ACADEMIC USAGE OF ELECTRONIC JOURNALS
FOCUSING ON EJUM (ELECTRONIC JOURNAL OF
UNIVERSITY OF MALAYA)

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DISSERTATION SUBMITTED IN FULLFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF LIBRARY AND INFORMATION SCIENCE

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KUALA LUMPUR

MARCH 2006
ABSTRACT

Electronic Journal of University Malaya (EJUM), an internet-based journal-hosting system designed to publish scholarly journals was developed in 1996. It currently hosts three journals: *Malaysian Journal of Computer Science (AIIGS)*, *itilicsian Journal of Library and Information Science (MILLS)* and *Journal of Problem-Based Learning (JPBL)* with the main purpose to provide an avenue for scholarly journals to be hosted by a single system. This study investigates the level of acceptance and usage of EJUM and also to examine what users of EJUM perceive to be important in electronic journals.

A total of 300 hundred questionnaires were sent out to the registered users of EJUM and only 102 were used for analysis. The findings show that the respondents are predominantly academics from the field of computer science and most are lecturers without academic ranks within the age group of 31-40. EJUM is mainly accessed for activities such as looking for new information and keyword search is the most commonly used searching strategy. The respondents rate EJUM's functionalities as 'fair' and most agreed that characteristics such as convenience of access, ease of use, ease of downloading full text articles, availability of back issues and user friendly interface are important. Some of the most common problems faced by users of EJUM are downloading articles, searching and browsing for articles, viewing articles and printing articles.

On the average, a user access electronic journals at least one a week and they are more likely to read the articles in the PDF format.
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CHAPTER ONE

INTRODUCTION

1.1 Electronic Journal of the University of Malaya (EJUM)

The Electronic Journal of University Malaya, otherwise known as EJUM, is an internet-based journal-hosting system designed to publish scholarly journals, (Zainab, Edzan and Ang, 2002). It currently hosts three journals: Malaysian Journal of Computer Science (MJCS), Malaysian Journal of Library and Information Science (MJLIS) and Journal of Problem-Based Learning (JPBL). EJUM was developed in 1996, and has since been undergoing a series of improvement.

The system has a number of purposes:

(a) To provide an avenue for scholarly journals to be hosted by a single system, making it easy for academic publishers to be involved in electronic publishing

(b) To provide participating academic journal publishers with the means to electronically manage article contributions

(c) To provide journal publishers with the facility to archive their older issues

(d) To provide academic publishers the means to electronically manage subscriptions

(e) To automate the editorial and refereeing process common to scholarly journals

(f) To provide users with efficient and varied search and retrieval options

(g) To provide users with a personalization service, this profiles their search interests and alerts them of new articles of interest

(h) To provide user and access reports (Zainab, Edzan and Ang, 2002)
The journal management system uses the three-tier client-server architecture (also known as three layer architectures). The client-tier consists of computers with Internet Explorer 4.0 and above. User interfaces are provided for clients to process their application and manipulate data. Adobe Acrobat Reader is used to view and print articles as they are delivered in PDF format. The middle-tier is the host, which was developed with Microsoft Visual Studio.NET, using the language at. It is integrated with the Internet Information Server (HS) as the web server. All applications are in the web server, which processes requests from clients and return results in web format. The third-tier consists of the Microsoft SQL Server as the database server and Microsoft Transaction for maintaining data record. The web server processes data requests by linking to a database server. It is also linked to Microsoft Transaction Server, especially when clients are uploading files to the web server. Every query requested from the web server is first authenticated and the results are passed back to the web server.

1.2 The Current System

EJUMs electronic environment is described in an article by Zainab, Ang and Abrizah (2002). The client side focuses on providing users with varied search and retrieval options and authors with a more transparent feedback system. Registration is compulsory and only after doing so can users access the site. During registration, users can indicate their field of interest and choose whether they want to receive e-mail notification of new articles. Users can change their registration details; choose e-mail service and change preference categories. When a registered user submits a search, the lists of keywords he used are stored as well as the list of retrieved articles. This is done so that users can refer
to their search histories the next time he logs into the system. User profile is made by tracking the type of articles browsed and the keywords used. New articles matching keywords residing in a user's profile will trigger an e-mail to be sent to the user to alert him of the match. Basic search provided are by author's name, title, keyword and broad subject categories. Users can search all journals or limit to just one in EJUM. The same goes for year; they can specify whether they want to search in a particular year or range of years. Browsing can be done by going through the author's index, country of origin and institutional affiliation. The system automatically archives issues published more than five years and the search features for archived issues are the same as mentioned. Results can be sorted by title, keyword, author's name and year of publication. As for articles contribution, an author who wishes to contribute may submit his article online via an e-form provided by the system under the Author sub-module. Upon submission, the system will alert editors by e-mail and the author can later check on the status of the submitted articles under review and for feedback by reviewers.

