**ANNOUNCEMENT AND MEMORANDUM REPOSITORY WITH DATA ANALYTICS FOR CSS FACULTY**

**INTRODUCTION**

Imagine a world without data storage; a place where every detail about a person or organization, every transaction performed, or every aspect which can be documented is lost directly after use. Organizations would thus lose the ability to extract valuable information and knowledge, perform detailed analyses, as well as provide new opportunities and advantages. Anything ranging from customer names and addresses, to products available, to purchases made, to employees hired, etc. has become essential for day-to-day continuity. Data is the building block upon which any organization thrives.

Institutional repositories have been discussed extensively for over 10 years and there are clear general aims. The main drivers for institutional repositories have been from the information management and technology disciplines (Marsh, 2015). “Commercial products and additional open access systems followed as libraries and universities became more interested in the idea of creating repositories for faculty work”

Institutional repositories are described as “a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members” (Lynch, 2018). Lynch further notes that essential services include “the management of technology changes and the migration of digital content from one set of technologies to the next as part of the organizational commitment to providing repository services” (Lynch, 2018). “Institutional Repository (IR) is a digital archive of intellectual product created by faculty, research staff and students of an institution and accessible to end users both within and outside of the institution with little or no barrier” (Zipho 2017).

According to Crow (2018), an institutional repository is described as open, interoperable, cumulative, and perpetual and contributes to the process of scholarly communication in collecting, storing and disseminating the scholarly content. Furthermore, Institutional repositories are a relatively recent innovation among universities and polytechnics, providing open access to the outputs of academic staff and research students. These outputs include research reports, papers, conference presentations, theses, teaching resources, and so on.

According to Blake (2017), data analytics “is the discovery, interpretation, and communication of meaningful patterns in data”, technologies widely used in commercial industries in order to enable organization to make more informed business decisions and by scientists and researchers to verify or disprove scientific models, theories and hypotheses.

The volume of data either uploaded into or downloaded from a repository could have a trend that can be easily analyzed, organized and categorized for accurate and specific decision making in order to predict or increase performance of the repository hence the implementation of data analytics in this research. Colleges and educated societies are the epicenter of learning age and dispersal which are generally obtained through complex social and social systems difficult for the contender to comprehend, mirror or adopt (Alfa, 2017).

This thesis will be about the process thus far of the establishment of an electronic records repository, and will also discuss larger concepts such as the records continuum or appraisal and selection with the help of analytics. This also helps the college to easily deliver the task and information among students and teachers.

Announcement and Memorandum Repository with Data Analytics focuses primarily on the document sharing of self-contained data resources in the document form.

Specifically, the objectives are:

1. To provide an integrated system that will store and allow viewing of documents, announcements and memorandum
2. To track document status that can be categorized into urgent, priority and regular.
3. To create the sharing of documents.
4. To generate printable documents such as:

4.1 Faculty Reports

4.2 Meetings

4.3 Dean’s messages

4.4 Seminars

4.5 Technical working committee

4.6 Programs

4.7 Minutes of the meeting

4.8 Memoranda

5. To provide regular updates among employees using the notifications

6. To update the employees regularly on school or administrative matters

**Problem statement**

The study aims to develop a web-based announcement and memorandum repository with data analytics for the college of computing studies

Specifically, the study aims to answer the following

1. How the respondents evaluate the proposed web-based announcement and memorandum repository with data analytics according to the following:

1.1 design of the system

1.2 Accuracy of the system

1.3 reliability of the system

1.4 speed of the system

1.5 efficiency of the system

1.6 tools

1. What are the suggestions of the respondents to improve the proposed web-based announcement and memorandum repository with data analytics?

# Conceptual Framework

The Conceptual Framework provides the meaning of the concept which will be used in the system. In this chapter it will emphasize all the theories for the system that will be proposed.

