

Cross-Platform Alumni Information System for Northern Iloilo State University Batad Campus

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Abstract— This study developed a Cross-Platform Alumni Information System for Northern Iloilo State University – Batad Campus. It collects alumni data from BNAVHS-BPC-NIPSC-NISU for official and legal purposes. The system strengthens alumni–university connections, monitors graduates’ career progress, and analyzes employment trends while streamlining communication and transactions related to alumni activities.

Guided by Nutley’s (2002) diffusion theory, the study examined how communication channels, social systems, and contextual factors influence adoption and use. The development followed Dinesh Thakur’s Sequential Flow of Prototyping Methodology to ensure efficiency and accuracy. The system, built using MySQL and PHP, was tested with five faculty members, forty-five alumni, and five IT experts.

Evaluation used the ISO 25010 quality model, covering functional suitability, performance efficiency, compatibility, usability, reliability, security, and maintainability. All characteristics received an “excellent” rating, confirming the system’s effectiveness.

Core features include alumni registration, profile management, job postings, event updates, forums, and multimedia galleries, with administrative tools for approving members, generating reports, and managing content.

Results show the system addresses challenges in alumni tracking, career monitoring, and event coordination. It reduces manual workload, provides real-time data updates, and supports institutional needs for accreditation and curriculum evaluation. By centralizing communication and information management, it fosters stronger alumni engagement and contributes to the university’s strategic growth.

Keywords — *Alumni, Higher Education, Information System, Tracer Study, Data Management*

I. Introduction

This research details the development and evaluation of a cross-platform alumni information system for Northern Iloilo State University – Batad Campus. It aims to improve alumni data management, enhance communication, and strengthen the university–alumni relationship. The study addresses challenges in maintaining accurate alumni contact information and facilitates data-driven decision-making. It applies Nutley’s (2002) diffusion theory to understand factors influencing alumni engagement.

Universities worldwide use digital tools to strengthen alumni engagement and sustain lifelong connections. Online portals and cross-platform systems now manage records, share opportunities, and foster collaboration regardless of distance. These respond to demands for

accessible communication and efficient data management, enabling institutions to maintain active relationships with graduates while adapting to technology changes.

In the Philippines, higher education institutions (HEIs) recognize alumni as vital partners in quality education. Alumni contribute feedback, participate in institutional activities, and serve as role models. Maintaining accurate alumni records supports accreditation and tracer studies, which guide curriculum development. Yet, many HEIs struggle to keep data current as graduates relocate or change jobs without updating the institution.

Northern Iloilo State University – Batad Campus faces similar challenges. Alumni details like addresses, employment status, and contacts are often outdated or incomplete, limiting collaboration and support. This study proposes a Cross-Platform Alumni Information System to integrate data management, communication tools, and alumni services in one portal. It will help maintain accurate records, foster engagement, and enhance the university’s role in community and academic development.

Review of Related Literature

Strong alumni relations sustain institutional reputation, aid accreditation, and support student development. Many graduates lose contact with alma maters, resulting in outdated records and fewer collaboration opportunities (Mulianawati et al., 2020). This drives the development of digital alumni systems combining data management, communication, and career services.

Portal (2022) and Teixeira et al. (2014) emphasize interactive, open-access platforms that let alumni share experiences, mentor students, and get updates on events and jobs. Benchmarking top universities improves portal design, making them engaging and sustainable.

Etcuban et al. (2015) created an alumni database for the University of Cebu to handle large datasets and streamline reporting, integrating social media for communication. Bista et al. (2021) describe features from Harvard, IIT Kanpur, and SEBS portals—mentoring, fundraising, discussion boards, and educational resources—that strengthen alumni-student ties.

Gunasekara (2017) notes organized alumni groups, like Sri Lanka’s Past Pupils’ Friendship Association, preserve unity and contribute to academics, extracurriculars, and infrastructure.

These studies show a trend toward integrated, interactive alumni systems combining record-keeping with community engagement. Many institutions still lack centralized platforms, which this project aims to address locally.

Research Questions

1. Can a cross-platform alumni information system effectively manage and update alumni data?

2. How acceptable and effective is the system to alumni, faculty, and IT experts?
3. Does the system function effectively on desktop and mobile devices?
4. Can it accurately maintain detailed alumni records, including current employment status?

II. Methodology

Research Methods

This study used a developmental research design with Dinesh Thakur's Sequential Flow of Prototyping Methodology. Development used PHP and MySQL, following the Waterfall Model. Phases included feasibility study, analysis, design, development, implementation, and maintenance.

Evaluation used ISO 25010 standards covering functional suitability, performance efficiency, compatibility, usability, reliability, security, and maintainability. Mean scores were calculated for each characteristic. Respondents included five faculty members, forty-five alumni, and five IT experts.

