

Academics and AI: calming the farm [slide1 cover]

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Background/introduction:

In April I met with a Masters student who needed to complete a rapid systematic literature review in 8 weeks. At Monash University we see more of these assessments being set in the health disciplines especially. The students in this case were given a link to the Cochrane rapid review methods series of webinars¹ and an article by Garritty et al.² explaining the Cochrane group's updated guidelines for rapid reviews. The students in this case were also directed to our library's systematic review guide which focuses on the steps of a traditional clinical systematic review.³ These resources unfortunately didn't align with the students' topics or tasks.

A review is a difficult task for any novice. But these students were also encouraged to use generative Artificial Intelligence (AI) for 'scoping of the topic', but not for extraction or analysis. Whoa! Calm the farm! The student I spoke with had never constructed a systematic search strategy in a database before, nor were they familiar with the steps involved in a rapid systematic review. Until this point, they had not been encouraged to use generative AI either.

When ChatGPT (Generative Pre-Trained Transformer)⁴ launched in November 2022,⁵ the concern at Monash was very much focused on assessments and the threats it posed to academic integrity. Although the University allowed the use of AI by students, academics (at least in the health, nursing, and medicine disciplines) effectively banned the use of AI in their assessments, up until now. In 2024, in Semester 2 at least, the directive to academics is to embrace AI in teaching and learning as it's now deemed a necessary skill for future careers.⁷ And this is the view of other universities as well.⁸ Most units I support have previously had statements like this [slide2 statements]:

Generative AI tools cannot be used in this assessment task

In this assessment, you must not use generative artificial intelligence (AI) to generate any materials or content in relation to the assessment task.

In Semester 2 at Monash, the statements seem to have changed to this:

AI tools may be used selectively within assessments as specified by the Chief Examiner. Please see and follow the specific guidelines outlined for each assessment task. Where permitted in an assessment, AI must be used responsibly, clearly documented and appropriately acknowledged ([see Learn HQ](#))

This seems a seismic shift for the Medicine, Nursing, and Health Sciences faculty – an abrupt change regarding using AI. The assessment I came across in April is the first one I've personally seen that encourages the use of AI. Speaking with a colleague who supports the Humanities, Arts, and Social Sciences (HASS) disciplines, there was quite some detailed instruction for teaching academics in Semester 1 this year for HASS teaching staff, but it

seems to have been too overwhelming and was largely ignored or misunderstood. Statements and instructions regarding AI use in assessments have been simplified now and audits are taking place to ensure adherence by academics.

From my perspective, I played with ChatGPT once in January 2023 [slide 3 - timeline] and then decided I wasn't going to 'feed the beast' with my data. It wasn't until I met this particular student in April though, that I realised that I needed to actually engage with AI – like yesterday! Academics and students will rely on librarians to have the answers to their questions about the use of AI in their learning and assessments. Laynor^{9(p101)} confirmed what I was afraid of:

“The librarian role in systematic reviews may shift from expert searcher to systematic review automation expert.”

My colleagues in other disciplines like Science, Engineering, Art, and Design have already embraced the use of AI in their disciplines, as academics and students enthusiastically get on board. But I agree with ALIA (Australian Library and Information Association) that “AI tools are rolling out faster than support for AI literacy”.^{10(p1)}

Librarians are expected ‘to know’ how AI tools work, and how to best use the available tools in learning and teaching scenarios. We also need to inform our cohorts that AI is being incorporated into tools and resources that we have been using for a long time. For example, Covidence¹¹ now has AI-assisted sorting of references. At Monash we recently trialled the Scopus AI assistant. Microsoft's Copilot has been introduced for general use by staff and students and Enterprise ChatGPT is coming. As the number of AI tools proliferates my colleagues are playing with different tools for various purposes specific to the disciplines they support. We've established an informal community of practice to share items of interest and developments. Which is useful...

But, finding time to play with, learn about, and evaluate AI tools, so we can confidently advise on their use in assessments feels overwhelming for me at the moment. Affengruber et al.¹² state that semi-automated tools, and now AI tools, can be time savers in review processes, but the amount of time and effort to learn how to effectively use these tools has to be considered for each situation, whether it's student assessments or actual reviews by either PhDs or academic research teams. For the most part, we are talking about beginners working on systematic-type reviews, as in the case I've described.

