



## The Intelligent Project

Combining human and artificial intelligence for project success.

Ray Paulk Founder / CEO, ProjectAI

Project Controls Expo, Melbourne, VIC – November 2022

projectai.com

#### Today's Speaker



**Ray Paulk** Founder / CEO, ProjectAI

- Senior business and portfolio advisor specialising in capital investment/ venture structuring, project strategy, technology strategy, portfolio optimisation, growth & international expansion.
- Over 20 years experience in major- and mega-projects and portfolios for the Oil & Gas, Natural Resources and EPC industries:
  - All project phases (appraisal, selection, definition, execution)
  - Greenfield and brownfield projects
  - Owner-operated and partner-operated
  - Standalone projects and programme-based
- Expert in major project governance to inform capital investment decisions, execution phase reviews, and forensic reviews.
- Led large multi-disciplinary teams, overseeing project controls for projects and programs ranging from \$4m to \$15bn, and portfolios ranging from \$60 to \$100bn. Advised numerous project and portfolio teams on six continents.
- Recognized innovator and thought leader in Project & Portfolio Management, specializing in advanced analytics, automation, systems integration, reporting and artificial intelligence for projects.
- BSc Mechanical Engineering, University of Houston, USA
  Post Grad Managing Projects, Manchester Business School, UK

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Digital Transformation in Capital Projects: What's stopping us?



#### Problem 1: **Projects are human.**

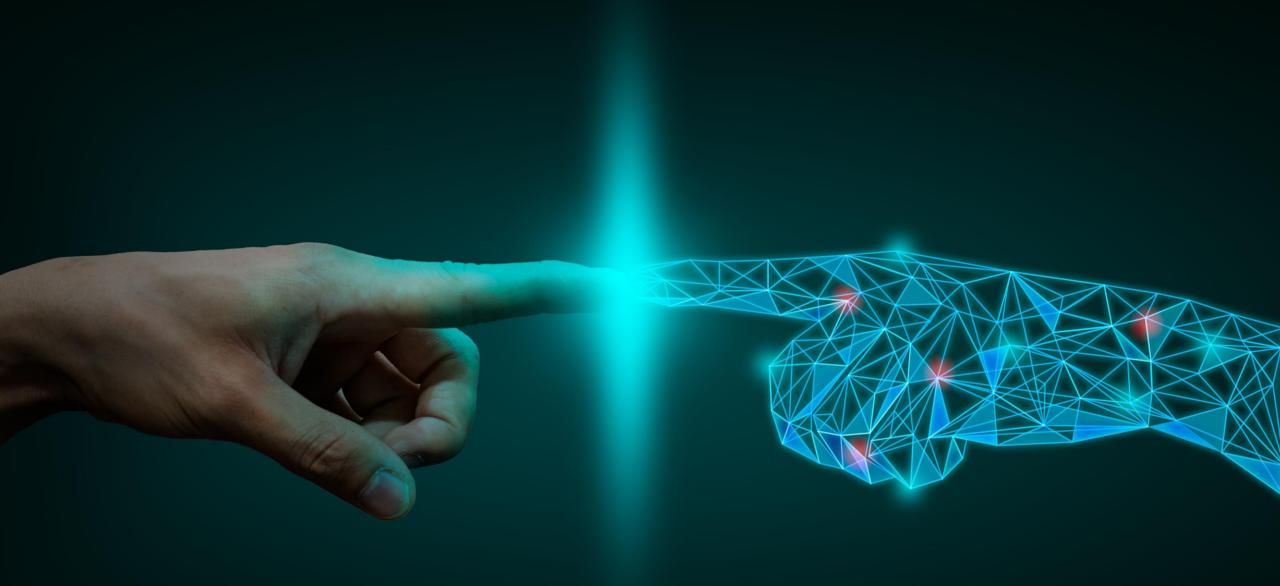
# Problem 2: Projects are temporary.

Problem 3: Projects are unique.

