



Navigating the Generative AI Landscape

Damian Janzi, Swisscom Ventures, 15 February 2023



Swisscom Ventures Overview

- Hybrid Fund Structure: 25% Swisscom and 75% Institutional Investors
- Investment Focus: DeepTech, Infrastructure and Cloud, Cybersecurity, Enterprise SaaS, FinTech, Sustainability, EdTech, Digital Health
- 600 MCHF Assets Under Management
- 86 Investments – 35 Exits – 4 IPOs
- Founded in 2007 – 16 FTEs
- 12'000 Jobs in Portfolio Companies incl. 4'300 in 46 Swiss Startups

Companies we've backed





Guiding question

**What has changed since November 30, 2022,
and what does it mean for startups?**

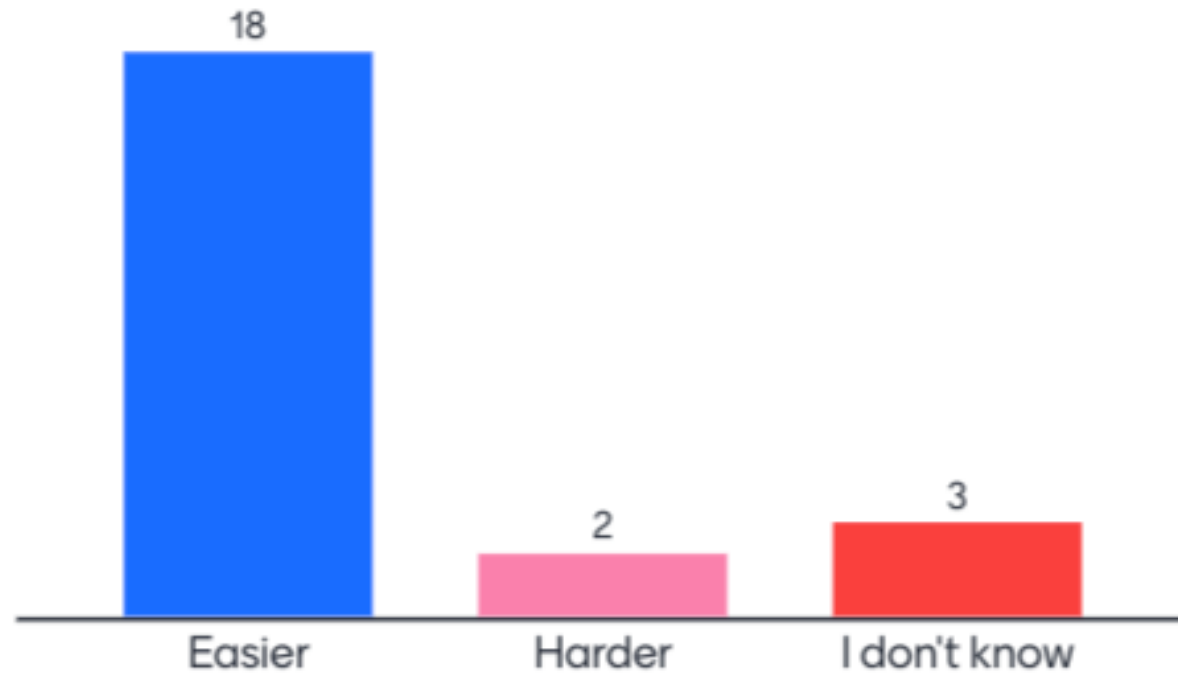
- Value creation and capture
- Competitive dynamics
- Fundraising



Has life as a founder become easier or harder as a result of GenAI?