Ethical Considerations

Informed consent was obtained from all participants. Data was anonymized and used solely for research. The system design included security measures to protect alumni data privacy.

III. Results and Discussion

The system achieved excellent ratings on all ISO 25010 quality characteristics. Faculty, alumni, and IT experts rated functional suitability, performance efficiency, compatibility, usability, reliability, security, and maintainability as excellent.

The system's core features include account registration, alumni profile management, course listings, job postings, event updates, forums, and a multimedia gallery. Admins can approve new members, generate reports, add courses, manage events, and oversee content. Alumni get personalized dashboards, job access, and community interaction tools. These features support accreditation, tracer studies, and alumni networking.

Integrating communication and data management tools reduces manual alumni tracking and enables real-time updates. Centralizing information fosters stronger university–alumni relations, encourages event participation, and keeps career and contact data current. The positive evaluation shows the system is a viable long-term solution for alumni engagement and university goals.

The system's ease of use and responsiveness on multiple platforms enhance accessibility. This encourages broader alumni participation and better data accuracy.

Figure 1
Welcome Screen

The homepage welcomes users and provides navigation options.

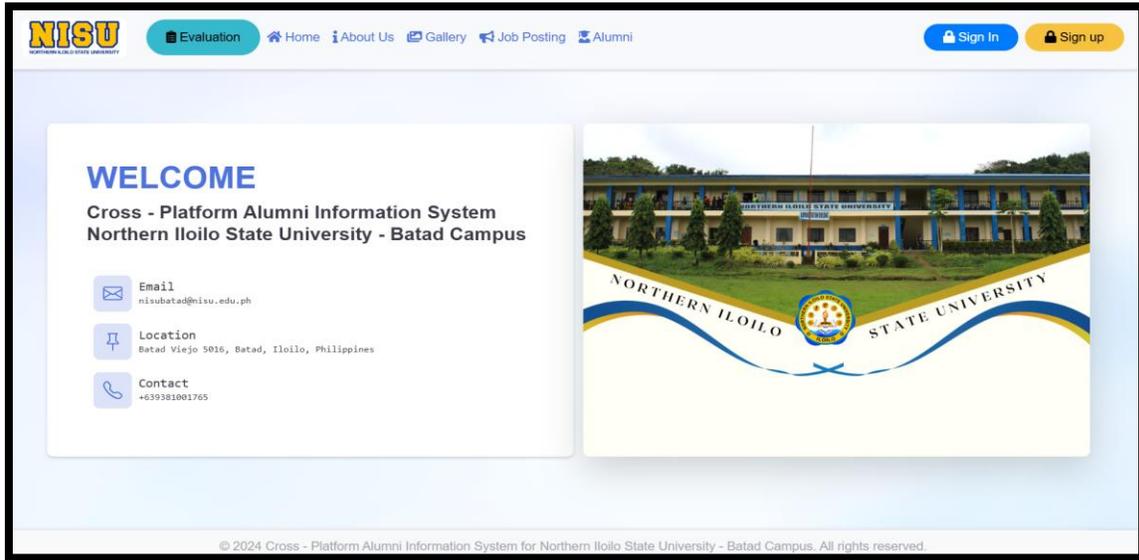


Figure 2
Dashboard

Shows the number of registered alumni and available job postings, allowing alumni to apply.