# Input Process Output



Verification (authentication of log in info)

Storage (save and retrieve data from )

Log In Demography or

Information e.g. name (for forms such as registration)



Announcement and Memorandum Repository with Data Analytics

Figure 1: Announcement and Memorandum Repository with Data Analytics

**Functional Requirements:**

This phase contains the functional requirements for the Announcement and Memorandum Repository with Data Analytics collected from the users, which have been categorized to support the types of user interactions that the system must have. The developers considered the required needs given by the client to attain the needs of the employees of DHAVSU. A sequence of functions of the developed system are described as follows:

1. **Account**
   1. All the users of the system shall have an account to login.
2. **Login**
   1. The user shall enter a valid username to access the system.
   2. The user shall enter a valid password.
   3. The users shall be able to view their profile information after logging in to the system.
3. **Upload Profile Picture**
   1. The admin head shall be able to upload/change photo of the employees.
4. **Announcement**

4.1 The admin head shall be able to add, delete, and update announcements.

1. **View Documents**
   1. The users shall be able to view the documents related to their departments.
2. **Manage Account**

6.1 The admin head shall be able to manage or add, edit, delete, and update the employee’s information.

1. **View Employees Department**
   1. The admin head shall be able to view a specific department and the employees.
2. **Create Document**
   1. The admin head and secretary shall be able to create a document.
   2. The admin head and secretary shall be able to add documents from a particular source.
   3. The admin head and secretary shall be able to send documents to a particular user.
3. **Create Tag Names**
   1. The admin head shall be able to add/remove tag names in a document.
4. **Create New Status List**

10.1 The admin head shall be able to create new status list. If in case a document’s status on process needs to be changed into urgent from being a regular document, he/she can change it.

1. **Distribute Documents**

11.1 Admin head

11.1.1 The admin head shall be able to distribute documents to his/her secretary.

11.2 Secretary

11.2.1 The secretary shall be able to distribute documents to the employees

1. **Track/Monitor Documents**

12.1 The admin head and secretary shall be able to track/monitor the distributed document within the organization.

1. **Forward/Received Documents**

13.1 The users shall be able to view the forwarded/received documents.

1. **Download Documents**

14.1 The users shall be able to download particular documents they needed if necessary

1. **Change Password**

15.1 The admin head shall be able to change the user’s password if forgotten.

1. **Logout**

16.1The admin head and user shall be able to logout when they are done using the system.

**17. Notifications**

17.1 The admin will send the memo and the users will be notified by this new memo or updates

**Significance of the study**

The researcher has determined the following groups of individuals to be the major beneficiaries of the present study:

* + ***To the faculty,*** this study may help them improve their teaching potential and opportunity to give the best quality and effective learning to their learners with the use of various technological advancement. They will also determine the significant needs of their learners in more specific ways in every service they will render.
  + ***To the Educational Institutions***, this study may help them improve the teaching and learning system not only here in our country but to other nations to discover more about their opportunities to lead the learners in procuring a quality learning process. Also, this may lead to broader research on the utilization of the media and technology in teaching.
  + ***To the future researchers,*** this study may be your guide and reference in conducting research related to this study for the better vision of the future advancement and development of the curriculum and the system as well.
  + ***To the community***, this study may help them understand the background of our educational status, system, and plans so that they will also be one of our institution’s stakeholders in helping us attain academic excellence or achievements.

**Scope and Delimitations**

This study focused on the development Announcement and Memorandum Repository with Data Analytics that will be utilize by the faculty members of the Don Honorario State University Respondents of the study include a total enumeration of all regular faculty members of the College of computing studies who have teaching loads for the school year 2021-2022. Profile of the respondents is also investigated in terms of gender, highest educational attainment and academic rank. Moreover, special consideration shall also be put on the teachers’ perceptions on the proposed web-based System for the College. The study is limited to the College of Computing studies, only for administrators and teachers of the said college. Only the Dean have the authority to approve request, announcements and memorandum; It is applicable both through the Local Area Network (LAN) and the World Wide Web (Internet). The proposed system is web-based with an integrated mobile application.

**Target Respondents and Locale**

The study will be conducted in Don Honorario State University it is an advantage for the researchers since the studied in the same locale. The respondents will be the administrators and teachers of College of computing studies A.Y. 2021-2022