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AI in Engineering



Digital Ideas

M

M

MOTT
MACDONALD

- Cloud computing
- Virtual reality
- Drones
- Reality capture
- Data analytics and business intelligence
- Artificial intelligence
- Internet of Things
- Gamification
- Frictionless IT
- Touch and pen interface PCs



Content

- ▶ Remind me again, what is AI?
- ▶ It's used in Engineering ?
- ▶ Flamin' Robots, coming in here and taking our jobs.

AI



AI

- ▶ In simple terms, it is the use of machine intelligence to perform tasks that would mimic cognitive functions that humans associate with the human mind.
- ▶ It encompasses various machine driven resources, which includes; artificial reasoning; machine learning; robotics; computer vision; natural language processing and more.

AI 'disciplines/parts'

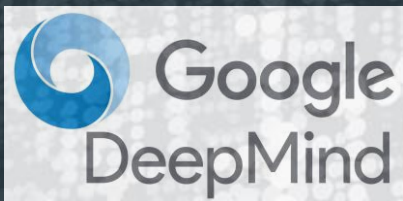
- ▶ Artificial Intelligence Using ML to automate decisioning
- ▶ Machine Learning (ML) Algorithms generating insights from data
- ▶ Deep Learning Powerful Neural Networks
- ▶ Neural Network ML inspired by the brain
- ▶ Data Science Programming and Statistics with Understanding
- ▶ Data Visualisation Visual representations of data (graphs)
- ▶ Data Engineering Creating processes that transform data
- ▶ DataOps Automation ML and Data Engineering
- ▶ Data Analytics Summary statistics and data manipulation
- ▶ Business Intelligence Creating reports/dashboards of KPIs



Artificial Intelligence - The use of machine intelligence to perform tasks that would mimic cognitive functions that humans associate with the human mind

Adaptive Intelligence - A.I. dealing with training neural networks using not only the statistical estimation of data, but combining it with specific domain knowledge

Augmented Intelligence - The convergence of ML, Clinical Knowledge and data to enhance human intelligence in a single platform.





Adaptive Intelligent™ Apps for CX

B2B and B2C
Experiences



Marketing and Digital

- Optimized Campaign Channel and Send Time Intelligent Message
- Personalized Open-Time Content
- Adaptive Audiences



Commerce

- Personalized Product Recommendations
- Smart Product Promotions
- Cross-Channel Contextual Content
- Intelligent Search Experiences



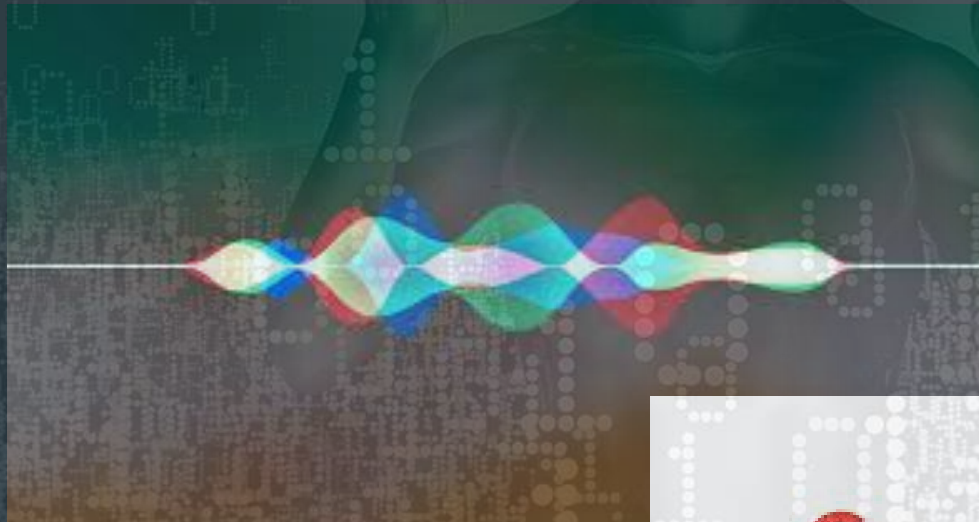
Sales

- Opportunity Guidance
- Smart Call Points
- Next Best Sales Action
- Lead Scoring and Look-alike Audiences



