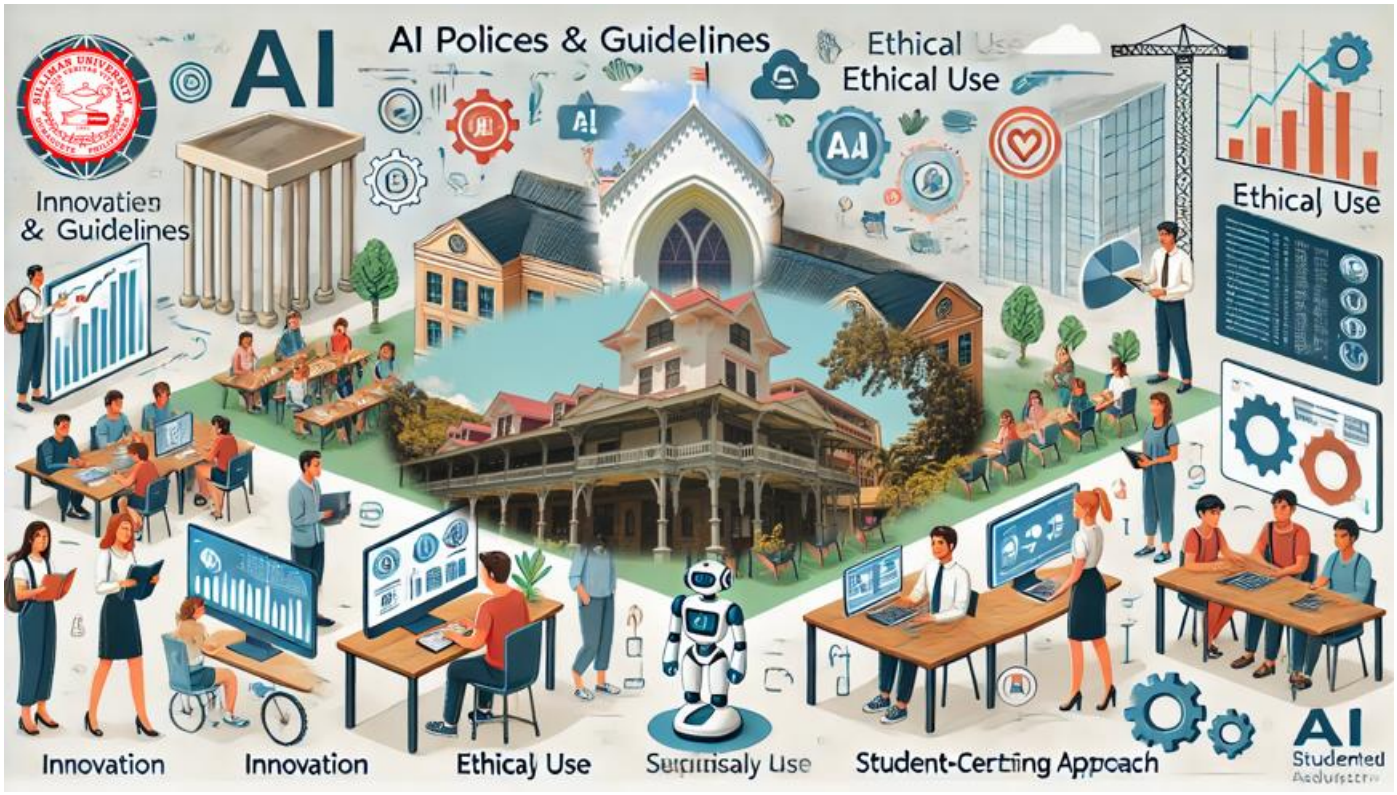
INTEGRATION OF ARTIFICIAL INTELLIGENCE INTO SILLIMAN EDUCATION



SILLIMAN UNIVERSITY

Building Competence, Character & Faith

2024

ACKNOWLEDGMENTS

The integration framework for the Silliman University community was formulated under the leadership of President Dr. Betty Cernol McCann, who emphasizes that digital transformation in higher education is inevitable but should be carried out ethically and responsibly.

The framework and its implementing guidelines were approved by the Board of Trustees, ensuring the guidelines are fair and easy to understand for everyone. The Board of Trustees include Mr. Ricardo A. Balbido, Jr. (Chair), Atty. Fema Christina P. Sayson (Secretary), and members: Engr. Emmanuel D. Abellanosa, Dr. Epifania D. Anfone, Mr. Eduardo A. Bangayan, Dr. Marl V. Ferenal, Bishop Melzar D. Labuntog, Dr. Evangeline B. Manjares, Atty. Mildred A. Pfleider, Atty. May S. Pono, Mr. Keith Arleigh D. Quebral, Mrs. Fenina T. Rodriguez, and Mrs. Grace A. Ty.

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The cover page illustration depicts Silliman University's AI Policies and Guidelines, showing AI's integration into a modern educational environment. It features diverse stakeholders—students, teachers, staff, and administrators—using AI tools, symbolizing innovation, ethical use, collaboration, and a student-centric approach. This illustration was partially generated by ChatGPT, which was also utilized to enhance the clarity and readability of this document.

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EXECUTIVE SUMMARY

Artificial Intelligence (AI) is a transformative technology that has significantly impacted education. Silliman University embraces AI to enhance teaching, learning, and administrative processes. This document outlines the AI integration framework and provides guidelines for the responsible and effective use of AI in the university.

Part I includes a diagram and narrative description that explains the university's core values and principles of AI Integration. Silliman University's AI Integration Framework emphasizes continuous learning, ethical practices, collaboration, and a student-centric approach. It describes how making AI can improve personalized learning and make administrative tasks more efficient. Silliman University's AI Integration Framework is founded on values such as innovation and ethical use, continuous learning, collaboration and engagement, and a student-centric approach. These principles guide the mission-driven integration of AI to improve personalized learning experiences, enhance administrative efficiency, and ensure AI use aligns with the university's mission and values.

Part II provides comprehensive guiding principles to assist all stakeholders (teachers and researchers, staff, administrators, students, and parents) in responsibly integrating AI into teaching, learning, administration, and operations. To implement these guidelines, the university emphasizes faculty and staff training through regular workshops and sessions on AI tools and applications led by the Global Studies Center. Students are introduced to AI's benefits and responsible use during student orientation, with encouragement to explore AI-powered learning platforms. Ethical AI use in research is stressed, with guidelines to maintain high ethical standards and ensure transparency through AI-generated content checkers. Inclusive learning materials are developed to cater to diverse learning styles, and assessment transparency is maintained by clearly communicating the use of AI tools in assessments. Privacy protection protocols are strengthened to safeguard student and faculty data.

Part III outlines specific guidelines for the effective and ethical integration of AI tools in educational settings. In the classroom, AI is utilized for content generation, such as text, image, and video creation, enhancing pedagogy with personalized learning paths and innovative materials. AI also supports research through data analysis, literature reviews, and writing assistance and streamlines assessments with adaptive quizzes, instant feedback, and automated grading. Administratively, AI aids in information dissemination through tailored newsfeeds and social media management, provides writing support with grammar checks and plagiarism detection, and organizes tasks by automating timetables, event planning, and resource allocation.

Part IV focuses on the "Do's and Don'ts" of using AI tools across various academic disciplines. This section provides guidelines to help teachers and students effectively and ethically incorporate AI into their educational practices. The Do's and Don'ts are divided into three main areas: content generation, assessment, and research.

Part V outlines the necessary steps for students and faculty to declare their use of AI tools in academic submissions and emphasizes transparency in AI usage. It includes instructions for submitting AI-generated work, guidance for instructors on giving clear instructions regarding AI use in assignments and using AI detection tools like Turnitin to ensure the originality of student work. It also highlights the importance of direct communication between instructors and students to verify the authenticity of submissions and maintain academic integrity.

Part VI provides practical examples of how AI can be integrated into various academic and administrative processes. This part of the document aims to illustrate the diverse applications of AI, encouraging faculty and staff to explore AI tools that best fit their educational and administrative needs. In the Classroom, AI tools assist in content generation, such as generating text, images, music, and videos to enhance learning experiences. In Administration and Management, AI assists with grammar checks, rewriting, and citation management and streamlines scheduling, resource allocation, and data analysis, improving efficiency and decision-making.

Part VII outlines the upskilling program designed to equip stakeholders with the skills and guidelines for ethical AI use. The training covers mySOUL Updates, Responsible Technology Use, AI, and Innovations in Teaching and Learning. Sessions are available for Teachers, Staff, Students, Parents, and Senior Citizens in Online, In-Person, and Hybrid formats. Additionally, the section details self-paced AI training through the Silliman Open Online Course (SOOC) platform, utilizing micro-learning strategies. Furthermore, Part VII describes a virtual training room for faculty and staff, providing resources, recorded sessions, and information on upcoming events.

Part VIII details the various initiatives and activities undertaken by the university to integrate AI into its educational and administrative processes. It includes a timeline of events, seminars, workshops, and conferences to enhance AI literacy and practical implementation within the university community. These initiatives are aimed at teachers, students, staff, and the larger community, highlighting the university's commitment to fostering an environment of continuous learning and innovation through the responsible use of AI.

Part IX offers definitions of technical terms to help readers better understand the guidelines.

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I. THE FRAMEWORK

This section includes a diagram illustrating the university's commitment to continuous learning, ethical practices, collaboration, and a student-centric approach. It highlights how AI can enhance personalized learning experiences and improve administrative efficiency. The AI Integration Framework at Silliman University is built on foundational values such as innovation, ethical use, and engagement. These principles ensure that AI applications align with the university's mission and values, benefiting students, faculty, and staff. Additionally, a narrative is provided to explain the diagram in detail.

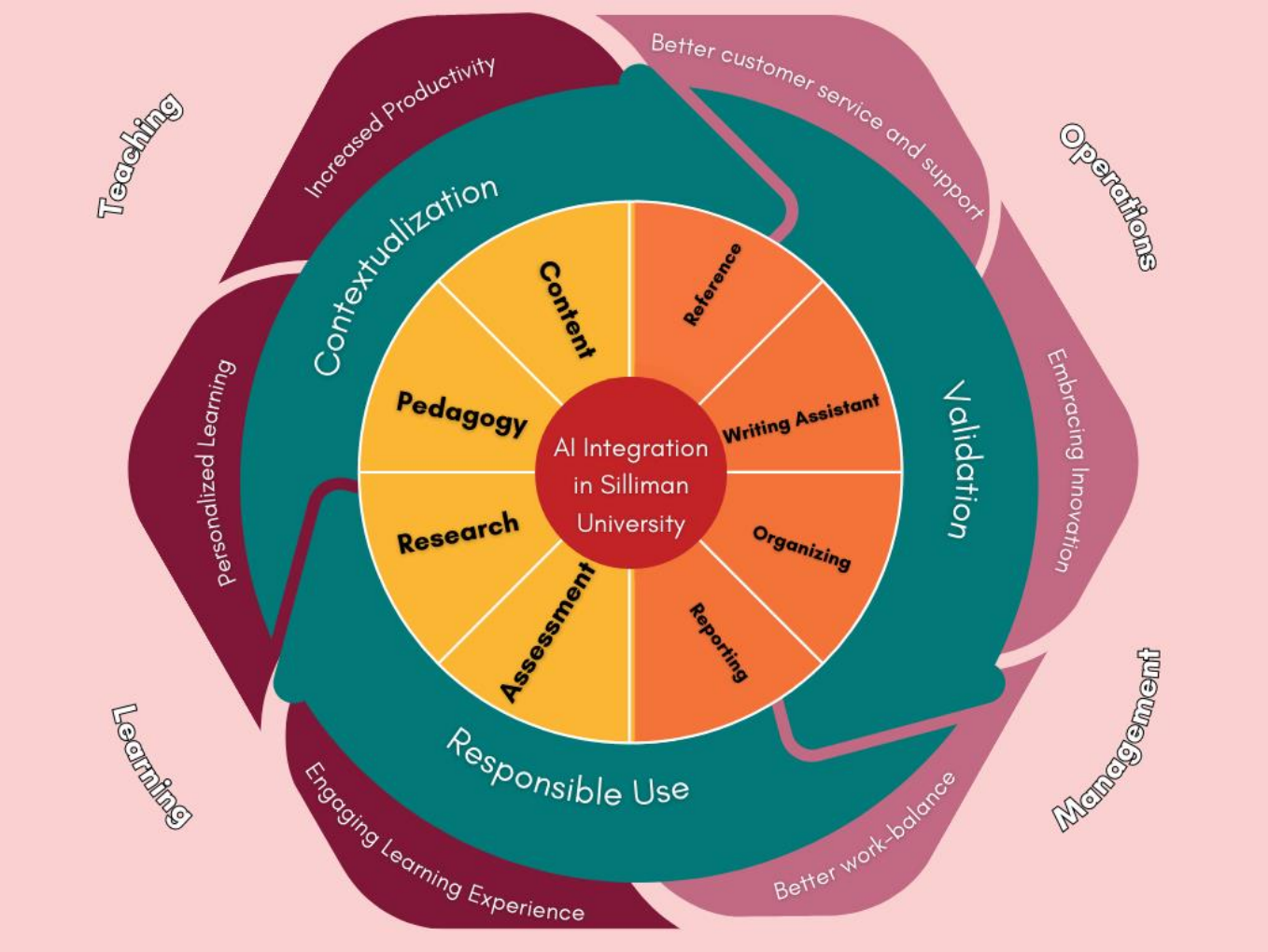

Figure 1. Silliman University AI Integration Framework (BOT ACTION 2023-99)

Silliman University has fully embraced digital transformation, resulting in numerous innovations across teaching, learning, operations, and management. Artificial Intelligence (AI) stands out as a key educational technology tool in this ongoing transformation, profoundly impacting the classroom, administrative processes, and the broader campus environment. This collective integration of AI into these areas characterizes the university's embrace of what is often referred to as Education 5.0.

