How I feel while Prompt Engineering!

The Art of Writing Effective Prompt for Gen AI

Hands-On workshop on to understand AI's history that led to Gen AI.

Practicing how to write effective prompts and avoid pitfalls.

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What I actually look like.

Welcome to Our Workshop

Building Hands on Practical Experience with Prompt Engineering (Mini)

Speaker Introduction

Your speaker is an expert in AI and digital transformation with 31+ years of professional experience in consulting, c-suite, and startups.

Workshop Purpose

The goal of workshop is to describe the evolution of AI that led to its explosive growth. Showing you a fun and immersive way to engage with it and benefit.

Importance of AI Today

AI is not just a trend; it's a transformative force that is changing how we work and interact.

Engagement and Interaction

Feel free to chime in with questions and observations as we go through the workshop.

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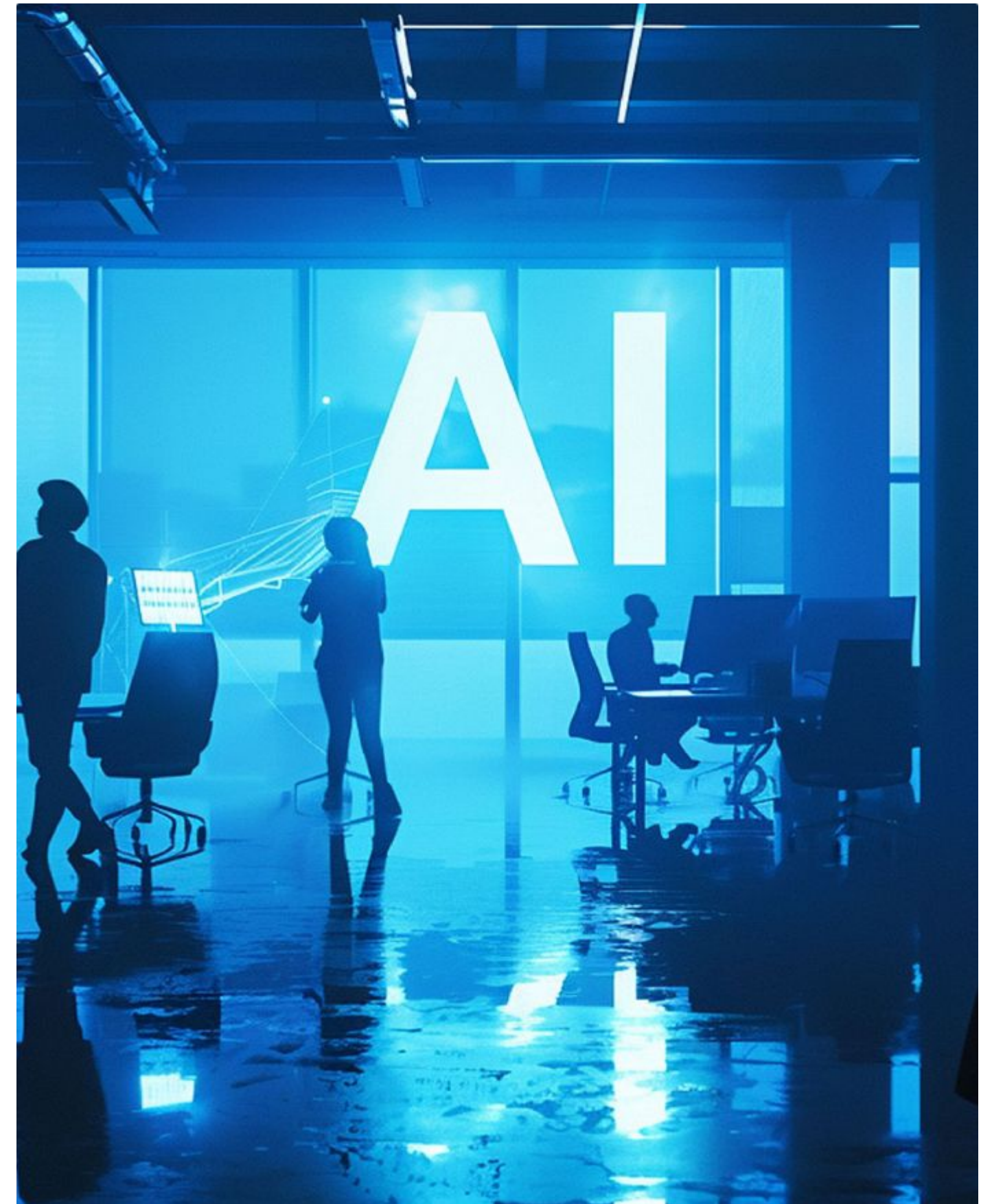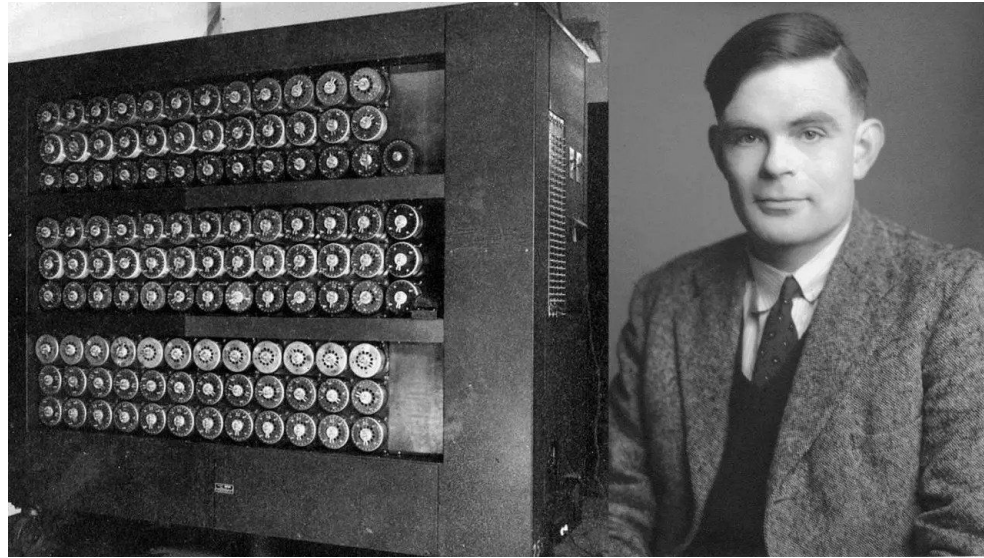
The Evolution of AI

