

**MCAA 25**



# Practical Applications of Artificial Intelligence

**Jeff Sample, Jake Olsen  
and Sean McGuire**

**Wednesday, March 5<sup>th</sup>  
9:15 a.m. – 10:45 a.m.**

Please let us know what you thought of this session



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SEMINAR HANDOUTS SPONSORED BY:



**MCAA<sup>25</sup>**

# Practical Applications of Artificial Intelligence





# Industrialization of The Textile Industry

*A Lesson in Innovation  
and Labor Relations*

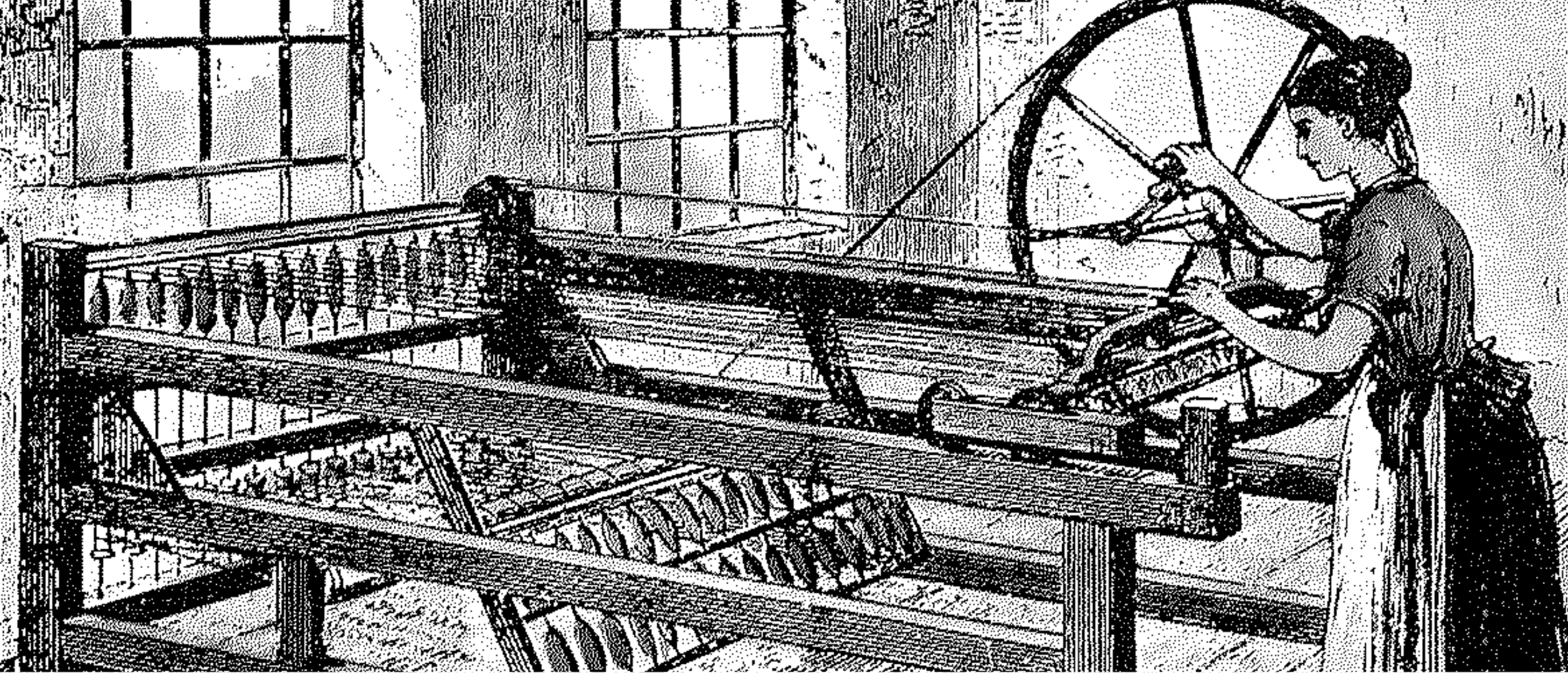


# *Pre-Industrial Revolution Textile Production*



A sepia-toned illustration of a man in 18th-century attire operating a large textile loom. The man is seated on a wooden stool, holding a long wooden shuttle between his hands. The loom is a complex wooden frame with many vertical threads. To the left, a wooden rack holds several spools of thread. The scene is set in a workshop with a window in the background. An orange horizontal bar is located in the top left corner.

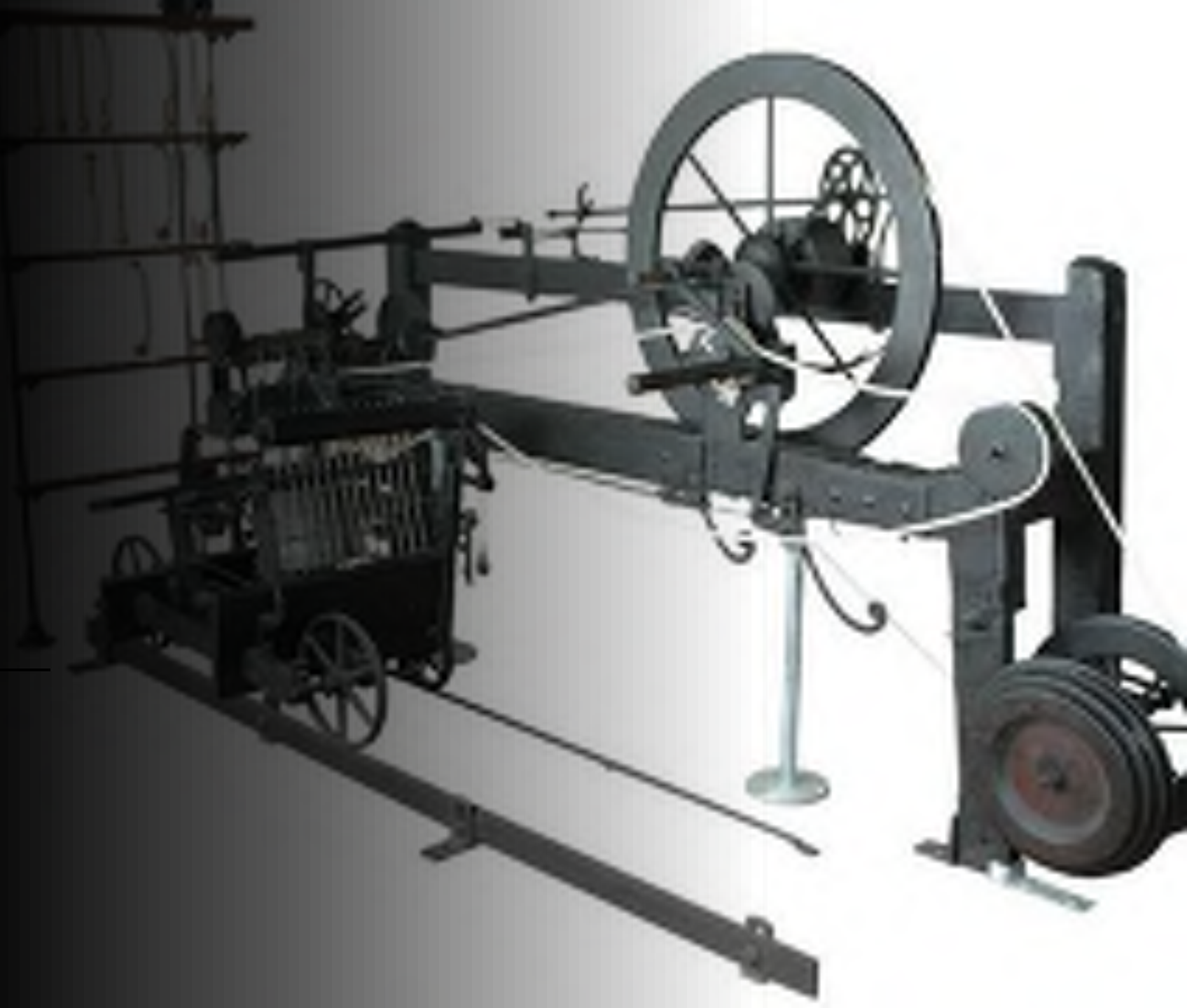
*The First  
Disruptor: The  
Flying Shuttle  
1733*



*The Spinning Jenny: 1764*



*The Water  
Frame: 1769*



A black and white photograph of a textile mill interior. The scene is filled with workers, some standing and some moving, amidst a hazy atmosphere of dust or steam. Large, multi-paned windows are visible in the background, allowing light to enter the space. The floor is made of wide wooden planks. The overall mood is industrial and historical.

# *Enter The Luddites*



# *Robert Owen*

*Technology is inevitable, but a skilled  
workforce is essential*



# Industrialization of The Textile Industry

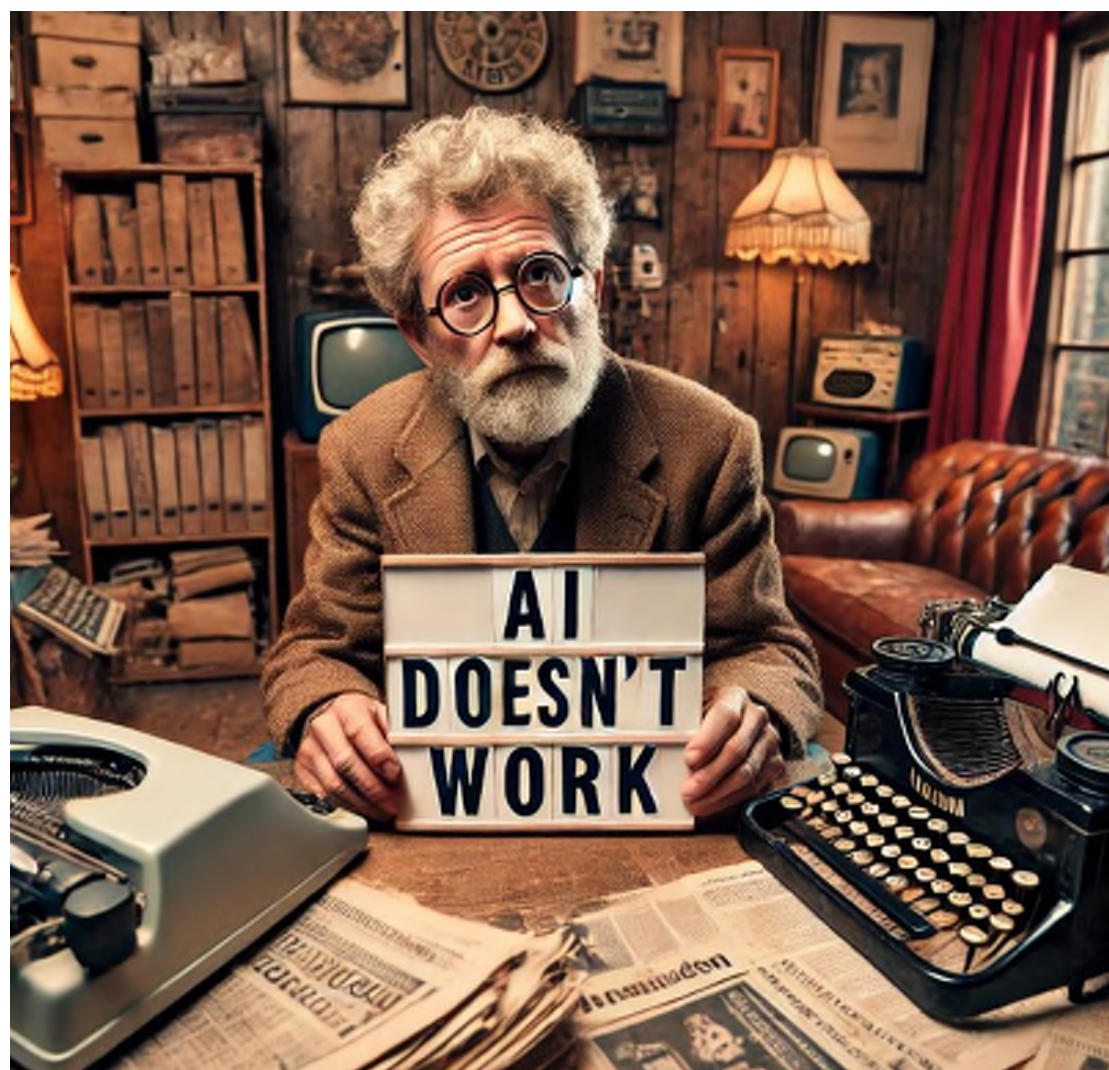
*A Lesson in  
Innovation and  
Labor Relations*

