

## Copilot:

- Can you represent the 4 types of AI start-ups in a 2x2 matrix with regard to (non-)scientific and (low-)impact?

Absolutely — here is the **clean 2x2 matrix** showing the four types of AI startups along the axes **(non-)scientific** and **(low-)impact**.

### 2x2 Matrix: Types of AI Startups

#### Axes

- **Horizontal:** Scientific ↔ Non-scientific
- **Vertical:** High impact ↔ Low impact
- **High impact**                      **Low impact**

<b>Scientific</b>	<b>Deep-Tech Innovators</b>	<b>Research-Driven Niche Builders</b>
<b>Non-scientific</b>	<b>Applied AI Scalars</b>	<b>Feature-Startups</b>

#### Short descriptions of each quadrant

##### 1. Deep-Tech Innovators (Scientific × High impact)

Startups building new models, algorithms, or hardware. High technical risk, potentially market-shaping.

##### 2. Applied AI Scalars (Non-scientific × High impact)

Startups applying existing AI models to large markets with strong product execution and distribution.

##### 3. Research-Driven Niche Builders (Scientific × Low impact)

Strong R&D but limited commercial scope; often academic or hyper-specialized.

##### 4. Feature-Startups (Non-scientific × Low impact)

Simple wrappers around existing models; easy to copy, low defensibility.

If you want, I can also:

- Add concrete examples per quadrant
- Turn this into a visual diagram
- Map your own startup idea into the matrix
- Expand each quadrant with risks, opportunities, and investor perspective
- **Yes please, give me examples**

Absolutely — here are **clear, concrete examples** for each of the four AI-startup types in the 2x2 matrix (Scientific vs. Non-scientific × High vs. Low impact).

### 1. Scientific × High impact — Deep-Tech Innovators

Startups pushing the frontier of AI itself.

#### Real-world examples

- **OpenAI** — frontier model research, RLHF, multimodal systems
- **Anthropic** — constitutional AI, safety-driven model development
- **DeepMind** — AlphaFold, AlphaZero, scientific breakthroughs
- **Cerebras** — wafer-scale AI hardware
- **Mistral AI** — efficient frontier-class open models

#### Archetype examples

- A startup inventing a **post-Transformer architecture**
- A company reducing **training cost by 100×** through new hardware
- A lab building **AI-driven drug discovery engines**

### 2. Non-scientific × High impact — Applied AI Scalers

Startups applying existing models to massive markets with strong execution.

#### Real-world examples

- **Jasper** — AI content generation at scale
- **Runway** — applied generative video tools
- **Gong** — AI-powered sales intelligence
- **UiPath (AI layer)** — workflow automation
- **Synthesisia** — AI video avatars for enterprise

#### Archetype examples

- A copilot that **automates 80% of legal workflows**
- An AI platform that **cuts customer-support workload in half**
- A vertical AI system that **automates accounting end-to-end**

### 3. Scientific × Low impact — Research-Driven Niche Builders

Strong R&D, but limited commercial scope or small markets.

### Real-world examples

- Academic spin-offs building **specialized ML optimization algorithms**
- Startups focused on **rare-disease diagnostic models**
- Companies developing **explainability frameworks** with limited adoption

### Archetype examples

- A team building a **state-of-the-art clustering algorithm** used by only a few hundred companies
- A startup creating **AI for advanced materials simulation**
- A research group building **AI fairness auditing tools** without clear monetization

### □4. Non-scientific × Low impact — Feature-Startups

Simple wrappers around existing models; easy to copy, low defensibility.

### Real-world examples

- Generic “AI chatbot for your website” tools
- Basic “AI meeting notes” apps
- Chrome extensions that summarize text using an API
- Simple avatar generators

### Archetype examples

- A ChatGPT wrapper with a slightly different UI
- A PDF summarizer with no unique value
- An AI email-reply tool that competitors can clone in days

If you want, I can also:

- Map **your own startup idea** into this matrix
- Add **investment implications** per quadrant
- Turn this into a **visual diagram** for your blog
- Expand each quadrant with **risks, defensibility, and GTM strategy**

Just tell me what direction you want to take this.

## ChatGPT:

- Can you represent the 4 types of AI startups in a 2x2 matrix with regard to (non-)scientific and (low-)impact?

You can map AI startups along two axes:

- X-axis: Scientific ↔ Non-scientific
- Y-axis: Low impact ↔ High impact

Here's a clean 2x2 representation:

	SCIENTIFIC		
	-----		
	(1)	(2)	
	Deep Tech	Applied AI	
HIGH IMPACT	Breakthroughs	Transformers	
	-----		
	(3)	(4)	
	Academic Toys	AI Wrappers	
LOW IMPACT	/ Research	/ Features	
	-----		
			NON-SCIENTIFIC

Explanation of each quadrant:

(1) Scientific + High Impact → “Deep Tech Breakthroughs”

- Examples: new foundation models, novel architectures, core AI research
- High defensibility, long-term impact
- Hard to build, often requires top-tier research talent

(2) Non-scientific + High Impact → “Applied AI Transformers”

- Examples: companies applying existing AI to reshape industries (healthcare, law, logistics)
- Strong business models, execution-driven
- Use AI as leverage rather than inventing it

(3) Scientific + Low Impact → “Academic / Research Projects”

- Technically sophisticated but limited real-world use
- Often stays in labs or niche domains
- Can become impactful later, but not initially

(4) Non-scientific + Low Impact → “AI Wrappers / Features”

- Thin layers on top of existing APIs
- Easy to build, low differentiation
- Often short-lived unless they evolve

Quick intuition:

- Top row = matters in the real world
- Bottom row = doesn't (yet)
- Left = inventing AI
- Right = using AI

If you want, I can map real companies into each quadrant—it makes the framework much more concrete.

- **Yes please, give me examples**

Here are well-known examples mapped into each quadrant of the 2x2—this makes the framework much more tangible:

🧠 Scientific + High Impact → “Deep Tech Breakthroughs”

- OpenAI
- Anthropic
- DeepMind
- Mistral AI

What they do:

- Build new foundation models, architectures, or training methods
- Push the frontier of AI capabilities
- Require massive compute + top research talent

🚀 Non-scientific + High Impact → “Applied AI Transformers”

- Stripe (fraud detection, automation)
- Notion (AI workspace tools)

- Harvey AI
- Klarna (AI customer support, ops)

What they do:

- Use existing AI to transform industries
- Win through UX, distribution, and execution
- Often become very large businesses

□ Scientific + Low Impact → “Academic / Research Projects”

- EleutherAI
- University spin-offs or niche labs (e.g., robotics or theoretical ML startups)
- Early-stage model labs without product-market fit

What they do:

- Interesting technical work
- Limited adoption or commercialization (for now)
- Sometimes evolve into high-impact players later

□ Non-scientific + Low Impact → “AI Wrappers / Features”

- “Chat with your PDF” clones built on OpenAI APIs
- Copywriting tools similar to Jasper AI
- Simple chatbot builders on top of LangChain

What they do:

- Thin layers on top of existing models
- Fast to build, easy to replicate
- Often struggle with differentiation and retention

□ A useful lens

- The left side (scientific) is about *invention*
- The right side (non-scientific) is about *application*
- The top (high impact) is where enduring companies live
- The bottom is often a stepping stone—or a dead end

If you want, I can go one level deeper and show how startups typically move between quadrants over time (that’s where things get really interesting).