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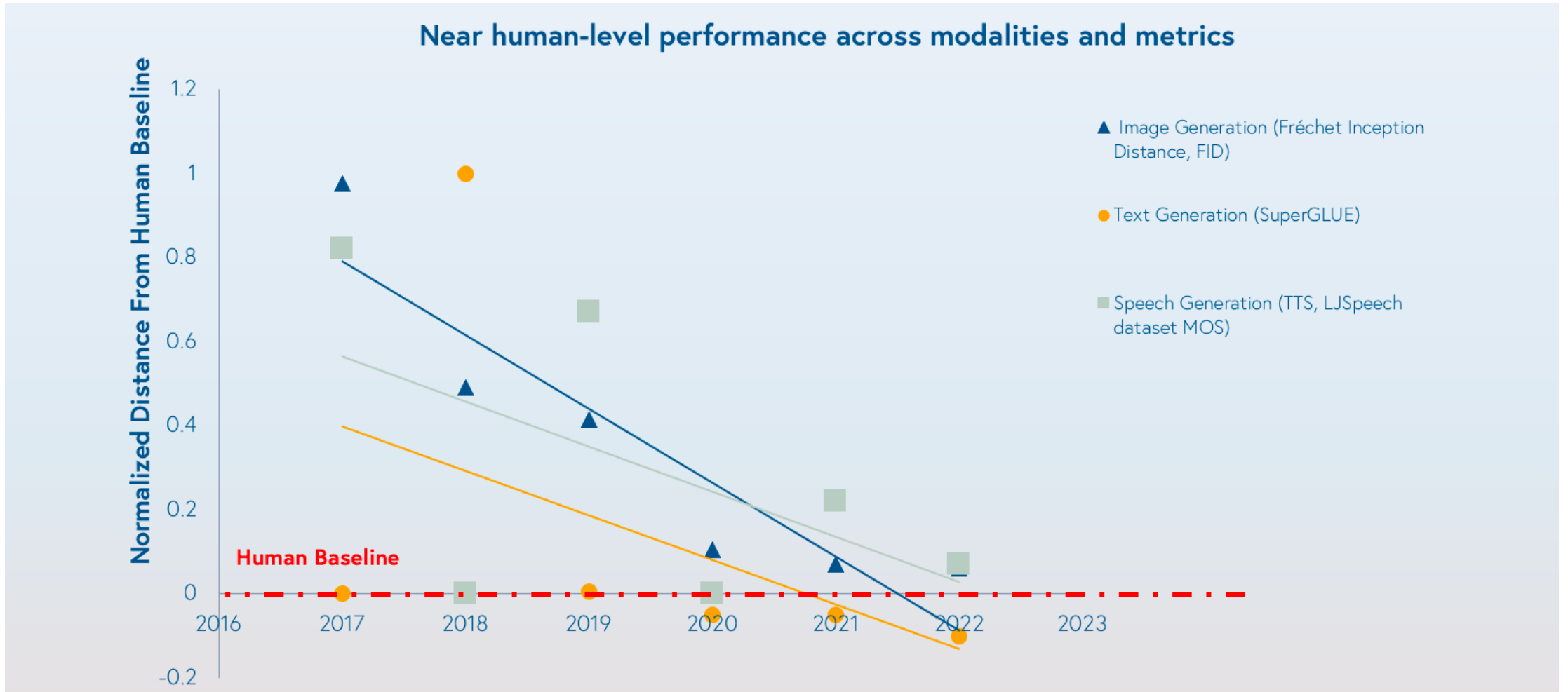
Guiding questions

**What has changed since November 30, 2022,
and what does it mean for my Startup?**

- **Value creation** and capture
- Competitive dynamics
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Generative AI is nearing or surpassing human baselines across various modalities.









```
// write a binary search algorithm
```

```
const binarySearch = (arr, target) => {
```

```
  let left = 0;
```

```
  let right = arr.length - 1;
```

```
  let middle = Math.floor((left + right) / 2);
```

```
  while (arr[middle] !== target && left <= right) {
```

```
    if (target < arr[middle]) {
```

```
      right = middle - 1;
```

```
    } else {
```

