Co-creation of a thesaurus at the interface of cultural lexicography & cultural infrastructures: the case-study topothek.at & exploreAT!

Amelie Dorn, Yalemisew Abgaz, Jose Luis Preza Diaz,Thomas Palfinger,
Alexander Schatek & Rainer Zoubek

In the current Digital Humanities project *exploreAT! - exploring austria's culture through the language glass* (Wandl-Vogt et al, 2015), close collaboration with societal actors and community groups is a key aspect. The ongoing development of various digital tools has enabled the process of opening up and interconnecting different resources across data types. exploreAT! builds on a digitised, traditional non-standard German language resource DBÖ/dbo@ema (Database of Bavarian dialects in Austria), originally collected in the area of the former Austro-Hungarian empire, which it aims to explore and exploit for cultural content (e.g. food, plants, etc) in a post-dictionary framework. The approach taken is cross-disciplinary, drawing on semantic technologies, visualisation tools and cultural lexicographic analysis. The interlinking of language and real-world/cultural objects is an essential step in bringing to live the cultural knowledge contained in the collection, where the user also plays an important part in shaping the digital experience (cf. Gura & Wandl-Vogt, 2017; Gura et al, 2017).

To make use of this potential and as a concrete example of cross-sectoral collaboration, exploreAT! cooperates with the Topothek[1], a citizen-driven digital, cultural infrastructure. In the context of the exploreAT! project, the collaboration with the cohort of local Austrian topotheques (topothek.at) is established, with developed methods also being extendable and applicable to those beyond Austria. With 170 individual topotheques in 14 European countries, Topothek focuses on the history of municipalities, collecting local historical multimedia items (images, texts, video, audio) from private sources, amounting to currently 280.000 objects and counting. By means of social tagging and annotation of certain keywords (object tags, community tags, context tags), but also persons, time and location, the digital objects become accessible and searchable, providing a glimpse into the personal lives and local culture of participating topothequers. The incentive to connect this collection to exploreAT! lies in its content of a variety of cultural and local historical information, which can only be accessed with the help of citizens and their knowledge. Additionally, the DBÖ language resource and Topothek multimedia collection readily compliment each other in capturing the everyday lives of local inhabitants and giving a complimentary portrait of the Austrian culture from the perspectives of lexicography and language, connecting the intangible and tangible. The added value for topothek.at is increased discoverability, while for exploreAT! it is the scientific exploitation for cultural lexicography of the multimedia archive. To initiate such collaboration, both scientists and citizens need to learn how to interact with each other in order to work towards these common goals.

In this paper, we present the workflow and process established in linking exploreAT!'s DBÖ data and topothek.at digital objects. The topic of food cultures serves as our concrete cultural context, interlinking food terms with cultural practices and tools (cf. Palfinger et al, 2018). By means of a co-created thesaurus at the technical interface, the two collections are linked using semantic technologies, while the co-creation process ensures the usability and

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[1] https://www.topothek.at/de/

relevance of newly created structures for both scientists and citizen users. As a first step, Topothek's already existing metadata and tags are enriched by current AI technology, a commercial computer vision tool (clarifai). In a series of workshops, the relevance of the additionally collected metadata is evaluated, problems identified and the food cultures topic explored further. The derived results from the metadata evaluation will provide the basis for the thesaurus, which on the one hand aims to enable more structured access to Topothek's data for users, and on the other enriches the DBÖ collection with relevant multimedia sources. While the pursuit of cultural research questions on food cultures is at the core of the process, results are additionally to be processed by visual analysis for providing insights on the newly gained knowledge in an efficient and accessible way. Also, the different processes along the mutual learning scenarios are evaluated and an analysis of the concrete collaboration and co-creation scenario carried out. Such analysis provides grounds for not only capturing the various efforts and contributions along the process, but may also serve as an example for similar future undertakings or projects wishing to draw on similar methods.

Finally, our undertaking not only enables the exploration of cultural infrastructures for scientific exploration or generally improved usability for citizens, but it also brings about a novel and creative approach. Making network structures accessible in new ways and breathing life into these newly formed innovation networks, make digital collections come alive, emerging the user in a "living visual network"[2] (Preza Díaz, 2018) of new sensory cultural experiences.

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