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Conference Abstract

Assessment of Annotation Needs of Botanists

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Abstract

Annotation (i.e., making comments on a resource) is an important part of the vision for the Semantic Web as defined by the standards set by the World Wide Web Consortium (W3C). Its goal is to make Internet-published information and data, machine-readable to better utilize it. Despite the important role that annotation plays in the Semantic Web, many cultural heritage institutions have been slow to adopt it. The access to open historical biological literature hosted in digital libraries, like the Biodiversity Heritage Library (BHL), has improved the efficiency of biodiversity research, especially in the taxonomic field. This amount of information has even greater potential for research if annotation capabilities are incorporated within those legacy digital repositories. As part of the project *Consumers as Creators*, developed by the Missouri Botanical Garden (MOBOT) with partners at Saint Louis University (SLU), the Web annotation needs of the botanical community were analyzed. Likewise, the practicality of using existing annotation tools to satisfy this community's particular needs was assessed, including technical and operational considerations. To do so, 15 users of a botanical virtual library from five institutions were interviewed. Their answers were analyzed and classified taking into account the user role and purpose. Desirable functionalities of annotation software were classified into three orders of priority (Must, Should, and Could). Subsequently, six open-source annotation tools were evaluated (i.e. Digilib, hypothes.is, Pundit Annotator Pro, Recogito, rerum, and VGG Annotator) to explore if they fulfilled the annotation needs of botanists. The selected annotation tools were installed (when necessary), assessed based on different functional aspects, and their advantages and disadvantages were identified. Finally, a proof-of-concept prototype was developed to exemplify how those needs could be met within a digital library platform. Botanicus, a free portal to historic botanical literature from the Peter

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H. Raven Library at MOBOT, and rerum, functioning as a repository of annotations, were used to explore the implementation of a minimal subset of these requirements. A summary of the results of the assessment, the lessons learned and some of the best practices recommended are presented.

Keywords

digital library, biodiversity information, semantic web, software requirements, analysis, prioritization, use cases

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