Tracing the Journey of Artificial Intelligence

Origins of AI

AI concepts trace back to Turing, who proposed early rules for machine intelligence.

Rule-Based Systems

Initial AI systems were rule-based, relying on predefined algorithms to solve problems.

Machine Learning Emergence

The evolution of AI saw the introduction of machine learning, allowing systems to learn from data.

Deep Learning Revolution

Deep learning techniques emerged, enabling AI to process vast amounts of unstructured data effectively.

Generative AI Explosion

Since 2022, generative AI has gained prominence, creating content and solutions autonomously.

The Evolution of AI

Tracing the Journey of Artificial Intelligence
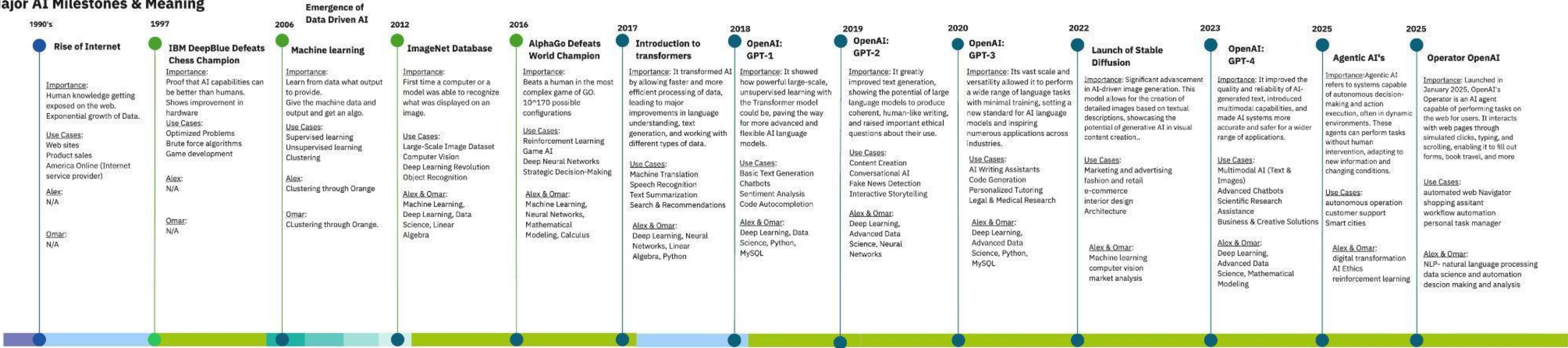
Major AI Milestones & Meaning