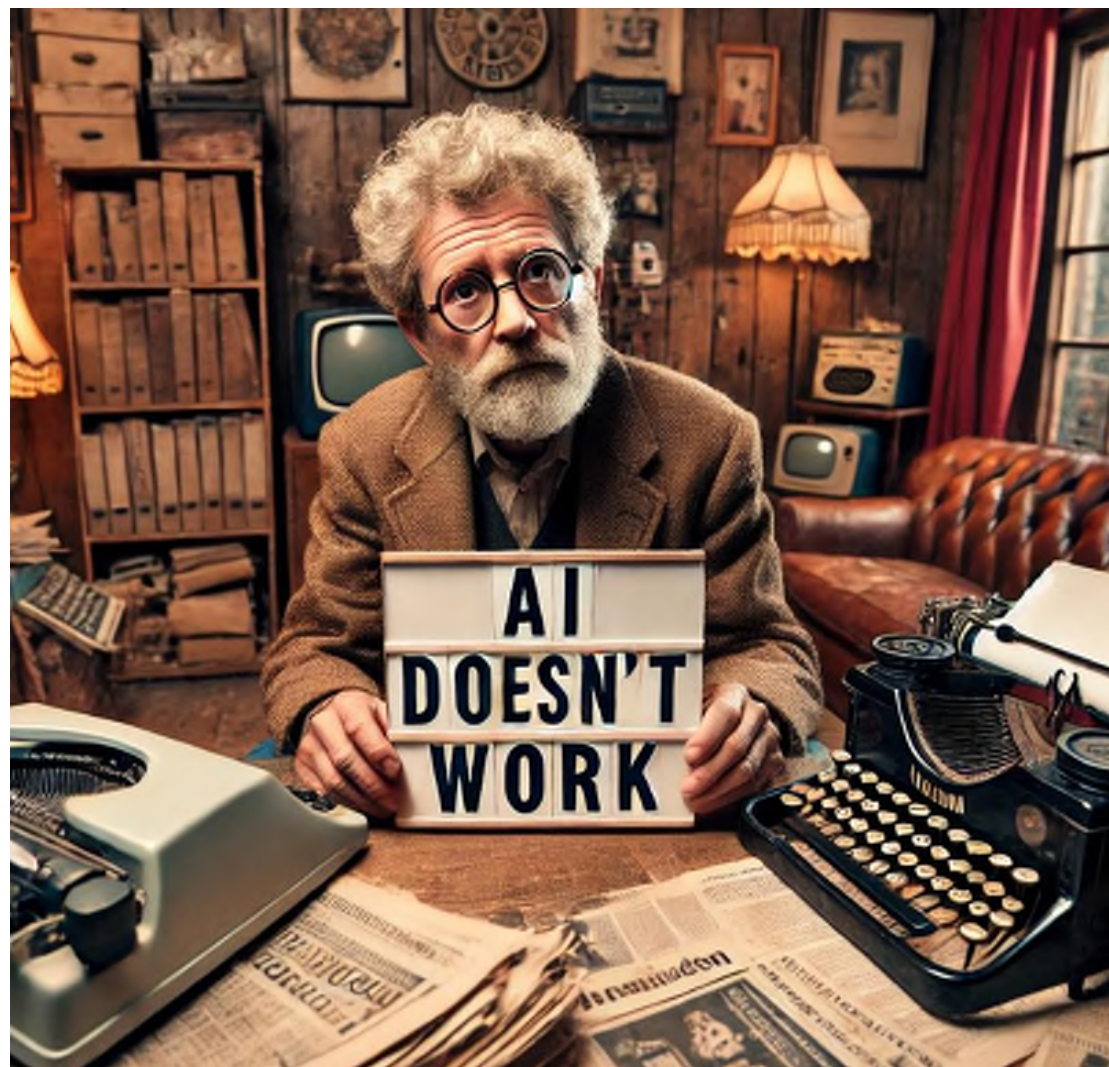


**AI Won't put you out of  
Business, but a contractor  
using AI might**

This is the digital photography moment for all of us

Don't be Kodak





It is the job of leaders in all types of business to ensure your employees are “AI Ready”

*.... We are not an AI company, but we are a company augmented by AI*





**Grow 3x in revenue**  
**Increase headcount by 25%**



**Continue growth (+11%)**  
**Stop hiring engineers**



**Continue growth (22%)**  
**Reduce headcount**



“The industrial companies went through the lean revolution, where they got significantly more profitable and efficient through embracing lean

I see the AI productivity boom as the Lean Moment for knowledge workers”

# Klarna's New AI Tool Does The Work Of 700 Customer Service Reps

Gene Marks Contributor @

*I write about tech that impacts my small business - and yours.*

Follow



Mar 13, 2024, 01:00pm EDT

Updated Mar 13, 2024, 01:42pm EDT



Justin Sullivan/Getty Images

## AI is Behind More Layoffs Than You Know

### UPS lays off 12,000 managers as AI replaces jobs

Artificial intelligence allows UPS to fire 12,000 managers without ever having to rehire them. The company is also introducing other radical changes, such as requiring employees to be in the office five days a week.



# STOP HIRING HUMANS

Interview Ava, the AI BDR

415-936-0349



AI BDR Ava



ARTISAN

artisan.co

3802 37x62

CAPITOL



School

PUBLIC PARKING

# Future of Jobs Report 2025

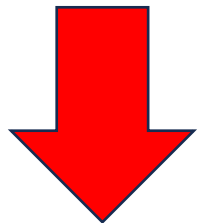
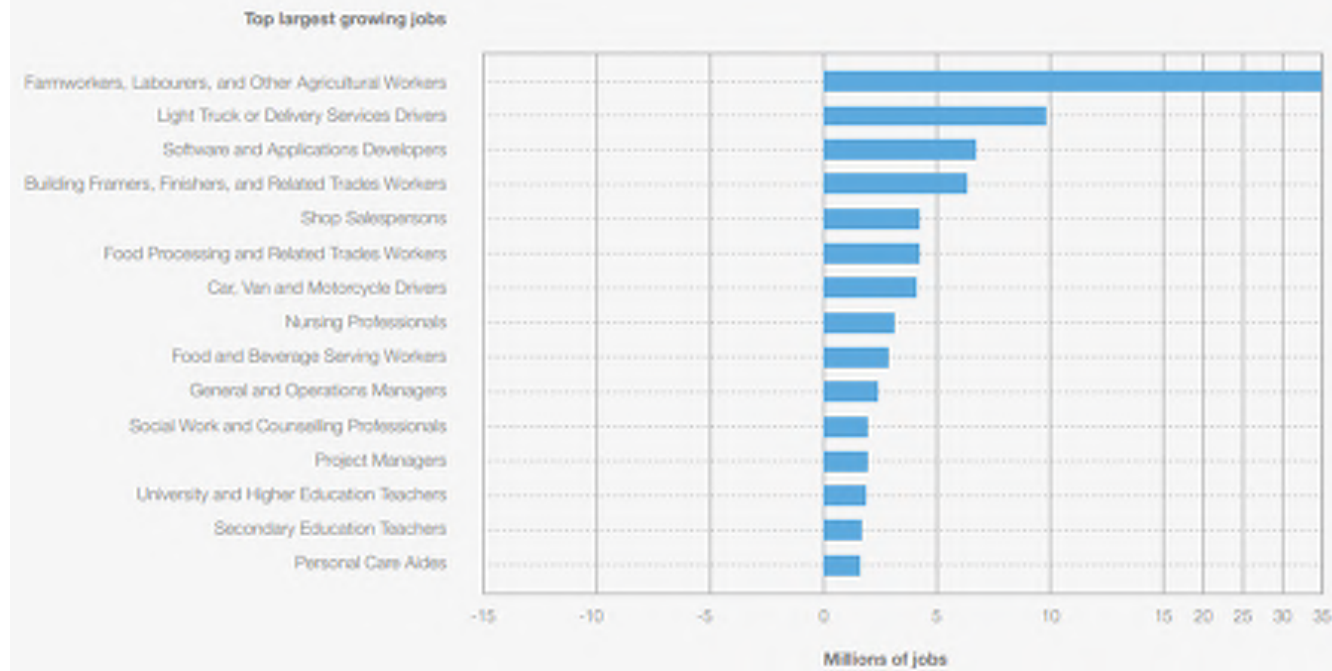
INSIGHT REPORT  
JANUARY 2025

“Delivery Drivers, **Building Construction Workers**, Salespersons and Food Processing Workers are also among the **largest-growing job types in the next five years.**”

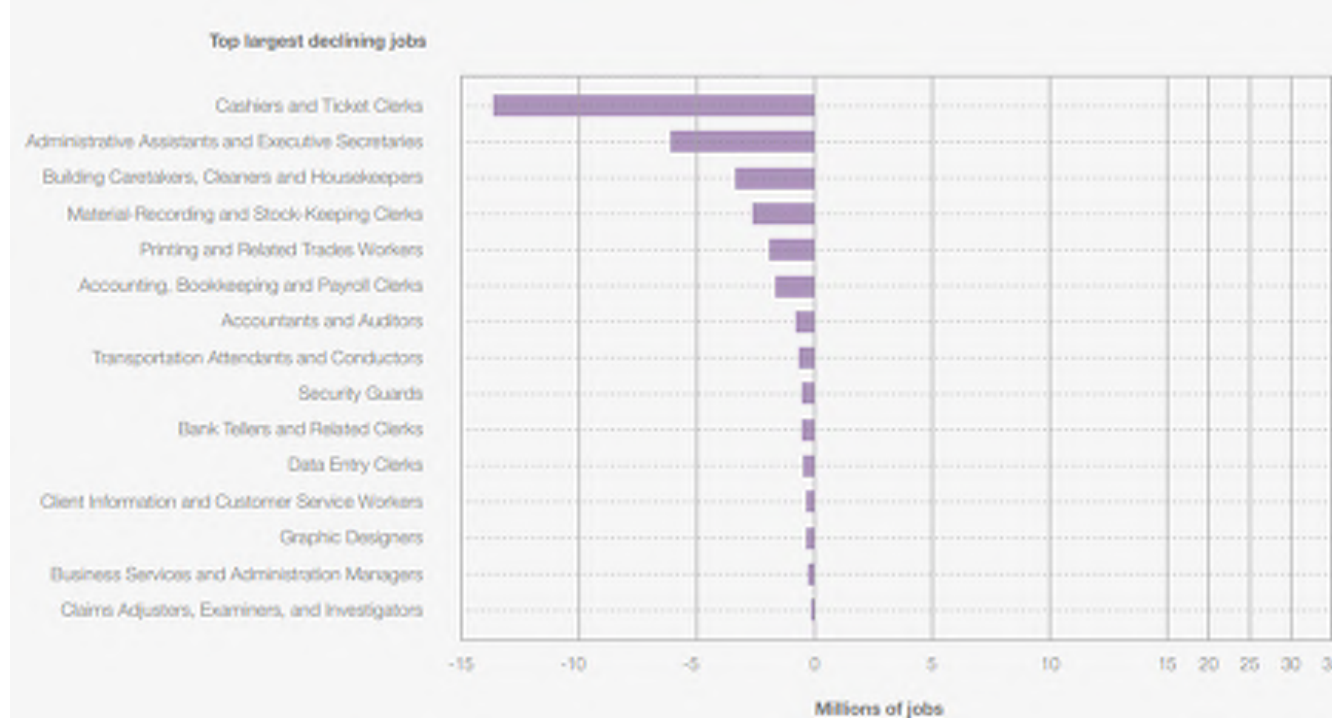




## Building Trade Workers



## Admin Accounting Data Entry



# AI Tech Stack

**Software & Internet**

**Applications**

**Data tools / Software**

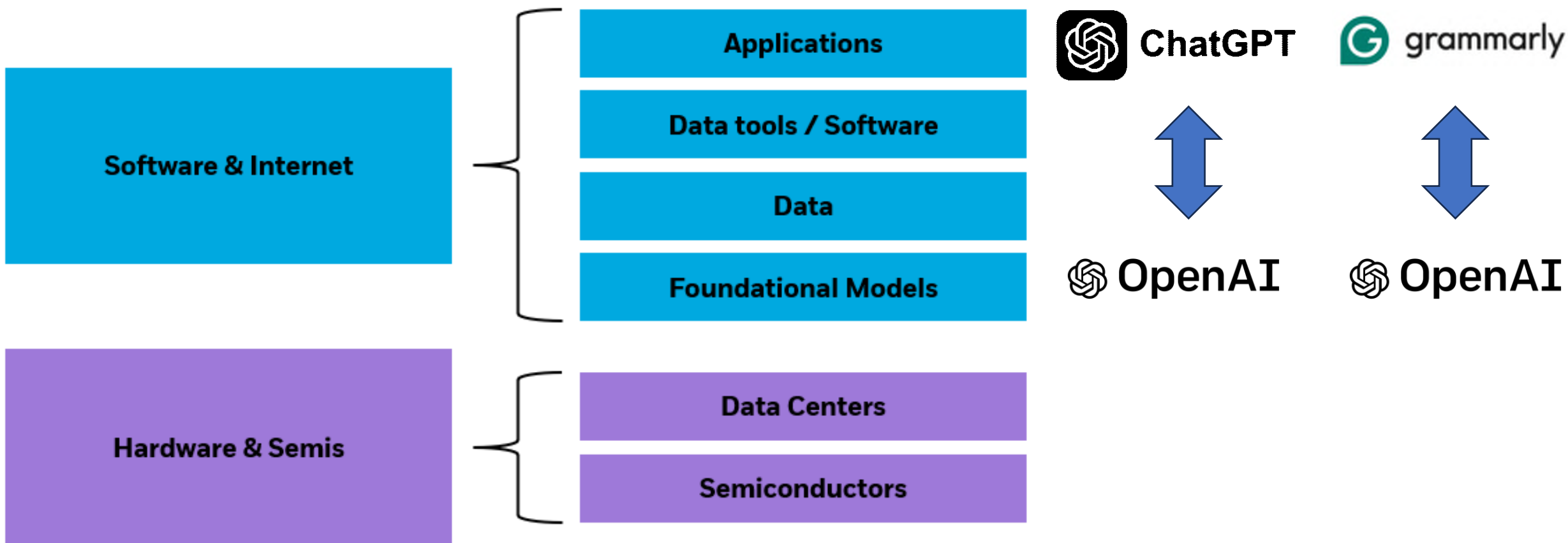
**Data**

**Foundational Models**

**Hardware & Semis**

**Data Centers**

**Semiconductors**





# **GPT (Base LLM)**

Generative Pretrained  
Transformer



# **Reasoning Model**

Generative Pretrained  
Transformer – With Feedback  
Loop



# **Reasoning + Real Time Web**

Generative Pretrained  
Transformer – with Feedback  
Loop – and access to live data on  
the web





