

Part II

AI

and the
New M&A
Playbook



CORUM
MERGERS & ACQUISITIONS

WFS EDUCATING
TECHNOLOGY
LEADERS

Tim Goddard, EVP, Corporate Strategies, Corum Group Ltd.



- **Served as marketing and product manager for GIS software startup Depiction, Inc., and previously worked in marketing for VizX Labs, a pioneering SaaS startup delivering DNA analysis tools.**
- **Worked for a US Senate campaign and taught science in Rio de Janeiro.**
- **Graduated Magna Cum Laude from Bethel University in St. Paul, Minnesota, with degrees in History and Biology.**

World Financial Symposiums

Educating Technology Leaders



WFS.com

**Corum has
30 years of
transaction
experience
in A.I.**



Corum Top Ten Technology Trends 2016

CONNECT



Online Exchanges



Digital Currency Flow



Connected Health

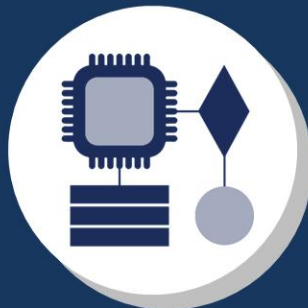


Omni-channel Sales

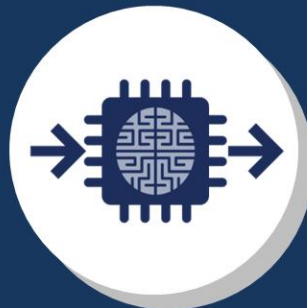


IoT Software

CREATE



Enmeshed Systems



AI Enablement



Positioning Intelligence



Sports & Games



Data Security

Join the conversation!

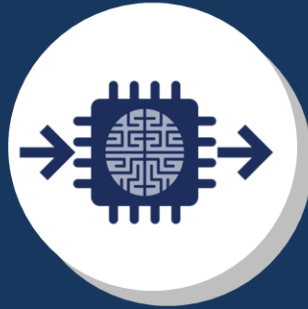


@CorumGroup
#FORECAST2016

CORUM

Corum Top Ten Technology Trends 2017

CORE



AI Enablement



IoT Software



Visual Intelligence Systems



Digital Currency Flow



Data Science Monetization

CONTOUR



Online Exchanges



Omni-channel Sales



Connected Health



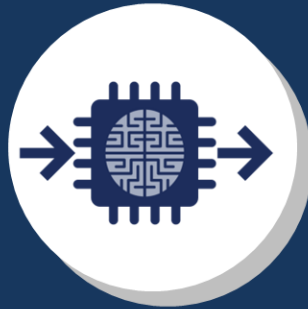
Focused IT Services



Data Security

Corum Top Ten Technology Trends 2018

CORE



AI
Enablement



Composite
Commerce



IoT
Software



Digital Currency
Flow



Data Science
Monetization

CONTOUR



Focused IT
Services



Smart
Logistics



Connected
Health



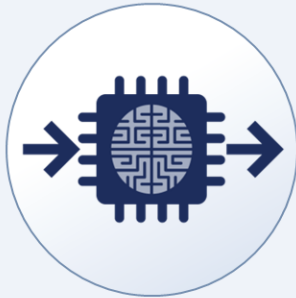
Regtech
Systems



Data
Security

2019 TOP TEN DISRUPTIVE TECHNOLOGY TRENDS

Fundamental



AI
ENABLEMENT



PLATFORM
EFFECTS



COMPOSITE
COMMERCE



IOT
SOFTWARE



DATA SCIENCE
MONETIZATION



FOCUSED
IT SERVICES



HEALTHTECH
CONTINUUM



REGTECH
SYSTEMS



SMART
LOGISTICS

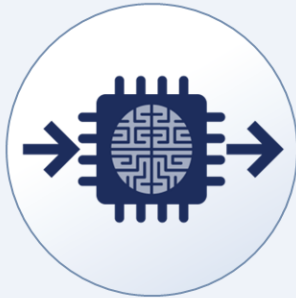


BLUE COLLAR
SOFTWARE

Functional

2020 TOP TEN DISRUPTIVE TECHNOLOGY TRENDS

Fundamental



AI
ENABLEMENT



ACTIONABLE
ANALYTICS



PAYMENT STREAM
CONTROL



IOT
SOFTWARE



HYBRID
CLOUD



FOCUSED
IT SERVICES



HEALTHTECH
CONTINUUM



REGTECH
SYSTEMS



SMART
LOGISTICS

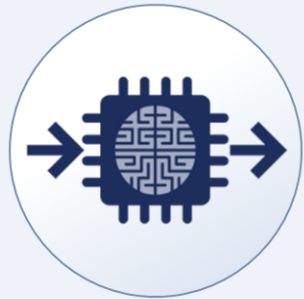


BLUE COLLAR
SOFTWARE

Functional

2021 Top 10 Disruptive Technology Trends

Foundational



AI
ENABLEMENT



ACTIONABLE
ANALYTICS



COMPOSITE
COMMERCE



REMOTE
TRUST



LOW-CODE
EVERYWHERE



FOCUSED
IT SERVICES



HEALTHTECH
CONTINUUM



SMART
LOGISTICS



REGTECH
SYSTEMS



BLUE COLLAR
SOFTWARE

Functional

CORE TECH CONCEPTS



SaaS



Cloud



Mobile



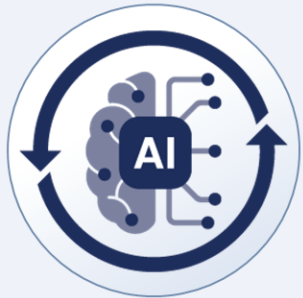
A.I.



November 2022

2024 Top 10 Disruptive Technology Trends

Foundational



GEN-AI
ENABLEMENT



PEOPLE-CENTRIC
PRODUCTIVITY



ACTIONABLE
ANALYTICS



EVERYTHINGOPS



CASHFLOW
TECH



FOCUSED
MANAGED SERVICES



HEALTHTECH
CONTINUUM



REGTECH
SYSTEMS



BLUE COLLAR
SOFTWARE



DIGITAL BUILT
ENVIRONMENT

Functional

Luminary Panel

HEIDI OWEN,
EVP MARKETING,
CORUM GROUP LTD.



PETER COFFEE
VP STRATEGIC
RESEARCH



JEETU PATEL
EVP & GENERAL
MANAGER, SECURITY &
COLLABORATION



TRACY RING
CDO & GLOBAL GEN AI
LEAD – LIFE SCIENCES



"It's an enormous transformative lever
that every type of organization is leveraging."

- **Tracy Ring**, Accenture

Private Equity Panel

TIM GODDARD,
EVP CORP. STRAT.
CORUM GROUP LTD.



TARA ZAHIRI
VICE
PRESIDENT



STEVE RESSLER
MANAGING
PARTNER



C.J. ORRICO
MANAGING
DIRECTOR



CHERYL STROM
PARTNER



ROHAN CHUDASAMA
VICE
PRESIDENT



"This innovative technology is quickly becoming table stakes for all successful software companies and I believe it'll only continue to grow in importance to stay relevant and drive innovation."

- **Tara Zahiri**, Mainsail Partners

"Generative A.I. is the biggest disruptor to the tech space. It's caused a paradigm shift in the market creating new opportunities and revolutionizing how companies operate."

- **Rohan Chudasama**, Providence Strategic Growth



**Corum's dealmakers all have
experience with A.I.**

A.I. & the New M&A Playbook Part II



World Financial Symposiums presents

Tech M&A Master Class

MAY 14-16 2024 | FONTAINEBLEAU, LAS VEGAS



We welcome your questions!

**Email questions to
info@corumgroup.com**

This event is being recorded
On demand webcast will be available at
www.corumgroup.com

Welcome

**“Advancements in Generative A.I. for C-level Executives”
Presented by Dr. Ivan Ruzic**

A.I. Market Research Report

Closing

CORUM

Advancements in Generative AI ...

