



Information Technology Committee (ITC) Minutes

Meeting Date: November 29, 2023 3-4 pm (regular meeting)

Circulated: 01/05/2024

Approved: 01/10/2024

Present: Magda Ivanova (Chair), Varun Agrawal, Mashon Allen (VP's Chief of Staff), Ivo Dinov, Yun Jiang, Luis Marques, Ann Marshall (FSO), Amir Mortazawi, VP Ravi Pendse, Deirdre Spencer (SACUA liaison), Quentin Stout, Sonia Tiquia-Arashiro, Jeffrey Yackley.

Invited Guest Attendees & Speakers:

Tazin Daniels, GAIA member, Associate Director, Center for Research on Learning and Teaching

Brian Athey, GAIA member, Chair, Department of Computational Medicine and Bioinformatics, and Professor of Psychiatry, Medical School

Varun Agrawal, GAIA and ITC member, Undergraduate Student in Engineering/Computer Engineering & Physics

Karthik Duraisamy, GAIA Chair, Professor of Aerospace Engineering and Director, Michigan Institute for Computational Discovery and Engineering Research

1. The meeting was called to order and there were no objections to approving the minutes.

2. Presentation by four members of the [Generative Artificial Intelligence Advisory \(GAIA\)](#) Committee on [GAIA's work and recommendations](#):

Tazin Daniels Remarks

- Tazin Daniels shared these resources:
 - [GenAI website](#)
 - [GAIA Committee full report](#)
 - [Provost's Seminar on Teaching AI website](#)
 - [Provost's Seminar registration](#)
- GAIA's goals: 1) provide clarity on AI tools (strengths, weaknesses, new and future developments, 2) provide guidance on AI for U-M, 3) provide training, 4) solicit input, 5) identify implications (both ethical and legal), 6) study implications, 7) evaluate committee's recommendations 8) recommend sustainable management.
- Tazin invited attendees to share the first word that pops into their head regarding AI. Responses included: ambivalent, love/hate, confused, apprehensive, shallow, hopeful, evolving, cheating, overuse, inspiring. Tazin did a similar exercise asking how the majority of instructors/staff feel about AI in their unit, the top response was curious, followed most closely with anxious and confused.
- The work of the committee has been completed. One issue is how to balance academic freedom with the challenge of silos across U-M. There is no current centralized body that is continuing to work on this and, yet, even with challenges, there are reasons to be hopeful.
- All are encouraged to attend the Provost's seminar next Friday.



- Page 13 of the [GAIA report](#) provides baseline data. Gathering the data was a large undertaking, with nearly 6,000 responses and already the report is out of date.
- Key GAIA Findings on Teaching/Learning: 1) Proliferation, 60% of faculty and students have used it, 2) Responsibility, what is the role of admin/faculty, 3) Opportunity, promote equitable and effective practices, 4) Surveillance, issues with detection software, 5) Research, student motivations and experiences, 6) Training, faculty feel underprepared, 7) Coordination, many units working on GenAI across U-M, 8) Innovation, we need incentives to innovate with GenAI.

Brian Athey Remarks

- Brian's role at the Medical School is to assist VP Runge with AI across the Medical School's mission, including clinical care and through a safe and secure process.
- Issues include AI as considered from both a top down and bottom up perspective, to engage with how to most responsibly use AI, and for IT teams to help researchers with tools such as U-M's enterprise-wide system, and to consider cases when U-M does not share prompts and derivatives with the outside world.
- U-M responsibilities to make sure AI-generated information is accurate, well-documented, with references to substantiate claims.
- A lot of issues with AI continue to be up in the air and, for both teaching and learning, there is a long ways to go yet for how to use these tools, and it is important to pay attention and to consider how to use AI safely and wisely. And, to communicate well with sponsors about these technologies.

Varun Agrawal Remarks

- Having served on GAIA, Varun said his perspective may be a bit different than his peers. It has been really interesting to follow AI updates, such as the G-Star model, the CEO being removed and brought back, and what this means and its implications. The use of AI as a revolutionary idea, not just being fed information. There are a lot of implications for research and, while the computational powers are impressive, it is also important to be cautious.
- Varun has accessed custom U-M GPT and it has been largely interesting and helpful. For example, it provided updated physics information. He uploaded his physics textbook and there was one question on assignment where had no idea and had given up. By copying the question into AI, it provided a more structured approach to understanding the problem and was academically helpful. The AI was not 100% reliable, as the AI makes mistakes, he can learn from this, and as it fails again and again, by not trusting the information, it aided in his learning of the topic.

Karthik Duraisamy Remarks

- Karthik has done numerous presentations on AI and, whatever side you're on, it is exciting about what is coming next, which includes much more customizable tools, and he expects that every discipline may have its own base model. There are very active debates about rational reasoning, what may be regurgitation, and what can be done to help the technology, as well as to provide guardrails.
- Most AI models do not yet have planning and autonomy, but this will likely come soon, as well as systems to interact with other tools. There is likely to be an economic impact. All of us are urged to view U-M's role as leaders in the field.



- The goal is to enable the AI Scientist to assist scientific inquiry and decisions, where, based upon a research question, an AI-drive model is updated with data simulations with additional information either from the human scientist or with the simulation.
- Mining data from papers that are 100 years old and then running experiments and creating larger language models is also expected to be a growth area. Only about 1% of the cost is to actually make the model do what you want it to do. For example, a model could hypothetically draw upon 400+ examples from scholarly literature prompts to fine-tune a literature dataset.
- For example, Andrej Karpathy has outlined steps on how to train your Chat GPT Assistant as part of a 2023 presentation slides on the [state of GPT](#).

Discussion

- A question was asked about students cheating and about AI tools from an anti-racism perspective. Taz Daniels responded that, trained as an anthropologist, this is not just a tech revolution, but it is also testing our culture. She suggests not being afraid of it, but to lean into it, and focus on the process, not the product. For example, there is the expectation that, if you're going to be a coder (or a writer), you need to learn to code (to write), and that while AI can enhance, it is also important to learn fundamentals. As an example of policy protections, limits related to AI were added to the writers' contract. There is lots of research on why students cheat, and, from an anti-racist perspective, there is a bias in perceptions about who we tend to think are cheating.
- Additional discussion on the cheating question included: Technology on cheating should reflect the values of the university. People have been cheating off the internet for decades. With AI, the challenge is that those who are cheating may be clever than before. It may also be important to refine how plagiarism is defined, including focusing on the writing process (an outline), the iterative process of AI, and the need to redesign courses. From a student perspective, what matters is whether there is a use for the material, e.g. taking a class in differential equations, but never having a need to use it and forgetting the content. For AI, an important skill set is prompt generation. U-M responsibility to shape an ethical context and to consider who might get left behind.

Closing Remarks – VP Ravi Pendse

- Ravi Pendse thanked attendees for their contributions and for taking the time to share their experiences. A lot of exciting things are happening and a lot of faculty have used Maize, even by redeploying Maize as tutors in their classes. The Provost has presented on AI and U-M has been praised for their contributions. It is also important to approach this area responsibly and the discussion with continue.

Meeting adjourned

Next meeting is **Wednesday, January 10, 2024, 1 pm**

Respectfully submitted,
Ann Marshall (FSO, Faculty Governance Coordinator)