FAIR, CARE, TRUST Pathways:

- Principles
- Adoption, Implementation, and Deployment
‘FAIR, CARE, TRUST - Principles’

Research Data Alliance Pathways
https://www.rd-alliance.org/rdas-21st-plenary-programme
Version: July 2023

THIS PATHWAY IS ABOUT...
The FAIR, CARE and TRUST principles and their applicability to various research objects, including data, software, metadata and hardware.

RDA 21ST PLENARY SESSIONS

- Breakout 1: Metadata IG: Structuring Semantic Information with Respect to Conventional Metadata (Syntactic) Structures
- Breakout 1: Software Source Code IG: Mastering the Art of Research Software Metadata and Metrics
- Breakout 2: Ethics and Social Aspects of Data IG: Identifying and discussing key topics in ethics for the RDA Community: Developing together a revised agenda for the Ethical and Social Aspects of Data (ESAD) Interest Group
- Breakout 2: Birds of a Feather: Very Large Open Datasets for Machine Learning in Personalized Medicine
- Breakout 2: RDA / CODATA Data Systems, Tools, and Services for Crisis Situations WG: Advancing the RDA/CODATA Data Systems, Tools, and Services for Crisis Situations WG
- Breakout 3: Birds of a Feather: NTRO Gaggle - Boosting non text support through experiential and collaborative effort
- Breakout 3: Artificial Intelligence and Data Visitation (AIDV) WG: Transforming the AIDV-WG’s deliverables into horizontal actions across data disciplines, sectors, and systems: Engaging digital communities in incorporating ELSI in data and AI tools and systems for achieving the UN SDGs and real-world outcomes
- Breakout 3: Birds of a Feather: The Way to FAIR: From the instrument to the researcher -- Calibrating the ecosystem
- Breakout 3: Complex Citations WG: Complex Citations: Next steps towards a Demonstration Prototype
- Breakout 4: FAIR for Machine Learning (FAIR4ML) IG: Building towards FAIR for Machine Learning
- Breakout 4: Birds of a Feather: Let's talk about FAIR mappings! Towards common practices for sharing mappings and crosswalks
- Breakout 4: Birds of a Feather: Bridging the Data/HPC divide: lessons learned from the community talks
- Breakout 5: 2nd Birds of a Feather: Trusted / Secure Research Environments for Sensitive / Confidential Data: FAIRness for "Closed" Data and Processes
- Breakout 6: PID IG: Equity and Inclusion: universal access to PIDs
- Breakout 6: RDA/WDS Certification of Digital Repositories IG: TRUST Principles and Repository Certification Landscape

RELEVANT RDA GROUPS

- Artificial Intelligence and Data Visitation (AIDV) WG
- Blockchain Applications in Health WG
- CoreTrustSeal Maintenance WG
- CURE-FAIR WG
- Ethics and Social Aspects of Data IG
- FAIR Data Maturity Model WG
- FAIR Digital Object Fabric IG
- FAIR for Research Software (FAIR4RS) WG
- FAIR for Virtual Research Environments WG
- FAIR Principles for Research Hardware
- International Indigenous Data Sovereignty IG
- PID IG
- Raising FAIRness in health data and health research performing organisations (HRPOs) WG
- RDA / CODATA Data Systems, Tools, and Services for Crisis Situations WG
- RDA COVID-19
- RDA Privacy Implications of Research Data Sets IG
‘FAIR, CARE, TRUST - Principles’ cont.

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RELEVANT RDA GROUPS

- RDA/WDS Certification of Digital Repositories IG
- Reproducible Health Data Services WG
- Social Science Research Data IG
- Software Source Code IG
- Virtual Research Environment IG (VRE-IG)

See all RDA groups

RELEVANT OUTPUTS & RECOMMENDATIONS

- 10 Things for Curating Reproducible and FAIR Research
- A Fresh Look at FAIR for Research Software
- A Survey on Adoption Guidelines for the FAIR4RS Principles
- Array Database Assessment Recommendations
- Challenges of Curating for Reproducible and FAIR Research Output
- FAIR Data Maturity Model specification and guidelines
- FAIR Principles for Research Software (FAIR4RS Principles)
- FAIR4RS Adoption support
- Health Research Performing Organisations (HRPOs) FAIR Guidelines
- RDA Data Usage Metrics WG Recommendations
- Summary of Virtual Layer Recommendations
- The FAIR4RS Team Working Together to Make Research Software FAIR
- Top 10 FAIR Data & Software Things
- Use cases and identifier schemes for persistent software source code identification (V1.1)

See all recommendations & outputs

RDA DOMAIN AMBASSADOR

Allyson Lister
RDA/EOSC Future Domain Ambassador for standards, repositories and policies
📧 Read more & contact
💚 Meet other ambassadors

Celebrate a Decade of Data...

