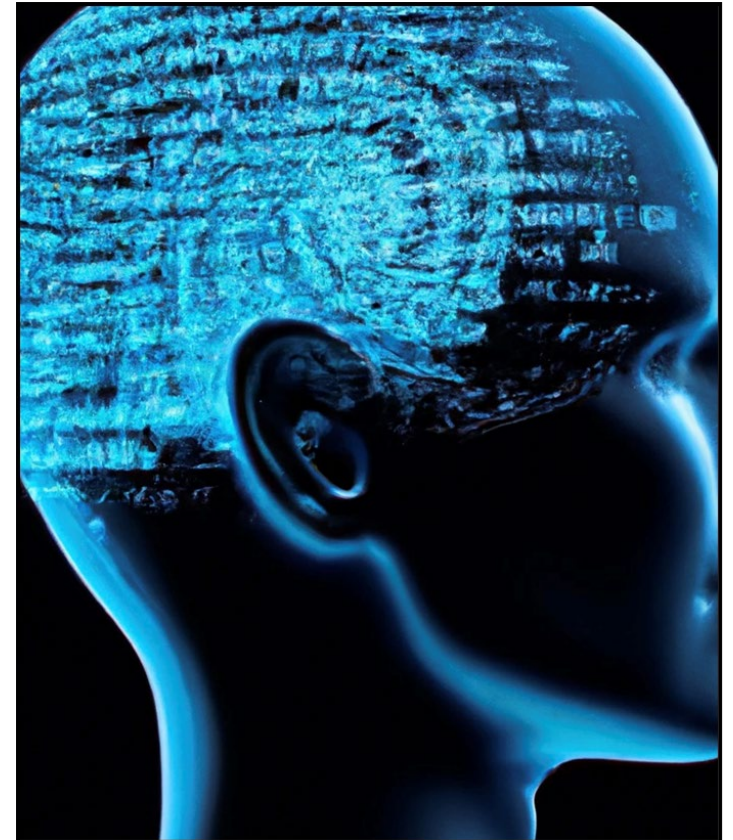# emcee

A Closer Look at the Top Generative AI Players
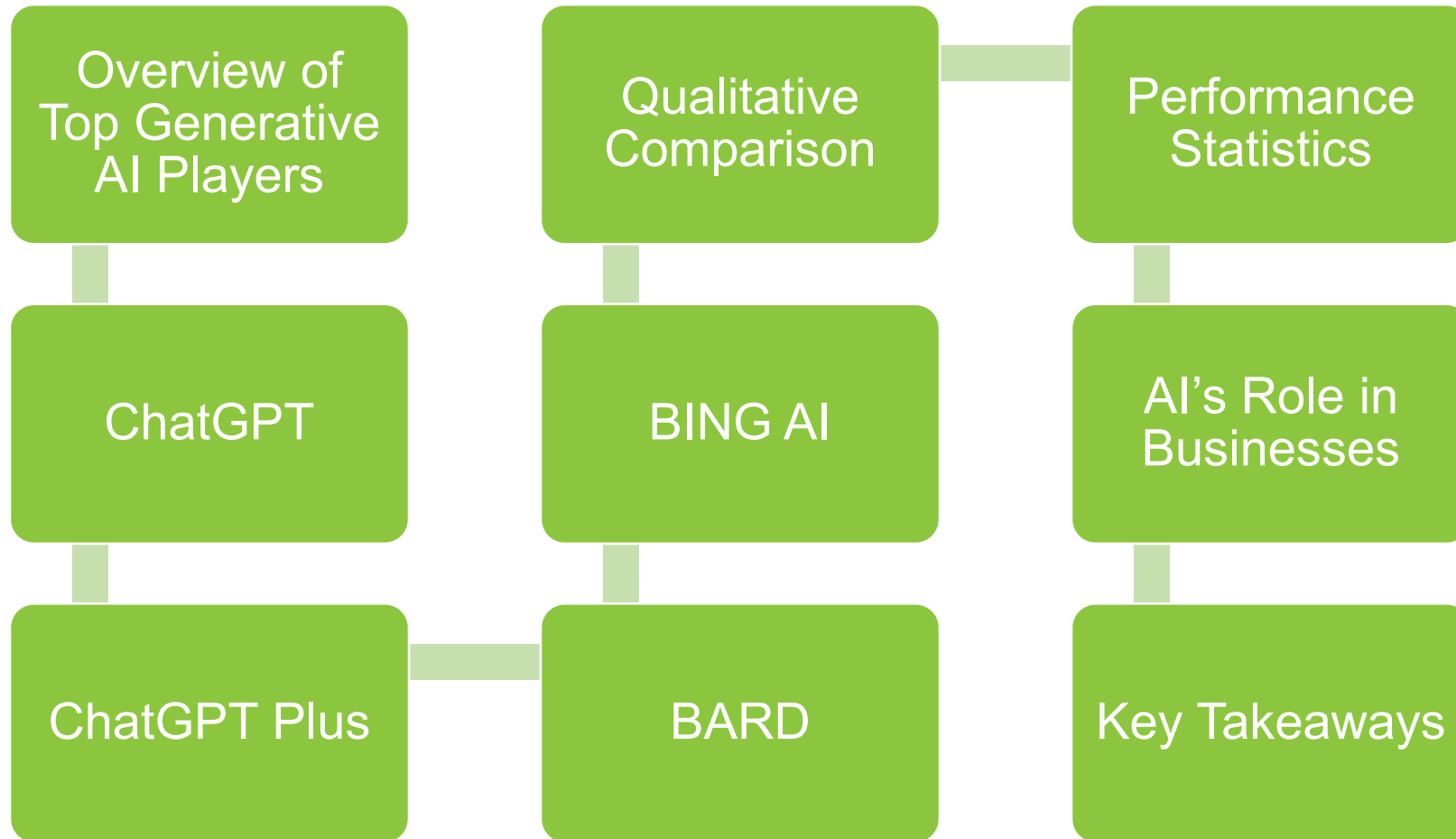
Christiana Till and Art Robbins

