AI's Role in Instructional Design

Transcripts:

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Hello everyone; my name is Kiely Kingsbury. Thanks for tuning in! Today's topic is about artificial intelligence and its role in instructional design. In just the last few years, AI has taken the world by storm; from helping people edit their papers to self-driving cars, it has become more prominent in our day-to-day lives. When it comes to AI, many people's first thought is either Alexa or Skynet taking over the world, like in James Cameron's hit movie, *Terminator*. However, it's not nearly as profound or as catastrophic as the media portrays it to be. In fact, it can make everyday life more convenient and reduce human error. AI appears everywhere in our lives, like in our phones for facial recognition, fraud detection, chatbots, and so much more.

In the education field alone, specifically instructional design, AI can be a helpful teaching resource and valuable supplemental tool. AI is shifting the online learning landscape, and instructional designers are having to shift with it to keep up with the latest learning trends. The field of instructional design has always been broad; that includes teachers in the classroom, corporate trainers for large businesses, and even freelance instructional designers who make online modules as a side hustle. At its core, an instructional designer's main task is to create effective and engaging content that is carried out in person, online, or by other instructors. Now, they must not only create effective instruction but also integrate technology and ensure their content can be equally effective across multiple platforms. With the development of AI, instructional designers have yet another layer to add to their creations; and often, it requires a deeper understanding of technology, computers, coding, and more.

Currently, AI is used to elevate adaptive learning experiences that tailor lessons to provide a personalized and more effective learning environment (Pandya, 2023). A common example of AI being integrated into the instructional design field is chatbots, such as Chat GPT, or scenario-based learning, like Scenario Blocks in Articulate 360. Both platforms require the user to input data and prompts to "feed" the AI; then, based on the information it receives, the AI spits out a detailed answer based on the natural language prompts you to give it. In its basic form, AI is a super smart computer engine that elevates user prompts and rearranges them to show a different perspective and eliminate human error. In instructional design, it can be used to make lessons more engaging with scenario blocks or allow students to ask real-time questions with a chatbot that's programmed with frequently asked questions. This creates higher engagement in the instruction and creates a more interactive platform for learners.

Another way AI can be used in instructional design is to analyze and visualize data. Although it can't *create* the data, AI can suggest data shaping, common variables and trends to explore, or any patterns in the underlying data. It can also provide possible solutions, too. For example, the multinational technology corporation IBM (one of the leading innovators in the computer science field since the 1960's) recently developed a program called IBM Instana Observability. This program is meant to "enhance your application performance monitoring to provide the context you need to resolve incidents faster" (*IBM Instana Observability – Application Performance Monitoring*, n.d.). Basically, it provides solutions for common problems that it sees trending in your application or software by creating graphs, charts, or infographics to help visualize the data. In instructional design, this could be used as a way to track assessment data among learners or monitor learners progress in a learning module. In a corporate setting, this application could be used to track the effectiveness of training and to monitor how learners utilize it. For more information on this application, be sure to check out the transcripts for this podcast on my blog.

One of the greatest ways to use AI as an instructional designer is to write lesson plans or objectives. For example, ChatGPT is a large language model that uses artificial intelligence to hold conversations or assist with tasks like composing essays, emails, code, and much more (Ortiz, 2023). All the user has to do is input prompts that include what they would like the lesson plan to contain (such as the topic, sequence, objective, etc.). Then, the user can use this lesson plan as an outline or draft for their training, module, or whatever they are tasked with creating. It basically provides a starting point for the designer to get the gears going.

Although impressive, AI has its limits. For example, AI will not work without a human input first. Every form of AI requires some level of human interaction, response, code, or prompt to initiate the AI. Likewise, AI needs to be monitored. Although it eliminates the likeness of human error, it isn't foolproof and can sometimes be more problematic. I mean, can you remember a time when you've been on the phone with customer service, and instead of talking to a human, you get an AI robot? Sometimes, the AI works just fine if your problem is simple enough. However, the more complex the issue, the less likely the AI is able to help and the more frustrated you become. So, just remember that the more complex the issue you want the AI to solve, the more intricate the AI will have to be, and it will require more maintenance to stay current.

Hopefully, by now, you've realized that AI is nothing to be afraid of; in fact, it is something that instructional designers should begin to embrace. It is an expansive tool that can elevate any form of instruction or data analysis. Although there are limits, AI is

constantly growing and changing; and what may be a limit now may not be a limit five years from now. As instructional designers, it's important that we learn and understand new trends, such as AI, because it keeps us current with the times and challenges us to keep our instruction engaging and adaptive to our learner. For more information on AI in instructional design, check out the links in the transcripts. Thanks for listening; until next time, Kiely K.

Interesting Links:

- **IBM Website:** https://www.ibm.com/products/instana
- **ChatGPT Website:** https://openai.com/blog/chatgpt
- **AI in Instructional Design:** https://www.impelsys.com/blog/artificial-intelligence-in-instructional-designing/
- **How can AI Improve your workflow?** https://www.neovation.com/learn/82-how-ai-help-improve-your-instructional-design-workflow#:~:text=Adaptive%20Learning%3A%20AI%20can%20create,See%20OttoLearn%20for%20more%20information.

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