1990's	1997	2006 Emergence of Data Driven AI	2012	2016	2017	2018	2019	2020	2022	2023	2025	2025
Rise of Internet	**IBM DeepBlue Defeats Chess Champion**	**Machine learning**	**ImageNet Database**	**AlphaGo Defeats World Champion**	**Introduction to transformers**	**OpenAI: GPT-1**	**OpenAI: GPT-2**	**OpenAI: GPT-3**	**Launch of Stable Diffusion**	**OpenAI: GPT-4**	**Agentic AI's**	**Operator OpenAI**

Rise of Internet — 1990's
Importance: Human knowledge getting exposed on the web. Exponential growth of Data.
Use Cases: Web sites, Product sales, America Online (Internet service provider)
Alex: N/A
Omar: N/A

IBM DeepBlue Defeats Chess Champion — 1997
Importance: Proof that AI capabilities can be better than humans. Shows improvement in hardware
Use Cases: Optimized Problems, Brute force algorithms, Game development
Alex: N/A
Omar: N/A

Machine learning — 2006 (Emergence of Data Driven AI)
Importance: Learn from data what output to provide. Give the machine data and output and get an algo.
Use Cases: Supervised learning, Unsupervised learning, Clustering
Alex: Clustering through Orange
Omar: CLustering through Orange.

ImageNet Database — 2012
Importance: First time a computer or a model was able to recognize what was displayed on an image.
Use Cases: Large-Scale Image Dataset, Computer Vision, Deep Learning Revolution, Object Recognition
Alex & Omar: Machine Learning, Deep Learning, Data Science, Linear Algebra

AlphaGo Defeats World Champion — 2016
Importance: Beats a human in the most complex game of GO. 10^170 possible configurations
Use Cases: Reinforcement Learning, Game AI, Deep Neural Networks, Strategic Decision-Making
Alex & Omar: Machine Learning, Neural Networks, Mathematical Modeling, Calculus

Introduction to transformers — 2017
Importance: It transformed AI by allowing faster and more efficient processing of data, leading to major improvements in language understanding, text generation, and working with different types of data.
Use Cases: Machine Translation, Speech Recognition, Text Summarization, Search & Recommendations
Alex & Omar: Deep Learning, Neural Networks, Linear Algebra, Python

OpenAI: GPT-1 — 2018
Importance: It showed how powerful large-scale, unsupervised learning with the Transformer model could be, paving the way for more advanced and flexible AI language models.
Use Cases: Basic Text Generation, Chatbots, Sentiment Analysis, Code Autocompletion
Alex & Omar: Deep Learning, Data Science, Python, MySQL

OpenAI: GPT-2 — 2019
Importance: It greatly improved text generation, showing the potential of large language models to produce coherent, human-like writing, and raised important ethical questions about their use.
Use Cases: Content Creation, Conversational AI, Fake News Detection, Interactive Storytelling
Alex & Omar: Deep Learning, Advanced Data Science, Neural Networks

OpenAI: GPT-3 — 2020
Importance: Its vast scale and versatility allowed it to perform a wide range of language tasks with minimal training, setting a new standard for AI language models and inspiring numerous applications across industries.
Use Cases: AI Writing Assistants, Code Generation, Personalized Tutoring, Legal & Medical Research
Alex & Omar: Deep Learning, Advanced Data Science, Python, MySQL

Launch of Stable Diffusion — 2022
Importance: Significant advancement in AI-driven image generation. This model allows for the creation of detailed images based on textual descriptions, showcasing the potential of generative AI in visual content creation..
Use Cases: Marketing and advertising, fashion and retail, e-commerce, interior design, Architecture
Alex & Omar: Machine learning, computer vision, market analysis

OpenAI: GPT-4 — 2023
Importance: It improved the quality and reliability of AI-generated text, introduced multimodal capabilities, and made AI systems more accurate and safer for a wider range of applications.
Use Cases: Multimodal AI (Text & Images), Advanced Chatbots, Scientific Research Assistance, Business & Creative Solutions
Alex & Omar: Deep Learning, Advanced Data Science, Mathematical Modeling

Agentic AI's — 2025
Importance: Agentic AI refers to systems capable of autonomous decision-making and action execution, often in dynamic environments. These agents can perform tasks without human intervention, adapting to new information and changing conditions.
Use Cases: autonomous operation, customer support, Smart cities
Alex & Omar: digital transformation, AI Ethics, reinforcement learning

