Pursuing the growth of knowledge through global access to hardware for science

What:

The ambition of The Open Science Hardware community, is to support the pursuit and growth of knowledge through global access to hardware for science. Open
Science Hardware means sharing designs for scientific hardware that anyone is freely able to use, modify and commercialize. The success depends in part on the
availability and accessibility of open data. This research project aims to identify barriers to the adoption of FAIR data principlesThis proposed research is to
improve the uptake of FAIR principles by the Open Science Hardware research community, in response to the call to reuse and optimize RDA data-sharing
concepts in the EOSC context. The project builds upon the FAIR4RH Charter and contributes to the further development of the IG FAIR Principles for Research
Hardware. Expert interviews, documents and case study analysis will identify barriers and enablers for the adoption of FAIR principles and help to propose
actionable insights for the research community to improve their research to become better available and useful

for others to further build upon.

Who:

Freyja van den Boom, MSc is a multidisciplinary researcher interested in anticipatory governance of emerging technologies

Biography:

Dr. Freyja van den Boom, MSc is a multidisciplinary researcher interested in anticipatory governance of emerging technologies. She has recently obtained her PhD on the topic of regulating the connected car ecosystem and personal data flows, and previously worked as academic researcher, trademark and design attorney, lecturer and academic and artistic researcher on various topics including regulating cross-border data flows, privacy and legal and ethical questions posed by human-AI interactions. She is currently developing a research practice that combines socio-legal with methods from arts, design and future studies to help improve the discussions on whether, when and how to address the disruptive impact of digital innovations in societies to ensure these help us move towards more desirable futures.

Scientific Domain:

cross-disciplinary research on regulating emerging technologies, AI and Data governance

Your Promotion and Networking:

Promotion of domain-specific Open Science practices/EOSC/RDA at meetings and conferences, publications and presentations Including International

- During the RDA IG meetings and by setting-up a special working group within my own network to share insights and opportunities with.
- 2023 Open Hardware Summit to present the project and actively gather a group of experts in the field to further work with.
- International Data Week 2023 in Salzburg: present findings for discussion and feedback
- EOSC Symposium in Madrid in September 2023
- Contact relevant groups and communities for sharing insights,interviews and feedback on the recommendations, discuss uptake opportunities incl with the OSHW-certification
- Monitor events in Europe relevant for contributions (national events, meet-ups, conferences) And the events and meetings related to the EOSC.
- Actively organize to present the work and (draft) findings within the relevant communities to obtain feedback and discuss adoption.
- Inspire the interview/survey participants to become ambassadors to help improve adoption.

The insights from the interviews and follow-up discussions will provide actionable insights for the Research Data Alliance and the FAIR4RH IG in particular on the adoption of the FAIR4RH principles, for the Open Hardware

(OSHW) community to become involved in and have guidance on making data available according to the FAIR principles, and for the EOSC-Future project to help achieve its aim for a "Web of FAIR Data and services" for science in Europe by gaining insights from the experiences of researchers with the EOSC portal and marketplace.

The research will be documented and shared with the IG and presented for feedback at relevant future opportunities such as the thematic workshop series to commemorate 'A Decade of Data: Celebrating 10 Years of the RDA; Upcoming RDA Plenaries and events such as the International Data Week 2023 in Salzburg.

I am also a member of GOSH and OSHA and will continue to work towards building bridges and sharing knowledge between our various communities who share the same
goal.

After the project ends I will remain involved in the IG and continue to present and promote the findings, the FAIR principles, RDA and EOSC by submitting abstracts for
conferences and publications to further strengthen and align the different communities with a shared goal to promote open data for research. Further opportunities are provided through my involvement with GOSH (https://openhardware.science/events/) and for example aligning with the OSHWA Certification, which provides an easy and
straightforward way for producers to indicate that their products meet a uniform and well-defined standard for open-source compliance.

The project's activities and outputs are [featured on the RDA website](#).

Your Connection to RDA WG/IG or CoP:

As an active member of the Research Data Alliance (RDA), I have been involved in various working groups and discussions related to legal and ethical challenges for open science research. I have proposed and actively participated in several interests and working groups to contribute my knowledge in the field of data governance, regulation, ethics, and research and science communication. have been a co-chair of the Privacy Implications of Research Data Sets Interest Group and the Teaching TDM on Education and Skill Development Working Group. I am a member of the Legal Interoperability IG and relevant for this research of the FAIR for Research Software group and IG for defining FAIR principles for research hardware

Your Outputs:

2+ publications (incl (zine)little guide/poster for researchers how to do it FAIR)
2+ Social media/ blog posts
2+ Conferences (posters/presentations)
Contribution to the OSHWA best practices
(https://www.oshwa.org/sharing-best-practices/

Country:

The Netherlands