Read more about the RDA’s 10th Anniversary & see the event and activity series.
THIS PATHWAY IS ABOUT...
Practices and methods for the adoption, implementation and deployment of the FAIR, CARE and TRUST Principles.

RDA 21ST PLENARY SESSIONS

- Breakout 1: Birds of a Feather: Why aren’t we talking about Collections as Data?
- Breakout 1: ESIP/RDA Earth, Space, and Environmental Sciences IG: Where are the FAIR Earth, Space and Environmental Science Discipline Data Repositories?
- Breakout 2: Vocabulary Services IG: Building Collaborative Bridges: Fostering Collaborations within RDA
- Breakout 2: RDA / CODATA Data Systems, Tools, and Services for Crisis Situations WG: Advancing the RDA/CODATA Data Systems, Tools, and Services for Crisis Situations WG
- Breakout 3: Birds of a Feather: FAIRification of Genomic Tracks: data-driven life science through granular discovery of biological sequence annotations with uniform metadata
- Breakout 3: Research data needs of the Photon and Neutron Science community IG: Tools and Methods working towards the FAIR Facility
- Breakout 3: Artificial Intelligence and Data Visitation (AIDV) WG: Transforming the AIDV-WG’s deliverables into horizontal actions across data disciplines, sectors, and systems: Engaging digital communities in incorporating ELSI in data and AI tools and systems for achieving the UN SDGs and real-world outcomes
- Breakout 4: Birds of a Feather: Wind energy community standards
- Breakout 4: Birds of a Feather: Community-based catalogue of requirements for trustworthy technical repository service providers

- Breakout 4: Repository Platforms for Research Data IG & Domain Repositories IG: Data Repositories Discovering Unpublished and Diverse Data Usage and Impact
- Breakout 4: Birds of a Feather: Let’s talk about FAIR mappings! Towards common practices for sharing mappings and crosswalks
- Breakout 4: Birds of a Feather: Bridging the Data/HPC divide: lessons learned from the community talks
- Breakout 6: Education and Training on Handling of Research Data IG: Fiesta ETHRD-IG! Community celebration of education & training material and metadata richness
- Breakout 6: Life Science Data Infrastructures IG: Key aspects of FAIR for infrastructure solutions in the biomolecular life sciences
- Breakout 6: PID IG: Equity and inclusion: universal access to PIDs
- Breakout 6: RDA/WDS Certification of Digital Repositories IG: TRUST Principles and Repository Certification Landscape
- Breakout 6: Birds of a Feather: Describing Chemical, Physical and Biological samples digitally: Seeking harmonization

View the Plenary programme

RELEVANT RDA GROUPS

- Artificial Intelligence and Data Visitation (AIDV) WG
- Blockchain Applications in Health WG
- Brokering Framework Working Group
- CoreTrustSeal Maintenance WG
‘FAIR, CARE, TRUST - Adoption, Implementation & Deployment’ cont.

RELEVANT RDA GROUPS CONT.

- CURE-FAIR WG
- Data Conservation IG
- Data for Development IG
- Data Granularity WG
- Data policy standardisation and implementation IG
- Domain Repositories IG
- Education and Training on Handling of Research Data IG
- FAIR Data Maturity Model WG
- FAIR Digital Object Fabric IG
- FAIR for Research Software (FAIR4RS) WG
- FAIR for Virtual Research Environments WG
- FAIR Principles for Research Hardware
- FAIRsharing Registry: Connecting data policies, standards and databases RDA WG
- InteroperAble Descriptions of Observable Property Terminology WG (I-ADOPT WG)
- Libraries for Research Data IG
- Life Science Data Infrastructures IG
- Metadata IG
- National PID Strategies Interest Group
- National PID Strategies WG
- PID IG
- RDA / CODATA Data Systems, Tools, and Services for Crisis Situations WG

See all RDA groups

RELEVANT OUTPUTS & RECOMMENDATIONS CONT.

- Income Streams for Data Repositories
- Member survey on bridging the gap between funders and communities - perspectives on benefits and challenges of FAIR assessments V2.0
- Principles and best practices in data versioning for all data sets big and small
- RDA & CODATA Legal Interoperability Of Research Data Principles And Implementation Guidelines
- RDA Data Usage Metrics WG Recommendations
- Recommendations and Capacity Development Resource Kit
- Research Data Repository Interoperability Primer
- Research Data Repository Interoperability WG Final Recommendations
- Summary of Virtual Layer Recommendations
- Sustainable Business Models for Brokering Middleware to support Research Interoperability
- The FAIR4RS Team Working Together to Make Research Software FAIR
- The FAIRsharing Registry and Recommendations Interlinking Standards, Databases and Data Policies
- Top 10 FAIR Data & Software Things Use cases and identifier schemes for persistent software source code identification (V1.1)
- WDS/RDA Assessment of Data Fitness for Use WG Outputs and Recommendations

