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Introduction

With the development of technologies, many Thai libraries, archives and museums, including galleries develop many different systems and databases to collect and provide resources and collections to their users. This is to facilitate the dissemination and use of the resources and collections via the internet.

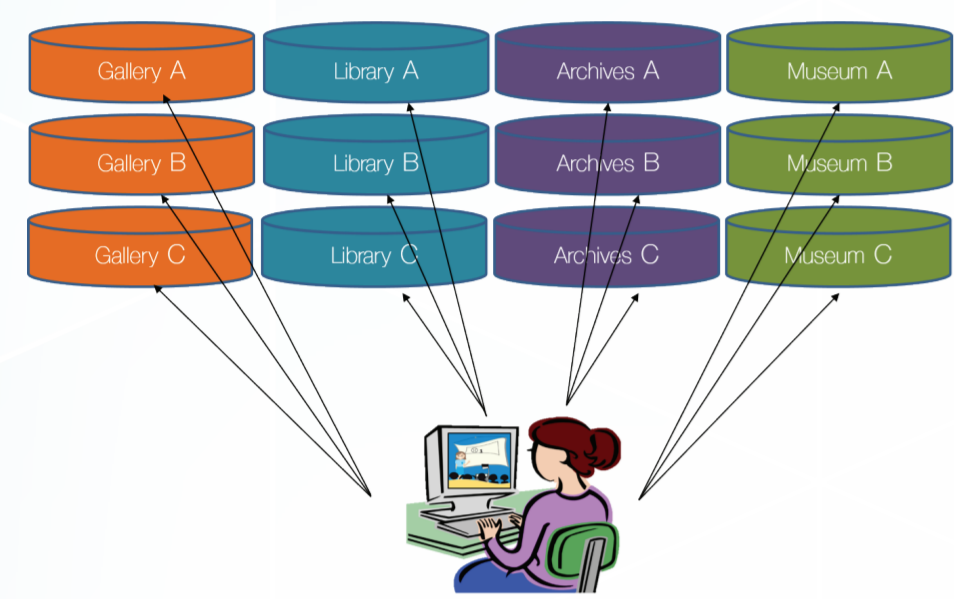


Figure 1
Different institutions have many different systems and databases.

However, most resources and collections of libraries, archives and museums, including galleries cannot be searched and accessed simultaneously. Users have to spend much time and effort to search and access the resources and collections from different systems and databases. Consequently, there are barriers to the public access to the resources and knowledge of libraries, archives, museums and galleries for education and learning.

Purpose

This poster aims to present the practical work of the development of **Thai Open GLAM** (Galleries, Libraries, Archives and Museums), a system is designed to collect many different databases, to provide OneSearch and to share open and free educational resources from many galleries, libraries, archives and museums. All users can access to the resources anywhere and at any time via the internet. Thai Open GLAM applies a Creative Commons license that facilitates reuse, and potentially adaptation, without first requesting permission from the copyright holder.

Technical Sides

Thai Open GLAM was developed by using **Fedora Commons** which is an open source operating system supports management, reuse, migration, and transformation activities on digital objects for access and preservation. **Drupal**, a popular open source content management system, was tested for use as a user interface. It was used because it was highly adaptable and customizable.

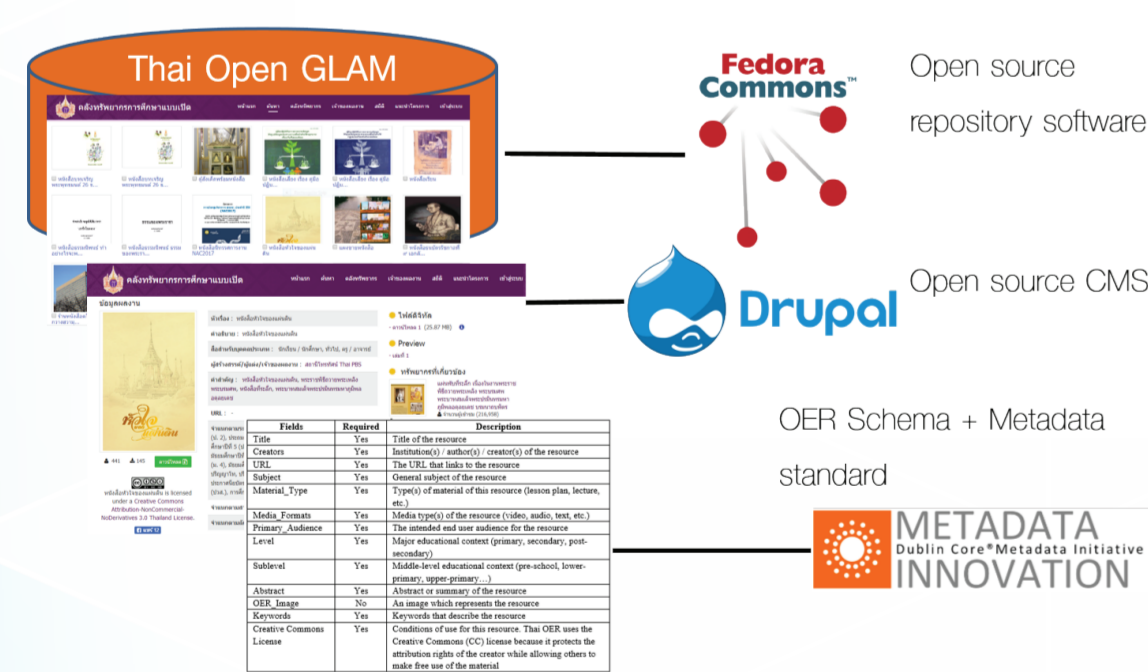


Figure 2.1
Technical sides of the development of Thai Open GLAM

Also, Thai Open GLAM selected and adopted the **OER Commons Metadata** framework which was based on the Dublin Core Metadata standard to make the objects in Thai Open GLAM globally discoverable. The OER Commons Metadata framework is an internationally acceptable metadata standard and is widely used by a number of sites.