For C-level Executives

Dr. Ivan Ruzic, SVP Corum Group

February 2024



- Definition and Benefits of Generative AI
- Rapid Advancements and Use Cases
- Intellectual Property and Innovation Trends
- Workforce Impact and Economic Value
- Regulatory Environment and Ethical Considerations
- Advice for C-level executives

See it here: https://www.youtube.com/watch?v=zFe6l_V5unE&t=11s

Read it here: <https://www.bitswithbrains.com/post/how-generative-ai-will-profoundly-reshape-business>

Adapt or Die

- 2024's shift from experimental to impactful GenAI
- Existential threat to non-adopters with a clear divide emerging between AI-forward and obsolete companies.
- Software companies quickly embedding GenAI to remain competitive.
- Adoption barrier challenges for smaller companies, including resource access.
- Why late AI integrators could see swift valuation declines.
- Immediate AI integration or strategic exit for maximizing company value.

- **GenAI Advancements in 2024**
- **Implementation Considerations**
- **Final Thoughts**

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- **Implementation Considerations**
- **Final Thoughts**

2024 Will Be The Year of “MORE...”

2024 The Year of AI Deployment & AI Acceleration

“ .. This year, AI graduates from petri dish to pilot project, from proof-of-concept to game-changer.”

Andrew Ng, Renowned AI Educator and Investor

“The wild card, more than ever, is technology – specifically, artificial intelligence. “

“AI will disrupt our economies, societies, and geopolitics in ways we can’t yet predict...”

“And this will happen much sooner than you think. With AI capabilities doubling roughly every six months, three times faster than Moore’s law...”

*Ian Bremmer, CEO,
The Eurasia Group, Jan 17, 2024*



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- LLMs and Other GenAI Models both Proprietary & Open-Source
- Advances in Multimodal Models
- No-Code GenAI Application Development
- AI “Agent” Development & Augmented Working
- GenAI Applications in Production
- GenAI Usage in Robotics
- Focus on GenAI Ethics and Regulation

LLMs and Other GenAI Models (Proprietary & Open-Source)

- More Sophisticated Large Language Models (LLMs)
 - Open AI (GPT-5), Google Gemini 1.0 Ultra, Anthropic, Meta Llama 3, Amazon Olympus, Mistral Large, etc..
 - Larger Context Windows
- The Rise of Small Language Models (SLMs)
 - Gemini Nano, Microsoft Phi, (Smartphones, etc.)
 - “Mixture of Experts” (MoE) models



AI

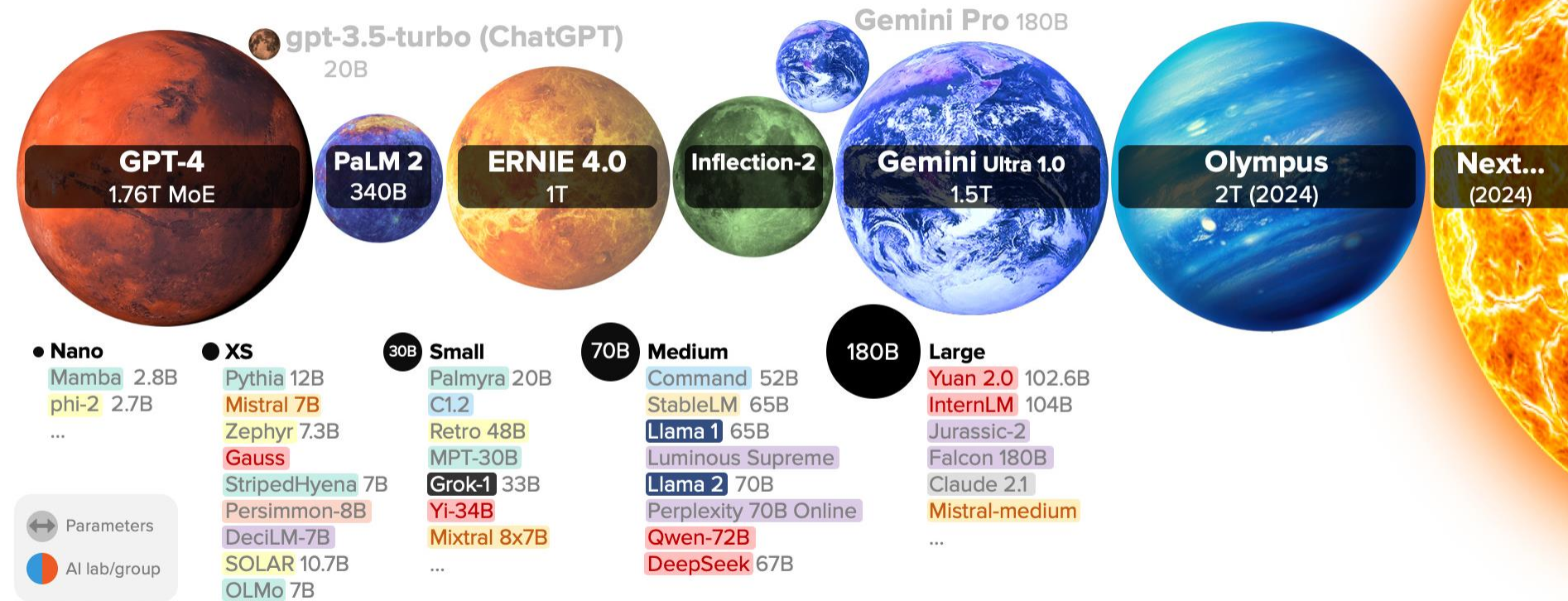


amazon



2024 Will Be The Year of “MORE...”

LARGE LANGUAGE MODEL HIGHLIGHTS (FEB/2024)



Large Language

Google Gemini 1.0 Ultra, GPT-4o, LLaMA 3, Amazon Olympus,

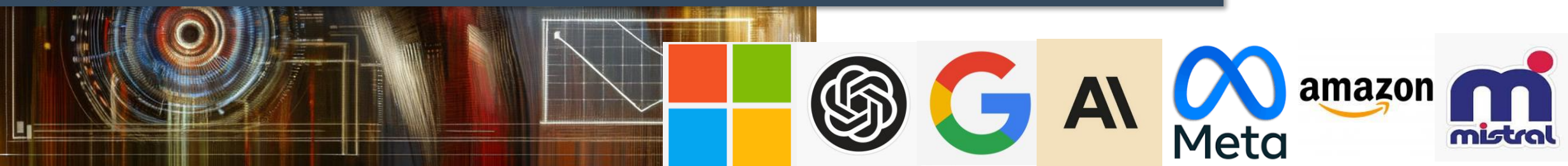
flows

Language Models (SLMs)

