Report from OSFair 2017 Workshop on Research Lifecycles in the Humanities and Social Sciences

Number of participants: approx. 25
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The aim of this workshop was to work in groups to visualize examples of workflows/lifecycles in the social sciences and humanities that do not fit neatly with the research lifecycle that is typically depicted when discussing open science. These workflows would provide a platform for identifying where research processes, methods and objects could be opened in these subject areas, potentially identifying gaps in what are currently available as tools, services and solutions, and highlighting the needs of these researchers.

In organizing the workshop, it was our hope that we would have participants who were also active researchers in the humanities and social sciences. This would allow us to break into groups with at least one active researcher in each. The researchers would share an example of a project they had worked on or were involved in, and from these, one would be selected by the group to be mapped out.

Unfortunately, we only had a few active researchers with us although we did have two individuals who had worked extensively in research within the last ten years and were willing to map their projects in their groups. One group consisted of individuals who worked closely with researchers, some had conducted research themselves long ago.

General feedback from participants indicated that they found this to be a useful conversation to have, although there was far too little time to visualize a full workflow let alone consider tools alongside stages in that workflow. The groups managed to visualize some pieces of the workflow (photos of these are included in the Google drive) but none of them were able to complete the full picture.

Nonetheless some observations that were made during the session, which should be mentioned, include:

1) **Variability**: One group, which did not include an active researcher, was unable to visualize **a single** workflow, because workflows can vary greatly within these subject areas. This suggested that we need to bear in mind the variability of workflows; there is no single workflow that applies to all humanities or all qualitative social science projects. Working to visualize a number of workflows could be a useful starting point from which one might create a typology of workflows.

2) **Work that is not recognized**. Researchers in these fields engage in a great deal of work that lies behind the final output of a monograph or article. This work is rarely recognized, however it constitutes an essential part of research process. Indeed, it may never be referenced in a published work as there typically is no space even in a longer monograph to do so. Researchers in these subject areas can potentially bring attention to the full range of their work by sharing the inputs and outputs, and in turn receive credit for their work.

3) **Inputs could also be useful to others, especially young researchers.** The items noted in point 2, are not incidental. They involve work that must be carried out, although it might not be fully described in a methodological section of a publication. If shared, particularly in a way that would allow for re-use, this type of information and tools could be valuable to others, especially younger researchers.

4) **Defining the research problem.** One group spent a fair amount of time considering an initial piece of work on defining the research problem. It was noted that it is not uncommon for there to be several reiterations of the process of defining the research problem within these subject areas. In cases where a researcher is working with an inductive methodology these reiterations can occur at further stages in a research cycle. While this would not be common in STM fields, in some subject areas, in particular in the humanities, this is expected.

5) **Workflows are not necessarily linear or even cyclical.** When writing a paper or monograph the methodology and research methods are written in such a way as to present a tidy picture of the work that has preceded the publication. These descriptions often give the impression of a linear process, sometimes with a few iterations. However, it is not uncommon for actual workflows to take on other forms. For instance, a researcher might be involved in two different activities at once that are therefore not stages of a process, but parallel pieces of work. These parallel activities may be feeding one another or a future stage in the workflow. One of the workgroups found it useful to begin by creating a mind-map to illustrate the workflow.

6) **Thinking about what would be most helpful to make open.** One of our groups visualized a project that had involved having children draw images. Due to subject protection concerns, these images (the data) can never be shared openly. However, in this case, what would be valuable would be to share the methodology and protocol behind how the data were generated. In this way, the project could be reproduced in other settings and researchers could compare results.

7) **Many social scientists and humanities scholars are interested in working more openly**. In subject areas and among scholars who have found it difficult to embrace open access, working with open scholarship provides a wider range of entry points into open. The value and benefit of leveraging the work of others can be more immediately apparent.

Next Steps:

Participants shared a hope that the work to visualize workflows could continue and that these could be collected and curated in some way. One suggestion was to create a space on Zenodo where we could begin to collect and share research workflows. We are aware that 101 Innovations has collected several thousand workflows, including from social science and humanities researchers. There may be opportunities to link our efforts with those of the researchers working with this initiative.

Whilst there were some social scientists and humanities scholars at the Open Science Fair, they were in a minority. Efforts were made by the conference organizers and

the session chairs to attract scholars from these subject areas to the event. The reasons for the low level of participation are unknown. However, one suggestion is to create an event that specifically targets these subject areas. Although the European Commission and the projects associated with Open AIRE+ are inclusive when using the term open *science*, it is possible that the terminology is understood as exclusive of these subject areas by some.