Table 1. Values and Principles of SU's AI Integration Framework

VALUES	PRINCIPLES
1. Innovation and Ethical Use 2. Continuous Learning Culture 3. Collaboration and Engagement 4. Student-Centric Approach 5. Mission-Driven Integration	1. Embrace AI as an Innovative Force 2. Prioritize Continuous Learning 3. Actively Engage in Partnerships 4. Prioritize Ethical Practices 5. Utilize AI for Personalized Learning 6. Optimize Administrative Processes with AI 7. Foster Responsibility and Accountability 8. Promote Equitable Access to AI 9. Enhance Customer Service with AI 10. Align AI Integration with Mission

In the classroom, teachers and students can harness AI as a versatile tool with several vital functions. These include serving as a content generator, improving pedagogical relevance, facilitating research efforts, and streamlining assessment methods. As a *content generator*, AI can assist with various tasks like text generation, image creation, music composition, video generation, content personalization, and more. Teachers and students can use AI to enhance *pedagogical relevance* for personalized learning paths, innovative learning materials, lesson planning, data-driven insights, accessibility, inclusivity, mentoring, tutoring, individualized support, engagement enhancement, collaborative learning facilitation, and cognitive load management. In *research*, AI can be a valuable tool for generating topics and hypotheses, summarizing and reviewing literature, identifying and citing resources, analyzing data, visualizing data, predictive and simulation modeling, offering writing assistance, and providing cross-disciplinary insights and customized recommendations. Moreover, AI tools can streamline *assessment* methods, including adaptive quizzes, instant feedback, gauging conceptual understanding, providing targeted resources, automated grading, rubric-based assessment, data analysis, personalized feedback, individual reports, and item analysis. The university aims to use AI to deliver more *personalized learning* experiences for students, promote *increased productivity* and creativity among educators, and create a more *engaging learning environment* for everyone.

In administration and management, administrators and staff can leverage AI as a valuable asset to assist with information dissemination, writing support, language translation, task organization, and robust data analysis and reporting. For information dissemination, administrators and staff can utilize AI for tailored newsfeeds, engaging on social media, providing real-time updates, visualizing data, automating content distribution, localizing content, and moderating content, among other functions. Gen AI can also help with grammar and spelling checks, maintaining style and tone, rewriting and paraphrasing, enhancing vocabulary, detecting plagiarism, ensuring cohesion and flow, summarizing content, translating text, managing citations and references, offering *writing* prompts, and conducting proofreading and editing tasks. In terms of administrative tasks, Gen AI can create automated timetables, personalized learning plans, resource allocation, workload management, *organize* parent-teacher conferences, schedule examinations, plan events, optimize resource utilization, enhance student support services, and streamline emergency response procedures. Additionally, administrators and staff can use Gen AI for data preparation, recognizing patterns, predictive modeling, automating *reporting*, detecting anomalies, exploring data in real-time, managing data governance, and other related functions. The university's aspiration is that through the integration of AI, it can maintain and improve *customer service* and support, promote *work-life balance* among staff, and foster a *culture of innovation*. This commitment ensures that the institution remains relevant at the forefront of the ever-evolving education landscape.

However, the university recognizes that the integration of AI comes with responsibilities. This responsibility extends to everyone within the university community, including teachers, staff, students, and the broader public. It requires active efforts to *contextualize* by understanding, assessing, and using ethically this powerful technology. Several key considerations in the *responsible use* such as ethics, academic integrity, privacy, the potential loss of the human touch, biases, overreliance, and ensuring equitable access, must be diligently addressed during the implementation process. Everyone must *validate* and crosscheck contents that are generated by AI.

To ensure successful integration, Silliman University commits to fostering a culture of continuous learning and professional development, empowering faculty and staff with the knowledge and skills required to maximize the potential of AI while mitigating potential risks. Additionally, the university remains dedicated to collaborating with industry leaders, researchers, and fellow educational institutions to stay abreast of AI advancements and best practices, ensuring its integration framework remains cutting-edge and effective.

On this journey, Silliman University is not merely adopting AI for technology's sake but instead embracing it as a powerful tool that enriches the educational experience, propels administrative efficiency, and bolsters its mission to nurture future leaders and changemakers. With a shared commitment to responsible AI integration, Silliman University will continue to thrive as a trailblazer in higher education, positively impacting the lives of students, faculty, staff, and the broader community.

II. IMPLEMENTING GUIDELINES

This guideline is formulated to assist all stakeholders in Silliman University in implementing the responsible use of AI in teaching and learning, as well as in administration and operations. It covers faculty and staff training, student orientation, ethical research practices, inclusive learning materials, transparent assessments, diverse AI tools, privacy protection, feedback mechanisms, cross-departmental collaboration, and monitoring frameworks.

1. Faculty and Staff Training and Development
   a. Deans, Directors, and Unit Heads should ensure that all faculty and staff undergo orientation and upskilling on AI tools and their applications in teaching, learning, operations, and management.
   b. The Global Studies Center will lead workshops on using AI for personalized learning, inviting experts and collaborators.
   c. The library should play a key role in reinforcing the implementation and giving regular updates on the availability of generative AI teaching-learning materials and platforms in the library to teachers and students.
2. Student Orientation
   a. During orientation sessions, students should be introduced to the benefits and responsible use of AI in education.
   b. To understand technology's potential, students must utilize the ICI Laboratory's Free Computer Education in exploring AI-powered learning platforms, such as Khan Academy, Scratch Programming, or Duolingo.
3. Ethical AI Use in Research
   a. An orientation on the guidelines for maintaining ethical standards in research involving AI technologies should be provided.
   b. The Global Studies Center will offer a checklist for students conducting AI-assisted research, to ensure transparent data sourcing, responsible data handling, and proper citation of AI-generated content. Students will be trained on using AI-generated content checkers in mySOUL Learning Management System.
4. Inclusive Learning Materials
   a. The faculty should be encouraged to use AI in creating inclusive and accessible learning materials.
   b. The faculty can utilize AI tools to create content that caters to various learning styles to ensure accessibility for all students.
5. Assessment Transparency
   a. The use of AI in assessment methods must be communicated to the students to promote transparency.
   b. One of the sections in the course syllabus must explain how AI tools will be used in quizzes or exams and what its role is in providing instant feedback.
6. Diversity in AI Tools
   a. Diverse AI tools must be explored to cater to different subject areas and learning objectives.

   b. The Global Studies Center will encourage and upskill the faculty to use subject-specific AI applications.
7. Privacy Protection
   a. The University's protocols for protecting student and faculty privacy using AI technologies will be strengthened.
   b. Teachers should ensure that AI assessment tools will anonymize student data and comply with relevant data protection regulations.
8. Regular Feedback Channels
   a. A mechanism will be created to generate consistent feedback from faculty and students on their experiences with AI integration.
   b. The Global Studies Center will conduct a feedback survey at the end of each semester, to determine the effectiveness of the integration and gather suggestions for improvement.
9. Cross-Collaboration
   a. Collaboration among different departments and others will be promoted to allow for the sharing of best practices in AI integration.
   b. A *Kapihan* session will be established as a cross-departmental working group that meets regularly to discuss successful AI implementations, challenges faced, and strategies for improvement.
10. Monitoring, Evaluation, and Updating
   a. A framework for ongoing monitoring and evaluation of AI integration in classrooms will be developed.
   b. The Global Studies Center (GSC) will assess the achievement of learning outcomes by comparing courses that use AI tools with those that do not, measuring the impact of AI integration on student success.
   c. The GSC is also responsible for updating this integration framework and guidelines to ensure all stakeholders are properly informed.

III. GENERAL CLASSROOM POLICIES

The "General Classroom Policies" section in the "AI Policies and Guidelines" document outlines general guidelines for the effective and ethical integration of AI tools in educational settings. Considering the diversity of academic disciplines at Silliman University, these classroom policies are formulated in a general sense to ensure flexibility. Each discipline can then articulate and adapt these policies following their specific teaching and learning needs.

The classroom policies emphasize AI tool familiarization, inclusive content creation, and transparency in AI-assisted assessments. Ethical research guidelines ensure high standards, and data privacy is prioritized. Continuous professional development and collaborative lesson planning are promoted to keep educators updated on AI best practices. To ensure effective implementation and responsible use of AI in our classrooms, the following classroom policies are formulated:

1. AI Tool Familiarization. Teachers should familiarize themselves with AI tools relevant to their subject area.
   - ✓ Example: A science teacher might explore AI platforms to incorporate virtual labs into their lessons, enhancing students' hands-on experience.
2. Inclusive Content Creation. Teachers are encouraged to use AI to create diverse and inclusive learning materials.
   - ✓ Example: A language arts teacher could employ AI tools to generate alternative text or diverse examples for language exercises.
3. AI-Assisted Assessments. Students must be informed when AI tools will be used in assessments and what purpose they serve in the assessment.
   - ✓ Example: A mathematics teacher might utilize AI-driven platforms for adaptive quizzes, providing personalized practice and instant feedback.
4. Ethical Research Guidelines. Teachers should guide students on maintaining ethical standards when using AI in research projects.
   - ✓ Example: A social studies teacher may provide a checklist for students on using AI to analyze historical data, emphasizing responsible data handling and citation.
5. Transparent Pedagogical Use. Teachers should transparently communicate the pedagogical purpose of using AI in lessons.
   - ✓ Example: An economics teacher might use AI tools to generate discussion prompts, to foster critical thinking and class engagement.
6. Feedback Mechanisms. A feedback mechanism must be established to regularly monitor students' experiences with AI-integrated lessons.
   - ✓ Example: A music teacher may create a simple survey at the end of a term, asking students about the effectiveness of AI-generated music compositions in their learning.
7. Data Privacy in Classroom Activities. Teachers should ensure that any AI tools used in classroom activities prioritize student data privacy.
   - ✓ Example: An art teacher using AI for creative projects ensures that tools maintain the confidentiality of students' artistic expressions.

8. Subject-Specific AI Applications. Teachers are encouraged to explore subject-specific AI applications relevant to their curriculum.
   - ✓ Example: A history teacher might use AI-powered timeline generators to create interactive historical timelines for better student engagement.
9. Continuous Professional Development. Teachers should actively engage in continuous learning opportunities related to AI integration in education.
   - ✓ Example: GSC will provide regular workshops where teachers can explore new AI tools and share best practices for effective classroom integration.
10. Collaborative Lesson Planning. Collaborative lesson planning is encouraged among teachers to share insights on successful AI implementations.
    - ✓ Example: A geography teacher collaborates with a mathematics teacher to integrate AI tools for spatial analysis and data visualization in interdisciplinary lessons.

IV. DO'S AND DON'TS

Part IV of the "AI Policies and Guidelines" document focuses on the "Do's and Don'ts" of using AI tools across various academic disciplines. This section provides guidelines to help teachers and students effectively and ethically incorporate AI into their educational practices. It covers key areas such as content generation, assessment, and research, ensuring that AI tools are used responsibly and transparently to enhance learning and maintain academic integrity.

While they offer general principles, teachers can adapt AI tools to their course's specific learning outcomes. All teachers are encouraged to incorporate this list into their syllabi, particularly under "Classroom Policies."

A. Content Generation (e.g., Composing Essays)

Do's:

1. Understand AI Assistance. Understand the role of AI as an assistive tool in content generation, aiding in research, organization, and language refinement.
2. Ensure Originality. Ensure that the content generated with AI assistance remains original and reflects personal understanding and insights.
3. Review AI-generated content. Review and edit the AI-generated content to ensure accuracy, coherence, and alignment with the assignment requirements.
4. Learn from AI Suggestions. Use AI-generated suggestions as learning opportunities, understanding how the tool refines language and structure for future writing.

Don'ts:

1. Depend Solely on AI. Avoid relying entirely on AI-generated content—balance AI assistance with personal insights and critical thinking.
2. Plagiarize AI Suggestions. Do not copy AI-generated content without proper attribution or understanding. Plagiarism rules still apply.
3. Overlook Personal Input. Do not overlook the importance of personal input and understanding in essay composition. AI should enhance, not replace, your unique perspective.

B. Assessment (e.g., Recitation, Quizzes, Performance Tasks)

Do's:

1. Use AI for Preparation. Use AI tools for preparation, such as reviewing materials, creating study aids, or practicing concepts relevant to assessments.
2. Seek Clarity on AI Integration. Seek clarity from instructors on how AI tools may be integrated into assessments to prepare better and understand expectations.
3. Collaborate Responsibly. Collaborate with peers responsibly, sharing insights gained from AI tools while respecting academic integrity.

Don'ts:

1. Use AI during Assessments. Do not use AI tools during assessments unless explicitly permitted by teachers. This ensures fair evaluation.
2. Share AI-Generated Answers. Avoid sharing AI-generated answers directly with peers during assessments, as it may compromise the integrity of individual learning.
3. Substitute Personal Understanding. Do not use AI as a substitute for personal understanding. Ensure that you comprehend concepts rather than relying solely on AI-generated responses.

C. Research, Case Studies, and Terminal Reports

Do's:

1. Utilize AI for Data Analysis. Use AI tools for data analysis, literature reviews, and generating insights to enhance the efficiency of research processes.
2. Consider Ethical Implications. Consider ethical implications when using AI in research, ensuring responsible data handling and transparent reporting. Submit the AI Declaration Statement.
3. Integrate AI Recommendations. Integrate AI-generated recommendations into your research, acknowledging the tool's potential to offer valuable insights and suggestions. Make sure to contextualize and validate.

