

Linking funding to research output and facilities through the Finnish Research Information Hub

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Background

Enormous amounts of metadata on research are being constantly collected and managed in institutional, national and international services and systems. For the time being, information has been difficult to locate and use, and databases and information systems containing metadata are not linked with one another. Anyone needing data, for example, for research being conducted in Finland, has to search in several different places.

Moreover, researchers are still forced to enter the same information, for example, on their publications, in several different places, such as CRISes, research data or publication archives, networking services, research funders' systems and various other services. In addition to this, when changing organizations, they also have to re-enter their data in the new organization.

Towards a Finnish Research Information Hub

CSC - IT Center for Science is establishing the **Research Information Hub** at the behest of the Finnish Ministry of Education and Culture. The planned service will serve as a warehouse for metadata on, for example, publications, research data, research facilities, researchers, projects and research groups.

There are already separate national data warehouses for publications, research data and research infrastructures in Finland, which compile information from institutional CRISes, archives etc. The Research Information Hub aims to link these currently fragmentary data warehouses as well as other potential data sources with one another. ORCID will play an important role in linking identifying researchers and linking output. Consolidating the metadata into a single research information hub will provide a single, uniform, open and comprehensive access point for all the research being conducted in Finland, and the information will be available for everyone. The goal is not to increase the amount of reporting and administrative work, but rather to compile and share existing information from institutional and output-specific systems.

The contents of the Hub will be available for anyone in a public web portal. Moreover, the research information hub will not be just a single website - it is a service entity, in which research metadata is collected and interlinked in a form that allows it to be easily used in any other service. It will also provide an application programming interface (API) for systems and applications inclined to re-use the metadata.

Funding organizations, universities and other organizations and systems act as both providers and users of the information hub and thus facilitate the creation of links between research projects and research output and facilities.

Funding organizations as information providers

As part of the Research Information Hub, a national research funding registry will be implemented in 2018 together with all major Finnish research funders, the Academy of Finland, Business Finland (former Tekes), and private foundations and funds. The aim is to collect a comprehensive up-to-date registry of on-going and finished research projects in Finland. The funders will automatically transfer their data on funding

decisions from their own registers to the hub after each decision round. The information will include for example the title, description, scientific fields, length and the provided grant of the project, as well as researchers, research groups and organizations involved in the project.

Through the Hub, the information from funding organizations will be usable, for example, in the universities and other research organizations, which can import the funding decision data in their CRIS systems and link it to researchers and research outputs. The links can be provided back to the national Hub as part of the metadata of publications, research data etc.

Funding organizations as information users

The funding organizations will be able to import information on research output from the Hub to their own application and reporting systems. By way of integrating the Hub in funder's reporting system, the researchers are enabled to pick up their own publications and research data in the project reports. Hence, the need for manual input will be reduced. What is more, the funder gets information of the research outputs being funded in a structured format. Similarly, a researcher can pick up a publication list or other information from the Hub into the funding applications in the funders' system.

Again, these procedures create links between the project and its output and facilities, which in turn can be automatically exported to the Hub from the funder's system.

In the long run, the goal of the Hub is to provide a cohesive access point, where the information on Finnish research would be organized in easily accessible and understandable entities of researchers, projects, publications, research data, facilities and other research activities.