

Associates' Sentiment Analysis and Topic Modeling of AI Policy Discussion Forum

January 10, 2024

A. INTRODUCTION:

The online course titled “**AI for Associates: Best Practices, Guidelines, and Compliance**,” which was initiated in the 5th week of the 1st Term of SY 2023-2024, has successfully registered 1,178 associates. The main goal of this course is to help associates understand and follow the AI Tool Usage Policy that our institution has put in place. Besides the policy, the course provides a lot of useful resources and links to help associates maximize the benefits of AI tools. It also promotes active participation in the discussion forum, where associates can express their thoughts and suggestions for improving the policy.

B. ONLINE DISCUSSION FORUM:

Our associates have actively participated in our online discussion forum. As of December 30, 2023, they have generated 230 posts spanning across 80 different topics. All 80 primary posts were carefully reviewed and retained. Subsequently, we undertook the following three important steps:

1. Produced a word cloud, which visually represents the most frequently used words in the posts.
2. Conducted a sentiment analysis to gain insights into the overall feelings and attitudes of our associates toward our policy, as expressed in their posts.
3. Utilized a technique called Latent Dirichlet Allocation (LDA) to predict the main topics being discussed in the forum.

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optimistic response from our associates. To ensure a nuanced understanding of associate feedback, the Lemmagen Lemmatizer was utilized to analyze the core meaning of their words, and VADER (Valence Aware Dictionary and sEntiment Reasoner) was also applied to capture the emotional tone behind them. This allowed us to see not just if associates liked the policy but also how strongly they felt and what specific aspects resonated with them.

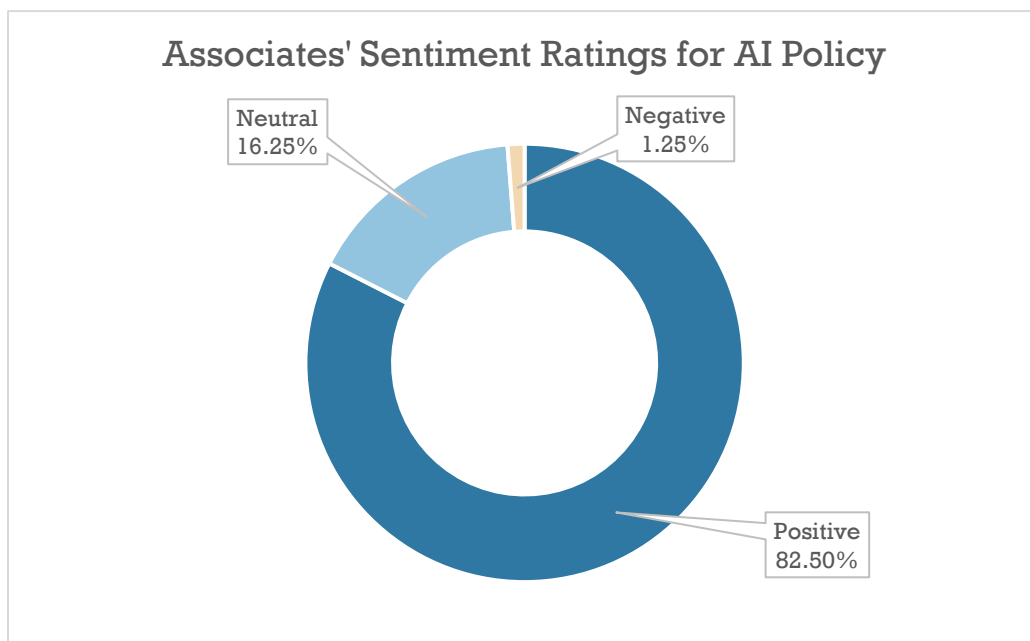


Figure 2 The donut chart reveals that a significant majority of sentiments towards AI usage policy are positive.