Don'ts:

1. Compromise Ethical Standards. Do not compromise ethical standards in research. Ensure that AI-driven processes adhere to ethical guidelines and research integrity.
2. Overlook Human Expertise. Do not overlook the value of human expertise in research. AI tools should complement, not replace, researchers' critical thinking and judgment.
3. Blindly Trust AI Results. Do not blindly trust AI-generated results. Verify and interpret the outputs, recognizing the tool as an aid rather than a sole decision-maker.

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V. GUIDELINES FOR AI DECLARATION, USAGE TRANSPARENCY, AND DETECTION

This part provides essential steps for students and faculty to declare their use of AI tools in academic submissions. It emphasizes the importance of transparency in AI usage by detailing instructions for submitting AI-generated work. The guidelines also include measures for instructors to give clear instructions regarding AI use in assignments. Additionally, it outlines the use of AI detection tools like Turnitin to ensure the originality of student work, highlighting the significance of direct communication between instructors and students to verify the authenticity of submissions and maintain academic integrity.

A. AI Declaration [1, 2].

All thesis manuscripts and other written performance tasks must include a declaration statement, as shown in Table 2. This statement should have four columns: 1) the tools used (e.g., ChatGPT, Co-pilot), 2) descriptions of how the information was generated, 3) the prompts used, and 4) descriptions of how the output was used in your work. Examples of each components are explained in Figure 2.

Table 2. Statement of AI Declaration Form

Statement of AI Declaration

I declare that the following AI tools were utilized:

AI Tools (1)	*Descriptions of how the information was generated (2)*	*Prompts Used (3)*	*Descriptions of how the output was used in your work (4)*

_____

Researcher's Signature

Note: This statement must be attached in the appendix of a thesis manuscript, but it must be cited in Chapter 3 – Ethical Considerations.

[1] *Artificial Intelligence*. Guide for authors - Artificial Intelligence - ISSN 0004-3702 | ScienceDirect.com by Elsevier. (n.d.). https://www.sciencedirect.com/journal/artificial-intelligence/publish/guide-for-authors

[2] *The use of AI and AI-Assisted Technologies in writing for Elsevier*. www.elsevier.com. (n.d.). https://www.elsevier.com/about/policies-and-standards/the-use-of-generative-ai-and-ai-assisted-technologies-in-writing-for-elsevier

Examples of declaration [3] :

Figure 2. Examples of Declaration Statements

[3] Acknowledging the use of generative artificial intelligence - student academic success. (n.d.). https://www.monash.edu/student-academic-success/build-digital-capabilities/create-online/acknowledging-the-use-of-generative-artificial-intelligence

B. Giving Instructions

Teachers must provide clear instructions regarding the level of AI usage permitted in any assessment form. For example, a teacher can include this instruction: "In this assignment, students are allowed to use Gemini to improve the clarity of their ideas. Be sure to include and document all the prompts when submitting your assignment."

C. AI Detectors

Teachers may use AI detectors. However, they are reminded not to be overly reliant on these tools [4]. Opinions on the accuracy of generative AI detectors, such as Turnitin, are not supported by scientific research. Relying solely on these tools can lead to errors, such as mistaking AI-generated content for human work (false positives), which can negatively affect the academic environment. Turnitin, an AI detector tool, is included in mySOUL to aid in assessing student work. However, teachers should use the outputs of these tools as a reference only. Teachers should engage with students through direct communication, follow-up questions, or additional assessments to address suspicious submissions. It is also crucial for teachers to clearly define the permissible use of AI for each assignment and assessment activity and for students to disclose how AI was used in their submissions.

D. Using Turnitin In mySOUL

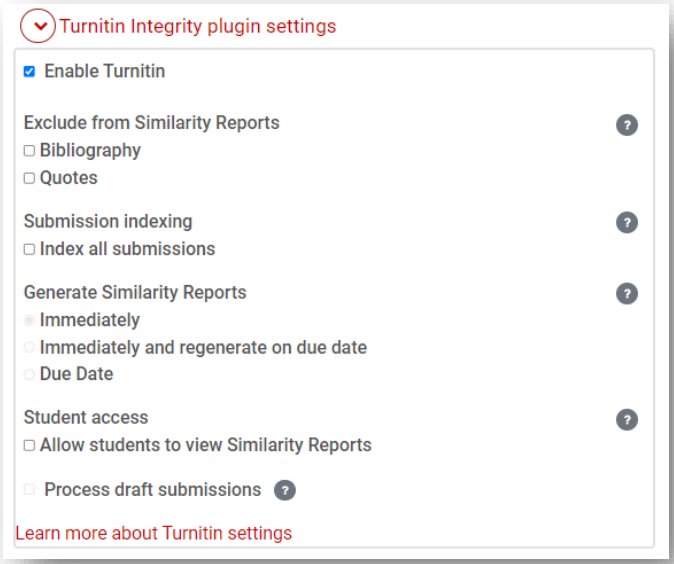
Teachers are encouraged to fully utilize the mySOUL LMS by creating assignments for students to submit their thesis and other documents and by setting up Turnitin for plagiarism detection. The following sections provide detailed instructions on creating assignments in mySOUL, viewing Turnitin Integrity Reports for assignments, using Turnitin for essay quizzes, and checking similarity and generative AI percentages in quizzes.

Creating Assignments in mySOUL

1. Navigate to your course in mySOUL.
2. Click "Create learning activity" and select "Assignment" from the list of activities.
3. Configure the Assignment:
   - Enter the assignment name and description.
   - Set the start date, due date, and end date.
   - Configure submission settings such as online text and file types as needed.

[4] The LaSallian (May 17, 2024). UNIVERSITY: Director for AI Integration Dr. Thomas Tiam-Lee warned instructors against overreliance on AI detectors and advised them to explicitly define the extent of allowable use of AI tools in student assessments. Facebook: https://www.facebook.com/photo/?fbid=836859648489919&set=a.556753593167194

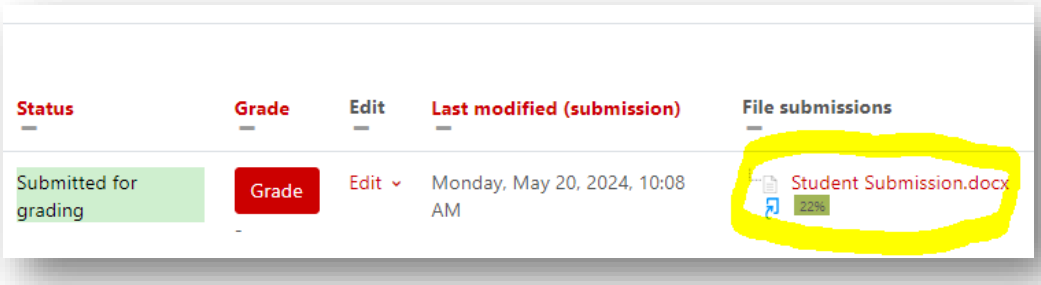
4. Enable Turnitin Integrity report:
   - In the assignment settings, go to the "Turnitin plagiarism plugin settings." Tick or check the option “Enable Turnitin”
   - Similarity Reports are generated immediately after student submission.
   - Other options: you can choose to (a) exclude bibliography/references and statements in quotation marks by clicking on “Bibliography” or “Quotes”; (b) avail of indexed submissions for comparison by clicking on “Submission Indexing”; (c) allow students to view similarity report. Note: make sure to include in the assignment instruction the number of words; Turnitin has a specific minimum of 300 words and a maximum of 15,000 words to be included in the report



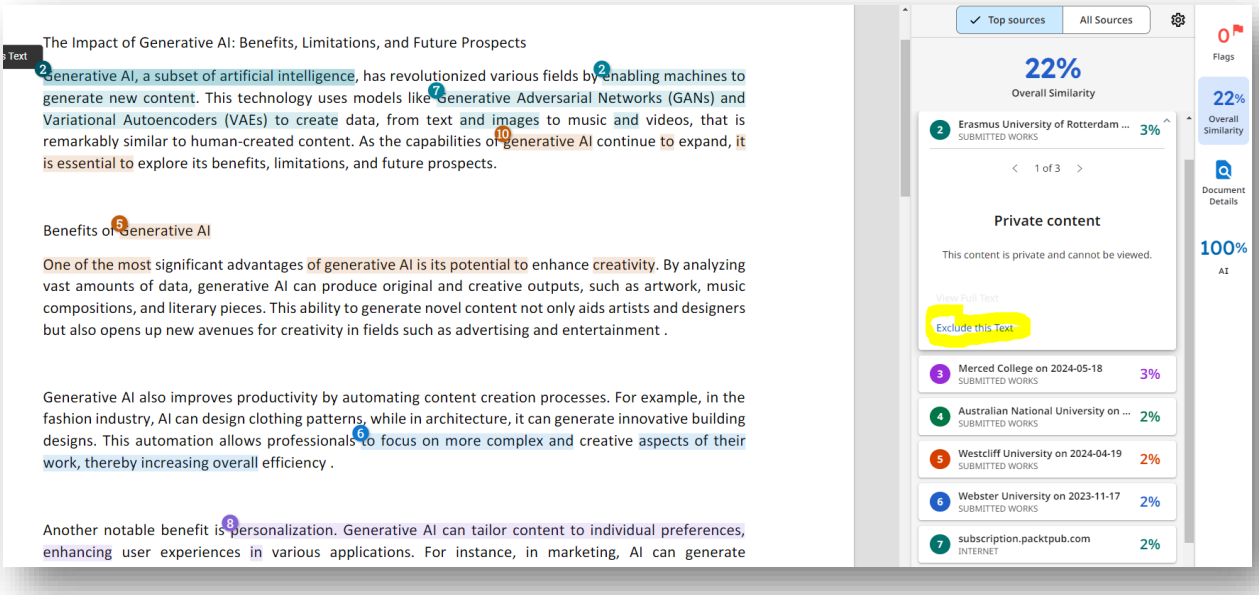
5. Click "Save and return to course" or "Save and display" to finalize the setup.

Viewing Turnitin Integrity Report in Assignments:

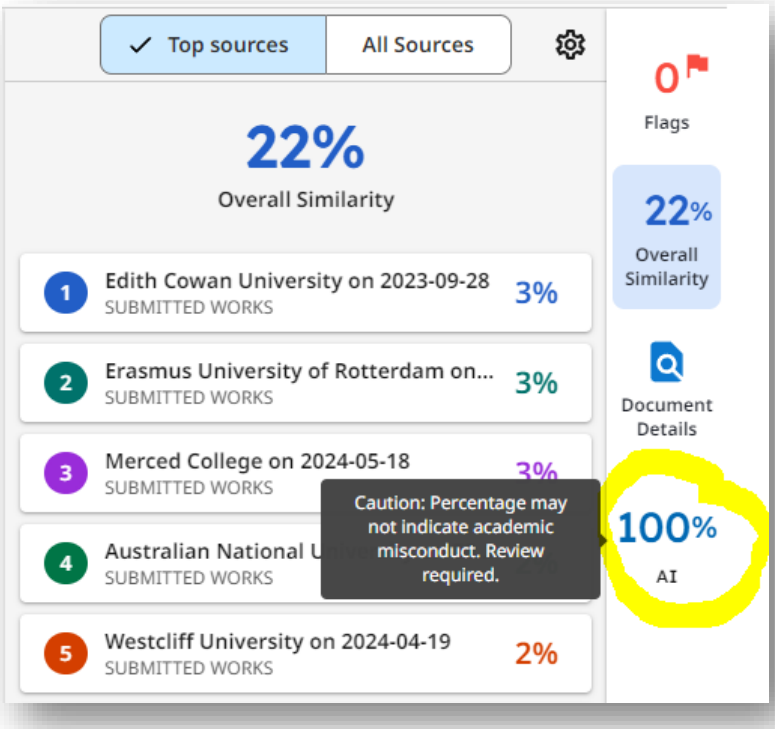
1. Click on the specific assignment and click “View all submissions.”
2. Under “File Submissions,” the similarity percentage is displayed.
3. Click on the similarity percentage to open the detailed report. This page displays the submitted work with highlighted words. On the right side, the list of similar sources is displayed together with the similarity percentage at the side for that particular source. Note: Not all similarities are plagiarized work since it also includes commonly used phrases and statements in the report.



4. Review the highlighted sections to see sources and matches. Click on the highlighted words to see the details of the source. You can also click “Exclude this text” from the similarity report if the phrase is commonly used.



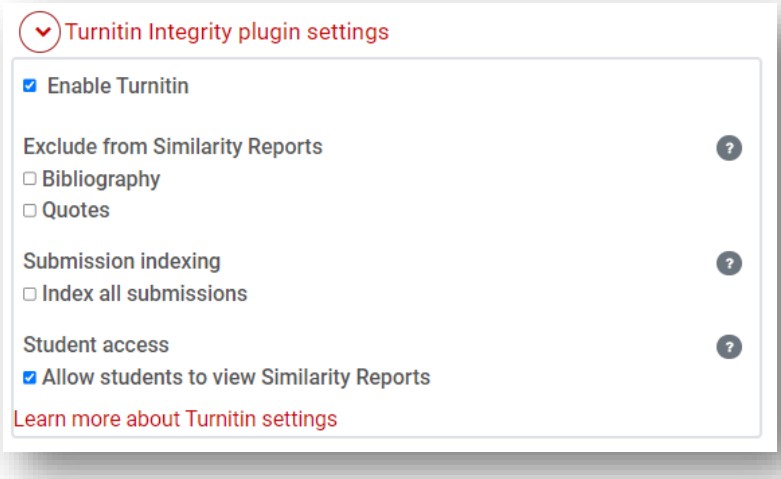
5. The Turnitin Integrity report also includes the percentage of generative AI utilization in the submitted work. You can click the AI percentage to get more details. Unlike in the similarity report, the teacher cannot exclude text in the use of generative AI percentage, and it does not provide the source of the text.



