

Project Management Institute. Southwest Ohio



Project Management Institute_{*} Dayton/ Miami Valley Ohio



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KEYNOTE: UNLEASHING THE POWER OF THE GENERATIVE AI WORKFORCE

MICHAEL LIVELY QUANTUM AI, LLC

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POWER SKILLS

PK



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HOUSEKEEPING



YOU WILL RECEIVE A LINK TO SLIDES AND THE RECORDING



Project Management Institute. Southwest Ohio



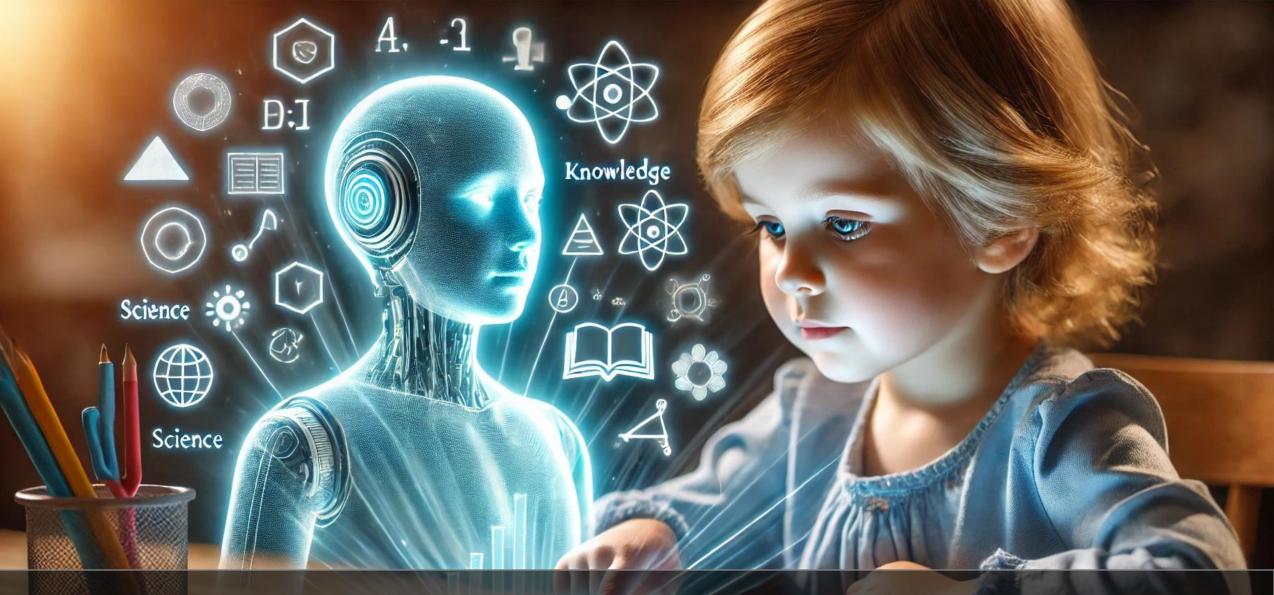
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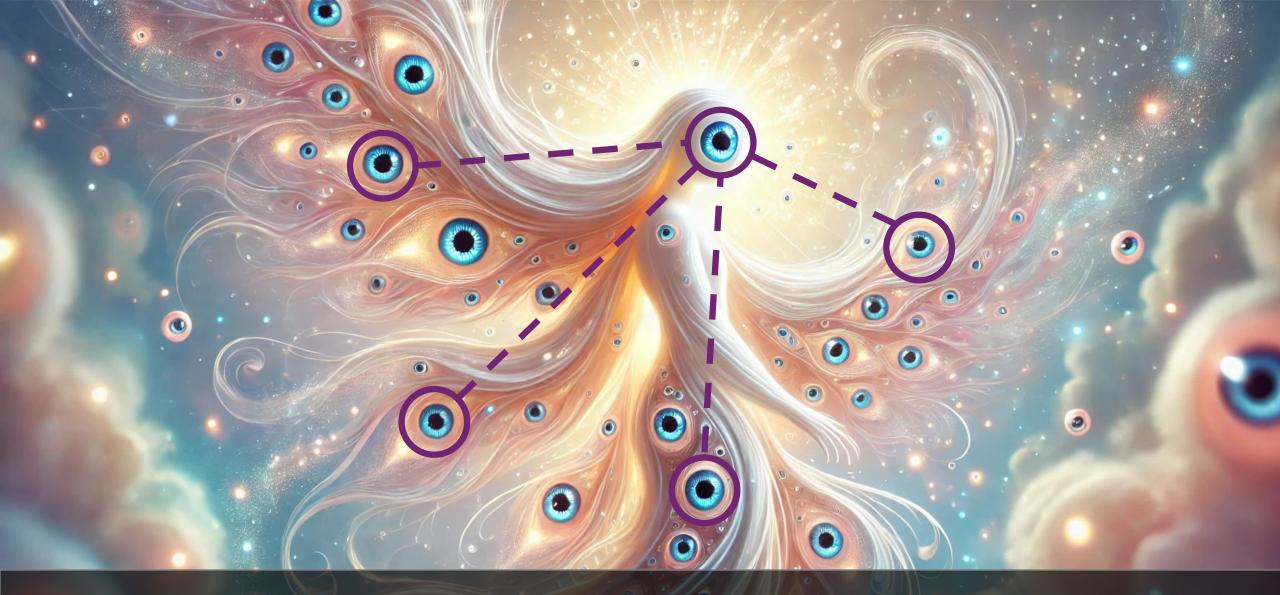
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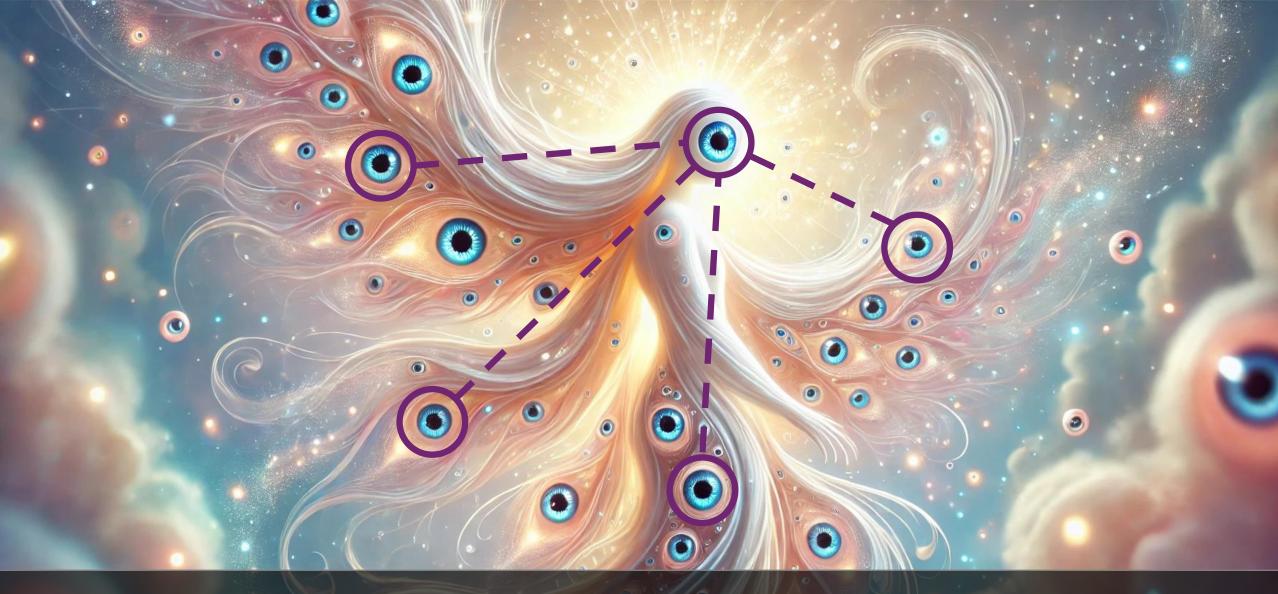
Unleashing the Power of the Generative AI Workforce



Al is the first technology that has no limits.

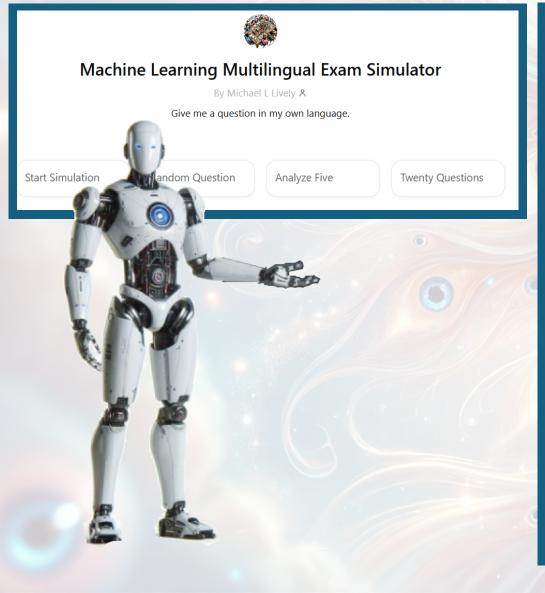


Many Eyes: Once you know one thing you know everything!



Mike's Tip#1: Apply Many Eyes Thinking to Every Project

Machine Learning Multilingual Exam Simulator



English:

What type of machine learning algorithm would you use to classify whether an email is spam or not?

