

Enhancing Student Adaptability and Reducing AI Dependence through an Interactive Learning and Mentorship Portal (ILMP)

Mabelle R. Dumasapal¹, Jay-jay L. Sapotalo²

^{1,2}State University of Northern Negros

ABSTRACT: This study presents the Interactive Learning and Mentorship Portal (ILMP), a web-based platform designed to help college students adapt to academic demands while preventing excessive dependence on artificial intelligence (AI). Recent research indicates that although AI can support academic tasks, overreliance may weaken cognitive abilities such as critical thinking, creativity, and autonomous learning (George et al., 2024; Khatri & Karki, 2023). Many students struggle with time management, deep comprehension, and independent study habits, and the convenience of AI-generated outputs often discourages genuine engagement and self-directed learning.

The ILMP was created to address these challenges by providing an interactive and supportive digital learning environment. Key features including collaborative study groups, discussion forums, instructor-guided modules, and structured mentorship encourage active participation, reflective learning, and academic accountability. Through these support mechanisms, students build stronger academic routines and develop essential adaptability skills.

A defining component of the ILMP is its emphasis on responsible and ethical AI integration. Instead of discouraging AI use, the system promotes balanced and informed utilization, guiding students to treat AI as an educational partner rather than a substitute for personal effort (Chan & Hu, 2023; U.S. Department of Education, 2023). This approach reinforces critical thinking, academic discipline, ethical digital practice, and learner autonomy.

Overall, the ILMP functions not only as a learning platform but also as a community that cultivates resilience, academic integrity, and responsible technology use. The system demonstrates how AI can complement, not replace, human learning when guided appropriately, preparing students to thrive in technology-enhanced academic and professional settings.

KEYWORDS:

1. **Interactive Learning and Mentorship Portal.** Refers to the web-based platform developed in the study to promote student adaptability and reduce overreliance on AI through collaborative, mentor-guided learning
2. **Responsible Use of Artificial Intelligence.** Describes the ethical and intentional use of AI tools to support, rather than replace, student learning and critical thinking development.
3. **Peer Mentoring and Instructor Support.** Refers to the dual mentoring structure in the ILMP that connects students with faculty and senior students for guidance and academic support.
4. **Ethical Digital Learning Practices.** Covers the framework integrated in the portal to teach students the responsible and balanced use of digital tools in their education.
5. **AI Dependence Reduction Strategies.** Highlights how the ILMP is designed to shift students away from excessive reliance on AI and toward more thoughtful, human-centred learning.

INTRODUCTION

The transition from high school to college is a significant milestone, yet it can also be overwhelming for many learners. Students are suddenly expected to manage heavier academic workloads, stricter schedules, and the demand for higher-level critical and independent thinking. In this academic environment, artificial intelligence (AI) tools have increasingly become a convenient shortcut for completing tasks. While these tools provide quick answers, their excessive use can hinder genuine learning. Research shows that overdependence on AI can weaken critical skills such as problem-solving, creativity, and independent learning (George et al., 2024; Khatri & Karki, 2023).

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This challenge is particularly evident in the Philippine education context, especially in rural higher education institutions where structured academic support systems, such as formal mentoring, are limited. At Saint Francis College Guihulngan Negros Oriental Inc., many Computer Studies students were observed relying heavily on AI to complete academic tasks. In this study, 80 students and 10 faculty members were consulted to understand how students adapt to college demands while balancing the advantages and risks associated with AI usage. Similar to national trends, students reported difficulties in managing time, comprehending lessons independently, collaborating effectively, and sustaining academic confidence without technological support.

Beyond academic performance, heavy AI reliance may also influence students' personal growth, self-confidence, and ability to function independently in learning environments. Students who depend excessively on AI often struggle with self-reliance and confidence-building skills which are essential for long-term success (Baron, 2024). These concerns emphasize the importance of structured human support within learning environments. Research highlights that both peer and faculty mentorship play an important role in helping students develop resilience, academic competence, and adaptability in higher education (Le et al., 2024).

At the same time, it is important to acknowledge that AI is not inherently detrimental. When used responsibly, it can support learning and enhance educational access. Technology should serve as a partner in learning and not a substitute for personal effort or human interaction (Chan & Hu, 2023; Lyons et al., 2023). Guided and ethical use of AI ensures that students benefit from digital tools while maintaining essential academic skills.