Scope of This Document

- **Top AI companies** are constantly integrating and competing to enhance their software

- Everyday companies are **developing new features and capabilities** to their AI software

- This document will breakdown the top generative AI companies and discuss their recent improvements, future plans, efficiency and **how AI can support the business world**

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Content

Overview of Top Generative AI Players	Qualitative Comparison	Performance Statistics
ChatGPT	BING AI	AI's Role in Businesses
ChatGPT Plus	BARD	Key Takeaways

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Overview of Top Generative AI Players

Software	Company	Year Founded
ChatGPT	Open AI	2022
GPT 4	Open AI	2023
BARD	Google	2023
BING AI	Microsoft	2023

Application Software
Healthcare
Retail
Education
Financial

In this presentation we will be focusing on the foundation software layer.

Foundation Software
ChatGPT
ChatGPT Plus
BARD
BING AI

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ChatGPT

ATTRIBUTES

COMPANY AND DATE FOUNDED	DATA	SPECIAL FEATURES	PRICING AND AVAILABILITY	FUTURE PLANS	EFFICIENCY	MAIN USE
Open AI, November 2023	Program is trained on vast amounts of information from the internet: books, websites, news, articles	Human AI trainers provided the model with conversations in which they played both parts (reinforcement learning)	Free	ChatGPT plugins will allow it to talk to external apps: Zapier, Wolfram, and code interpreters	Model will sometimes guess at what your question means which leads to unintended responses	Writing emails, job applications, essays, code, and excel formulas
	Language model was fine tuned through reinforcement learning	GPT-3.5	App available on IPhone		Model size: 175 billion parameters	Increasing productivity
					Efficient for generating code snippets for a variety of programming languages	Powerful tool for developers
					Efficient for troubleshooting, researching, and generating technical documentation	

CHATGPT

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ChatGPT Plus

ATTRIBUTES

COMPANY AND DATE FOUNDED	DATA	SPECIAL FEATURES	PRICING AND AVAILABILITY	FUTURE PLANS	EFFICIENCY	MAIN USE
Open AI, March 2023	Trained on web corpus data, same as ChatGPT	Can preform complex tasks based on image and textual inputs	$20/month subscription with ChatGPT	GPT-4 plus humanoid robots, combines LLMs (GPT-4) with a robot body and AI voice	Can process up to 25,000 words of text	Writing emails, job applications, essays, code, and excel formulas
	Language model was fine tuned through reinforcement learning	GPT-4			Multimodal model that accepts both text and images	Increasing productivity
		Shows sparks of AGI (AI that can do everything a human can do)			40% more factual responses	Powerful tool for developers
		Can talk to external tools, understand beliefs, intentions and navigate emotional nuanced situations			Decreased models tendency to respond to requests for disallowed content by 82%	Converting hand drawn website mockups into real website codes, read tax code and calculate your taxes
		Invents new languages, makes complex animations from scratch, enhanced transfer learning capabilities			Significantly safer than its last generation (ChatGPT, GPT-3.5)	

