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## **Introducing the FSD's repository management & discovery tools and software development approach**

The Finnish Social Science Data Archive (FSD) is the national service provider to all universities in Finland and for CESSDA (Consortium of European Social Science Data Archives), and the leading national research infrastructure supporting management, preservation and access to social science and humanities data from surveys and interviews.

This poster showcases Aila and Metka, two new repository management tools for the FSD. Aila is a web based data service portal that facilitates access to data and serves as the main tool for data dissemination. In Aila our customers are able to search, browse and review data descriptions on study and variable level (e.g. question texts or response alternatives), and after registration, download data directly from the service portal. One of the key features of Aila is its ability to manage each dataset according to the conditions set by the data producer in the deposition agreement. A dataset is downloadable only if the conditions are met. On the other hand, freely available data are managed by the same system which allows the FSD to monitor popular downloads and other usage patterns.

Metka, at the time of writing in alpha testing, manages the data archive's metadata production process. Metadata is entered to Metka, which in turn feeds other systems at the data archive (e.g. Aila). In addition to descriptive (DDI Codebook) metadata, it facilitates creation of structural and long-term preservation metadata (e.g. structure of archival and dissemination packages, persistent identifiers, management rights, embargoes). Together with the systems currently in place this significantly simplifies building services based on our rich metadata because it allows repurposing metadata from a single authoritative source. Metka is open source and can be obtained from Github. This poster introduces the functionalities of Aila portal and shares the experiences gained during the first year in operation, and presents Metka's features and shows how it connects to FSD's services and other systems.

With these two systems we have defined the software platform that the FSD will utilise in building new tools for the archive and services for our customers. For example, Shibboleth is consistently used for user authentication and OAI-PMH interface for providing metadata for harvesting, allowing all interested parties to use our metadata for their needs. The considerable effort invested in building these two systems has greatly assisted in modernising our software development and made it more efficient and more distributed.

Finally, this poster introduces a remote entitlement management concept that we are integrating in collaboration with the CSC - IT Center for Science. The role of this piece is to manage the whole workflow needed for granting an access to datasets that are only available for download after an explicit permit from the depositor, PI, research group or IRB. The current manual process managed by the FSD staff will be replaced by a workflow that begins in Aila when a user requests access, then opens a dialogue between the data user and data depositor, and returns to Aila once the dataset is ready to be downloaded. The FSD maintains an observatory role and has an option to interact in case mediating is needed.

This is a moderately technical poster presented by a moderately non-technical person. As a combination the approach that the conference attendees will see is a mixture of customer, developer, and staff member experience with some serious clues on what is under the bonnet. I'm happy to share the good and the bad (and there aren't the ugly) we have experienced during our journey so far.