To address these challenges and opportunities, this study introduces the Interactive Learning and Mentorship Portal (ILMP). The ILMP is designed to strengthen student adaptability by integrating collaborative learning activities, mentorship features, and structured guidelines for responsible AI usage. By providing a supportive academic environment, the ILMP aims to enhance critical thinking, encourage independent study habits, foster meaningful peer and faculty engagement, and guide learners toward balanced and ethical digital learning practices.

Ultimately, this initiative seeks not only to reduce unhealthy AI dependence but also to equip students with the competencies and values required to succeed beyond the classroom. Through mentorship, collaboration, and responsible technology use, the ILMP aims to develop confident, self-directed, and resilient learners capable of thriving in an increasingly digital academic and professional landscape.

Objectives of the Study

This study seeks to design and evaluate the Interactive Learning and Mentorship Portal (ILMP), a web-based platform intended to help college students at Saint Francis College Guihulngan Negros Oriental Inc., Philippines adapt more effectively to academic life while reducing their overreliance on artificial intelligence (AI) tools. The overarching goal is to create a supportive digital environment that promotes active learning, meaningful collaboration, and responsible AI use in education.

More specifically, the study aims to:

- Determine the extent of student dependence on AI tools in accomplishing academic tasks and how this affects their ability to think critically and learn independently.
- Develop and implement the ILMP, featuring interactive modules, discussion forums, mentorship sessions, and study groups tailored to the needs of Computer Studies students.
- Examine the impact of the ILMP on students' adaptability skills, specifically in time management, critical thinking, and independent learning.
- Promote ethical and responsible AI usage by embedding clear guidelines and educational resources within the platform to encourage technology as a learning partner rather than a substitute.
- Gather and analyse feedback from both students and faculty mentors (sample: 80 students and 10 faculty members) to assess user satisfaction, system usability, and the overall effectiveness of the ILMP in supporting their learning journey.

By pursuing these objectives, the study aims not only to validate the ILMP as a tool for reducing AI dependence but also to highlight its potential in cultivating adaptability, resilience, and lifelong learning among students in a digital-driven educational landscape.

MATERIALS AND METHODS

Research Method Used

The researchers adopted the Prototype Model of system development in creating the Interactive Learning and Mentorship Portal (ILMP). This model allowed for iterative development with frequent testing and feedback. The system was

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developed using standard web technologies, including HTML, CSS, and JavaScript for the front-end, with PHP and MySQL for the back end. The platform was hosted on a local server during testing using XAMPP.

Hardware used included development laptops with at least 8GB RAM and Intel i5 processors or equivalent. For testing, both desktop and mobile devices were used to ensure responsiveness. The development environment was primarily Windows-based.

To ensure quality and functionality, the system underwent both unit testing and user acceptance testing (UAT). Unit tests were conducted to check each module's performance—like the discussion forum, mentor session scheduler, and AI guidelines content. UAT was performed by a select group of students and faculty members, who provided feedback on usability, functionality, and overall experience. These stages allowed the team to identify bugs, usability concerns, and areas for improvement before final deployment.

The researchers adopted the Prototype Model of system development in creating the Interactive Learning and Mentorship Portal (ILMP). This method was selected because it provided an opportunity to build an initial version of the portal, try it out with real students and mentors, and gradually enhance its features based on their feedback. By repeating the stages of design, development, and evaluation, the researchers were able to refine the system in a way that supports student adaptability while also helping to reduce overdependence on AI tools.

Sampling Technique

The research was carried out at Saint Francis College - Guihulngan City, Negros Oriental Incorporated, focusing on the College Department, particularly the Computer Studies program. Since the Interactive Learning and Mentorship Portal (ILMP) had not yet been developed, the researchers used purposive sampling to select participants who could offer valuable insights for the system's design. The selected participants included Computer Studies faculty members, academic advisers, and a group of college students who are likely to use the portal. These individuals were intentionally chosen because of their active roles in teaching, mentoring, and learning. Their experiences and perspectives were essential in identifying the key features the system should have, as well as in understanding possible challenges and areas for improvement before the full development of the ILMP.

Instrument Generation and Validation

Crafting the Interactive Learning and Mentorship Portal (ILMP) wasn't just about lines of code; it was about understanding the very people it was meant to serve. So, the research team didn't rely on impersonal data; they built a questionnaire, a friendly conversation on paper, to hear directly from students and mentors. They asked about hopes and dreams for the portal, what features would make learning sing, what hurdles students faced, and how they felt about AI in their studies. It was like having a cup of coffee with each user, learning their unique stories and perspectives.

