The Burnes Center for Social Change
Northeastern University

Museum of Science

# Museum of Science/Burnes Center Impact Studio: AI, Equity and Literacy

Updated October 2023

This proposal outlines a plan for engaging experts on literacy and members of the Boston education community to gather information on the current limitations of the education system leading to inequity and disparities among the reading abilities of Boston students.

Currently, there isn't a clear conversation surrounding literacy. While education experts have established best practices for teaching literacy, inequity surrounding the resources and opportunities of students is leading to drastic gaps in achievement in reading. The disparity in literacy across students at a grade school level then creates an inequitable environment for these students as they grow in their careers. Literacy is the backbone of many opportunities and decisions individuals make in their lives; when placed at a disadvantage from a young age, students begin their academic journey behind some of their peers, with little to no fault of their own.

Creating conversations around literacy with the people most impacted opens doors for policy makers to focus on what is impacting literacy rates in the greater boston area the most, to hopefully begin to make an impact on a higher level.

For this project we are working with the Museum of Science in Boston to explore how generative AI tools can be used to promote literacy and equity. We will run a series of campaigns utilizing All Our Ideas, Remesh, PolicySynth, and GPT4.0 to gather information from as many stakeholders as possible - including but not limited to current students, parents, educators, and literacy experts- to define the current root causes of low literacy rates and gather ideas for how AI can be used to supplement current programs within the Boston Public Schools.

This project has three phases, as outlined below:

- **Web Research:** Determining the issue we are addressing, understanding the communities that would ideally benefit from this project, and defining the problem we hope to address. This also includes constructing GPT-4 prompts based on our problem definition and deciding on what aspects of the root causes we want to search for and research. These custom project prompts will then assist us in defining the web research.

    **Deliverables:** Problem statement prompts to develop options that users will rank using the All Our Ideas platform. These options will then be entered into GPT-4 and generate the ideas to enter into the platform which will then be cross-checked by the Northeastern Literacy Lab.

- **All Our Ideas Campaign:** Create an AllOurIdeas Wiki survey to send out to students, caregivers, and educators in the Boston community to determine which of the ChatGPT4-generated problems should be prioritized in later phases of the project.

    **Deliverables:** An All Our Ideas website launch with the Museum of Science's branding sent out to the Museum of Science's contacts during the first two weeks of November (see example). Also a summary of the results generated using Policy Synth (see example).

- **Remesh Engagement:** Using the information gathered previously, the Remesh platform will allow us to engage a representative sample of the population for a moderated conversation. The platform allows us to host up to 1,000 people in an information gathering session where AI will instantly synthesize the response of each participant allowing us to make live adjustments and ask relevant questions to our audience. This will facilitate a conversation on further defining and honing in on the more prevalent ideas raised on the All Our Ideas platform.
    - **Deliverables:** The launch of the online focus group resulting in an informative report of the information gathered during the second or third week of November .

- .**Smarter Crowdsourcing**: In December, we will run one or more national online engagements with literacy, policy, technology and other professionals to discuss how AI can help move the needle on literacy inside and outside of school among those most chronically affected. We will bring experts together in a series of 2-hour, moderated online conferences. To inform each conference, we prepare a

Problem Brief and Moderation Guide. During the online conference, we discuss solutions, hear about people's experiences implementing those solutions and understand the challenges involved in the execution. The conversations are heavily facilitated to zero in on actionable ideas, rather than theoretical discussions. We use AI to facilitate transcription, summarization, and clustering of ideas to speed up the process of turning insights into actions. Informed by the problems we uncover in the problem definition engagements, these online conversations will explore solutions. We will complement the collective intelligence of the group we convene with insights from artificial intelligence. The output of these conversations will be The output of these conversations will be a Set of Recommendations for policymakers, schools, industry and families.

