/fair-aware

FAIR-Aware é uma ferramenta online que ajuda investigadores e gestores de dados a avaliar os seus conhecimentos sobre os requisitos para tornar os conjuntos de dados localizáveis, acessíveis, interoperáveis e reutilizáveis (FAIR), antes de os depositar num repositório de dados.

Outras referências para consulta:

- https://www.fairsfair.eu/fairsfair-data-object-assessment-metrics-request-comments
- https://www.fairsfair.eu/f-uji-automated-fair-data-assessment-tool
- https://www.ukdataservice.ac.uk/manage-data/lifecycle.aspx
- https://www.slideshare.net/UBL-CDS/let-your-researchbloom-practical-steps-for-fair-data
- https://www.researchgate.net/figure/Data-life-cycle-with-FAIR-principles-data-quality-and-governance_fig1_340737782
- https://www.thehyve.nl/articles/fair-data-strategy-for-data-value-lifecycle
- https://www.idigbio.org/wiki/images/5/52/DHD2019_DLC_FAIR_Citationv5.pdf

Obrigada pela atenção!

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