Service

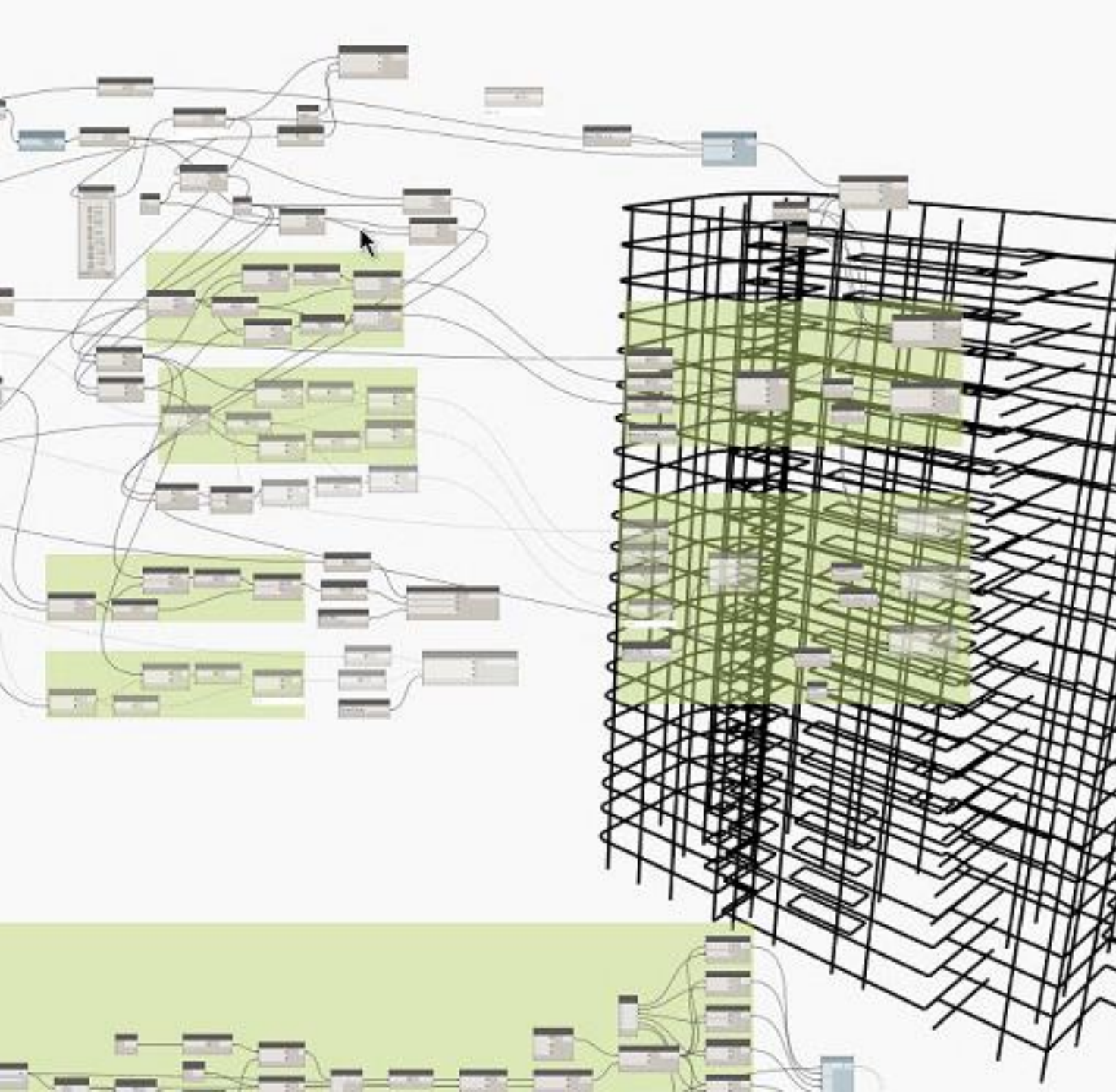
- Predictive Account Health
- Next Best Service Action
- Automated Answers
- Personalized Self-Service



