



Digitalization of Alumni in Albanian Higher Educational Institutions for a Better Career and Success of Students

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Abstract

Alumni is a vital sector in higher education institutions (HEI) that follows the professional progress of graduate students. It enables university-business connections by promoting and orienting students in the labor market. Today, the digitization of the Alumni sector offers fast and effective solutions for managing the progress of graduate students. Through the application of the Alumni Information System (AIS), many digitized services are offered for Alumni staff, students and businesses on a single platform. The AIS system is a tool that provides a digital database for graduate students, online platforms for database management, and software to interact with employment companies. This article will focus on the study of the digitization of the Alumni sector in HEIs in Albania and the role of AIS in improving the success of graduate students and their career development. In addition, we will propose an AIS model that can be applied to these institutions and beyond. This paper makes a noble contribution to the digitization of the Alumni sector and in particular in HEIs in Albania as an important step towards improving the success of graduate students and their career development.

Keywords: Alumni, AIS, information system, management system, digitalization

1. Introduction

Alumni play a significant role in the professional progress of graduate students. It acts as a coach and mentor for students who have difficulty choosing and continuing their career [1]. Alumni is a great source of motivation for students [2]. They can share their experiences and success stories with current students, which can help inspire and guide them towards achieving their goals. Additionally, alumni can participate in virtual networking fairs and other events to provide career guidance to students and their parents.

Today, the digitization of the Alumni sector offers fast and effective solutions for managing the progress of graduate students [3]. Through AIS systems, alumni in every country in the world can connect and exchange important information with universities, existing students, and businesses. Among other things, Alumni is also a platform that strengthens the relationship between graduate students and the university, as presented in the article by Chong Y. et al

[4]. AIS is a software solution that provides the ability to manage all alumni data and activities on a single platform. It is built from three core components [5]: the Alumni database which is the main repository of all alumni information, including their personal data, contact information, academic records, and other relevant data. This ensures easy access to alumni information, as well as the ability for institutions and businesses to track career paths, achievements, and affiliations; software to automatically enter student data into the database by reducing manual effort; and an online community platform to support engagement and build connections.

In Albania, unlike developed countries, the digitization of the Alumni sector in universities is still in the development phase. Most of the AIS that have been applied in some universities offer a few online services and they more often serve as a source of information and extract statistics.

The goal of this article is to present an analysis of the current state of AIS systems that are applied in Albania, as well as to understand the importance and benefits of the development of AIS systems in the development and career success of graduate students, as well as for businesses. In addition, we propose an AIS model that can be applied by any institution of higher education in Albania. The remainder of this paper is structured as follows: Section 2 reports an overview of the implementation of the AIS in Albania; Section 3 describes the proposed AIS model; Section 4 focuses on the discussion and lists the conclusions.

2. An Overview of Implementation of the Ais in Albania

In this section, we will present some AIS systems that have been applied in the largest universities in Albania, describing in detail their basic functions. In general, universities in Albania offer a few online services for the Alumni and Career departments. Most of the AIS that have been applied in some universities serve as a source of information and extract statistics. They do not provide information about graduating students, as well as about their professional achievements or the possibility of creating a business profile. In addition, graduate students do not have the opportunity to create their online profile and network with businesses or other sectors.

The University of Tirana is the largest university in Albania, and to manage the Alumni, it uses the website "Alumni Lifelong Learning Career Center" [6]. This website is outdated and provides only basic information about the Alumni and their organization. It also offers information about internships with different businesses and information about workshops and trainings that it carries out.

Aleksandër Moisiu University of Durrës uses the "Career and Alumni" website, which provides some basic information on the services of the career and alumni sector but nothing concrete [7].

The Agricultural University of Tirana uses the "Career Center and Alumni" website for Alumni management [8]. This website provides only basic information about Alumni. In this university Alumni is more based on the physical activities that it organizes between students and companies than on online interaction between them.

Epoka University uses the website "Career Planning and Alumni Office" for Alumni management [9]. This page provides information about the structure of the Alumni organization and very little information on career counseling, various activities that take place and internship opportunities. The only service offered by the website is filling out a form with student data that only serves to generate statistics used by the university.

The European University of Tirana uses the website "UET Alumni" for Alumni management [10]. This website presents general information about the Alumni department and provides information about students who have been employed by prestigious Albanian companies. It also organizes the Alumni Festival event every year through the announcement of 10 candidacies taking into account the results at the university as well as their career path.

Polis University does not offer any online service for the Alumni Department [11]. Similarly, Tirana Business University offers only one contact number for the department coordinator [12].

3. The Proposed Ais Model

In this section, we will present an AIS model to help with the development and digitization of the Alumni sector and in particular the development of Alumni in higher education institutions in Albania. Through this system we bring innovation to the digital management of Alumni data efficiently and quickly, advertising the professional profiles of students as well as bringing them closer to the labor market. The main modules on which the proposed system is based are the Alumni Management System, Website, and Database, as shown in Figure 1.