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E. LATENT DIRICHLET ALLOCATION (LDA) MODEL:

The LDA model was used to discover latent topics and themes that occur in the discussion forum. Through this model, the grouping and summarizing of text data for better understanding were made possible. Below are the themes that emerged from the discussion forum:

THEME 1: GOVERNANCE AND IMPLEMENTATION OF AI IN EDUCATION

- Words: ai student also usage policy make meeting must issue
- Policies and Procedures for AI Usage in the Classroom

THEME 2: AI TECHNOLOGY AND ACCESSIBILITY

- Words: ai policy time course information chat ensure like proper
- Ensuring Fairness and Effectiveness of AI Tools

THEME 3: BEST PRACTICES FOR USING AI IN THE CLASSROOM

- Words: ai use policy tool usage deaf effective list good
- Effective Tools and Strategies for Inclusive Learning

THEME 4: AI TECHNOLOGY AND STUDENT SUPPORT

- Words: ai policy associate teaching deaf student tool usage good
- Empowering Educators with AI to Assist Deaf Students

THEME 5: USER AWARENESS AND TRANSPARENCY IN AI EDUCATION

- Words: ai usage use user statement it aware training data
- Understanding AI Training Data and Potential Biases

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THEME 6: AI IN HIGHER EDUCATION

- Words: ai tool use educator good like benilde student college
- Enhancing the Student Experience at Benilde College with AI Tools

THEME 7: ADAPTING AND REFINING AI EDUCATION POLICIES

- Words: learning review ai policy however must revision use have
- Learning from Experience and Revising Guidelines for Ethical AI Use

THEME 8: FACILITATING OPEN DIALOGUE ABOUT AI IN EDUCATION

- Words: policy ai forum participant discussion usage session ensure help
- Forum Discussions and Feedback Sessions for Building a Supportive Community

THEME 9: COMMUNITY BUILDING AND COLLABORATION IN AI EDUCATION

- Words: thanks effort everyone inform community time ai chat forum
- Sharing Efforts and Information to Drive Inclusive AI Practices

THEME 10: REVIEWING AND RETHINKING AI USAGE

- Words: inclusive review ai revision need regarding community usage process
- Addressing Inclusivity Concerns and Reimagining the Role of AI in the Learning Process

To gain a better understanding of the importance and implications of the identified themes in the context of the provided LDA model results, read the extracted insights:

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1. **GOVERNANCE AND IMPLEMENTATION OF AI IN EDUCATION:** Without clear policies and procedures, AI use in education could be haphazard and inequitable. **Establishing guidelines** for ethical data collection, usage limitations, and accessibility considerations **ensures responsible implementation** and builds trust within the educational community.
2. **AI TECHNOLOGY AND ACCESSIBILITY: Inclusive education requires AI tools that cater to diverse needs.** Focusing on accessible technologies, like those supporting deaf students, ensures no one is left behind in the AI-powered classroom.
3. **BEST PRACTICES FOR USING AI IN THE CLASSROOM:** Effective AI implementation goes beyond the technology itself. **Identifying best practices** for tool integration, educator training, and student engagement **maximizes the benefits of AI** for learning and ensures its positive impact.
4. **AI TECHNOLOGY AND STUDENT SUPPORT:** AI can act as a valuable tool for educators in supporting diverse student needs. **Equipping educators with AI tools** tailored to assist deaf students, for example, empowers them to personalize learning and provide targeted support.
5. **USER AWARENESS AND TRANSPARENCY IN AI EDUCATION:** **Transparency in AI usage** builds trust and empowers users. Understanding data sources and potential biases in AI algorithms enables informed decision-making and promotes responsible AI development for education.
6. **AI IN HIGHER EDUCATION: AI presents opportunities to enhance the student's experience** in higher education. By identifying best practices for AI tool integration at institutions like Benilde, we can develop models for broader implementation and improve student learning outcomes.
7. **ADAPTING AND REFINING AI EDUCATION POLICIES: Policies need to evolve alongside technological advancements.** Ongoing review and revision of AI education policies, based on user feedback and real-world experience, ensures ethical and effective implementation.