## GPT (Base LLM)

Generative Pretrained  
Transformer

## Reasoning Model

Generative Pretrained  
Transformer – With Feedback  
Loop

## Reasoning + Real Time Web

Generative Pretrained  
Transformer – with Feedback  
Loop – and access to live data on  
the web



## Creative works

Creative writing  
Movie script

## Hard Sciences

Coding  
Mathematics  
Physics

## Industry Specific

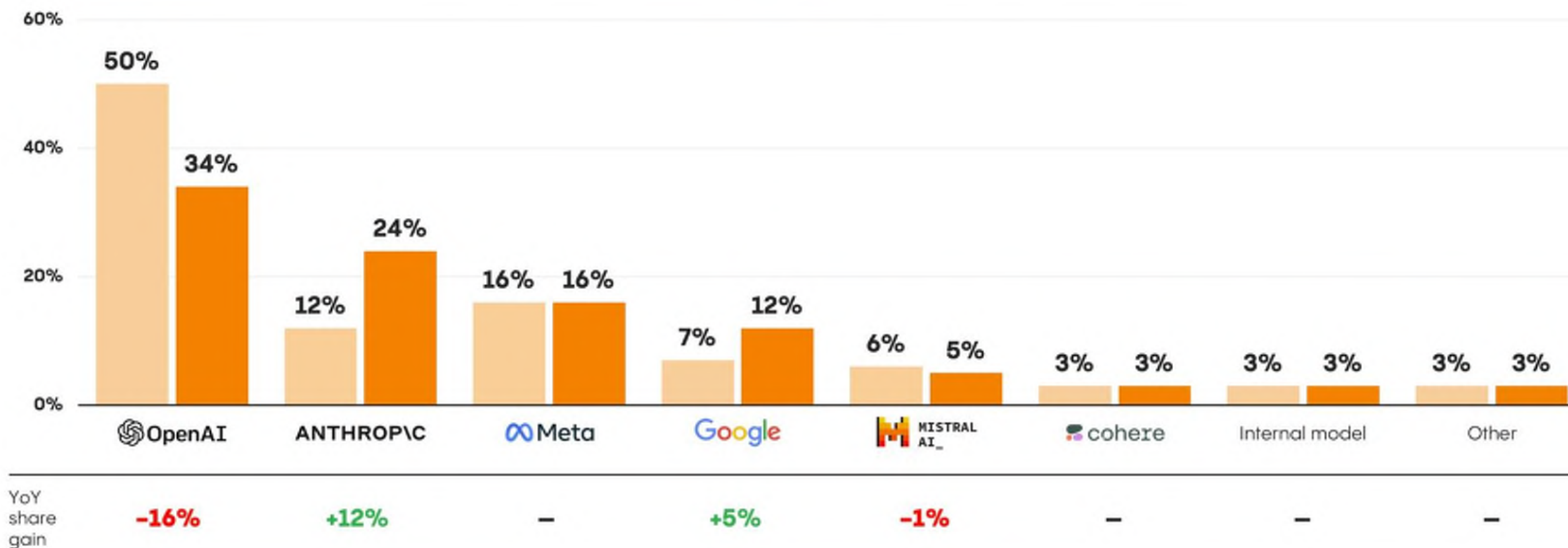
Accounting  
Legal  
Health

## General Knowledge

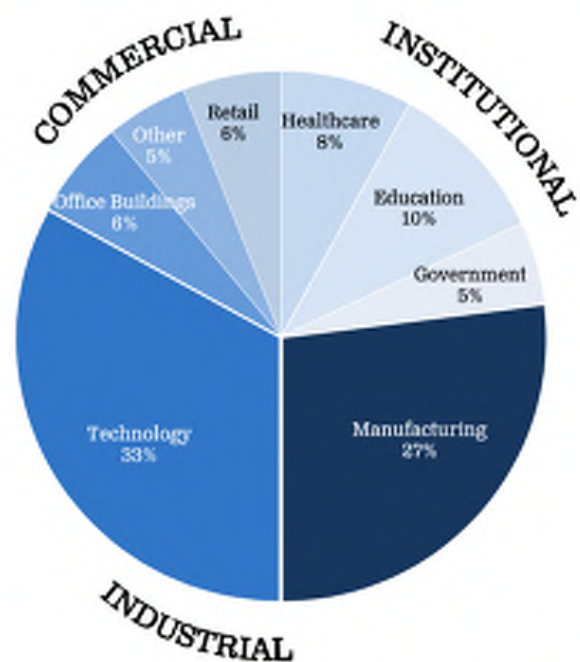
General Purpose Agents  
Anything that is one the web

## Market Share of LLMs: 2023 vs. 2024

2023 2024



## MARKET SECTOR



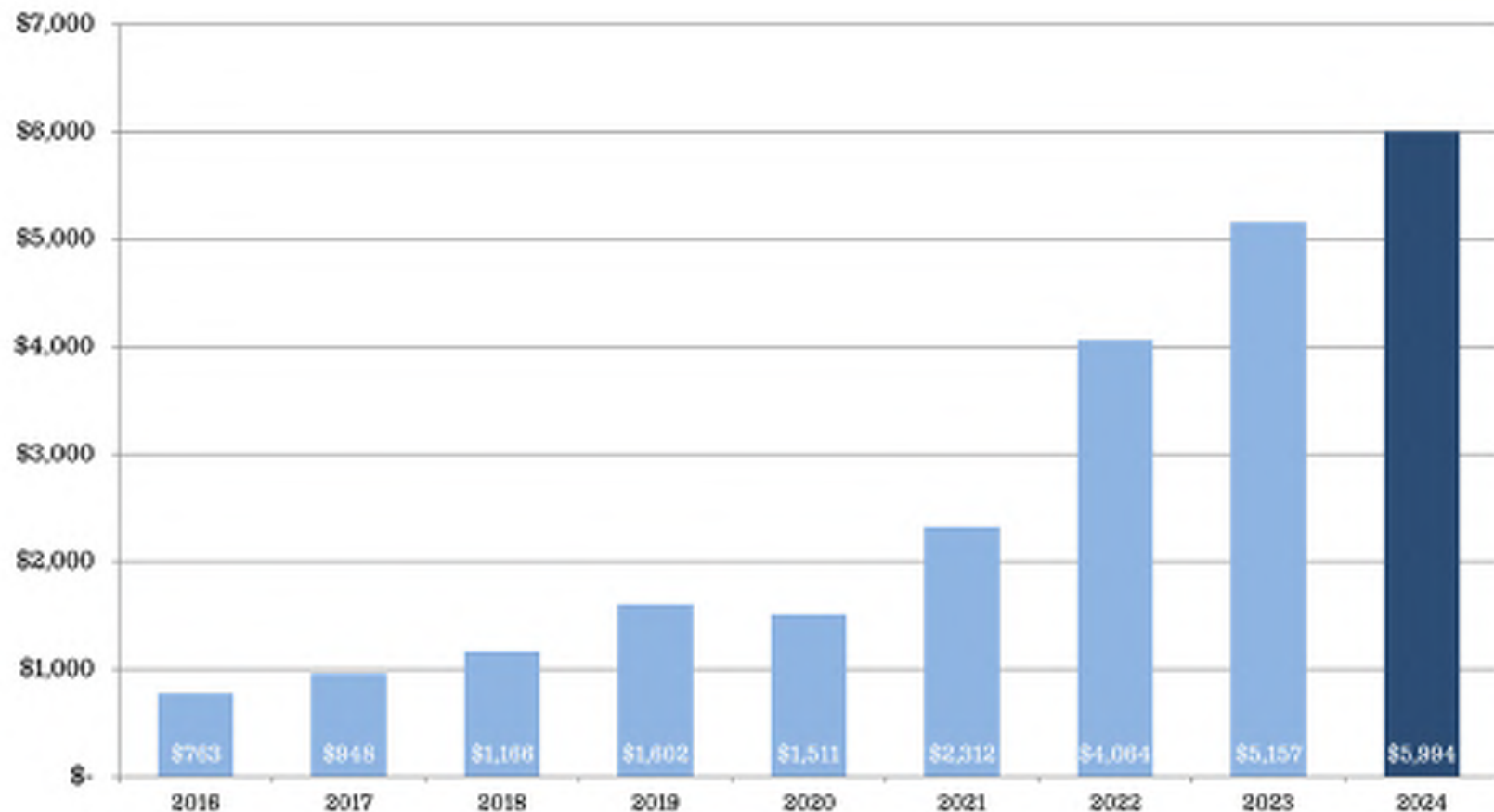
COMFORT  
SYSTEMS **USA**

### Strong Markets

- Technology – Data Centers and Chip Manufacturing
- Life Sciences - Pharmaceuticals
- Food Processing
- Manufacturing
- Healthcare
- EV Battery

## BACKLOG

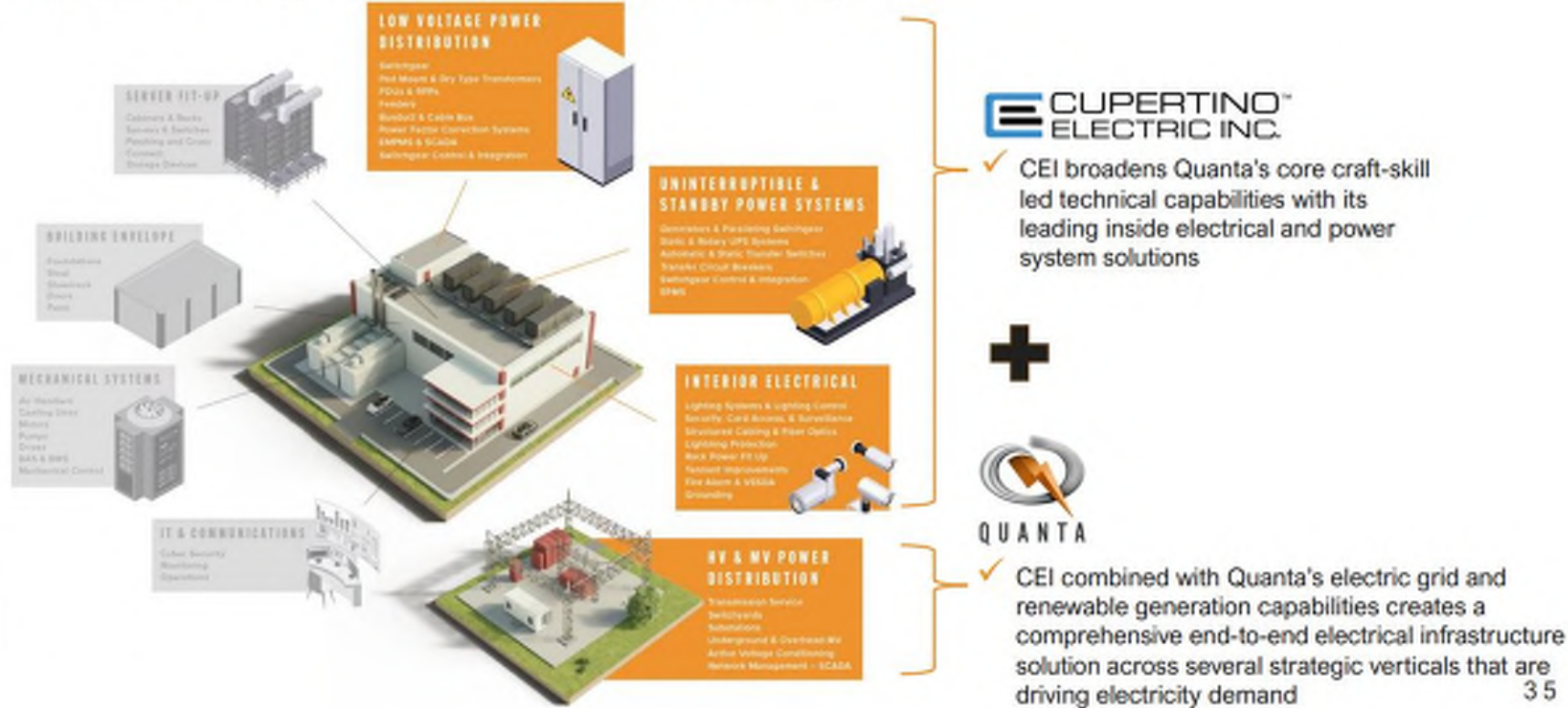
(\$ in millions)



# TECHNOLOGY INFRASTRUCTURE SOLUTIONS

The Combination of CEI and Quanta Provide Critical Path Data Center Electrical Solutions

Representative Mission Critical Facility Project Scope Performed by CEI:



## 5-year Nationwide Load Forecast



## 10-year Load Growth Forecast Trend



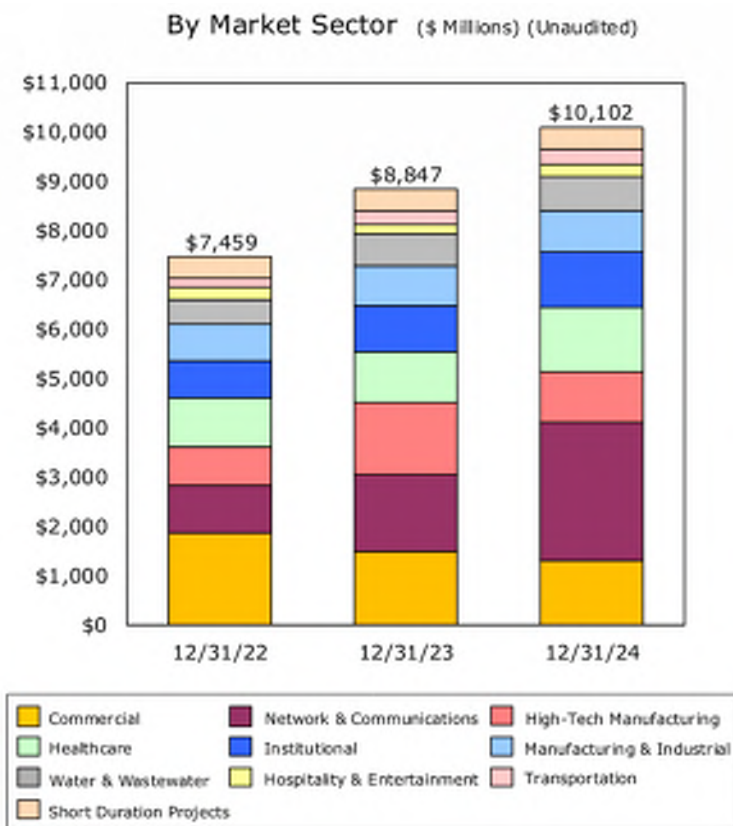
## Mega Trends Underpinning Electricity Demand Growth

- Data center/GenAI infrastructure investment
- Reshoring of manufacturing incentivized by domestic content legislation

\$1.5B Acquisition = 9x EBITDA

## MARKET OUTLOOK – NETWORK & COMMUNICATIONS

### CURRENT BACKLOG



### DATA CENTERS

***Demand across Mid-Atlantic, Pacific Northwest, Midwest, and the Southeast remains strong***

- » Electrical Construction
- » Mechanical Construction

***Buildout accelerated by recent developments in AI***



### CUSTOMER BASE



- » Technology Companies
- » Financial Firms
- » Co-locators
- » Government

#### "Average" Data Center Build % Ranges

Electrical Construction	30% - 50% *
Mechanical Construction	15% - 35% *
Fire Protection ( <i>Sprinkler Installation</i> )	3% - 7%

\* Includes purchase of major equipment

# COMPLEMENTARY ALIGNMENT WITH COMPELLING INDUSTRY TAILWINDS

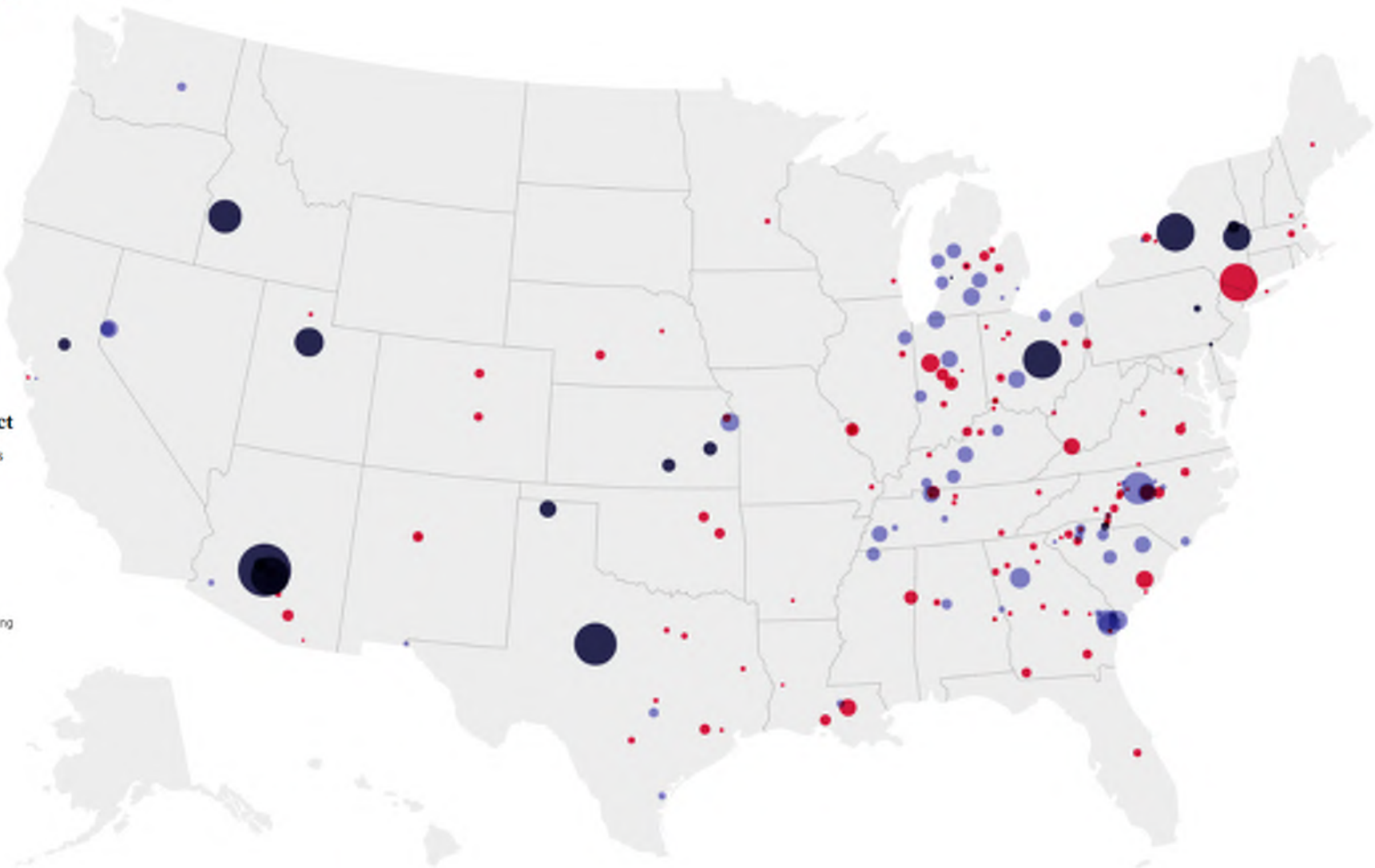
	Data Centers & Connectivity	Re-Shoring & Nearshoring	Electrification & EV Value Chain	Energy Efficiency & Sustainability	Legislative Tailwinds
	<ul style="list-style-type: none"> <li>✓ Continued Demand Drivers</li> <li>✓ Increased Power Requirements</li> <li>✓ AI Accelerated Buildout, Retrofit, &amp; Remodel</li> </ul>	<ul style="list-style-type: none"> <li>✓ Critical Supply Chain Resilience</li> <li>✓ Capacity Shifting &amp; Expansion</li> <li>✓ Automation</li> </ul>	<ul style="list-style-type: none"> <li>✓ Energy Transition &amp; Expansion</li> <li>✓ Renewable Buildout &amp; Grid Modernization</li> <li>✓ Large Scale Solar, Carbon Capture, &amp; Biofuels</li> </ul>	<ul style="list-style-type: none"> <li>✓ Sustainable, Efficient, Cost-Saving Building Initiatives</li> <li>✓ Equipment Replacement &amp; Modernization</li> </ul>	<ul style="list-style-type: none"> <li>✓ Government Incentives Enhancing &amp; Extending Growth</li> <li>✓ CHIPS and Science Act</li> <li>✓ Inflation Reduction Act</li> </ul>
Clients / End Users	<ul style="list-style-type: none"> <li>• Hyperscalers</li> <li>• Colocation Providers</li> <li>• Enterprise</li> <li>• Technology &amp; Financial Companies</li> <li>• Government</li> </ul>	<ul style="list-style-type: none"> <li>• Semiconductor Manufacturing</li> <li>• Pharmaceuticals</li> <li>• Life Sciences</li> <li>• Medical Devices</li> <li>• Computer &amp; Electronics</li> </ul>	<ul style="list-style-type: none"> <li>• EV &amp; EV Battery Manufacturing</li> <li>• Electrical Charging Stations</li> <li>• Large-Scale Solar Projects</li> <li>• Refineries</li> </ul>	<ul style="list-style-type: none"> <li>• Healthcare, Manufacturing, Institutional, &amp; other Commercial</li> <li>• Multisector Retrofit Projects</li> </ul>	<ul style="list-style-type: none"> <li>• Semiconductor Manufacturing</li> <li>• R&amp;D Facilities</li> <li>• Institutional</li> </ul>
 	Construction Services	Construction Services	Construction Services	Construction Services	Construction Services
	Building Services	Building Services	Industrial Services	Building Services	Building Services
	Miller Electric	Miller Electric	Miller Electric	Miller Electric	Miller Electric

\$865k Miller Electric Acquisition = 11x EBITDA

**Manufacturing construction surges across US**

Top projects by value and location since August 2022

■ Semiconductor plant ■ EV plant ■ Manufacturing facility

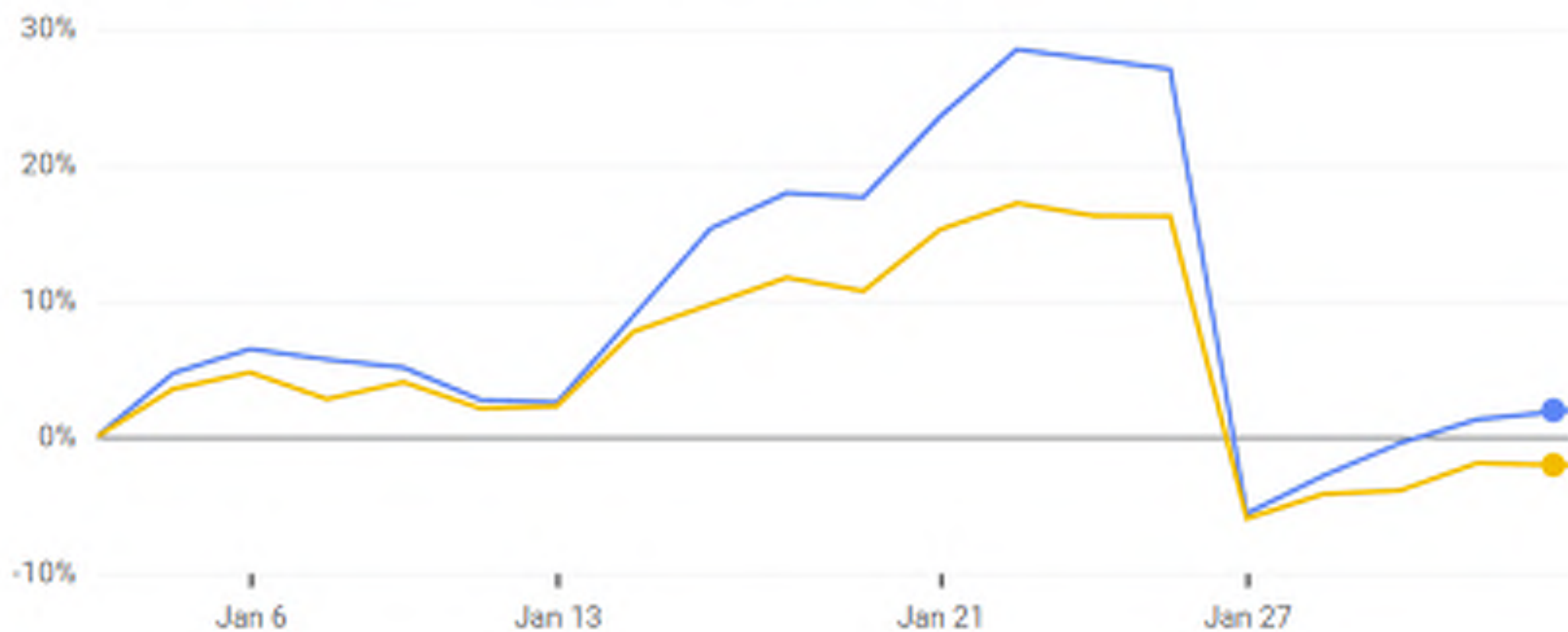


**Manufacturing activity skyrockets on the heels of 2022's CHIPS Act**

Percent change in construction starts since January 2019, seasonally adjusted dollars



1D 5D 1M 6M YTD 1Y 5Y MAX



Comfort Systems U...