Microsoft Phi, (Smartphones,

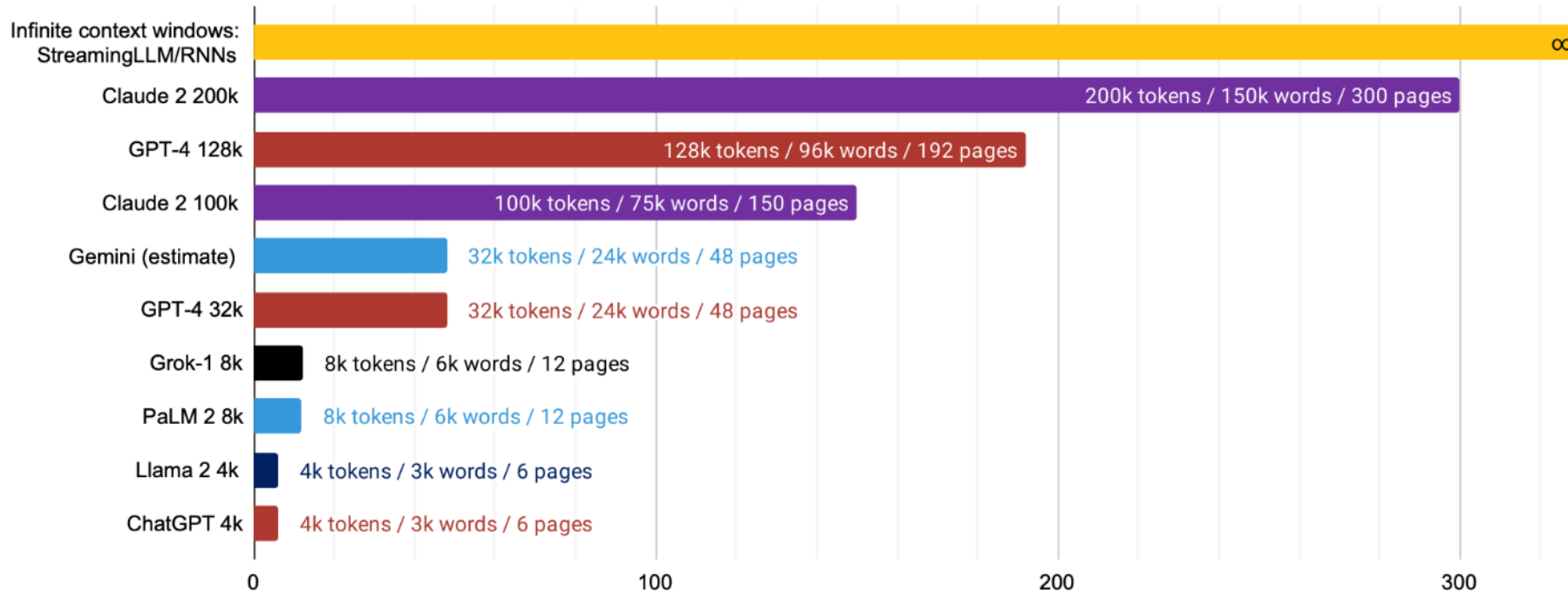
(MoE) models

LifeArchitect.ai/models



2024 Will Be The Year of “MORE...”

2023 CONTEXT WINDOWS (MAX IN/OUT LENGTH)



Using rounded figures of 1 token = 0.75 words (e.g. 32,000 tokens = 24,000 words), 500 words = 1 page. Alan D. Thompson, November 2023. <https://lifeaiarchitect.ai/models/>

LifeArchitect.ai/models

Large Language

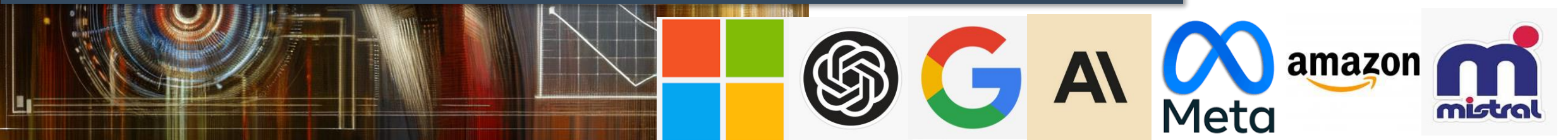
Google Gemini 1.0 Ultra,
Llama 3, Amazon Olympus,

Windows

Language Models (SLMs)

Microsoft Phi, (Smartphones,

MoE) models



LLMs and Other GenAI Models (Proprietary & Open-Source)

- **Phi-2 (2.7B):** From Microsoft, can run on a smart phone
- **Gemini Nano (2.7B?):** From Google, can run on a smartphone
- **Mixtral 8x7B (56B):** From Mistral, can run on a local machine
- **Accessible, Efficient, Cost-effective & can be specialized**

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AI



amazon



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LLMs and Other GenAI Models (Proprietary & Open-Source)

- **AlphaFold 2: Protein Structure prediction**
- **MuseNet: Musical Composition**
- **BloombergGPT: Assessment of financial data**
- **Socratic: personalized tutor works on a smartphone**
- **Wolters Kluwer: Contract review & other**

- **More Specialized Fine-Tuned Models**
 - Science, creative industries, finance, education, legal, etc..
- **Open-Source LLM Use in Production**
- **Integration with real-world data and sensors bridging the gap between physical and digital world**
- **Democratization through local execution**

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Company	Model	Description
VMWare	HuggingFace StarCoder	Helps developers generate code.
Brave	Mixtral 8x7B	Conversational assistant.
Gab Wireless	Open-source models from Hugging Face	Screens messages for inappropriate content.
Wells Fargo	Open-source LLM-driven models	Internal uses.
IBM	Granite, HuggingFace and Meta LLMs	AskHR app, Consulting Advantage, marketing application.
The Grammy Awards	Llama 2	AI stories service.
Masters Tournament, Wimbledon, US Open	Open-source LLMs	Spoken voice commentary, video highlights.
Perplexity	Custom-built open-source LLMs	Search engine.
CyberAgent	Open-source LLMs from Dell software	OpenCALM Japanese language model.
Intuit	Open-source models	Intuit Assist feature.
Walmart	GPT-4 and other LLMs	Conversational AI applications.
Shopify	Llama 2	Shopify Sidekick.
LyRise	Llama	Chatbot for talent-matching.
Niantic	Llama 2	Peridot feature in Pokemon Go.

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LLMs and Other GenAI Models (Proprietary & Open-Source)

- **Predictive Maintenance: anomaly detection**
- **Smart Agriculture: yield optimization**
- **Traffic Flow: analysis of GPS, images & other sensors**
- **Personalized Healthcare: wearable sensors**
- **Autonomous maintenance robots: LIDAR and camera auto-guided**

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2024 Will Be The Year of “MORE...”

LLMs and Other GenAI Models (Proprietary & Open-Source)

Chat with RTX

AI model
Select AI model
Llama 2 13B int4

Dataset
.txt, .pdf, .doc files supported
Folder Path
C:\Users\ivan\AppData\Local\NVIDIA\ChatWithRTX\RAG\trt-llm-rag-windows-main\dataset

Default dataset is a sampling of articles recently published on GeForce News

How does NVIDIA ACE generate emotional responses?

What is Portal prelude RTX?

What is important about Half Life 2 RTX?

When is the launch date for Ratchet & Clank: Rift Apart on PC?

Chat with RTX... **SEND**

LM Studio 0.2.14

TheBloke • llama 2 orca 200k 70B Q4_K_M gguf

Export

Reload model to continue

USER: Act as an expert generative AI engineer. What are the advantages and disadvantages of using Retrieval Augmented Generation (RAG) vs fine-tuning a model?

AI: Retrieval Augmented Generation (RAG) is a novel approach to text generation that combines traditional language models with retrieval systems. This approach allows for the creation of more accurate and coherent text by leveraging existing knowledge in the form of pre-trained language models.

One advantage of using RAG over fine-tuning a model is that it can significantly reduce training time and computational resources. Fine-tuning requires retraining the entire model on new data, which can be time-consuming and resource-intensive. On the other hand, RAG only needs to train the retrieval system, which can be done quickly and efficiently.

Another advantage of RAG is that it can improve text quality by reducing hallucination errors. Hallucination errors occur when a model generates text that is not supported by the input data. By using a retrieval system to provide relevant information from existing knowledge sources, RAG can help prevent these errors and ensure that generated text is accurate and coherent.

However, there are also disadvantages to using RAG over fine-tuning. One potential issue is that the retrieval system may not always be able to find the most relevant information for a given input. This can result in less accurate or incomplete text generation. Additionally, RAG requires careful tuning and optimization of both the language model and retrieval system, which can be complex and time-consuming.

In conclusion, while there are advantages and disadvantages to using RAG over fine-tuning a model for text generation, it ultimately depends on the specific use case and goals of the task.

