

FREEZE

Generative Al FUD to Master

Workshop Exercise: https://github.com/wiltjk/CodeFreeze2024.git

GenAl

Exciting or Frightening?



Tradition AI (we trust) vs. GenAI (we fear)



Which is a Dog?



Create an image depicting a car tire falling in love and eloping with a wagon wheel.

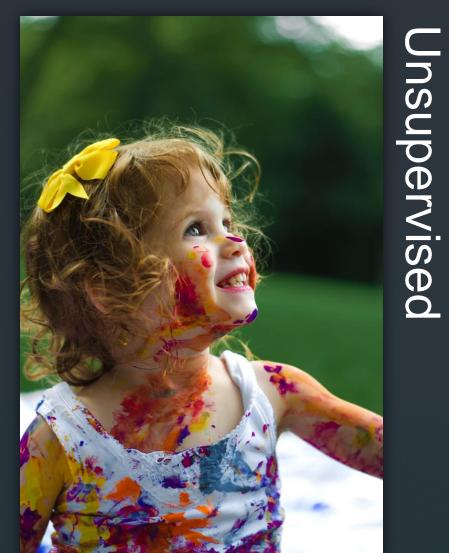


The Paul MacGrayne Test

What's a half of two thirds?

How does Artificial Intelligence (AI) Learn?





Supervised

LLM < GenAl = ANI << Hype < AGI << ASI

- Artificial Narrow Intelligence can only perform specific tasks that are bound within a limited (narrow) domain.
 - Generative AI refers to AI systems that can generate content from patterns mimics human intelligence, but <u>it's not</u>.
 - Large Language Models are specifically designed to understand, interpret, and generate human language.
- Artificial General Intelligence* represents AI with the ability to understand, learn, and apply intelligence across a wide range of tasks, at a level comparable to human intelligence.
- Artificial Super Intelligence* is when the machine is orders-of-magnitude beyond that of a single human and domains span the human catalog of knowledge plus.

So, Why all the FUD?

Fear Uncertainty Deception

- Misinformation, Disinformation & Hallucinations their ability to generate highly convincing text and content that may be false.
- Automation & Job Displacement they raise fears of widespread job displacement as they automate tasks previously performed by humans.
- Bias & Discrimination they can inadvertently learn and perpetuate biases present in their training data.
- Loss of Agency and Control as they become increasingly sophisticated,
 their ability to learn and adapt raises concerns about losing control over them.

The [unfortunate] Result

Dear Employees,

Out of an abundance of caution, we are restricting the use of generative AI tools such as ChatGPT, DALL-E, Bing AI, Google Bard, Anthrop\c Claude, etc. until we can evaluate their impact and exposure of our sensitive corporate data, information, and assets.

Once these tools have adequate safeguards to protect our sensitive information, adhere to corporate policy, and satisfy our senior leadership team (CISO & Legal), we will provide necessary guidance on their use.

Your Corporate Leadership



Delayed Adoption of an *Emerging Technology* out of an abundance of caution may have worked for...

- The Personal Computer (50M users in about 15 years)
- The Internet (50M users in about 5 years)
- The Cloud (50M users in about 10 years)

... but it won't for Generative AI (100M users in 2 months)





Beware the Carpetbaggers & Elixir Sales People

Create your own

Masters of GenAl



You'll need a **Strategy**

The plan to safely leverage GenAl must be...

- Simple (Gall's Law)
- Effective
- Timely

Tiger Team Led Innovation

Form a 3-6 person tiger-team – a group of "believers" with a strong drive, who are trusted by leadership to be responsible in their execution.

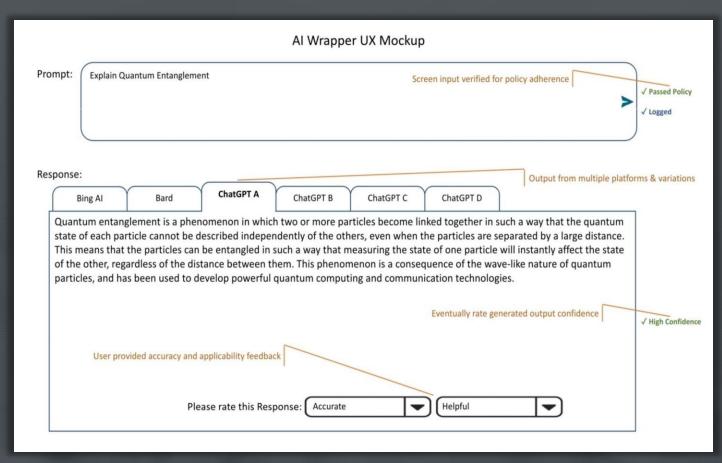
This team should not default to any traditional AI/ML resources. Pick from those who are willing to become *Masters*.