See all recommendations & outputs

RDA DOMAIN AMBASSADOR

Sara El-Gebali
RDA/EOSC Future Domain Ambassador for Life Science
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Meet other ambassadors

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THIS PATHWAY IS ABOUT...
Practices and methods for the adoption, implementation and deployment of the FAIR, CARE and TRUST Principles.
FAIR, CARE, TRUST - Principles
About: Discuss the FAIR, CARE and TRUST concepts to digital object
15 sessions: 5 BoFs, 7 IGs, 3 WGs

With Summary/Takeaways (8 sessions)

BO2: IG Ethics and Social Aspects of Data IG: Identifying and discussing key topics in ethics for the RDA Community: Developing together a revised agenda for the Ethical and Social Aspects of Data (ESAD) Interest Group


BO6: IG PID IG: Equity and Inclusion: universal access to PIDs

BO6: IG RDA/WDS Certification of Digital Repositories IG: TRUST Principles and Repository Certification Landscape

BO4: IG FAIR for Machine Learning (FAIR4ML) IG: Building towards FAIR for Machine Learning

Report in other pathways

BO1: IG Metadata IG: Structuring Semantic Information with Respect to Conventional Metadata (Syntactic) Structures (Semantics)

BO1: IG Software Source Code IG: Mastering the Art of Research Software Metadata and Metrics (Software)

BO3: WG Complex Citations Working Group: Complex Citations: Next steps towards a Demonstration Prototype (Data Lifecycles)
FAIR, CARE, TRUST - Principles
About: Discuss the FAIR, CARE and TRUST concepts to digital object

Without Summary/Takeaways (7 sessions)

BO2: BoF - Very Large Open Datasets for Machine Learning in Personalized Medicine (Cancelled)

BO2: RDA / CODATA Data Systems, Tools, and Services for Crisis Situations WG: Advancing the RDA/CODATA Data Systems, Tools, and Services for Crisis Situations WG

BO3: BoF - The Way to FAIR: From the instrument to the researcher -- Calibrating the ecosystem

BO3: WG Artificial Intelligence and Data Visitation (AIDV) WG: Transforming the AIDV-WG’s deliverables into horizontal actions across data disciplines, sectors, and systems: Engaging digital communities in incorporating ELSI in data and AI tools and systems for achieving the UN SDGs and real-world outcomes

BO4: BoF - Let's talk about FAIR mappings! Towards common practices for sharing mappings and crosswalks

BO4: BoF - Bridging the Data/HPC divide: lessons learned from the community talks

BO5: BoF - 2nd BOF: Trusted / Secure Research Environments for Sensitive / Confidential Data: FAIRness for "Closed" Data and Processes
Session introduced participants to various topics related to ethics and application of ethical standards in research, data science and policies. Special focus is how ethics can be implemented along the research data cycle and the role of RDA.

- We need a landscape map for data ethics along the research data cycle including examples from different areas taking into account the different principles/codes.
- Interdisciplinary and international differences regarding ethics need to be addressed and considered.
- We will move forward with specific actions integrating ethical aspects from the RDA community into a landscape (within a WG?)

- Introducing a new RDA/WDS TRUST Principles Outreach and Adoption Working Group
- Formulating a plan to implement the Working Group Case Statement
- Updates regarding certification standards and certified services
The meeting centered on global PID initiatives that focus on equity and accessibility, followed by a discussion on how best the RDA and specifically the PID IG can support these initiatives. We also asked participants to complete an online poll to help us determine future directions for the PID IG.

Globally, a number of institutions are working on preparing "testbeds" and demonstrators of FDO systems that build on different approaches. However, these are often discipline-specific or focus on specific aspects. We have not yet reached maturity on functionalities and technologies on the one hand, and sustainability and governance on the other.

While the FDO concept arose in academia, there is a large interest from industry to apply FDOs, not the least to increase efficiency, traceability and trust in production systems. Much can be gained by collaborating on standards, workflow models etc.

In order to broaden the participation of researchers, technologists and other stakeholders in the work and discussions around FDOs, efforts dedicated to training and awareness building must be stepped up.
The session provided a quick update on the efforts of the FAIR4ML IG since the last plenary, especially in the context of the two Task Forces (“FAIR4ML white paper and the ML lifecycle”, and “Metadata schemas for ML”). Following that there was a discussion around potential interactions both at the organizational level and around standards on metadata and registries. Particular focus was around the ML life cycle and the metadata required to better describe them.

