How I have used ChatGPT for instructional designs: A personal reflections

我如何使用 ChatGPT 来进行作业治疗教学设计：个人反思

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I have been designing and delivering medical and healthcare professional training curricula using technology since 90s. Recently, I have been asked how is my use of AI, such as ChatGPT, supporting professional instructional designs that I hold dear?

自 90 年代以来，我一直在使用科技来设计课程和提供医疗专业培训。 最近，有朋友问我如何使用人工智能，例如 ChatGPT，来支持我所珍视的作业治疗教学设计？

Often when we talk about online medical education and telehealth, people often think only about the technology. But medical education and healthcare first and foremost is a people business. We can buy technology anywhere. It's the people that make the difference. So we as healthcare professionals often consider the application of technology is following functional purpose not leading by it. Here are some of my thoughts.

通常，当我们谈论线上医学教育和远程医疗服务时，人们通常只考虑科技。但医学教育和医疗服务首先是人的生意。我们可以在任何地方购买科技，但是是因为人而赋予它价值。因此，作为医疗专业人员，我们认为科技的应用应该遵循功能目标，而不是以它为主导。以下是我的一些反思。

When it comes to incorporating technology and artificial intelligence into our life and works, there are some guiding questions that we may want to keep in mind to make sure that we are using it appropriately. Some of these questions are: is this an appropriate use of technology, what is gained, and what is lost from using AI to accomplish a particular task? And importantly in a medical educational context for professional development, what is missing when I use technology? Is that information perspective or voice? This is particularly relevant because as much information as platforms like ChatGPT, utilize it is still only a partial window into the universe of information, some decisions have been made around its source of information and algorithm.

在将科技和人工智能融入我们的生活和工作中时，我们可能需要思考一些指导性的问题，以确保我们正确使用它。其中一些问题是：这是否是对科技的适当使用？使用人工智能完成特定任务会获得什么，以及失去什么？重要的是，在医学教育的专业发展环境中，当我们使用科技时缺少什么？这是信息视角还是声音？这一点尤其重要，因为使用像 ChatGPT 这样的工具，它的信息仍然只是进入信息宇宙的部分窗口，其信息来源和算法已经为它的输出做出了一些决定。

Another consideration is what information is appropriate? Some things have been rolled out and sometimes you come across those boundaries when you give the platform some

prompts. As we all know ChatGPT is biased in several different ways, but in one, particularly in that it presents a very specific cultural perspective. So what does this mean for how it gets used in medical and healthcare education? There is also a danger that it may constrain imagination and creativity. Its functioning is opaque as we all know, and it has a tendency sometimes to hallucinate.

另一个考虑因素是哪些信息是合适的？有些东西已经推出，有时当你给平台一些提示时，你会遇到这些界限。ChatGPT 在几个不同的方面存在偏见，但有一个需要特别留意的地方，是因为它呈现了一个非常具体的文化视角。那么这对它在医疗教育中的应用意味着什么呢？还有一种危险是，它可能限制想象力和创造力。众所周知，人工智能的信息整合过程及产出功能可能会是不透明的，有时它会使我们产生信息及知识随处可得的幻象。

The question before us is what roles can ChatGPT have in the work that we do? Can I enlist its services as an instructional designer on our training team? It's capable of a lot of different things including creating lesson plans and presentations. I personally haven't been particularly impressed with the quality of the lesson plans. For example, that it creates in the sense that they're not particularly creative, and this is important to note that there's a different distinction between information and knowledge. And at what point does information become knowledge?

摆在我们面前的问题是，ChatGPT 在我们所做的工作中可以扮演什么角色？可以作为我们培训的教学设计师吗？它能够做很多不同的事情，包括创建课程计划和演示文稿。我个人对它所能提供的课程计划的质量并不特别满意。例如，从某种意义上说，它提供了不是特别有创造力的地方，这就是我们需要认知到的信息和知识是不相同的。因此，我们需要思考的是：信息和知识之间的区别？信息在什么时候可能可以转化成为知识？

That being said, there are some things that I think are appropriate uses of ChatGPT in an instructional design context. For example, if we give ChatGPT a lecture transcript, you can ask it to derive learning objectives from it. It can refine those learning objectives if we ask it to, it will give us some suggestions for improving the lecture. Although I would argue that, those are not particularly inspired suggestions. It can give us ideas for assessments. It can write multiple choice questions for us and provide discussion questions. So when we think about the work that we do as instructional designers, very rarely do we have the chance to apply an instructional design process ideally from start to finish.

