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VREs/Virtual Labs/Science Gateways: How could FAIRness badges for providers, developers and users of VREs look like?



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By Sandra Gesing

Collaborative session notes https://docs.google.com/document/d/1bplYp6hARZpeDmPEguGDTflNSYcNPwLusp=drive-link

Group(s) submitting the application:

<u>Virtual Research Environment IG (VRE-IG)</u>

Meeting objectives:

VREs are predestined to support many aspects of FAIR because of their characteristics to provide a workspace for collaboration, sharing data and simulations and/or workflows. The FAIR for VRE Working Group has worked on a checklist to measure FAIRness in science gateways. This list considers how to address the complexity in regard to which target group is addressed – developers or users – and the granularity such as VREs as software frameworks, services, APIs, workflows, data and simulations. We assume that not only VREs as software frameworks are FAIR but that they also are FAIR-enabling for the digital objects they contain. The objective of this session will be how to recognize and incentivize that providers, developers and users are actively working towards FAIRness of

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digital objects. The idea for this session is to address this via badges. It probably makes sense to split the badges for the four principles Findable, Accessible, Interoperable and Reusable. There are many open questions beyond this granularity such as how to create badges, who gives such badges, what are the rules for the duration of badges?

Meeting agenda:

0-10 min Introduction to IG and FAIR4VRE working group (Sandra Gesing)

10-50 min – Panel – How to incentivize researchers to aim for FAIRness of their digital objects?

(Moderator: Sandra Gesing, Panelist: Chris Erdmann, Isabelle Perseil, Claire Stirm, Kheeran Dharmawardena, Zhiming Zhao)

The panelists will present about their involvement with FAIR and/or VREs. They will discuss which steps in regard to FAIRness they prioritize and whether they think there are low hanging fruits they recommend to start with supporting FAIR in VREs. What are existing incentives for researchers to invest the extra time in supporting FAIR?

50-90 min Group discussion and preparing for a new working group (Moderator: Andreas Rauber)

- How to create badges that reflect achievements of a person or of a project or a community in a VRE?
- Who gives such badges?
- Can badges be given automatically for some actions or does it need to be always manually?
- What would badges look like regarding granularity?
- What is the lifetime of a badge?
- Is FAIRness evaluation maybe too complex to address via badges?

Target Audience:

This session is aimed at anyone who is or has been involved in using, developing or maintaining any form of online collaborative environment or their individual components.

In preparation for this meeting, attendees could refer to the notes from the previous sessions from past RDA Plenary meetings that focused more on understanding the commonalities and differences of the different VRE/SG/VL platforms from the different global regions and collaboration tools. Attendees could think about what kind of acknowledgement for work towards FAIRness would be rewarding to them.

Group chair serving as contact person:

Sandra Gesing

Brief introduction describing the activities and scope of the group:

VREs are synonymous with Science Gateways (SGs) in the USA and Virtual Laboratories (VLs) in Australia, and are increasingly being used to support a more dynamic approach to collaborative working across the internet. The VRE-IG will explore all aspects of existing and planned future VRE/SG/VLs with the aim of moving towards common policies and best practices, such as those now being promoted by the European EOSC, the US XSEDE and the Australian Research Data Commons (ARDC).

The VRE IG acts as a longer-term organization responsible for tracking and contributing to the evolution of VRE/SG/VL technologies, particularly as they relate to data access. It will also seek to engage with those seeking to make use of these online technologies in an effort to identify the necessary technical aspects, social and community building practices, required skills, as well as governance issues and best practice required to support a more coordinated approach to the development of the collaborative environments that enable data sharing and in situ online processing.

At this meeting we focus on aspects for rewarding providers, developers and users of VREs for aiming at FAIRness for their digital objects. Additionally we aim at setting up the next working group after FAIR4VRE is finalized.

Short Group Status:

The group is established and has existed for eight years. The VRE IG aims to act as a longer-term organization responsible for tracking and contributing to the evolution of VRE/SG/VL technologies, particularly as they relate to data access. Since the 14th Plenary we have added additional meetings between the RDA plenaries and we plan to form working groups on specific topics discussed during the plenaries. This IG will function as umbrella group for such working groups and led to the FAIR4VRE working group that has finished its work.

Type of Meeting:

Working meeting

Additional links to informative material:

- 20th Plenary FAIR4VRE WG Gothenburg: https://www.rdalliance.org/plenaries/rda-20th-plenary-meeting-gothenburghybrid/draft-recommendations-making-vres-fair-and-fair
- 18th Plenary IG virtual: https://www.rdalliance.org/plenaries/rda-18th-plenary-meetingvirtual/vresvirtual-labsscience-gateways-fairness-sufficient-2
- 17th Plenary IG virtual: https://www.rdalliance.org/plenaries/rda-17th-plenary-meeting-edinburghvirtual/vresvirtual-labsscience-gateways-visions
- 16th Plenary IG virtual: https://www.rdalliance.org/plenaries/rda-16th-plenary-meeting-costa-ricavirtual/vresvirtual-labsscience-gateways-good
- 15th Plenary IG virtual: https://www.rd-alliance.org/towardscommon-reference-architecture-vres
- 14th Plenary IG Helsinki: https://www.rd-alliance.org/virtualresearch-environments-working-towards-building-commonreference-model-and-catalogue-design
- 13th Plenary IG Philadelphia: https://www.rd-alliance.org/igvirtual-research-environment-vre-ig-rda-13th-plenary-meeting
- 12th Plenary IG Gaborone: https://www.rd-alliance.org/igobservational-data-information-ig-vre-joint-meeting-rda-12thplenary-meeting
- 11th Plenary IG Berlin: Virtual Research Environments How do I find them and what skills do I need to build and use them?
- 10th Plenary IG Montreal: Understanding VREs/SGs/VLs: planning a roadmap for sustainable collaborative development
- 9th Plenary IG Barcelona: Virtual Research Environments: coordinating sustainable online research environments across multiple infrastructures
- 8th Plenary IG Denver: VREs/Virtual laboratories/science gateways: opportunities for developing a more coordinated approach to support interoperability across different systems
- 7th Plenary BoF Tokyo: Kick-Off Meeting to establish the Virtual Research Environment Interest Group

Avoid conflict with the following group (1):

FAIR Data Maturity Model WG

Avoid conflict with the following group (2):

<u>FAIRsharing Registry: Connecting data policies, standards and databases RDA WG</u>

Meeting presenters:

Sandra Gesing, Andreas Rauber, Kheeran Dharmawardena, Zhiming Zhao, Chris Erdmann, Isabelle Perseil, Claire Stirm

Are you willing to host a second, repeat, session at a different time zone?:

Yes