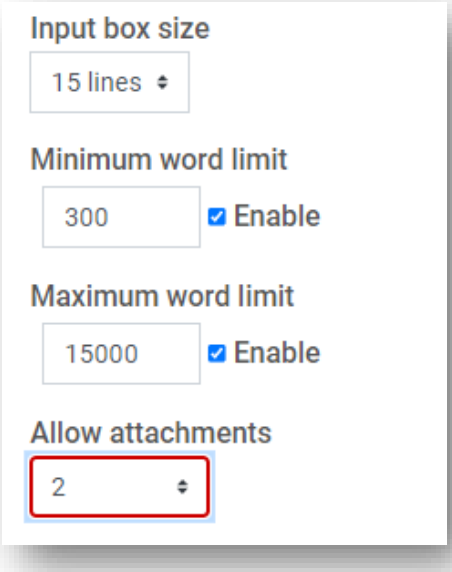
6. The details of the Turnitin Similarity Report are your basis for providing feedback and grades for the assignment.

Using Turnitin for Essay Quizzes

1. Navigate to your course in mySOUL.
2. Click "Create learning activity, " and select "Quiz" from the list of activities.
3. Configure the Quiz:
   - Enter the quiz name and description.
   - Set the availability of the quiz, time limit, question behavior, and review options.
4. Enable Turnitin Integrity report:
   - In the quiz settings, go to the "Turnitin plagiarism plugin settings." Tick or check the option “Enable Turnitin” for the quiz to allow similarity checks on essay responses.
   - Similarity Reports are generated immediately after the student has submitted the quiz.
   - Other options: you can choose to (a) exclude bibliography/references and statements in quotation marks by clicking on “Bibliography” or “Quotes”; (b) avail of indexed submissions for comparison by clicking on “Submission Indexing”; (c) allow students to view similarity report.



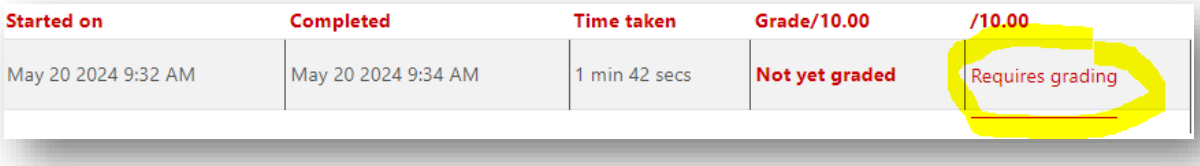
5. Click "Save and display" to add questions.
6. Click on the “Add Question” button or click the gear at the upper right corner and choose “Questions.” Note: if attempts have been made in the quiz, the teacher cannot edit the questions anymore.
7. Add an essay question by clicking "Add" > "Essay."
8. Configure the essay question: Set the input box size for online text, the minimum and maximum number of words, and the number of files uploaded if allowed in the essay exam. When everything is set, click on “Save changes”.



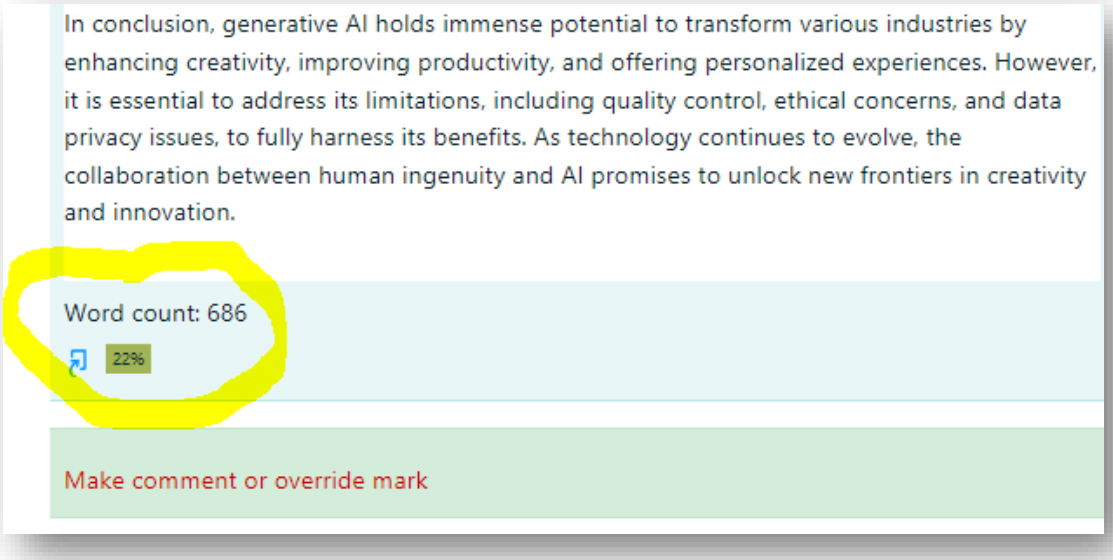
Note: Make sure to include the number of words in the quiz instructions; Turnitin has a specific minimum of 300 words and a maximum of 15,000 words to be included in the report.

Checking Similarity and Generative AI Percentage in a Quiz:

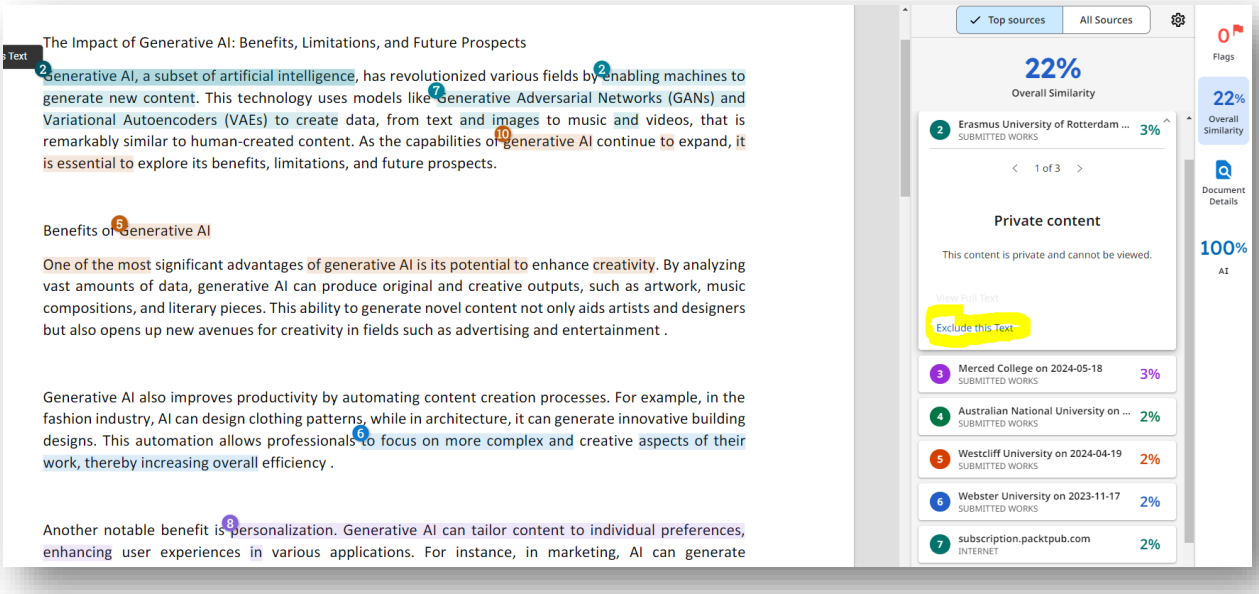
1. Click on the specific quiz and click “Attempts.”
2. Click on “Requires grading,” and you will be redirected to a page of the student’s essay.



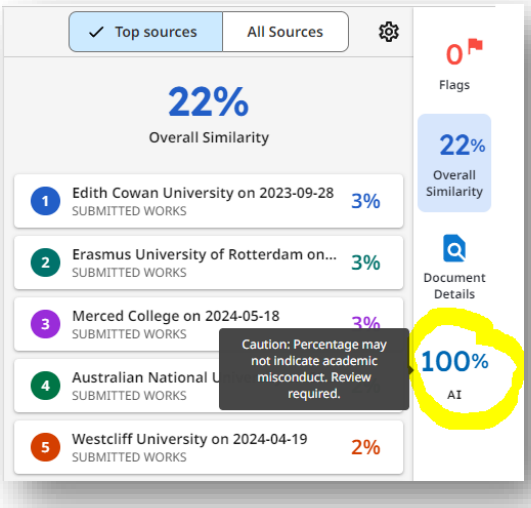
3. Scroll down on the page, and at the bottom of the essay, the similarity percentage is found.



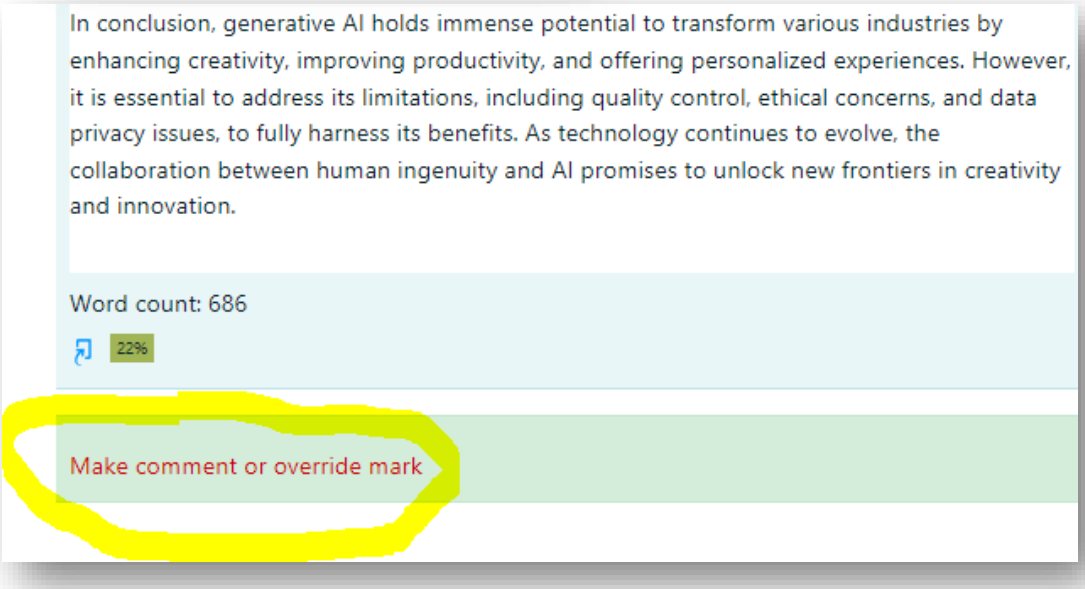
4. Click on the similarity percentage to open the detailed report. This page displays the submitted work with highlighted words, and at the right side, the list of similarity sources are displayed together with the similarity percentage at the side for that particular source. <u>Note: not all similarities are plagiarized work since, it also includes in the report commonly used phrases and statements.</u>



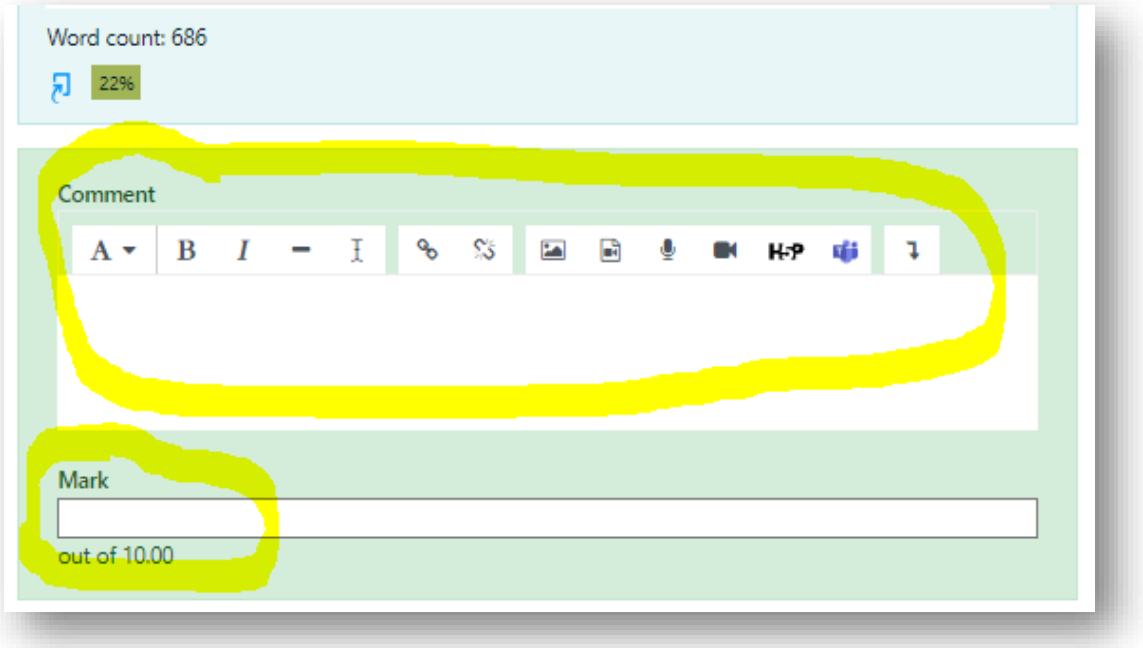
5. Review the highlighted sections to see sources and matches. Click on the highlighted words to see the details of the source. You can also click on "Exclude this text" from the similarity report if the phrase is commonly used.
6. The Turnitin Integrity report also includes the percentage of generative AI utilization in the submitted work. You can click the AI percentage to get more details of the information. Unlike in the similarity report, the teacher cannot exclude text in the use of generative AI percentage as well as it does not provide the source of the text.



