**Related Literatures**

**Alumni Social Networking Site**

Sivakumari et al. (2021) proposed an innovative solution for keeping alumni engaged by developing a user-friendly alumni website and social networking platform. The platform provides easy access to career guidance, opportunities for students, and networking opportunities with alumnae. The user-friendly interface allows accessible communication and information sharing, which helps maintain a strong relationship between the institution and its alumni. The project aims to create a platform that supports the career development of students while assisting institutions to keep track of their alumni.

**Alumni Interactive System Using Mining**

The study of Patel et al. (2017) highlights the potential of using data mining algorithms in university alumni systems to strengthen the bond between alumni and their former institutions. By providing a platform for ongoing interaction between graduates and current students, the proposed method could help facilitate career and business opportunities. Additionally, primary data mining algorithms may improve the system's user experience. This study offers valuable insights into the potential benefits of incorporating data mining algorithms into university alumni systems.

**The Alumni Information Management Model Based on "Internet +."**

Dai et al. (2017) introduced a comprehensive framework for an intelligent and integrated alumni information management system. This framework aims to address common issues encountered in alumni management, such as fragmented alumni information, delayed information transmission, and limited functionalities of management systems. The proposed approach combines both online and offline methods to effectively tackle these challenges.The framework consists of three key modules: "Alumni Social Network," "Intelligent Data Acquisition and Storage," and "Data Mining and Decision-Making Support." The primary objective is to establish a social platform for alumni networks, utilizing intelligent technology to gather and store extensive alumni data. Additionally, data mining techniques are employed to enhance decision-making processes regarding talent training schemes.By leveraging the power of the "Internet+," this system endeavors to enhance alumni management practices and promote a more efficient and interconnected alumni community.

**DIGITAL SKILL: OPTIMIZING THE UTILIZATION OF INFORMATION TECHNOLOGY BY PESANTREN UNIVERSITY IN ALUMNI TRACKING ACTIVITIES**

Setyaningsih et al. (2022) conducted a research study that focused on implementing a tracer study at Universitas Darussalam Gontor. The study aimed to optimize the use of information technology by utilizing a website-based alumni tracking system. A qualitative case study approach was employed, and data was collected through interviews and observations. The study's findings indicated that the tracer study successfully optimized the utilization of information technology by implementing a Google form. Additionally, a website-based alumni tracking system was in development. The study also provided recommendations to enhance skills and knowledge for maximizing the effectiveness of the website-based system.

[**A LinkedIn Analysis of Career Paths of Information Systems Alumni**](https://aisel.aisnet.org/cgi/viewcontent.cgi?article=1007&context=jsais)

The study conducted by Case et al. (2013) explored using LinkedIn profiles to obtain a more accurate representation of the entry-level jobs brought by alumni of an Information Systems program and their career advancement over time. The research focused on 175 graduates from the program at a mid-sized comprehensive university in the southeastern United States. The investigation findings suggest that LinkedIn profiles can be utilized to evaluate the long-term outcomes of Information Systems programs, provide insights into career trajectories for IS professionals, and assess the transition from technical roles to managerial positions.

**Tracer Study as an Effort to Improve Alumni Careers in Kadiri University Job Placement Service.**

Safi'I & Priyantoro (2019) conducted a quantitative descriptive study with a cross-sectional approach to investigate graduates' transition from education to the world of work, alumni assessment of higher education's contribution to obtaining competencies, and vertical and horizontal alignment felt by alumni. The target population is 2419, with 955 contactable alumni and 195 alumni responding to the questionnaire. The findings suggest that alumni take an average of six months to secure a job, with most job searches done through personal connections, and private companies are the most common type of workplace. Additionally, most respondents felt that their competencies were vertically and horizontally aligned.

**Developing a Tracer Study Information System Based on SMS Gateway to Support Career Development Program in UPI, Cibiru Campus.**

Permana (2019) designed an information system based on SMS Gateway technology to provide job-related information to UPI Kampus Cibiru graduates quickly and sustainably in their scientific fields. The Rapid Application Development method is used in this study to design the system, which is built using HTML Programming Language, PHP, and Bootstrap as a CSS framework. The proposed approach is expected to improve the absorption of UPI Kampus Cibiru graduates in the working environment and indicate the institution's success in organizing the educational process.