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8. **FACILITATING OPEN DIALOGUE ABOUT AI IN EDUCATION:**

Collaboration and open discussion are crucial for navigating the challenges and opportunities of AI in education. **Forum discussions and feedback sessions** allow educators, students, and technologists to share perspectives and build a supportive community of practice.

9. **COMMUNITY BUILDING AND COLLABORATION IN AI**

EDUCATION: Sharing knowledge and resources accelerates progress and fosters inclusive AI practices. A collaborative community fosters innovation, identifies best practices, and empowers educators to implement AI effectively.

10. **REVIEWING AND RETHINKING AI USAGE: Continuous reflection** on

AI's impact in education is vital. By recognizing concerns about inclusivity and revisiting the role of AI in the learning process, we can ensure its ethical and meaningful development for educational purposes.

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F. APPLICATION SCENARIOS:

1. Workshops and Training:

- **Theme 1: Governance and Implementation:** Conduct workshops for faculty and staff on AI policies, considering data privacy and accessibility concerns.
- **Theme 3: Best Practices:** Organize training sessions on integrating AI tools effectively in the classroom, including best practices for assessment and student engagement.
- **Theme 4: Student Support:** Train educators on utilizing AI-powered tools to support diverse student needs, including targeted interventions.
- **Theme 5: User Awareness:** Equip students and faculty with skills to critically evaluate AI, understanding its biases and limitations for informed decision-making.

2. Curriculum Development and Review:

- **Theme 2: Accessibility:** Integrate discussions on accessible AI technologies and inclusive practices into relevant courses across disciplines.
- **Theme 6: AI in Higher Education:** Develop a dedicated course or module exploring the impact of AI on various aspects of student life and learning.
- **Theme 7: Policy Refinement:** Involve students and faculty in reviewing and revising existing AI policies based on real-world experiences and technological advancements.
- **Theme 10: Rethinking AI Usage:** Foster discussions on the ethical implications of AI in education, prompting students to critically consider its role in the learning process.

3. Research and Development:

- **Theme 1: Governance:** Launch research projects focused on developing comprehensive and ethical AI governance frameworks for educational institutions.

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- **Theme 3: Best Practices:** Conduct longitudinal studies on the efficacy of different AI tools in various learning environments, identifying evidence-based best practices.
- **Theme 8: Open Dialogue:** Create platforms for ongoing dialogue and research, facilitating collaboration between educators, technologists, and policymakers on ethical AI development.
- **Theme 9: Community Building:** Establish a research hub or consortium dedicated to sharing resources and advancing knowledge on inclusive AI practices in education.

G. ASSOCIATES' POSTS:

Below, you'll find a selection of sample posts from our associates. These examples are based on actual posts they've uploaded and have been chosen at random. To respect our data privacy policy, all identifying information has been removed.

• ASSOCIATE 01

- I had enough time, two weeks ago, to browse over the suggested references provided in this course. Since the start of this long "bakasyon", I started applying some of the suggestions on properly formulating a prompt to get the proper information from an A.I. Background: aside from testing out ChatGPT from time to time, I have recently tried Bing AI Chat as well since it had been incorporated in my Edge browser as Copilot. To cut it short, when seeking the assistance of Bing AI Chat to double-check the contents I was developing for a project, aside from being specific with my prompts I also treated it just like any person I would chat with. And I got a surprise! The list of references provided was quite a challenge (hahaha). However, after "hacking" my way through it up to the last, like a wild man romping through the jungle, making an attempt to apply myself and getting this "crazy" surprise, I'd say it was worth it! I earned my master's degree in information technology for Natural Resource Management two decades ago through SEAMEO-BIOTROP. We had a course in Artificial