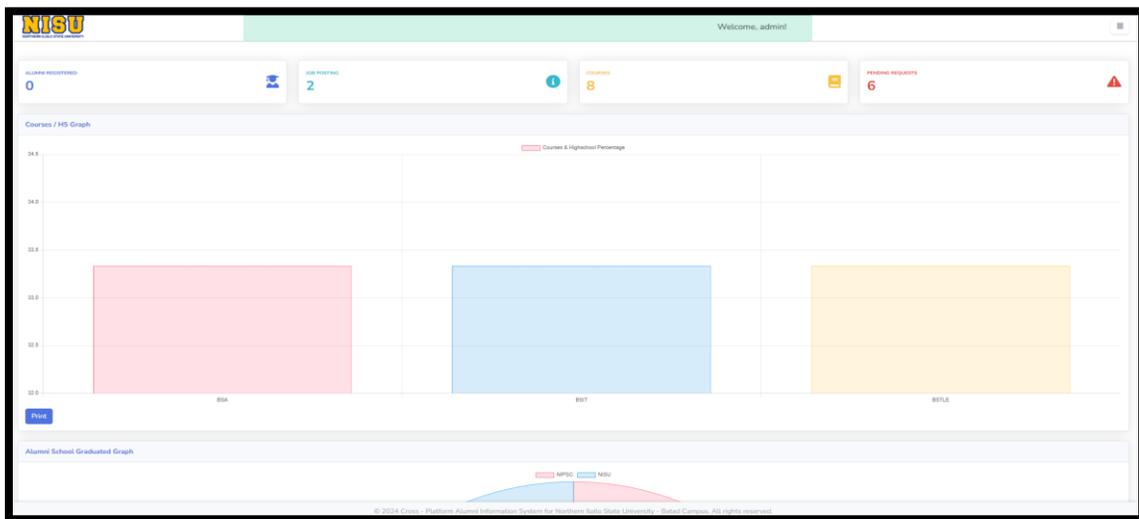
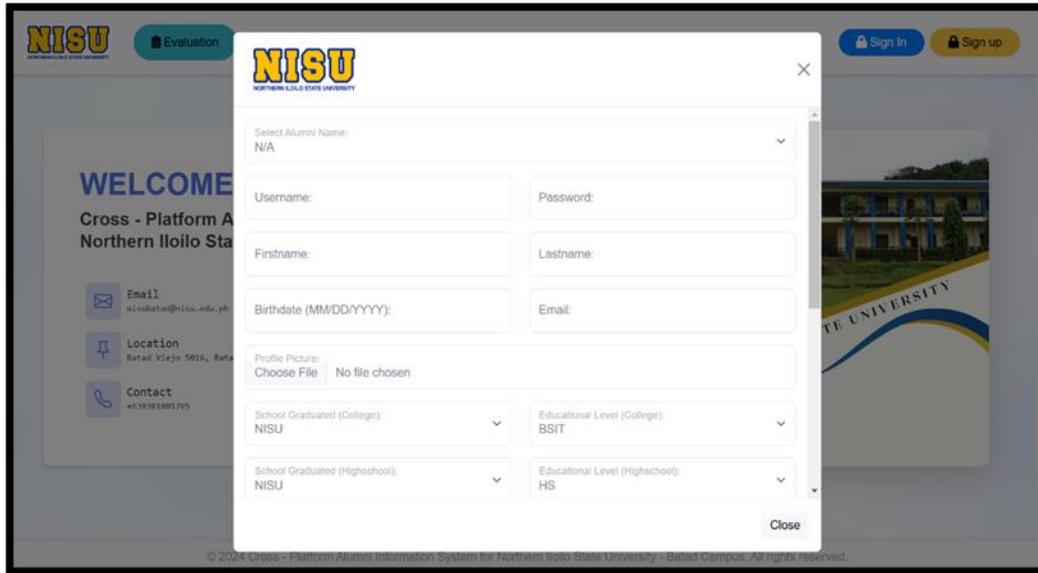


Figure 3
Sign Up Screen

Users create accounts by entering personal information.


Figure 4
Sign In Screen

Users sign in with username and password. Options for account creation and password recovery are available.

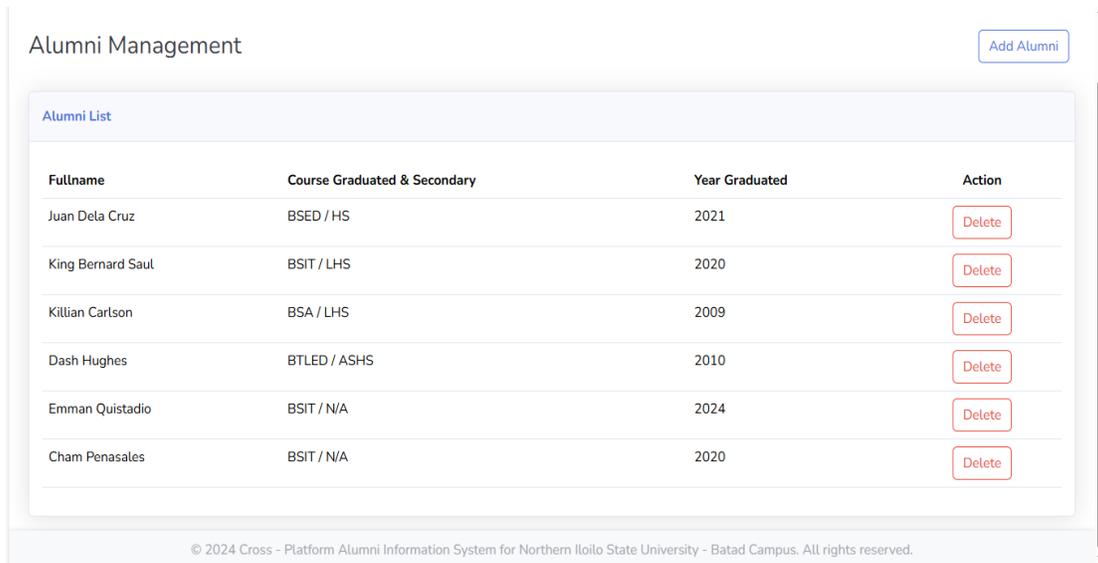


Figure 5

List of Alumni

Displays profiles of approved alumni with networking information.

