

Experiment 2: Designing with AI (Writing option)

Joe Lollo

LIS 547

Professor David Hendry

27 January 2023

Experiment 2: Instructional Design with ChatGPT

Demonstration:

When I saw that ChatGPT was an option for one of these design experiments, I knew I had to try it out. I have always been skeptical about the prevalence or, as many people say, “uprising,” of AI, but I have always found the results given by tools like DALL-E and ChatGPT to be humorous even if they do still raise various concerns about the automation of computer communication. ChatGPT in particular uses “natural language generation” (NLG) technologies, which according to a *New York Times* expose on this chatbot, can “analyze data and automatically generate written content in human-like language” (Roose, 2022).

To see what ChatGPT had to offer for the development of educational programming (fulfilling Option #2 of this experiment), I decided to “go meta” and ask ChatGPT to “**write a lesson plan for a design methods class for a library science graduate program.**” I thought that developing a lesson plan aimed at graduate students, rather than undergraduates or younger students, would be more difficult because of the bigger workload and more complex material. Additionally, since I am interested in instructional design, I was wondering if the examples it would give me would be satisfactory approaches to learning design.

No offense to the teaching team, but I essentially wanted to see if LIS 547 could have been efficiently taught by an AI this entire quarter. And as you’ll see below, by the looks of things, there’s potential...sorry Dave.

Here is the text that ChatGPT generated, based on my prompt – which, again, is “**write a lesson plan for a design methods class for a library science graduate program.**”:

Here is an example lesson plan for a design methods class taught in a Master of Library and Information Science, or MLIS, graduate program:

Lesson Title: Introduction to Design Thinking

Objective: By the end of this lesson, students will be able to explain the basic principles of design thinking, identify potential applications in library and information science, and apply design thinking to a real-world problem.

Materials:

- Interactive whiteboard or Smartboard (for instructor presentation)
- Presentation

Experiment 2: Designing with AI (Writing option)

- Design thinking worksheet

Agenda:

- Introduction (10 minutes): The instructor will provide an overview of the importance of design thinking in library and information science.
- Lecture (30 minutes): The instructor will present the basic principles of design thinking, including empathy, iteration, and experimentation – they will do this using the readings from the past week.
- Discussion (20 minutes): Students will discuss potential applications of design thinking in library and information science and share examples from their own experiences. The instructor will facilitate.
- Break (10 minutes)
- Group Activity (25 minutes): Students will form groups and apply design thinking to a real-world problem related to library and information science, taking notes on the worksheet.
- Share-Out (20 minutes): Students will share out what they completed in the group activity to the class, who can comment on what each group did.
- Conclusion (5 minutes): The instructor will summarize the main points of the lesson and provide guidance for the next class. Students will hand in the completed worksheet with their names all on it.

Assessment:

- Class participation and group discussion
- Completion of design thinking worksheet
- Quality of group presentation

Note: This is just a sample lesson plan, and the actual duration and activities can be adjusted based on the instructor's preference and the class's needs.

Commentary and Reflection:

This was...somehow, exactly what I expected and a good example of an introductory lesson plan for a class like LIS 547, most likely for the second day or second week. The lesson plan generated has a full agenda, descriptions of requirements and assessments, and even included a break, which most teachers have in their classes anyway! The total time for the lesson plan is 2 hours (120 minutes), which is feasible for a graduate course since a lot of the LIS classes at UW have 2-hour-long sessions. The lesson plan has a standard balance of lecture, discussion, and group work, and the description of each activity is clear and concise, which is always a plus for a lesson plan. I thought it was interesting that ChatGPT was able to make it 2 hours long without me providing extra context about time or the algorithm asking me about specific time – that was rather impressive!

Experiment 2: Designing with AI (Writing option)

Now, all this sounds fine and dandy, but I don't really think that educators should use bots like ChatGPT to write their own lesson plans – I think that while the lesson plan that ChatGPT wrote is an excellent example of instructional design for one class session, I really do not think that educators should rely on generators to develop instructional materials for their courses.

AI is not a “magic solution” for an educator's needs, and it is incredibly important for human instructional designers to continue their involvement in the process of learning materials. I think that AI bots like ChatGPT can certainly *aid* educators in coming up with materials, but should not be used exclusively. AI can help automate the process of creating materials and give examples, but cannot replace the creativity, expertise, and human touch that educators and instructional or curriculum designers bring to the process of course development.

Additionally, the usage of AI in course design like my prompt raises the important considerations of privacy and bias. It is crucial that the data used to feed machine-learning algorithms is diverse and free of any bias. In the context of instructional design, the data used to feed these algorithms should appeal to learners of diverse styles and backgrounds, as universities are typically made up of a wide variety of learners – this is especially true in disciplines like LIS, which have learners from many different educational and cultural backgrounds, as well as a mix of in-person and online learners. I think there is actually a significant bias towards in-person learning as demonstrated by the requirement of handouts and a whiteboard in my AI-generated lesson plan, and would love to try to see what it could do for a Zoom course or asynchronous course.

My personal opinion is that while AI can do a relatively good job at getting the basics of content writing down efficiently, there needs to be some sort of expert review that can adapt any potential content, as the lesson plan feels very “robotic” and basic, almost too short for something that would be taught at a university. AI cannot just yet effectively identify specific needs for students in various instructional settings, and does not appreciate the nuance of learning design and adapting to the needs of diverse learners. Educators and instructional designers would be able to save a significant amount of time by using AI, but AI tools and chatbots should be used as a starting point rather than as a direct creator of materials that will be delivered to students – instructional designers and educators should be in the position of reviewing, adapting, and altering what an AI generator creates, as, like my example shows, many things generated by bots lack a lot of depth and feel devoid of any emotion.

While AI generators can save time and increase productivity for content developers, especially instructional designers who put a lot of time and effort into generating materials, I am definitely not convinced that an AI alone, especially not ChatGPT as it stands now, is fit to perform all of the tasks that human educators perform when writing lesson plans or developing courses. Working with ChatGPT to create a replacement LIS 547 showed me that while AI can be used as a starting point for creating resources, designers will definitely have to further customize and edit the content to support learners in more depth.

So, Dave, it looks like your job is ultimately safe from the robots.

Experiment 2: Designing with AI (Writing option)

Works Cited

Roose, Kevin. "The Brilliance and Weirdness of ChatGPT." *The New York Times*, 5 December 2022.