

These documents contain a number of auxiliary materials for the CHIIR 2020 paper

A Workflow Analysis Perspective to Scholarly Research Tasks

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The paper analyses the workflows of two research projects in the domain of Digital Humanities. The analysis is based on coded interviews for two project collaborators for each project. There are three types of auxiliary materials:

1. Interview guide for interviewing research project collaborators of the two projects analysed in the paper (see pages 2-3 of this PDF).
2. Codebook for coding research activities of the analysed research projects. This is based on the NeDiMAH Methods Ontology (NeMO), extended with a few activities that have no equivalent in NeMO (pages 4-6).
3. Full workflow diagrams of both research projects, RP1 (page 7) and RP2 (page8). Please see the paper for descriptions of the projects.

INTERVIEW GUIDE

Research project on evaluation model based on scholarly primitives

Interviewers: Liliana Melgar, Sanna Kumpulainen, Marijn Koolen

1. Introduction
 - a. What is your background?
 - b. Which are your main research interest(s)?
2. Project: We will interview you about project X (*overall project, e.g., “migrants...”*)
 - a. Can you tell us a bit about the project?
 - b. How do you estimate how far are you with the project now? How much is still left to conclude it?
3. Sub-project
 - a. Could you please select a current “subproject” that is concluded and which you can show us how you did your research?
 - b. Please describe it...
4. Initiation
 - a. How did your project start?
 - b. How did you come up with this topic/project?
 - c. Did you have any problems initiating this project/topic?
5. Research design / finding sources
 - a. Which are the main research questions?
 - b. Have the research questions changed on the course of the project?
 - c. Which sources do you use in your project?
 - d. How did you find the sources you needed for your project?
 - e. Which tools/systems do you use to locate your sources?
 - f. How did you select the sources? How did you come up with those sources?
 - g. Did you have any problems in formulating your research questions or in finding your sources?
6. Research execution / working with sources / information use
 - a. How do you work with your sources?
If not described: do you have a system to organize your sources/data?
 - b. How do you locate back the sources that you have found, or your own notes, etc.?
 - c. Do you use specific analysis methods (e.g., discourse analysis, content analysis, network analysis?)
 - d. Do you use any tools to work with your sources?
 - i. *Can you show us...? (Demonstration part)*
 - ii. *Which criteria did you use to choose this tool?*
 - e. Did you have any problems in analyzing your data/working with your sources?
If so, how did you solve them?

7. Reporting/dissemination

- a. What kind of publications do you use to disseminate your work? In which venues?
- b. Can you describe how do you write your reports or publications? Do you write them alone?

8. Typicality:

- a. Discipline/area of study
- b. How would you name your area of specialization?
- c. To what extent do they characterize the situation described as typically compared to other research scholars' situations?
- d. Which other projects are similar to yours?

9. Closing: Thank-you for your time and effort. Do you want to add anything or comment anything to this interview?

This codebook is used in the ACM CHIIR 2020 paper "A Workflow Analysis Perspective to Scholarly Research Tasks".
 Authors:
 Marijn Koolen, Sanna Kumpulainen, Liliana Melgar-Estrada.

Normalized code	NeDiMAH Methods Ontology equivalent	Scope note
Analyzing	Analyzing	Use more specific analysis method if possible
Annotating	Annotating	
Archiving	Archiving	
Assessing	Assessing	
Associative searching	Associative searching	
Bookmarking	Bookmarking	
Brainstorming	Brainstorming	For collaborative idea generation. For solitary idea generation, use conceiving.
Browsing	Browsing	
Capturing	Capturing	
Classifying	Classifying	
Cluster analysis	Cluster analysis	
Collaborating	Collaboration	
Collecting	Collecting	
Commenting	Commenting	
Comparing	Comparing	
Conceiving	Conceiving	
Concept formation	Concept formation	
Consulting	Consulting	
Content analysis	Content analysis	
Contextualizing	Contextualizing	
Copying	has no NeDiMAH equivalent	manually by writer / typing / copy-pasting
Curating	Curating	
Data recognition	Data recognition	
Data validation and reconciliation	has no NeDiMAH equivalent	Includes data mapping
Developing	Developing	Add target (algorithm, tool, website, ...)
Discussing	Discussing	
Documenting	Documenting	
Enriching	Enriching	

Evaluating	Evaluating	Add target (tool, method)
Experimenting	has no NeDiMAH equivalent	Add target (tool, method)
Exporting	Exporting	
Extracting	has no NeDiMAH equivalent	Extracting information from a document (can be algorithmic).
Filtering	Filtering	
Gathering	Gathering	
Hypothesis formulation	Hypothesis formulation	
Importing	has no NeDiMAH equivalent	Importing data into a tool that may need transformation and possible user choices and actions.
Inquiring	has no NeDiMAH equivalent	Inverse of Consulting. NeDiMAH has consulting as giving advice.
Interpreting	Interpreting	
Iterating	has no NeDiMAH equivalent	This is a meta-cognitive activity that informs its lower level components and includes a stopping decision
Learning	Learning	
Linking	Linking	
Locating	Locating	
Measuring	Measuring	
Mixing	Mixing	
Modelling	Modelling	
Normalizing	has no NeDiMAH equivalent	collapsing variation to a single form, without a specific standard.
Note-taking	has no NeDiMAH equivalent	E.g. keeping track of thoughts during other activities. Not used for copying information, which is a separate activity.
Ordering	Ordering	
Organizing	Organizing	
Parsing	Parsing	
Photographing	Photographing	
Planning	has no NeDiMAH equivalent	planning sets and sequences of activities
Presenting	Presenting	
Problem recognition	Problem recognition	

Processing	Processing	Not specific enough, more specific activities are used (e.g. segmenting, filtering, normalizing, etc.)
Programming	Programming	
Publishing	Publishing	
Reading	has no NeDIMAH equivalent	including viewing audiovisual materials and images
Recording	Recording	
Research question / Topic identification	Research question / Topic identification	
Retrieving	Retrieving	focused search, knowing what you're looking for
Seeking	Seeking	directed / focused search,
Selecting	has no NeDIMAH equivalent	Add target (e.g. 'information items', 'method', 'tools'), includes sampling
Sharing	Sharing	
Social network analysis	Social network analysis	
Sorting	Sorting	
Spatial analysis	Spatial analysis	
Standardizing	Standardizing	
Statistical analysis	Statistical analysis	
Storing	Storing	
Synthesizing	Synthesizing	The definition in Nedimah is about sound synthesis, but here it is used for the activity of making synthesis/interpretation after analysis (assigning meaning to analytical parts and their combination)
Theorizing	Theorizing	
Tokenizing	Tokenizing	
Transcribing	Transcribing	
Validating	Validating	
Visualizing	Visualizing	
Visual scanning	Visual scanning	
Web-developing	Web-developing	
Writing	Writing	



