AI²: Strategic Use of Actual Intelligence x Artificial Intelligence

Teresa Dussault, COO at Build Capable

January 29, 2025

Project

Appalachian Mountain Club (AMC) is a non-profit organization focused on outdoor conservation and recreation operating across the United States in 12 geographically distributed chapters. AMC offers guided trips for outdoor activities at different skill levels. Trip leaders must receive training and meet certain requirements to plan and lead these trips. Each AMC chapter maintains its own leadership requirements and training program, which consists of 1-3 days of classroom or live virtual instruction with role-play followed by a series of mentored trips.

To support greater standardization of instruction, increase access, and improve relevance and applicability to a wider range of leaders, AMC asked Build Capable to create an online version of their outdoor leadership training program. The program covers required topic areas for leaders of various activities such as hiking, cycling, paddling, and climbing. We had 250 hours to design and build the training in this new format.

Challenge

In addition to a limited budget and timeframe, several factors made this project challenging. Instead of focusing on application (what to do), the existing training documentation was largely informational. It lacked coverage in some topic areas and was mostly focused on hiking activities. The opportunities for practice varied based on the instructors and the duration and structure of a particular training event. Most importantly, subject matter experts (SMEs), such as experienced trip leaders and leader mentors, were unpaid volunteers who could only offer limited time to the project.

Solution

We redefined our workflow by reimagining roles and task division within each phase of the instructional design process. Simply put, we identified tasks that ***artificial*** intelligence was well-suited to perform and dedicated our lead instructional designer's (lead ID) time to high value, high impact tasks meant for ***actual*** intelligence.

Task 1: Identify What Learners Need To Do

Identifying desired outcomes for the outdoor leadership program was an essential activity to create the foundation for a performance-based, rather than content-based, learning experience. However, given SME time constraints, we opted not to use their time towards this activity. Instead, we explored how artificial intelligence (AI) chat tools such as ChatGPT might help.

These tools were not effective in identifying performance-focused learning objectives when supplied with source content. However, they were well-suited to summarize existing content and create content outlines. Our lead ID used this summary as source material to create learning objectives focused on performance, or ***what the learner would need to be able to do***. Then, we submitted them to the client for review, feedback, and final approval.

This approach allowed us to conserve subject matter expert time and leverage the lead ID's expertise in an efficient way to produce meaningful, relevant objectives to guide program development.

Task 2: Maximize impact of time with SMEs

We knew we needed input from SMEs to create realistic stories, scenarios, and activities However, if we took a standard approach of collaborating with SMEs on the development of each scenario, their availability would significantly limit the number of scenarios we could create. This meant we had to focus our time with them on gathering examples of success,

failure, barriers, and context – information that would be essential when using AI to help create story-based learning.

To make it easy for SMEs, we asked them three simple questions to guide discussions about each learning objective. For example, when discussing the objective for ***giving feedback***, we asked:

1. Can you think of an example when you had to ***give someone feedback*** while leading a trip? Tell me about it.
2. What's the most difficult part of ***giving feedback*** for new leaders?
3. What mistakes do leaders make when they ***give feedback***?

The questions allowed us to gather concrete examples of real situations and collect details that could be used to make realistic scenarios. The answers also helped us focus on high-impact aspects rather than designing an activity around a trivial takeaway.

Task 3: Leverage AI to create stories and scenarios efficiently

We gained the most efficiency by using AI to help design stories and scenarios. Notably, the lead ID did not need to become a prompting expert to produce useful outputs. Instead, a simple conversation was the most effective approach. For example, we might ask ChatGPT:

1. Can you give me some options for [content information that is missing]?
2. Can you rewrite this [content input] to be more story-like?
3. Can you take this [content input] and rewrite using dialogue?
4. Can you edit this [content input] to [direction around adjustment to tone, content, style]?

In the ***giving feedback*** example mentioned earlier, the source content and SME working sessions did not specify a preferred feedback framework. Rather than ask the SMEs to supply one, we asked AI to provide some options (question #1) and the lead ID selected one to use in

creating instruction and examples of effective feedback. Then, the lead ID was able to provide AI with a concept of a story and use questions #2, 3, and 4 to transform that concept into a narrative format, with dialogue where appropriate, and adjust as needed for content, style, and tone.

