swissuniversities

Swiss Open Research Data Grants (CHORD): Track A 1st Call
List of Approved Projects

Call Deadline: 02.08.2022

Decision by the Delegation Open Science: 09.12.2022

Overview Approved Projects Track A 1st Call

Submissions: 17   Approved projects: 14   Funding rate: 82%

Short Title	Full Title	Leading Institution	Partner Institution(s)	Project Manager	Total Costs (CHF)	Funds Requested (CHF)
SIRRO	Strengthen the Interoperability and Reusability of Research Outputs	University of Zurich (UZH)	UniBE and UNIGE	Eva Furrer	152'200	75'000
CHORD-talk-in-interaction	Data-sharing skills in corpus-based research on talk-in-interaction	Università della Svizzera italiana (USI)	UNIL, UniBS and UniNE	Johanna Miecznikowski	150'000	75'000
MoveD	Open Research Data in Swiss Movement La-boratories	Zurich University of Applied Sciences (ZHAW)		Eveline Graf	147'000	73'500
OMNI-BENCH-MARK	OMNIBENCHMARK: Fostering open continuous method assessments	University of Zurich (UZH)	UNIGE and SDSC	Mark Robinson	150'000	75'000
CoORDinates	CoORDinates - Towards a Consensus-based Open Research Data Standard for the Indoor Positioning Community	Haute école spécialisée de Suisse occidentale (HES-SO)		Grigorios Anagnostopoulos	150'000	75'000
Semantic TEI	Semantic Text Publishing as Open Research Data	Università della Svizzera italiana (USI)	AdWL Mainz, SARI, DaSCH and WBK Bern	Elena Chestnova	150'000	75'000
cancer care	Moving ORD practices into cancer care	University of Zurich (UZH)		Michael Krauthammer	150'000	75'000
ORDXplore	ORD-Xplore: Finding Commonalities Across Heterogeneous ORD Collections	University of Zurich (UZH)		Jürgen Bernard	150'000	75'000
ORDVET	Open Research Data in Veterinary Medicine	University of Bern (UniBE)	UZH	Tosso Leeb	150'000	75'000
OHiS	Oral Health in Switzerland [OHiS] "Putting Health into the Mouth"	University of Zurich (UZH)	UniBS	Tim Joda	87'000	43'500
ACCORD	Anti-Corruption Consultations on	Università della Svizzera italiana (USI)	HSG, UNIL, UNESCO, OGP and ODC	Jean-Patrick Villeneuve	166'250	75'000
CF-ORD	Critical FAIRness. An Exploratory Study on Open Research Data in Art and Design	University of Applied Sciences and Arts Northwestern Switzerland (FHNW)		Lucie Kolb	149'572	74'786

ord47	Open research data for the 7th art	Università della Svizzera italiana (USI)		Prof. Fabio Crestani	150'000	75'000
OMeGA	Open Metadata Generator App	Bern University of Applied Sciences (BFH)	UniBE and UniFR	Robert Lzicar	149'543	74'771

Short Summaries of the Projects

Abstracts by the applicants:

SIRRO

Strengthen the Interoperability and Reusability of Research Outputs

Rigorous design, transparent reporting, and reproducible workflows are major factors strengthening the interoperability and reusability of research data and are hence crucial to increase the value of research data and, more broadly, the value of research outputs. The Swiss Reproducibility Network (SwissRN; https://www.swissrn.org/) is a peer-led consortium aiming to promote and ensure exactly such rigorous research practices in Switzerland. It combines the experience of experts from across a wide range of disciplines and aims to benefit from interdisciplinary synergies. The aims of the current project are to 1) fortify SwissRN as an existing community engaging with ORD practices that have the goal of strengthening interoperability and reusability, and 2) intensify the efforts of SwissRN towards a systematic assessment of the impact and obstacles in the implementation of ORD practices. More specifically, the focus of this proposal is on the ORD practices of preregistration (the deposition of a detailed research plan ahead of data collection on a repository) and data management planning as measures to avoid bias and to increase quality. The project contains four parts: 1) Assessment of researchers' understanding and perception of ORD practices across disciplines and their perceived impact on careers. 2) Assessment of types of research outputs that are already produced and disciplinary differences herein. 3) Assessment of hurdles and incentives for a community to adopt preregistration and data management practices. Focus in 3) is on a specific field: animal studies. 4) Develop and dispense appropriate training activities on preregistration, data management practices and good research practices in general.

