On the Subject of AI, ChatGPT and Risk¹

LETTER TO THE EDITOR

19 May 2023

Ref: Minelle, F., Stolfi, F. (2023). AI to support PM: a ChatGPT quality assessment (ß test); *PM World Journal*, Vol. XII, Issue V, May. Available online at <u>https://pmworldlibrary.net/wp-content/uploads/2023/05/pmwj129-May2023-Minelle-Stolfi-AI-to-support-PM-a-ChatGPT-quality-assessment-2.pdf</u>

Dear David

I enjoyed reading Federico Minelle and Franco Stolfi's paper, *AI to support PM: a ChatGPT quality assessment (ß test)*. They presented the results of an interesting test in which they described a particular project and its status to ChatGPT and then asked it to provide advice on how the project should be managed. I agree that this could be a useful way of testing an AI tool's capability as an administrative assistant.

I suspect that an even more popular use of Chat GPT will be to use it as an educational assistant. I also suspect that many users will provide the tool with less information or with information that is not so concise and well ordered. With this in mind I carried out my own experiment by devising a simple question that might be used in either an educational context or that of using Chat GPT as a project assistant. For reasons I have identified later, I have a significant concern about its response. But first, here is my question and ChatGPT's response.

My Question: How should I perform a project risk analysis on my project?

Chat GPT's response: Performing a project risk analysis involves several steps. Here's a general outline to help you get started:

- 1. Identify potential risks: Make a list of all possible risks that could impact your project. Consider internal factors (e.g., resource constraints, skill gaps) and external factors (e.g., market changes, regulatory issues).
- 2. Assess the likelihood: Evaluate the probability of each risk occurring. Assign a numerical rating or use a qualitative scale (e.g., low, medium, high) to gauge the likelihood. Consider historical data, expert opinions, and available information.
- 3. Evaluate the impact: Determine the potential consequences of each risk if it were to occur. Assess the impact on project objectives, timelines, costs, quality, and

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stakeholders. Again, you can use numerical ratings or qualitative scales to assess the severity.

- 4. Prioritize risks: Prioritize the identified risks based on their likelihood and impact. You can use techniques like the Risk Probability and Impact Matrix or the Risk Scoring Model to prioritize them effectively.
- 5. Develop response strategies: For high-priority risks, create appropriate response strategies. These can include risk mitigation (taking actions to reduce the likelihood or impact), risk transfer (such as insurance), risk acceptance (acknowledging the risk without taking specific actions), or risk avoidance (changing the project approach to eliminate the risk).
- 6. Monitor and review: Continuously monitor and review the identified risks throughout the project lifecycle. Update the risk analysis periodically and adapt your response strategies as necessary.

Remember, risk analysis is an ongoing process. Regularly reassess and adjust your approach as your project progresses and new risks emerge. It can be helpful to involve stakeholders and subject matter experts to gain diverse perspectives and insights during the risk analysis process.

A first point to note is that ChatGPT's response to my short question is much longer than any of its responses provided to Minelle and Stolfi. This is despite their having provided it with more information. Chat GPT describes its response as being a general outline, implying that more detailed advice can be sought about each of its six steps. I confirmed this by asking it some follow up questions. However, if we step back from thinking about such detail, I would suggest that Chat GPT has made a serious error by failing to prompt any enquiry about the nature of "my project" in the first place.

In practice my project could be:

- 1. of any size and complexity ranging from organising a school's summer fair to delivering the first manned journey to Mars,
- 2. at any stage of the project lifecycle from project initiation to close out,
- 3. owned and delivered by a single organisation, have a shared ownership or be dependent upon a complex contractual hierarchy and/or
- 4. subject to specific governance requirements such as the need to support gate reviews with risk modelling outputs.

The thing I found most striking about Chat GPT's advice was that it was so prescriptive despite knowing nothing about these things. In effect, it recommended that any project, at any stage in its lifecycle should follow its six recommended steps. As someone with more than 30 years' experience in project risk management this is anathema. Projects, by their nature, are all different. It makes no more sense to assume that the same step by step approach to risk analysis should be applied to all projects than it is to assume that a chef should select their cooking processes before having sight of the menu.

Moreover, when projects are compared to meal preparation we can see that they are subject to much greater degrees of uncertainty with sources that are more varied and complex. When we are attempting to understand the effects of uncertainty, as we are when carrying out a risk analysis it is illogical to assume (with certainty) that a single basic method should be used.

In my view, one of the arts of project risk analysis lies in the selection of tools and techniques appropriate to the project's nature and circumstances and the types of decision that its management will need to take. In contrast, Chat GPT's six-step approach is, in essence, a simplistic approach to preparing data for a risk register. Whilst project risk registers can be very useful, it would be a mistake to describe them as being the best or only tool for all projects in all circumstances. Examples of risk analysis techniques not covered by any of Chat GPT's six steps include:

- Identification of risk ownership (both personal and commercial ownership).
- Use of risk description structures, bow-tie diagrams or root source analysis.
- Assessment of risk properties such as lead time to act or risk manageability.
- Using outcome variance e.g. standard deviations as a prioritisation approach.
- Stakeholder analysis
- Optimism bias assessment.
- Decision trees.
- Parametric forecasting.
- Quantitative modelling including constructively simple models, or Monte Carlo simulation of Cost, schedule or NPV.
- Tornado charts or sensitivity analysis
- Influence diagrams or Operational Research (OR) modelling.

ChatGPT is described as an Artificial Intelligence (AI) system. I would not describe its response to my question as being intelligent. But, interestingly, nor does it look artificial. Instead, it has the hallmarks of a comfortably persuasive description of common practice; the sort of material that might be written by the vendor of a commercial risk register tool. And herein lies my main concern. It is easy to confuse common practice with best practice. Whereas best practice should involve adapting process to serve the needs of the project, common practice typically conforms to a prescription that is applicable to all. If ChatGPT becomes widely used, it seems likely to perpetuate the use of common practice that is the legacy of today's most popular commercial tools.

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