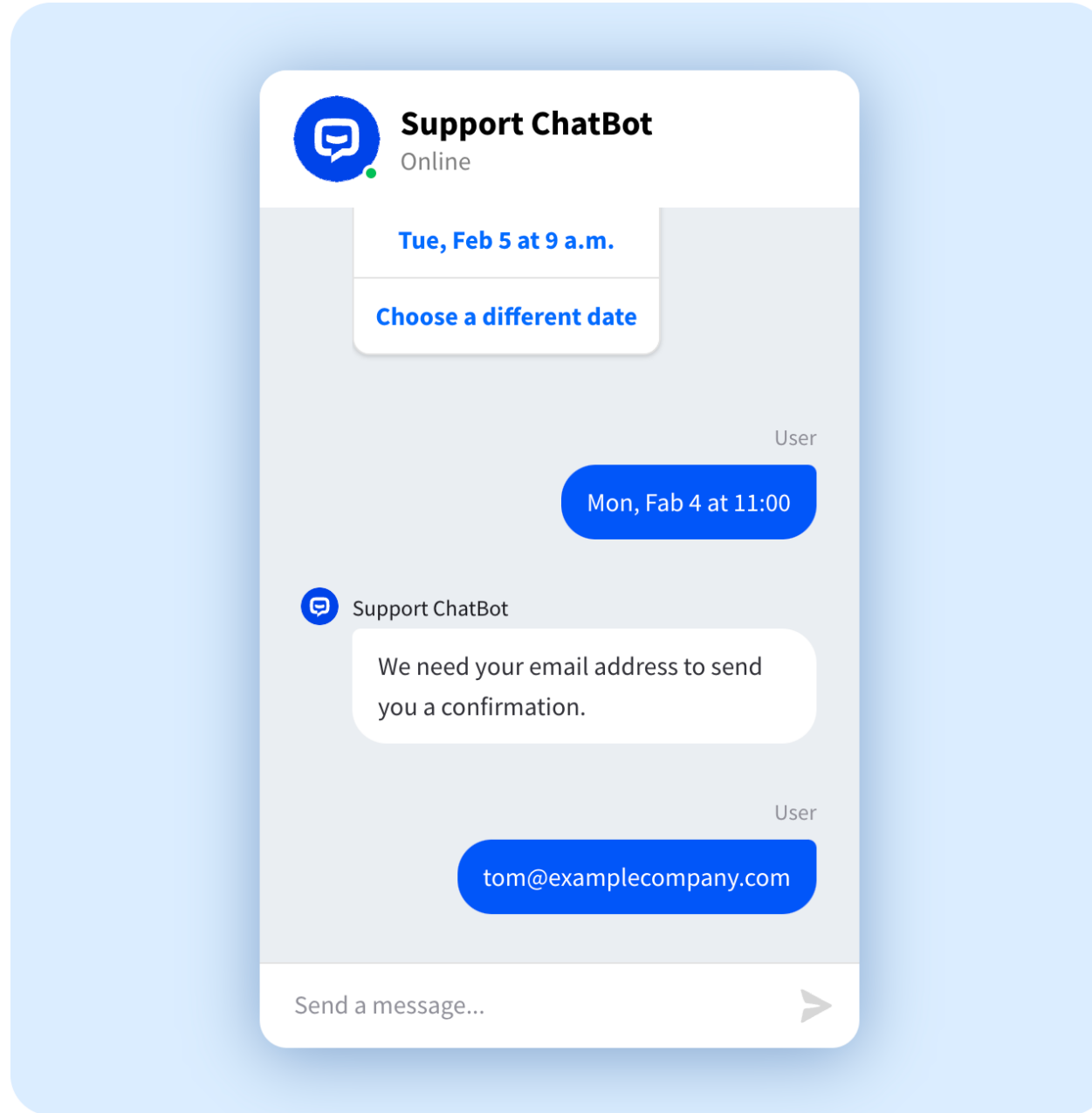
```
      left = middle + 1;
```

```
    }
```

```
    middle = Math.floor((left + right) / 2);
```

```
  }
```

```
  return arr[middle] === target ? middle : -1;
```





**Gen-AI creates
massive value on a
large scale.**



Gen-AI creates value on a much larger scale than traditional AI...

Generative AI

- Non-critical domains (e.g., writing, coding, etc.).
- Often surpassing human baselines in speed and accuracy
- Accessible to everyone

vs.