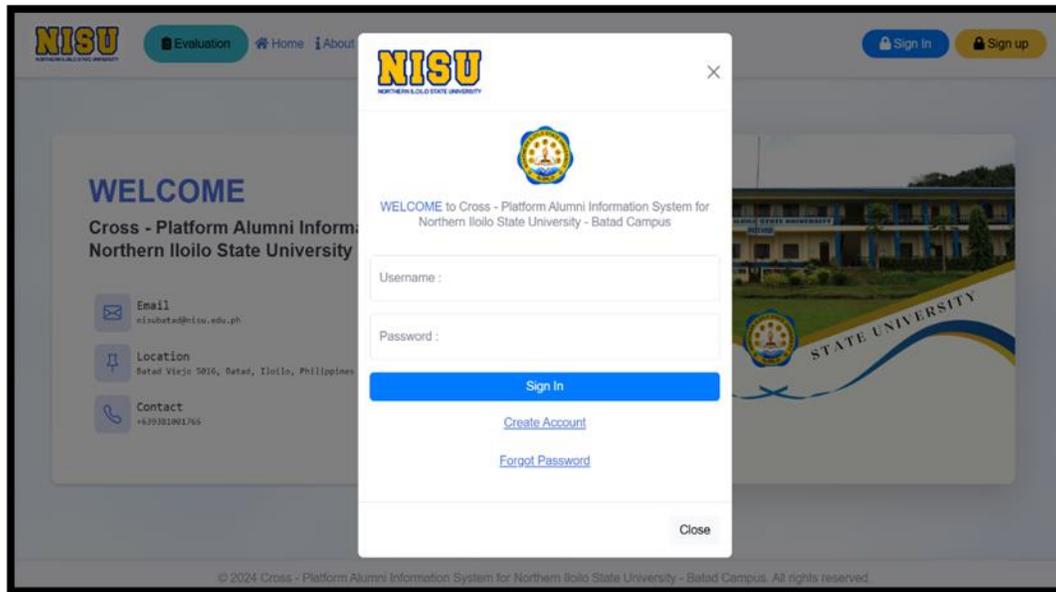


Figure 6

Course List

Lists all courses offered by NISU Batad Campus from past to present. Admins can add new courses.

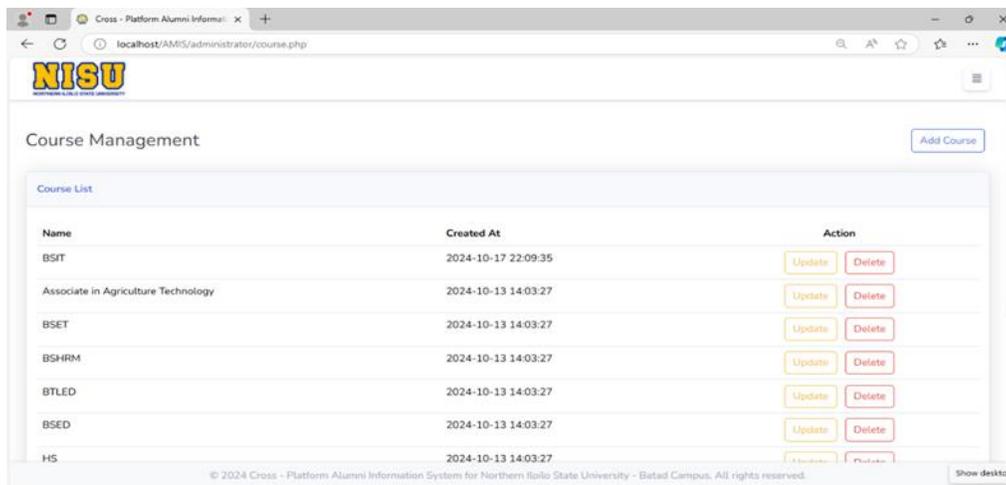
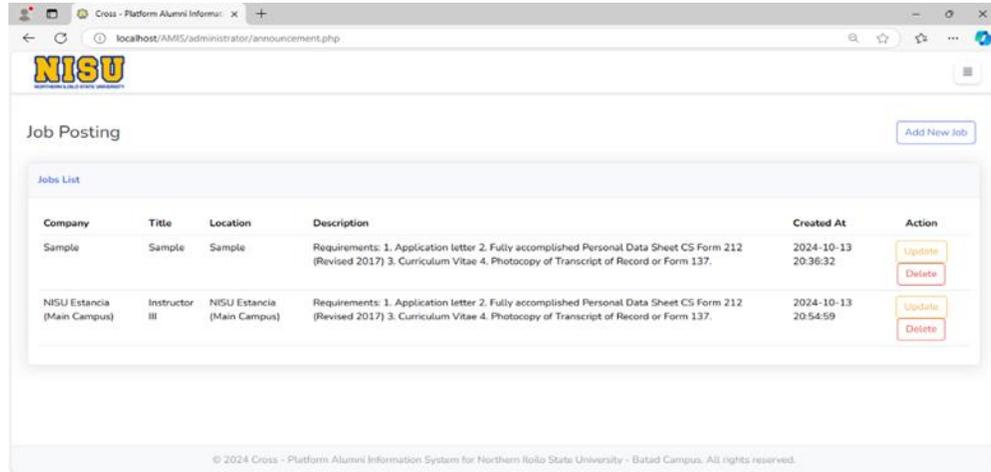