CHORD-talk-in-interaction

Data-sharing skills in corpus-based research on talk-in-interaction

Audio-video recorded and transcribed corpora of spoken language in interaction are collected by a diversity of disciplines in the social sciences and the humanities. They are particularly complex and offer several challenges to ORD practices. The project aims at identifying the conditions that must be fulfilled in order to prepare and treat audio-video corpora of spoken language in interaction as ORD in a meaningful way. The applicants describe, analyse and assess existing ORD practices related to audio-video interactional data, on the basis of experiences and expertise in the fields of interactional linguistics, conversation analysis and dialogue-oriented argumentation studies. They explore possibilities of improvement, with a particular focus on researchers' data-sharing skills related to corpora of spoken language in interaction and on the Swiss situation. The applicants engage in a theoretical reflection on the challenges that these data raise in terms of ORD and on what this example reveals more generally about ORD practices as socio-technological practices in the scientific domain. They engage with the concerned disciplines and communities and evaluate procedures to disseminate relevant knowledge in these communities.

MoveD

Open Research Data in Swiss Movement Laboratories

Movement laboratories (MLs) are a focal point of various health-related research disciplines such as rehabilitation, medical product development, and clinical analysis. Although Switzerland altogether supports twelve clinical and research centered MLs, no standards regarding curation, documentation, and publication of the acquired data have been established yet. Possible reasons may be the diverse types of institutional integration and associated research areas that organize the respective MLs. However, owing to the similarities in raw-data and data-collection methods, open research data (ORD) involves much potential for reuse, which aids to accelerate the advancement of the associated research fields. A proof of demand for human movement-related data can be derived from 55'445 downloaded files of the Norm Gait project from October 2021 to July 2022. The MoveD project seeks to meet this demand and further promote data-sharing. Accordingly, a tailored guideline on research data management (RDM) practices will be developed in a joint package of recommendations for data-sharing in MLs. Based on a survey on national and international practices, fitting standards will be explored and evaluated in consultation with a sounding board, whose members are to represent the national MLs. The outcome of the project will contribute to the current attempt at setting up a national infrastructure for data exchange between clinical MLs in a project by University's Children's Hospital Basel (UKBB). The recurrent consultation meetings with the sounding board, will foster an ORD awareness and behavior in the respective disciplines and establish the foundation of a community.

OMNIBENCH-MARK

OMNIBENCHMARK: Fostering open continuous method assessments

In an increasingly data-centric world, there is an explosion of competing methods to process and model datasets, and it is important to know the relative merits (e.g., performance) of them. By introducing broader patterns of open science practices, including open data and especially open research code, we aim to make method performance assessments (benchmarks) more accessible and impactful to the community. Our initiative, OMNIBENCHMARK, developed in collaboration with the Swiss Data Science Center, provides a clear path forward to drastically improve all scientific aspects of benchmarking via the "open continuous benchmarkization" concept. We are poised to improve not only the efficiency and transparency of (computational) methods research, but also the robustness and usability of state-of-the-art methods for various end-users. The aim of this 'Explore' project is to understand how exactly to use and roll out an open benchmarkization strategy primarily in computational biology: we will explore how to best implement ORD practices, linking open code, open data, and metadata, while having benchmarks run in a continuous way. We will engage first with methodological community to promote a culture change towards open and collaborative method evaluation (which is not the current standard), and then convince method consumers (e.g., data analysts, scientists interpreting results) of the merits of an open and continuous approach.

