

Cultural Knowledge Co-Creation

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Summary

The digital cultural communication framework is developed to collect cultural intellect dispersed around the region. This is an approach to update the rural knowledge and make it available on web. In this case, social participation is crucial to observe and make it possible in the manner of co-creation. Considering the efficiency in data collection, the database server is centralized to maintain the data standard according to the designed metadata. In the same time, the database server facilitates its interface customization according to the service unit of province. We found that the cost of server maintenance and service providing can be optimized. The database interface is also available on web service protocol. This makes the completed cultural data fully utilized in various applications and platform namely web based and mobile applications. Since participants may freely upload or report the observed cultural practices, the system needs approval mechanism to justify the data. Though the uploaded data cannot be viewed in real time, the revealed data is reliable and traceable via the author account.

The digital cultural communication process includes cultural knowledge curation, community based co-creation, and cultural knowledge service. And, the community is made sustainably by introducing the participation from institution run by the Ministry of Culture, community of authors, and audience who consults the contents even through the location based applications. The co-work of these three parties will realize the process of co-authoring, utilizing, and monitoring the contents.

The result of co-created contents is then ready for knowledge creation. We introduce keyword extraction and semantic relation extraction to provide the candidates of semantic essence of the contents. The contents are then semantically related to draw the meaningful description of the interesting topic. The model of keyword is trained in supervising model based on MIRA learning algorithm. It yields an acceptable precision of 0.9061. Syntactic pattern approach is introduced to extract semantic relation between the extracted keywords. Knowledge co-creation in cultural domain is resulted in the expression of infobox and knowledge map, which explains the meaningful information in the aspects of person, place, and artifact. Other aspects of explanation will also be possible when we have enough training data. This work is extensible to prepare triples for linked data development in the future.