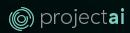


Problem 1: Projects are human.











Q: What is the most common question project managers ask their teams?

## A: How's it going?



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## **Q:** What are PM's listening for?



- What people say.
- How they say it.



# intelligence

# human

## machine

# emotion?



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#### All project success... (and failure) ... depends on **people**.







After every train wreck... one simple question:

"Were you surprised that the project failed?"

• Executives / stakeholders almost always say **YES**.

 $\circ$  Project team members almost always say NO.





#### Why do projects fail?

The usual suspects...

- Poor planning / front-end loading
- Poor leadership
- Inexperienced managers
- Management / key resource turnover
- Inadequate documentation and control
- Inaccurate / overly optimistic schedules & estimates
- Poor communication
- Ineffective / toxic culture, or ethical misalignment
- Conflicting drivers between stakeholders
- Poor resource management
- Reactive issue management / constraint elimination
- Slow information flow
- Disregarding warning signs

What do all of these issues have in common?

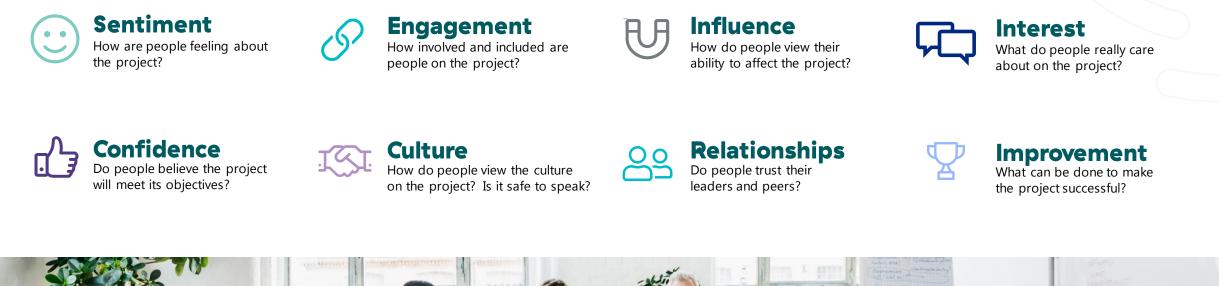
People!

#### As an industry, what are we doing about it?

#### A new range of **predictive** indicators of project **performance**



What's missing from your project report?









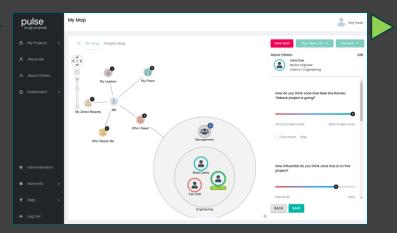
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#### About Me (Reality)

About Me Romeo Tiebock	avy Paulk
(j) Sentiment ⓒ for Ingagement (년 Influence 및 Interest ⓒ 👔 Confidence )	St Culture & Relat
Do you think the project will finish on budget?	
•	
Not at all Absolutely	
💭 Commont   Silp	
What do you see as the biggest risks to the project?	
Change EDIT DELETE	
Schedule  EDIT  DELETE	
Scope creep  EDIT  DELETE	
ADD NEW YORKS	

Discover the things that really matter to your team members.

#### **About Others** (Perception)



An entirely new approach to engage the people who will make your project successful.

#### Monitor & Analyse

Overall Tre	inds		Top positive: Whole Self	Participation	Auching Completed		
	Driver Analysis Romeo Tieback					a Ray Pouk	
	Show: Sertiment	Ingogerment Influence	Interest Confidence	Culture Relationships Improvement	nt About Others Leon		
	Sentiment	Monogement	Project Controls	Engineering	Clients		
	Response Rate	⑦ 25 %	20 %	29 %	50 %		
	pulse	Key Themes Romeo Tieback					💄 Ray
		🕐 Risks 🕲 Own Word	🕞 Unspoken Problem	😁 Project Interest 🛛 🔱 Personal In	terest 🔄 Improvement		
		How do you think	the project is goin	g in your own words.			
		This is one of the	most unpleasant project tea	ms I have worked with. No one seems	to trust each other.	Lios 👌 Great	idea 🔿 🛛 Rog P
			o spend more time on the sch going to take longer than the	redule. I think we are using the wrong p a bosses expect.	productivity	Like 👌 Acknowle	Nge 🟠 Rog

Find new areas of focus to make your project a more rewarding experience for everyone.