CHATGPT PLUS

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BARD

ATTRIBUTES

COMPANY AND DATE FOUNDED	DATA	SPECIAL FEATURES	PRICING AND AVAILABILITY	FUTURE PLANS	EFFICIENCY	MAIN USE
Google, March 2023	Uses lightweight version of Google's language model for dialogue application	Platform has most updated information	Free	Integration of BARD into Gmail	Efficient in prompts given by any users from education, business background, research papers or personal use	Creating letters, musical pieces, scripts, poems and code including various text formats
	Draws information from the web to respond	Translates over 200 languages	Install Google Bard AI Chrome extension, allows for conversational responses and the usual Google results	Google's search bar could evolve into a more command-line like interface for users to perform various tasks	Supports languages such as Korean, Japanese and English	Conversational, creative generative AI
	Training model based on Google	Answers questions comprehensively or informatively	Available in 190 countries			
		Answers open-ended, strange or challenging questions				
		Ability to search for results in real time as the user types its prompts or questions				

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BING AI

ATTRIBUTES

COMPANY AND DATE FOUNDED	DATA	SPECIAL FEATURES	PRICING AND AVAILABILITY	FUTURE PLANS	EFFICIENCY	MAIN USE
Google, March 2023	Uses lightweight version of Google's language model for dialogue application	Platform has most updated information	Free	Integration of BARD into Gmail	Efficient in prompts given by any users from education, business background, research papers or personal use	Creating letters, musical pieces, scripts, poems and code including various text formats
	Draws information from the web to respond	Translates over 200 languages	Install Google Bard AI Chrome extension, allows for conversational responses and the usual Google results	Google's search bar could evolve into a more command-line like interface for users to perform various tasks	Supports languages such as Korean, Japanese and English	Conversational, creative generative AI
	Training model based on Google	Answers questions comprehensively or informatively	Available in 190 countries			
		Answers open-ended, strange or challenging questions				
		Ability to search for results in real time as the user types its prompts or questions				

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Qualitative Comparison

Attributes	ChatGPT	ChatGPT Plus	BARD	BING AI
Few Limitations				
Accurate Responses				
Ability to Produce Images				
Up to Date Data				
Citing Sources				
Versatility				
Response Time				
Availability				

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Performance Statistics

Stimulated Exams	GPT-4	GPT-3.5
Uniform Bar Exam	298/400	213/400
LSAT	163	149
SAT Math	700/800	590/800
AP Calculus BC	4	1
AP English Language and Composition	2	2

Both versions of GPT are unable to produce responses that include metaphors, irony or sarcasm.   When writing essays or responses, they are incapable of creating that "human touch" and therefore produced a low score in the English category.

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AI's Role in Businesses

Job Transformations:

- An Open AI study claims jobs with **higher educational requirements** and **higher incomes** are most affected by the arrival of GPT-4.

App Transformations:

- **Snapchat** unveiled the integration of **ChatGPT** that allows users to chat with in the bot called "my AI" in its app.

- **Be My Eyes**, an app for the visually impaired, will integrate **GPT-4**'s visual capabilities. Be My Eyes is the first to partner with GPT-4.

- **Microsoft** announced new AI features to its **Bing**, **Swiftkey**, **Skype**, and **Edge apps**. Microsoft is positioning AI as a "co-pilot" in these apps, to interact with humans and enhance productivity.

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Key Takeaways

- **Bing AI** and **BARD** use their company's search engine in combination with GPT-4 creating **faster** and **more current results**.

- **Bing AI** can **produce images** and use images as **inputs or outputs**.

- **Bing AI** and **BARD** have a big advantage since additionally they have access to a **search engine** which allows for access to **more parameters.**

- Although **ChatGPT** has first mover advantage, it is **not sustainable** against Microsoft and Google's investments in their own products.

- By **leveraging tools** at the foundation level, expect **sustained product development and growth** at the application level, which will **empower user experiences**.

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