\$436.75

+\$8.25

↑ 1.93%

Emcor Group Inc

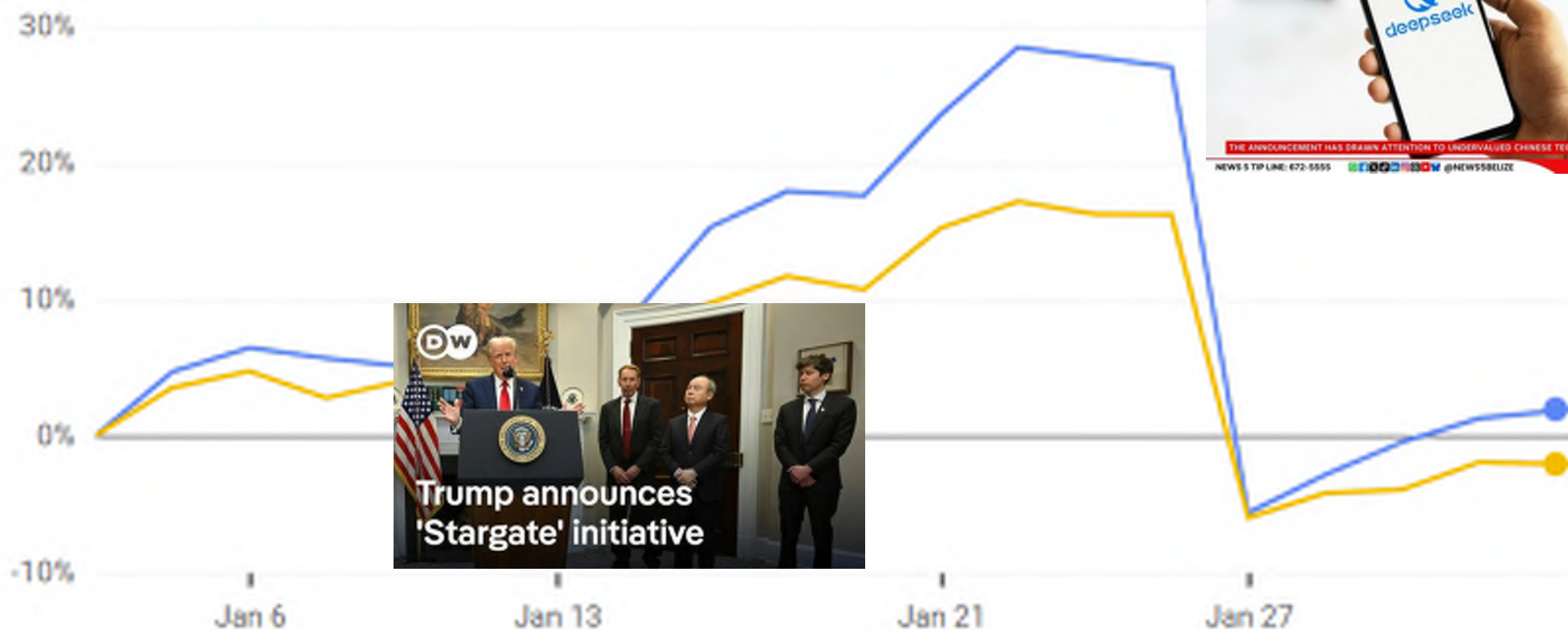
\$448.06

-\$9.57

↓ 2.09%



1D 5D 1M 6M YTD 1Y 5Y MAX



## US Stocks Plunge Amid Chinese AI Breakthrough by DeepSeek



Trump announces  
'Stargate' initiative

Comfort Systems U...

\$436.75

+\$8.25

↑ 1.93%

Emcor Group Inc

\$448.06

-\$9.57

↓ 2.09%





## THE TECH WORLD

WILL NEVER BE THE  
SAME AGAIN



ANALYSTS IN THE TECH WORLD  
WILL NEVER BE THE  
SAME AGAIN

## JEVON'S PARADOX

FUEL EFFICIENCY GAINS TEND TO **INCREASE**,  
NOT DECREASE, FUEL USE.



sketchplanations

# DEEP LEARNING

## TRAINING

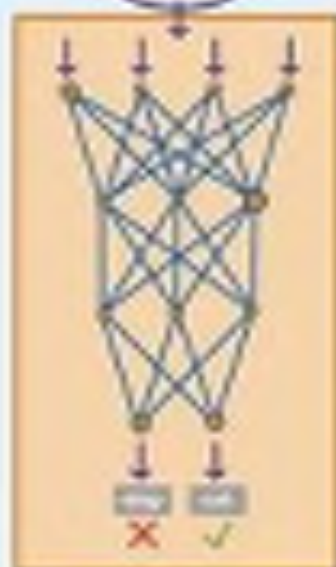
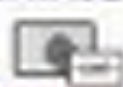
Learning a new capability  
from existing data

Untrained  
Neural Network  
Model



Deep Learning  
Framework

TRAINING  
DATASET



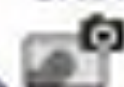
Trained Model  
New Capability



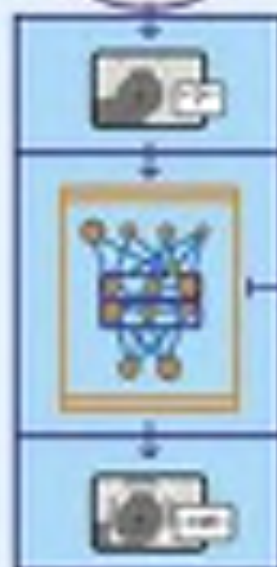
## INFERENCE

Applying this capability  
to new data

NEW  
DATA



App or Service  
Featuring Capability



Trained Model  
Optimized for  
Performance

# EPISODE 17



# US hyperscaler planning 20+ Edge data centers – report

Unnamed company planning modular rollout up to 10MW at each site

January 14, 2025 By: Dan Swinhoe [Have your say](#)



One of the major hyperscalers is reportedly planning to roll out a fleet of Edge data centers across the US.

The [Foundations](#) newsletter this week said that the investment wing of a data center developer targeting hyperscalers plans to deploy ~20 Edge modular data centers across the US with an unnamed hyperscaler for "AI inferencing."

"We're building 20 pure Edge network data centers for a single tenant all across the country.

The purpose of those data centers is for AI inferencing," the company spokesperson told Foundations. "They want to move it out of their large self-builds for redundancy and just for decreased latency. They're building anywhere from 5MW-10MW in standalone facilities all across the country."