Traditional AI

- Critical domains (eg. driving, fraud detection, health care).
- Often below human baseline in accuracy due to edge-case sensitivity
- Accessibility limited by access to knowhow and training data

EXAMPLE



GitHub Copilot

- 80-90% of code is generic and similar across applications
- Can be completely automated

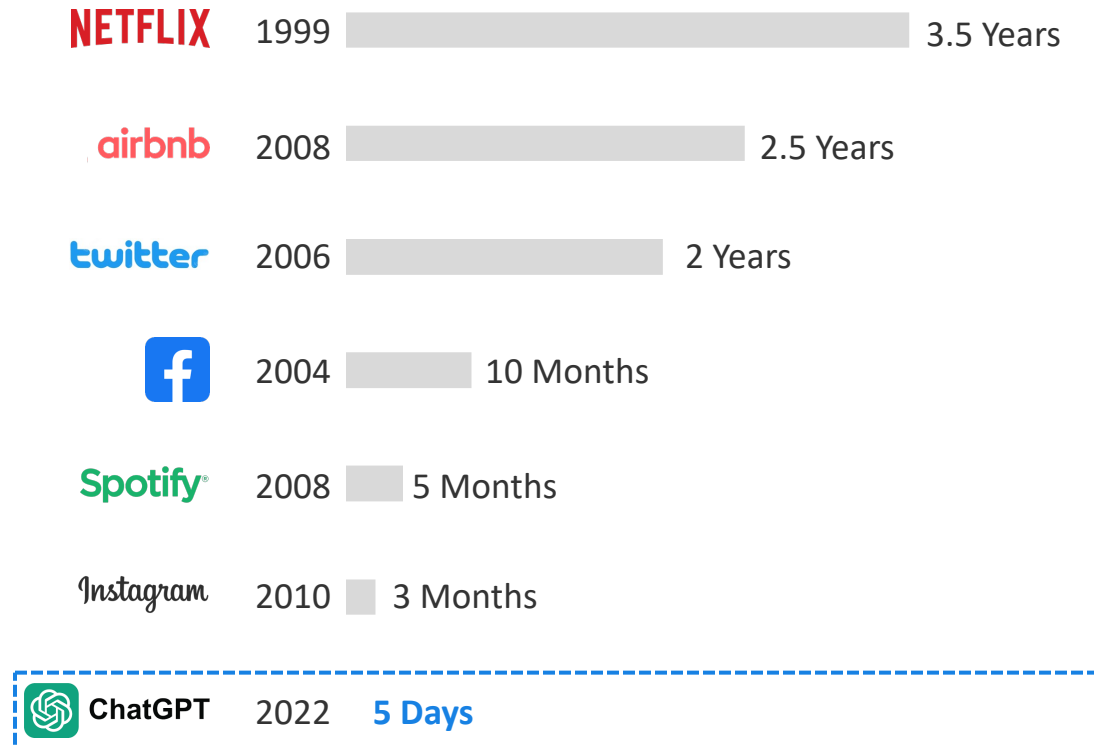


Resulting in 40% increase in developer productivity
~\$40k per dev and year



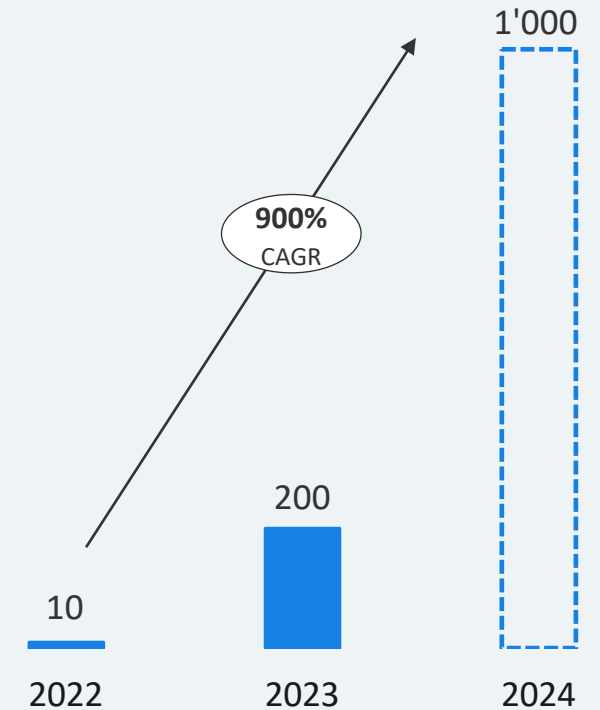
...and spreads incredibly fast, thanks also to generally decreasing adaption cycles...

