

# Design and Implementation of a Context and Role-Based Access Control Model for Digital Content

吳美玉, 陳逸瑋, 柯志坤

Information Management

Computer Science and Informatics

mywu@chu.edu.tw

## Abstract

Due to the popularity of the Internet and the trend in digital information, large amounts of information can be transmitted quickly around the world. Because of this, intellectual property rights have become an issue. Some valuable or confidential information might be obtained by unauthorized users from the Internet and, consequently, providing an effective protection mechanism for digital content management has become an important issue. Therefore, the research adopted a context and role-based access control mechanism, and combined usage rules and protection mechanisms to propose a novel access control model for digital content. The proposed model not only takes into account the digital content provider's copyright but also considers users' flexibility. The proposed model was found to be effective and practical for digital content access control. In the study, a prototype was implemented to verify the effectiveness of the proposed model.

Keyword : Digital content, RBAC, Context, Authorization