– Meta

Off the shelf AI you can use today

Google  
Gemini

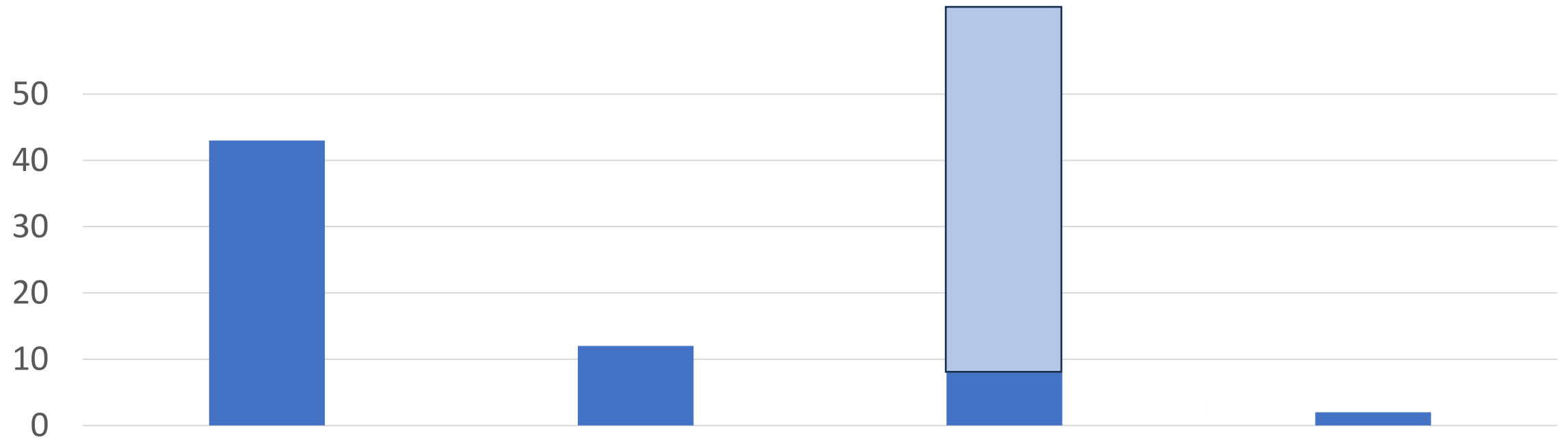


**ChatGPT**



**Copilot**

# Jake's average weekly usage



**ChatGPT**



**Copilot**

Google  
**Gemini**



**Claude**



**Grok**



# ChatGPT

ChatGPT 4.5 ▾

Model ⓘ

**GPT-4o**

Great for most questions

**GPT-4o with scheduled tasks** BETA

Ask ChatGPT to follow up later

**GPT-4.5** RESEARCH PREVIEW

Good for writing and exploring ideas ✓

**o1**

Uses advanced reasoning

**o3-mini**

Fast at advanced reasoning


**o3-mini-high**

Great at coding and logic

**o1 pro mode**

Best at reasoning

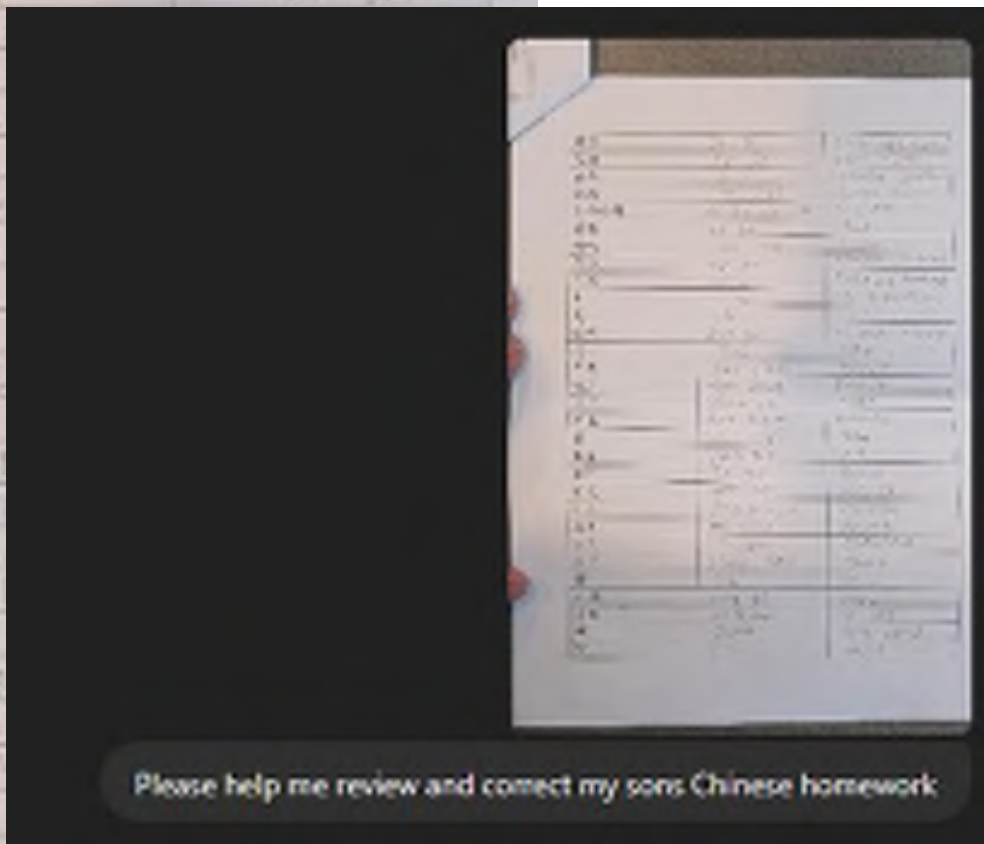
More models >

 Temporary chat

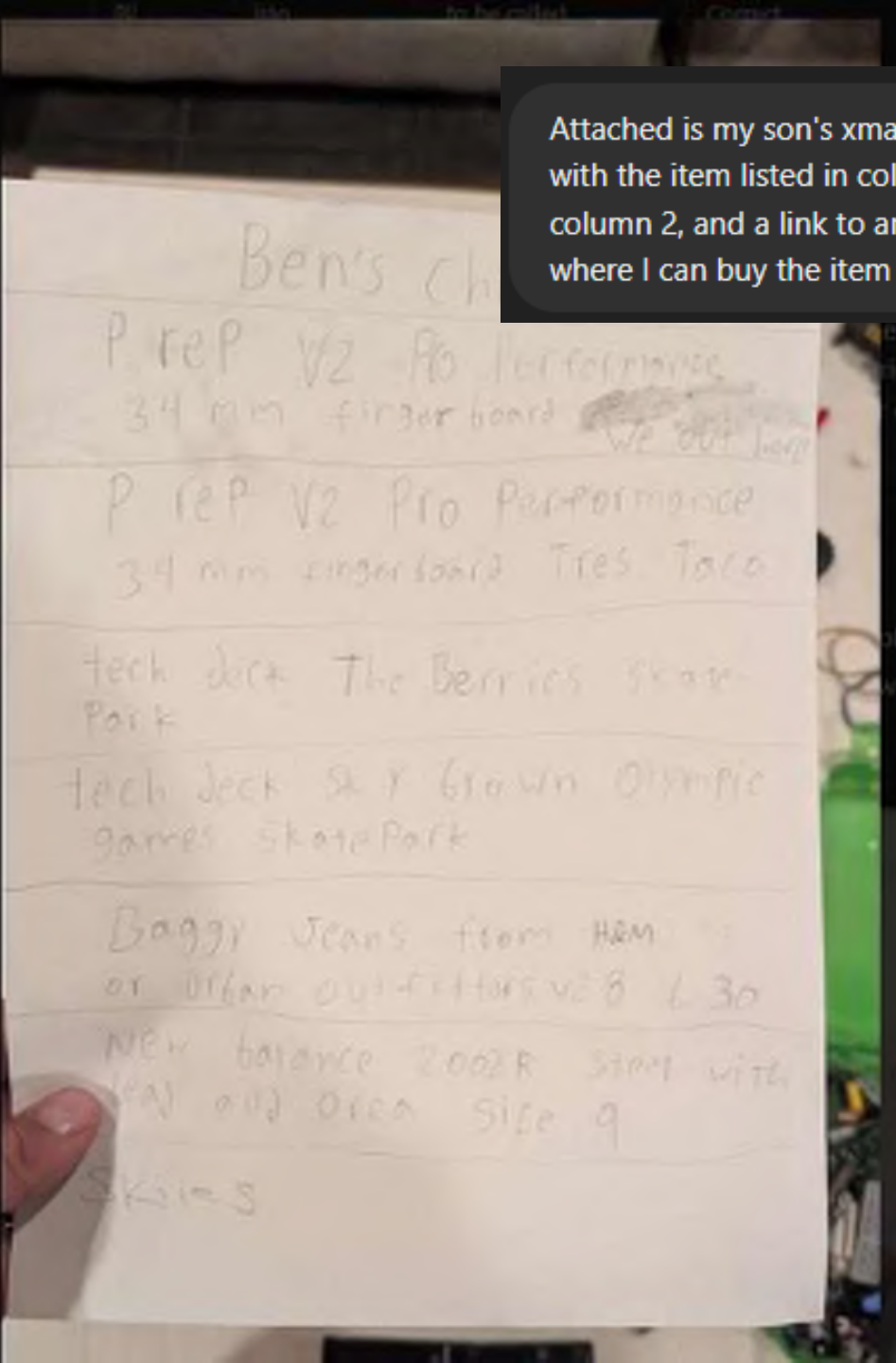


哥哥	ge ge	older brother
姐姐	jie jie	older sister
弟弟	di di	younger brother
妹妹	mei mei	younger sister
兄弟姐妹	xiong di jie mei	siblings
爸爸	ba ba	dad
妈妈	ma ma	mom
爷爷	ye ye	grandpa (paternal)
奶奶	nai nai	grandma (paternal)
和	he	and / with / and
是	shi	is
认识	ren shi	to know / to meet
谁	shei	who
再见	Zai jian	goodbye
晚上	wan shang	evening
中午	zhong wu	noon
早上	zao shang	morning
爱	ai	love
英国	ying guo	U.K.
法国	fa guo	France
英文	ying wen	English
中文	zhong wen	Chinese
法文	fa wen	French
日文	ri wen	Japanese
照片	zhuang pian	photo
都	dou	both
星期	xing qi	week
喜欢	xi huan	to like
叫	jiao	to be called
家	jia	house

哥哥	gē gē	older brother
姐姐	jiě jie	older sister
弟弟	dì di	younger brother
妹妹	mèi mei	
兄弟姐妹	xiōngdì jiěmèi	
爸爸	bà ba	
妈妈	mā ma	
爷爷	yé ye	
奶奶	nǎi nai	
和	hé	
是	shì	
认识	rènshi	
谁	shéi	
再见	zàijiàn	
晚上	wǎn shang	
中午	zhōng wǔ	
早上	zǎo shang	
爱	ài	
英国	yīng guó	
法国	fǎ guó	
英文	yīng wén	
中文	zhōng wén	
法文	fǎ wén	
日文	rì wén	
照片	zhàopiàn	
都	dōu	
星期	xīng qī	
喜欢	xǐ huan	
叫	jiào	
家	jiā	



Chinese	Pinyin	English	Notes/Corrections
哥哥	gēge	older brother	Correct
姐姐	jiějie	older sister	Correct
弟弟	dìdì	younger brother	Correct
妹妹	mèimei	younger sister	Correct
兄弟姐妹	xiōngdì jiěmèi	siblings	Correct
爸爸	bàba	dad	Correct
妈妈	māma	mom	Correct
爷爷	yéye	grandpa (paternal)	Correct
奶奶	nǎinai	grandma (paternal)	Correct
和	hé	and	Correct meaning; commonly used to link nouns
是	shì	is/are	Correct
认识	rènshi	to know (someone)	Correct; implies familiarity/acquaintance
谁	shéi (or shuí)	who	Correct
再见	zàijiàn	goodbye	Correct
晚上	wǎnshang	evening	Correct; "shang" is typically a neutral tone
中午	zhōngwǔ	noon	Correct
早上	zǎoshang	morning	Correct; "shang" is typically a neutral tone
爱	ài	love	Correct
英国	yīngguó	U.K.	Correct
法国	fǎguó	France	Correct
英文	yīngwén	English (language)	Correct
中文	zhōngwén	Chinese (language)	Correct
法文	fǎwén	French (language)	Correct
日文	rìwén	Japanese (language)	Correct
照片	zhàopiàn	photo	Correct
都	dōu	both/all	Correct
星期	xīngqī	week	Correct
喜欢	xǐhuan	to like	Correct; "huan" often pronounced with neutral tone
叫	jiào	to be called	Correct
家	jiā	home/house	Correct

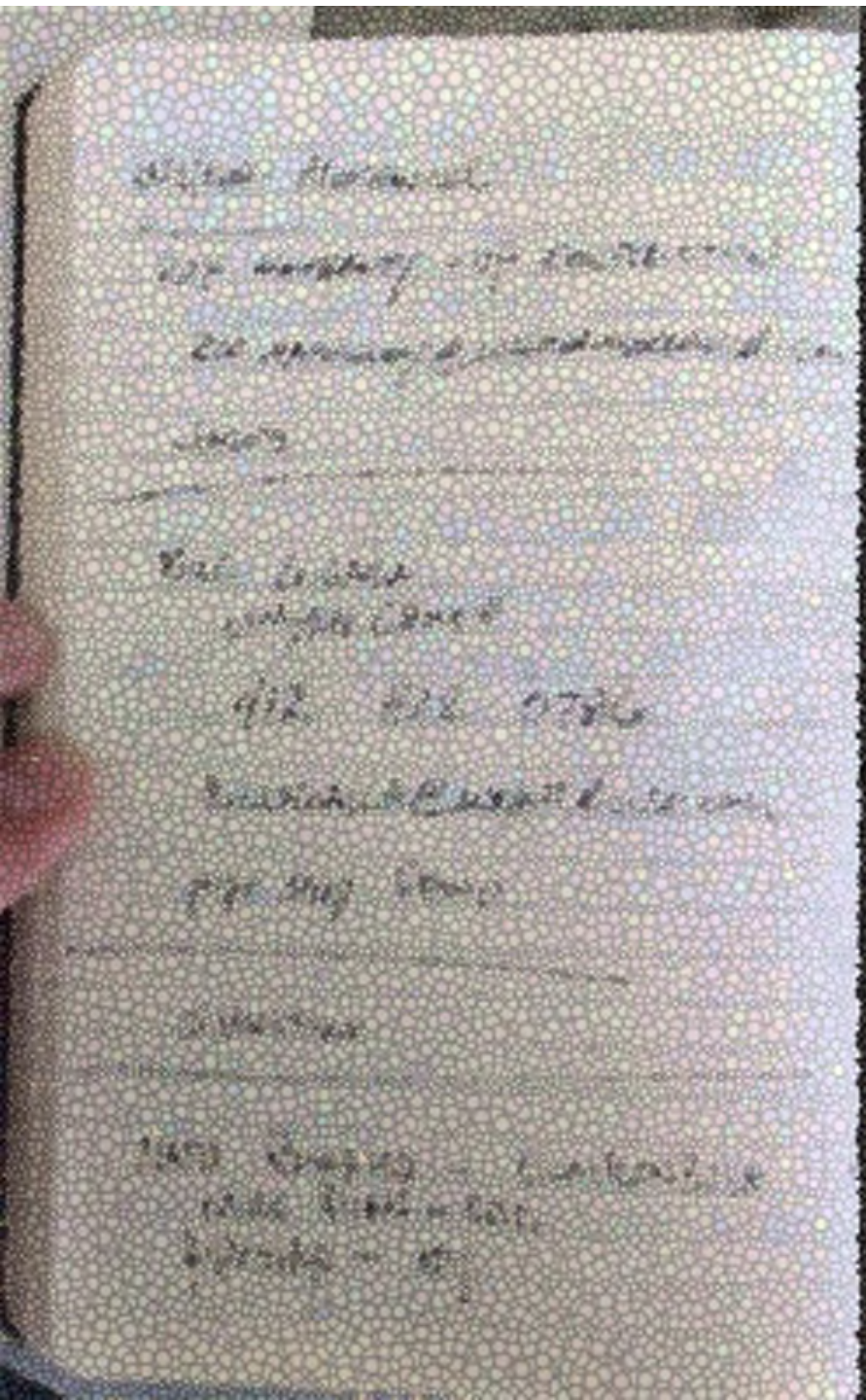


Attached is my son's xmas list. Please help me turn this into a table with the item listed in column 1, a generic description of that it is in column 2, and a link to amazon or other online shopping sources where I can buy the item in column 3.

Thought about Christmas list organization for 8 seconds

Below is a table summarizing the items, a generic description, and example purchase links. The links are sample references from common online retailers; you may need to refine them to match specific styles or preferred retailers.

Item	Description	Example Online Link
P-Rep V2 Pro Performance 34mm Fingerboard "We Out Here"	34mm wooden fingerboard deck with performance trucks	<a href="#">Amazon - P-Rep Fingerboards</a>
P-Rep V2 Pro Performance 34mm Fingerboard "Tres Taco"	34mm wooden fingerboard deck with performance trucks	<a href="#">Amazon - P-Rep Fingerboards</a>
Tech Deck The Berrics Skate Park	Miniature skatepark playset compatible with Tech Decks	<a href="#">Amazon - Tech Deck Berrics Set</a>
Tech Deck Sky Brown Olympic Games Skatepark	Miniature skatepark themed after Olympic skater Sky Brown	<a href="#">Amazon - Tech Deck Sky Brown Set</a>
Baggy Jeans (H&M or Urban Outfitters, W28 L30)	Loose-fit men's jeans in a specified waist and length	<a href="#">H&amp;M - Men's Baggy Jeans</a> or <a href="#">Urban Outfitters - Men's Baggy Jeans</a>
New Balance 2002R (Steel with Lead and Orca, Size 9)	Men's New Balance 2002R running/lifestyle shoes	<a href="#">New Balance 2002R on NewBalance.com</a>
Skis	A pair of downhill skis	<a href="#">REI - Downhill Skis</a>



Help turn these notes into a contact list

Can you add LinkedIn profiles for each person?

First Name	Last Name	Phone Number	Email Address	LinkedIn Profile
John	Doe	555-123-4567	john.doe@example.com	linkedin.com/in/johndoe
Jane	Smith	555-987-6543	jane.smith@example.com	linkedin.com/in/janesmith
Bob	Johnson	555-234-5678	bob.johnson@example.com	linkedin.com/in/bobjohnson
Alice	Williams	555-345-6789	alice.williams@example.com	linkedin.com/in/aliciawilliams
Charlie	Brown	555-456-7890	charlie.brown@example.com	linkedin.com/in/charliebrown
Diana	Green	555-567-8901	diana.green@example.com	linkedin.com/in/diagreen
Frank	White	555-678-9012	frank.white@example.com	linkedin.com/in/frankwhite
Grace	Black	555-789-0123	grace.black@example.com	linkedin.com/in/graceblack
Henry	Gold	555-890-1234	henry.gold@example.com	linkedin.com/in/henrygold
Ivy	Silver	555-901-2345	ivy.silver@example.com	linkedin.com/in/ivysilver

[Street Address]  
[City, ST ZIP]  
Phone: (000) 000-0000  
Fax: (000) 000-0000  
Website:

DATE	9/29/2015
PO #	11234567

[Company Name]  
[Contact or Department]  
[Street Address]  
[City, ST ZIP]  
Phone: (000) 000-0000  
Fax: (000) 000-0000

REQUISITIONER	SHIP VIA	F

[illegible]

Thank you for your business.