Export as Screenshot Reload model to continue chat

USER: Reload the model to continue...

time to first token: 12.30s gen t: 105.42s speed: 3.00 tok/s stop reason: completed gpu layers: 83 cpu threads: 4 mlock: false token count: 414/4096

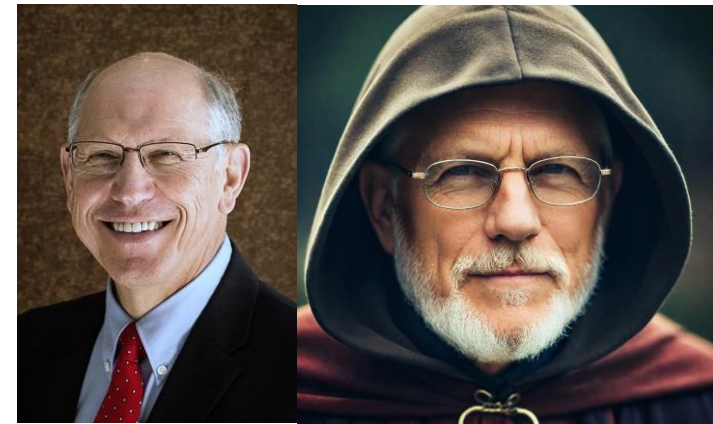
Model Downloads 0 downloading • 25 completed

Large Language Models running locally

Multimodal GenAI Advances, especially Video

- Enhanced fidelity and control for text-to-code, text-to-image & text-to-video, but also the reverse
- Models such as SORA developing internal ‘world models’ to enhance reasoning
- Personalized Content Creation
- Integration into creative workflows

AI system that can process and understand multiple forms of data, such as **text, images, audio, and video.**



2024 Will Be The Year of “MORE...”



Prompt:

generate a photorealistic image of a woman in her 80's with a whimsical expression on her face sitting in a rocking chair starring out of a window. She has a multicolored shawl around her shoulders.



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No-Code GenAI Application Development



Some Current Low-Code / No-Code tool sets

- Enhanced Natural Language Processing
 - Low-Code / No-Code platforms will understand natural language instructions better, allowing non-technical users to create applications.
- AI-Powered automation and workflows
 - Automation of repetitive tasks within the development process, such as data integration, UI element generation, and workflow management
- Pre-built AI components and templates
 - Will offer functionalities like image recognition, sentiment analysis, and chatbots

No-Code GenAI Application Development

```
1 import pygame
2 import random
3
4 # Define some colors
5 BLACK = (0, 0, 0)
6 WHITE = (255, 255, 255)
7 RED = (255, 0, 0)
8 GREEN = (0, 255, 0)
9
10 # Define screen dimensions
11 WIDTH = 800
12 HEIGHT = 600
13
14 # Define snake block size
15 block_size = 20
16
17 # Define initial snake speed
18 snake_speed = 15
19
20 # Define font
21 font_style = pygame.font.SysFont(None, 25)
22
23 Codeium: Refactor | Explain | Generate Docstring | X
24 def message(msg, color):
25     msg = font_style.render(msg, True, color)
26     gameDisplay.blit(msg, [WIDTH / 6, HEIGHT / 3])
27
28 Codeium: Refactor | Explain | Generate Docstring | X
29 def draw_snake(snake_block, snake_list):
30     for x in snake_list:
31         pygame.draw.rect(gameDisplay, GREEN, [x[0], x[1], block_size, block_size])
32
```

ChatGPT

This code is a simple implementation of the classic "Snake Game" using the Pygame library in Python. Here's a breakdown of its main components and functionality:

- Import Libraries:** The code imports `pygame` for the game development framework and `random` to generate random positions for the food.
- Color and Screen Setup:** It defines several color constants (BLACK, WHITE, RED, GREEN) and screen dimensions (`WIDTH` and `HEIGHT`). These are used throughout the game for drawing.
- Snake Configuration:** It sets the snake's block size (`block_size`) and initial speed (`snake_speed`).
- Font Setup:** A font style (`font_style`) is defined for displaying messages on the screen.
- message Function:** This function is responsible for rendering and displaying messages on the screen. It's used to show game over messages and instructions to the player.
- draw_snake Function:** This function draws the snake on the screen. It iterates through the snake's segments (`snake_list`) and draws each block.
- game_loop Function:** This is the main game loop where the game's logic runs:
 - Initialization:** It initializes the game state, including the snake's starting position, movement direction, length, and the position of the first food item.
 - Game Loop:** The loop runs until `game_over` is set to True. It handles user input (arrow keys to change direction), updates the snake's position, checks for collisions with the game borders (which triggers `game_close`), and detects when the snake eats the food (increasing the snake's length and repositioning the food).
 - Collision Detection:** It checks if the snake collides with itself, which also triggers `game_close`.
 - Drawing:** It fills the background, draws the food, updates the snake's length and position, and