Español:

¿Qué tipo de algoritmo de aprendizaje automático usarías para clasificar si un correo electrónico es spam o no?

Français:

Quel type d'algorithme d'apprentissage automatique utiliseriez-vous pour classifier si un e-mail est un spam ou non?

Deutsch:

Welchen Maschinelles-Lernen-Algorithmus würden Sie verwenden, um zu klassifizieren, ob eine E-Mail Spam ist oder nicht?

Italiano:

Quale tipo di algoritmo di apprendimento automatico utilizzeresti per classificare se un'email è spam o meno?

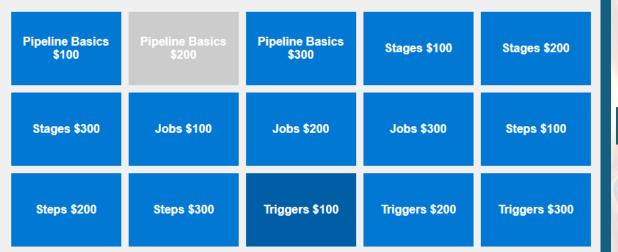
中文 (Chinese):

您会使用哪种机器学习算法来分类电子邮件是 ↓ 垃圾邮件?

Jeopardy & Search

Pipeline Definitions Quiz

Question Reference: Pipeline Definition Documentation

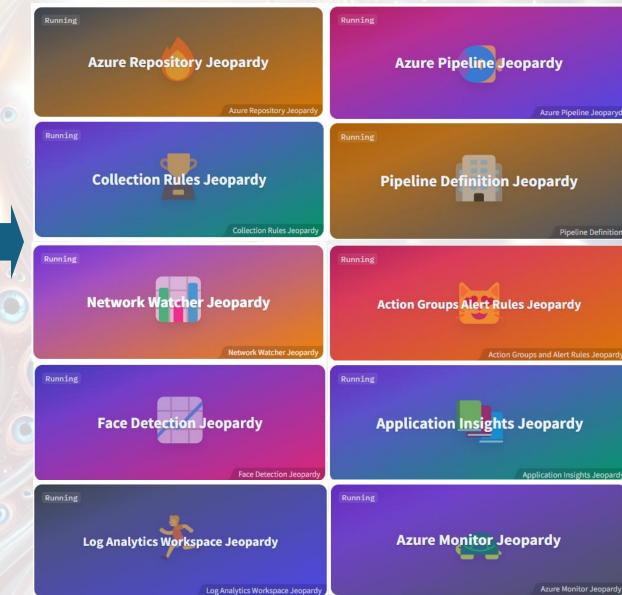


Pipeline Basics for \$200

What does a pipeline consist of?

 Stages and jobs
 Only steps
 Just a random series of scripts

Score: 0





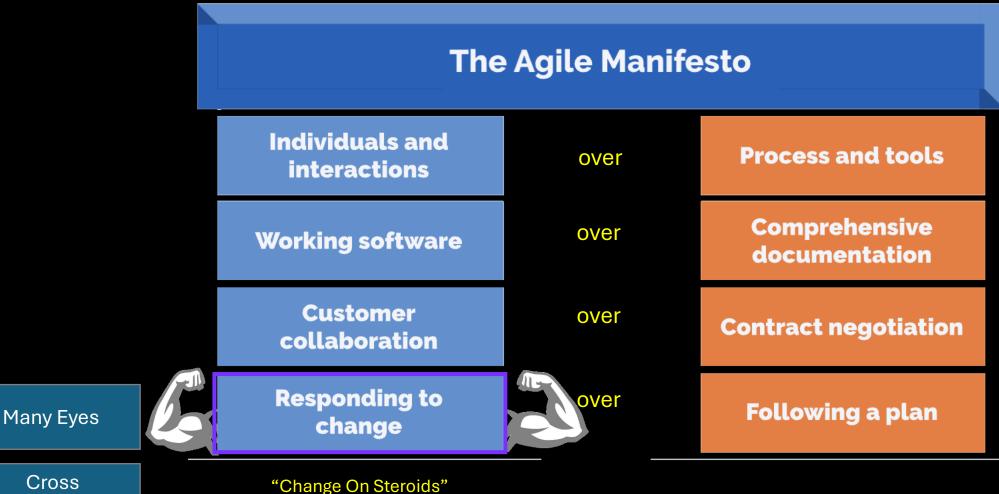
Al's Effect on the Agile Manifesto

The Agile Manifesto

Individuals and interactions	over	Process and tools
Working software	over	Comprehensive documentation
Customer collaboration	over	Contract negotiation
Responding to change	over	Following a plan



Al's Effect on the Agile Manifesto



Functional



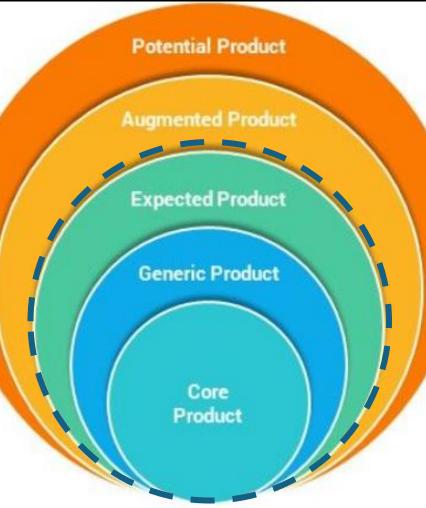
Don't teach your kids to code.





Kotler Five-Level Product Model





Mike's Golden Rule

1 Pap

It's not about eliminating jobs that AI will take, it's about transitioning into jobs that AI will

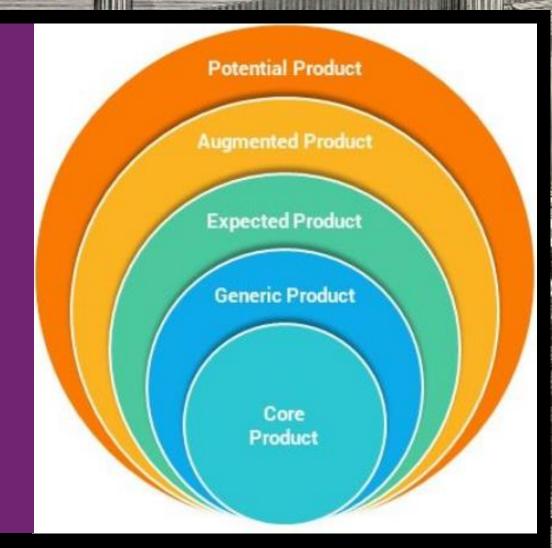
Essence of Prompt Engineering

Prompt Engineering: What's in a good prompt?

Core System Message: Who and Why

Generic & Expected Products Must Have: How and What Should Have: How and What

Augmented & Potential Products Can: What Else and What If



Everything Talks

Swarm Clinician



Patel



Silva

Dawson



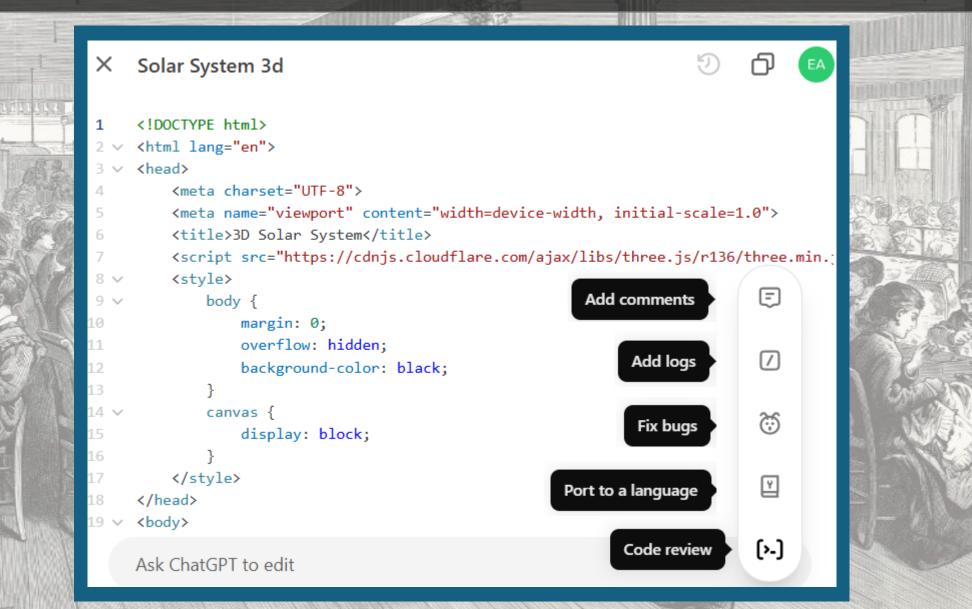
Lee

Watanabe

Treatment +Paperwork!