**Project Timeline**

| Phase | Deliverable | Date | Point Person |
|---|---|---|---|
| **All Our Ideas Campaign** | *DONE: Research into All Our Ideas* | *Oct 3* | *Krithika* |
| | *DONE:* **Pitch Deck Initial Draft** | ***Oct 4*** | Sarah A. |
| | *DONE:Finalize root causes to run search query* | *Oct 5* | *Max* |
| | *DONE:Finalized Project Timeline* | *Oct 11* | *Sarah M.* |
| | *DONE: Finalize Agenda and client schedule* | *Oct 11* | *Sanjit* |
| | *DONE:* **Meeting 2 with Museum of Science** | ***Oct 13*** | *Sanjit* |
| | *Completion of Backend Prompt Development* | *Oct 13* | *Ayush* |
| | *DONE: Burnes Center develops content for a public web page describing the project.* | *Oct 14* | *Dane* |
| | *DONE: Research and build custom project prompts ready for GPT-4 to define the web research.* | *Oct 16* | *Krithika* |
| | *DONE: Send Learning Agency schedule and timeline for this first phase with what we need from them* | *Oct 16* | *Sarah M.* |
| | *DONE: Burnes Center delivers content for the project webpage for the Museum of Science to review.* | *Oct 16* | *Dane* |
| | *decide on audience (languages? Non-reading version?) and plan for adjusting project accordingly* | *Oct 16* | *Oliver* |
| | *Identify all graphical and content elements to be drafted ( branding, colors, look and feel)* | *Oct 17* | *Oliver* |
| | *DONE: Create Marketing/ outreach plan* | *Oct 17* | *Sarah A.* |
| | Policy Synth "Root Causes Discovery" Web Research | *Oct 17* | *Krithika* |
| | *Front-end Development of All Our Ideas Interface* | *Oct 18* | *Oliver* |
| | *Burnes Center develops a communications kit (sample social media posts and newsletter blurb) to aid with promotion.* | *Oct 20* | *Sarah A.* |
| | **Complete Development of All Our Ideas Campaign Content** | ***Oct 20*** | *Sarah M.* |
| | *Burnes Center delivers the communications kit (sample social media posts and newsletter blurb) to the museum for review.* | *Oct 20* | *Sarah A.* |

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| | *DONE: Museum of Science delivers feedback on project webpage content.* | *Oct 20* | *MOS* |
| | *Burnes Center delivers content for All Our Ideas engagement to Museum of Science for review* | *Oct 24* | *Sanjit* |
| | *Burnes Center and the Learning Agency develop content for All Our Ideas engagement.* | *Oct 24* | *Sarah M.* |
| | *Museum of Science delivers feedback on communications kit* | *Oct 27* | *MOS* |
| | *Engagement and Invites Sent out* | *Oct 31* | *Sarah A.* |
| | *Museum of Science delivers feedback on All Our Ideas content* | *Oct 31* | *MOS* |
| | ***Launch of All Our Ideas Campaign*** | ***Nov 2*** | ***Team/MOS*** |
| ***Remesh Engagement*** | Research into Ramesh Platform | *Nov 6* | *Krithika* |
| | Devise outreach strategy for Remesh | *Nov 13* | *Sarah A.* |
| | **Finalize Content for Remesh Engagement** | ***Nov 13*** | *Sarah M.* |
| | *Remesh Content to Museum of Science to review* | *Nov 16* | *Sanjit* |
| | *Remesh Content Reviewed by Museum of Science* | *Nov 20* | *MOS* |
| | **Launch Remesh Engagement** | ***Nov 30*** | ***Team/MOS*** |
| ***Smarter Crowd-sourcing*** | **Release Problem Brief and Moderation Guide for the Smarter Crowdsourcing Engagement** | ***Dec 5*** | *Sarah M.* |
| | **Deliver Problem Catalog with results from previous engagements** | ***Dec 5*** | *Sarah M.* |
| | *Finalize draft of Smarter Crowdsourcing Engagement* | *Dec 8* | |
| | **Selecting problems to focus on in next phase** | ***Dec 8*** | *Krithika* |
| | *Problem Brief and Moderation Guide to Museum of Science for review* | *Dec 11* | *Sanjit* |
| | ***Release Problem Brief and Moderation Guide for the Smarter Crowdsourcing Engagement*** | ***Dec 15*** | ***Team/MOS*** |