7. The details of the Turnitin Similarity Report is your basis in providing feedback and grade for the essay exam.
8. Once the Turnitin Integrity Report is reviewed, click on "Make a comment or override mark."



9. Feedback is placed at the comments box, and score or grade is placed at the Mark box.



10. Once the score is inputted, click “Save” to review another student’s work.

VI. EXAMPLES OF AI INTEGRATION

The following list provides examples of AI integration, divided into two parts according to the University's AI Framework. Teachers are encouraged to explore additional integration methods that align with their learning outcomes. Administrators and staff are encouraged to find additional uses relevant to their workplace.

VIA. IN THE CLASSROOM,

TEACHERS AND STUDENTS CAN HARNESS AI AS A VERSATILE TOOL WITH SEVERAL KEY FUNCTIONS, WHICH INCLUDE CONTENT GENERATION, IMPROVEMENT OF PEDAGOGICAL RELEVANCE, FACILITATION OF RESEARCH EFFORTS, AND STREAMLINING OF ASSESSMENT METHODS.

A. Content Generator

As a content generator, AI can assist with various tasks like text generation, image creation, music composition, video generation, content personalization, and more.

1. Text Generation: AI-powered essay prompts
   - In the context of language or literature courses, teachers at Silliman University can utilize AI-generated essay prompts to stimulate critical thinking and writing skills among students.
   - AI algorithms can generate thought-provoking essay topics based on literary themes, historical events, or contemporary issues, thereby providing students with engaging prompts for analytical writing assignments.
   - For example, Quillbot can be used to enhance the grammar of a self-made reflection, or ChatGPT can be used to initiate the creation of the essay through topic ideas and an outline. Their work submitted to mySOUL will undergo an AI detection tool called TurnItin.
2. Image Creation: AI-generated visual aids
   - Teachers at Silliman University can leverage AI-powered tools to create custom visual aids for classroom presentations or online lectures.
   - For example, AI could generate infographics, diagrams, or concept maps illustrating complex concepts or processes discussed in lectures, enhancing students' comprehension and retention of course materials. PixlrPro can be used to generate images with AI assistance through scenario prompting. These images can be integrated into various activities and resources in mySOUL.
3. Music Composition: AI-generated background music for educational videos
   - Teachers producing instructional videos for hybrid courses/subjects or flipped classroom activities can incorporate AI-generated background music in mySOUL LMS to enhance the learning experience.
   - AI could compose original music tracks with appropriate tempos and tones to create a conducive atmosphere for learning, fostering student engagement and focus during video presentations.
   - For example, AI can generate background music using MuseNet. The background music can be uploaded and included in a specific topic, e.g., part of a reading activity in the eBook.
4. Video Generation: AI-generated lecture summaries

- Teachers at Silliman University can utilize AI-powered video summarization tools to create concise summaries of complex lecture content for students.
- AI can analyze recorded lectures and automatically generate short video clips highlighting key points, theories, or examples discussed, enabling students to review and reinforce their understanding of course materials more efficiently.
- For example, teachers can use Kapwing to generate a video using AI through a scenario prompt. This video can then be embedded in mySOUL via H5P.

5. Content Personalization: AI-driven adaptive learning materials
    - Teachers can integrate AI-powered adaptive learning platforms into their courses to personalize learning materials for individual students.
    - For example, mySOUL LMS can personalize learning through its features, such as PLD, restrictions, activity completion, and feedback. These can give students an AI-like experience in dealing with their learning activities in mySOUL LMS.
    - These platforms can analyze students' performance data and learning preferences to dynamically adjust course materials' difficulty level, pacing, and content, thereby providing learning experiences that are tailored to cater to each student's unique needs and learning styles.

B. Pedagogy

Teachers and students can use AI to enhance pedagogical relevance for personalized learning paths, innovative learning materials, lesson planning, data-driven insights, accessibility, inclusivity, mentoring, tutoring, individualized support, engagement enhancement, collaborative learning facilitation, and cognitive load management.

1. Personalized Learning Paths: AI-driven adaptive learning platforms
    - Using Gen AI, students' learning behaviors, preferences, and performance data can be analyzed to personalize their learning paths.
    - For instance, in a mathematics course, the AI system could identify areas of weakness for individual students and provide targeted practice exercises or resources to address their specific learning needs.
    - Teachers can use PLD in mySOUL LMS to create learning journeys.
2. Innovative Learning Materials: AI-generated interactive simulations
    - Teachers at Silliman University can leverage AI-generated interactive simulations to create immersive learning experiences for students.
    - For example, in a biology course, AI algorithms could generate virtual laboratory simulations where students can conduct experiments, manipulate variables, and observe outcomes in a risk-free environment, thereby enhancing their understanding of complex biological concepts.
3. Lesson Planning: AI-powered curriculum design tools
    - Faculty members at Silliman University can utilize AI-powered curriculum design tools to streamline the process of lesson planning and course development.

- Gen AI could analyze learning objectives, student demographics, and educational standards to recommend appropriate instructional strategies, learning activities, and assessment methods for each course.
- Achievement of learning competencies can be monitored in mySOUL LMS.
- Learning plans and lesson plans can be organized in an eBook in mySOUL LMS.

4. Data-Driven Insights: AI analytics for student performance
   - Silliman University can employ AI analytics tools to analyze student performance data and generate actionable insights for instructors. Teachers can download logs from mySOUL for analysis.
   - For example, AI algorithms could identify patterns or trends in students' quiz scores, homework submissions, or participation levels, enabling instructors to intervene early and provide targeted support to struggling students.
   - Teachers can also view and download Open Report in the course dashboard. Students and Teachers can view their progress, logs, and grades in the Learner/Instructor dashboard.
5. Accessibility and Inclusivity: AI-powered transcription services
   - Silliman University can leverage AI-powered transcription services to improve accessibility for students with disabilities.
   - For instance, AI algorithms could transcribe audio recordings of lectures or classroom discussions in real-time, providing accurate captions or subtitles for students with hearing impairments or language barriers, thereby ensuring equal access to educational content.
   - mySOUL can hold specific content in multiple file formats. This means the teacher can make multiple file formats of the same content available to cater to the students' different learning needs.
6. Mentoring and Tutoring: AI-driven virtual tutors
   - Silliman University can implement AI-driven virtual tutoring systems to provide personalized academic support to students outside of class hours.
   - These virtual tutors can interact with students via chatbots or virtual assistants, offering explanations, answering questions, and providing feedback on assignments or practice problems, supplementing traditional tutoring services.
   - mySOUL has a chatbot feature for all technical or mySOUL-related inquiries. Inside the virtual classroom, mySOUL has the Dialogue feature that can be utilized for tutoring and mentoring.
   - mySOUL LMS is also capable of auto-feedbacking.
7. Engagement Enhancement: AI-powered gamification elements
   - Instructors can incorporate AI-powered gamification elements into their courses to enhance student engagement and motivation. mySOUL LMS can integrate gamification through H5P applications.
   - For example, AI algorithms can analyze students' progress and performance data to dynamically adjust the difficulty level or rewards of gamified learning activities, thereby providing students with challenging activities that cater to their individual skill levels and interests.
8. Collaborative Learning Facilitation: AI-supported group collaboration tools

- Silliman University can utilize AI-supported group collaboration tools to facilitate student collaborative learning activities. mySOUL LMS is capable of groupings, group collaborations, and discussions.
- AI algorithms can analyze students' strengths, preferences, and learning styles to form optimal group compositions for collaborative projects or discussions, thereby fostering productive teamwork and knowledge sharing among students.

C. Research

In research, AI can be a valuable tool for generating topics and hypotheses, summarizing and reviewing literature, identifying and citing resources, analyzing data, visualizing data, predictive and simulation modeling, offering writing assistance, and providing cross-disciplinary insights and customized recommendations.

1. Topic Generation and Hypothesis Formulation: AI-powered topic modeling
   - Researchers can utilize AI-powered topic modeling techniques to analyze large datasets of scholarly articles, conference papers, and research publications.
   - For example, AI algorithms can identify recurring themes, trends, or emerging research topics within a specific academic discipline, helping researchers generate novel research ideas and hypotheses for further investigation.
2. Literature Summarization and Review: AI-based literature review tools
   - Silliman University researchers can leverage AI-based literature review tools to expedite the process of summarizing and reviewing relevant research literature.
   - AI can analyze and categorize many scholarly articles, abstracts, and citations, thereby generating concise summaries or annotated bibliographies highlighting key findings, methodologies, and theoretical frameworks relevant to their research topics.
3. Resource Identification and Citation: AI-powered citation management systems
   - Researchers at Silliman University can use AI-powered citation management systems to automate the identification and citation of relevant resources in their research papers and publications.
   - For instance, AI can analyze textual references within a manuscript and suggest appropriate citation formats, ensuring accuracy and consistency in bibliographic references.
4. Data Analysis and Visualization: AI-driven data analytics platforms
   - Silliman University researchers can employ AI-driven data analytics platforms to analyze and visualize complex research data.
   - AI can identify patterns, correlations, or outliers within multidimensional datasets, enabling researchers to gain insights into their research phenomena and formulate hypotheses for further investigation.
   - Additionally, AI-powered data visualization tools can generate interactive visualizations, such as charts, graphs, or heatmaps, to communicate research findings effectively to diverse audiences.
   - In mySOUL, teachers can utilize the Questionnaire feature to gather data.
5. Predictive and Simulation Modeling: AI-based predictive modeling frameworks

- Researchers at Silliman University can develop AI-based predictive modeling frameworks to forecast future outcomes or simulate complex systems in their research domains.
- For example, researchers in environmental science can use AI-driven predictive models to predict the impact of climate change on biodiversity or simulate ecosystem dynamics under different scenarios, thereby informing conservation strategies and policy decisions.

6. Writing Assistance: AI-powered writing assistants
   - Silliman University researchers can utilize AI-powered writing assistants to improve the quality and coherence of their research manuscripts.
   - AI can analyze draft manuscripts' structure, grammar, and readability, providing real-time feedback and suggestions for revision to enhance clarity, conciseness, and academic rigor in writing. mySOUL LMS can detect AI-generated content through TurnitIn.
7. Cross-Disciplinary Insights and Recommendations: AI-enabled research collaboration platforms
   - Silliman University can develop AI-enabled research collaboration platforms to facilitate interdisciplinary collaboration and knowledge sharing among researchers.
   - AI can analyze researchers' publication records, expertise profiles, and research interests to identify potential collaborators or recommend relevant research articles, funding opportunities, or conferences across diverse disciplines, thereby fostering interdisciplinary research partnerships and innovation.

D. Assessment

Moreover, AI tools can streamline assessment-related activities, including adaptive quizzes, instant feedback, gauging conceptual understanding, providing targeted resources, automated grading, rubric-based assessment, data analysis, personalized feedback, individual reports, and item analysis. The university aims to use AI to design more personalized learning experiences for students, promote increased productivity and creativity among educators, and create a more engaging learning environment for everyone.

1. Adaptive Quizzes: AI-powered quiz platforms
   - Teachers can implement AI-powered quiz platforms that adaptively adjust the level of difficulty and content of quizzes based on student's performance and learning progress.
   - For example, in a mathematics course, the AI system can dynamically generate quiz questions of varying complexity to challenge students at their skill levels and provide targeted practice opportunities. mySOUL LMS can organize test banks and item selection and perform item analysis.
2. Instant Feedback: AI-driven feedback systems
   - Teachers can use AI-driven feedback systems to provide instant, personalized student feedback on assignments, quizzes, or exams.
   - AI can analyze students' responses in real-time and generate feedback messages that correct answers, misconceptions, or areas needing improvement, thereby enabling students to reflect on their performance and make immediate adjustments in their learning strategies. mySOUL LMS can organize feedback.

3. Gauging Conceptual Understanding: AI-based concept mapping tools
    - Teachers can leverage AI-based concept mapping tools to assess students' conceptual understanding of course materials.
    - For example, AI can analyze students' responses to concept mapping exercises and identify connections, hierarchies, or misconceptions in their conceptual knowledge, thereby generating insights into their learning progress and comprehension levels.
4. Providing Targeted Resources: AI-driven resource recommendation systems
    - Teachers can develop AI-driven resource recommendation systems that suggest targeted learning materials or resources to students based on their assessment results and learning objectives.
    - For instance, after completing a quiz on a particular topic, students can receive personalized recommendations for additional readings, tutorials, or interactive simulations to deepen their understanding of the concepts covered. mySOUL LMS can personalize learning using PLD.
5. Automated Grading: AI-powered grading platforms
    - Teachers can adopt AI-powered grading platforms to automate the grading process for assignments, quizzes, and exams.
    - AI can analyze students' responses and apply predefined grading criteria or rubrics to assign scores or feedback, thereby saving instructors time and ensuring consistency and fairness in assessment evaluation.
    - mySOUL LMS can automate the checking of objective tests and schedule exams and the grade book.
6. Rubric-based Assessment: AI-assisted rubric scoring:
    - Teachers can use AI-assisted rubric scoring tools to evaluate students' performance against predefined assessment criteria or learning objectives. mySOUL LMS can create rubrics.
    - AI can analyze students' submissions and align them with rubric categories, providing detailed feedback and scores based on specific criteria, such as content accuracy, organization, or critical thinking skills.
    - Teachers can collaborate with ChatGPT to describe rubric criteria and contextualize them according to their use in class. They then can integrate their AI-generated criteria descriptions in the Rubric feature of mySOUL for easier grading of performance tasks and projects. This also helps students to view the rubric and have an idea of how they will be graded.
7. Data Analysis: AI-driven assessment analytics
    - Teachers can leverage AI-driven assessment analytics tools to analyze student performance data and identify trends, patterns, or areas needing intervention. Teachers can view their dashboard to view student performance.
    - AI could generate visualizations, dashboards, or reports that enable instructors and administrators to track students' progress, monitor learning outcomes, and make data-informed decisions to improve instructional quality.
8. Personalized Feedback: AI-generated personalized feedback
    - Teachers can implement AI-generated personalized feedback systems that tailor feedback messages to individual students' learning needs and preferences.