话虽如此，我认为有些事情是 ChatGPT 在教学设计环境中的适当用途。例如，如果我们给 ChatGPT 一个讲座记录，你可以要求它从中得出学习目标。如果我们要求它可以完善这些学习目标，它会给我们一些改进讲座的建议。虽然我认为，这些并不是特别有启发性的建议，它起码可以为我们提供一些评估改进的想法。例如，它可以为我们编写多项选择题，并提供讨论题。当我们考虑我们作为教学设计师所做的工作时，我们很少有机会从头到尾理想地应用教学设计过程，因此人工智能在教学设计过程中为我们提供了时间效率。

One of the big points that maybe ChatGPT can support is time efficiency. It is good at curating information, but there is a little bit of a discrepancy between information and teaching

knowledge. And when we think about instructional design for medical and healthcare education, it is important to keep in mind that new evidence comes out rapidly, so curriculum mapping and revisions, although time and resource intensive, is a constant evolving process. At this stage, ChatGPT may not yet serve the role as an instructional designer, it is not yet ready to come up with innovative ideas for teaching and learning. As technology advances, this is something to look for.

也许 ChatGPT 可以支持的一个重要点是时间效率。它擅长策划信息，但信息和教授知识之间存在一点差异。当我们考虑医疗教育的教学设计时，重要的是要记住，新证据很快就会出现，因此课程规划和修订虽然需要时间和密集资源，但也是一个不断研究创新及发展的过程。在目前这个阶段，对于提出教学策略和学习的创新想法，ChatGPT 可能还没有准备好担任教学设计师的角色，这一点随着技术的进步，我们拭目以待。

And another curriculum related usage for higher education in the United States is to actually have their faculty run their courses through ChatGPT and answer the question, can AI pass this course? As such, some institutional administrators have started to use this as a springboard for conversations about what needs to happen. And if the answer is yes, then what needs to happen in terms of the assessments in that course, what needs to happen in terms of does what the faculty teach in that course need to change because of the answer to that question.

在美国，高等教育的另一个与课程相关的用途是让他们的教师通过 ChatGPT 运行他们的课程并回答这个问题，人工智能可以通过这门课程吗？因此，一些机构管理人员已经开始将其作为讨论需要发生的事情的跳板。如果答案是肯定的，那么在该课程的评估方面需要发生什么，在该课程中需要因为该问题的答案而改变教师在该课程中教授的内容。

Another one is that the use of ChatGPT for research of qualitative data of open-ended questions. Every year many US-based higher education institutions survey students about their experience with the learning management system, such as Canvas. With the access of ChatGPT, some universities ask ChatGPT to summarize the open-ended responses, which turns out to it has helped generate useful information. For example, students were asked about what worked well for them in their learning experiences, what didn't work so well, and ChatGPT did a pretty good job of summarizing all these open-ended responses. One interesting thing to note is that with the same prompt and the same data when one asked the question and when another colleague on the same team asked the question, ChatGPT provided slightly different summaries and picked up on slightly different pieces of information. So in reflection, there's a really good use of case for utilizing something like ChatGPT to help with tasks like analyzing qualitative data for learning experiences. Perhaps, this type of usage could be further apply to patient experiences and consumer satisfaction.

另一个是使用 ChatGPT 研究开放式问题的定性数据。每年，许多美国高等教育机构都会调查学生对学习管理系统（如 Canvas）的体验。随着 ChatGPT 的推出及应用，一些大学要求 ChatGPT 总结开放式响应，事实证明，它有助于为学习管理系统和课程结构生成有用的信息。例如，学生被问及在他们的学习经历中哪些对他们有帮助，哪些效果不佳，ChatGPT 在总结所有这些开放式回答方面做得很好。需要注意的一件有趣的事

情是，当一个人提出问题时，比较与同一个团队的另一个同事提出问题时，使用相同的提示和相同的数据，ChatGPT 提供的摘要不同，并且获取的信息略有不同。因此，我们的想法是，利用像 ChatGPT 的工具来帮助完成诸如分析学习体验的定性数据等任务的案例非常有用。也许，这种类型在临床服务上的用法可以进一步应用于患者体验和消费者满意度。

We should always double check the answers from technology-driven responses, for the reason mentioned earlier that AI may give us slightly different answers. What didn't work was when we followed up with suggestions for how to address the problems that it brought up in its summaries. Where if students were mentioning that a problem was that course sites were not organized, ChatGPT suggestion was not that helpful. Well, it only simply stated to organize the course sites. The true problem is a skills gap, a motivation gap, an information gap that we need to address with specific instructional designers. So it will do a good job of analyzing things, not so much at coming up with creative solutions to problems.

