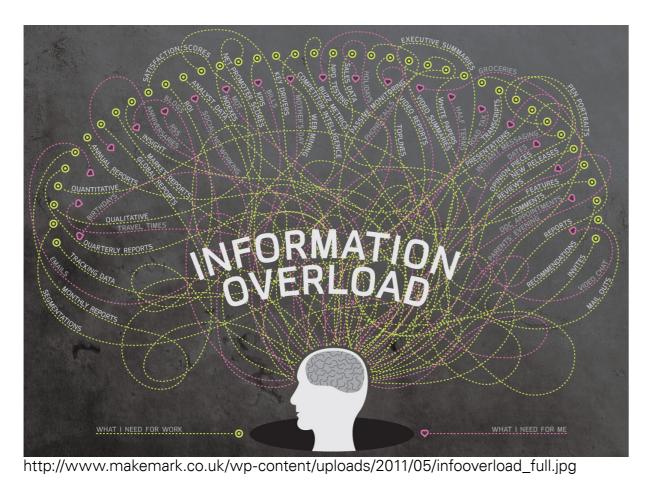


Medienzentrum http://www.tu-dresden.de/mz, MOVING http://moving-project.eu/

MODELLING USER REQUIREMENTS TO DEVELOP A PLATFORM ENABLING DATA-SAVVY INFORMATION PROFESSIONALS



Challenge: Managing and mining research information

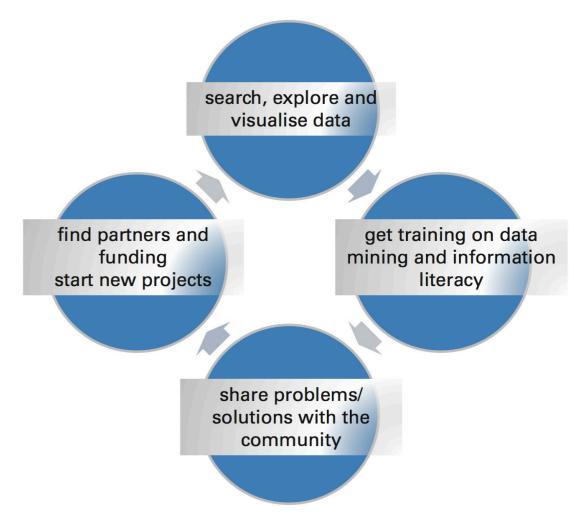
Nowadays scientific related information can be derived from social networking sites (i.e. ResearchGate) and content sharing platforms such as Slideshare or scientific blogs next to classical sources like library catalogues, online archives and databases. Scientists are not only facing the problem of assessing the best content but also the problem of information overload due to the number of possible sources which is increasing rapidly. **The question is how to systematically locate and evaluate the vast information resources.**

Therefore, the automated analysis of large literature corpora is of high interest for scientists, e.g. through data and text mining as well as visualisations. Next to this, it is necessary to ensure competencies in dealing with these methods by **improving information literacy competencies** to actually interpret the results.

Approach: The MOVING platform

The project **MOVING** (TraininG towards a society of data-saVvy inforMation prOfessionals to enable open leadership Innovation) aims **to develop a platform** which can be used on the one side for **assessing large text collections and free online content with data and text mining methods automatically**. On the other side the platform should provide **information, training and exchange** offers in the broad field of digital information management to further educate the users of the platform. A first public prototype will be launched in late 2017.

A first crucial step of developing the platform is to identify user needs and requirements [1,2]. In the case of managing and mining research information the target groups are young researchers (master and PhD students) from the social sciences.



Methodology: Modelling user requirements

One approach to gain understanding about the end users and their needs is to build use cases and scenarios [1]. Therefore, scenarios which are related to regularly research tasks were set up: **state-of the-art on a research topic, finding suitable partners for research projects** that are active in the respective research fields, **strategic decisions in the field of science funding and accompanying training materials.** W.r.t. these scenarios the following research questions were developed:

RQ1: Which approaches, strategies and experiences do young researchers have with unstructured information and the use of web-based tools?

RQ2: Which already used, desired or necessary functionalities and tools for research workflows are needed by young researchers for the platform?

Use case and scenarios

Managing and mining research information

- state-of the-art on a research topic
- finding suitable partners for research projects
 strategic decisions in the field of science funding
- accompanying training materials

Design

Interview study with 9 master and PhD students from social sciences at Technische Universität Dresden in November and December 2016

Analysis

- qualitative data analysis with MAXQDA
- main categories for codes are the scenarios

Results: User requirements



Visualisation of the search results

"That you can recognize which terms are relatively strongly tied to each other, because they are always used in the same context, for example, and which are rather out of place... that would be a great thing."

SEARCH Q

Understand how the search works

"Simply to have a little bit more control over what is filtered or what the criteria are for the algorithm. But I can also imagine that it is more difficult for people who are not so versed to familiarize themselves with it."



Training to master information flood

"Young researchers and generally speaking young people have to train themselves a selection function or have to be trained in order to somehow master this flood of information and to find out what is really important for their own research."

References: [1] Dathan, B., & Ramnath, S. (2015). Object-Oriented Analysis, Design and Implementation: An Integrated Approach. Cham [a.o.]: Springer. [2] Balzert, H. (2011). Lehrbuch der Software-Technik. Heidelberg [a.o.]: Spektrum.

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