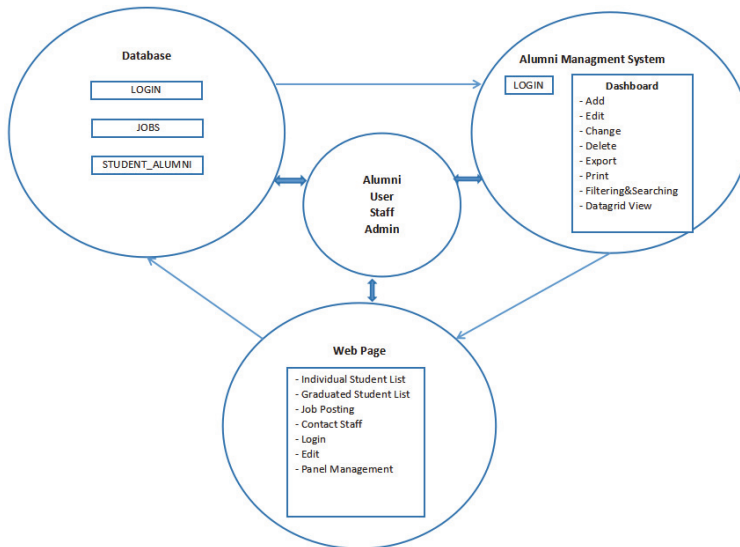


Figure 1. The proposed Alumni Information system (AIS)

The Alumni Management System is software developed in C# (Csharp) and .NET Framework [13], [17], using Microsoft Visual Studio 2022. The main function of this software is to enter student data into the database. It also offers a series of functions such as: search, export, print, edit, view etc. This software is separated into two interfaces:

- Login which serves to identify the authorized staff located in the LOGIN table.
- Dashboard in which staff can manage student data. This interface has several functions for managing student data such as:
 - Add Student - Used to add a student's record.
 - Change data - Serves to change a student's record.
 - Delete student - Serves to delete a student's record.
 - Export to Excel - Serves to export Datagrid View data in Excel format.
 - Print - Serves to print the data located in the Datagrid View.
 - Refresh - Serves to sort the students again in normal order after any changes have been made to the Datagrid View.
 - Filtering & Search - Serves to search for students based on filters such as: (name, last name, study program, etc.).
 - Datagrid View - Displays the data in table form inside the program.
 - Exit - Used to exit the application.

The Website is built in the Web Html language as well as with the help of stylistic and functional elements CSS, PHP and JS [14]. To host the website the XAMPP software is used. This website will be accessed by 3 stakeholders:

- Students
- Alumni staff
- Businesses

The website offers some services such as:

- A list with the profile of each graduated student submitted personally by each student.
- A list of graduated students which is generated from the university database.
- Job postings that are submitted by businesses and appear on the website after being approved by the administrator.
- Contacting with the staff, regarding various problems faced by the users. They address them to the administrator of the site via email.
- Login option as user (student). When the student login, his profile is displayed. The options of this interface

are:

- Changing the password
- Changing student data

In these interfaces, students can change the data in their profile (identification number, email, phone number, residence, employment status, job position and CV), while the basic data are automatically updated from the database.

Management panel for administrators. When the administrator login, there are several options that he uses. These options include:

Students - This interface provides two options, Edit or Delete data for each student record.

- Job postings - This interface allows the administrator to manage the job postings that different businesses post. The admin can allow or not allow these posts to appear on the main page.
- Student approval - This interface allows the administrator to approve the changes made to the updated data in the student profile. Administrators may or may not allow these posts to appear on the homepage.

The database of the proposed system is named Alumni and is responsible for connecting the Alumni Management System with the website as well as for storing and processing all student data. This database is created and managed using Microsoft SQL Server [16]. It consists of 3 tables:

- LOGIN - Serves for the identification of Alumni staff to access the "ALUMNI MANAGEMENT SYSTEM" program.
- JOB - Serves to store data related to job postings made by business.
- STUDENT_ALUMNI - Contains all student data.

4. Discussion and Conclusion

In this paper, we present a study on the development and digitization of the Alumni sector in higher education institutions in Albania. First, we performed an analysis of the Alumni systems applied by the largest universities in Albania, and identified the main services they offer. During our analysis, we noticed that in general, universities in Albania offer a few online services in this domain, and those services that are offered are mostly outdated and serve mainly as sources of information to make statistical analyses by universities. Based on the results of the study of the current state of the Alumni sector in Albania, we proposed an Alumni Information System (AIS) that allows students, universities, businesses, and alumni staff to interact on a single platform jointly. The proposed system is built from two core components: software to manage student data and a website that offers many services for both students and businesses. The proposed system provides a digital database for graduated students, facilitating the finding of their data. It also provides an online platform for managing this database as well as interaction between students and businesses. The Alumni staff will use this system to digitize student data in the database, enabling a centralized system that will facilitate their management. Students have the opportunity to create their profile, update the data from time to time and network with businesses, institutions, lecturers and Alumni staff. On the other hand, various businesses that seek to recruit staff will access the website to obtain information about students who have graduated, their contact information, data such as profiling and professional training of students, etc. and contact them according to job positions. Also, businesses create and update their profiles on this platform. The implementation of such a system in the Albanian university will bring many benefits for the university, students and businesses, increasing the value of the university and following the student in his professional path. This paper makes a noble contribution to the digital data management of the Alumni sector and particularly contributes to the development and digitization of the Alumni in Higher Education Institutions in Albania.

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