The systems administrator module is the one that automates editorial, refereeing, archiving and reporting processes. This module includes automating and reviewing process, automatic archiving and electronic reporting. In the reviewing process, the names and information about reviewers are entered into the Review sub-module. The executive editor will assign two reviewers for each article. EJUM will generate an e-mail to notify the chosen reviewers. Later, when a reviewer submits his evaluation form, the system will send an e-mail to the executive editor. The author will then be informed on the status of article whether it has been accepted, to be re-submitted if any amendment
needs to be done or rejected. Rejected articles will be deleted. Automatic archiving allows the administrator to specify which volumes are to be archived. This is to speed up searching. The system as mentioned automatically archive issues that are more than five years old. Electronic reporting allows the registration process of ERNA to generate simple report on users, sorted by country (as indicated in their email country extensions). The module also generates reports on the total number of users registered with the system via the Generate Report module.

1.3 MJCS, MJLIS and JPBL

The yearly publication of MK'S began in 1985 until 1989. After a lapse of three years, it appeared again in 1993. Starting form 1995 (volume 8) onwards, the faculty began publishing the journal twice yearly: June and December. The year 1996 marked the beginning of MJCS online version and can truly be regarded as the first full-fledge electronic journal in Malaysia (Ling, Mashkuri and Phang, 1996) and Teh (1997). MJLIS began its publication in the year 1996. It is also published twice yearly. The online version was made available three years later. Being relatively new, WM. has only one issue so far, Volume 2004 (Zainab, Ang and Abrizah, 2005). Unlike MJCS and MJLIS, JPBL is available only in electronic version.

Both MJCS and MJLIS in EJUM fit the hybrid model (Zainab et al, 2000) and is a re-work of the print version. As an electronic journal, PRI does not follow the format of print journals. To encourage contribution to this new journal, an issue may contain only two articles. With EJUM article submission and refereeing for both MJCS and MJLIS has changed to electronic environment, which brings it an advantage as it speeds up
Another advantage of the electronic version is that it is always available to users ahead of the print version.

At present, publication is handled voluntary by a group of academics. They do tasks such as transmitting submissions to referee and uploading the articles in the system. The priority of both journals is to ensure the continuing visibility to researchers and since both are indexed by INSPEC (MJCS), LISAPlus and Library Literature (MJLIS) it is important to keep their regularity as to avoid from being "dropped". Furthermore, the mentioned databases provide full-text services to subscribers to order copies of articles referenced in the database. On average, what is earned from subscription is sufficient to cover printing costs for MILLS. Only a small print run of about 300 copies is produced to service paying subscribers. In future, EJUM would incorporate more 'interactive' features, taking full advantage of the Net environment, unstructured, reliable in transferring knowledge, and includes some form of content evaluation, which emulates the peer review system of the print journal. (Zainab, Ang and Abrizah, 2005).

1.4 Statement of Problem
Currently the print version of both MJCS and MJLIS are still being published by the faculty and sent to its subscribers. Although transitions from electronic to print for both journals have been easy, the major concern is whether both journals are able to uphold its tasks in serving scholarly communication. Electronic delivery of scholarly communications is seen to be a logical step and goes hand in hand with the government's drive to promote paperless and content-rich knowledge-based society. Therefore, the
level of acceptance and usage of ETUM has to be assessed form time to time to make sure that EJUM is serving this end.

Numerous studies on academics use of electronic journals have been conducted in several countries to identify factors influencing usage and acceptance of electronic journals. There are often contradictions within a country and between countries. Internet connectivity and lack of computer skills have been the major setback among academics in using electronic journals. This study will attempt to examine what the users of HUM perceive to be important in electronic journals, acceptance and usage of EJUM and electronic journals.

1.5 Objectives of Study

The main purpose of this study is to examine the use of EJUM and to identify the level of user's satisfaction. Although EJUM has significantly improved over the last few years, there is still more to be done. The outcome of the study will be used to determine the features and functionality that will make EJUM useful to readers. Therefore, findings can be used to inform future decisions on EJUM.

Specifically, the objectives of this study are:

a) To ascertain the reasons why users use EJUM
b) To solicit users' opinion about their preferred features in electronic journal
c) To understand the problems users face when using EJUM
d) To find out from users what they would like to see changed in EJUM
e) To ascertain users level of acceptance using EJUM
1.6 Significance of Study

Data collected from the survey will allow developers of EJUM to study its overall usability. This will boost further developments of EJUM, in an effort to make EJUM Malaysia’s primer electronic journal.

1.7 Research Questions

Based on rationale and objectives of studies, the following research questions were used to guide this study.

a) What factors influence the usage of EJUM?

b) What are the features of a good electronic journal?

c) What are the problems faced by EJUM users?

d) How can EJUM be improved to serve scholarly communication?

e) What is the level of acceptance and usage of electronic journals amongst EJUM users?

1.8 Limitations of Study

The questionnaire which is used in this study is available online. While a large number of respondents have been identified, not all are expected to complete them. In order to improve response rate the following measures are taken:

1. Friendly reminders are sent to the participants

2. The questionnaires are made in such a way that it minimizes user's needs to type answers.
1.9 Assumptions

It is assumed that most users have a significant knowledge in using electronic journals therefore will be able to compare EJUM with other electronic journals they have used. It is assumed that as they are users of electronic journal they can provide acceptable opinions and judgment about good factors of electronic journals.