Before distributing the questionnaire, the team asked for guidance from three faculty members who had experience in both research and technology. These experts reviewed the initial draft and gave helpful suggestions to improve the clarity and focus of the questions. Their feedback helped the researchers make sure that the instrument would truly capture the information needed for the study. After making the necessary adjustments, the team finalized the questionnaire and used it to gather insights that would help shape the development of the ILMP.

Data Collection Procedure

Once the research tool was validated, the team began collecting data. They personally reached out to selected faculty members and students from the Computer Studies program at Saint Francis College - Guihulngan City, Negros Oriental, Inc. Before anything else, the participants were given a brief but clear explanation about the purpose of the study and how their input would contribute to developing the Interactive Learning and Mentorship Portal (ILMP).

To make things more convenient and encourage honest responses, the questionnaires were made available in both printed and digital formats—whichever the participants preferred. Everyone was given ample time to complete the forms, and the researchers stayed on hand to assist or answer any questions that came up along the way.

Data Analysis

After gathering the questionnaires, we went through each one to make sure the answers were complete. We counted the responses and looked at how many people gave similar answers using basic tools like tallying and averaging. This helped us see which ideas or features were most important to the students and teachers. For questions where participants could explain their thoughts, we read their answers carefully and took note of the ones that came up often. These results gave us a better idea of what to include in the ILMP.

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Ethical Considerations

Before we gave the questionnaires, we explained to the participants what the study was for and how their answers could help us with the ILMP. We told them they didn't have to join if they didn't want to, and they could skip questions or stop at any time. Those who joined gave their permission before answering. We didn't collect names or anything personal. We also made sure their answers stayed private and were only used for our research.

RESULTS AND DISCUSSION

After gathering responses from faculty members and students in the Computer Studies program at Saint Francis College Guihulngan City, the research team analyzed the feedback to understand how learners currently engage with artificial intelligence (AI) and how the Interactive Learning and Mentorship Portal (ILMP) can support their academic development. The findings revealed several significant themes.

1. Reliance on AI and Its Effect on Independent Learning

A substantial number of students reported frequent use of AI tools such as ChatGPT, grammar applications, and content generators for academic tasks. While these tools were recognized for their efficiency and convenience, many participants noted that frequent reliance reduced their initiative to think independently and deeply engage with lessons. These observations align with literature indicating that excessive AI dependence can undermine students' ability to develop critical thinking, creativity, and independent learning skills (George et al., 2024; Khatri & Karki, 2023). Students expressed concern that this habit may negatively impact their academic growth in the long term.

2. Challenges in Academic Adaptation

Many respondents shared difficulties in adjusting to academic demands, managing time, and collaborating effectively with peers. These challenges reflect the transitional struggles commonly experienced by college students and further highlight the importance of structured academic support systems. This reinforces the need for the ILMP to guide students toward improved self-management, communication, and academic discipline, which are essential skills during college adaptation.

3. Importance of Mentorship and Peer Support

Participants emphasized the value of mentorship opportunities integrated into the ILMP. Both students and mentors believed that guidance from peers and faculty could enhance confidence, communication, and motivation. This finding is supported by prior research, which highlights that mentorship plays a vital role in improving student adaptability, learning behaviour, and confidence in higher education settings (Le et al., 2024). Respondents indicated that consistent mentor presence would encourage accountability and provide emotional and academic support.

4. Need for Responsible AI Use and Ethical Digital Practices

Respondents consistently emphasized the importance of learning how to use AI properly in academic work. Students expressed interest in AI ethics lessons and guidelines to ensure proper usage, academic honesty, and skill development. This aligns with recommendations from educational institutions, which stress that clear policies and structured guidance are necessary to help students use AI responsibly (U.S. Department of Education, 2023; Lyons et al., 2023). Students agreed that having dedicated modules on ethical AI use within the ILMP would help them maintain academic integrity and avoid overreliance.

5. Encouraging Active and Collaborative Learning

Students appreciated the ILMP features that promote active learning, including reflection activities, collaborative tasks, and interactive learning modules. They believed that such features could help them shift from passive AI-dependent learning toward deeper academic engagement supported by both technology and human interaction. Participants also highlighted the importance of community-building, noting that the ILMP could function as a supportive academic space that motivates them to participate and be more responsible with their studies.

6. Suggested System Improvements

Despite positive feedback, participants raised some concerns and recommendations. Limited internet access in rural areas was a notable challenge. Respondents suggested that the platform be optimized for mobile use and potentially include access-light features. Mentors also requested integrated tools for scheduling sessions and monitoring student progress more efficiently. These suggestions will guide future development stages to ensure accessibility, usability, and continuous system improvement.