**Dashboard-based Alumni Tracer Study Report Using Normalized Data Store Architecture.**

The research by Asroni et al. (2019) aims to develop a data warehouse using the NDS architecture for alumni monitoring at Universitas Muhammadiyah Yogyakarta. The study found some noise in the data, such as invalid data and duplicate data, which were cleaned during the process. The data warehouse met the institution's requirements. It was displayed in a report that was easier to analyze, and the information was made into a dashboard form using the Power BI application.

**E-tracer study implementation of Indonesia Computer University alumni.**

The study of Soegoto et al. (2018) describes the tracer study conducted by Indonesia Computer University in 2016 for its 2014 graduates using an online survey through various communication channels. The research focuses on the response rate and alumni characteristics, such as their transition period, job relevance, and competence. The results show a 28% response rate, a median transition period of four months, and a zero competence gap in research skills, indicating the university's success in achieving its graduates' aim in this area.

**Development of Industry Academe Linkage Alumni and Placement Portal.**

Rosales and Lagman (2017) conducted a study to create an Industry Academe Linkage Alumni and Placement Portal for the FEU Institute of Technology. The purpose of this portal was to automate the workflow and procedures related to internships, industry placements, and alumni tracking. The study adopted the Incremental Model Process as the software process model and utilized ISO 9126 as the framework to assess the acceptability of the developed prototype. Criteria such as functionality, usability, reliability, portability, and supportability were considered during the evaluation. The overall assessment of the system yielded a score of 4.21, indicating that the application was deemed satisfactory and ready for deployment.

**Multiclass Job Recommendation System in the IT Field between Classification and Prediction Method**

In their paper, Prafajar et al. (2022) present a comparative study of two methods, classification with the KNN algorithm and prediction with the SVM algorithm, in the job recommendation system within the IT field. Through experimentation, they found that the KNN method outperforms the SVM method, providing better accuracy and performance for job recommendations in the IT industry.

**RésuMatcher: A personalized résumé-job matching system**

In the study conducted by Guo, Alamudun, and Hammond (2016), the authors highlight the challenges faced by current job search websites in adapting to technological advancements in computing and machine intelligence. They propose RésuMatcher, a personalized resume matching system designed to extract relevant qualifications and experience from resumes and job postings. By employing a statistical similarity index, RésuMatcher delivers more pertinent search results with minimal user input, surpassing existing information retrieval methods. The research suggests that these enhancements have the potential to improve the job search experience for seekers, addressing the limitations of conventional search-based approaches commonly used today.

**Prediction of recommendations for employment utilizing machine learning procedures and geo-area based recommender framework**

In their study, Parida, Patra, and Mohanty (2022) delve into the realm of job portal websites, aiming to construct a recommender framework. Their primary objective is to devise a system that offers job suggestions to candidates by aligning their profiles with relevant job descriptions. The research incorporates data cleaning techniques, machine learning procedures, and leverages a geo-area based recommender framework. The outcomes underscore the advantages of employing a job recommender system, ultimately enhancing the suitability of job recommendations for individuals seeking employment

**Prior Arts**

**ALUMNI TRACKING SYSTEM**

Jaiswal et al. (2021) propose an online-based application, the Alumni Tracking System, to enhance the current tracking process of alumni. The system provides a centralized platform for managing alumni data and facilitates communication between alumni and the institution. The proposed method offers significant advantages to the alumni, such as reducing maintenance efforts and providing an all-in-one solution for collecting and managing alumni data.

**An Alumni Portal and Tracking System**

Bista et al. (2021) describe a web-based alumni tracking system that aims to manage alumni data and provide a platform for alumni to update their information and view online yearbooks. The study presents insights from alumni responses, including job positions, employers, current location, and other education preferences. The system has effectively managed alumni data and has been accessed by many alumni, highlighting the importance of an efficient alumni tracking system for institutions.