Operator OpenAI — 2025
Importance: Launched in January 2025, OpenAI's Operator is an AI agent capable of performing tasks on the web for users. It interacts with web pages through simulated clicks, typing, and scrolling, enabling it to fill out forms, book travel, and more
Use Cases: automated web Navigator shopping assistant, workflow automation, personal task manager
Alex & Omar: NLP- natural language processing, data science and automation, descion making and analysis

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Transformative Changes in AI Landscape

Understanding the catalysts for rapid AI progress. Why all this urgency now?

https://youtu.be/LPZh9BOjkQs?si=MNys201tv6Va9-2

- **Open-source breakthroughs**

  Recent advancements in large language models and vision models have revolutionized AI capabilities.

- **Enhanced computing power**

  The increase in computing power has enabled the training of more complex models, driving innovation.

- **Abundant data availability**

  The exponential growth of data has provided a rich resource for AI development and training.

- **Accessible APIs for developers**

  APIs have made it easier for developers to integrate advanced AI functionalities into their applications.

- **Increased business awareness**

  Businesses are now more aware of how AI can create significant value and improve operations.

- **Exponential user adoption**

  ChatGPT reached 100M users in just 2 months, showcasing the rapid

  acceptance of AI technologies.

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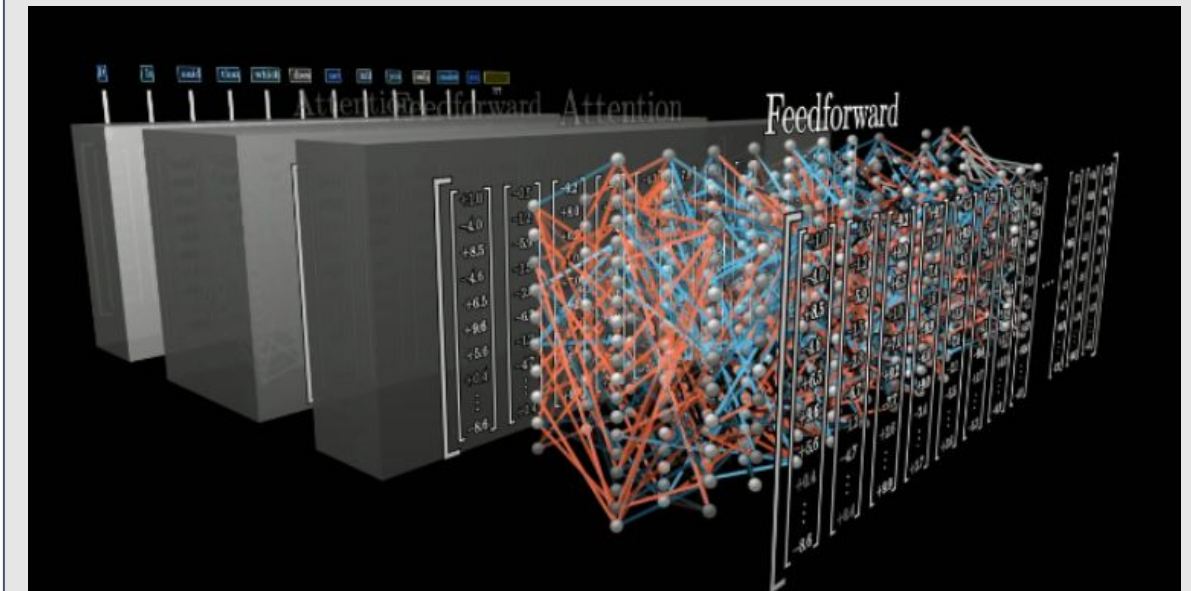
Understanding the Diffusion of Innovation

Exploring Adopter Categories and Reactions to Tech

Innovators
(The Pioneers)
Innovators are the first individuals to adopt new technology, often seeking out innovations.

Early Adopters
(The Trendsetters)
Early adopters embrace new ideas early but with a greater degree of risk tolerance compared to the majority.

Early Majority
(The Pragmatists)
The early majority are deliberate in their adoption, waiting until a new idea is proven.

Late Majority
(The Skeptics)
The late majority are skeptical and adopt innovations only after the majority has tried them.

Laggards
(The Traditionalists)
Laggards are the last to adopt an innovation, often resistant to change and prefer traditional methods.