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Table 1: System Development Overview

Component	Description
Hardware Specifications	Development laptops with Intel Core i5 processors (or equivalent), 8GB RAM, SSD storage. Testing on smartphones, tablets, and desktop PCs.
Software Specifications	Frontend: HTML, CSS, JavaScript; Backend: PHP, MySQL; Development environment: XAMPP (local server simulation).
Development Platform	Windows OS, Visual Studio Code (code editor), Google Chrome (browser testing).
Development Framework	Prototype Model – iterative design, build, test, and improve approach.
Testing Conducted	Unit Testing – checks on individual components (e.g., login, forums); User Acceptance Testing – usability feedback from students and faculty.

CONCLUSION AND RECOMMENDATION

Conclusion

This study confirms a growing trend among college students in the digital era: increasing reliance on artificial intelligence (AI) for academic tasks, often at the expense of deep learning and independent thought. Although AI can enhance access to information and support academic efficiency, excessive dependence may limit essential cognitive and academic skills such as critical thinking, problem solving, creativity, and self-directed learning (George et al., 2024; Khatri & Karki, 2023). The experiences of students at Saint Francis College Guihulngan Negros Oriental Inc. reflect this challenge, particularly in an environment where digital tools are available but structured academic support and mentoring are still developing.

The Interactive Learning and Mentorship Portal (ILMP) was developed as a strategic response to these needs. The portal encourages students to participate actively in their learning processes by engaging in collaborative discussions, guided mentorship, and structured learning activities. This approach aligns with research emphasizing the importance of mentorship in strengthening adaptability, academic confidence, and resilience among learners (Le et al., 2024). The ILMP was positively received by both students and faculty, indicating its potential to serve as a supportive academic space that promotes self-discipline, peer collaboration, and thoughtful engagement with learning tasks.

A key feature of the ILMP is its emphasis on ethical and responsible use of AI. The system encourages students to use technology as a learning partner rather than a replacement for personal effort and intellectual engagement, consistent with guidelines encouraging responsible AI practices in education (Chan & Hu, 2023; Lyons et al., 2023; U.S. Department of Education, 2023). This balanced approach prepares learners not only to succeed academically but also to demonstrate digital literacy, integrity, and autonomy in real-world settings.

Overall, the ILMP is more than a technological tool. It is a learning community designed to cultivate independent, confident, and capable students who are prepared for the demands of higher education and professional life in a technology-driven world. The findings demonstrate that with proper guidance and structured support, technology can complement human learning and promote student growth, rather than hinder it. Continued implementation and improvement of the ILMP can further enhance student adaptability, maximize the benefits of AI, and reinforce meaningful, responsible, and ethical learning practices.

Recommendations

To maximize the impact of the ILMP, the following steps are recommended:

1. Continue Platform Development and Testing
Test the ILMP with more users to gather broader feedback and improve its design before full implementation.
2. Add Time Management Features
Including reminders, schedules, or goal-setting tools could help students stay organized and accountable.
3. Improve Accessibility
Make sure the portal works well on mobile devices and consider offline features to support students with limited internet access.
4. Support Mentors and Instructors
Offer training sessions so that those guiding students through the ILMP are well-prepared and confident in using its features.
5. Keep AI Guidelines Updated
As AI continues to evolve, update the educational materials in the portal to ensure students are always learning how to use technology wisely and responsibly.

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6. Encourage Ongoing Feedback

Build in a way for users to easily share suggestions or concerns, so the platform can continue improving based on real experiences.

By acting on these recommendations, the ILMP can become a meaningful tool for helping students not only succeed in school but also grow into independent, thoughtful, and adaptable learners ready for the real world.

Sample Interface



Figure 1: ILMP Landing Page

A welcoming interface that introduces the ILMP (Interactive Learning and Mentorship Portal) and provides user access based on roles—Administrator, Instructor, Student, or new registrants. Designed with a clean chocolate brown aesthetic for an academic and inviting experience.