Figure 7
List of Vacant Jobs

Shows job openings. Alumni can browse and apply to relevant jobs.


Figure 8
Report Data

Admin-generated reports on courses and statistics are formatted for easy reference.

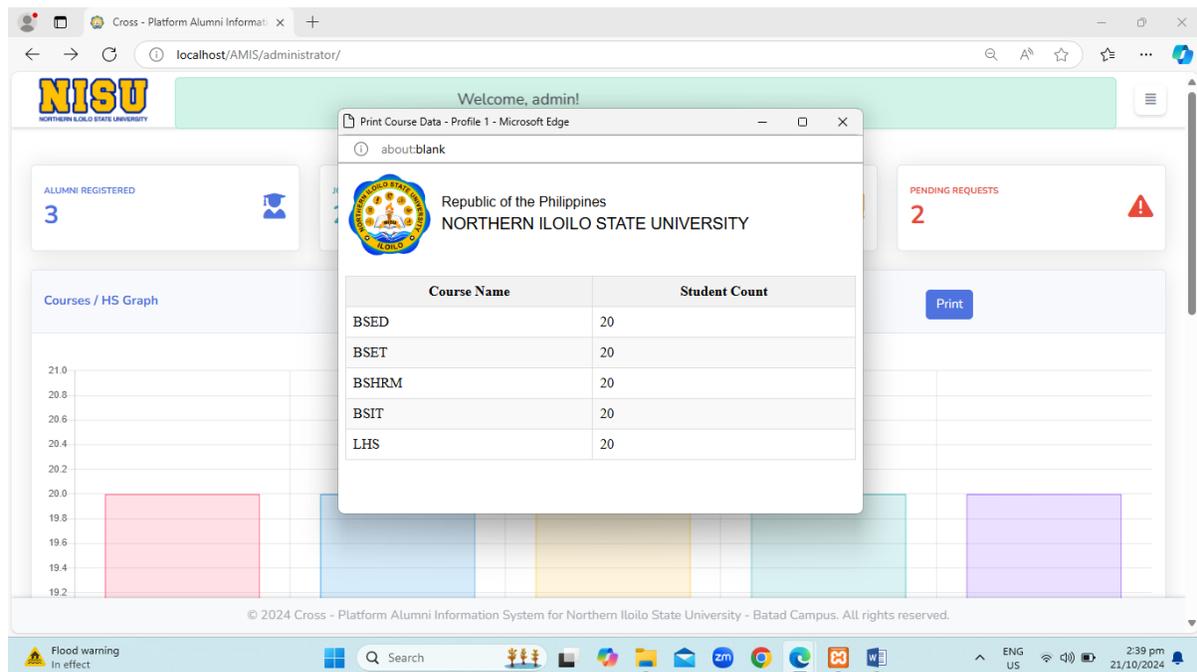
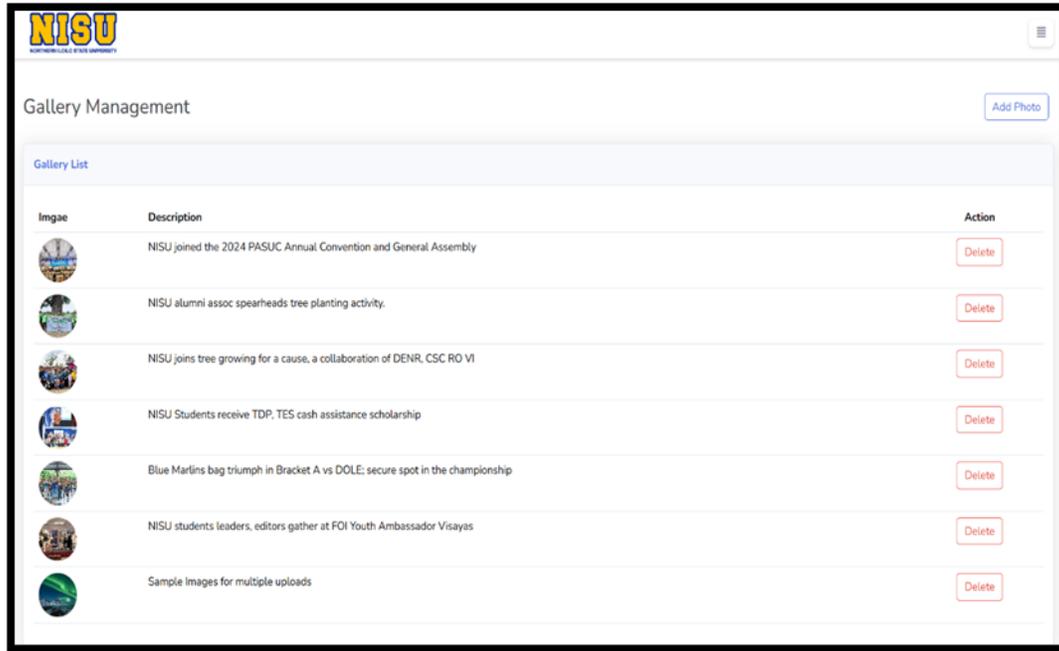