Market share %

100

75

50

25

0

Innovators
2.5 %

Early Adopters
13.5 %

Early Majority
34 %

Late Majority
34 %

Laggards
16 %

Source: https://en.wikipedia.org/wiki/Diffusion_of_innovations

Human Reactions to Technology
Responses to new technology can include fear, skepticism, and excitement, influencing adoption.

Identifying Your Position
Understanding where you and your team fit on the curve can guide tech adoption strategies.

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The Rapid Evolution of Work Dynamics

Understanding the Impact of AI on Job Roles

AI is redefining roles, not just tasks

Artificial Intelligence is shifting how we approach job responsibilities, focusing on enhancing roles rather than simple task automation.

Impact across various sectors

Industries like Marketing, Finance, Customer Service, and Operations are witnessing significant changes due to AI integration.

Predicted dominance of AI-native workflows

In just two years, workflows designed around AI capabilities are expected to become the standard in workplaces.

Quote on the importance of adaptation

"Those who ignore AI may still have a job—just not the same one." This emphasizes the need for adaptation in an AI-driven landscape.

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Prompt Engineering – The New Power Skill

Understanding the Significance of AI Instructions
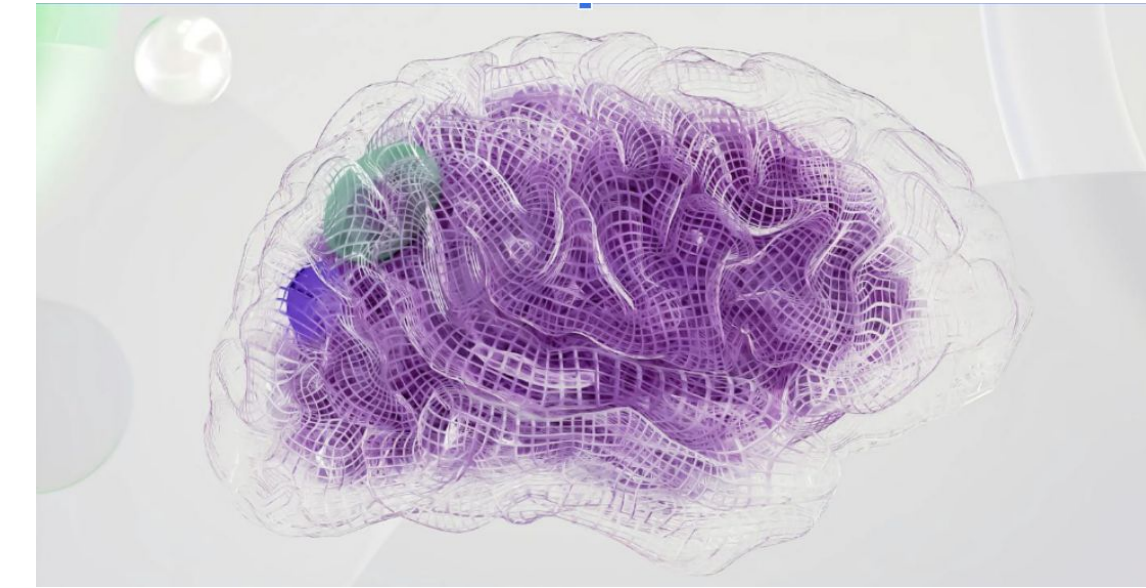
■ **What is Prompt Engineering?**

It involves creating precise and effective instructions for AI systems to understand and execute tasks.

■ **Importance in Various Roles**

Every professional can benefit from mastering prompt engineering, enhancing communication with AI tools.

■ **Strategic, Not Just Technical**

It's about developing a strategic mindset to leverage AI capabilities rather than just technical skills.

■ **Enhancing Productivity**

Effective prompts can significantly increase productivity by reducing misunderstandings in AI interactions.

■ **Driving Innovation**

Prompt engineering fosters innovation by enabling users to explore new possibilities with AI.

■ **Improving AI Outcomes**

Well-crafted prompts lead to better outputs from AI, ensuring that the technology serves user needs effectively.

■ **Building Collaboration Skills**

It enhances teamwork as professionals learn to collaborate with AI, blending human creativity with machine efficiency.

Prompt Engineering – Hands On

These exercises are for a ChatGPT Plus subscription - You should be able to adapt them to other GenAI models.