Most of you have probably played with Justin Clark's Polyglot¹³ and perhaps his Deduplicator.¹⁴ It takes time and a level of expertise to figure out what these semi-automated tools, and others like them, do well and also identify their limitations. I rarely recommend these tools to our researchers because they generally aren't able to recognise what the semi-automated tools aren't doing. We'll need to apply the same scrutiny to AI tools and evaluate what they can be helpful with and what they do badly. Then we have to try to help students and researchers understand these issues, on top of conducting a review systematically.

At the outset, my plan initially in April was to find a table of tools already tried and tested by other librarians to share with my academic and their students. As it turned out finding tables was easy,¹⁵⁻¹⁹ [slide 4 tables] but they weren't exactly what I wanted. I wasn't looking for

just a table listing the available AI tools. I wanted a table to include videos that showed how to use the tool for a specific step of the review process. I wanted articles or written instructions on how to use the tools, create prompts or understand what the AI tool can do, and then instruct the user as to what to do with the output. I wanted to include options to cater to different learning styles. I wanted a summary of costs, a ranking for ease of use and access, and any limitations that needed to be clearly explained for each step in a systematic review. As I said, I found many tables, but as none exactly met the brief I realised I would have to evaluate tools myself and then collate what I needed. In April Monash Health shared one of the first tables I had seen that listed some of the main tools.²⁰ The librarians there had worked collectively to test, review, and rate some of the AI tools. Tables continued to pop up in articles I was reading. But still not exactly what I wanted. I kept the student that I had met in April in mind. They had no experience with AI, no experience with the systematic review process, let alone a rapid Cochrane one, and no experience with developing a systematic search strategy. I needed resources that would show this student how to use a specific tool for 'scoping the topic' for a review. That was my most important and immediate objective because the same assessment is being used in Semester 2 this year.

I wanted to avoid students randomly Googling something like 'AI for systematic reviews' and then finding irresponsible videos and tutorials created by whoever. **[slide 5 youtubes]**

And so, my descent down the rabbit hole. And it dawned on me **[Slide 6 Trump]** Oh no! This is a sinkhole, not the usual rabbit hole I find myself going down all the time. **[slide 7 holes]**

So, what did I do next to get closer to my objective...I emailed my academic who had set the assignment, not long after I had met the student in April. I explained some of my concerns about the overwhelming nature of the assignment:

- Following Cochrane methods for rapid systematic reviews
- Not providing much structure
- Not explaining how students could use AI to scope a topic
- Or what tools they could use
- And of course, the tight timeframe
- And the lack of understanding the students most likely have on how to search databases effectively.

The academic and I weren't able to meet for a discussion until the end of May because of their commitments. So, I kept reading everything that I came across – I kept searching for the elusive table of tools with all the elements I was looking for. I came across the Ithaka Product Tracker²¹ in late May, which now forms the basis of a spreadsheet I am working on. The Product Tracker is a comprehensive list of available tools that will continue to be populated at least until the end of this year.²² Hopefully it will be useful in tracking what's out there, what tools have gone by the wayside, and update us on new developments or features for the leading tools. Ithaka's categories include tools for general purpose,

discovery, teaching and learning, workflow, writing, coding, image generation, and 'other'. Sadly, no category for systematic reviews.

Although the Product Tracker still doesn't fulfil my brief exactly I use it as a foundation to build on and eventually, I think it will help me produce a table that does fill my brief. **[Slide 8 – spreadsheet]** The spreadsheet will never be public but the table is intended to be eventually, perhaps on our systematic review guide and most definitely in Moodle for teaching academics to share with their students.