CoORDinates

CoORDinates – Towards a Consensus-based ORD Standard for the Indoor Positioning Community

The community of indoor positioning research has identified the need for a paradigm shift towards more reproducible and open research. Over the last years, a slowly increasing tendency of openly sharing data and code has been observed in field, facilitating the establishment of baselines and benchmarks, assisting the reproducibility, verifiability, and comparability of scientific results. Nevertheless, accompanying research results with ORD still constitutes the exception rather than the rule in publications of the field. Moreover, since there exist no relevant standards or suggested guidelines, important aspects regarding the data format, the metadata and the overall documentation are typically decided individually by the authors. The data that might accompany scientific publications of the field usually do not undergo peer review as the published manuscripts does, and therefore the extent to which those data are well documented and reusable in practice relies on the rigor and the motivation of the authors. In this project, we aim at exploring the existing landscape of ORD within the Indoor Positioning community, specifying guidelines leveraging experiences of existing ORD practices of other fields, moving towards a community consensus on the ORD practices that the Indoor Positioning community can adopt. To achieve these goals, we will engage active researchers and other stakeholders with track record on ORD sharing, planning research synergies which will culminate in a public event at the most prestigious forum of this community. The outcome of the project will be a clear step towards a consensus-based ORD standard for the Indoor Positioning community.

Semantic TEI

Semantic Text Publishing as Open Research Data

This project is conceived as an extension to existing practices and response to existing needs. It addresses currently poor state of open data in the field of textual scholarship, starting from but not limited to digital scholarly editing, by developing a Semantic TEI ontology and associated prototype tools that will make it easier to share and re-use large volumes of textual data. The project will pave the way to developing possibilities for publishing text and textual data in ORD-conformant ways which do not exist at the moment beyond niche environments (DTS/CTS). It will work with an existing community around TEI which is functional and well-developed in representing text but limited in Linked Data capabilities. The project will expand the existing community and practices by making it possible to represent text in the form of knowledge graphs while exploiting the advantages of an established standard. The result will be an expansion to the TEI standard that will be ready for integration into Semantic web, while remaining easily communicable to practitioners. The potential benefits of the project are not limited to digital editing scholars or even to the humanities overall, as they will offer new possibilities for any branch of science that publishes or works with text.

cancer care

Moving ORD practices into cancer care

This project will explore and test ORD principles in cancer care. The project will first mobilize the cancer community at UZH (using the workshop and topic meeting format) to discuss the challenges and opportunities of ORD in the oncology domain. Subsequently, the project will install a pilot installation of an established ORD approach (Beacon technology) to test the sharing of cancer data.

ORDXplore

ORD-Xplore: Finding Commonalities Across Heterogeneous ORD Collections

In Switzerland, many research data repositories and digital editions already exist, aiming at implementing ORD practices based on FAIR principles. The heterogeneity of individual editions often leads to nicely developed individual indexing and search systems but, however, hampers the unified access to digital objects through more global digital library systems (DLS), aiming at supporting multiple digital editions at once. An ultimate goal would be standardization and unification of services across digital editions, allowing researchers and other interested stakeholders to access, find, and re-use research data from multiple sources and digital editions by using more centralized access, search, and exploration support.

This Track A exploration project goes one important step towards this goal. We will investigate, explore, and evaluate a promising corpus of 14 digital editions provided by the Zentrum für Digitale Editionen (ZDE) at UZH, supported by the University Library and Zentralbibliothek Zürich. First, we will identify unifying characteristics and features across those 14 editions. Second, we will analyze these features for commonalities and differences between editions. Third, we will design and develop a web-based prototype for the interactive visual data exploration, allowing librarians and other stakeholders to gain insight into unifying characteristics of ORD collections, so far unexplored. Finally, we will validate and reflect on project results, to define requirements and guidelines as a method for the development of edition projects (technology, standards, and metadata). Our method on standardization will enable more sustainable access, re-use, and enhanced research with ORD collections and digital editions in the age of digitalization.