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Intelligence. Mind you, the concept then was that crude and still yet to be realized compared today (as experienced)! Therefore, this surprise feeling I had (I guess) is more on the great work experts had made on most AIs we're all enjoying today. And, perhaps, the best way to express a proper appreciation and respect to these expert "artisans" is to take time to be properly educated, put our gained knowledge to the test by applying yourself and to be responsible users of the technology with self-accountability governing our actions. Hence, kudos to the Team that organized and implemented this AI course for the community! Thank you for taking the time! >B)

- **ASSOCIATE 02**

- It is good that our college has acknowledged that there may be issues on security and privacy in the future knowing that AI tools exist nowadays. I find plotting module like this for everyone a good way to somehow prevent problems that may arise in the future. I agree that this college policy is a good way to remind everyone to use AI tools safely and securely. I just realized that with the existence of AI tools, my job as an educator becomes more fun and at the same time more challenging. I hope and I pray that time will not come when teachers will be replaced by AI. I am a bit concerned with the potential impact of AI on teaching and learning. While AI can assist in teaching, I still believe that it cannot replace the human touch and understanding educators like me can provide.

- **ASSOCIATE 03**

- AII has its pros and cons but we have to accept that it is here to stay. AI can be useful and advantageous if used wisely. In an educational institution that banners innovation, this can further help in continuing our trailblazing ways. All we need is to be properly guided by our college policy.

- **ASSOCIATE 04**

- Advancements in technology can truly be useful in our work as educators, it makes the nitty gritty of our jobs easier if we use it well and appropriately, thus enabling us to focus on the more important

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aspects of our role as formators. These technologies also make us meet where our students are, creating that bridge to lessen the divide and make us more accessible to them. Given these positive outcomes, we also need to be alert and not solely depend on AI and other technologies because they can never replace what humans can ultimately provide our students. As always, balance is the key. Hence, it is laudable that the College strives to make AI work for us through all these initiatives. Animo Benilde!

• **ASSOCIATE 05**

- Am just wondering, what are the most effective ways to build a culture of AI policy awareness and adherence within the institution?

While not an exhaustive list, combining the following strategies can pave the way for effective and sustainable ways to build a culture of AI awareness and adherence:

- * Make AI policies readily accessible.
- * Offer interactive workshops.
- * Invite external experts to conduct talks and seminars.
- * Openly discuss AI policies and their implications.
- * Highlight success stories and positive impacts.
- * Recognize and reward responsible AI behavior.
- * Establish clear consequences for non-compliance.
- * Embrace continuous improvement.

The above list is not comprehensive, but we may consider them.
Thanks, Ms!

• **ASSOCIATE 06**

- I hope this message finds you well. I've been using the AI system and found it beneficial for knowledge acquisition. However, I've noticed occasional inaccuracies in responses. I suggest reviewing and refining the algorithms for improved accuracy. Additionally, I recommend periodic reviews of the AI Usage Policy to ensure it aligns with technological advancements and user needs. I'm open to providing

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more detailed feedback if needed. Thank you for considering these suggestions.

- **ASSOCIATE 07**

- Benilde's AI Usage policy is comprehensive and clear. I think it addressed everything very important. Good job! However, I believe that a video presentation of the AI usage policy (preferably an animated version) could be helpful since some learners understand better through visual presentations or listening to its audio.

- **ASSOCIATE 08**

- As moderators of learning, we become more effective if we experience the tools we use in class. Sharing tips will surely make a difference. An hour-long session once a month on the latest AI tools will be a good start. It doesn't have to be too formal or structured. It can just be like a free-for-all trial run in the Ideation room or any room on any of the campuses.

- **ASSOCIATE 09**

- Grateful for our learning about the benefits of Artificial Intelligence Tools. Looking forward to learn more updates and guidance on its responsible use.

- **ASSOCIATE 10**

- While ChatGPT is undoubtedly the most popular AI Tool currently in the market, we must continuously discover and explore other products available for text and image generation. As we speak, new (and more powerful) apps/tools emerge which may be considered for our use. However, we must be guided by the principles and best practices provided to us in this course so that all our actions are properly supported before we embark on any learning activity.