如同在循证实践的过程中，我们始终应该仔细检查技术驱动的答案，因为前面提到的原因，人工智能可能会给我们略有不同的答案。同时我们也发现，当我们跟进如何解决它在摘要中提出的问题时，它还未能可以给我们提出具体可行的建议。如果学生提到一个问题是课程网站没有组织，ChatGPT 建议就没有那么有帮助了，它只是简单地说要组织课程网站。真正的问题是技能差距，动机差距，我们需要与特定的教师一起解决的信息差距。因此，它可以很好地分析以及提供信息，尚未能提出创造性的问题解决方案。

Another use case is one that I did just this week where I've had a big issue with getting on top of my to do list. I've tried every project management system I can think of, and nothing is really been working. And so earlier of the week I had this idea that maybe I could create something, it involves a spreadsheet and some coding to organize tasks that I had in mind. This is not my area of expertise, so it was actually kind of a painful process of trying to describe to ChatGPT what I was trying to use because I don't know the jargon. So it involved a lot of back and forth. And then I landed in a place where I had a formula but it wasn't working. And eventually it occurred to me that I could ask it to debug my formula, which it did, and my spreadsheet now works in the way that I intended.

另一个例子是稍早我在处理待办事项列表的顶部时遇到一个问题，我已经尝试了我能想到的所有项目管理系统，但没有一个真正有效。所以我想也许可以创建一个电子表格和一些编码来组织我想到的任务。因为这不是我的专业领域，所以是一个较困难的过程，当我试图向 ChatGPT 描述我试图使用什么时，因为我不知道行业术语，所以这个过程中涉及多次来回的提示。然后我找到了一个公式，但它对于我期待完成的目标没有太大的帮助。最终，我突然想到，我可以要求 ChatGPT 调试我的公式，它做到了，我的电子表格现在按照我想要的方式提供我工作上的协助。

This was an interesting learning experience for me because it really brought to light the importance of the prompt. This isn't new, this isn't specific to artificial intelligence, as we know the quality of the question always drives the quality of the answer. The same concept applies to real human learning experience during clinical rotations and competency-based practicum.

这对我来说是一次有趣的学习经历，因为它确实揭示了具体提示的重要性。虽然这不是什么新鲜发现，这也不是人工智能的特质，因为我们知道问题的质量总是推动答案的质量。同样的概念也适用于临床服务和教学体验。

So when we think about education, there's definitely a need for us to think about how to teach our learners how to utilize the technology properly and how to build prompts that will yield good information. The other thing is that we should never mistake the output for the learning outcome. So in this case, yes, I got to the goal I had, but did I learn anything in the process?

因此，当我们考虑教育时，我们肯定需要考虑如何教我们的学习者正确利用科技以及如何构建能够产生良好信息的提示。另一件事是，我们永远不应该将输出误认为学习成果。所以在这种情况下，是的，我达到了我的目标，但我在这个过程中学到了什么吗？

So when we think about teaching-learning and clinical application of AI, that's an important thing to keep in mind. As technology continues to advance and becomes powerful, we'll see if the system works any better than the other one: does the process and outcomes support me learning something new, functional and practical, does the information helps transforming into knowledge that we could better solve tomorrow's questions, and collectively does it help us become more responsible with humanity to make our world a better place to be for all. So I will leave you with these pieces of advice which is when it comes to artificial intelligence, teaching and learning to: be mindful, be intentional, and proceed with open curiosity.

因此，当我们考虑人工智能的教学和临床应用时，随着技术的不断进步和强大，我们需要考虑：过程和结果是否支持我们学习新的、功能性的和实用的东西，这些信息是否有助于转化为我们可以更好地解决明天问题的知识，以及共同帮助我们在人本的基础上对人类社会更加负责，使我们的世界变得更加美好。因此，我对使用人工智能在教学上面的反思，就如同作业治疗强调有意义的过程：be mindful, be intentional, and proceed with open curiosity (带着开放的好奇心与有意义的目标前进)。