Time to reach 1M users



Source: Statista

Revenue Projections of ChatGPT (\$M)

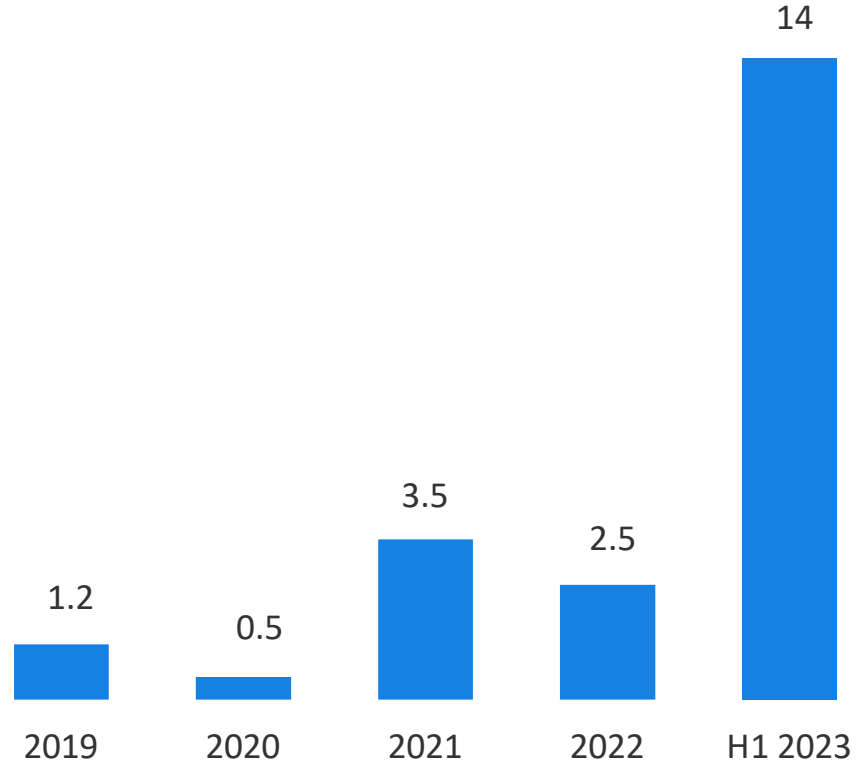


Source: OpenAI



...generating an investment frenzy.

Historic investments into Gen-AI (\$B)



Source: CB Insights

Key Deals

<p>ANTHROPIC Deal Size (\$M) 580 Sam Bankman-Fried Lead Investor</p>	<p>Jasper Deal Size (\$M) 140 INSIGHT PARTNERS Lead investor</p>	<p>Hugging Face Deal Size (\$M) 100 luxcapital Lead investor</p>
<p>OpenAI Deal Size (\$M) 1'000 Microsoft Acquirer/Investor</p>	<p>Generate: Deal Size (\$M) 370 ALTITUDE VENTURES Lead investor</p>	<p>scale .ai Deal Size (\$M) 370 DRAGONEER Lead investor</p>
<p>OBSERVE-AI Deal Size (\$M) 125 SoftBank Acquirer</p>	<p>anyscale Deal Size (\$M) 199 andreessen horowitz Lead investor</p>	<p>Insilico Medicine Deal Size (\$M) 255 WARBURG PINCUS Lead investor</p>

Source: Pitchbook



Guiding questions

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- Value creation and **capture**
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**The Lion's share of
the value is captured
by the consumer**



Prices are incredibly low...



