APPROVED Minutes
Education Committee Meeting
Forum
2500 West Broad Street

January 16, 2025
1:30 p.m.

**Present:** Dr. Denise Walters, Gina Burgin, Patricia Nicoson, Ram Venkatachalam, Jeff Bentley, Amishi Amin, Cristina Ramirez, David Mills, Thomas Gottwald, Irma Becerra

**Staff Present:** Timshel Purdum, Rich Conti, Dr. Rose Basom, Ash Harris, Courtney Moyer, MJ Benson, Elli Bosch, Cat Erdas, Elijah Williams, Laura Kramer, Ada Sue Siler

**Other Attendees:** Lauren Coleman, Office of the Attorney General

Dr. Walters called the meeting to order at 1:30 p.m.

## Welcome and Approval of Minutes
Dr. Walters welcomed everyone and asked for everyone present to review the meeting minutes from the October 17, 2024, Education Committee Meeting. Dr. Walters asked for a motion to approve the minutes. The motion was called by Ms. Nicoson and seconded by Ms. Burgin. A vote was taken by verbal affirmation which passed unanimously without objection.

## Education Team and Inspiration Index
Ms. Purdum provided a review of the Inspiration Index, highlighting that the months of October, November, and December are typically very busy.

- School group attendance has increased by 46% compared to last year, which is a source of excitement for the team.
- Bookings for the remainder of the year are also looking strong.
- Over 2,000 guests attended Spooky Science programming in October.

- Tomorrow will feature the Science After Dark event.
- The Eco Lab now features a Babylon Farms micro-farm.
- The Forge programming has undergone changes, offering more open hours and new opportunities.
- Volunteers contributed 2,135 hours in the last quarter, marking a 30% increase over the same period last year.
- There has been increased involvement from corporate volunteers as well. Programs such as "Science Within Reach" and "Minds of All Kinds" have been highly successful.
- The Teen Leadership program is beginning its second cohort.
- The team is excited for the upcoming developments, including the return of Boost Kitchen and the Bricks and Brews event.
- A new Lego project is also underway.
- The Science Museum submitted an IMLS proposal in December.
- A new theater pilot with VCU begins its new semester on Friday.
- This program focuses on how theater skills can be applied in everyday life, such as improving bedside manners for doctors.
- Finally, the "Well Made" fair, a maker art festival, is planned for September, and the team is currently searching for vendors and artists to participate.

**Upcoming Events**
Ms. Purdum reviewed upcoming events:
- January 17- Science After Dark: Superhero Science
- January 24 - Minds of All Kinds
- January 27 - Summer camp registration opens
- February 1 - GLOW
- February 4 - Senior Making
- February 8 - Teacher Resource Fair
- February 21 - Science on Tap: Mystery at the Museum
- March 6- Laser Show: David Bowie
- March 12 - Senior Morning
- March 12 - Science After Dark: Everything is Awesome
- March 20 - Bricks and Brews
- March 2 - Curiosity Camp In
- March 28 - AI Day of Literacy
- April 4 - Minds of All Kinds
- April 10 - Laser Show: Beyonce
- April 19 - Earth Day Festival

Ms. Nicoson inquired about the GLOW event, to which Ms. Purdum explained that it is a signature event that was initially a Science After Dark (SAD) offering. However, due to increasing interest and attendance, the event has expanded to a full day of glow science-themed activities.

Dr. Becerra asked about the Boost Kitchen, and Ms. Purdum responded that it is located on Level 0. The program previously involved cooking and demonstrating the science of food, but it was paused during the pandemic due to staffing challenges. The Science Museum is now ready to bring back the programming. Wegmans has supported the Science Museum by providing gift cards for food sourcing for both the Boost Kitchen and the animal lab.

