Museum of Science Meeting Notes

September 13: Touching Base with Beth

Action Items:

- ☑ ~~Before tomorrow: browse online museum of science website/resources, Questions, Create intros to send to MOS CEO~~
- ☑ ~~ASAP: Tell robert: MOS wants to talk at 5 tomorrow (ask him to join and either talk to him after or reschedule catchup meeting)~~
- ☑ ~~Ongoing: make sure the conversation happens about Roberts platforms and ad-ons~~
- ☑ ~~At some point: Define Roles - contact person with Tim, Beth/Henri, Robert/Dane;~~

Notes:

- Interest in literacy
  - Persistent problem of people going through school system functionally illiterate
- More conversation about positive impacts of AI for least advantaged people
  - (Ex: Language learning, khan academy, code interpreter)
- Product: customizing AI enabled tools for facilitating conversations with a broader audience
  - Based on website/ platform from Robert
  - Similar concepts: Regulations.gov ; challenge.gov ; tools-competition.org

•

September 14: Initial meeting with Tim from MOS

Action Items:

- ☑ ~~Add robert to the slack~~
- ☑ ~~Look at Robert's current projects/links sent in slack~~
- ☑ ~~Rework the problem based on the new information~~
- ☑ ~~Start thinking/laying out a project plan~~
    - ☑ ~~What milestones can we fill in?~~
- ☐ List out questions we need to get answered
- ☑ ~~Start figuring out the division of roles~~
- ☑ ~~September 29 2pm:~~
    - ☑ ~~Reach out to Gina about setting up a time to meet preferably in person (by this meeting, we need to have some sort of mock-up)~~
- ☑ ~~Send Tim a Thank You note~~
- ☑ ~~Plan out an ideation session based on content we learned today~~

Notes:

- How the Power of AI elevates humans
- Power of AI to close the reading gap
    - Literacy is currency to work effectively with science and tech
    - Audience (who cares about literacy): government, policymaker at state, city, and federal levels, educators, general public (everyone cares if their child is successful in science/tech), funders/ foundations, industry
    - How do we reach these audiences?
- Question: our goal is to start the conversation about literacy, not necessarily about the problem to be solved?

        - Confirmed its about the conversation not about solving literacy as an issue
    - Question: if you had to formulate a problem question, what would it be:
        - How can schools and after-school programs use AI to build up their reading programs
    - Question: what is the result you are looking for?
        - Outcome would be people who are in a position to impact this issue will have a clear vision for how schools can use AI to close reading gap
        - Tangible practical way to take the next step forward in this issue
    - Chike Aguh comments:
        - Goal sounds like how to get stakeholders to convene
        - Curated content exists
        - Ask educators what they need to be successful and then rope in other stakeholders
    - Separate out of school vs. in school time and how that affects this issue
    - Stay narrow and expand after
- Why does the museum of science care?
    - Goal is to help young people develop a lifelong love for science
    - This is an institution trusted in many different fields/industries → wants to use the connections to their advantage
    - Put people in the room who don't normally get together in the same place for a meeting
- People need to see what is out there, no one has time to figure out what is there and the options open to address this problem using AI
- Question: Is there a preference between boston vs. national focus
    - Boston is great, lots of relationships with schools
    - Solve the problem locally contributes to the overall national issue

- Expert conversation is important to have because the gen public does not have a good grasp on what AI can do, so we need AI optimists in the room to list out what is possible
- Question: Do you envision some kind of visual in the Museum of Science? Is a digital or physical gallery relevant to this?
    - Easy to swap the current AI exhibit

AI platforms to have large conversations

- ☐ Hold conversations online and in person (in communities)
    - Listen to people's problems and find solutions

Robert notes:

Additional Notes 09/14

- High level overview
    - The power of ai to help elevate human beings
    - Many specific applications one can consider with AI
        - The power of AI to help close the reading gap
        - Literacy is the currency of the realm in terms of the ability to work effectively in the world of science and technology
        - Audience? Modality?
    - Who Cares about this?
        - Government, public education, we are not delivering very well
            - Policy makers, state city, etc
        - Educators themselves, how can we use this tech to close the gap
        - General public is going to care
        - Funders / foundations care about this
        - Industry
        - How can we together work to close this gap
    - **How do we get to these audiences with a vision to close the reading gap?**
- Oliver: Are we starting the conversation or creating the tools?
    - Lol don't solve the problem
- Beth: How are we thinking about the question we want to ask
    - How can schools and after school programs use AI to close the reading gap
        - There is a resistance to using AI in the public school system
        - If they knew the benefits, maybe it would be useful
- What is the result you would like at the end?
    - People who are in a position to make a difference, would have a clear vision of how schools and after school programs can use AI to close the reading gap, that they would have clear tangible ways to take the next step forward
    - A series of convenings in communities, a symbiotic relationship between listening and answering the problems that these people are faced with

        - Potentially introducing new tools and existing tools that could currently solve these problems
        - Existing technologies that could solve these issues, and introducing them to these spaces that need the assistance
- Chike: Two problems to attack
    - There is a lot of information about how you teach children to read
    - Is there something that could help people pick the right tool for them
    - "Curating existing content"
    - Are there tools that can be created
    - How do you also rope in policy makers?
- The world of after school / outside of school time is a laboratory for accomplishing this task
- What makes it the programming you would do:
    - The reason we exist is for youth to develop a love of science
    - ** We are beloved and trusted by institutions that do not normally think out loud, if we are the convener they will come because they trust us
    - We can help bring about a successful convening
    - Groups thinking out loud that create policy change
- Ai is promising technology, but no one has time to really flesh it out
- Addressing the diversity of the audiences:
    - Boston is great, we have relationships with real schools
    - What is most local is most universal
    - Solving this locally makes a lot of sense
    - Are we also having a conversation with the public or a conversation with the experts
        - The expert conversation is a very important to have
        - The GP doesn't know what AI can do and has a lot of fear
        - Confusion as to what extent can AI be the answer

We have a current AI gallery, but we can swap out some of this stuff to have a reflect on AI and education

September 20: In-class Lecture/Meeting with Robert

Action Items:

- ☑ ~~Email w/ Beth about outlining tasks and "gain a cadence"~~
- ☑ ~~Assignment from Robert (should be out soon)~~

- Different Tasks from Robert (ish)
  - JS/TS : backend programing to create a new agent for doing state-of-the-art web research (based on policy synth info)
    - GPT4 prompts
  - Create UI Component - translating into human readable
  - Deploy Policy Synth on Cloud or AWS using Docker - system admin work (System Operations)
  - Setup Policy Synth (data management), human sourced problem statements (pulling from experts and GPT4)

September 22: Project Planning Meeting

Action Items:

- ☑ ~~First draft of project plan due Sunday~~

- Speaker: Shannon Alpert (Project management program at NU)
- Create team charter:
  - Names, roles
  - Best times and ways for communication
  - Strategy for managing the team process
  - Strengths/ comfortable tools
- Possible project roles (Should prob meet to define roles before assigning - more for accountability than being entire focus)
  - Project manager
    - possibility to rotate role (feels like a bad idea to me - SM)
    - Assigning/ keeping track of work done
  - Design/human centered design manager
  - Client manager/liaison
    - Communicate with client and profs, spearhead meeting agendas
  - Head of Backend Development
  - Research Coordinator
- Sunday Project Plans (from Henri)
  - Key sections: product/project overview, identifying key roles/ responsibilities, distributing project into phases (p1: context/research/scoping; p2: design, MVP; p3: ...)
  - Henri will follow up with resources
  - Recommend grid structure (Task: what, deadline, assigned, status)
  - Project Plan V1 - MOS

** Note (SM): I feel like a Jira board is probably a good idea to keep track of tasks

Henri Meeting Notes: Role Specification

1. Project Manager:

The Project Manager is the linchpin of the project, responsible for steering the project from inception to completion. They are tasked with planning, executing, and closing projects.

Key responsibilities include defining the project scope, developing a project plan, scheduling and tracking project timelines, and ensuring that the project stays within scope, on time, and on budget.