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EXAMPLE



- 80-90% of code is generic and similar across applications
- Can be completely automated

Resulting in 40% increase in developer productivity
~\$40k per dev and year

Costs \$120 p.a.

Ersteller, Datum, Dokumentenname, C2 Internal

9



...and gross margins are much lower than in traditional SaaS

Tabnine server

GPU nodes (for every 1k users)

Provider	Text	Inference (for every 1k users)	Overall cluster monthly estimated cost* in USD
GCP	Minimal	a2-highgpu-1g	\$3500 (additional 1k users +\$2700)
GCP	Recommended	a2-highgpu-2g	\$6100 (additional 1k users +\$5400)
AWS	Minimal	1 * p3.2xlarge	\$3300 (additional 1k users +\$2500)
AWS	Recommended	2 * p3.2xlarge	\$5800 (additional 1k users +\$5000)
Azure	Minimal	Standard_NC24ads_A100_v4	\$4400 (additional 1k users +\$3500)
Azure	Recommended	2 * Standard_NC24ads_A100_v4	\$7740 (additional 1k users +\$7000)

\$6 per user per month to run inference vs. monthly revenues of ~\$15 -> 40% COGS on inference alone



Mainly driven by low price / high adoption pricing strategies of few large players

ChatGPT costs \$700,000 daily, maker may go bankrupt in 2024: Report

The report noted that even though CEO Sam Altman does not own equity in OpenAI, the company shifted from being a non-profit to profit way back



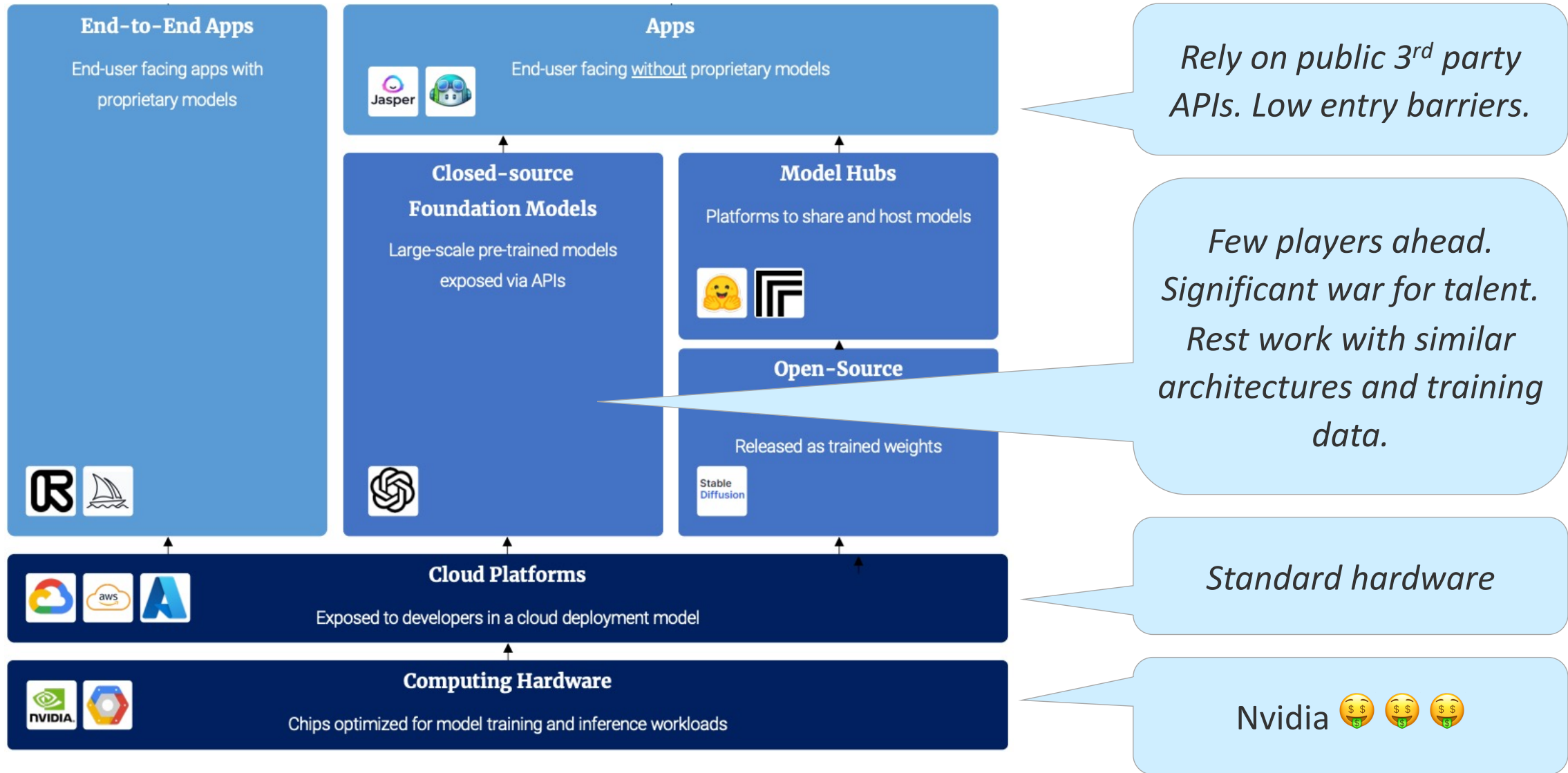
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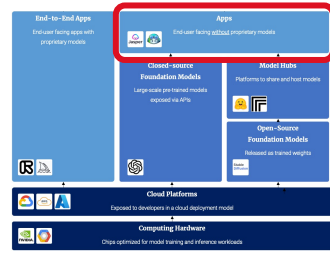