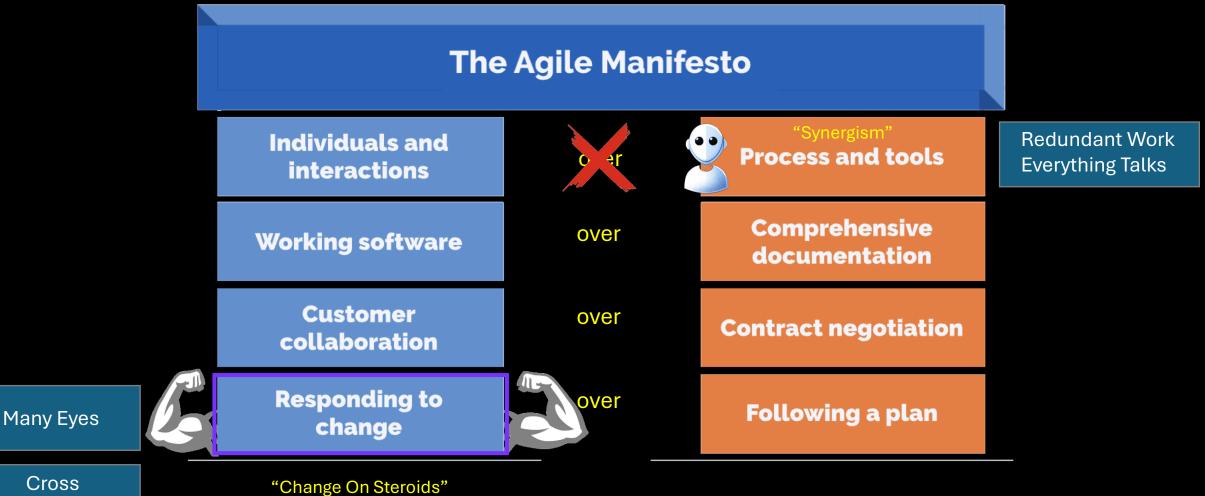
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patient_id	200	gender	family_history	BRCA1_mutation	BBCA2 mutation	TR53 mutation	ER status	PR status	HER2 status	subtype	tumor_stage
P001	-	Female	Yes	TRUE	TRUE	FALSE	Negative	Negative	Negative	Triple Negative	I
P002	75	Female	No	FALSE	FALSE	FALSE	Positive	Positive	Positive	LuminalA	Ш
P003	51	Female	Yes	TRUE	FALSE	TRUE	Positive	Positive	Positive	Luminal B	11
P004	59	Female	Yes	TRUE	TRUE	FALSE	Positive	Positive	Positive	HER2+	11
P005	59	Female	Yes	TRUE	TRUE	FALSE	Negative	Positive	Positive	HER2+	I
P006	55	Female	No	FALSE	FALSE	FALSE	Positive	Negative	Positive	HER2+	1
P007	48	Female	No	FALSE	FALSE	FALSE	Positive	Positive	Negative	LuminalA	1
P008	71	Female	No	FALSE	FALSE	FALSE	Negative	Positive	Positive	HER2+	111
P009	61	Female	Yes	FALSE	FALSE	FALSE	Positive	Negative	Positive	HER2+	11

10,000 Lines of Code a Day





Al's Effect on the Agile Manifesto



Functional

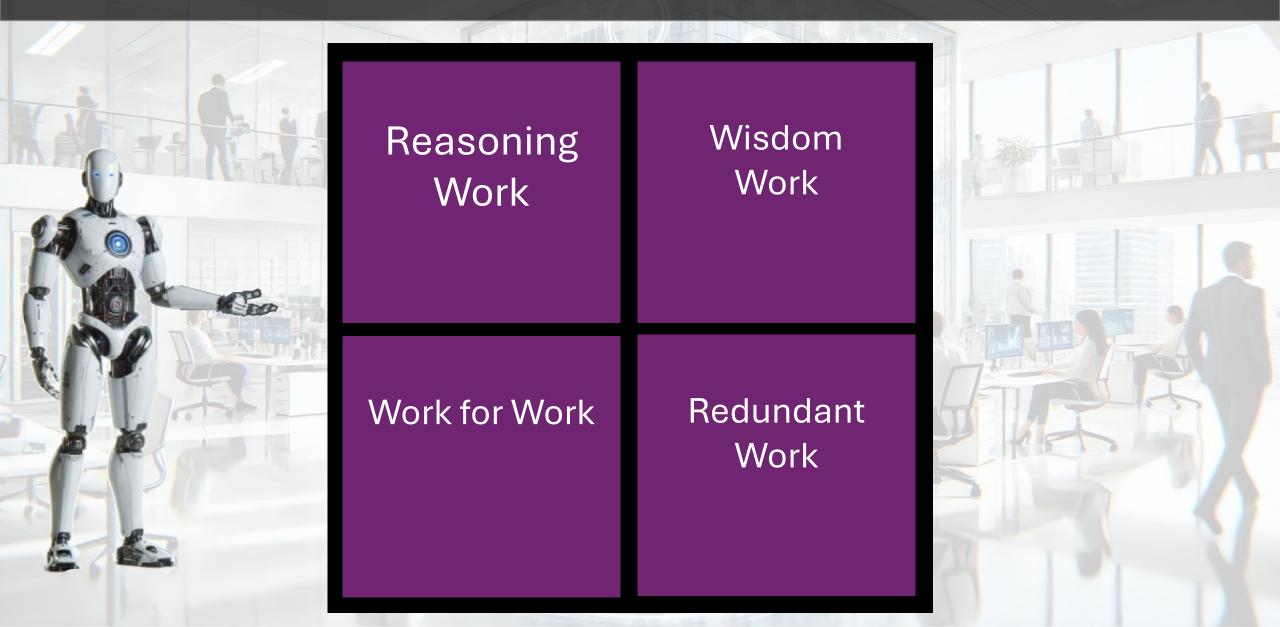
Two-thirds of U.S. occupations will be affected by AI!