Key Responsibilities:

- Define the project scope and objectives, ensuring technical feasibility.
- Develop a detailed project plan to monitor and track progress.
- Coordinate internal resources and third parties/vendors for the flawless execution of projects.
- Manage relationships with clients and stakeholders.
- Create and maintain comprehensive project documentation.

2. Design/Human-Centered Design Manager:

The Design Manager is responsible for ensuring that the project meets the user's needs in a functional, accessible, and aesthetically pleasing manner. They will utilize Human-Centered Design principles to lead the design efforts, ensuring that the user stays at the heart of the project.

Key Responsibilities:

- Lead design brainstorming and ideation sessions.
- Create user personas, user journeys, and wireframes.
- Conduct user research and usability testing.
- Implement and maintain design standards and guidelines.
- Coordinate with the development team to ensure design fidelity and user experience quality.

3. Client Manager/Liaison:

The Client Manager acts as the bridge between the project team and the client. They ensure that the client's needs and expectations are clearly communicated to the team and that the client is kept informed of project progress and decisions.

Key Responsibilities:

- Establish and maintain strong relationships with clients.
- Communicate client needs and expectations to the project team.
- Provide regular updates to the client on project status.
- Gather client feedback and ensure it is incorporated into the project as appropriate.
- Manage client expectations and resolve any issues or conflicts.

4. Developer:

The Developer is tasked with turning design concepts into fully functioning Generative AI applications. They work closely with the design team to ensure the final product matches the envisioned design and meets the project requirements.

Key Responsibilities:

- Write clean, efficient, and maintainable code.
- Implement UI designs with high fidelity.
- Collaborate with the design and project management teams to ensure timely delivery of project deliverables.
- Debug, troubleshoot, and fix bugs and issues.
- Stay updated on the latest industry trends, technologies, and best practices in Generative AI development.

5. Researcher:

The Researcher role is crucial for staying abreast of the latest advancements in Generative AI and understanding how they can be leveraged for the project. They conduct in-depth research and analysis to inform the project's technical

direction and ensure its success.

Key Responsibilities:

- Conduct literature reviews and competitive analysis.
- Explore and evaluate new technologies and methodologies in Generative AI.
- Work closely with the development team to implement innovative solutions.
- Document research findings and contribute to the project's knowledge base.
- Stay updated on industry trends, publications, and emerging technologies in the field of Generative AI.

David Meeting Notes: Project planning

From my notes into ChatGPT:

Building a project plan for an AI solution focused on addressing a public problem with a group of team members requires careful planning and organization. Here's a step-by-step guide on how to create a project plan with defined tasks, owners, prioritization, and deadlines:

1. Define the Project Scope and Objectives:
- Clearly outline the problem you aim to address with your AI solution.
- Specify the goals and objectives you want to achieve.

2. Formulate a Project Team:
- Identify the five members of your team, each with their respective roles and responsibilities.
- Assign a project manager or leader responsible for overseeing the project.

3. Break Down the Project:
- Divide the project into smaller tasks and activities. These can include data collection, model development, testing, deployment, and more.

- Ensure each task is clearly defined and has a specific purpose.

4. Define Task Owners:
- Assign team members to specific tasks based on their skills and expertise.
- Clearly communicate each team member's responsibilities and expectations.

5. Prioritize Tasks:
- Determine the order in which tasks need to be completed.
- Prioritize tasks based on dependencies and critical path analysis. Some tasks may need to be completed before others can start.

6. Set Deadlines:
- Establish deadlines for each task and subtask.
- Consider the overall project timeline and any external factors that may impact the schedule.

7. Create a Project Schedule:
- Use project management software or tools like charts to create a visual project schedule.
- Include start and end dates for each task, task dependencies, and task owners.

8. Monitor and Adjust:
- Regularly review the project plan to ensure it is on track.
- If any delays or issues arise, adjust the plan accordingly and communicate changes to the team.

9. Communication and Collaboration:
- Establish clear communication channels within the team.
- Hold regular team meetings to discuss progress, address challenges, and make decisions.