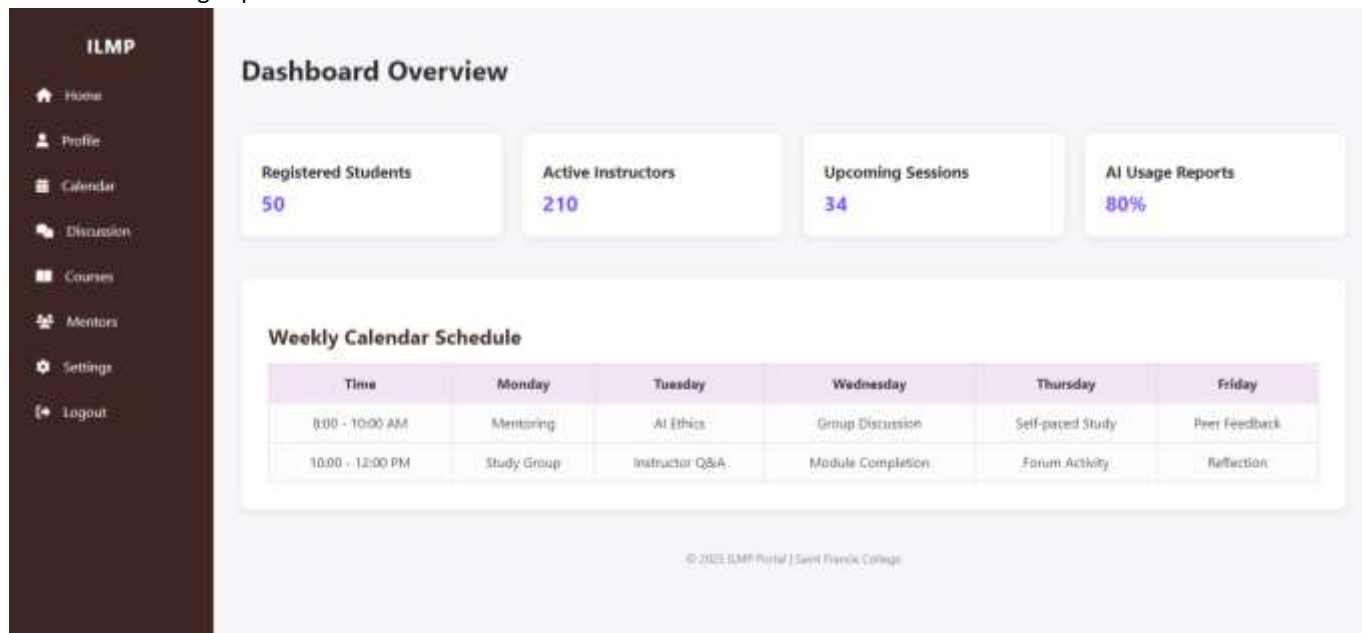


Figure 2: ILMP Dashboard Overview

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The central hub of the ILMP, this dashboard provides users with quick insights into key statistics such as student count, instructor activity, upcoming sessions, and AI usage reports. It also features a weekly schedule calendar for organized learning.



Figure 3: ILMP Upcoming Sessions Page

A dedicated page listing scheduled learning events, mentorship activities, and collaborative sessions. Each entry includes the topic, date, time, and facilitator, helping students and instructors stay informed and engaged.

REFERENCES

- 1) Baron, J. V. (2024). A double-edged sword: Examining the link between students' dependence on AI tools and their psychosocial maturity. TWIST. <https://twistjournal.net/twist/article/view/402>
- 2) Chan, C. K. Y., & Hu, W. (2023). A comprehensive AI policy education framework for university teaching and learning. International Journal of Educational Technology in Higher Education, 20, 43. <https://doi.org/10.1186/s41239-023-00408-3>
- 3) George, A. S., Baskar, T., & Srikanth, P. B. (2024). The erosion of cognitive skills in the technological age: How reliance on technology impacts critical thinking, problem-solving, and creativity. Partners Universal Innovative Research Publication, 2(3), 147–163. <https://puirp.com/index.php/research/article/view/63>
- 4) Khatri, B. B., & Karki, P. D. (2023). Artificial intelligence (AI) in higher education: Growing academic integrity and ethical concerns. Nepalese Journal of Development and Rural Studies, 20(1), 1–7. <https://doi.org/10.3126/njdrs.v20i01.64134>
- 5) Le, H. G., Sok, S., & Heng, C. (2024). The benefits of peer mentoring in higher education: Findings from a systematic review. Journal of Learning Development in Higher Education, 31. <https://journal.aladinhe.ac.uk/index.php/jldhe/article/view/1159>
- 6) Lyons, J. B., et al. (2023). Responsible (use of) AI. Patterns, 4(10), 100868. <https://pmc.ncbi.nlm.nih.gov/articles/PMC10790885/>
- 7) U.S. Department of Education. (2023). Artificial intelligence and the future of teaching and learning: Insights and recommendations. <https://www.ed.gov/media/document/ai-reportpdf-43861.pdf>



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