No-Code GenAI Application Development

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21 font_style = pygame.font.
22
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24 def message(msg, color):
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27
28
29 def draw_snake(snake_block
30     for x in snake_list:
31         pygame.draw.rect(gameDisplay, GREEN, [x[0], x[1], block_size, block_size])
32
```

Potential Issues/Errors:

- **Scope of `gameDisplay`:** `gameDisplay` is defined inside `game_loop` function, which could be problematic if you're trying to access it from outside or before its definition in other parts of the code not shown here. It should be accessible to any function that needs it, so you might want to define it at a higher level or pass it as a parameter to functions.
- **Recursive `game_loop` Call:** When the player presses 'C' to continue after losing, the code calls `game_loop()` recursively. This could lead to a stack overflow if the player loses and restarts many times. A better approach would be to use a loop to restart the game instead of recursion.
- **Event Handling During Loss:** The handling of events when the game is closed (lost state) is done within the main game loop. This approach works but might be confusing because it mixes game over logic with the main game loop. It might be clearer to separate these concerns.
- **Integer Division for Food Position:** The food position is calculated using `round(random.randrange(0, WIDTH - block_size) / 10.0) * 10.0`, ensuring that food



ChatGPT

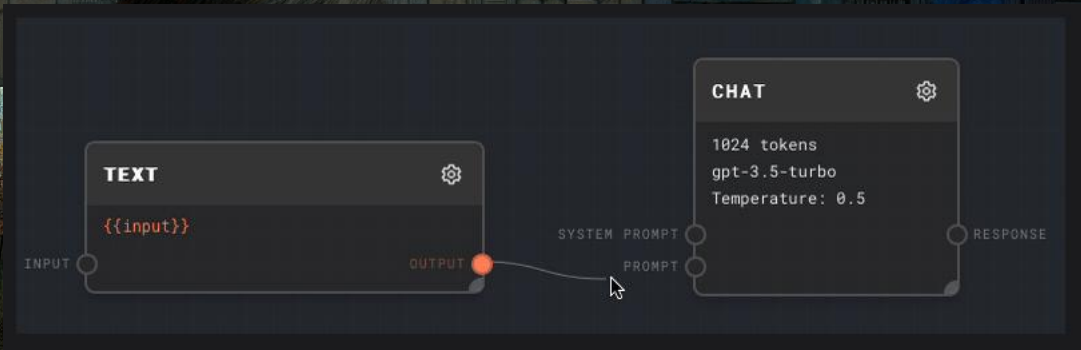
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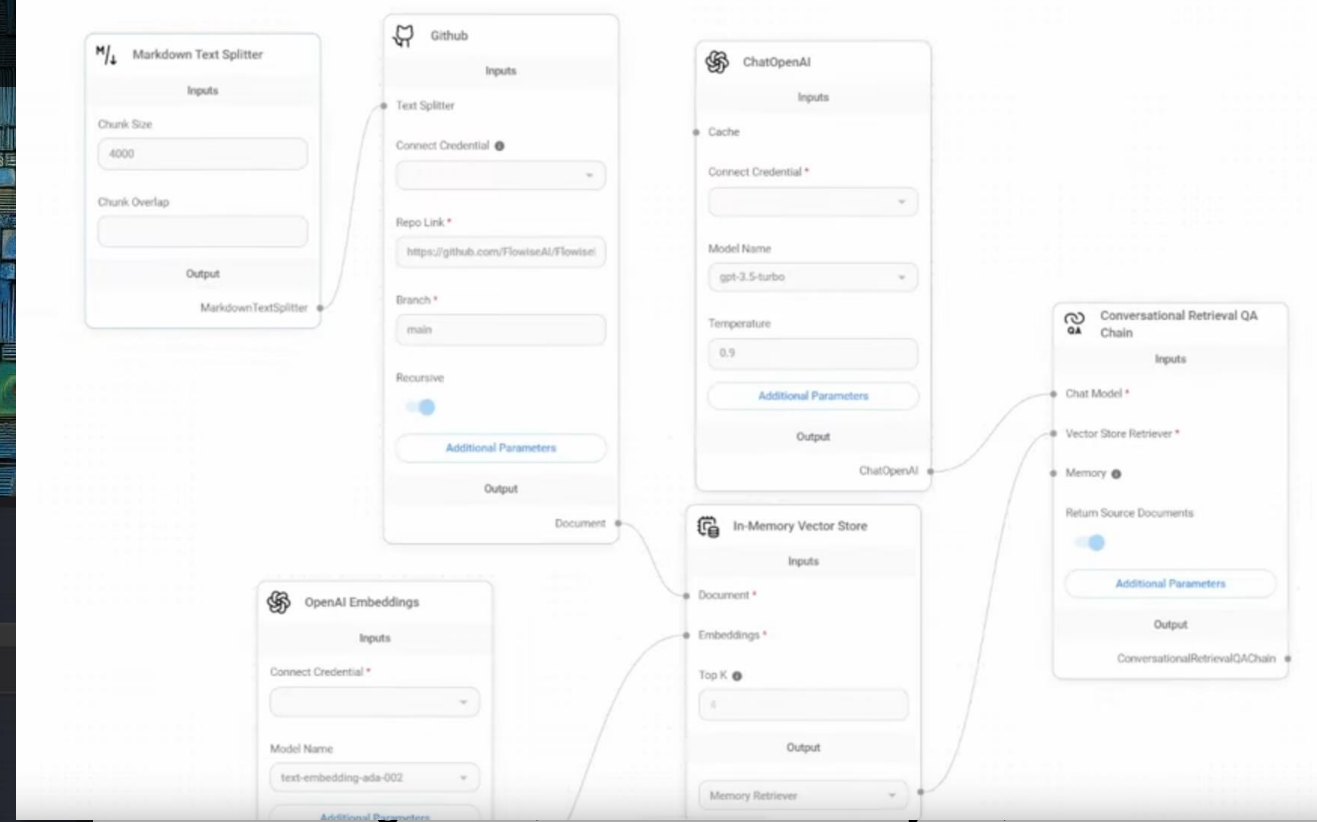
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2024 Will Be The Year of “MORE...”

No-Code GenAI Application Development



- Enhanced Natural Language Processing
 - Low-Code / No-Code platforms will



Rivet Nodes & Graphs



Flowise Application Development Environment

AI “Agent” Collaborations & Augmented Working

Simplest Agents: Open AI’s “GPT’s”



Grimoire

Coding Wizard 🧙 Learn to Prompt-gram!
Create a website with a sentence. 20+
Hotkeys for coding flows. 75 starter...

By mindgoblinstudios.com



Consensus

Your AI Research Assistant. Search 200M
academic papers from Consensus, get
science-based answers, and draft content...

By consensus.app



Data Analyst

Drop in any files and I can help analyze and
visualize your data.

By ChatGPT

■ Autonomous AI Agents

- Will operate themselves and carry out more sophisticated operations than traditional chatbot-style agents

■ Multimodal AI Agent Systems

- Will be able to process and understand multiple types of data such as text, images, and possibly audio

■ AI-Enabled Assistants Becoming More Mainstream

- Assistants, powered by GenAI, will be capable of performing a variety of tasks, from managing schedules to generating content
- Will link to numerous workflows

AI “Agent” Collaborations & Augmented Working