**Alumni Database Management System**

The system proposed by Kumar et al. (2019) offers a practical solution for managing alumni data and promoting interaction between alumni, administrators, and students in a college setting. By providing a platform for students to connect with alumni for potential projects or job opportunities, the system can enhance their academic and career development. The automatic transfer of student data to the alumni module upon graduation further streamlines the process and ensures accurate alumni records.

**Design and Development of Alumni Tracking Information System**

Suryana et al. (2020) developed and evaluated a web-based alumni tracking information system for SMKN 1 Garut using a waterfall model and functional testing. The system was found to be feasible and received a positive response from alumni users. The research highlights the importance of implementing an efficient alumni tracking system and the benefits of a web-based platform for managing alumni data.

**Design and Development of Alumni Tracking System for Public and Private HEIs**

Luciano et al. (2020) developed an alumni tracing system allowing the university to track its graduates using the Internet, providing critical information such as their employment status and essential skills required for their current job. The system can generate comprehensive reports for planning, program implementation, and decision-making purposes. This study emphasizes the importance of an efficient alumni tracking system in providing feedback to HEIs to improve their curriculum and ensure that it meets the needs of the industry.

**Centralized Alumni Management System (CAMS) - A Prototype Proposal**

Mukherjee et al. (2019) proposed a centralized system for alumni management that focuses on alumni networks across institutions and organizations, with a fundamental goal of promoting mentorship processes within and across institutions. The system allows individuals to register as alumni after graduation and while still in school, thereby facilitating networking among professionals and students. The proposed method offers several benefits to alumni and institutions/organizations and exhibits superior features compared to existing proposals.

**Designing Mobile Alumni Tracer Study System Using Waterfall Method: an Android Based.**

Sadi et al. (2019) aimed to fulfill the requirement for organized compilation and minimal alumni data in the Industrial Engineering Department at UPN Veteran Yogyakarta, Indonesia. They achieved this by creating an Android application designed explicitly for alumni tracking. The researchers adopted a qualitative descriptive methodology and utilized a prototyping system development approach to gather data through interviews and observation. The anticipated outcomes of the study included the development of an Android application for alumni search, analyzing alumni data, and implementation of a survey method to describe graduates' profiles and assess curriculum relevance.

**ATS ANALYSIS, DESIGN, AND DEVELOPMENT OF THE ALUMNI TRACKING SYSTEM OF THE LICERIO ANTIPORDA SR. NATIONAL HIGH SCHOOL-DALAYA EXTENSION**

Umoso (2021) conducted a study to enhance the alumni tracking process at Licerio Antiporda Sr. National High School- Dalaya Extension by designing and developing an online-based alumni tracking system. The research identified the shortcomings and limitations of the existing manual system and introduced a software platform to address these issues. The newly created system provides notable benefits, including convenient access to alumni data and improved communication between alumni and the institution. The study's findings indicate that implementing the online Alumni Tracking System has the potential to serve as a technological tool that enhances the school's management program while providing insights into the alumni's status. Overall, the study's methodology and proposed system make valuable contributions to alumni tracking systems in educational institutions.

**An Alumni Tracer System for Saint Louis College**

Hufana (2019) proposed a study to create an Alumni Tracer System for Saint Louis College, employing the Software Engineering Process. The developed system underwent usability testing involving IT experts using the WUCET test, the Alumni Affairs and Job Placement Officer, and selected alumni utilizing the WAMMI tool. The testing results indicated that the system exhibited a high level of usability and successfully resolved the limitations of the previous Alumni Tracer System. Based on these findings, the study recommends implementing and adopting the developed Alumni Tracer System by Saint Louis College.

**Web-Based Abulyatama Alumni Information System**

Ardiansyah (2021) developed a web-based E-Tracer study service for STMIK Abulyatama to improve the existing manual system for collecting data on alumni. The research objectives are to analyze the alumni information system, design and develop the alumni management information system and improve the existing system for better performance in alumni data collection. The proposed method is expected to provide more accurate and up-to-date information about alumni, simplify and speed up administrative processes, and benefit curriculum improvements.

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