ORDVET

Open Research Data in Veterinary Medicine

Veterinary medicine is an essential part of the One Health concept. Animals suffer from similar diseases as humans (e.g. cancer, infectious diseases, inherited diseases, obesity, diabetes, etc.). Veterinary research therefore has implications not only for the treatment of individual animals, but also to human medicine or basic science. The use of health-related data from privately owned animals may be subject to legal restrictions, but these are different and less strict than for human health data. With the ORDVET project, we would like to raise awareness for responsible data management within the Vetsuisse Faculty and educate all stakeholders on ORD practices and FAIR principles. In addition to this communication effort, we will also develop a concept for establishing a standardized classification of diseases comparable to the ICD-11 or SNOMED CT systems in human medicine. This effort will be led by the animal pathology institutes in Bern and Zurich. The Vetsuisse Biobank houses half a million tissue samples with a wealth of associated metadata. A refined and structured classification of these samples and their associated metadata in the course of a FAIRification process would massively increase their value for research. Developing internationally harmonized standards is also a prerequisite for making the data (and potentially also the biological samples) available via the NExT search interface of the Swiss Biobanking Platform. In conclusion, the ORDVET project shall initiate a long-term effort to develop standards for data exchange in veterinary medicine between Bern and Zurich as well as the global research community.

OHiS

Oral Health in Switzerland [OHiS] "Putting Health into the Mouth"

Although it is widely recognized that oral health is an important indicator of systemic health and quality-of-life, the causal relationships are still poorly understood. To fill this knowledge gap, the project "Oral Health in Switzerland" [OHiS] proposes an innovative oral health research strategy based on the principles of open research data and connecting the Swiss university dental centers in Zurich, Basel, and Bern. The envision of OHiS is to facilitate personalized oral health using Big Data and methods of artificial intelligence and machine learning.

The aim is to build and establish a new university research platform with a web-based network solution to produce epidemiological population statistics on oral health in Switzerland, identify dental risk factors, determine the correlation between oral/systemic health, and enable personalized health prediction. The hypotheses are that machine learning methods will uncover new risk factors for diseases and reveal hitherto hidden links between oral and systemic health; and secondary, predictive models will facilitate the refinement of preventive strategies and patient-specific treatments to build the basis for subsequent nationwide initiatives promoting lifelong oral health, improving the quality-of-life, and addressing health disparities.

Based on the results obtained, a "Digital Dental Twin" for treatment simulation will be developed that will allow clinicians and patients to interact with each other. Moreover, the development of an open access web application "Swiss Oral Health Explorer" for voluntary self-reporting of dental health and the creation of guidelines for the collection, processing, and analysis of dental health data is planned.

ACCORD
Anti-Corruption Consultations on Open Research Data

Open Government is a central theme for effective governance and sustainable development today. The Open Government Partnership (OGP), a multistakeholder platform launched by the Obama Administration, and other ventures like UNESCO's Universal Access to Information initiative have accelerated discussions and reforms in this field. It is believed that open mechanisms such as transparency, participation, and accountability lead to better policy design, more significant impact, and enhanced democratic legitimacy. Openness is viewed as a particularly effective tool to deal with hidden policy deviances such as corruption. Unfortunately, empirical research on the impact of open data on cor-ruption is still scarce. One cause is that there are only a few datasets available through governments, often small or too poorly structured to be used for empirical research. As for data generated by scholars and civil society, it is fraught with low comparability and proprietary issues. Open Research Data (ORD) is not on the radar in this broad community. To address these issues, this project aims to identify the data needs of scholars and practitioners dealing with governance and anti-corruption. In addition, it will assess the level of ORD maturity in this community and by association in the broader governance field. The project will also collaborate with existing ORD infrastructures related to the field and with other scholars working on public sector data. By addressing the demand side rather than the usual governmental institutional supply side, this project will clearly structure the practical requirements for conducting impactful evidence-based research in an ORD logic. A collaboratively written manual will document data needs and ORD maturity level. The manual will be prepared in a way so that not only the anti-corruption scholars and practitioners can reuse it but also other communities interested in data published by the public sector.

