

The goal of the paper is to suggest a solution of an inefficiency in searching for previously searched and found information. The suggested solution is based on the use of a personal knowledge base built upon existing technologies and adapted to needs of common users. The thesis is focused especially to the search based on semantic similarities between tags. Collective knowledge is used for finding the similarities.

The first part of the paper introduces the repetitive search problem by a few real world scenarios. In the second part the problem is analyzed from the personal knowledge base point of view. The third part explains the suggested solution that is built upon Delicious, a bookmarking service and DBpedia. The suggested solution is implemented as a prototype. In the final part the prototype is tested and evaluated.

The test results suggest that the presented solution can make the repetitive search easier, but at the same time it exposes some performance issues that the proposed method brings up. The paper recommends modifications that could improve the performance and allow more extensive prototype testing.