

## THE USE OF CONCEPT MAPS IN CULTURE INTERACTIONS RESEARCH

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**Abstract.** Research project on intercultural contacts is presented as a multi-domain case for concept map utilization. To support communication and sharing ideas among co-workers from different fields, concept maps were chosen because they enable to visualize problem understanding by simple and natural way. Within the frame of the project, concept maps are intended to cover many different activities – from planning and documenting the project to expressing and analyzing individual interpretations of selected texts.

### 1 Introduction

Cultural identity of individual regions of the integrating European continent is usually called as a possible future alternative for present state-oriented identity of people. This fact encourages the necessity of deeper understanding and appreciation of both specific and common features of “national cultures” that were formed by common and reciprocally linked history. The theme of reciprocal understanding has actual meaning for Czech area especially today, as the communication with other European nations was deformed many years by ideological stand-points.

Among other arts, the literature plays an important role with long-term stability. Our topic – complex analysis of Czech-Italian contacts as they result from the portrait of Italy presented in Czech prose of 19th and 20th century – was treated only partially and irregularly till now. It was done mostly in the frame of analysing the work of particular authors or in the frame of particular theme. Some authors, whose texts contain the topic of Italy very intensively, are practically apart from the current research interests. Existing fragmentation of data and information sources calls for some integrating instrument, strong and flexible enough to cover the whole domain of interest, but concurrently simple to use and open for non-informatics, too.

### 2 Concept maps for research support

Concept (conceptual) maps enable to record ideas, visualize problem understanding by simple and natural way (Novak, Cañas, 2006) and to mediate this understanding to other people. Some experiments with concept maps utilization in the area of literature had covered, besides others, the interpretation of the read text and natural language understanding (Leahy, 1989), (Allen, 1995) but most up to now applications are directed at the educational issues. Under the described project, concept maps will be verified as a common primary tool for several purposes:

- for analyzing the research domain and defining main concepts
- for planning and documenting the running project
- for capturing and displaying relations discovered in separate sources
- for expression of individual, unique interpretations of selected texts
- for matching individual interpretations and their generalization.

Some of these applications will be described in the following chapters in more detail.

#### 2.1 Analyzing the research domain

As the research domain is intended only roughly, it is vital to define and specify borders and structure of the topic. It is expected that these borders will be qualified more precisely during the project running, and concept map appears to be an appropriate tool for tracking of the refinement.

For example, there are two basic domains of genres – fiction and non-fiction – and both have more or less inexact, fuzzy definition. To assign particular text to one of these domains (or to both of them to some degree), concept map can serve as a graphical tool for supporting individual opinions, when discussing and seeking for

consensual solution. Selected excerpts may be also attached to the concept map structure to illustrate one's way of thinking and to support arguing.

## 2.2 *Planning and documenting the project running*

The project will be solved within the three years period, so it requires both more general, long-run and detailed planning. Concept maps can represent the whole plan, organized in hierarchical appearance, and they can also record and document all running modifications of planned activities, and picture current status of the research when presenting it to the public (web pages) with respect to modern approach (Berners-Lee, Hendler, Lassila, 2001).

## 2.3 *Capturing relations in separate sources*

Information and other materials for described research project are highly dispersed and hardly accessible. There are many partial sources – public and private libraries, secondhand bookshops, archives and living authors or their children. On the other hand, there are many useful links and relations among these sources and managing all this information is hard in simple way.

Authors are inspired, for instance, by artistic work of other authors, they are influenced by cultural patterns, prejudices, myths when they picture the subject matter. Concept map can capture both information sources and relations among them, and describe hierarchy of subthemes in view.

## 2.4 *Expression of individual interpretations of particular texts*

The problem with interpretations of perceived texts rises from different individual experience. Various recipients have different experience depending on their age, education, adventures, and so it is useful to recognise the influence of these specifics. Each recipient will be asked to express his/her interpretation of the given text in concept map form. Comparison of individual concept maps of the interpreted text along with analysing personality questionnaires can help to deeper understanding the process of interpreting in itself. Problems concerning the interpretation of the character on travel were analyzed in (Mlsova, 2006).

## 3 **Summary**

The relevance of the use of concept maps in arts research is in the centre of our focus. It is our aim to experience several different applications of concept maps – from formal support of the research to very particular utilization in artistic text analysis support. As the project encompasses both arts and informatics co-workers, the problem of sharing ideas and knowledge can be significant. Our first experience indicates that concept maps can be very useful in supporting, developing and inspiring to different perspectives of the studied domain.

## 4 **Acknowledgements**

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