Let's take a step back. Not all GenAI companies are facing the same dynamics





Entry barriers to create software are decreasing rapidly due to increasingly sophisticated tool stack



Base models



Hosting



Finetuning



Integration / RAG

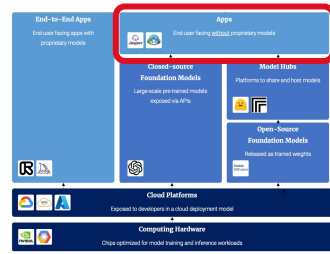


LowCode, PaaS, Dev support





Example: Personalized learning feedback, built in < 1 hour. Would have taken months prior to GPT



Current Score: 0 / 1 correct

Question: Which of the following sentences is written in the future tense?

- A. "I will go to the grocery store."
- B. "I went to the grocery store."
- C. "I am going to the grocery store."

C

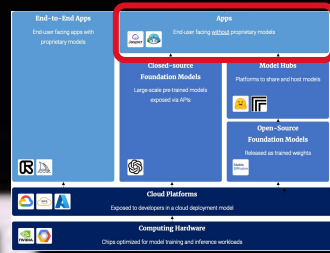
Ok, next.

- ✘ The correct sentence written in the future tense is A. I will go to the grocery store. This sentence uses the future tense verb 'will' to indicate a future action. Sentence C uses the present continuous tense 'am going' which indicates a present action. Remember to look for words like 'will' or 'going to' to identify the future tense.

Correct solution: A. I will go to the grocery store.



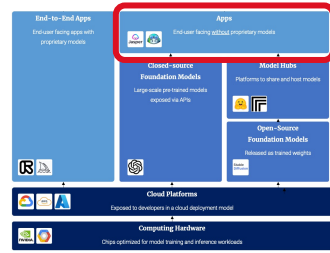
OPENAI DEVDAY



“OpenAI just killed 100s of startups by releasing GPTs”



GitHub Copilot killed 100s of startups by expanding their feature set



Copilot for Docs

March 22, 2023

PRODUCT

How would it feel to have an expert on hand at all times? We built a tool that uses relevant information from a project's documentation to answer questions or explain concepts.