Figure 9
Gallery Management

Alumni view and share photos, videos, and multimedia related to their experience.


Figure 10
Events

Admin view of upcoming alumni events with details and registration info.

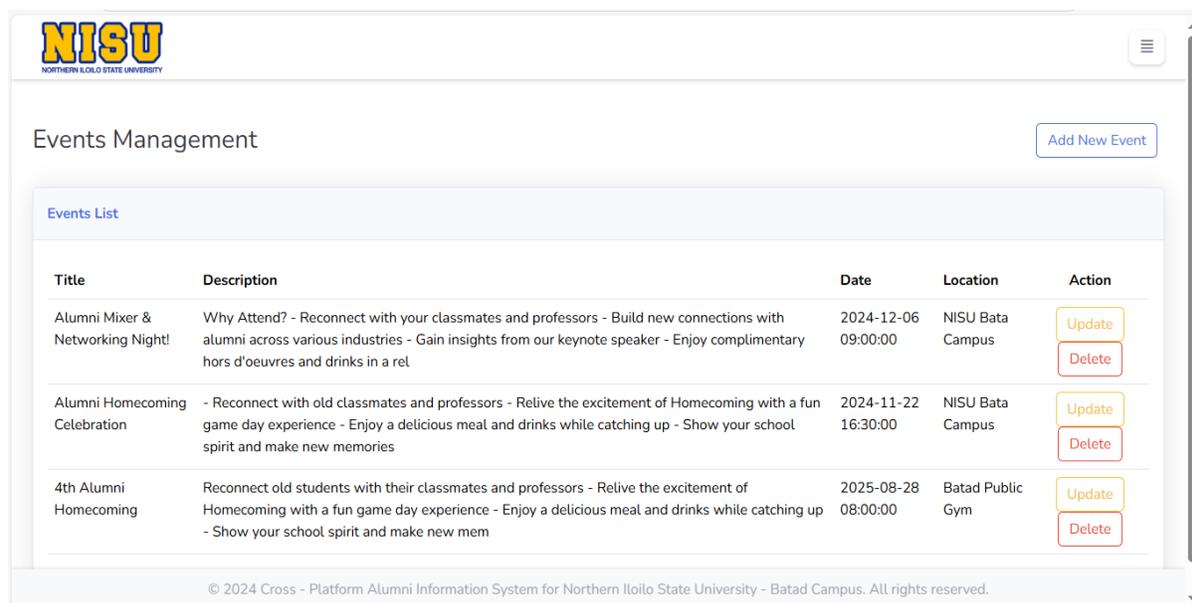


Figure 11
Forum Section

A discussion board for alumni to communicate, share advice, and network.