10. Risk Management:

- Identify potential risks and develop a risk management plan.
- Include contingency plans for addressing unexpected issues that may arise.

11. Quality Assurance:
- Incorporate quality checks and testing phases into the project plan.
- Ensure that the AI solution meets the desired standards and objectives.

12. Documentation:
- Document all project-related information, decisions, and changes.
- Maintain a project repository for code, data, and documentation.

13. Review and Feedback:
- Periodically review the project plan with the team and stakeholders.
- Incorporate feedback and lessons learned to improve the plan as the project progresses.

14. Reporting and Milestones:
- Define project milestones to measure progress.
- Prepare regular status reports to update stakeholders on the project's status.

15. Project Closure:
- Once all tasks are completed and objectives are met, conduct a project closure meeting.
- Review the project's success, document lessons learned, and celebrate achievements.

Remember that flexibility is essential in project management. Be prepared to adjust the plan as needed to accommodate changes and unforeseen challenges. Regular communication, collaboration, and teamwork will play a crucial role in the success of your AI solution project.

September 26: Finalizing Project Plan - First Draft

- [ ] Generate Question List/ Agenda for Thursday
- [x] ~~Send a message to Rober - SM~~
- [x] ~~Email project plan to Beth - SM~~
- [x] ~~Meet briefly after Thursday~~
- [ ] Outline role responsibilities

Project Plan V1 - MOS

Team Background Information:

- Sarah Moyer
  - Python, Java, Javascript, C, C++, git/github, VS, React(ish)
- Oliver Breese
  - Roles:
  - f/e dev
  - Tbd point person
  - Langs: React/TS/JS, Python, Java, SQL, HTML/CSS, etc
  - Tools: some deploy, some aws,
- Krithika Nataran:
  - Python, SQL, Java, docker(kind of), C++ (learning right now)
- Ayush Shenvi Pissurlenkar (Backend):
  - Languages: Python, SQL, Java, Typescript, DrRacket
  - Technologies: ML, DL, Tableau, API, NLP, Data Visualization, Git
- Max P:
  - Javascript/Typescript, React, Java, Python,
  - OpenAI (gpt chat api, prompt engineering)
- Sarah Abeywardena
  - FE: React.js, Node.js/NPM, Typescript (minimal but like enough), HTML/CSS
  - BE: Java, Python, C++ (minimal but doable)
  - Cloud & Deployment: Terraform, AWS (lambda, secrets manager, and storage in S3), Docker, dbt
  - Github/git, some knowledge in Linux

September 27: In-Class

- Tasks
    - Test out platform to understand functionality
    - Read up on past uses (look at Dane's case studies)
    - Figure out audience
    - Get a list of stuff need to check with client
    - Building the platform
        - Backend ➜
        - Frontend ➜ accessible user interface, having proper directions, problem statement + other info, accessibility , pick colors, logos, brand guidelines, other ux/ui stuff
- Notes from P Plan

September 28: Project Plan Review with Dane and Robert

- ☐ Draft prompts for literacy solutions
    - ☐ Send email?
- ☐ Look in more detail at Robert's assignment (individually or team?)(f/e, b/e, and deploy should break into groups to do this)
    - ☐ f/e
    - ☐ b/e
    - ☐ deploy
- ☐ Decide on new deadlines and project plan structure
- ☐ **[High priority (next thursday)]** "Money Money Money" - ABBA
    - ☐ Talk to Beth about OpenAI price (Robert's estimate is $7k over the course of the project)
    - ☐ Make sure we even have GPT4.0 access
    - ☐ Will we need stability(?) API key for PolicySynth image generation
- ☐ Invitation letter draft by ____
- ☐ Get example project plan from Dane
- ☐ Decide on launch date that considers feedback time
- ☐ Move these tasks over to notion because it's COOL! :)