amazon alexa

AI Eng

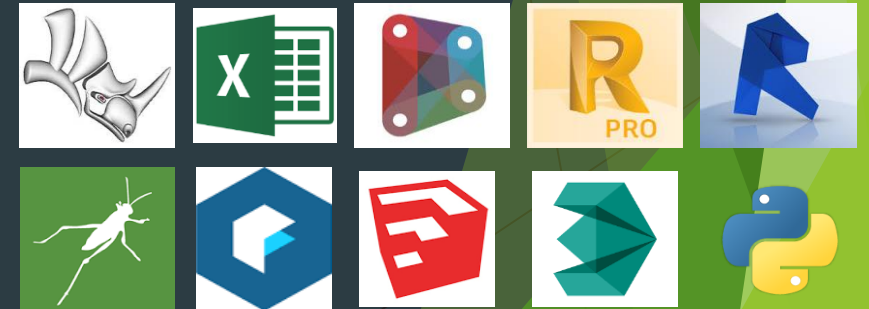


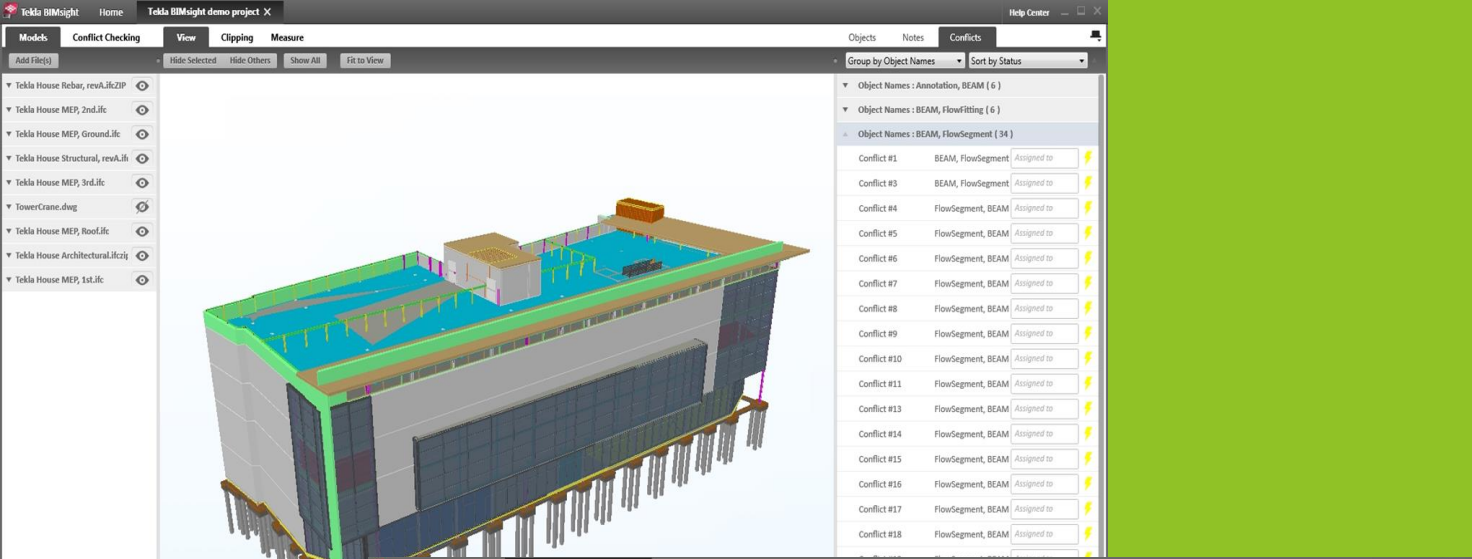


Automating Design

Adaptive Intelligence

- Creating scripts which automate many tasks to reduce man hours.
- Integrating multiple platforms to a single output.