If you have any questions about

<https://www.wiley.com/doi/10.1111/j.1365-3113.2017.05061.x>

[illegible]

# ChatGPT

# stratus



# SMACNA CONTRACTORS

[Home](#) / [Membership](#) / [Contractors](#) / [All Contractors](#)

## ALL CONTRACTORS

[A](#)
[B](#)
[C](#)
[D](#)
[E](#)
[F](#)
[G](#)
[H](#)
[I](#)
[J](#)
[K](#)
[L](#)
[M](#)
[N](#)
[O](#)
[P](#)
[Q](#)
[R](#)
[S](#)
[T](#)
[U](#)
[V](#)
[W](#)
[X](#)
[Y](#)
[Z](#)

### ADLER ROOFING & SHEET METAL, INC.

779 Joyce Rd., Joliet, IL 60436-1815 ([Map](#))  
(815) 773-1200

[info@adlerroofing.com](mailto:info@adlerroofing.com)  
[www.adlerroofing.com](http://www.adlerroofing.com)  
 Christopher Adler

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» [Industrial](#)

» [Manufacturing](#)

» [Residential](#)

» [Service](#)

» [Kitchen](#)

» [Siding Decking](#)

» [Testing Balancing](#)

### ADMIRAL HEATING & VENTILATING, INC.

4150 Litt Dr., Hillside, IL 60162 ([Map](#))  
(708) 544-3300

[tcoonan@admiralheating.com](mailto:tcoonan@admiralheating.com)  
[www.admiralheating.com](http://www.admiralheating.com)  
 Tom Coonan

Service • Custom Fabrication • HVAC • Testing Balancing



### ADVANCE MECHANICAL SYSTEMS, INC.

425 E. Algonquin Rd., Arlington Heights, IL 60005 ([Map](#))  
(847) 593-2510

[dweiner@advmech.com](mailto:dweiner@advmech.com)  
[www.advmech.com](http://www.advmech.com)  
 David Weiner

Service • Residential • HVAC



### AERO PERFORMANCE GROUP

11045 Gage Ave., Franklin Park, IL 60131 ([Map](#))  
(847) 288-3200

[nick.muscolino@aerpg.com](mailto:nick.muscolino@aerpg.com)  
[aerpg.com](http://aerpg.com)  
 Nicholas Muscolino

HVAC • Service • Testing Balancing



ORISE CONTRACTING GROUP						
	A	B	C	D	E	F
1	Name of contractor		Address	Phone number	Email address	Website
2	1 ADLER ROOFING & SHEET METAL, INC.		779 Joyce Rd., Joliet, IL 60436-1815	(815) 773-1200	info@adlerroofing.com	www.adlerroofing.com
3	2 ADMIRAL HEATING & VENTILATING, INC.		4150 Litt Dr., Hillside, IL 60162	(708) 544-3300	tcoonan@admiralheating.com	www.admiralheating.com
4	3 ADVANCE MECHANICAL SYSTEMS, INC.		425 E. Algonquin Rd., Arlington Heights, IL 60005	(847) 593-2510	dweiner@advmech.com	www.advmech.com
5	4 AERO PERFORMANCE GROUP		11045 Gage Ave., Franklin Park, IL 60131	(847) 288-3200	nick.muscolino@aerpg.com	aerpg.com
6	5 AIR COMFORT		2550 Braga Drive, Broadview, IL 60155	(708) 345-1900	lucaluk@aircomfort.com	www.aircomfort.com
7	6 AIR CON REFRIGERATION & HEATING, INC.		123 Lake St., Waukegan, IL 60085	(847) 326-4128	michael.abdula@aircon-rh.com	N/A
8	7 AIR DESIGN SYSTEMS INC.		12011 W. 91st Street, Willow Springs, IL 60480	(630) 351-8256	mmele@airdesignsys.com	N/A
9	8 AIR-RITE HEATING & COOLING, INC.		1150 Frontenac Rd., Naperville, IL 60563	(630) 966-8300	na@air-rite.com	www.air-rite.com
10	9 ALLIOT ARCHITECTURAL SOLUTIONS		2045 Janice Ave., Melrose Park, IL 60160	(847) 296-6811	rypears@alliotarchitectural.com	alliotarchitectural.com
11	10 ALTHOFF INDUSTRIES, INC.		8001 South Route 31, Crystal Lake, IL 60014	(815) 455-7000	www.althoffind.com	www.althoffind.com
12	11 AMBER MECHANICAL CONTRACTORS, INC.		11950 S. Central Ave., Alsip, IL 60803	(708) 987-9700	info@ambermech.com	www.ambermech.com
13	12 AMI INDUSTRIES, INC.		9341 Adam Don Parkway, Woodridge, IL 60517	(630) 887-7700	miatanzano@ami-gent.com	amiindustries.com
14	13 ANTHONY ROOFING SYSTEMS AMERICA LLC		2555 White Oak Circle, Aurora, IL 60504	(630) 898-6888	lclausen@anthonyroofing.com	www.athome.com
15	14 ANY TEMPERATURE, INC.		336 Gundersen Dr., Carol Stream, IL 60188	(630) 754-9001	joh@anytemperature.com	anytemperature.com
16	15 ARUP & SONS, INC.		230 S. Broadway, Aurora, IL 60505-4205	(630) 896-1560	hank@arupandsons.com	www.arupandsons.com
17	16 AT MECHANICAL LLC		2000 N. Hawthorne, Melrose Park, IL 60160	(847) 675-7940	at@atmech.com	www.atmech.com
18	17 AUTOMATIC MECHANICAL SERVICES, INC.		3733 N. Ventura Dr., Arlington Heights, IL 60004-7952	(847) 618-4300	djkoo@automatic.com	www.automatic.com
19	18 BENNETT & BROUSSEAU ROOFING, INC.		535 Anderson Drive, Romeoville, IL 60446-126	(630) 755-3009	ryan@bbsroof.com	www.bennettandbrousseau.com
20	19 BUILDERS HEATING, INC.		4633 W. 138th St., Crestwood, IL 60418	(708) 365-7774	info@buildersheat.com	www.buildersheatandcooling.com
21	20 CLEAR'S MANUFACTURING CO., INC.		1855 S. Elmhurst Ave., Chicago, IL 60623	(773) 625-0000	joe@clearsmfg.com	www.clearsmfg.com

ADLER ROOFING & SHEET METAL, INC.						
	A	B	C	D	E	F
1	Address		Street	City	State	Zip
2	779 Joyce Rd., Joliet, IL 60436-1815		779 Joyce Rd.	Joliet	IL	60436-1815
3	4150 Litt Dr., Hillside, IL 60162		4150 Litt Dr.	Hillside	IL	60162
4	425 E. Algonquin Rd., Arlington Heights, IL 60005		425 E. Algonquin Rd.	Arlington Heights	IL	60005
5	11045 Gage Ave., Franklin Park, IL 60131		11045 Gage Ave.	Franklin Park	IL	60131
6	2550 Braga Drive, Broadview, IL 60155		2550 Braga Drive	Broadview	IL	60155
7	123 Lake St., Waukegan, IL 60085		123 Lake St.	Waukegan	IL	60085
8	12011 W. 91st Street, Willow Springs, IL 60480		12011 W. 91st Street	Willow Springs	IL	60480
9	1150 Frontenac Rd., Naperville, IL 60563		1150 Frontenac Rd.	Naperville	IL	60563
10	2045 Janice Ave., Melrose Park, IL 60160		2045 Janice Ave.	Melrose Park	IL	60160
11	8001 South Route 31, Crystal Lake, IL 60014		8001 South Route 31	Crystal Lake	IL	60014
12	11950 S. Central Ave., Alsip, IL 60803		11950 S. Central Ave.	Alsip	IL	60803
13	9341 Adam Don Parkway, Woodridge, IL 60517		9341 Adam Don Parkway	Woodridge	IL	60517
14	2555 White Oak Circle, Aurora, IL 60504		2555 White Oak Circle	Aurora	IL	60504
15	336 Gundersen Dr., Carol Stream, IL 60188		336 Gundersen Dr.	Carol Stream	IL	60188
16	230 S. Broadway, Aurora, IL 60505-4205		230 S. Broadway	Aurora	IL	60505-4205
17	2000 N. Hawthorne, Melrose Park, IL 60160		2000 N. Hawthorne	Melrose Park	IL	60160
18	3733 N. Ventura Dr., Arlington Heights, IL 60004-7952		3733 N. Ventura Dr.	Arlington Heights	IL	60004-7952
19	535 Anderson Drive, Romeoville, IL 60446-126		535 Anderson Drive	Romeoville	IL	60446-126
20	4633 W. 138th St., Crestwood, IL 60418		4633 W. 138th St.	Crestwood	IL	60418

FILE

HOME

Play Tour

Create Video Tour

Capture Screen

New Scene

Themes

Scene Options

Refresh Data

Shapes

Map Labels

Flat Map

Find Location

Custom Regions

2D Chart

Text Box

Legend

Time Line

Date & Time

Tour Editor

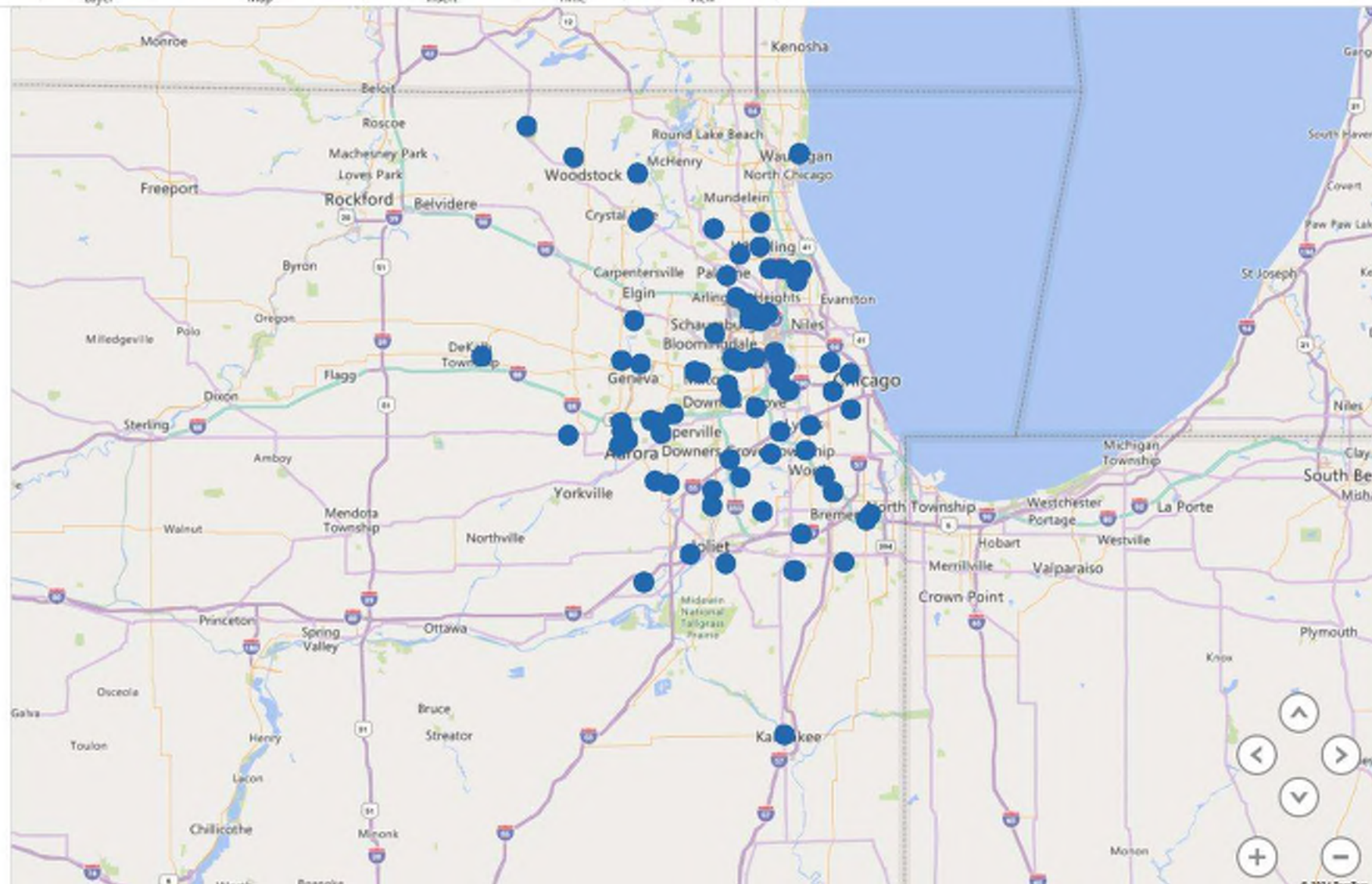
Layer Pane

Field List

Tour 1

1

Scene 1 (10 sec)