Goldman Sachs



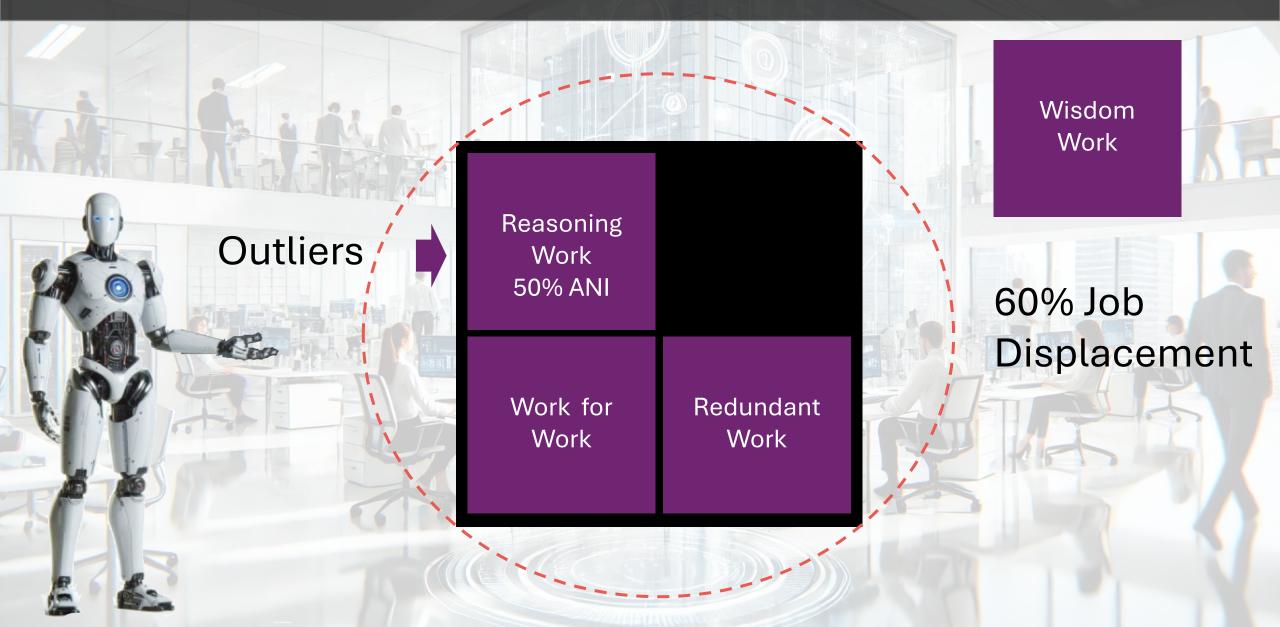


Mike's Quadrant of Work



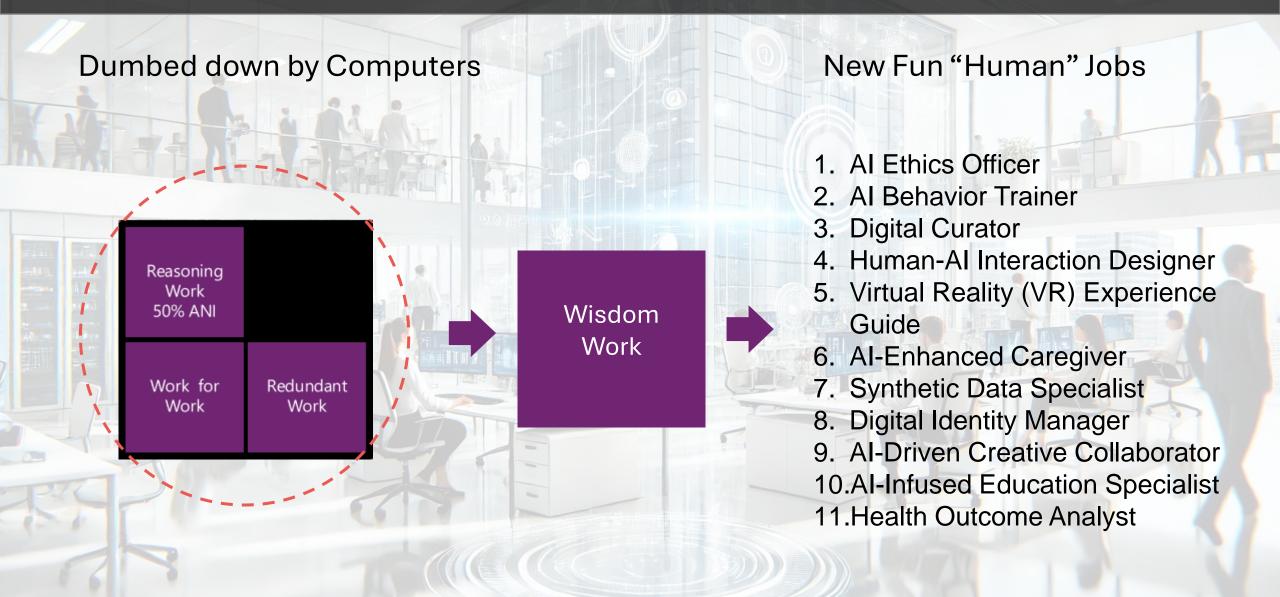


Mike's Quadrant of Work



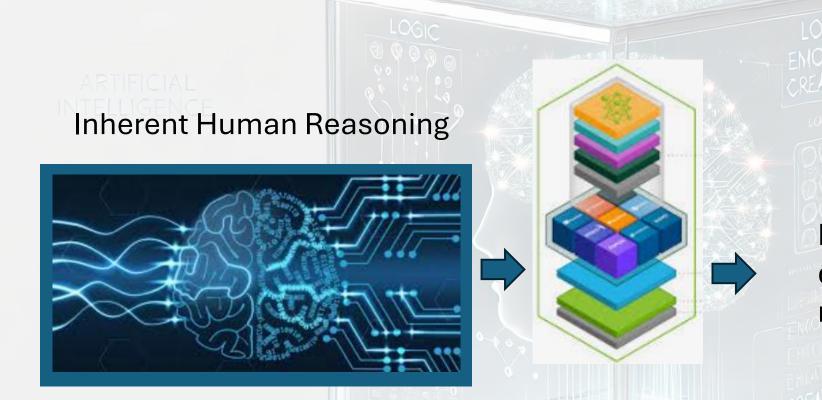


Nature of Work



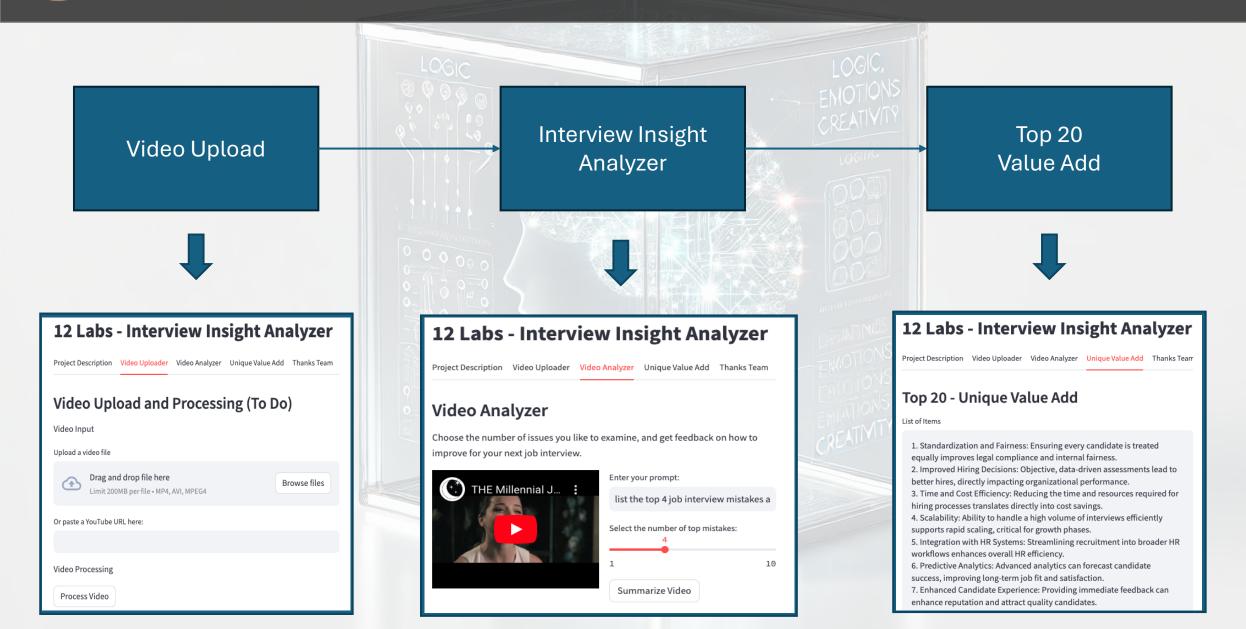
Text to Video (Sora)

LLMs Captured Human Reasoning



LLMs captured not just data, but also human reasoning behind it!

Interview Insight Analyzer



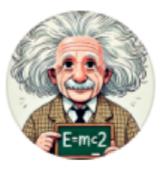






Mike's Tip#2: Become a Tool Builder

Talk with the Great Physicist



<u>Einstein</u>



Maxwell



<u>Dirac</u>



<u>Newton</u>



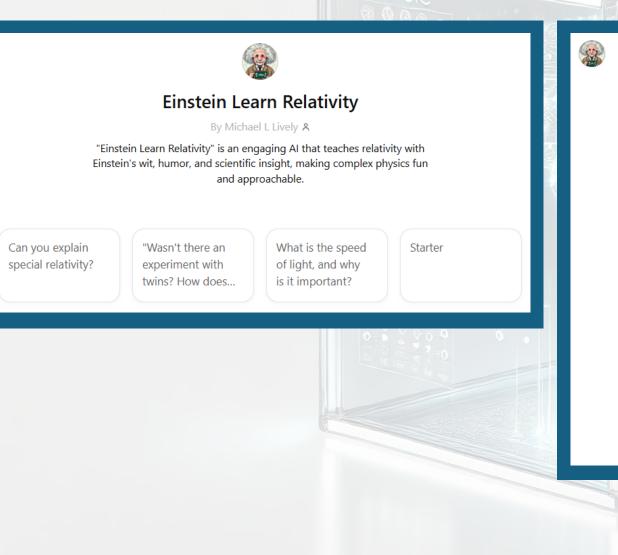
<u>Feynman</u>



Chat with All



Talk with Einstein



Ah, ready for some math, are we? Let's roll up our sleeves! Special relativity has a few core equations that capture its strange beauty. Here are the essentials:

1. Time Dilation

When you're moving close to the speed of light, time slows down for you compared to someone standing still. This phenomenon is captured by the time dilation formula:

$$\Delta t' = rac{\Delta t}{\sqrt{1-rac{v^2}{c^2}}}$$

- $\Delta t'$: The time interval measured by a moving observer (someone on the spaceship, for instance).
- Δt : The time interval measured by a stationary observer (someone on Earth).
- v: The speed of the moving observer (the spaceship's speed).
- c: The speed of light (approximately $3.0 imes10^8$ m/s).

This equation shows that as v gets closer to c, $\Delta t'$ becomes much larger than Δt , meaning time slows down for the moving observer.



Interactive Case Study





FinStart DevOps

By Michael L Lively 🞗

Ask FinStart a Question about DevOps

Provide a Question

Dialog Between Members

Choose a Topic

Write Some YAML

Mike Lively: "Thanks for bringing me up to speed, everyone! It sounds like we're covering a lot of bases with infrastructure monitoring. From the project lead side, I'd like to emphasize metrics specific to our AI models—things like prediction accuracy, drift, and even response times. Sara, can Azure Monitor handle these custom metrics alongside the usual resource metrics?"

Sara Dawson: "Absolutely, Mike. Azure Monitor is flexible enough to capture custom metrics, and with Application Insights, we can get granular with monitoring model usage and latency. We're setting up alerts on resource thresholds and error rates, but we can also add AI-specific metrics as you mentioned."

Alex Silva: "I can definitely help with that. For tracking accuracy and drift, I'll set up logs to capture key model performance data. I can feed those into our monitoring <u>pipeline</u> so we get notified if performance dips."

Mike Lively: "That's great, Alex. Real-time insights into accuracy and drift are essential, especially as clients depend on us for fast, reliable insights. James, do you think these metrics will support your strategy for optimizing the AI models?"

Dr. James Lee: "Absolutely. Monitoring model-specific metrics like drift allows us to proactively respond to shifts in the data that could impact recommendations. Plus, we can set up anomaly detection to catch deviations in these metrics and get alerts if they go outside normal ranges."

