Capstone Analysis

Jennie Robinson

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Katie Finnegan and I have co-created a resource, found here. This guide for learning designers on how to incorporate AI into their work stands as the culmination of our work over this semester.

Through the semester we worked closely with Gabe Lamanuzzi at the Teaching and Learning Lab to create a project worthy of the time and attention of learning designers. Despite the initial focus on the tools used by the TLL, we quickly discovered that Harvard has strict data privacy policies that would heavily influence what tools could be used. To allow ourselves a chance to be relevant to more than the limited scope of TLL tools, we broadened our focus to look at tools that might be used by Learning Designers as a whole.

The timeline of our project began with this inkling, and we quickly realized that we would need to better understand the needs and desires of practicing learning designers. We decided therefore to create a survey. We worked with Gabe to look into initial resources that helped to inform our survey design, many of which are listed in the Resources section of our site. After consulting with TLL Senior Curriculum and Assessment Specialist Nicole Nash, we had a solid list of questions, which you can read here. We practiced these questions in our interview with TLL Associate Director of Instructional Support and Development Allison Pingree. Once we had spoken to her, we felt ready to make the survey active, and it went live in mid November.

Our outreach was a grassroots effort of tapping into who we know. It would be wonderful to have a more streamlined method of outreach, but for us, it involved posting on Slack for our

HGSE cohort and the companies we are interning with this semester, emailing former and current coworkers, and contacting friends we know in the Instructional/Learning Design space. We carefully crafted the language of our outreach and considered how to follow up with people who did not respond. Our goal was to hear from 30 people, and we exactly hit that goal, giving us 30 responses of qualitative and quantitative data to inform our design of the resource.

We knew from the start that our audience was practicing learning designers. [The survey helped us understand](#) that our resource guide would be tailored to learning designers with intermediate knowledge of AI, and would be less interested in resources explaining topics like what AI is or how to interact with chatbots.

The survey also clearly guided our learning objectives. Together, informed by the data and what we knew would be possible in the time allotted, we settled on the following three objectives for our resource:

1. Learners will theoretically understand the potential role of AI in the field of Learning Design, and practically be able to apply it to specific areas where AI can provide support or enhancements.

2. Learners will gain familiarity with various AI tools and technologies that can be leveraged in learning design.

3. Learners will evaluate the effectiveness of AI in LD case studies and determine their relevance to their practice.

These learning objectives, expressed through our site, are chosen also to encourage our learners to shift from novice to expert thinking. By diving into real-world applications, we give our learners the chance to develop the ability to recognize patterns and make connections across disparate contexts. This is a key part of expertise development (Persky).

Our approach to developing this guide was guided by the principles of Backwards Design. We started by identifying our desired results with the survey. That told us that we needed to focus on case studies, a curated list of tools and their potential applications, and advice for prompt engineering. We used those to draft our learning objectives. We then worked backwards to determine the appropriate content and structure of the guide. This falls in line with Wiggins and McTighe's concept of "beginning with the end in mind" (Chapter 1 UBD PDF). Viewing the survey results through the lens of UBD made sure that we were not only focused on the 'how' but also understood the 'why' and 'when' of the learning we wanted to communicate.

We spent several weeks researching the current uses and applications of AI for learning designers. A great deal of time was spent reading blogs from influential AI leaders like Dr. Phillippa Hardman, Harvard Professor Dan Levy, and other curious and influential AI experimenters. A full list of the resources we used to inform the site can be found here.

We debated on the format of presenting our material. We knew from the outset that we wanted something online, so it could be easily disseminated to those who participated in the survey and other learning designers around the country or world. We had initially evaluated Microsoft's Sway tool as a good choice. This tool purports to "make it easy to create and share interactive reports, personal stories, presentations, and more." It's a good middle ground between website building with tools like Squarespace, and a presentation in Google Slides. We also liked the accessibility checker, the easy drag and drop options, and the simple design choices. What ultimately steered us away from this tool was the inability to create links to portions of the presentation. Without that, the Sway is one continuous timeline. This format is confusing and only adds to extraneous load for the reader. The lack of a table of contents option solidified our

choice to move away from Sway- it was more confusing than helpful, and essentially created a huge amount of extraneous load for learners.

Instead, we opted to use Google Sites. We found this allowed for the same level of content and visual design, accessibility, and ease of assembly. Our decision to use Google sites was influenced by Cognitive Load Theory. The ability to organize our content into digestible segments with clear navigation meant we were able to reduce extraneous cognitive load and allow learners to focus on the essential content. This aligns with the idea that effective instructional design should manage cognitive load to optimize learning (Learning Theories, Social Sci LibreTexts).We were also mindful of ADA guidelines for online course design. We made sure the content is accessible, with clear navigation, alt text for images and compatibility with screen readers- in accord with principles of Universal Design, it is important that our resource is usable by all learning designers, regardless of their abilities.

As we drafted the content of our AI resource guide, we were grounded in principles of Adult Learning Theory and Human Centered Design. Adult Learning Theory suggests that adult learners are self-directed, bring their own experiences to learning, are motivated by practical applications, and need to know why they are learning something (Knowles). Our focus on case studies and practical AI applications fits these principles, which is intended to make the resource more relevant and engaging for our audience. The guide is also informed by Human Centered Design, which emphasizes understanding and addressing the needs of the end-users- in this case, Learning Designers. By conducting surveys and interviews with practicing learning designers, we ensured that our resource would be tailored to their specific needs and requests.

In conclusion, our project to create a guide for learning designers on incorporating AI into their work represents a synthesis of various instructional design principles and theories. By

employing Human-Centered Design, Backward Design, Adult Learning Theory, and Cognitive Load Theory, we've developed a resource that is not only informative but also tailored to the specific needs and learning styles of our audience. As AI continues to evolve and reshape the field of Learning Design, we believe our resource represents a valuable tool for learning designers. We've created a guide that is both academically grounded and practically relevant.

References

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