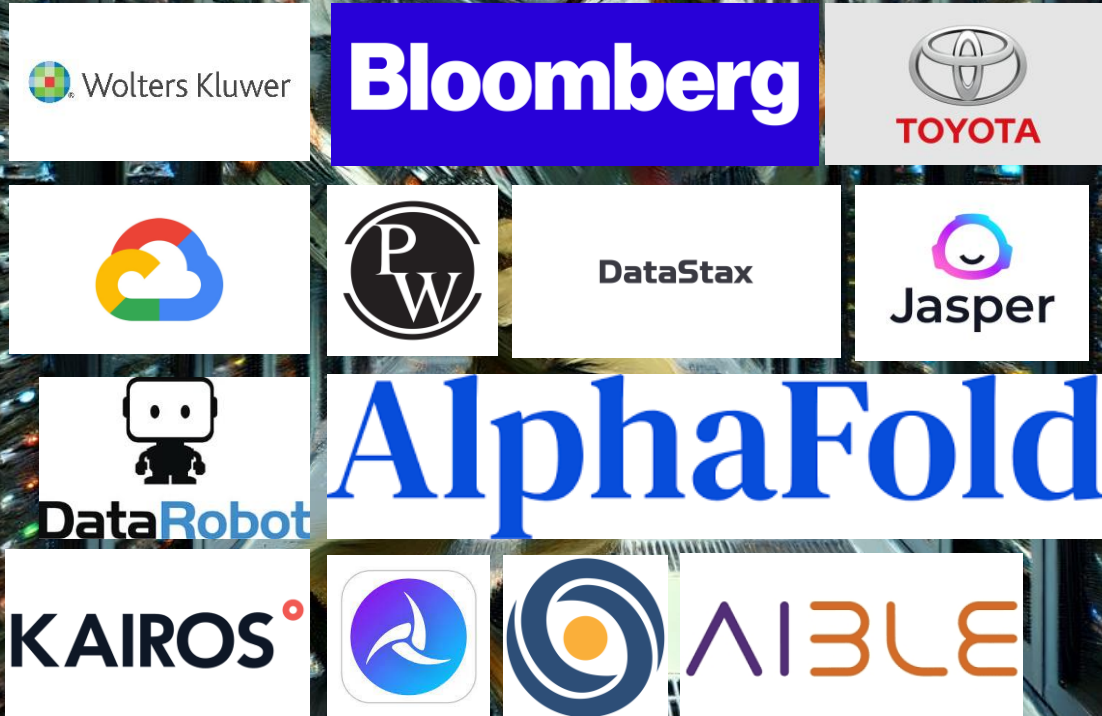
Feature	AutoGPT	Crew AI	SuperAGI
Concept	General-purpose AI agent development	Pre-trained AI agents for specific tasks	Framework for building and deploying AI agents
Focus	Research and development	User-friendliness and accessibility	Development infrastructure and tools
Complexity	High	Low	Medium
Open-source	Yes	No	Yes



- Autonomous AI Agents
 - Will operate themselves and carry out more sophisticated operations than traditional chatbot-style agents
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2024 Will Be The Year of “MORE...”

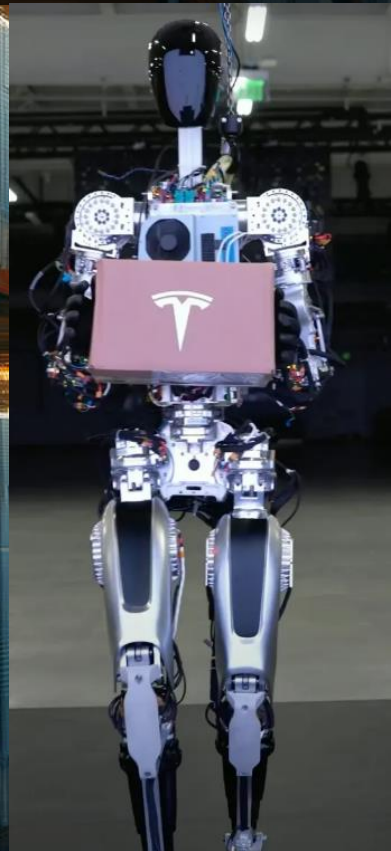
Production Applications



- Healthcare
 - Wolters Kluwer: enhancing clinical decision support and administrative efficiency
- Finance
 - BloombergGPT: sentiment analysis and financial news classification
- Automotive
 - Mercedes-Benz and Toyota : as vehicle design, manufacturing simulations, and customer experience.
- Retail
 - Google Cloud: Conversational Commerce solution and Cloud Catalog for product descriptions, etc.
- Education
 - Numerous: Corum client has smarter learning tools for nursing

AI Uses in Robotics

Tesla Bots



“EVE”



“NEO”



- AI-driven robotic grasping and manipulation
 - reinforcement learning, specifically the QT-Opt approach, to robotics grasping with 96% success rate.
- Computer vision advancements
 - synthetic datasets to train computer vision models for robots
- “Embodiment” and Natural Language Interfaces
 - Multimodal LLMs integrated into robots to make them smarter, allowing more natural conversations and interactions
- Human-AI collaboration in robotic assembly lines
 - GenAI algorithm enable robots to predict and adapt to human movements in real-time.

EVE demo:

<https://youtu.be/iHXuU3nTXfQ?si=J4B9F5BeVyWwjcbj>

Focus on Ethics and Regulation



■ Industry

- Global Partnership on AI (GPAI) Releases Deepfake Guidelines
- ACM US Public Policy Council Publishes White Paper on Generative AI Bias
- Development of International Standards for Explainable AI (XAI)

■ US Government

- Congress Considers "The Algorithmic Accountability Act"
- National AI Safety Commission

■ European Union

- Updates to the General Data Protection Regulation (GDPR)
- EU AI Act

- **GenAI Advancements in 2024**
- **Implementation Considerations**
- **Final Thoughts**



1. Leadership
2. Knowledge
3. Data
4. Talent
5. Capital
6. Processes



1. Leadership
2. Knowledge
3. Data
4. Talent
5. Capital
6. Processes



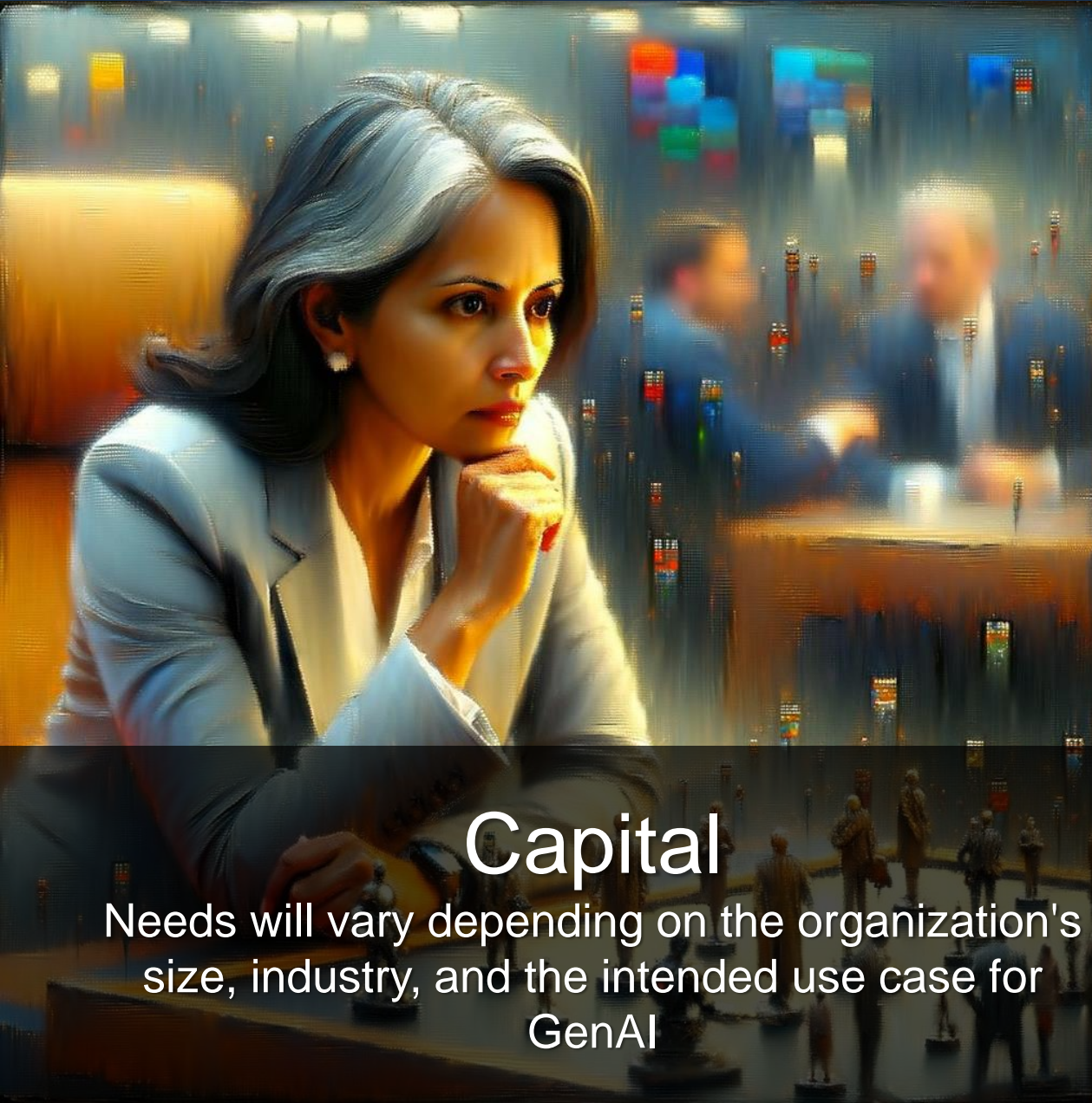
Leadership

The right leadership can unlock the full potential of GenAI while mitigating risks and fostering a successful transition for their organization

- Expertise in AI has quickly become a critical C-Suite skill – one that many leaders lack.
- Leaders will have to manage three different levels of change: iteration, innovation & disruption
- AI Success may demand different leadership styles:
 - Iteration: leaders proven in accelerating business growth and financial performance by getting the best out of people, processes, and technology.
 - Innovation: leaders with a proven background of launching a new product, service, or capability inside an existing company.
 - Disruption: Leaders with a proven background of transforming a company to deliver a new strategic offering, reinventing, or repositioning the business.

Source:

https://topgunventures.com/news_and_insights/artificial-intelligence-how-leaders-can-leverage-ai-part-2/



Capital

Needs will vary depending on the organization's size, industry, and the intended use case for GenAI

- R&D costs increase
 - Building & refining models
 - Data acquisition, storage & processing
- Infrastructure
 - Physical & digital
 - Software & Hardware
- Risk Management
 - Data security & privacy
 - Bias mitigation and guardrails
- Other
 - Talent acquisition & training
 - Change management

Critical Success Factors for GenAI Implementation



Model	Training end	Chip type	TFLOP/s (max)	Chip count	Wall clock (days)	Total time (years)	Cost (US\$)	MMLU ▼
GPT-3	Apr/2020	V100	130	10,000	15 days	405 years	\$5M	43.9
Llama 1	Jan/2023	A100	312	2,048	21 days	118 years	\$4M	63.4
Llama 2	Jun/2023	A100	312	2,048	35 days	196 years	\$7M	68.0
GPT-4	Aug/2022	A100	312	25,000	95 days	6,507 years	\$224M	86.4
Gemini	Nov/2023	TPUv4	275	57,000	100 days	15,616 years	\$440M	90.0
GPT-5	Apr/2024	H100	989	50,000	120 days	16,438 years	\$612M	
Llama 3	Apr/2024	H100	989					
Olympus	Aug/2024	H100	989					
Gemini 2	Nov/2024	TPUv5	393					

Alan D. Thompson. Feb/2024. LifeArchitect.ai

Table. Google DeepMind Gemini training compute (see working, with sources⁸).

Capital

Needs will vary depending on the organization's size, industry, and the intended use case for GenAI

Critical Success Factors for GenAI Implementation



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Model	Size (Parameters)	Tuning Method	Time (Days)	GPU Resources*	Compute Required	Estimated Cost (\$) - Low	Estimated Cost (\$) - High
Bllom 13B	13B	Full fine-tuning	7	128	100 PetaFLOPsDays	\$ 40,643	\$ 88,166
Bloom 30B	30B	Full fine-tuning	14	256	200 PetaFLOPs Days	\$ 162,570	\$ 352,666
OPT-13B	13B	Full fine-tuning	7	128	100 PetaFLOPsDays	\$ 40,643	\$ 88,166
OPT-30B	30B	Full fine-tuning	14	256	200 PetaFLOPs Days	\$ 162,570	\$ 352,666
Gopher-13b	13B	LORA fine-tuning	1	16	10 PetaFLOPs Days	\$ 726	\$ 1,574
Gopher-20B	30B	LORA fine-tuning	2	32	20 PetaFLOPs Days	\$ 2,903	\$ 6,298

* A100 GPUs

GenAI

Getting Started: Large Language Models



- **Clarify Your Objectives:** Start by defining clear, actionable objectives for what you hope to achieve with LLMs.
- **Balance Cost with Performance:** It's crucial to understand that the initial cost of acquiring and setting up an LLM is just the beginning.
- **Experiment Wisely:** Embrace experimentation but do it wisely.
- **Develop In-house Expertise:** The successful implementation of LLMs requires specific skills, from data science to software engineering and beyond.