- For example, AI algorithms can analyze students' assessment results and learning profiles to generate feedback messages addressing their strengths, weaknesses, and learning goals, fostering self-directed learning and growth mindset development.
- mySOUL can organize instant and automatic feedback.

9. Individual Reports: AI-generated individualized assessment reports
    - Teachers can provide students with AI-generated individualized assessment reports that summarize their performance, progress, and areas for improvement. Teachers can use their dashboard to view student performance and grades.
    - These reports could include visualizations, charts, or narratives highlighting students' strengths, areas needing development, and recommendations for further study or practice, thereby empowering students to take ownership of their learning journey.
    - Teachers can use reports feature of mySOUL LMS to visualize the performance of each learner.
10. Item Analysis: AI-powered item analysis tools
    - Teachers can utilize AI-powered item analysis tools to evaluate the quality and effectiveness of assessment items (e.g., test questions, quiz items) based on statistical metrics and psychometric principles.
    - AI could analyze item-level data, such as difficulty indices, discrimination parameters, and item-total correlations, to identify problematic items, refine assessment instruments, and enhance the validity and reliability of assessments.
    - Teachers can check the mySOUL item analysis of the test questions.

VIB. IN THE AREA OF ADMINISTRATION AND MANAGEMENT,

ADMINISTRATORS AND STAFF CAN LEVERAGE AI AS A VALUABLE ASSET TO ASSIST WITH INFORMATION DISSEMINATION, WRITING SUPPORT, LANGUAGE TRANSLATION, TASK ORGANIZATION, AND ROBUST DATA ANALYSIS AND REPORTING.

A. Reference

For information dissemination, administrators and staff can utilize AI for tailored newsfeeds, engaging on social media, providing real-time updates, visualizing data, automating content distribution, localizing content, and moderating content, among other functions.

1. Tailored Newsfeeds: AI-powered news aggregation
    - Administrators and office staff can implement AI-powered news aggregation tools to curate tailored newsfeeds for faculty, staff, students, and alums.
    - AI can analyze users' preferences, interests, and browsing history to recommend relevant news articles, announcements, and updates from the university's website, social media channels, and other sources, ensuring personalized information dissemination.
2. Engaging on Social Media: AI-driven social media management
    - Offices can leverage AI-driven social media management platforms to enhance engagement and interaction with the university community.

- For example, AI could analyze social media trends, sentiment analysis, and user engagement metrics to optimize content scheduling, identify popular topics, and tailor messaging strategies to the needs of different target audiences, thereby fostering meaningful interactions and dialogue on social media platforms.

3. Providing Real-Time Updates: AI-powered chatbots for inquiries
   - Offices can deploy AI-powered chatbots on the university website or social media channels to provide real-time updates and assistance to students, faculty, and stakeholders.
   - AI chatbots can answer frequently asked questions, provide information about campus events, services, or facilities, and assist users with inquiries related to admissions, registration, financial aid, and other administrative processes, thereby enhancing accessibility and responsiveness in information dissemination.
4. Visualizing Data: AI-driven data visualization tools.
   - Offices can utilize AI-driven data visualization tools to transform complex administrative data into interactive visualizations and dashboards.
   - For instance, AI algorithms could analyze enrollment trends, budget allocations, or student demographics to generate visual representations, such as charts, graphs, or heatmaps, that enable administrators to gain insights, identify patterns, and make data-informed decisions to improve administrative operations and strategic planning.
5. Automating Content Distribution: AI-powered content distribution platforms
   - Offices can employ AI-powered content distribution platforms to automate the dissemination of university news, announcements, and updates across multiple channels.
   - AI can analyze content relevance, audience segmentation, and engagement metrics to optimize content distribution strategies, ensuring timely delivery and maximum reach to the university community through email newsletters, mobile apps, social media posts, and digital signage.
6. Localizing Content: AI-driven language translation services
   - Offices can leverage AI-driven language translation services to localize content for diverse audiences and stakeholders.
   - AI can translate university publications, website content, or official communications into multiple languages, ensuring accessibility and inclusivity for international students, faculty, alumni, and partners, and facilitating effective communication and engagement across linguistic barriers.
7. Moderating Content: AI-powered content moderation tools
   - Offices can utilize AI-powered content moderation tools to monitor and manage user-generated content on official university channels.
   - AI can analyze user comments, posts, and interactions to detect inappropriate or offensive content, spam, or misinformation. This enables administrators to moderate content proactively and maintain a positive and respectful online community environment.

B. Writing

Gen AI can also help in improving writing skills such as grammar and spelling checks, maintaining style and tone, rewriting and paraphrasing, enhancing vocabulary, detecting plagiarism, ensuring cohesion and

flow, summarizing content, translating text, managing citations and references, offering writing prompts, and conducting proofreading and editing tasks.

1. Grammar and Spelling Checks: AI-powered proofreading tools
   - Offices can utilize AI-powered proofreading tools to check for grammatical errors, spelling mistakes, and punctuation inconsistencies in their written work.
   - For example, AI algorithms can analyze text documents and provide real-time suggestions for corrections and improvements, thereby ensuring accuracy and clarity in written communication.
2. Maintaining Style and Tone: AI-driven style guides
   - Offices can benefit from AI-driven style guides that provide recommendations for maintaining consistent style, tone, and voice across written documents.
   - AI can analyze writing samples and suggest stylistic enhancements, such as adjusting sentence structures, word choices, or sentence lengths, to align with the university's editorial guidelines and communication standards.
3. Rewriting and Paraphrasing: AI-based paraphrasing tools
   - Offices can use AI-based paraphrasing tools to rephrase or rewrite text passages while preserving the original meaning and intent.
   - AI can employ natural language processing techniques to analyze sentence structures and semantic relationships, generating alternative phrasing options that enhance written content clarity, coherence, and originality.
4. Enhancing Vocabulary: AI-powered vocabulary expanders
   - Offices can leverage AI-powered vocabulary expanders to enhance their language proficiency and enrich their writing skills.
   - For instance, AI algorithms can suggest synonyms, antonyms, or contextually relevant words to diversify vocabulary usage and improve the expressiveness and sophistication of written communication.
5. Summarizing Content: AI-driven text summarization tools
   - Offices can use AI-driven text summarization tools to condense lengthy documents or research articles into concise summaries.
   - AI can employ extractive or abstractive summarization techniques to extract essential information, main ideas, and important details, thereby facilitating efficient comprehension and information retrieval.
6. Translating Text: AI-powered language translation services
   - Offices can benefit from AI-powered language translation services, facilitating communication across linguistic barriers.
   - AI can translate written documents, emails, or website content into multiple languages, thereby enabling effective cross-cultural communication and collaboration among students, faculty, and partners from diverse backgrounds.
7. Offering Writing Prompts: AI-generated writing prompts
   - Offices can benefit from AI-generated writing prompts that inspire creativity and stimulate writing ideas.

- AI can analyze writing preferences, genres, and themes to generate prompts tailored to individual interests and writing goals, thereby encouraging exploration and experimentation in written expression.

8. Conducting Proofreading and Editing Tasks: AI-powered proofreading and editing assistants
   - Offices can employ AI-powered proofreading and editing assistants to streamline the revision process and improve the quality of written documents.
   - AI can analyze sentence structures, grammar patterns, and writing conventions to suggest revision, refinement, and enhancement, helping writers polish their work and achieve higher writing standards.

C. Organizing

In terms of administrative tasks, Gen AI can create automated timetables, personalized learning plans, resource allocation, workload management, organize parent-teacher conferences, schedule examinations, plan events, optimize resource utilization, enhance student support services, and streamline emergency response procedures.

1. Automated Timetables: AI-powered timetable generation
   - Offices can use AI to create automated class exam, and event timetables.
   - AI can analyze constraints such as room availability, faculty schedules, and student preferences to generate optimized timetables that minimize conflicts and maximize resource utilization, thereby ensuring efficient scheduling of academic activities.
2. Resource Allocation: AI-based resource allocation models
   - Administrators and office staff can employ AI-based resource allocation models to optimize financial, human, and physical resources across different departments and programs.
   - AI can analyze historical data, budgetary constraints, and performance metrics to inform decision-making processes related to faculty hiring, infrastructure investments, research funding, and student support services.
3. Workload Management: AI-driven workload balancing tools
   - Academic departments and administrative units can utilize AI-driven tools to manage faculty workload and assignments more effectively.
   - AI can analyze faculty expertise, teaching preferences, and research commitments to allocate teaching duties, committee responsibilities, and administrative tasks fairly and equitably, thereby promoting faculty satisfaction and productivity.
4. Organizing Parent-Teacher Conferences: AI-enabled scheduling systems
   - Offices can deploy AI-enabled scheduling systems to organize parent-teacher conferences and academic advising sessions.
   - AI can coordinate appointment scheduling, send automated reminders to parents and teachers, and optimize meeting schedules based on availability and preferences. This ensures efficient communication and collaboration between stakeholders.
5. Scheduling Examinations: AI-driven exam scheduling software

- Examination offices can leverage AI-driven software to schedule and administer academic examinations efficiently.
- AI can analyze factors such as exam room capacities, proctor availability, and student enrollment data to generate exam schedules that minimize conflicts and make special accommodations, thereby facilitating smooth and fair administration of assessments.

6. Planning Events: AI-powered event management platforms
   - Offices can utilize AI-powered event management platforms to streamline the planning and execution of campus events.
   - AI can assist with venue selection, budget management, guest list coordination, and program scheduling, thereby optimizing event logistics and enhancing the attendee experience.
7. Optimizing Resource Utilization: AI-driven resource optimization algorithms
   - Offices can employ AI-driven algorithms to optimize the utilization of campus facilities and resources.
   - AI can analyze usage patterns, occupancy rates, and maintenance schedules to identify opportunities for space optimization, energy conservation, and cost reduction, thereby ensuring sustainable and efficient campus operations.
8. Enhancing Student Support Services: AI-based student support systems
   - Offices can implement AI-based systems to enhance student support services and interventions.
   - AI can analyze student data, such as academic performance, attendance records, and social-emotional indicators, to identify at-risk students, provide targeted interventions, and connect students with appropriate support resources, thereby fostering student success and well-being.
9. Streamlining Emergency Response Procedures: AI-enabled emergency response systems
   - Offices can utilize AI-enabled systems to streamline emergency response procedures and crisis management protocols.
   - AI can analyze real-time data from surveillance cameras, sensors, and communication networks to detect potential security threats, coordinate emergency notifications, and optimize evacuation routes, thereby ensuring a swift and coordinated response to campus emergencies.

D. Reporting

Additionally, administrators and staff can use Gen AI for data preparation, recognizing patterns, predictive modeling, automating reporting, detecting anomalies, exploring data in real-time, managing data governance, and other related functions.

1. Creating Automated Timetables: AI-powered scheduling systems
   - Offices can employ AI-powered scheduling systems to automate the process of creating class timetables.
   - AI could analyze factors such as course requirements, faculty availability, classroom capacities, and student preferences to generate optimized timetables that minimize scheduling conflicts and maximize resource utilization, thereby ensuring efficient and equitable allocation of academic resources.
2. Personalized Learning Plans: AI-driven academic advising platforms

- Advisors and academic support staff at Silliman University can utilize AI-driven academic advising platforms to create personalized student learning plans.
- AI can analyze students' academic records, career goals, and learning preferences to recommend course sequences, elective options, and co-curricular activities that align with their interests and aspirations, thereby fostering academic success and student retention.

3. Resource Allocation: AI-based resource management systems
   - Offices can leverage AI-based resource management systems to optimize the allocation of institutional resources, such as faculty positions, research funding, laboratory equipment, and library materials.
   - AI can analyze resource utilization patterns, demand forecasts, and budget constraints to make data-driven decisions that prioritize investments and allocate resources effectively across academic departments and administrative units.
4. Workload Management: AI-powered workload balancing tools
   - Department chairs and administrators can use AI-powered workload balancing tools to distribute teaching assignments and administrative duties equally among faculty and staff.
   - AI can consider course loads, research responsibilities, and service commitments to generate workload distribution plans that promote faculty productivity, well-being, and job satisfaction while ensuring academic quality and institutional effectiveness.
5. Organizing Parent-Teacher Conferences: AI-assisted scheduling platforms
   - Offices can employ AI-assisted scheduling platforms to organize parent-teacher conferences and student support meetings.
   - AI can coordinate appointment scheduling, send automated reminders, and manage meeting logistics, thereby optimizing scheduling efficiency and facilitating meaningful interactions between parents, teachers, and students to discuss academic progress, concerns, and support needs.
6. Scheduling Examinations: AI-driven exam scheduling systems
   - Offices can utilize AI-driven exam scheduling systems to streamline the scheduling and administering of examinations.
   - AI can consider exam durations, room availabilities, proctoring requirements, and student accommodations to generate exam schedules that minimize conflicts, ensure exam security, and accommodate diverse student needs.
7. Planning Events: AI-supported event planning platforms
   - Offices can leverage AI-supported event planning platforms to coordinate and manage campus events, conferences, and academic symposiums.
   - AI can assist with venue selection, attendee registration, program scheduling, and logistics coordination, thereby optimizing event planning processes and enhancing the overall attendee experience.
8. Optimizing Resource Utilization: AI-driven resource optimization tools
   - Offices can use AI-driven resource optimization tools to maximize the utilization of campus facilities and infrastructure.

- AI could analyze usage patterns, occupancy rates, and maintenance schedules to identify opportunities for efficiency improvements, space reallocation, and cost savings, thereby ensuring sustainable and effective resource management practices across the university campus.