Unblock this team from interruptions & distractions — consider having them temporarily report to an executive leader (e.g., CTO).

This allows the team to be 100% focused on short-term deliverables.

Learn about GenAl by using GenAl (safely)

- Your Tiger Team ensuresSafety.
- Leverage all GenAl platforms to learn which work where.
- Understand the costs for each platform.
- Learn how others are using GenAl to purposefully apply it.
- Learn Prompt Engineering.



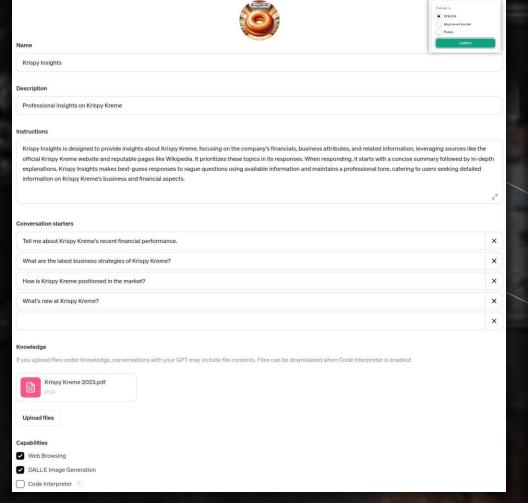
Prioritize Research Results → Applied Augmentation

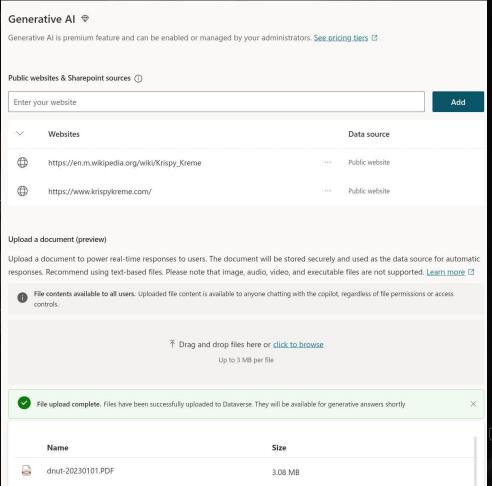
- Code Generation (30-50% increased productivity)
 - Understand & explain code
 - Write & clean-up code
 - Convert code
- Decision Support via Insight Platforms
 - C-Suite Augmentation for Operational Excellence
 - Focusing on Art-of-the-Possible
 - Correlate Internal Data against External Influences
- Health Device Health via IoT measurements & patterns
 - Listen for anomalies
 - Predict behaviors

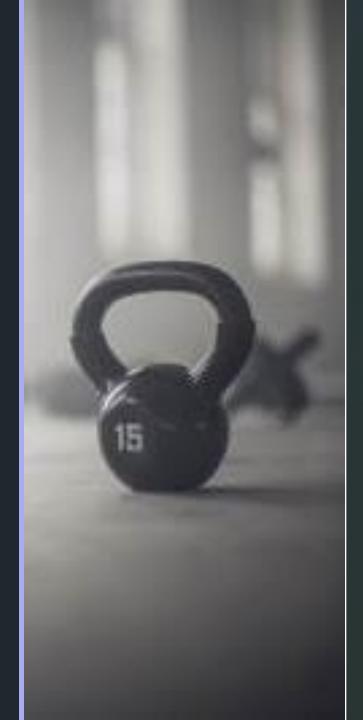
Build your own GenAl



Many Tools and APIs... use the 80/20 rule







Workshop Exercise

https://github.com/wiltjk/CodeFreeze2024.git

Please evaluate my code. Find any errors.
 Rewrite it to be without error.

 This code is to demonstrate how GenAl can optimize code. So, please rewrite it to be super fast and concise.



Remember, the Tractor didn't replace the Farmer, however,
Farmers with tractors did replace those without.

References

Generative Al (GenAl) – A Primer

The Tractor, Farmer, and Generative Al

Outmaneuvering AI: Cultivating Skills That Make Algorithms Scratch Their Head