■ **I. How to 10x the quality of output?**
**(Persona, Context, Tone, Constraints)**

Effective use of GenAI has 2 sides of the coin: 1) The training data and the reinforcement learning and 2) The quality of the prompt to quiz the model

■ **II. Content generation and the importance of your tone**

How to generate content for marketing, emails, blogs, and similar. How to extend the model by training it on your own tone of voice and experience.

■ **III. Having fun with Image Generation (DALL-E)**

Overview of the image generation model available within ChatGPT and playing with sample prompts to create amazing graphics, stories, and even comics. Using GenIDs.

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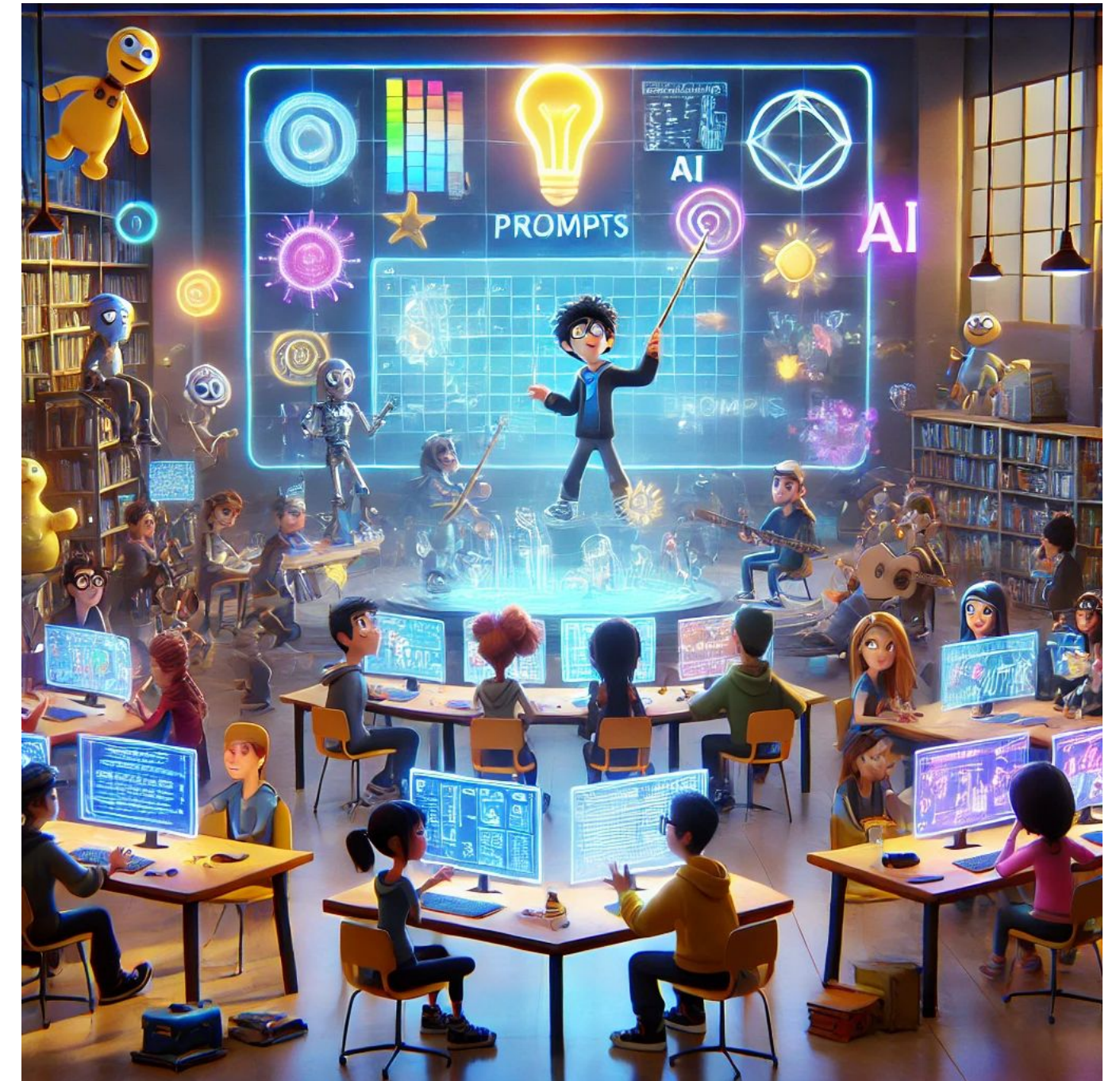
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Thank You
Q&A

- **Open Floor for Questions**

- **Contact Us**

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