Personas

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Hydrologist

Artemis is a hydrologist focusing on modeling flash floods.

She did her masters in geography at the Heidelberg University. Her interests is how to model past events of flash floods with the intention to detect vulnerable regions that countermeasures can take action. For her research she has to ask federal agencies for data. She also collaborates with other researchers in hydrology to improve her knowledge.

In her daily work she stores the obtained data on a local network server that is accessible to her colleagues at the university. Most of the data are shape files and time series. As the primary data is not in a normalized format she spends a huge part of her time with extracting, transforming and loading (ETL) the data. The secondary data is then stored in a separate directory for modified data. The resulting files are also manually annotated with metadata within the ArcGIS software she uses. For the model itself a number of individual files has to be loaded in the GIS tools that's way she has transitioned the data in a local geodatabase file to speed up the process.

For the analysis she spends the rest of her time tweaking configuration files and parameters before the actual hydrological simulation can be launched.

GIS Specialist

Ares is a geographical information systems (GIS) specialist and he did his PhD in geography at ETH Zurich. He is interested in the geospatial analysis of North Rhine-Westphalia by vulnerability and exposure using GIS tools. Using methods as machine learning he is able to perform an assessment on the data without undergoing the computationally demanding process of modeling.

For his work Ares is reading a journal article every morning and spends most of the day with maintaining his geodatabase and codes. He has set up a his own database management system which has interfaces to GIS tools, Web and analysis codes. Due to the importance of the data, a regular incremental backup is performed on his database.

Often colleagues are interested in the data which he simply provide by giving them access to the database. However, as there are sensitive data, he is under the obligation not the give free access to the public. Ares is also using statistical analysis codes and he has great success automating the analysis of North Rhine-Westphalia which he couldn't have done manually.

Persona for EREE Show Case

J. is a researcher in the environment, resources and economics group. Therefore he often deals with the data from the different disciplines. For example, for his research on the influence of the global market on the production and trade of fish, he uses both data about the fish catches as well as trading predictions all over the world.

J. invests a lot of his time in searching, finding and analyzing the appropriate data for his research. At the moment he has to search in different databases, download it and then run the analysis scripts on this data on local computers. That is why he would appreciate to work in one system for different steps of his workflow, instead of switching between different databases and systems.

He believes, that his work could be more productive, if his workflow was smoother.

Persona for Tumor Research Show Case

C. is a researcher at a tumor center. Her latest research concerns the question of the influence of environment on development of tumors. She got the idea to investigate the correlation between the special type of tumor and the environment where the patients live. Moreover, it could be valuable to see whether there are the some related socio economic data for this region too.

C. would like to discuss her idea with her colleagues during the next colloquium, so she would like to share her search results with them.

Search Personas

Pattern	Situaton	Scenarios
Discovery Search Explorativ/Browsen → "Auf gut Glück" → "Unspezifische Suche"	• Explorative Suche bei keiner definierten Forschungsfrage • Advanced Search ist interessant: Andere Art von der explorativen Suche	• If the user uses a search engine, he prefers a keyword based fulltext search • The user prefers a google like keyword search over an advanced search, when he researches a new topic or uses a new platform • Wants to get suggestions of similar search terms (based on frequency of search terms in the metadata) • Forscher finden Geodaten in grober Auflösung als OpenData über die Suche, jedoch werden diese kaum genutzt. Es spielt eine eher untergeordnete Rolle
Targeted Search → Ich kann meine Frage mit den Ergebnissen beantworten	• Suchen nach Schlüsselworten, dann filtern der Ergebnisse → definierte Forschungsfrage • Man kennt sich in einem eigenen Forschungsfeld aus: Man kennt wo man Daten herbekommt. Allerdings eher aus der Erfahrung her oder durch die Bekanntschaften, Konferenzen	• He does use advanced search only if simple search does not yield suitable results • The user prefers the advanced search, when he knows that some variable has to be there, "known item search", or if he knows specifically where to search • TODO: wants to collect images manually based on visual properties • Get links to DNA sequence data for species • Forscher beziehen die hochaufgelösten Geodaten von Datenprovider wie den Behörden, Messnetzen oder Wetterdiensten.