56. Nichesourced annotation of cultural heritage collections

Cultural heritage institutions more and more provide their collections online. To make them accessible to interested users, the collections need short descriptions (annotations). Creating such annotations requires knowledge and expertise that is not always possessed by the collection curators. The usage of crowdsourcing and nichesourcing techniques provides cultural heritage institutions with new tools to create high-quality annotations in an inexpensive and fast way. We demonstrate Accurator, a platform for the enhancement of the annotation process of cultural heritage institutions like museums and libraries. The enhancement is done with the domain-specific expertise of amateur enthusiasts and experts drawn from the crowd.

We show an demo of the Accurator platform that features innovative, easy-to-use content annotation applications, driven by domain-specific knowledge. These applications include a novel Web annotation interface; an expert finding module for social media and Q&A-forums; and an online dashboard for annotation campaigns monitoring and control.

ICT science question
How to design efficient and effective crowdsourced content annotation is still an open research question. With our work we seek answers to the following research questions: How can large crowds and expert niches be activated to share their knowledge? How can expertise be identified on the Web? How can experts be discovered and engaged? How can linked data support and drive the content annotation process? How can semantically enriched knowledge repositories improve search and recommendation applications?

Application
Our work is driven by the needs of public organizations such as the Rijksmuseum, the Naturalis Biodiversity Center, the National Library, and the Museum Het Prinsenhof in Delft. The Accurator platform provides methods and tools to improve the quality of digital content annotation, and, ultimately, the performance of content exploration and retrieval tools. We demonstrate the benefits of Accurator on the search interface of the Rijksmuseum Website, where high-quality crowdsourced annotation directly leads to improved search and exploration experience. In comparison with existing platforms for content annotation Accurator advances the state of the art by providing content curators with knowledge-driven tools for expert retrieval, evaluation, and engagement.

Alternative Application
The Accurator platform can be easily transformed for usage in other domains. This is demonstrated by many on-going collaborations with companies such as IBM (knowledge creation and retrieval, software engineering) and Frontwise (event-centric search for audio-visual archive).

Nice to know
Experiments have shown that the collective knowledge of the crowd matches at least one-third of the knowledge of domain experts. Large amount of crowd workers can be easily engaged in cultural heritage content annotation tasks. For example, around one thousand workers were recruited in just a couple of days for the annotation of Rijkmuseum prints.

Support content curators in museums and similar professional organizations in their campaigns using annotations created by pro-amateurs.

Push the boundaries of crowdsourcing to efficiently valorize the passion, knowledge, and skills of crowds.

Enable customized expert annotations for next-generation multimedia content retrieval and fruition platforms.

Exploit crowd sourced content annotations for professional high-quality annotation tasks.

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