9. Enhancing Student Support Services: AI-enhanced student support systems
    - Offices can benefit from AI-enhanced systems that provide personalized assistance and guidance to students.
    - For example, AI-powered chatbots can offer 24/7 support for academic advising, career counseling, financial aid inquiries, and mental health resources, enhancing accessibility and responsiveness in delivering student support services.
10. Streamlining Emergency Response Procedures: AI-integrated emergency management systems
    - Offices can integrate AI technologies into emergency management systems to streamline response procedures and enhance campus safety.
    - AI could analyze real-time data from sensors, surveillance cameras, and communication networks to detect potential threats, predict emergency scenarios, and coordinate timely responses, thereby improving incident detection, mitigation, and recovery efforts during crises.
11. Data Preparation and Management: AI-driven data preprocessing tools
    - Administrators and staff can utilize AI-driven data preprocessing tools to clean, transform, and prepare large datasets for analysis for reporting, accreditation and the like.
    - AI can automate data cleaning tasks, such as missing value imputation, outlier detection, and data normalization, thereby ensuring data quality and consistency for subsequent analysis and decision-making processes.
12. Recognizing Patterns: AI-based pattern recognition algorithms
    - Offices can employ AI-based pattern recognition algorithms to identify meaningful patterns, trends, and correlations in complex datasets.
    - AI can analyze historical data from various sources, such as student enrollment records, academic performance metrics, or institutional operations data, to uncover insights that inform strategic planning, policy development, and performance improvement initiatives.
13. Predictive Modeling: AI-driven predictive analytics models
    - Administrators can leverage AI-driven predictive analytics models to forecast future outcomes and trends based on historical data and predictive variables.
    - For example, AI could develop predictive models for student enrollment trends, fundraising campaigns, or budget projections, enabling proactive decision-making and resource allocation strategies to address emerging challenges and opportunities.
14. Automating Reporting: AI-powered reporting automation tools
    - Offices can utilize AI-powered reporting automation tools to streamline the generation and dissemination of institutional reports.
    - AI can automate data aggregation, analysis, and visualization tasks, generating customized reports and dashboards that provide actionable insights to stakeholders, such as administrators, faculty, students, and external partners, to support data-driven decision-making and performance monitoring efforts.
15. Exploring Data in Real-Time: AI-powered real-time analytics platforms

- Administrators and researchers can utilize AI-powered real-time analytics platforms to explore and analyze streaming data sources in real-time.
- AI can process and analyze data streams from sensors, IoT devices, social media feeds, or website interactions, enabling rapid insights and decision-making in dynamic and fast-changing environments, such as campus events, academic programs, or student engagement initiatives.

16. Managing Data Governance: AI-assisted data governance frameworks
    - Data stewards and compliance officers can implement AI-assisted data governance frameworks to ensure compliance with data privacy regulations and institutional policies.
    - AI can automate data classification, access control, and audit trail management tasks, thereby enforcing data governance policies and mitigating risks associated with data breaches, unauthorized access, or data misuse, safeguarding sensitive information, and protecting the university's reputation and integrity.

The university's aspiration is that through the integration of AI, it can maintain and improve customer service and support, promote work-life balance among staff, and foster a culture of innovation. This commitment ensures that the institution remains relevant at the forefront of the ever-evolving education landscape.

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VII. UPSKILLING AND AVENUES FOR LEARNING

The upskilling program is designed to equip all stakeholders with the guidelines and skills necessary for AI's ethical and responsible use. Centered around the theme "Upskilling, Knowledge Sharing, and Fostering a Responsible Digital Ecosystem," it emphasizes capacity-building in mySOUL Updates & Classroom Organization, Responsible Use of Technology, AI, and Innovations in Teaching and Learning. Training includes Teachers, Staff, Students, Parents, and Senior Citizens. It is offered in various modalities: Online via Zoom, In-Person at Dr. Mariano C. Lao Innovation, Creation, Invention, and Outreach Laboratory, and Hybrid. The list of training sessions can be accessed at https://oursoul.su.edu.ph/gsc-portal/.

Additionally, open online courses are offered through the Silliman Open Online Course (SOOC) platform for all stakeholders. These courses aim to equip participants with AI knowledge, skills, and competencies. They are designed to be self-paced, utilizing a micro-learning strategy for more effective and engaging learning. The list of SOOCs is accessible at https://oursoul.su.edu.ph/LMS.

A virtual training room has been created for all faculty and staff, serving as a repository of information related to AI integration. This room includes downloadable resources and recorded upskilling sessions, allowing faculty and staff to self-learn. It also lists all initiatives and upcoming sessions. The training room can be accessed at https://soul.su.edu.ph/course/view.php?id=23868#section-2.

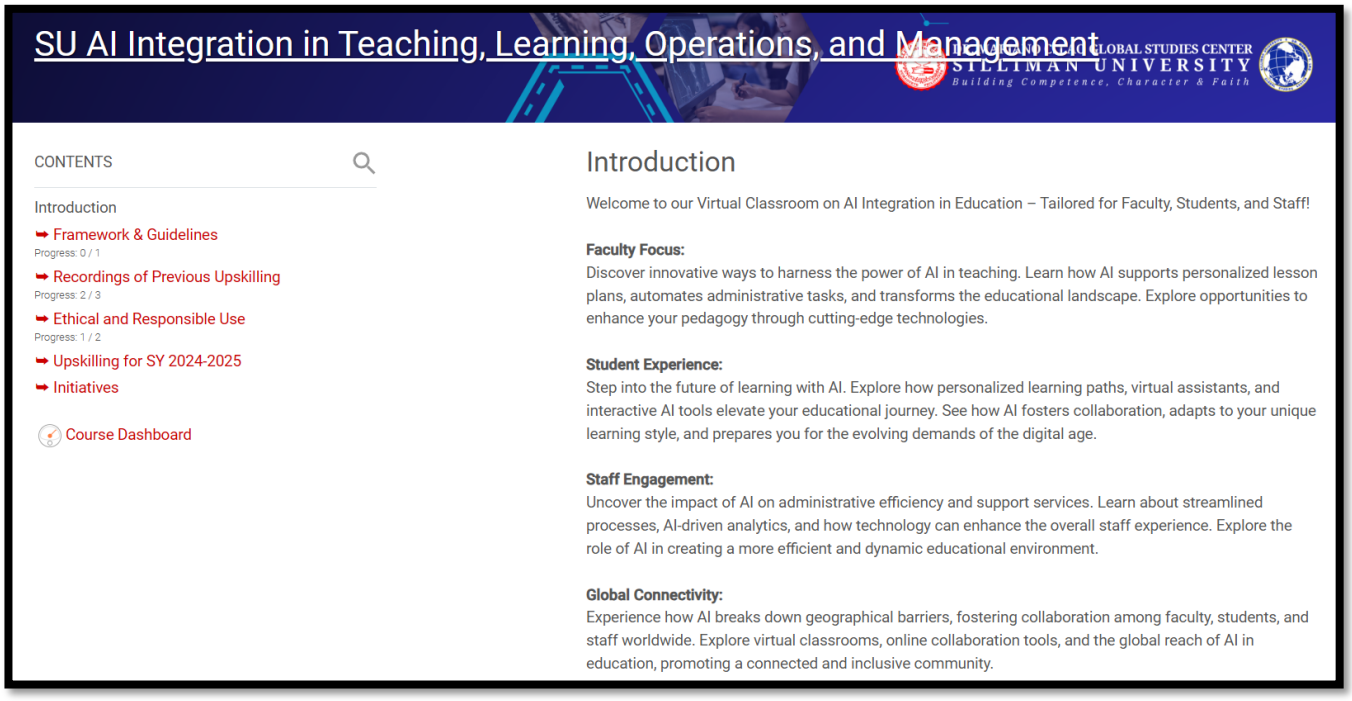

Figure 3. Screenshot of the Virtual Training Room

VIII. INITIATIVES DONE

Part VIII of the document discusses initiatives to integrate AI into educational and administrative processes at Silliman University. It details a timeline of events, seminars, workshops, and conferences to enhance AI literacy and practical implementation. The initiatives are designed to support teachers, students, staff, and the larger community, emphasizing continuous learning and innovation. The section highlights the university's commitment to fostering an environment where AI is used responsibly and effectively to enhance educational outcomes and operational efficiency.

The initiatives undertaken are divided into four phases for clarity and structure:

Phase 1: Reacting & Proactive Planning

In late 2022, the decision was made to block the use of Generative AI (GenAI) due to its novelty and the need for more experience. By the first quarter of 2023, community interest and familiarity with AI were assessed, leading to the first seminar on March 16, 2023, and the development of an upskilling program. Until the third quarter of 2023, active engagement in discussions and experimentation with international partners, including UNESCO and the United Nations, helped gain a comprehensive understanding of AI.

Phase 2: Integration Framework Formulation

From the fourth quarter of 2023 to the first quarter of 2024, efforts focused on experimentation, iteration, and formulation. Findings and plans were presented to faculty, deans, the Academic Council, and the Board of Trustees, ensuring clear articulation with practical examples. Upskilling programs continued for teachers, staff, students, and parents, with experiences and testimonials collected.

Phase 3: Guidelines and Policies Formulation

Starting in the first quarter of 2024, the EdTech Committee began research and experimentation to draft guidelines and policies. eLearning point persons were identified in each department, and draft guidelines were shared for feedback. This guideline was discussed by the VPAA and endorsed by the dean's conferences. This guideline is expected to be disseminated to chairpersons, teachers, staff, students, and parents.

Phase 4: Implementation

Currently and ongoing, this phase involves orientation and the formulation of specific instructional policies. Continuous upskilling based on stakeholder needs and implementing monitoring and review processes are key to ensuring quality.

The following are the specific activities conducted as of June 12, 2024:

March 16, 2023

- Seminar on ChatGPT: What Teachers Should Know
- Speakers:

a. Dr. Vladimir Mariano, Lead Faculty for Technology and Innovation at the YSEALI Academy of Fulbright University, Vietnam, and
b. Dr. Dave E. Marcial, Fellow at the United Board for Christian Higher Education in Asia and Director of Silliman Online University Learning, Philippines.

- Participated by teachers.

April to August 2023

- Crafting of AI Integration that focuses on teachers, students, staff, parents, and the larger community.
- Presentation to the Deans Conference
- Presentation to the Academic Council

September 13, 2023

- Launching of AI Integration Framework: Generative AI Integration Framework in Teaching, Learning, and Operations (For SU Teachers and Staff)
    - Silliman University has fully embraced digital transformation, resulting in numerous innovations across teaching, learning, operations, and management. In this ongoing transformation, Artificial Intelligence (AI) is a key educational technology tool, profoundly impacting the classroom, administrative processes, organizational development, and the broader campus environment. This collective integration of AI into these areas characterizes the university's embrace of what is often referred to as Education 5.0.
    - VALUES: Innovation and Ethical Use, Continuous Learning Culture, Collaboration and Engagement, Student-Centric Approach, Mission-Driven Integration
    - PRINCIPLES: Embrace AI as an Innovative Force, Prioritize Continuous Learning, Actively Engage in Partnerships, Prioritize Ethical Practices, Utilize AI for Personalized Learning, Optimize Administrative Processes with AI, Foster Responsibility and Accountability, Promote Equitable Access to AI, Enhance Customer Service with AI, Align AI Integration with Mission.

October 10, 2023

- Workshop on Content Generation and Pedagogical Guide using Generative AI (For SU Teachers)

October 12, 2023

- Workshop on Using Generative AI in the Workplace (For SU Staff)

October 24, 2023

- Workshop on Issues and Concerns of Generative AI (For SU Teachers and Staff)

November 7, 2023

- Workshop on Assessment and Feedbacking using Generative AI (For SU Teachers)

November 7, 2023

- Presentation of the AI Integration Framework to the Board of Trustees.

November 7-9, 2023

- Dr. Dave Marcial, the director of the Dr. Mariano C. Lao Global Studies Center, participated in a regional experts' meeting titled "Empowering Minds: A Round Table on Generative AI and Education in Asia-Pacific, held at the Pullman Hotel in Bangkok, Thailand on November 7-9, 2023, organized by UNESCO Bangkok.

November 29, 2023

- Dr. Dave E. Marcial, Silliman University (SU) Dr. Mariano C. Lao Global Studies Center (GSC) director, and Fredlie P. Bucog, GSC faculty-in-charge of Education and Engagement, participated in the National Stakeholders Roundtable on Ethical Artificial Intelligence (AI), organized by the United Nations (UN) in the Philippines on November 29, 2023, in Westin Hotel, Manila

December 2, 2023

- Seminar on Responsible Use of Generative AI among SU Students

The Global Studies Center is also active in sharing its research and best practices in several local, national, and international conferences, such as:

1. May 20, 2023, with ACSCU North Luzon
    - Director Dr. Dave E. Marcial speaks during the ACSCU North Luzon Zonal Convention 2023 on May 20, 2023, at the Wesleyan University Philippines on the topic "Empowering Education in the Age of Generative Artificial Intelligence: Preparing Schools for the New Revolution."
2. June 13-14, 2023, with ACSCU-ACI National Assembly
    - guest speaker in Davao Christian High School. He talked about "Disruptive Innovations in Education," as ACSCU-ACI "united in their commitment to education and determined to explore the frontiers of quality assurance in the globalized digital age."
3. June 20, 2023, with ACSCU National Assembly
    - Dr. Dave Marcial delivers his presentation entitled Future-Proofing Education: The SU-Dr. LAO Global Studies Center Initiatives today during the 61st National Convention in Cagayan de Oro City, where he shared the theme "Leading Innovations for the 21st Century Education: Upholding Our Mission, Designing Innovative Programs and Committing to Quality Assurance."
4. October 10, 2023, with CHED Region 7
    - Webinar on Managing Generative Artificial Intelligence (AI) among Teacher Education Institutions (TEIs) in the ASEAN Setting
5. November 18, 2023, with the Society of Transformative Educators
    - GSC Director presents his paper on Generative AI during the 2nd National Research Congress on November 18, 2023! The Society of Transformative Educators organized the conference, providing a fantastic platform to share insights and collaborate with fellow educators.
6. November 23-25, 2023, with the Economics Society of the Philippines
    - The Global Studies Center participated during the 27th National Conference and 6th International Conference on Economics Education in Southeast Asian Nations! This year's theme, "Economics Education: Status and Future of Artificial Intelligence in Teaching and Learning among Southeast Asian Nations," delved into the cutting-edge intersection of economics and AI.
7. December 18-19, 2023, with Librarians
    - 6th In-house Library Seminar Workshop on AI Integration at the Negros Oriental State University
8. March 20, 2024, with Polytechnic University of the Philippines (PUP) Lopez Quezon

- Educational Technologist Jan Cynth L. Palama of GSC delivered a workshop on Generative AI: Fostering Tomorrows Landscape in Marketing and Daily Living on March 20, 2024, at Polytechnic University of the Philippines (PUP) Lopez Quezon.