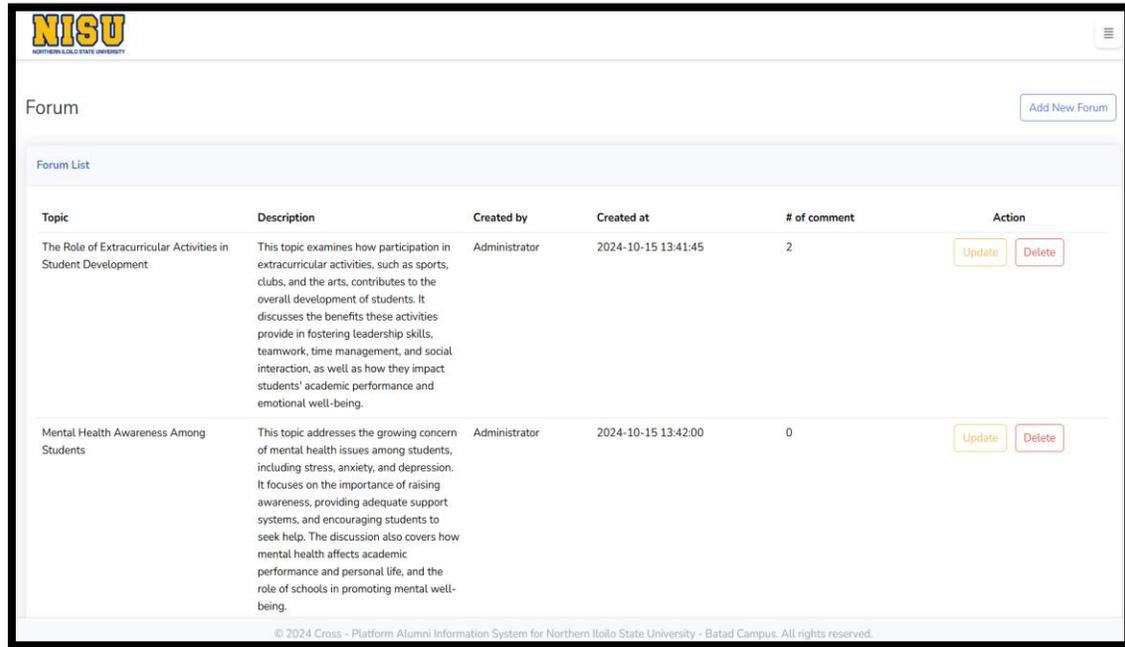


Figure 12
Users

Manages alumni profiles and interactions in the system.