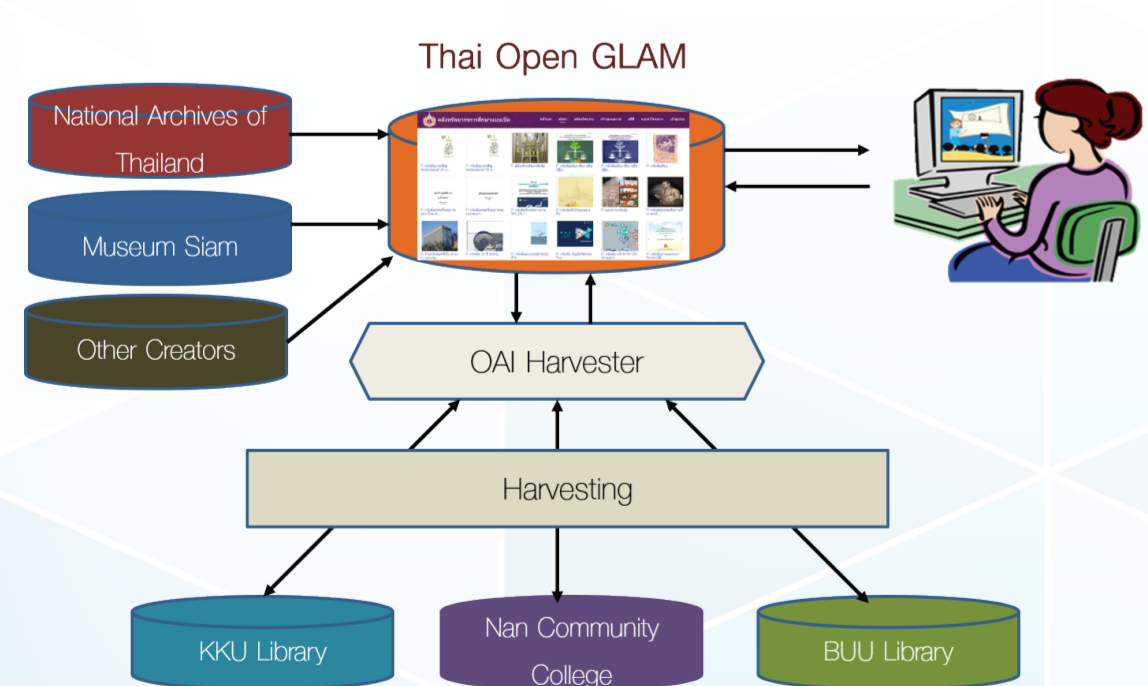


Figure 2.2
Technical sides of the development of Thai Open GLAM

OAI-PMH was used to facilitate the diffusion of metadata between the open museum and other institutions. Each digital object in the open museum was kept in Fedora and its set of descriptive metadata were indexed and searched by Apache Solr.

Collections



Figure 4
Different types of resources which cover a range of topics from many different institutions are provided at Thai Open GLAM

Thai Open GLAM provides different types of resources, such as e-Books (in different formats such as PDF, ePub and DAISY for different types of users), articles, images, paintings, animations, clip art, audio files, video clips, digital archive materials and other materials, to all users anywhere and at any time, free of charge.

These resources cover a range of topics in different fields from science and technology to Thai local wisdom and knowledge. These resources are produced and shared by different libraries, archives, museums and galleries, in both the public and private sectors, in Thailand. All users can access Thai Open GLAM at <https://oer.learn.in.th>



Benefits

5 major benefits of Thai Open GLAM are as follows.

- i** It blurs boundaries among different institutions by opening up the possibility of interconnecting resources and knowledge from different institutions and allowing individual access to resources and knowledge from different institutions simultaneously.
- ii** It encourages knowledge production and knowledge sharing in Thai Society.
- iii** It supports open, flexible and lifelong learning in the country.
- iv** It concretely promotes academic morality and ethics through an open licensing agreement, more specifically a Creative Commons license.
- v** It presents that the notion of institutions is being extended to include digital social networks, digital mobility and open access.

Challenges

There are 4 significant challenges relevant to the development and adaptation of Thai Open GLAM.

- i** Thai rural and distant areas still lack ICT access, band-width and connectivity. This situation impacts Thai Open GLAM access and use. Therefore, offline solutions and appropriate technologies need to be considered.
- ii** Most institutions have insufficient resources for digitization. Therefore, there is a need to explore other funding sources and new business models to solve this issue.
- iii** There is a lack of institutional policies that focus on cross-organizational collaboration to encourage staff members to participate in Thai Open GLAM activities. Therefore, inter-institutional collaboration policies should be developed.
- iv** Knowledge and awareness about digital literacy skills, especially intellectual property, copyright and fair use in the digital age, of most students are still limited. Therefore, there is a need to improve knowledge and awareness about digital literacy skills for students and relevant people.