The Tiger Project: Korean Culture and Heritage Digital Libraries for International Collaboration with the US

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1. Introduction

Digital libraries can be defined as networked repositories in the distributed environment across the world. In terms of this definition, digital libraries consist of three components such as contents, system and users. As you know, Internet is located in the core of our life and is indispensable for everyday life to all peoples in the world. But we have lots of problems in using Internet as a part of our life in terms of technologies and contents.

I have developed and involved many digital library projects in Korea such as testbed development, text encoding, digitization, content creation, and query processing[1,2]. But these projects are only for Korean and Korean language. This means we need international collaboration to make available, useable and scaleable digital libraries for Korea and foreign countries, especially US.

Digital libraries technologies are an essential to the stepping forward into the knowledge-based information society. But we are in the beginning stage of making and developing operational digital libraries in terms of digital library technologies, although we have many resources of Korean culture and heritage contents and Internet users.

I think this is the perfect time to make collaborative researches in digital libraries between Korean and the US for mutual benefits. In addition, researchers of both countries have realized the urgent need of collaboration for digital libraries and have been supportive for the opening of the Korean-US workshop for digital libraries.

I propose the Tiger Project, which is to construct Korean culture and heritage digital libraries. This project will be needed an integrated approach for digital libraries involving old Korean document, digital libraries technologies, old maps, relics and users. The detailed information on the project will be explained in the next chapter.

2. Proposed project description

The purpose of Tiger Project is to collect all the materials on Korean ancient history and culture such as old documents, historic vestiges and relics, maps, dictionaries etc., and eventually to develop digital library for Korean culture and heritage. This means the project is focusing on developing the foundations of a scaleable, broad-based, interdisciplinary and international digital library for Korea culture and heritage like The Perseus Project in the State[3,4]. The digital library, then, can provide stored digital information through WWW to every domestic and overseas researchers and individual users. We also develop Korean culture and heritage testbed that can be used in education as well as learning people of various classes, from college students to children and laymen.

To do so, we will collect all the possible materials on Korean ancient culture and history, utilizing research results that will develop jointly with our US partner. Then, such collected materials will be digitized to provide information to users through retrieving and browsing their home and office.

The goal of the project is to provide original documents, translations of them, 3D animation of historic vestiges and relics, GIS for location and old information including mapping information with modern maps, dictionaries construction for the translated materials of original documents. It includes cross language retrieval and English translations of documents, which are necessary for the spread of information on Korean history and culture to overseas.

For the project, we will develop the following digital libraries technologies and contents with our US partner;
- Text encoding for old Korean documents
- Digitizing technology
- 3D animation and rendering technology
- Document structuring technology
- Integrating technology of geo-spatial data and document
- Translated Korean and English version of old Korean document(K-12 and professional version)
- Digital preservation technology
- Summarization and abstraction technology
- Cross language information retrieval

Several prestigious institutions and individuals are to join for the project such as the National Museum of Korea, Pu Yeo Museum, Kyung Ju Museum, Kong Ju Museum and

scholars on Korean history, information and library science and computer science.

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