"\$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.js
"contentVersion": "1.0.0.0",

```
"resources": [
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{
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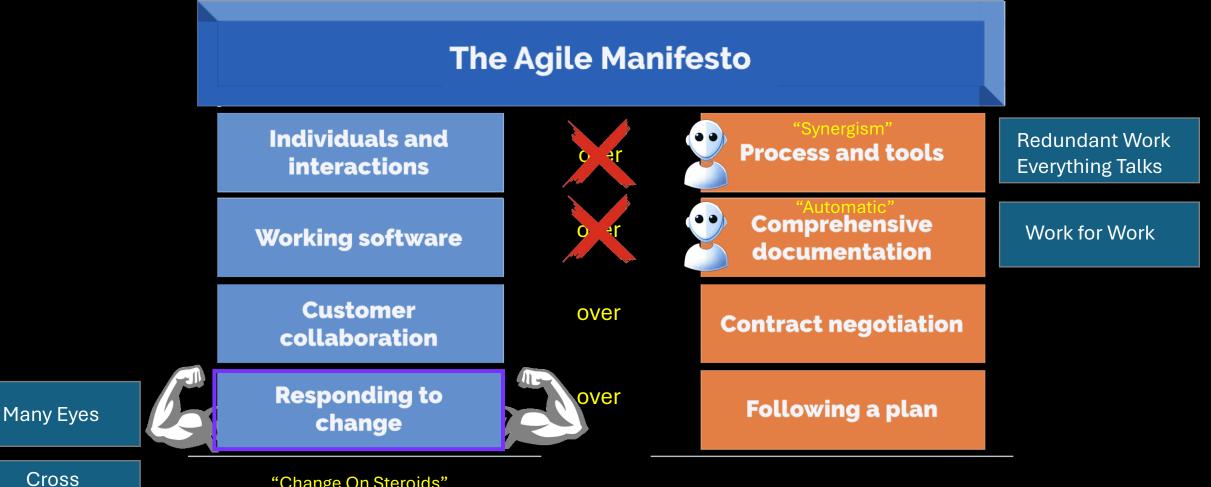
"type": "Microsoft.Storage/storageAccounts",

"apiVersion": "2019-06-01",

"name": "[variables('storageAccountName')]",



Al's Effect on the Agile Manifesto



Functional

"Change On Steroids"

Sam Altman: Can't wait to see the first billion-dollar business just made up of an Agentic Workforce.

Elon Musk: People will not work unless they want to!

Universal Income

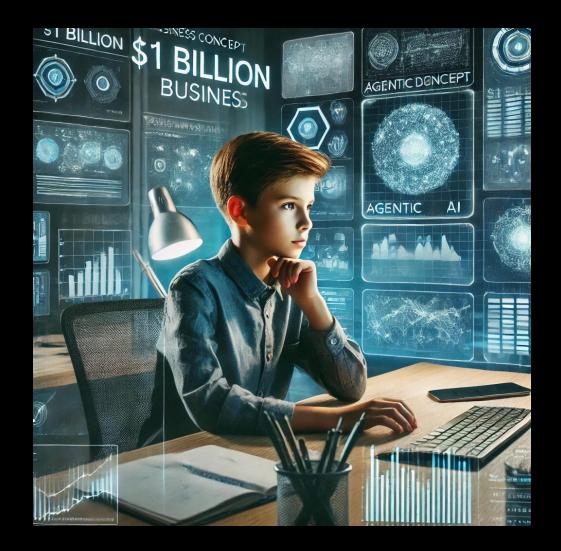


Democratization

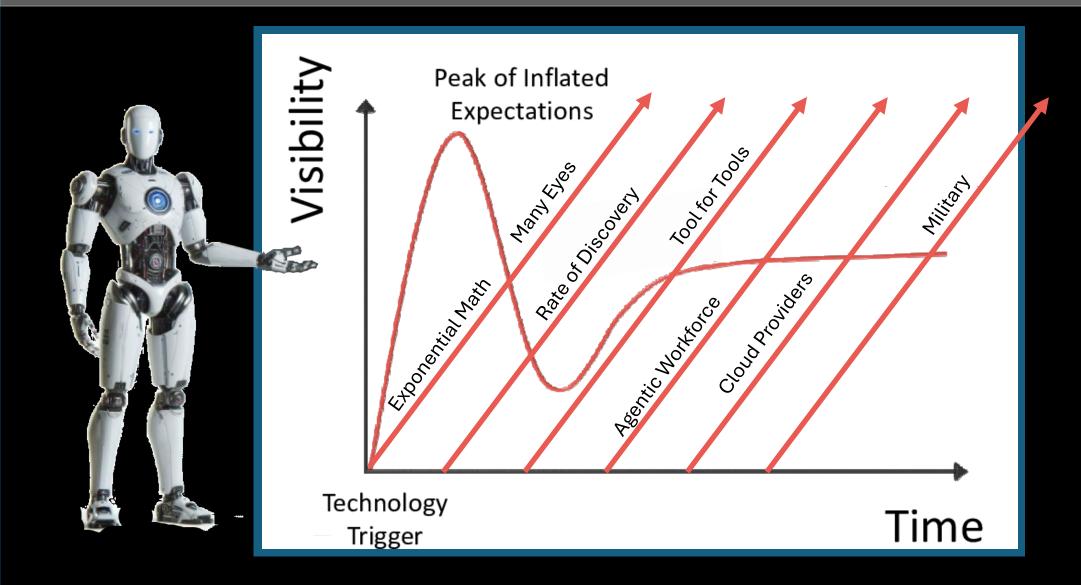




"12-Year-Old" Effect



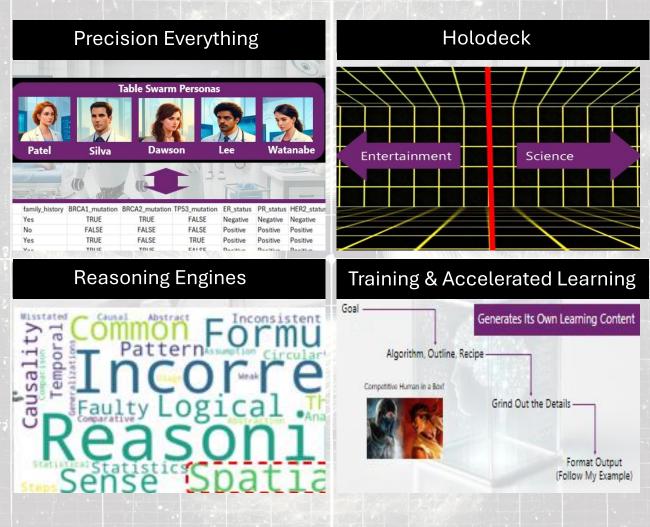
Gartner Hype Curve





QuantumAl







Mike's Tip#3: Beef up Your LinkedIn!

The Resume is Dead



Rise of Precision Work (Gig Economy)

Short-term, flexible, freelance work

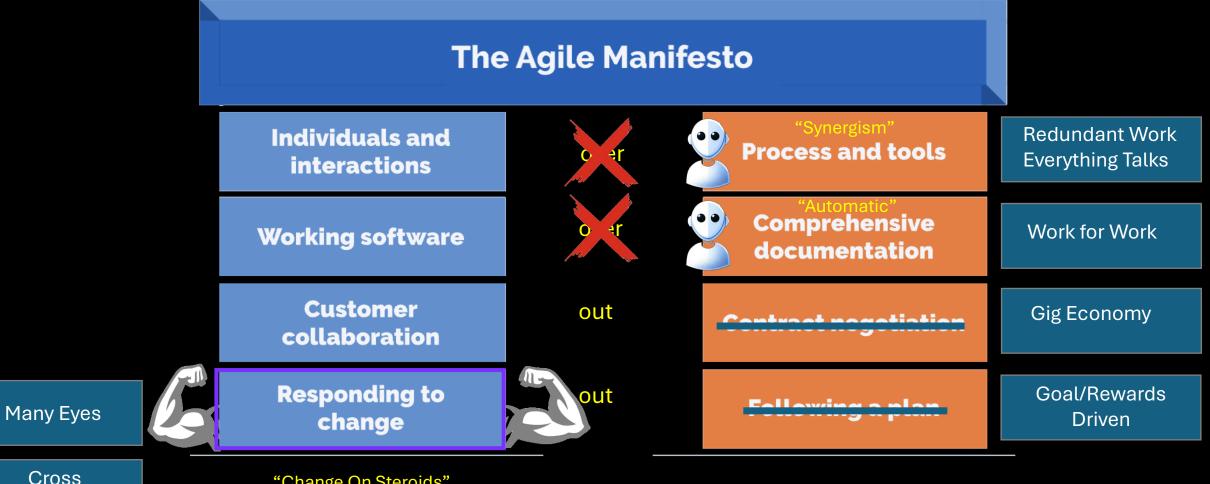
Facilitated by digital platforms

Work is Portfolio AI driven Env

Efficient Talent Management



Agile on Steroids

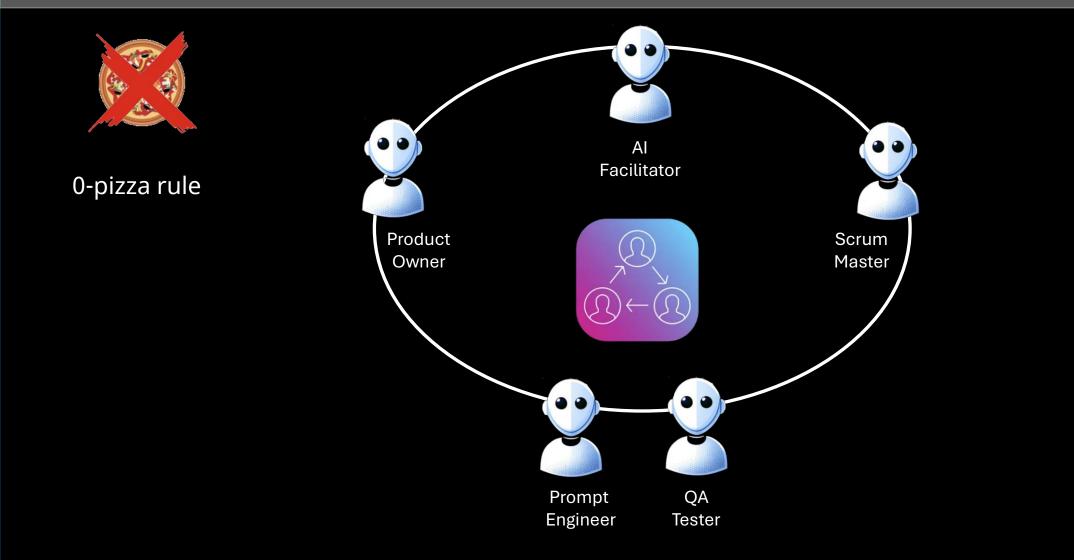


Functional

"Change On Steroids"



Zero Pizza Agentic Workforce





Mike's Tip#4: Master Timeboxed Learning

Goal

ARTIFICIAL INTELLIGENCE

Generates Its Own Learning Content

Algorithm, Outline, Recipe

Competitive Human in a Box!



Grind Out the Details —

Format Output (Follow My Example)



The Universal Translator is Here!