I've now added 6 more columns to Ithaka's initial table, so I can add links to videos and articles; specify the related review step; align the steps to our review guides, and then I have a column for notes or observations about the tool. In June I started colour coding the rows to indicate I was ruling tools out for my purpose of doing a review, based on factors like costs (the tools have to be free); or copyright concerns (I don't want tools where students are uploading Monash subscribed articles) and any tools that are being reported as dubious or unethical or too opaque in their workings (they are eliminated). The colour coding also indicates whether the tool was out of scope and then I have a colour for indicating I need to test the tool to do a review. This spreadsheet has now become a shared resource with my colleagues in Academic Services: liaison librarians, and librarians supporting faculties. I intended it to be a collaborative resource similar to what Monash Health did to create their table, but there has been little buy-in, I assume because of time constraints and individuals doing their own thing. One colleague commented that the spreadsheet was too overwhelming with the sheer number of tools listed. But for now, it's helping me reach my objective. It might be useful to others later. Who knows?

When I did eventually meet up with my academic about the assignment that started this ball rolling, the rationale for the assignment became clearer. They weren't aware of the resources we currently have and the support the Library can provide, but they were very keen to have access to resources that they can pick and choose from, to add to their Moodle unit. Moodle is our learning platform at Monash.

The School's educational designer allocated space in Moodle for me where I could place a toolkit, comprised of as many resources that I think will be useful for helping students understand review processes, searching techniques, and AI tools that may assist with 'scoping of the topic'. Ultimately the academic wanted an assessment that would allow students to talk confidently and comprehensively about a current issue related to a particular therapy in their discipline. Introducing AI was their way of making the review task easier.

To come up with the envisioned table, I continued trying to find time to do testing of AI tools for the sole purpose of doing a review, beginning with the step of scoping a topic. Ethan Mollick says "Knowing what they [AI tools] are good or bad at is a process of learning by doing and acquiring expertise".²³ I don't have a choice in this. I continue to read more articles, watch more webinars and joined another community of practice with health librarians outside of Monash Uni.

In July and early August, I added the resources mentioned earlier that will help my academic (and their colleagues in the department) create assessments with the right amount of support and structure so that students aren't overwhelmed. I am still trying to convince my academic to not use a rapid systematic review as the desired output but rather suggest a

systematised review as described by Grant and Booth which would be more appropriate for lone students working to produce a review.²⁴ I'd like to dispense with the Cochrane method and just use our literature review library guide rather than our systematic review guide, which is next-level complicated. **[slide 9]**

I still need to follow up with my academic about how the students in Semester 1 fared with their assessments, to make sure that what I have come up with will be helpful. I did see some initial feedback in May from one student (I'm presuming the one I met) who said that they would have liked more involvement from the Library with this assessment. My aim for this unit at least is to have the academic amend the assignment adding more structure, so students can do a systematised review using a Gen AI tool like ChatGPT4o or Dimensions AI, to help them scope a topic and find a 'gold set' (or seed papers) to help them develop their strategy. The students will need to learn how to create a set of effective prompts following a video and/or examples in some provided articles.

Whilst I was focused on looking outside Monash for some guidance and inspiration (aka someone else who had done all the work to produce what I wanted), one of my workmates shared a goldmine of Monash advice and resources on the Teach HQ site that they had also come across serendipitously. There is also a Monash AI Learning Circle, made up of mainly academics who are tackling this wicked problem as well, albeit from a different perspective. So, all along, other Monash teams were creating fantastic resources for teaching academics.⁷ **[Slide 10 learning circle]**

and [slide 11 – teach HQ] – still not quite what I wanted, but useful nonetheless.

I've added these resources to the toolkit in Moodle **[slide 12]**

along with my table of tools for reviews. **[Slide 12 – my table]**

In conclusion, I've chosen to limit my expertise to AI and systematic type reviews, at least for now. Learning about AI tools in this context should give me an adequate understanding of what's available and what's useful if I do get questions about using AI in reviews or possibly other assessment types.

I think a lot of our cohorts wrongly assume we are already experts in this area, and so it's not just been a matter of calming the farm for academics. I had to find a piece of Zen for myself. In this presentation, I've tried to stay focused on the scenario with my student in April, and how I achieved my objectives, but I am the first to admit that I am not a super fan of AI and I can see a lot of downsides, but that is for another time and another day. I am confident that these AI tools won't keep proliferating as they currently are, taking up an inordinate amount of our limited time to test them, as the big players with their large data sources take out the little players.²³ I am just content for now that I did what I set out to do and I was able to share this story with you.

Thank you.

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