- Work will continue on defining both the ML lifecycle and the metadata across various planned activities and hackathons
- The IG has a standing community-wide monthly call open to anyone interested
With Summary/Takeaways (11 Sessions)

BO1: BoF - Why aren't we talking about Collections as Data?

BO3: Joint session: IG Working with PIDs in Tools IG, IG National PID Strategies Interest Group: PID Exchange - a curated information resource for PID adopters

Report in other pathways
BO4: Joint session: IG Repository Platforms for Research Data IG, IG Domain Repositories IG: Data Repositories Discovering Unpublished and Diverse Data Usage and Impact (Data Lifecycle)
BO1: IG ESIP/RDA Earth, Space, and Environmental Sciences IG: Where are the FAIR Earth, Space and Environmental Science Discipline Data Repositories? (Discipline)
BO4: BoF - Wind energy community standards (Discipline)
BO6: IG Life Science Data Infrastructures IG: Key aspects of FAIR for infrastructure solutions in the biomolecular life sciences (Discipline)
BO2: IG Vocabulary Services IG: Building Collaborative Bridges: Fostering Collaborations within RDA (Semantics)
BO6: IG Education and Training on Handling of Research Data IG: Fiesta ETHRD-IG! Community celebration of education & training material and metadata richness (Training)
BO6: IG PID IG: Equity and Inclusion: universal access to PIDs (FAIR/CARE/TRUST - Principle)
**FAIR, CARE, TRUST - Adoption, Implementation & Deployment**

About: Practices and methods for the adoption, implementation and deployment of the FAIR, CARE and TRUST Principles. 19 Sessions: 7 BoFs, 8 IGs, 2 WGs, 2 Joint

Without Summary/Takeaways (8 sessions)

**BO2:** RDA / CODATA Data Systems, Tools, and Services for Crisis Situations WG: *Advancing the RDA/CODATA Data Systems, Tools, and Services for Crisis Situations WG*

**BO3:** BoF - FAIRification of Genomic Tracks: data-driven life science through granular discovery of biological sequence annotations with uniform metadata

**BO3:** IG Research data needs of the Photon and Neutron Science community IG: *Tools and Methods working towards the FAIR Facility*

**BO3:** WG Artificial Intelligence and Data Visitation (AIDV) WG: *Transforming the AIDV-WG's deliverables into horizontal actions across data disciplines, sectors, and systems: Engaging digital communities in incorporating ELSI in data and AI tools and systems for achieving the UN SDGs and real-world outcomes*

**BO4:** BoF - Community-based catalogue of requirements for trustworthy technical repository service providers

**BO4:** BoF - Let’s talk about FAIR mappings! Towards common practices for sharing mappings and crosswalks

**BO4:** BoF - Bridging the Data/HPC divide: lessons learned from the community talks

**BO6:** BoF - Describing Chemical, Physical and Biological samples digitally: Seeking harmonization
About: Practices and methods for the adoption, implementation and deployment of the FAIR, CARE and TRUST Principles.

BO1: BoF - Why aren’t we talking about Collections as Data?

This session introduced participants to the emerging discourse around Collections as Data through a series of presentations from professionals engaged in promoting FAIR and computational reuse of (primarily, but not limited to) cultural heritage collections.

- There is considerable interest in the topic and enough enthusiasm to launch an Interest Group. Co-chairs will convene a meeting with participants following the Plenary to discuss key actions for the group.
- Digital preservation needs to be a bigger part of the conversation and there may be opportunities for an RDA group to liaise with existing preservation groups/communities.
- We need to move forward with an inclusive mandate for ‘digital heritage’ FAIR data instead of ‘cultural’ vs ‘natural’ heritage. Collections cover a wide range of disciplinary and cultural knowledges.
About: Practices and methods for the adoption, implementation and deployment of the FAIR, CARE and TRUST Principles.

BO3: Joint session: IG Working with PIDs in Tools IG, IG National PID Strategies Interest Group: PID Exchange - a curated information resource for PID adopters

The two IGs shared each other’s goal and activities. Each group has its own focus areas and together have some overlapping activities. The two group shared the proposition of establishing an central information exchange about PIDs, and invited the participants to share topics they’d like to see covered in this resource.

- There remains a lot of questions about PIDs from the community and a resource like PID exchange can be helpful (see mentimeter results), however it is important to consolidate existing resources before creating new content, to tackle the fragmentation problem first.
- PID Exchange requires a host, and support in development and maintenance.
Common themes

- FAIR continues to be a central topic, more conversations arising about ethics, trust and equality.
- As AI/ML is rapidly progressing, there are topics how to apply FAIR to AI/ML.
- A new IG may emerge on culture heritage data, and two WGs from IGs.
- Groups with overlapping topics join effort on common topics.