Ms. Amin asked about revenue goals for events, and Ms. Purdum clarified that while they track and collect data, there isn't a specific monetary goal for each event. The focus is primarily on attendance and related factors. Additionally, the Science Museum is focusing on the needs of schools and groups, considering aspects such as learning objectives, location, and transportation barriers. The Science Museum will also be launching a more systematic survey of guest experiences to drive improvements.

**AI Exploration**
Mr. Conti provided an introduction to a new AI Demonstration the Science Museum is piloting.
- Mr. Conti noted how misunderstood artificial intelligence (AI) is at present, emphasizing its importance and timeliness.
- The Museum had previously hosted a lecture on this topic and now has an opportunity to further educate the public.
- Google provided funds to create an AI demonstration

Mr. Conti introduced Elijah Williams, a member of the Science Museum Education team.

Mr. Williams welcomed the group and introduced the session focused on exploring AI. He explained that AI refers to a computer system or model capable of exhibiting intelligence and highlighted the specific example of Gemini, a Multi-Modal chatbot.

The group engaged with the system by requesting it to write a short story based on suggestions, including Dr. Walters' choice of "chemist" as a job. When the results were reviewed, the group noted that running the same prompt multiple

times resulted in different outcomes, which led to a discussion on prompt engineering to achieve more specific and improved results.

Next, the group added more details to the prompt, such as including the Amazon as a place and for the story to detail locating a flower. This prompted a more detailed output, and Mr. Mills remarked that the AI took into account environmental context that wasn't explicitly provided. Gemini's responses varied with each prompt, and the group observed that it tends to favor adjectives.

Mr. Williams further demonstrated Gemini's capabilities by requesting it to generate images. The group waited for the image to be generated, and while it took time, the results were discussed. Dr. Becerra humorously compared the generated character to Indiana Jones, and the group noted peculiarities in the image, such as an off-kilter pickax. Despite the image's oddities, Gemini was able to retain content within the chat stream and refer back to it.

The group continued by asking Gemini to guess an animal based on a description provided by Ms. Burgin. While the AI incorrectly identified the animal as a giraffe, the group tested Gemini's ability to recognize various AI-generated images, pointing out that AI-generated images often have a distinct depth of focus and subtle tells, such as the avoidance of hands.

The session concluded with the review of an AI-generated human face, where the group identified subtle indicators that the image was AI-generated.

Cat Erdas returned to the discussion to ask a few questions. She inquired about the words participants associate with AI, and responses included "scared," "informed," "AI getting smarter," "concerned," and "interested." She also asked about the most surprising moments of the demonstration. Dr. Becerra mentioned that the generated images were the most surprising, while Ms. Nicoson noted the depth of the story created in just two sentences. Mr. Gottwald confirmed that the demo was approachable for all.

Regarding the personal use of AI, Ms. Ramirez mentioned that being specific is crucial for effective results. Dr. Becerra noted that experts in certain fields may detect errors in AI-generated content, but non-experts might overlook them. Mr. Mills shared that while ChatGPT is a useful tool for drafting text, it can access a lot of personal information and mimic his writing style.

Dr. Becerra asked whether documents generated by AI are placed into the public domain, and Mr. Williams confirmed that much of the information generated is indeed available publicly.

Dr. Walters added that chemical-specific details can sometimes be lost when using prompts. Ms. Burgin shared that she often asks for results to be presented in a specific "voice" or style.

Mr. Vencatachalam discussed how his son used both Gemini and another bot for homework, noticing the different results from each. Mr. Williams acknowledged that AI can sometimes provide incorrect information. Dr. Becerra raised a concern about the bias present in large language models (LLMs) and expressed curiosity about how bias might influence the results.

## New Business
Dr. Walters asked for any new business.

## Adjournment
With no further business Dr. Walters asked for a motion to adjourn. Dr. Becerra made the motion which was seconded by Ms. Ramirez. Dr. Walter called for a vote which passed unanimously without objection and the meeting was adjourned at 2:36 p.m.

The Education Committee will meet again on June 18, 2025.