Problem 2: Projects are unique.





### "Let me tell you why this project is different..."

- EVERY PROJECT MANAGER



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The volume of **project data is growing exponentially**, but the ability of people to manage it is not keeping pace.

**Disparate processes and systems** 

Spreadsheets are the enemy

Manual effort and re-work

Slow information flow to decision makers

**Reinventing the wheel for every new project** 

Lost project and organisational knowledge





#### Projects are **unique**... but not **"special"**.



- Different people
- Different location
- Different stakeholders
- Different suppliers
- Different time / season
- Different market conditions
- Different tools
- Different spreadsheets
- Different reports
- Different technologies
- Different execution strategy
- Different contracting strategy
- Different culture

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Common Types of Data

- Scope
- Cost
- Schedule
- Progress
- Resources
- o Risk
- Changes
- Issues
- Documents
- Materials
- Models
- Contracts
- Health, Safety, Quality, etc.

>1000 Applications on the market for this.

#### • Common Elements

- Labor
- Pumps
- Valves
- o Steel
- Concrete
- Cranes
- Generators
- Welders
- Electricians
- Engineers
- Contracts
- Fabrication
- Commissioning

The concepts which add meaning to data.





# **Q:** What is this?

# N5-EPX-07148.A



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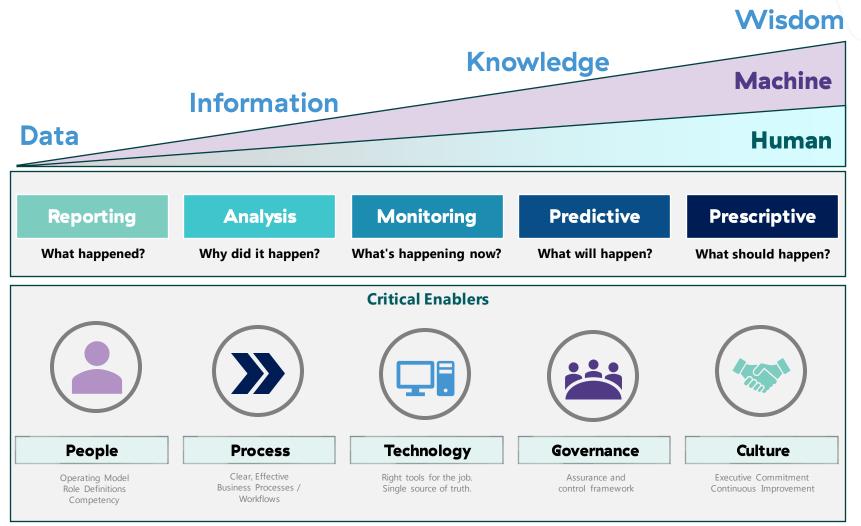
## Data is great. **Knowledge is better.**





#### Human Intelligence + Artificial Intelligence

Creating a positive feedback loop.



