

**How I have used ChatGPT for instructional designs:
A personal reflections
我如何使用 ChatGPT 來進行作業治療教學設計：個人反思**

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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 年代以來，我一直在使用科技來設計課程和提供醫療專業培訓。最近，有朋友問我如何使用人工智慧，例如 ChatGPT，來支持我所珍視的作業治療教學設計？

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，當我們談論線上醫學教育和遠程醫療服務時，人們通常只考慮科技。但醫學教育和醫療服務首先是人的生意。我們可以在任何地方購買科技，但是是因為人而賦予它價值。因此，作為醫療專業人員，我們認為科技的應用應該遵循功能目標，而不是以它為主導。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.

在將科技和人工智慧融入我們的生活和工作中時，我們可能需要思考一些指導性的問題，以確保我們正確使用它。其中一些問題是：這是否是對科技的適當使用？使用人工智慧完成特定任務會獲得什麼，以及失去什麼？重要的是，在醫學教育的專業發展環境中，當我們使用科技時缺少什麼？這是資訊視角還是聲音？這一點尤其重要，因為使用像 ChatGPT 這樣的工具，它的資訊仍然只是進入資訊宇宙的部分窗口，其資訊來源和演算法已經為它的輸出做出了一些決定。

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.

另一個考慮因素是哪些資訊是合適的？有些東西已經推出，有時當你給平臺一些提示時，你會遇到這些界限。ChatGPT 在幾個不同的方面存在偏見，但有一個需要特別留意的地方，是因為它呈現了一個非常具體的文化視角。那麼這對它在醫療教育中的應用意味著什麼呢？還有一種危險是，它可能限制想像力和創造力。眾所周知，人工智慧的資訊整合過程及產出功能可能會是不透明的，有時它會使我們產生資訊及知識隨處可得的幻象。

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?

擺在我們面前的問題是，ChatGPT 在我們所做的工作中可以扮演什麼角色？可以作為我們培訓的教學設計師嗎？它能夠做很多不同的事情，包括創建課程計畫和演示文稿。我個人對它所能提供的課程計畫的品質並不特別滿意。例如，從某種意義上說，它提供了不是特別有創造力的地方，這就是我們需要認知到的資訊和知識是不相同的。因此，我們需要思考的是：資訊和知識之間的區別？資訊在什麼時候可能可以轉化成為知識？

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.

話雖如此，我認為有些事情是 ChatGPT 在教學設計環境中的適當用途。例如，如果我們給 ChatGPT 一個講座記錄，你可以要求它從中得出學習目標。如果我們要求它可以完善這些學習目標，它會給我們一些改進講座的建議。雖然我認為，這些並不是特別有啟發性的建議，它起碼可以為我們提供一些評估改進的想法。例如，它可以為我們編寫多項選擇題，並提供討論題。當我們考慮我們作為教學設計師所做的工作時，我們很少有機會從頭到尾理想地應用教學設計過程，因此人工智慧在教學設計過程中為我們提供了時間效率。

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.

也許 ChatGPT 可以支持的一個重要點是時間效率。它擅長策劃資訊，但資訊和教授知識之間存在一點差異。當我們考慮醫療教育的教學設計時，重要的是要記住，新證據很快就會出現，因此課程規劃和修訂雖然需要時間和密集資源，但也是一個不斷研究創新及發展的過程。在目前這個階段，對於提出教學策略和學習的創新想法，ChatGPT 可能還沒有準備好擔任教學設計師的角色，這一點隨著技術的進步，我們拭目以待。

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.

在美國，高等教育的另一個與課程相關的用途是讓他們的教師通過 ChatGPT 運行他們的課程並回答這個問題，人工智慧可以通過這門課程嗎？因此，一些機構管理人員已經開始將其作為討論需要發生的事情的跳板。如果答案是肯定的，那麼在該課程的評估方面需要發生什麼，在該課程中需要因為該問題的答案而改變教師在該課程中教授的內容。

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.

另一個是使用 ChatGPT 研究開放式問題的定性數據。每年，許多美國高等教育機構都會調查學生對學習管理系統（如 Canvas）的體驗。隨著 ChatGPT 的推出及應用，一些大學要求 ChatGPT 總結開放式回應，事實證明，它有助於為學習管理系統和課程結構生成有用的資訊。例如，學生被問及在他們的學習經歷中哪些對他們有幫助，哪些效果不佳，ChatGPT 在總結所有這些開放式回答方面做得很好。需要注意的一件有趣的事

情是，當一個人提出問題時，比較與同一個團隊的另一個同事提出問題時，使用相同的提示和相同的數據，ChatGPT 提供的摘要不同，並且獲取的資訊略有不同。因此，我們的想法是，利用像 ChatGPT 的工具來幫助完成諸如分析學習體驗的定性數據等任務的案例非常有用。也許，這種類型在臨床服務上的用法可以進一步應用於患者體驗和消費者滿意度。

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.

如同在循證實踐的過程中，我們始終應該仔細檢查技術驅動的答案，因為前面提到的原因，人工智慧可能會給我們略有不同的答案。同時我們也發現，當我們跟進如何解決它在摘要中提出的問題時，它還未能可以給我們提出具體可行的建議。如果學生提到一個問題是課程網站沒有組織，ChatGPT 建議就沒有那麼有幫助了，它只是簡單地說要組織課程網站。真正的問題是技能差距，動機差距，我們需要與特定的教師一起解決的資訊差距。因此，它可以很好地分析以及提供資訊，尚未能提出創造性的問題解決方案。

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.

另一個例子是稍早我在處理待辦事項列表的頂部時遇到一個問題，我已經嘗試了我能想到的所有專案管理系統，但沒有一個真正有效。所以我想也許可以創建一個電子錶格和一些編碼來組織我想到的任務。因為這不是我的專業領域，所以是一個較困難的過程，當我試圖向 ChatGPT 描述我試圖使用什麼時，因為我不知道行業術語，所以這個過程中涉及多次來回的提示。然後我找到了一個公式，但它對於我期待完成的目標沒有太大的幫助。最終，我突然想到，我可以要求 ChatGPT 調試我的公式，它做到了，我的電子錶格現在按照我想要的方式提供我工作上的協助。

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.

這對我來說是一次有趣的學習經歷，因為它確實揭示了具體提示的重要性。雖然這不是什麼新鮮發現，這也不是人工智慧的特質，因為我們知道問題的品質總是推動答案的品質。同樣的概念也適用於臨床服務和教學體驗。

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，當我們考慮教育時，我們肯定需要考慮如何教我們的學習者正確利用科技以及如何構建能夠產生良好資訊的提示。另一件事是，我們永遠不應該將輸出誤認為學習成果。所以在這種情況下，是的，我達到了我的目標，但我在這個過程中學到了什麼嗎？

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，當我們考慮人工智慧的教學和臨床應用時，隨著技術的不斷進步和強大，我們需要考慮：過程和結果是否支持我們學習新的、功能性的和實用的東西，這些資訊是否有助於轉化為我們可以更好地解決明天問題的知識，以及共同幫助我們在人本的基礎上對人類社會更加負責，使我們的世界變得更加美好。因此，我對使用人工智慧在教學上面的反思，就如同作業治療強調有意義的過程：be mindful, be intentional, and proceed with open curiosity (帶著開放的好奇心與有意義的目標前進)。