Add Layer

Layer 1

Data

Location

Street

Zip

City

State

Add Field

Street

Postal Code

City

State/Province

Size

Add Field

Category

Add Field

Time

Add Field

Filters

Layer Options

# Gemini

Gemini **Advanced** ▾

2.0 Flash Thinking Experimental with apps



Gemini Advanced

2.0 Flash

For everyday tasks, plus more features

New

2.0 Flash Thinking Experimental

Best for multi-step reasoning

New

2.0 Flash Thinking Experimental with apps

Reasoning across YouTube, Maps & Search



2.0 Pro Experimental

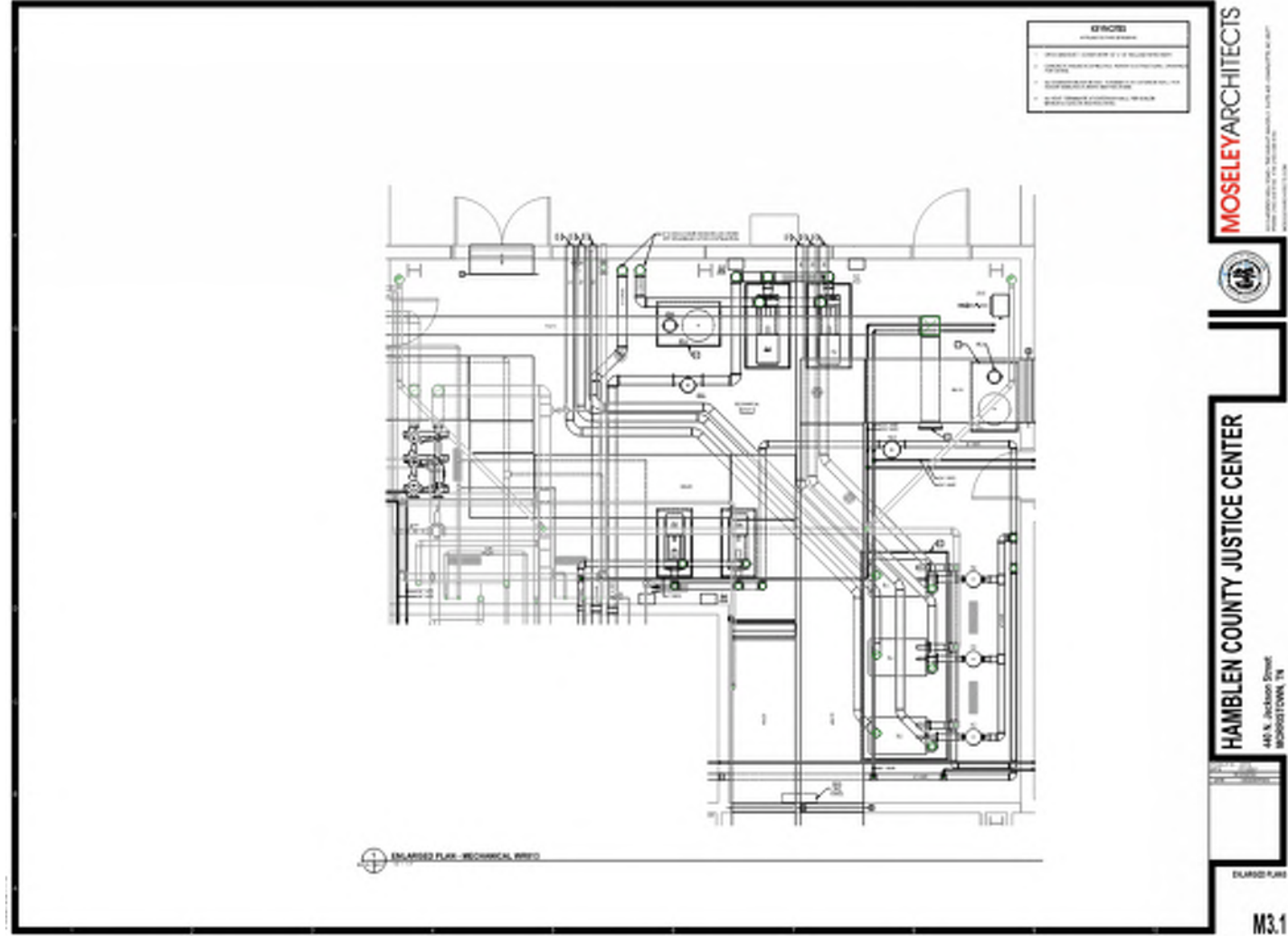
Best for complex tasks

New

1.5 Pro with Deep Research

Get in-depth answers

# Limitations of off the shelf



# Artificial Intelligence Applications

- Conversational
- Generative
- Predictive Analytics
- Prescriptive Analytics
- Reinforcement Learning
- Computer Vision
- Natural Language Processing
- Robotic Process Automation
- Cognitive Computing
- Sentiment Analysis

# What Can You Do Right Now?

- Project Planning
- Design Optimization
- Predictive Maintenance
- Safety Monitoring
- Resource Allocation
- Automated Manufacturing
- Quality Control
- Supply Chain Management
- Estimating
- Environment Impact Analysis
- Data Integration and Analysis
- Inventory Management
- Programming
- Invoice and Contract Assessment



# **AI WRAP UP**





What  
Is  
Next?



# NVIDIA CEO **TALKS** Robots





1. Agentic AI



2. Self Driving Cars



3. Humanoid

salesforce

Service Cloud ❤️

Intuitive  
Customer Care  
with Einstein  
Service Agent





Categories



Industries



PricingModels



AccessModels



Sort by: Newest

**Agent Inbox UI**

Web app for human-in-the-loop interactions with AI agents in LangGraph applications

\$ Free

Web AI Agents

NEW

**AgentOps**

Leading AI Agent Observability Company

\$ Freemium

Observability

NEW

**Vectara-agentic**

Build AI assistants and Agents with Vectara

\$ Freemium

AI Agents Frameworks

NEW

**Bytecap**

Create viral faceless videos with AI magic – Boost engagement instantly.

\$ Freemium

AI Video Agents

NEW

**WePickUpThePhone**

Your Business Always Connected With WePickUpThePhone

\$ Freemium

Voice AI Agents

NEW

**Klaus AI Agent**

Unbiased News, Real-Time Insights, and Intelligent Assistance—Revolutionizing the Way You Connect

\$ Free

WEB 3

NEW

**ChatRecap AI**

Analyze chats to uncover deeper meanings, enhance relationships, and spot hidden patterns—all privat

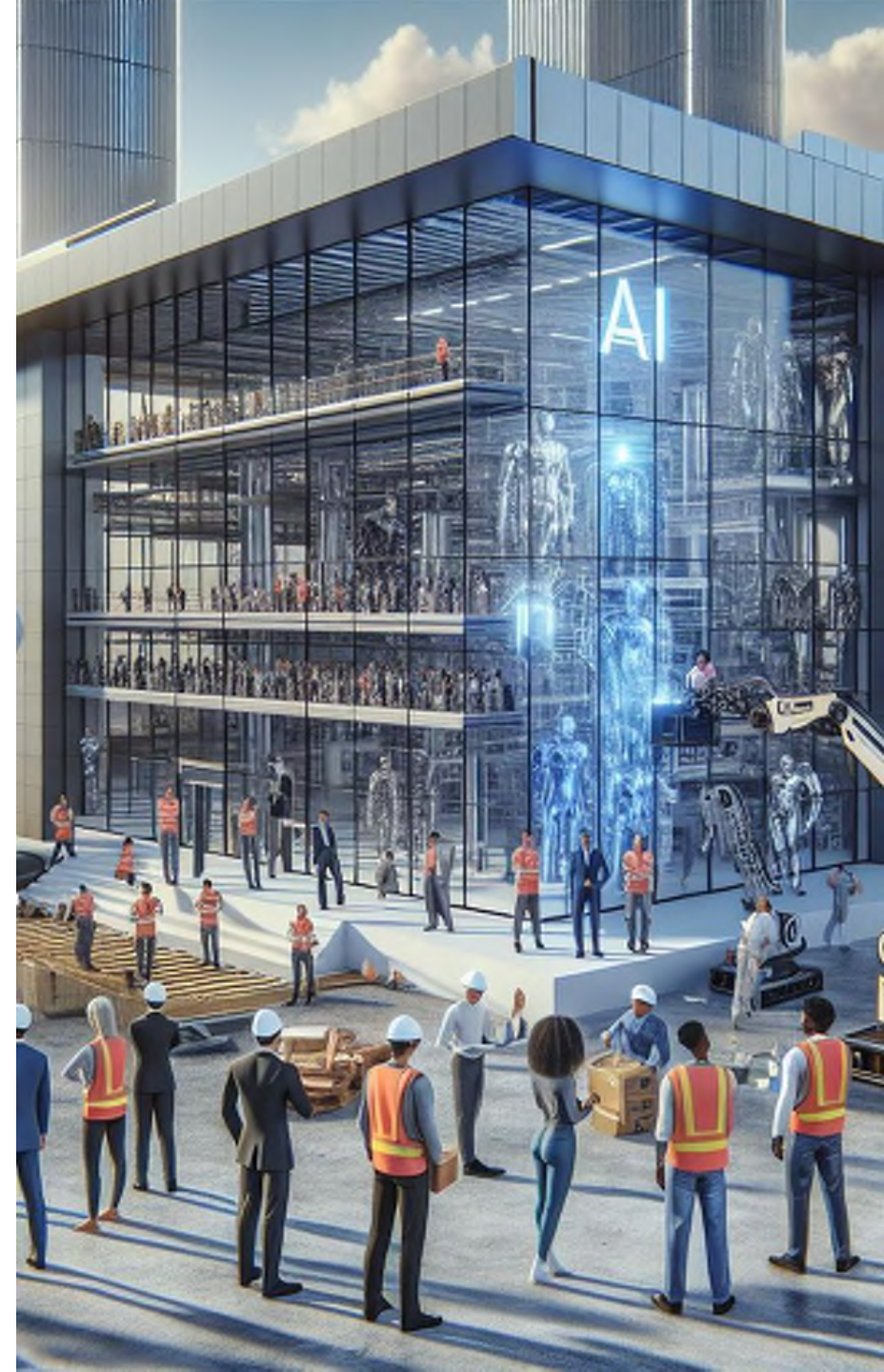
\$ Freemium

AI Agents Platform

NEW

# Agents in Construction

- Service Agent
  - Front Line for Service Department
- Project Engineer
  - Summarize new addendums and RFIs and notify the project team on impacts
- Project Billing, AP/AR
  - Send personalized payment request emails every Monday for outstanding bills



# ChatGPT Tasks Demo

# Making roads safer for all, today



In our first 22 million miles:

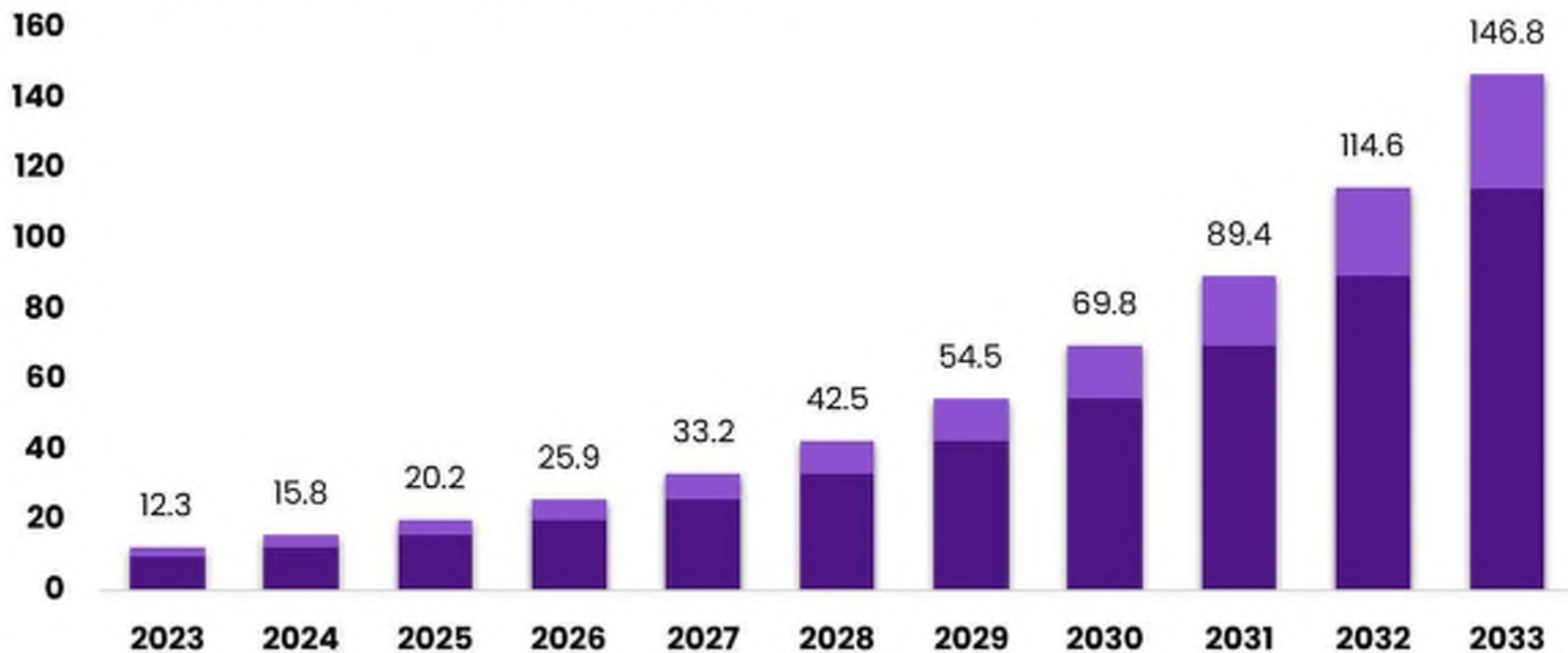


# Global AI in Robotics Market

Size, By Robot Type, 2023-2033 (USD Billion)

Service Robot

Industrial Robot



The Market will Grow

At the CAGR of:

**28.12%**

The Forecasted Market  
Size for 2033 in USD:

**\$146.8 B**



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ONE STOP SHOP FOR THE REPORTS

# Unitree G1

Price from **\$16000**

Humanoid agent AI avatar





Hot Sale, Ready To Ship, [Learn More](#)

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UNITREE

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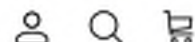
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## Unitree Go2

\$2,800.00 USD

Order now and ship within 1 months

Shipping costs \$399 per unit, Remote Countries \$499-\$1000

Not include customs duties, Please comply with local customs laws pay customs duties and clear the goods

Contact sales to get Go2 Edu price

### Version

Go2 Pro (without controller)

Go2 Pro (with controller)

Go2 Air (without controller)

Go2 Air (with controller)

### Quantity

-

1

+

Chat with us





# Unitree B2-W Robot Dog

**AMAZING!**



FULLY

AUTOMATED

WELDING

NOVARC  
TECHNOLOGIES

NOVARC  
TECHNOLOGIES

\*Disclaimer: A welding screen or shield is required while the arc is on.

# AI Data Policy

- AI Audit
- Settings/Procedures
- Appropriate Uses of AI
- Conditional Uses
- Inappropriate Uses

# AI Data Policy

- AI Audit
- Settings/Procedures
- Appropriate Uses of AI
- Conditional Uses
- Inappropriate Uses



# AI Audit

- What people are using
- How they are using it
- Not to shut them down, but see if there are creative use cases
- Hackathons



# Settings and Procedures

- Default Settings Often Do NOT protect data.
- Paid vs Unpaid Versions
- Aggregating Licenses for Discounts
- Review/Editing
- Archiving/Deleting



# Appropriate Uses

- Summarizing Meeting Transcripts/Minutes
- Generating Comms Content
- Generating RFI's
- Submittal Review
- Document Review



# Conditional Uses

- Project Financial Summaries
- Contract Analysis
- Project Bots



# Inappropriate Uses

- Confidential Information
- Unregulated Automation
- Security Sensitive Materials





**The End**