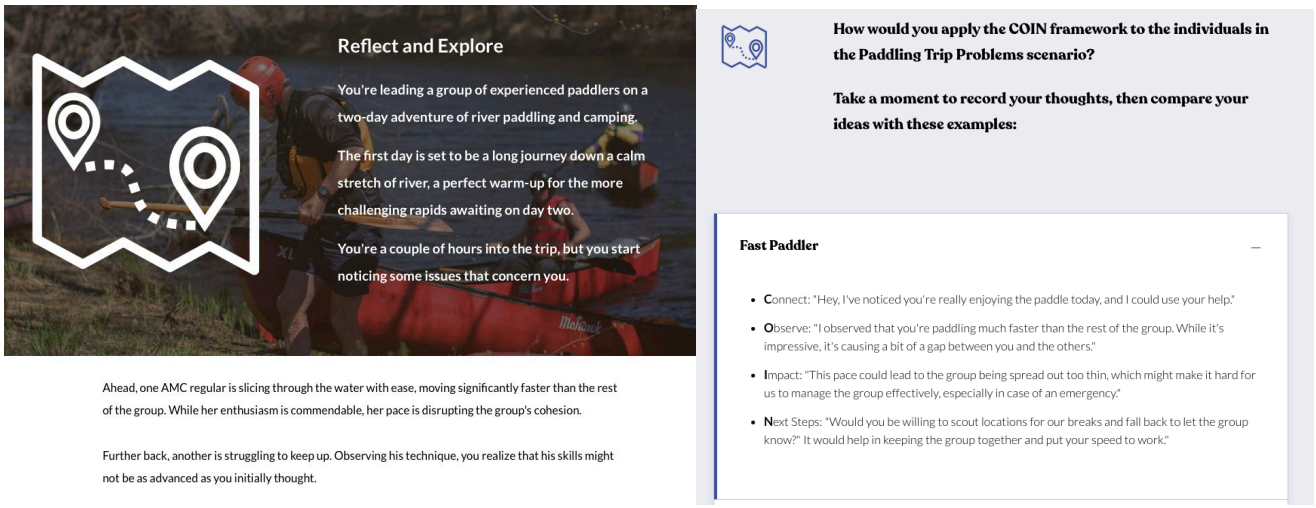

Figure 1: Screenshots of excerpts from giving feedback mini scenario used in the program

In more advanced branched scenarios, this simple questioning strategy allowed us to refine the story, challenges, choice options, and consequences with the assistance of AI.

Task 4: Leverage other AI tools to bring stories to life

The lead ID also used AI-powered tools such as DALL-E and ElevenLabs to introduce instructional variety into the program. For example, AI-generated visuals and audio were used to create first-person accounts of experiencing bias. We used AI to generate photo-realistic images of the speakers and AI voices for the first-person narratives. This provided a richer experience than text alone. Without the use of AI tools, it is unlikely such an interaction could have been included in the program.

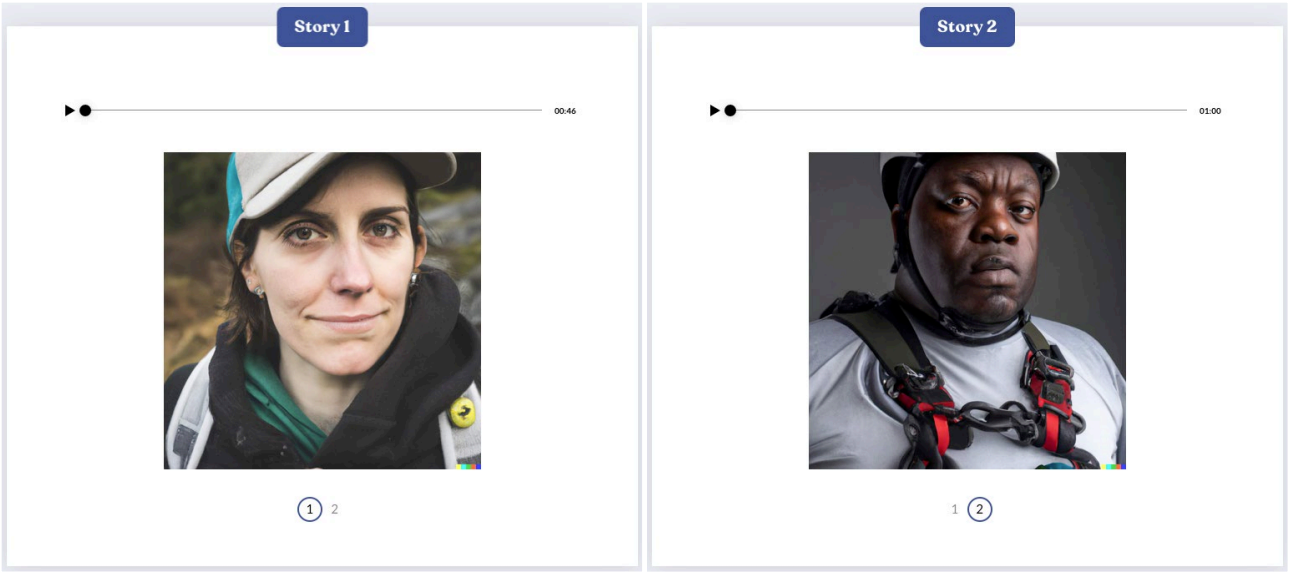

Figure 2: Screenshots of AI-generated interactions used in the program that include audio and speaker images.

Outcome

By leveraging the power of artificial intelligence to boost our actual intelligence, we produced a robust, performance-based learning experience within the project's limited budget and timeline. When combined with sound instructional design techniques, strategic use of AI tools in the creation of this program allowed us to:

- Create an experiential, story-based learning program, centered around 23 performance-focused learning objectives. The program included 2 branched scenarios, over 20 mini-scenarios, and 5 custom job aids.
- Reduce SME time commitment by 75%.
- Increase instructional design time spent on high-value tasks from 15% to 80% of total time.

Overall, our approach allowed us to deliver nearly five times more value to the client, resulting in a high-quality outdoor leadership program that would not have otherwise been possible with the project budget.