Exponential increase in Knowledge, Explosion in Efficiency, and Inevitable Volatility.

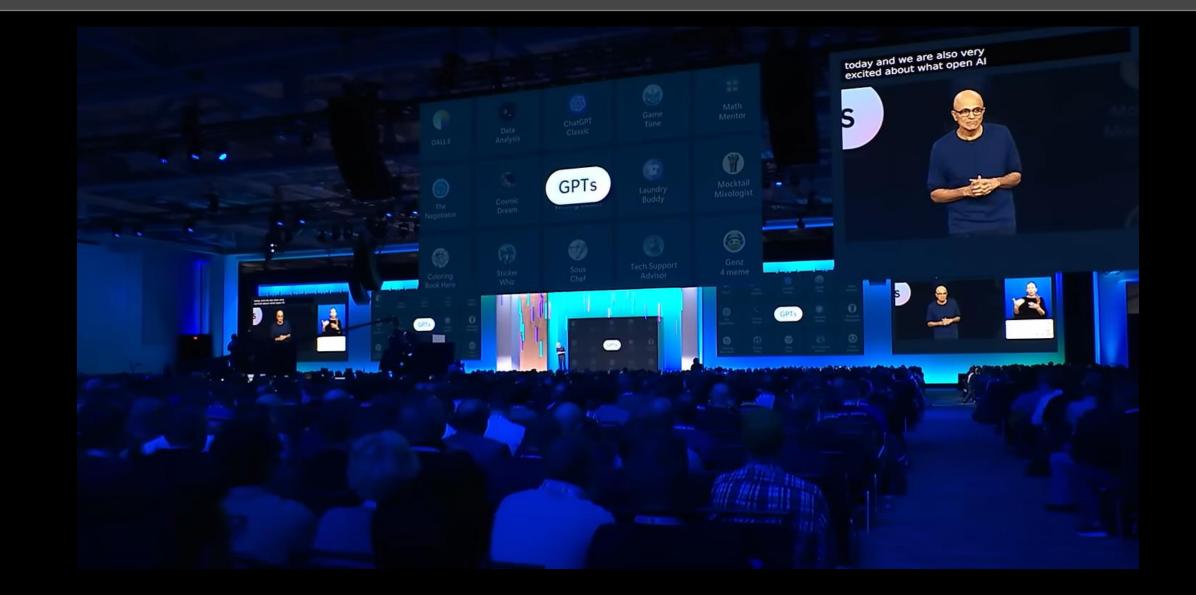


The Agentic Workforce

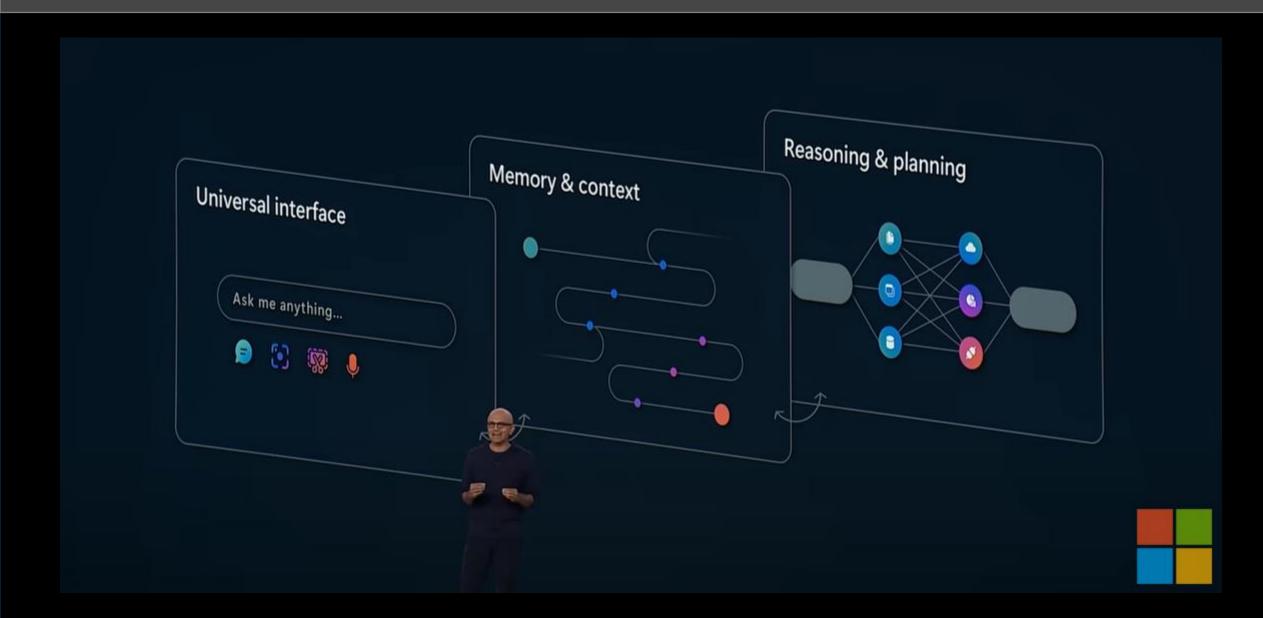




The Agentic Workforce

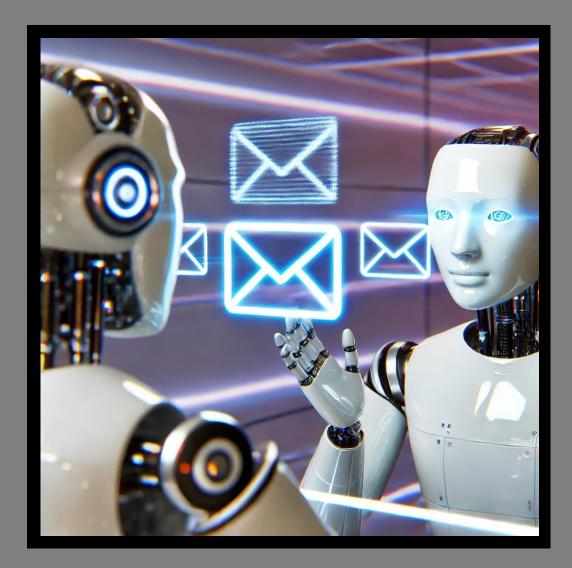


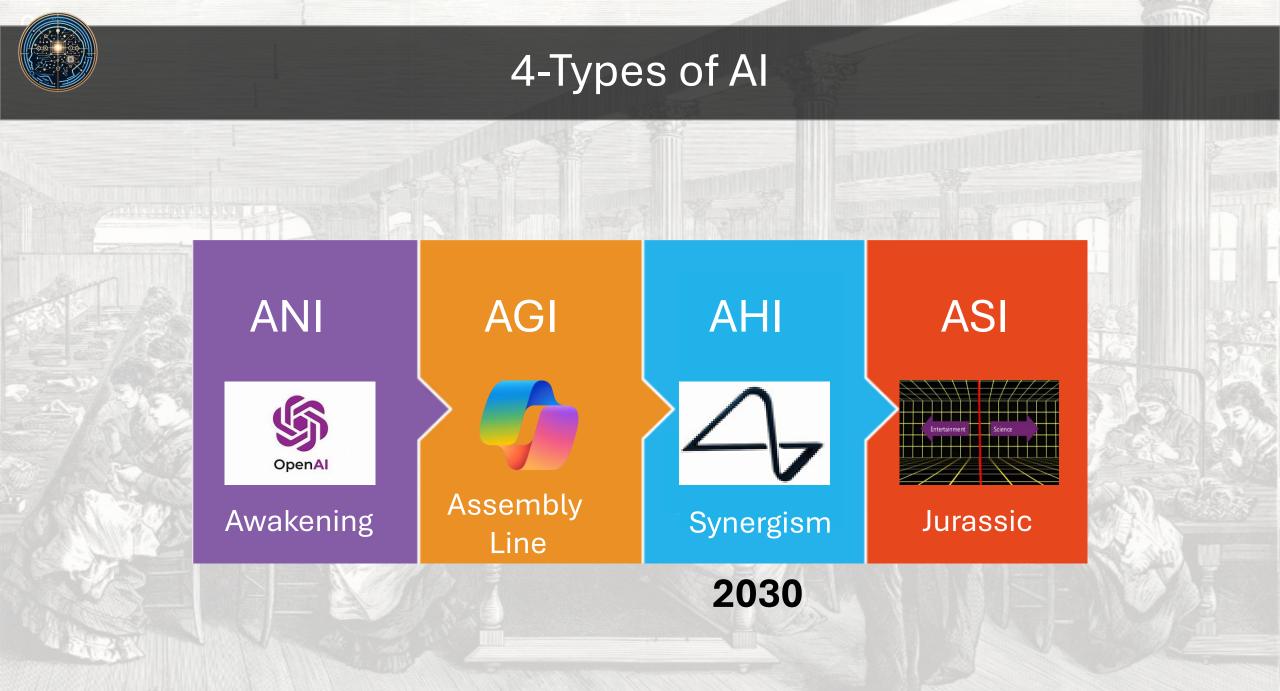
The Agentic Workforce

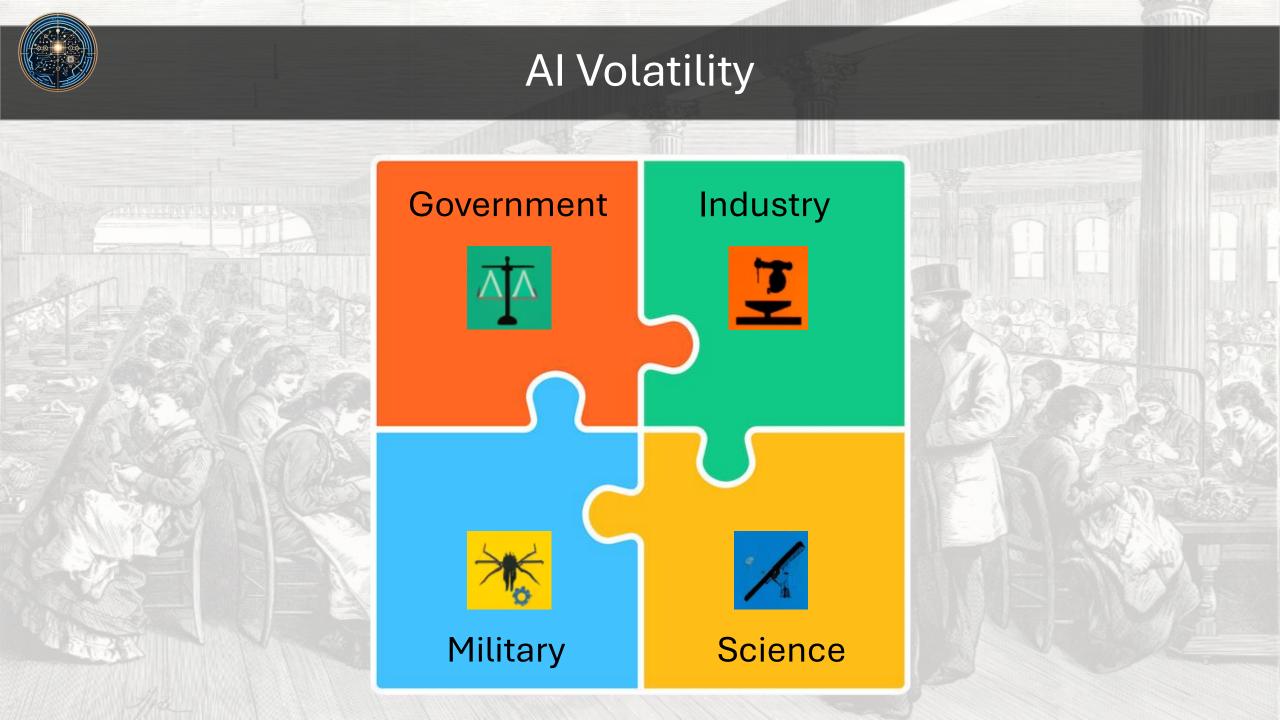


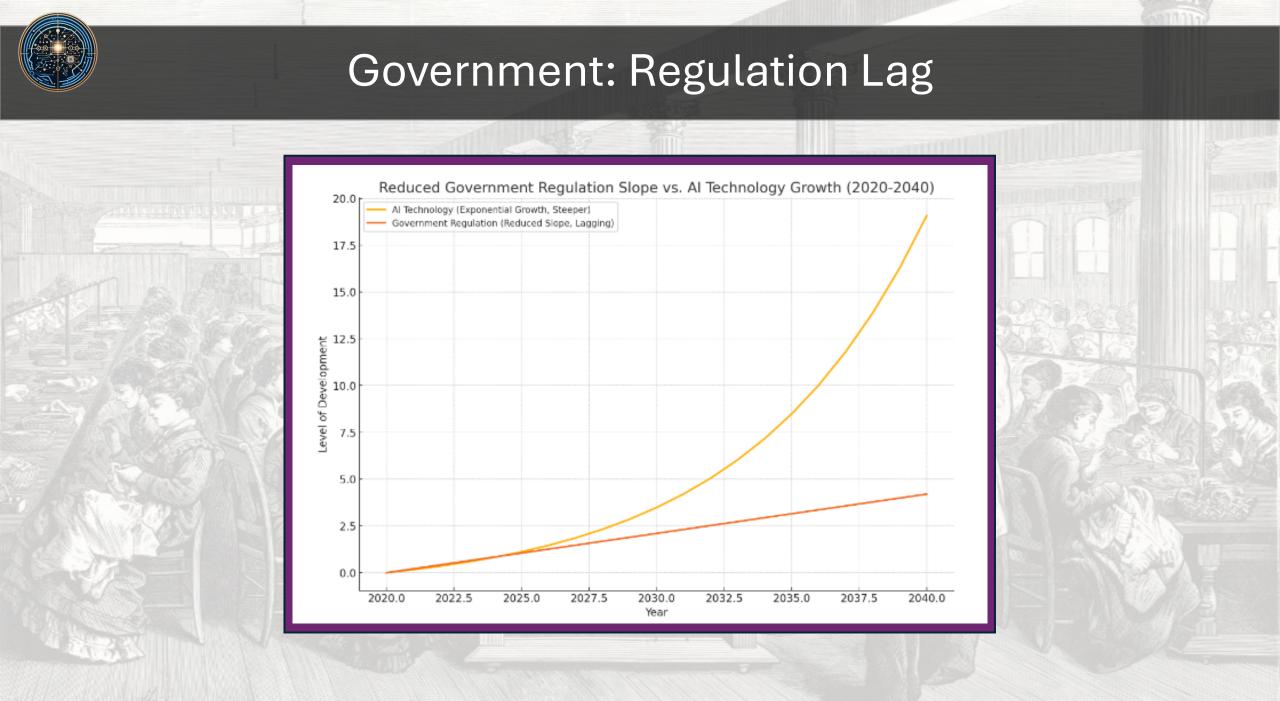


Email Paradox









Industry: Stargate





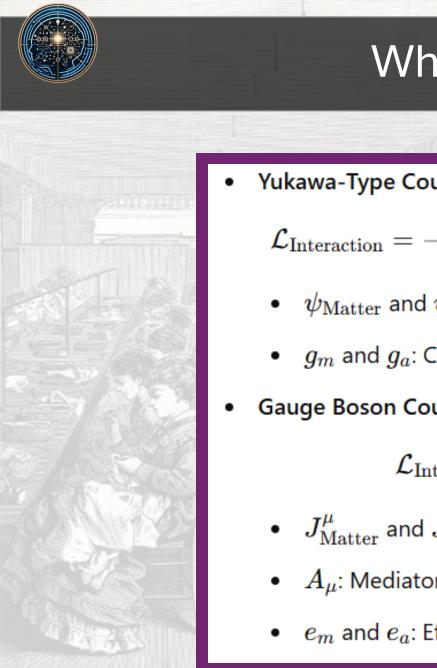
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Science: 1000 Years of Discovery in 10

If you are alive now, don't die!







Who does Al think God Is?

Yukawa-Type Couplings (for scalar mediator):

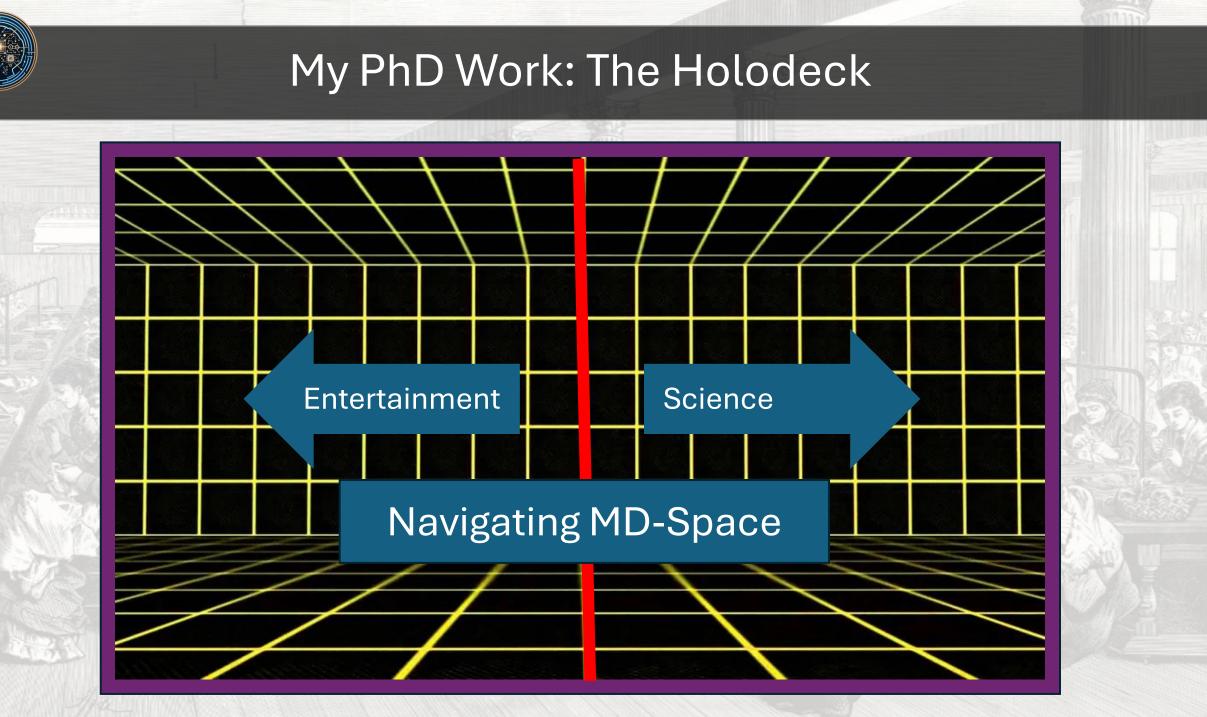
 $\mathcal{L}_{ ext{Interaction}} = -g_m ar{\psi}_{ ext{Matter}} \psi_{ ext{Matter}} \Phi - g_a ar{\psi}_{ ext{Antimatter}} \psi_{ ext{Antimatter}} \Phi + ext{h.c.}$

- $\psi_{
 m Matter}$ and $\psi_{
 m Antimatter}$: Fermion fields in each sector.
- g_m and g_a : Coupling constants.
- Gauge Boson Couplings (for vector mediator):

$${\cal L}_{
m Interaction} = -e_m J^\mu_{
m Matter} A_\mu - e_a J^\mu_{
m Antimatter} A_\mu$$

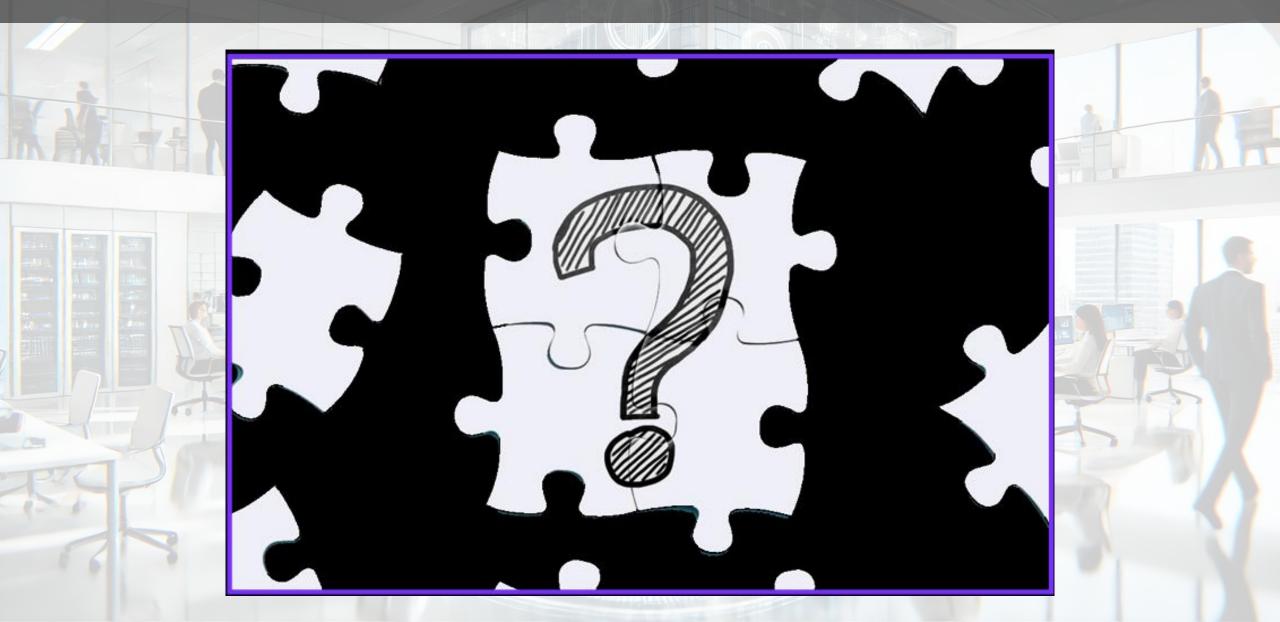
- J^{μ}_{Matter} and $J^{\mu}_{\text{Antimatter}}$: Current densities.
- A_{μ} : Mediator vector field.
- e_m and e_a : Effective charges.

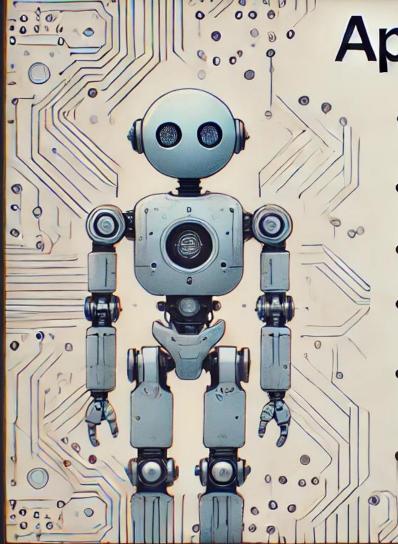
$${\cal L}_{
m Kinetic\ Mixing} = -rac{\epsilon}{2}F^{\mu
u}F'_{\mu
u}$$





Questions





Appendix

Definitions & Glossary