Copilot for Pull Requests

March 22, 2023

PRODUCT

Pull requests are a central part of the GitHub user experience. Copilot for PRs brings the power of Copilot to the PR experience, to help you write better PR descriptions, and to help your team review and merge PRs faster.

Copilot for CLI

March 22, 2023

PRODUCT

Ever having trouble remembering that shell command or this obscure flag? Don't worry: we're building GitHub Copilot assistance right into your terminal

GitHub Copilot for *Your* Codebase

October 13, 2022

COMPLETED

We want to let Copilot see the code in your entire repo to make suggestions even better.

TestPilot

October 11, 2022

OPEN SOURCED

TestPilot helps you craft readable unit tests based on your code and documentation.

Copilot Voice

March 22, 2023

WAITLIST

Write code without the keyboard. Difficulty typing? Use your voice to code without spelling things out by talking with GitHub Copilot.



So, how can you differentiate within the software layer? There is no silver bullet



Play in niches

- Defensibility and stickiness by addressing very specific needs better than anyone else

Build proprietary data

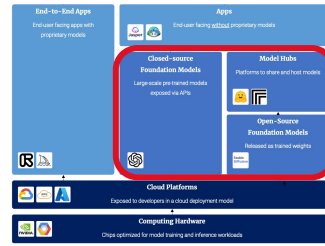
- Defensibility through proprietary data
 - Increase moats through RLHF
- > ***However not clear if this is sustainable***

Excel at usual SaaS moats

- Distribution & partnerships
- Ops (customer success, upselling, etc.)
- Create deep value beyond the GenAI part to increase stickiness (workflows, community etc.)



Competing in the foundational stack is a whole different game, driven by the war for attract talent and \$\$



\$0.5bn



\$0.4bn



Jonas Andriulis

Founder & CEO Aleph Alpha | Sovereignty in the AI era

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Experience



Founder and CEO

Aleph Alpha GmbH
2019 - Present · 5 yrs 2 mos
Heidelberg

Sovereignty in the AI era



Sr. AI R&D Eng. Manager

Apple
2016 - 2019 · 3 yrs

Exit to Apple

Machine Learning R&D and Prototyping at scale.



Founder and CEO

Pallas Ludens GmbH
2014 - 2016 · 2 yrs
Heidelberg

Pallas Ludens combines state-of-the art machine learning and computer vision with human-in-the-loop microtasks to solve vision problems for all industries.



Search



Arthur Mensch

Cofounder & CEO @ Mistral AI

Experience



Co-founder & CEO

Mistral AI · Permanent
May 2023 - Present · 10 mos
Paris, France



DeepMind

2 yrs 7 mos

• **Staff Research Scientist**

May 2023 - May 2023 · 1 mo
Paris, France

Large language modelling - multimodal models - retrieval

• **Senior Research Scientist**

May 2022 - Apr 2023 · 1 yr

Large language modelling - multimodal models - retrieval

• **Research scientist**

Nov 2020 - Apr 2022 · 1 yr 6 mos
Ville de Paris, Île-de-France, France

Deep learning - large language modelling - multimodal training



Search



Guillaume Lample

Cofounder & Chief Scientist @ Mistral AI

Experience



Co-founder & Chief Scientist

Mistral AI · Self-employed
May 2023 - Present · 10 mos



Facebook AI

6 yrs 5 mos

• **Research Scientist at Facebook AI Research**

Full-time
Jan 2020 - 2023 · 3 yrs 1 mo
Paris Area, France

• **PhD Student**

Sep 2016 - Jan 2020 · 3 yrs 5 mos



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To summarize, GenAI companies are faced with:

- Low value capture and margins
- Strong competition and threat of vertical integration by OpenAI etc.
- Rapid technological advancements



Successful fundraising requires answering of:

- Can you capture a significant share of created value?
- Can you build defensible moats that last 7-10 years?
- Who will buy you? And why?

Again, there is no silver bullet



So what?

Building a product has never been easier.

Building a long-term successful scaleup with a meaningful exit path has never been harder.

Successful companies will most likely need a strong product beyond the generative part.

Focus on excelling beyond product (distribution etc.) has never been more important.