

# WEKO: A New Repository System

## as a Function of Content Management System

Kazutsuna Yamaji<sup>1</sup>, Toshihiro Aoyama<sup>2</sup> and Hideaki Takeda<sup>1</sup>

<sup>1</sup>National Institute of Informatics, <sup>2</sup>Suzuka National College of Technology

### Introduction

Content management systems (CMS) such as Drupal, Joomla, and Plone enable users to construct web communities that make available many useful functionalities to their users. In most CMS systems, website functionalities are embodied as modules separate from the core system and installed as the need arises. The National Institute of Informatics in Japan has developed an AJAX-oriented CMS called NetCommons (NC) which is being used by educators. This study proposes a repository module for NC. The name “WEKO” comes from Swahili and means “repository” in that language.

### System Architecture

The system is written in a scripting language, PHP, rendering it OS-independent. MySQL is used as a relational database backend for storing data from NC and also WEKO. WEKO is open-source software under a New BSD (Berkeley Software Distribution) license. Installation merely requires a copy of WEKO to be placed in the NC modules directory, which becomes visible for activation in the administration menu.

### Key Functions

Users can access content from the tree-structure index and by using keyword searches (Figure 1 left). Full text searches work on PDF and MS Office application formats. Metadata auto-fill and workflow functions are provided to support self-archiving by researchers. Most of the customization can be done on the web interface, allowing the administrator to operate the repository easily. There is no need to SSH into the web server. The administration menu includes item type (modify metadata set and OAI-PMH, edit tree (drag&drop tree edit and modify submission authority), content review, import, log analysis (csv and graphical output) and general settings (ranking calculation, log analysis black list, site license list, full text library setting and so on). A site's design can also be customized without changing the source code. In order to offer even more functionality, WEKO can accept content deposited by means of the SWORD 1.3 protocol and provide OAI-ORE resource maps along with the index tree.

### Future Plans

We are planning to utilize this system as an academic society repository system. Besides conventional publications such as conference proceedings and journal articles, various supplemental data will be published and shared on this site. One of the goals of this service is to bring together academic societies and the open science activities, then make larger the Internet academic community.

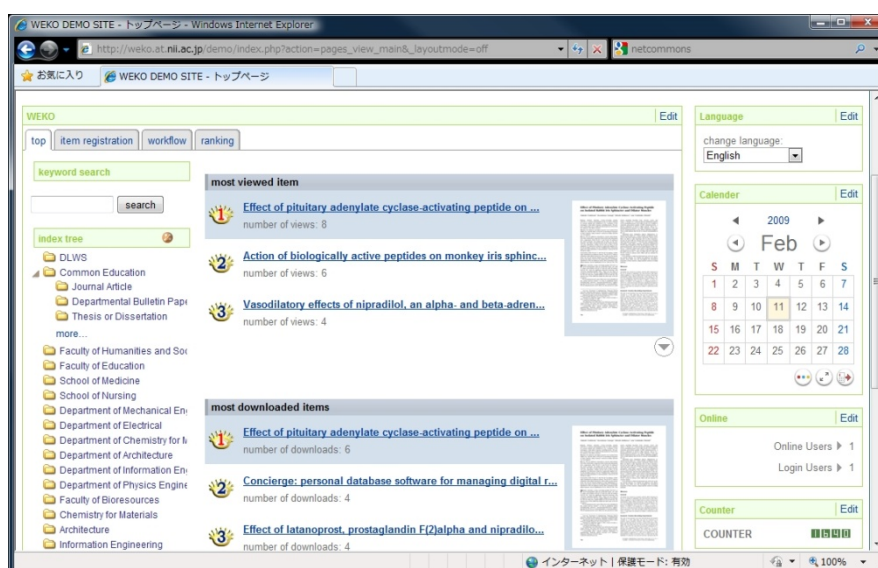


Figure 1 WEKO with other NetCommons Functions