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2030 Changing Roles in Software Development

Current Role	Redefined Role with AI	Average LOC (with AI & Prompt Engineering)	Agentic Potential (Yes/No)
Junior Developer	Prompt Engineer, Al-Assisted Developer	3,000 - 5,000 LOC	Yes
Mid-Level Developer	AI Developer, Solution Architect	8,000 - 10,000 LOC	Yes
Senior Developer / Lead Developer	System Architect, Al Collaborator	8,000 - 12,000 LOC	Yes (partially)
Architect / Engineering Manager	Al Strategist, System Designer	4,000 - 6,000 LOC	No
CTO / Chief Architect / Consultant	Al-driven Innovation Leader, Strategic Technology Advisor	2,000 - 4,000 LOC	No

2030 Changing Roles in Program Management

Management Roles:

Current Role	Redefined Role with AI	Agentic Potential (Yes/No)
Junior Program Manager	AI-Assisted Coordinator, Task Automator	Yes
Mid-Level Program Manager	AI-Driven Project Optimizer, Agile Facilitator	Yes
Senior Program Manager	AI-Supported Strategic Planner, Project Architect	Yes (partially)
Junior Scrum Master	AI-Assisted Scrum Facilitator, Task Automator	Yes
Mid-Level Scrum Master	AI-Enhanced Agile Coach, Workflow Optimizer	Yes (partially)
Senior Scrum Master	Agile Architect, AI-Supported Team Strategist	No
Software Project Manager	AI-Enhanced Project Coordinator, Workflow Automator	Yes
Senior Software Project Manager	AI-Supported Project Leader, Strategic Decision Maker	No



The Moses Effect (Attention is all you need!)

