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Forum 3: Designing a FAIR-Compliant Repository System:

Looking FAIR-Compliance from a socio-technical perspective

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User-centered systems are important.

If researchers can’t *find* repositories or *publish* easily, FAIR dies in practice even if the checklist passes.

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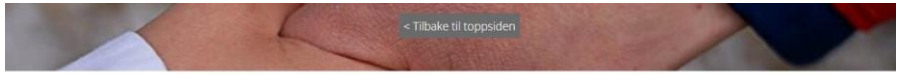
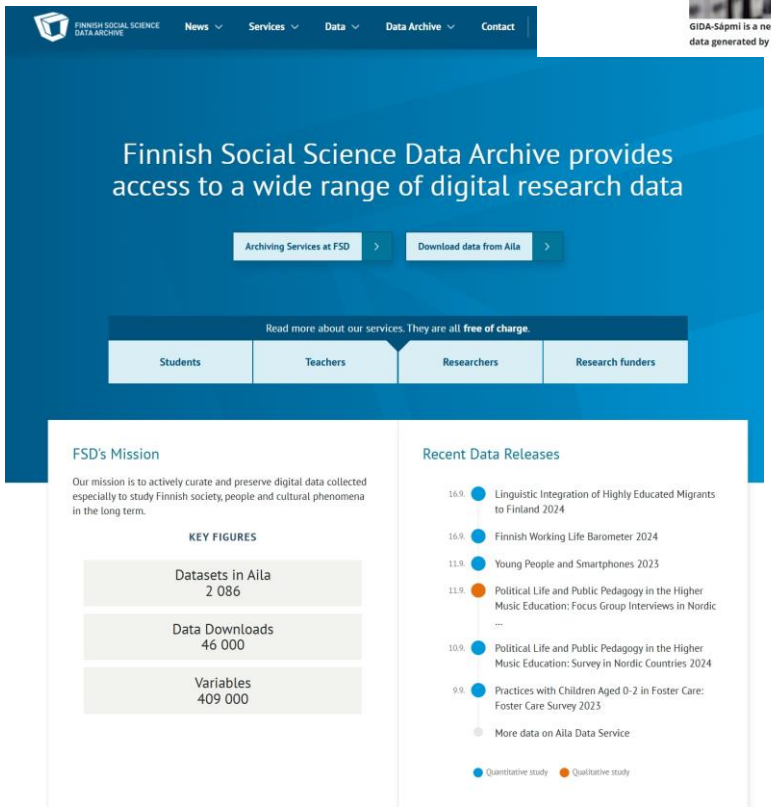
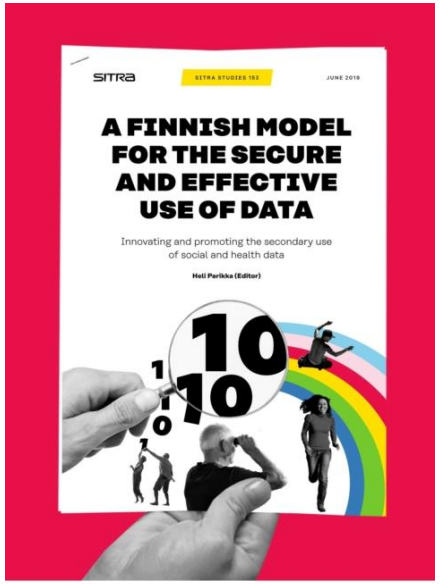
Regional Context Matters in FAIR Design – Examples from Finland

- Beyond global standards (e.g. ORCID, metadata principles), how does FAIR manifest locally?
- What counts as Findable, Accessible, Interoperable, Reusable in Finland?
- After building repositories, success depends on the Human Layer → user support & communication.







Helpful Principles and Concepts for Repository Design

- **FAIR Principles:** Findable, Accessible, Interoperable, Reusable (Wilkinson et al., 2016)
- **TRUST Principles** for making repositories trustworthy – Transparency, Responsibility, User focus, Sustainability and Technology (Lin et al., 2020)
- **CARE Principles** for Indigenous Data Governance – Collective Benefit, Authority to Control, Responsibility, and Ethics (Carroll et al., 2020)

- Service design – helpful methods for implementing FAIR/TRUST/CARE in ways people can actually use i.e. putting the user at the center
- Infrastructural Inversion – focusing on the important but invisible aspects of a repository (e.g. metadata crosswalks and repository policies). Does the 'invisible' work? What type of users do these aspects prioritize? Is the design intentional? (Bowker & Star, 1999; see also Narlock et al., 2024)

Wilkinson et al. The FAIR Guiding Principles for scientific data management and stewardship. Sci. Data 3, 160018 (2016)
Lin et al., (2020). The TRUST Principles for digital repositories. Scientific Data, 7(1), 144. https://doi.org/10.1038/s41597-020-0486-7
Carroll et al. 2020. The CARE Principles for Indigenous Data Governance. Data Science Journal, 19: 43, pp. 1–12. DOI: https://doi.org/10.5334/dsj-2020-043
Bowker, G.C. and Star, S.L. (1999) Sorting Things Out: Classification and Its Consequences. Cambridge: MIT Press. Available at: https://doi.org/10.7551/mitpress/6352.001.0001
Narlock et al. (2024) 'Knowledge Infrastructures Are Growing Up: The Case for Institutional (Data) Repositories 10 Years After the Holdren Memo', Data Science Journal, 23: 46, pp. 1–17. DOI: https://doi.org/10.5334/dsj-2024-046