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A Sociotechnical Typology of Scientific Software

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Full report coming soon!

Abstract

User experience (UX) work is key to the development of usable, sustainable software. Within scientific software development the adoption of UX methods is increasing but not yet common enough. The **Scientific softWare Research for User experience, Design, Engagement, and Learning (STRUDEL)** project launched in 2022 to develop resources for scientific software development that are needed to improve user experience, software quality, and software sustainability. One key project objective was the identification and classification of key characteristics of scientific work and software into a *typology*. This report documents the STRUDEL Typology, explores how this type of conceptual tool may be leveraged by project stakeholders, and discusses tentative stakeholder feedback along with open questions and future work.

Keywords — scientific software development, user experience, sociological typology, sociotechnical, software sustainability, STRUDEL

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