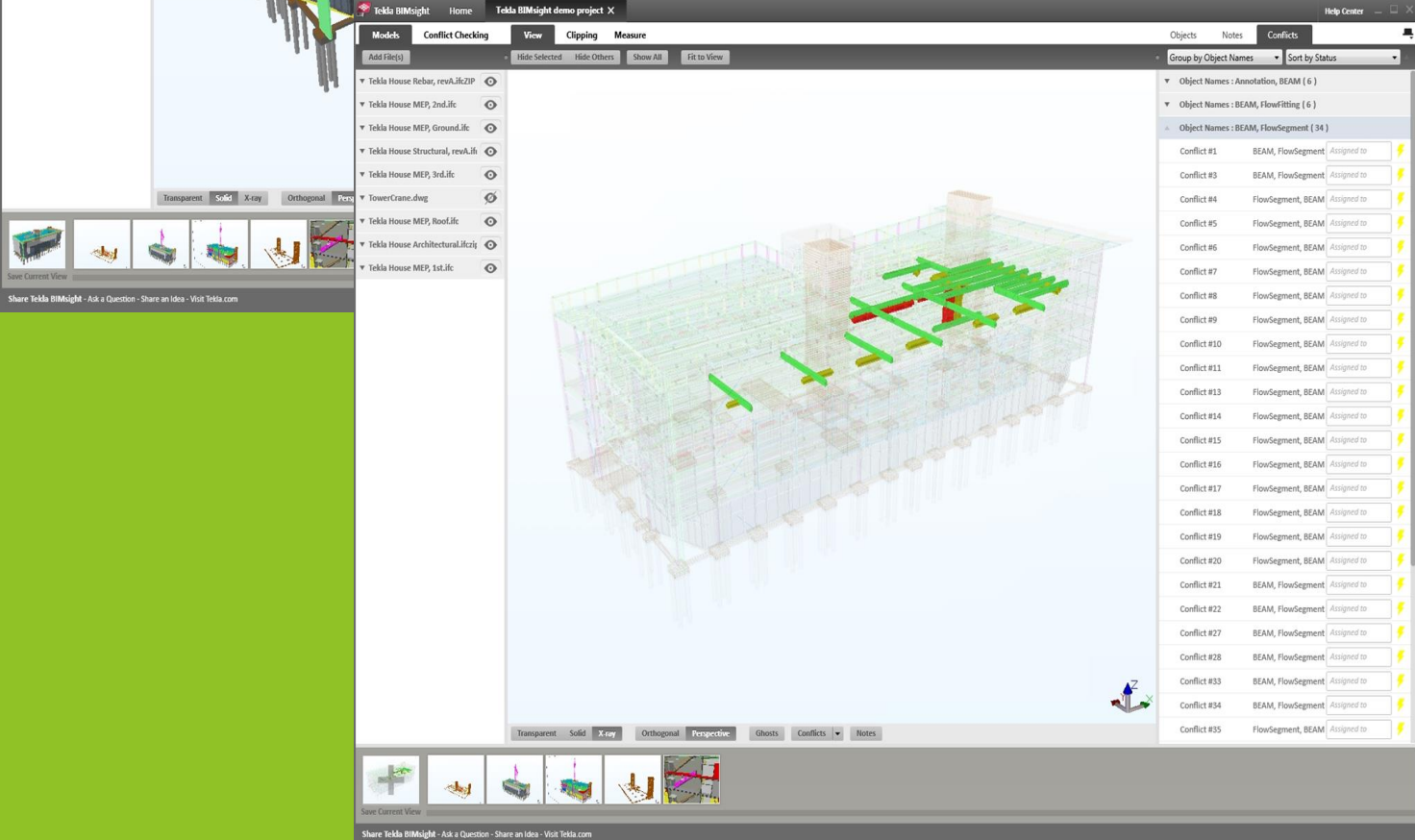




Design Resolution

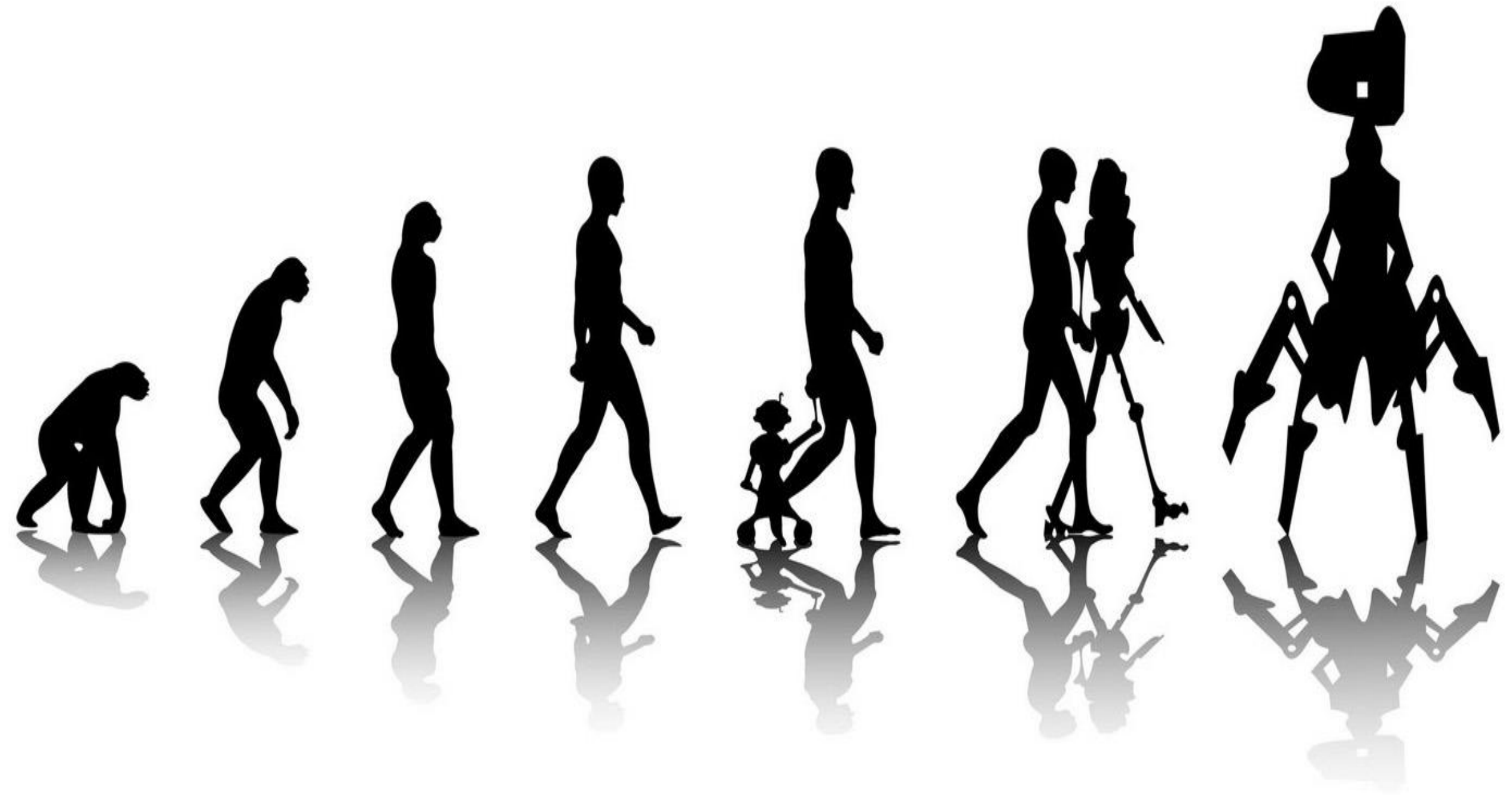
Adaptive / Supportive Intelligence

- Platform Integration
- ML automation on hierarchy/preferences
- Leaving 'Clash Detection' in favour of conflagration response i.e. 'Design Resolution'





AI & Us







Mott MacDonald

V I S U A L I S A T I O N

V I S U A L I S A T I O N

M O T T M A C D O N A L D







AI & Jobs

(in Engineering)

Principal Outcomes Technician

Research & Query Generator

Senior Question Asker

Junior Problem Generator

Heritage Systems Analyst

Analogue Thinking Specialist

Data Interpreter

Lo Tech Systems Specialist

Chief AI Engagement Officer

