Scoping II: Computational Analysis

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1 Goal

I am focusing specifically on one aspect of my research process, the sifting through multiple documents for the purpose of finding key terms and ideas and then organizing them into a unified narrative. The single solvable problem I am addressing from Scoping 1 is the process of gathering and then sifting through multiple documents with ease. I want to make the computer do as many of the mechanical, computable tasks as possible.

2 Decomposition

The process of finding and organising relevant documents goes as follows:

- Search for key terms in relevant database
- Read abstracts of top hits
- Download most relevant looking papers based on key words, sentences, and themes
- Place all similar papers into the same folder
- Skim through the most seemingly relevant papers and read the bibliography and references
- Search again, this time based on the referenced names and ideas in the initial batch of downloaded papers
- Repeat the above steps until I have found an acceptable number of relevant papers
- Sort papers into various documents for ease of access
- Read each paper in order of seeming relevance, finding common and unique themes across the set of papers
- Take note of which papers contain which arguments

3 Pattern Recognition

The patterns I am going to focus on are:

- Finding specific words and sentences within and across different papers
- Collecting and organizing papers into a single bibliographic database in such a way that I can search for papers based on a theme

4 Algorithm Design

The algorithm is made up of three chunks:

- Finding key words across multiple papers
- Organizing papers
- Categorizing papers

I wish to have a process of easily accessing multiple kinds of paper on a topic I am interested in in any given moment.