Moses was there with the Lord forty days and forty nights without eating bread or drinking water. And he wrote on the tablets the words of the covenant-the Ten Commandments. When Moses came down from Mount Sinai with the two tablets of the covenant law in his hands, he was not aware that his face was radiant because he had spoken with the Lord. When Aaron and all the Israelites saw Moses, his face was radiant, and they were afraid to come near him. But Moses called to them; so Aaron and all the leaders of the community came back to him, and he spoke to them. Afterward all the Israelites came near him, and he gave them all the commands the Lord had given him on Mount Sinai.

The Moses Effect (Mirror Universe Framework!)

• Yukawa-Type Couplings (for scalar mediator):

 $\mathcal{L}_{ ext{Interaction}} = -g_m ar{\psi}_{ ext{Matter}} \psi_{ ext{Matter}} \Phi - g_a ar{\psi}_{ ext{Antimatter}} \psi_{ ext{Antimatter}} \Phi + ext{h.c.}$

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$${\cal L}_{
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u}F'_{\mu
u}$$





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UP NEXT:

TRACK 1: WAYS OF WORKING, RM 1410

EXPERIMENTING WITH GENAI TO CREATE VALUE IN THE PRODUCT LIFECYCLE - WHAT WORKS? -JOHN KITSON

TRACK 2: AI FOR TODAY/TOMORROW, RM 3240

AI: CYBERSECURITY FRIEND OR FOE? -DAVE HATTER

TRACK 3: PEOPLE, PROCESS, TECHNOLOGY, RM 3265

TOO MANY PROJECTS, TOO LITTLE SPACE -<u>VERNON STULTZ WITH DON CHINERY</u>

SUMMIT 2024 SURVEY



PDU ID: CO43TJDSJ8 PDU TYPE: POWER SKILLS GO TO PMI.ORG FOR SUBMISSION