CF-ORD

Critical FAIRness. An Exploratory Study on Open Research Data in Art and Design

Exploring open research data (ORD) in art and design is essential to the transdisciplinary discourse and development of open research data. "Critical FAIRness" is an experimental study that investigates questions of "accessibility" and "re-use" in regard to research data in the fields of art and design. The project aspires to define methods and techniques to generate ORD – findable, accessible, interoperable, and re-useable information collected, observed, generated, or created in a research process. Drawing on ongoing SNSF research projects from the Critical Media Lab and MAKE/SENSE Ph.D. program at the FHNW Academy of Art & Design, the project explores the status and significance of data in practice-based research in art and design. It further experiments with different modes and methods of sharing and re-using and defines publishing processes for data of selected research projects. This case study-based approach was designed to engage hands-on with the needs of researchers in the field, to unearth field-specific issues linked to ORD, and hence foster the implementation of sustainable ORD practices in art and design in dialog with the producers of data. The project will be developed in a series of workshops and concludes with a closing symposium presenting best practice case studies and recommendations for standards of ORD practices in art and design. A publication will document the project's results and disseminate them to peer communities in art and design.

ord47

Open research data for the 7th art

The project originates from the idea that, in the age of cultural digitalization, archives (of whatever kind) are no longer the once dusty and passive repositories of defunct data. Now they are considered and understood as highly relevant repositories of knowledge. They are once more active promoters as well as agents of cultural change and discourse. In the "Age of Big Data" they have finally become manageable and accessible in an ever-increasing manner, as new forms of cultural agency, outreach and empowerment play an ever-greater role in global discourse. In this project we focus on the archives of the Locarno Film Festival as an exemplary instance of archives of cinematographic material, in particular the critical reviews and the documentation that revolves around the cinematographic piece of work. Currently the archives of the Locarno Film Festival, the RSI Radio-televisione Svizzera at Lugano and the Cinémathèque Suisse at Lausanne constitute up until now a by and large dormant legacy in relation to the Locarno Film Festival, the overriding importance of which we are only beginning to grasp and become aware of. The open research data paradigm allows kissing this patrimony finally awake, removing it from the amnesic bowels of archival shelving. This will only be possible on the basis of an inter- and trans-disciplinary, inter-medial and inter-connective initiative which relies on the publication of a shared ontology to provide access to the archive content as linked open data (LOD) (Heath et al, 2011).

OMeGA

Open Metadata Generator App

Researchers that adopt Open Research Data (ORD) practices can face obstacles when asked to generate accurate metadata such as information on authors, creation date or context. Moreover, discipline-specific requirements to metadata format and content pose an additional challenge. To facilitate the adoption of ORD practices, this project seeks to create, prototype, and test a web-based, interactive tool to guide researchers through the generation of metadata. Following a user-centred design (UCD) approach, the tool will be developed in close exchange with social science researchers from three institutions: the Department of Social Work (BFH), the Institute of Sociology (UniBE), and the Department of Social Sciences and the Department of Psychology (UniFR). By fostering exchanges on ORD practices among the participating researchers, the project will contribute to community building.

We start by developing an understanding of the research community's needs and determining the required information and standards. We then involve researchers in each phase of the design process through the iterative application of agile software development approaches and tools, co-creation, and exchange. In parallel, we assess the accessibility of the tool, the researcher's attitudes toward using it, and its potential to increase the likelihood of ORD practices. The outcomes are user experience (UX) and user interface (UI) requirements applied to a coded prototype and validated by users. This can provide the basis for a fully functional web service aimed at a broader community of researchers working with social science methods.