### Problem 3: Projects are temporary.



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#### The project lifecycle:

**START** 

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Which Change Plan the Change Nasty Make up Change Everyone Find spreadsheets Work Again Surprise Back to Looks for Someone some story. will we use Original **Next Project Else to Close** this time? (Use words like the **Project** Plan productivity, float Out contingency and forex.) Competitiveness Predictability Sustainable Knowledge Control Efficiency Transparency Governance Where did we

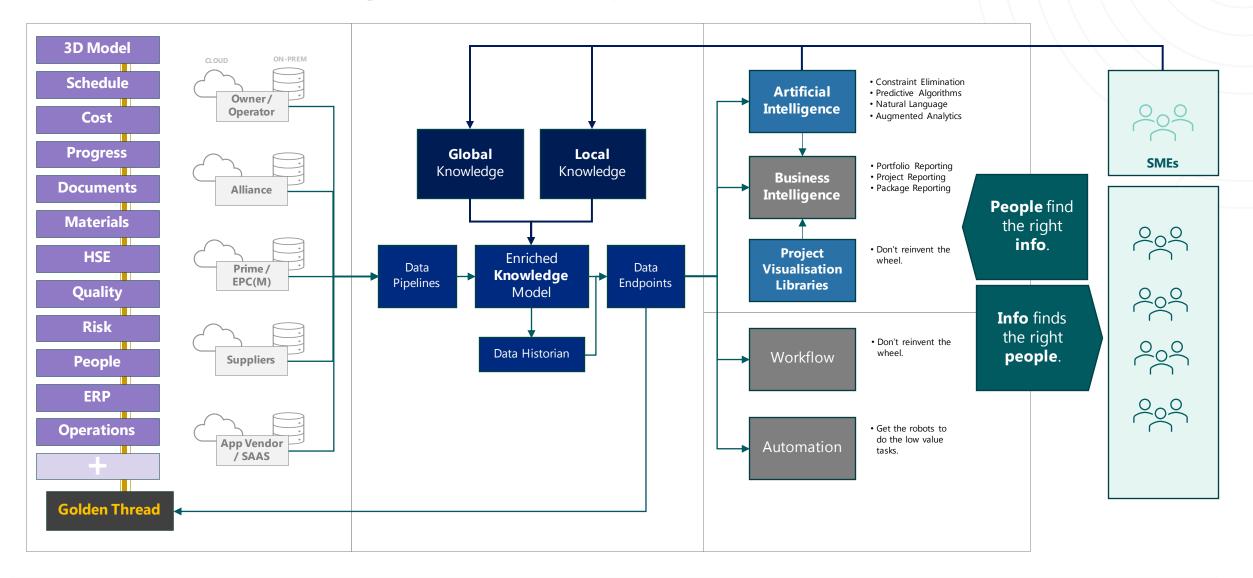
#### **FINISH**

Repeat

put that spreadsheet?

**Project Controls** Melbourne, Australia

#### We make data meaningful... for your project ... and the next project.





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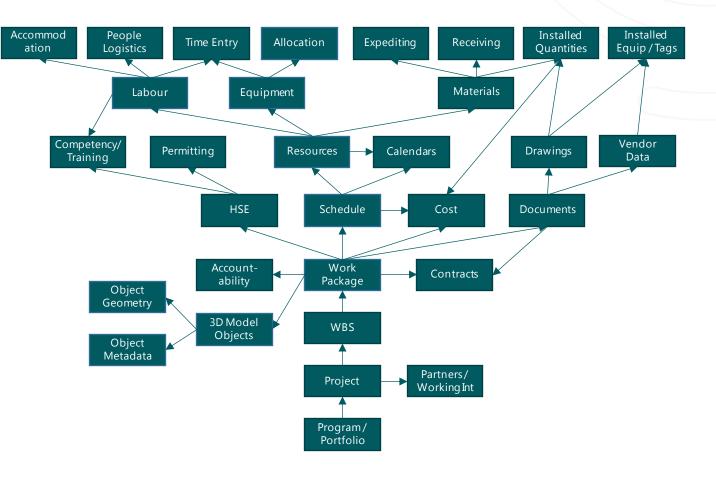
Melbourne, Australia



## Merging **technical** and **commercial** data for a new dimension of predictability... powered by artificial intelligence.

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ProjectAI's revoluationary **knowledge** platform designed to help you overcome the traditional data challenges faced by capital projects.



cortex

by 🍥 project**ai** 

## Projects are human.

## Projects are **temporary**.

## Projects are **unique**.













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