

AI in Contract Management

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Welcome!

nPlan

 Project Controls
EXPO
London, UK

Oh no, not another AI presentation...



No hype nonsense here

- AI-generated images
- Brains fused with circuit boards
- Hype without substance

Real ideas to take away

- Practical ideas
- Real life examples

I dislike 'credential' slides, but...

- Over a decade working in UK infrastructure
 - PM, Planning, Controls and Risk roles
- Fellow of APM and IRM
- Co-author of APM's PRAM Guide
- Principal Risk Engineer at nPlan (I build this technology for our sector)

Obligatory (short) introduction to AI



Know the difference between 'predictive' and 'generative' AI

- This is only one branch of AI
- 'Predictive AI' is a fundamental part of AI
 - Derived from 'deep learning'
 - Excels at identifying and predicting patterns in data
- 'Generative AI' is a subset of predictive AI
 - E.g. ChatGPT, Gemini, Claude
 - Good at generating outputs

**What's this got to do with
contract management?**

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Contract management largely about data

- Clauses
- Costs
- Dates
- Contract mechanisms (contract types, strategy)

Example 1 - Accepting the first programme

An Accepted Programme at Day 1 is a good thing (duh)

- Everybody has an agreed baseline
 - including when early warnings happen
- Agreeing compensation events is easier
 - better cash-flow
 - faster settlement of final account
- Updating programmes becomes a lot easier

How to do it with AI

- Predictive AI
 - Data sets of durations
 - Sensitivity tests to see what is most influential
- Generative AI
 - Generating schedules
 - Action recommendations

How to do it with AI

- Predictive AI
 - Collect your own duration/cost dataset
 - Forecast to see what is most influential
 - Schedule
 - Cost plan
 - Off-the-shelf products exist
 - Build your own and test it

- Generative AI
 - Use a schedule generation tool
 - Upload contract docs and off you go
 - Ask a generative tool: Which parts of this contract seem riskiest, and what should I do about it?

Example 2 - Earlier Early Warnings

Early warning provisions of the NEC

Contract requires:

- the Project Manager and Contractor to notify each other
- to have a (regular) meeting in which they have to make & consider proposals

Two observations :

- people are not looking that far ahead
- it is difficult to cut through the noise
i.e. what are the early warnings that matter?

How to do it with AI

- Predictive AI
 - Sensitivity tests to see what is most influential
 - Could be time/schedule
 - Could be cost
- Generative AI
 - Take the outputs of cost / schedule forecasting
 - Use a large language model to compare this to the contract
 - Generate correspondence which communicates the influential parts to start the conversation

How to do it with AI

- Predictive AI
 - Collect your own duration/cost dataset
 - Forecast to see what is most influential
 - Schedule
 - Cost plan
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 - Use a schedule generation tool
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How to do it with AI - example prompt

“Create a chart over time showing activities that are likely to be impacted by unforeseen geotechnical issues (this could be substituted to any type of activity - think of those likely to be impacted by Safety or Environmental issues). Include activities referencing things like drains and excavation (update the activity description for your use case). Put the labels on the y-axis and the months on the x-axis.”

- ***Looking ahead at related activities in a schedule***
- ***Linking them to relevant causes***
- ***Show the frequency as the project progresses***

Demo link: <https://insights.nplan.io/insights/93552860-0649-45fd-b57c-eed2fdcabff7/57e71a86-2a8d-4ca6-898b-367b84433d2b/chat-project>

How to do it with AI - example prompt

"I have a delay claim from the contractor for unforeseen geotechnical site conditions (this could be anything related to the contract i.e., RFI's, NCR's, variations / change orders, EOT's, delay claims, LDs, defects, insurance, responsibilities under the contract, early warnings etc). Please tell me which clauses in the contract are relevant to this issue. (make sure the general conditions of contract or terms and conditions are uploaded)"

- Responding to claims
- Quickly finding reference to the contract
- Enables quick correspondence and collaboration

Some hints

- If a product is free, YOU are the product
 - Don't put sensitive data into free versions of things
- Keep use cases nice and narrow
 - AI is a tool, not a panacea
- Ask vendors specifically what kind of AI they use
 - There's a lot of snake oil / hype out there
- Ask for case studies / proof of concept
 - If a technology works, the vendor will be excited to show you how

AI can help contract participants:

- **agree** the first programme
- **identify** early warnings early by highlighting the most likely areas of delay and variance
- **focus** on the early warnings that matter
- **analyse** proposed solutions for their (unintended) consequences

**Drop a line to
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any questions or visit
www.nplan.io**