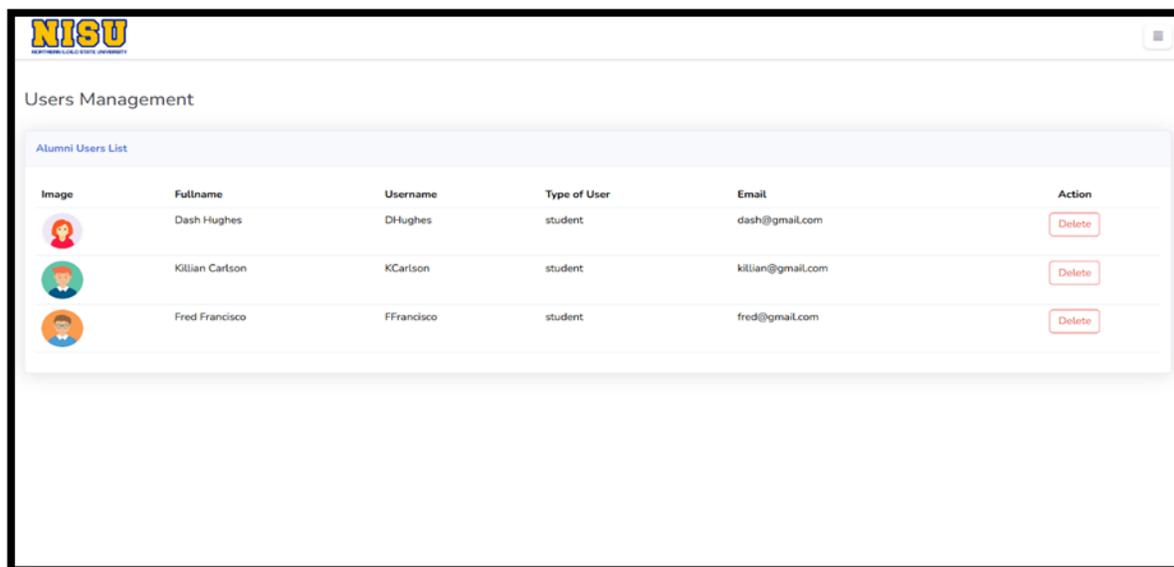
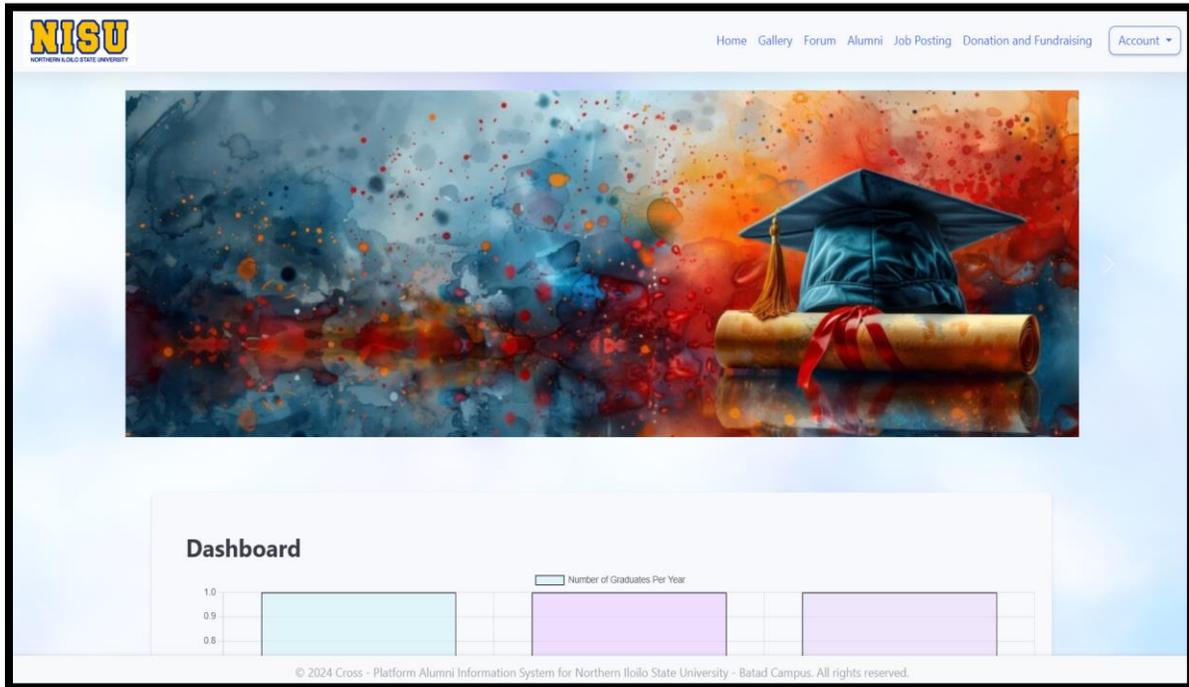
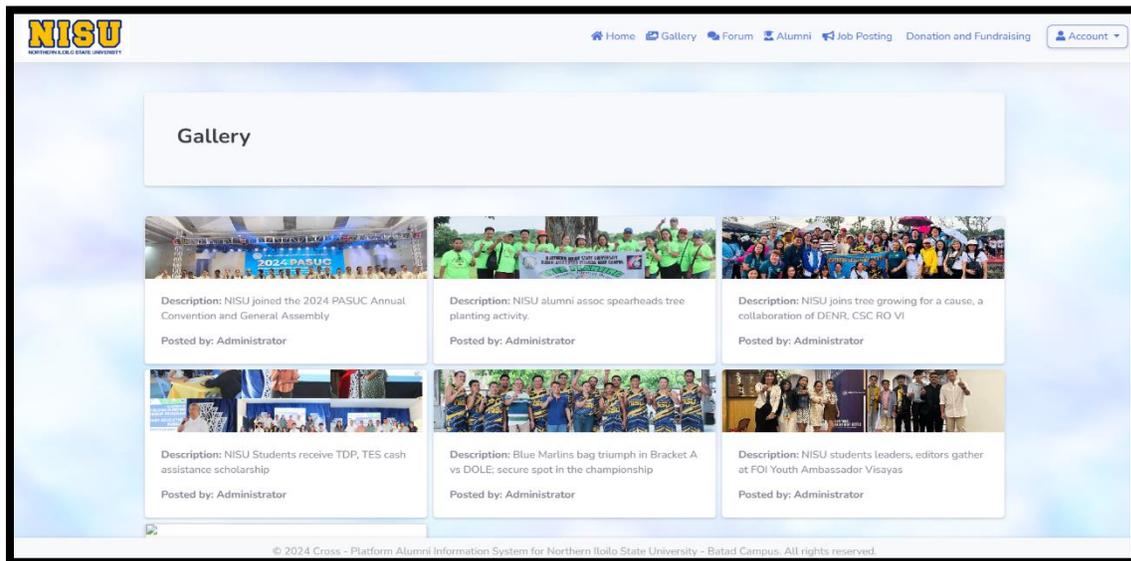


Figure 13
Alumni Dashboard

Personalized overview for alumni, showing updates and quick access to features.


Figure 14
Alumni Gallery

A space for alumni to share memories and achievements.



IV. Conclusion

The Cross-Platform Alumni Information System successfully manages alumni data and strengthens university-alumni communication. Its high ISO 25010 scores show it is effective and adaptable. The system supports institutional accreditation, tracer studies, and alumni networking. It holds promise for broader application in higher education.

V. Recommendations

1. Expand system features based on user feedback.
2. Integrate with other university systems for data exchange.
3. Conduct long-term studies on system impact.
4. Promote system use among alumni and staff.

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