- General Project Comments
    - Important components
        - Making sure prompts capture the problem and are clear and well written
        - Planning outreach strategy
- Project management comments (Dane)
    - Get much more granular with project plan (Dane will send example)
        - There should be 20-30 of these
        - Break down each task into small deliverables with due dates and someone responsible
    - Get a launch date and make sure we've built in time for MoS feedback
- PolicySynth

        - Robert recommends we develop this in parallel with the rest of the work
        - No new features, “subclassing” existing ones (Robert doesn’t assume that much work)
        - Automated web research*
            - Should help us identify problems to prioritize / tackle
            - Can then feed the small list of problems BACK to PolicySynth and take them to experts
        - Solution mode
            - Policysynth makes images for solutions
            - “Stability AI key”?
        - “Root cause discovery”
- Frontend (more info on the assignment)
    - Birds eye view: present results of web research
    - Changes to AllOurIdeas / PolicySynth user interface
        - Present policy suggestions
    - MaterialsUI 3 might be a good resource
- Backend (more info on the assignment)
    - Robert sent us an architecture overview
    - Our changes
        - New webapp module
        - No DB
        - Extend AgentQueue module
- “The Assignment”
    - Important part of this is generating prompts
- project plan notes
    - Push AllOurIdeas stuff to _____
    - Bring up PolicySynth and coding deadlines to _____ and _____, respectively
    - MoS meeting
        - Have mockup
        - Have test problem statements
- Outreach strategy
    - Invitation letter
        - MoS will send this to their giant email list

In-Class Slide Deck Notes

- [ ] Due Wednesday: a couple of slides

- What to Include:
    - Updates to project timeline
    - Implementation timeline
    - Problem being addressed
    - Desired impact
    - Foreseen challenges
    - Agenda (deck preview)
    - * elements of deck on slides sent out from 10/2
- ALWAYS have header and subheader on each slide
    - Entire story line should be represented by these headings
    - Exceptions:

10/13 → Museum of Science Notes

- All our ideas demo that MOS team had previously seen: https://allourideas.org/
- Question: where is the webpage hosted for the project webpage content?
    - Added to the Burnes center site
- Question: Communication kit → clarifying that this is for both the Burnes center and MOS
- Question: launch is nov 2, when would the tools be posted in the communication kits?
    - Answer: either on nov 2, or one or two days before
    - Campaign runs for two weeks which means two weeks of social media engagement
- Question: who are we targeting?
    - Targeting education stakeholders in boston: students, caregivers, teachers, education institutions
- Question: Is this just Boston, because MOS has many communities outside of the Boston area?
    - Not limited to boston area
    - None of the info is boston specific
    - They have access to network education practitioners outside of the Boston area
    - They have a curriculum sold in all 50 states so they have a national reach
    - MOS wants to go national instead of in the greater Boston area
- Think about how to word the communication kit so that we don't make people outside of boston feel excluded
- Question: What kind of feedback would we feel most valuable?

    - Making sure our ideas are aligned when describing to people and making sure they are in line with how the MOS typically does this kind of stuff
    - Would like branding stuff to better develop the front end
- Add centers for public science logos as well??
- Question: How is our team collaborating?
- Would like to know the partners we are using/ people we are consulting list → share the list so they can present for center for public science
- What cadence of communication do we expect
    - What is helpful for MOS? Our purpose for the meeting was to get acclimated and understand MOS expectations
    - We are ok with email and the occasional call but we can also do regular meetings →
    - Share the slide presentation as well
    - Quick turnaround email would be best but regular meetings would be great
    - As we develop campaign language, talking points from MOS as for how we want to speak for the project → send this to MOS so that they could speak with clarity and coherent
    - Content level → how do you know the search prompts are the right ones? → answer this in the talking points
    - Also how are we addressing these challenges? This is going out to the public so we need to be transparent in the approach

ACTION ITEMS:

- ☐ Broaden target audience to national level
- ☐ Send presentation
- ☐ Create talking points for MOS that detail our approach

10/25: MPOS/BPS / Government Meeting

- Attendees: Sarah M, Krithika, BPS/MOS/Boston Center for Ed
- Previous edition of All Our Ideas had toggle directly to Spanish? So check in to how they had that set up