9. March 24-26, 2024 with ACSCU Regional Assembly
    - Director Dr. Dave E. Marcial speaks during the ACSCU Mindanao Regional Assembly on March 24-26, 2024, at the Mountain View College on the topic "Innovating with Integrity: Embracing AI in Christian Learning Environments".
10. April 12-13, 2024 with PAFTE Regional Assembly
    - Director Dr. Dave E. Marcial delivers a talk during the 2024 Regional Assembly of The Philippine Association for Teachers and Educators, Inc. (PAFTE) on April 12 and 13, 2024, at the Metrocentre Hotel, Tagbilaran City, Bohol on the topic "Instructional Innovations and Personal Learning Paths Thru AI".
11. May 18, 2024 with PFCCO General Assembly
    - Director Dr. Dave E. Marcial speaks during the 12th Educational Forum on May 16-17, 2024, at the Marco Polo Plaza Cebu on the topic "People: Is your Cooperative Future Proof: Exploring Business Services for Sustainable Success with Artificial Intelligence (AI)".
12. June 11, 2024 with ACSCU National Convention
    - Director Dr. Dave E. Marcial speaks during the 62nd ACSCU National Convention on June 10-12, 2024, at the Adventist University of the Philippines Campus on the topic "Artificial Intelligence Towards Designing Institutional Framework".

Upskilling Sessions for 2nd Sem SY 2023-2024:

FEBRUARY 21, 2024 (Wednesday) 02:00 P.M.-04:00 P.M.

- Establishing Ethical Guidelines: Crafting Classroom Policies and Best Practices for Using Generative AI to Ensure Responsible and Ethical Implementation
- Speakers:
    - Dr. Dave E. Marcial, Silliman University (SU) Dr. Mariano C. Lao Global Studies Center (GSC) director
    - Asst. Prof. Alfie Q. Arcelo, GSC faculty-in-charge of Information, Quality, Assurance, and Degree Programs
- Modality: Online via Zoom
- Participated by Silliman University Teachers
- To watch the webinar, please go to this link: https://youtu.be/3JGpHGm09WY

FEBRUARY 28, 2024 (Wednesday) 03:00 P.M.-04:00 P.M.

- Formulation of AI Integration Policies and Guidelines
- Speakers:
    - Dr. Dave E. Marcial, Silliman University (SU) Dr. Mariano C. Lao Global Studies Center (GSC) director
- Modality: Onsite at the Dr. Mariano C. Lao ICI Laboratory
- Participated by Silliman University eLearning Point Persons

MARCH 2, 2024 (Saturday) 01:00 P.M.-05:00 P.M.

- Free Computer Education: Ethical Empowerment: Harnessing Generative AI Writing Tools for Responsible Content Creation
- Speaker:
  - Jan Cynth L. Palama, faculty of Senior High School
- Modality: Onsite at the Dr. Mariano C. Lao ICI Laboratory
- Participated by Students

MARCH 6, 2024 (Wednesday) 10:00 A.M.-12:00 P.M.

- Harnessing the Power of ChatGPT and Other Generative-AI Applications for Content Creation and Dynamic Presentations
- Speakers:
  - Asst. Prof. Alfie Q. Arcelo, GSC faculty-in-charge of Information, Quality, Assurance, and Degree Programs
  - Fredlie P. Bucog, GSC faculty-in-charge of Education and Engagement
- Modality: Online via Zoom
- Participated by Silliman University Teachers
- To watch the webinar, please go to this link: https://youtu.be/ZewxzClqkYg

MARCH 23, 2024 (Saturday) 01:00 P.M.-05:00 P.M.

- Free Computer Education: Parenting in the AI Era: Fostering Responsible Tech Habits among Children
- Speaker:
  - Aurielle Lisa Z. Maypa, Faculty of Senior High School
- Modality: Online via Zoom
- Participated by Silliman Parents and non-Silliman Parents

APRIL 3, 2024 (Wednesday) 02:00 P.M.-04:00 P.M.

- Using ChatGPT and Other Generative AI for Crafting Test Questions, Rubrics, and Scoring Student Responses
- Speakers:
  - Fredlie P. Bucog, GSC faculty-in-charge of Education and Engagement
  - Jade O. Montemayor, GSC faculty-in-charge of Educational Technology and Development
- Modality: Online via Zoom
- Participated by Silliman University Teachers
- To watch the webinar, please go to this link: https://youtu.be/NVebkuVXJ6I

MAY 8, 2024 (Wednesday) 02:00 P.M.-04:00 P.M.

- Using Generative AI in the Conduct of Research
- Speakers:
  - Dr. Dave E. Marcial, Silliman University (SU) Dr. Mariano C. Lao Global Studies Center (GSC) director
  - Asst. Prof. Alfie Q. Arcelo, GSC faculty-in-charge of Information, Quality, Assurance, and Degree Programs

- Modality: Online via Zoom
- Participated by Silliman University Teachers
- To rewatch the webinar, please go to this link: https://youtu.be/bmnZ0t7ejgk

On February 29, 2024, representatives designated as eLearning Point Persons from each college and department convened for a workshop focused on drafting these policies. For more information, go to https://su.edu.ph/su-designs-framework-for-gen-ai-integration-in-academia/.

IX. GLOSSARY OF TERMS

Below is a list of operational definitions of technical terms from the provided document. These definitions are simplified for non-academic readers. For other terms not found in this list, browse at https://www.coursera.org/resources/ai-terms.

- *Adaptive Quizzes:* Tests that adjust their difficulty based on the student's answers to provide a personalized assessment experience
- *AI Algorithms:* AI algorithms are sets of rules or procedures used by artificial intelligence to perform tasks like problem-solving, data analysis, and pattern recognition. They process input data to generate output or make decisions.
- *AI Declaration*: An AI declaration is a formal statement in academic work where the author discloses the use of AI tools. This includes detailing the AI tools used, how they generated information, the prompts given to the AI, and how the AI-generated content was utilized in the work.
- *AI Detectors*: AI detectors are tools designed to identify content generated by artificial intelligence. These tools analyze text to determine whether it was written by a human or an AI, helping to ensure academic integrity by detecting potential AI-generated submissions.
- *AI Integration Framework*: A plan to incorporate AI technologies into various aspects of the university, ensuring they align with ethical practices and improve learning and administrative processes
- *AI Utilization Percentage:* The AI utilization percentage in a report indicates the extent to which AI tools were used to generate the content of a submitted work. This helps educators understand the reliance on AI in student submissions.
- *AI-assisted Data Governance Frameworks*: These frameworks ensure compliance with data privacy regulations and institutional policies by automating data classification, access control, and audit trail management tasks.
- *AI-assisted Rubric Scoring*: AI-assisted rubric scoring tools evaluate student work based on predefined criteria, providing consistent and detailed feedback aligned with rubric categories such as accuracy, organization, and critical thinking.
- *AI-based Concept Mapping Tools*: AI-based concept mapping tools help visualize relationships between concepts in a subject area, aiding in the assessment of students' understanding and identifying misconceptions or gaps in knowledge.
- *AI-based Paraphrasing Tools:* AI-based paraphrasing tools use artificial intelligence to rephrase or rewrite text while preserving the original meaning. These tools help enhance the clarity and coherence of written content.
- *AI-based Pattern Recognition Algorithms*: These algorithms identify meaningful patterns, trends, and correlations in data, helping to uncover insights that inform strategic planning and decision-making in various contexts.
- *AI-driven Data Analytics Platforms*: These platforms analyze and visualize complex data, helping researchers identify patterns, correlations, and insights from large datasets through interactive visualizations like charts and graphs.

- *AI-driven Predictive Analytics Models*: Predictive analytics models use AI to forecast future outcomes based on historical data, enabling proactive decision-making and resource allocation by predicting trends and potential challenges.
- *AI-driven Resource Recommendation Systems*: These systems suggest relevant learning materials or resources to users based on their performance data and learning objectives, providing targeted support to enhance understanding and retention.
- *AI-driven Virtual Tutors*: AI virtual tutors are automated systems that provide academic support and personalized tutoring through interactive chatbots or virtual assistants, helping students with explanations, questions, and feedback.
- *AI-powered Citation Management Systems:* AI-powered citation management systems automate identifying and formatting citations for research papers, ensuring accuracy and consistency in bibliographic references.
- *AI-powered Gamification*: AI-powered gamification integrates game-like elements into educational activities to enhance engagement and motivation. AI analyzes user performance to adjust difficulty levels and rewards in real time.
- *AI-powered Proofreading Tools*: AI-powered proofreading tools are software applications that use artificial intelligence to detect and correct grammatical errors, spelling mistakes, and punctuation inconsistencies in written text. These tools help improve the clarity and accuracy of written work.
- *AI-powered Transcription Services*: AI transcription services convert spoken language into written text in real time, providing accurate captions or subtitles for audio and video content.
- *Automated Grading*: Using AI to grade assignments and exams without human intervention, ensuring consistent and quick evaluations
- *Blockchain:* A secure, decentralized digital ledger used to record transactions across many computers
- *Cognitive Load Management*: Techniques and tools used to reduce the mental effort required to complete tasks, often assisted by AI
- *Content Generator*: AI tools that create various types of content like text, images, music, and videos
- *Content Personalization:* AI-driven content personalization customizes learning materials to fit individual users' needs and preferences. AI systems adjust the difficulty, pacing, and content based on user performance and learning behavior.
- *Data Analysis:* The process of examining large datasets to find patterns and insights, often performed by AI systems to aid decision-making
- *Deep Learning*: An advanced form of machine learning that uses neural networks with many layers to analyze complex patterns in data
- *Digital Transformation:* Using digital technologies to fundamentally change how the university operates and delivers value to students, faculty, and staff
- *Ethical AI Use in Research:* Using AI in research in a responsible and transparent manner
- *Ethical AI:* The practice of designing and using AI systems in ways that are fair, transparent, and accountable [
- *Explainable AI (XAI):* AI systems designed to explain their decisions and actions to human users in an understandable way

- *Generative Adversarial Networks (GANs*): A type of AI where two neural networks compete to improve their performance in creating realistic data
- *Generative AI:* Generative AI refers to AI systems capable of creating new content, such as text, images, music, and more, based on the data they have been trained on. Examples include language models like ChatGPT and image generators.
- *Image Creation:* Image creation with AI generates visual content such as graphics, infographics, or illustrations. AI models can generate images based on textual descriptions or sample images.
- *Indexed Submissions:* Indexed submissions refer to documents stored in a database for future comparison by plagiarism detection tools. This helps identify similarities between newly submitted work and previously indexed documents.
- *Instant Feedback:* Immediate responses provided by AI to help students understand their mistakes and learn from them
- *Internet of Things (IoT):* Connecting everyday objects to the internet so they can collect and share data
- *Machine Learning:* A type of AI where computers learn from data and improve their performance over time without being explicitly programmed
- *Music Composition:* AI-powered music composition involves creating original music tracks using artificial intelligence. AI can compose music with specific tempos, tones, and styles based on input parameters.
- *Natural Language Processing (NLP):* A branch of AI that helps computers understand, interpret, and respond to human language
- *Neural Networks:* A series of algorithms that attempt to recognize patterns inspired by the human brain
- *Pedagogical Relevance*: Using AI to make teaching materials more relevant and personalized for students
- *Predictive Modeling*: AI techniques used to forecast future outcomes based on historical data, helping in planning and decision-making
- *Prompts:* Prompts are specific inputs or instructions from an AI system to generate a response or content. In the context of AI tools used in academia, prompts guide the AI in creating relevant outputs for assignments or research tasks.
- *Robotic Process Automation (RPA):* Using AI software to automate repetitive tasks that humans usually perform
- *Rubric-Based Assessment*: Evaluating student work against a set of predefined criteria, often using AI to ensure fairness and consistency
- *Similarity Reports*: Similarity reports are documents generated by plagiarism detection tools, like Turnitin, highlighting parts of a submitted document that match existing sources. These reports help identify potential plagiarism and ensure academic integrity.
- *Text Generation*: Text generation involves using AI to create human-like written content. It can generate essays, articles, or prompts based on input data and learned patterns from large text datasets.
- *Turnitin Integrity Report*: The Turnitin Integrity Report is a detailed analysis provided by Turnitin that highlights similarities between submitted student work and existing sources and the percentage of AI-generated content. This report helps educators assess the originality and authenticity of student submissions.
- *Video Generation*: AI-generated video involves creating video content using AI technologies. This can include summarizing long lectures into short clips, generating animated videos, or making video presentations from text or audio inputs.

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