- **Choose the Right Model:** There's a vast landscape of LLMs available, each with its strengths and use cases.

Getting Started: Large Language Models



- **Monitor and Optimize Continuously:** Implementing an LLM is not a set-it-and-forget-it proposition.
- **Understand the Economic and Strategic Impacts:** Be mindful of the broader economic and strategic implications of integrating LLMs into your business.
- **Leverage Cloud Services and Infrastructure:** Most businesses will benefit from cloud services that offer scalable access to computing power, storage, and AI tools needed to run LLMs efficiently.
- **Stay Informed on Industry Trends:** Generative AI, and LLMs in particular, are evolving rapidly.
- **Prepare for Ethical and Regulatory Considerations:** Lastly, be proactive about the ethical and regulatory aspects of using LLMs.

- **GenAI Advancements in 2024**
- **Implementation Considerations**
- **Final Thoughts**

Generative AI as an Existential Threat

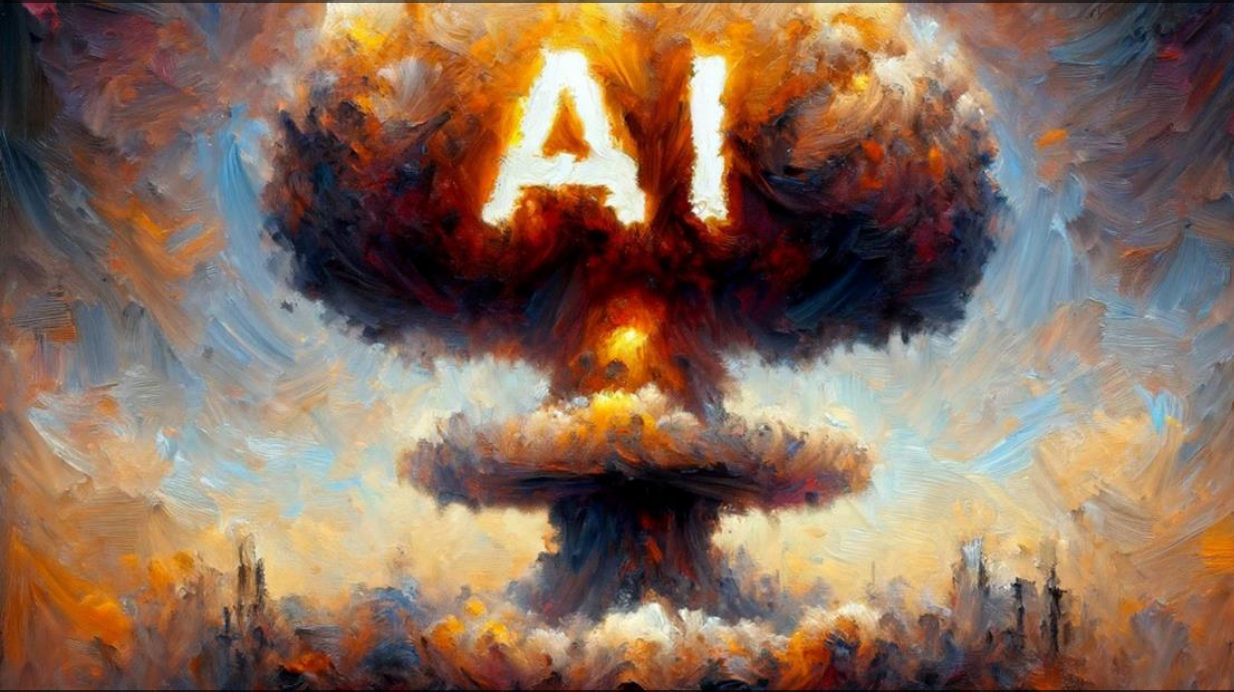


"There will be only two kinds of companies in the world. There will be companies that are AI forward and then there'll be companies that are irrelevant."

- Jeetu Patel, EVP Cisco

- Generative AI allows creation of software and content with little human input.
- Organizations with limited access to the **Critical Success Factors** are at a great disadvantage
- Well-funded competitors can, and will, leverage generative AI to out-innovate and disrupt
- Real risk of many products becoming commoditized and automated
- Significant upfront investment could be needed to integrate generative AI
- Difficult for small companies to compete with tech giants' generative AI capabilities
- Technology is advancing so fast that once you fall behind you may never catch up!

Generative AI as an Existential Threat



"There will be only two kinds of companies in the world. There will be companies that are AI forward and then there'll be companies that are irrelevant."

- Jeetu Patel, EVP Cisco

Sitting on the Sidelines is no longer an Option!





Time Is Running Out

- The value of a company is increasingly tied to technological advantages.
- AI is such a potent force that AI laggards will lose their customers and best talent.
- As generative AI disrupts your industry, your value may start declining rapidly.
- The window to integrate AI is rapidly closing.

“There will be only two kinds of companies in the world. There will be companies that are AI forward and then there'll be companies that are irrelevant.”

- Jeetu Patel, EVP Cisco

CORUM

Still just the beginning for ...

Generative AI

Ivan Ruzic, Ph.D.

ivanr@corumgroup.com

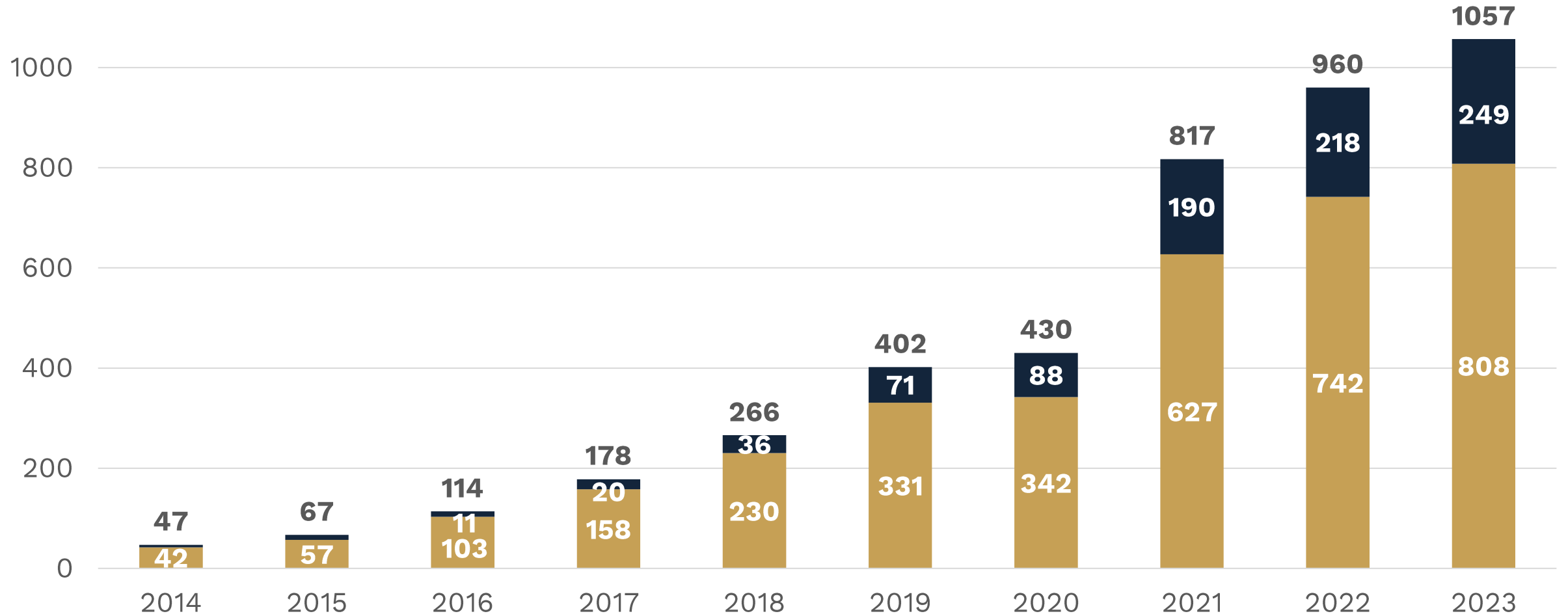
February 2024

CORUM

Artificial Intelligence

M&A Market Report

AI M&A Volume

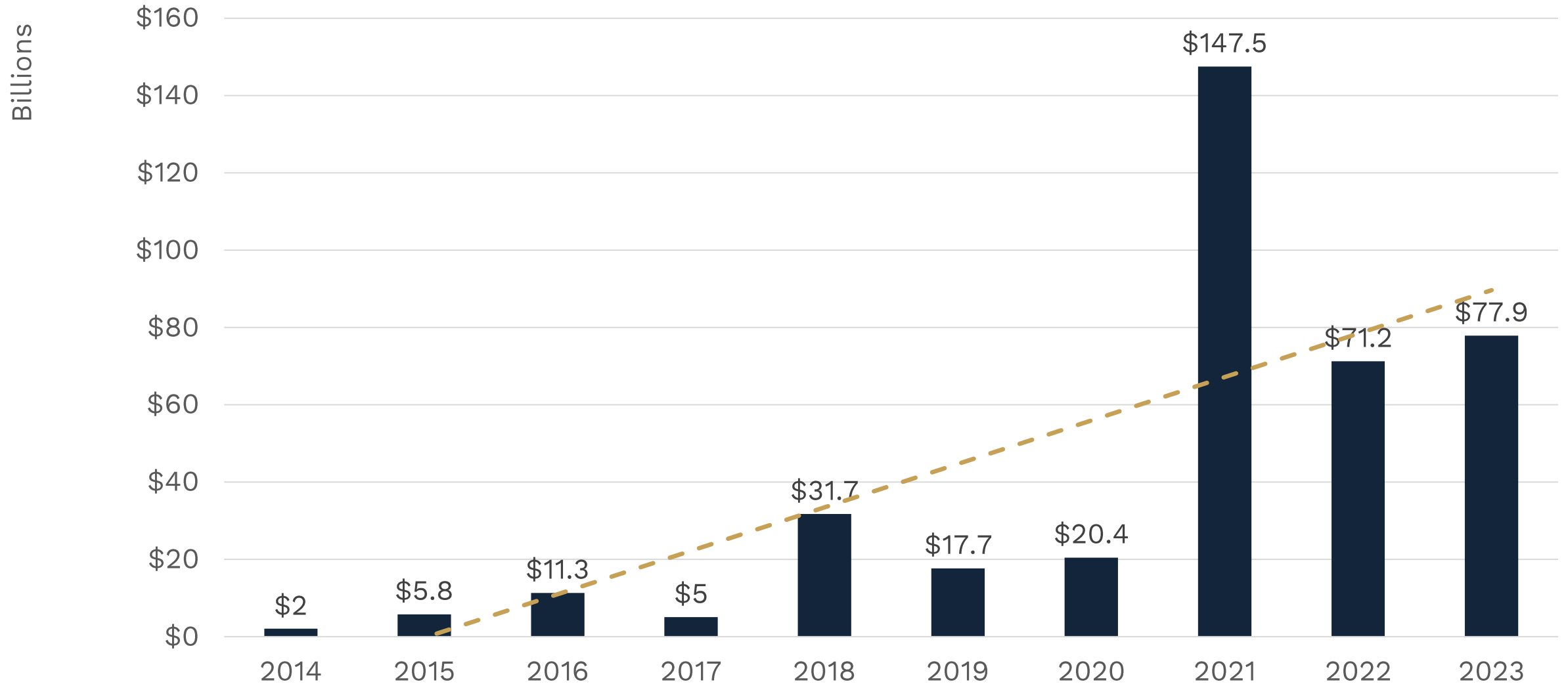


Source: 451 Research & Pitchbook & Corum Group

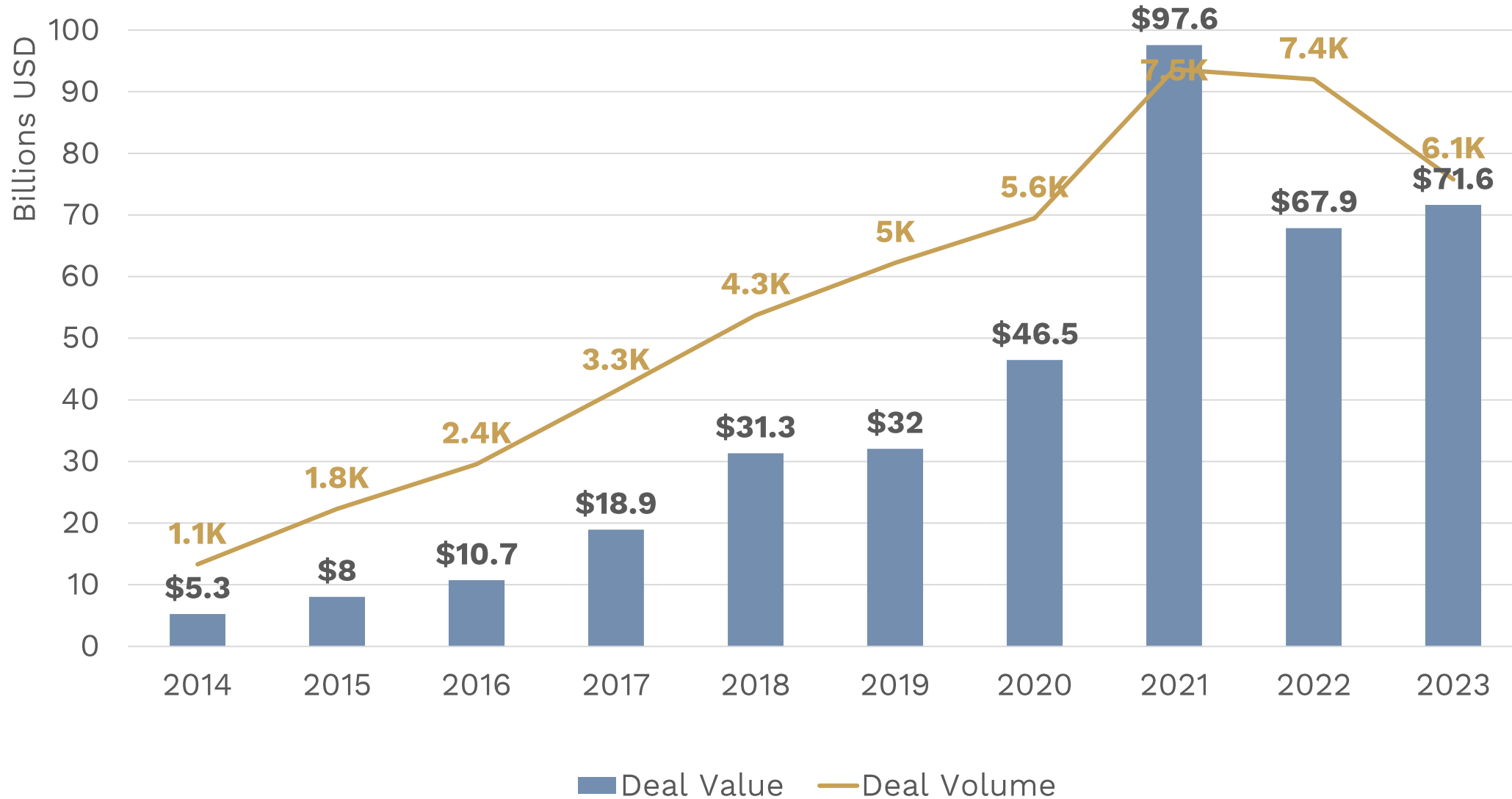
■ Strategic

■ Private Equity

AI M&A Disclosed Value

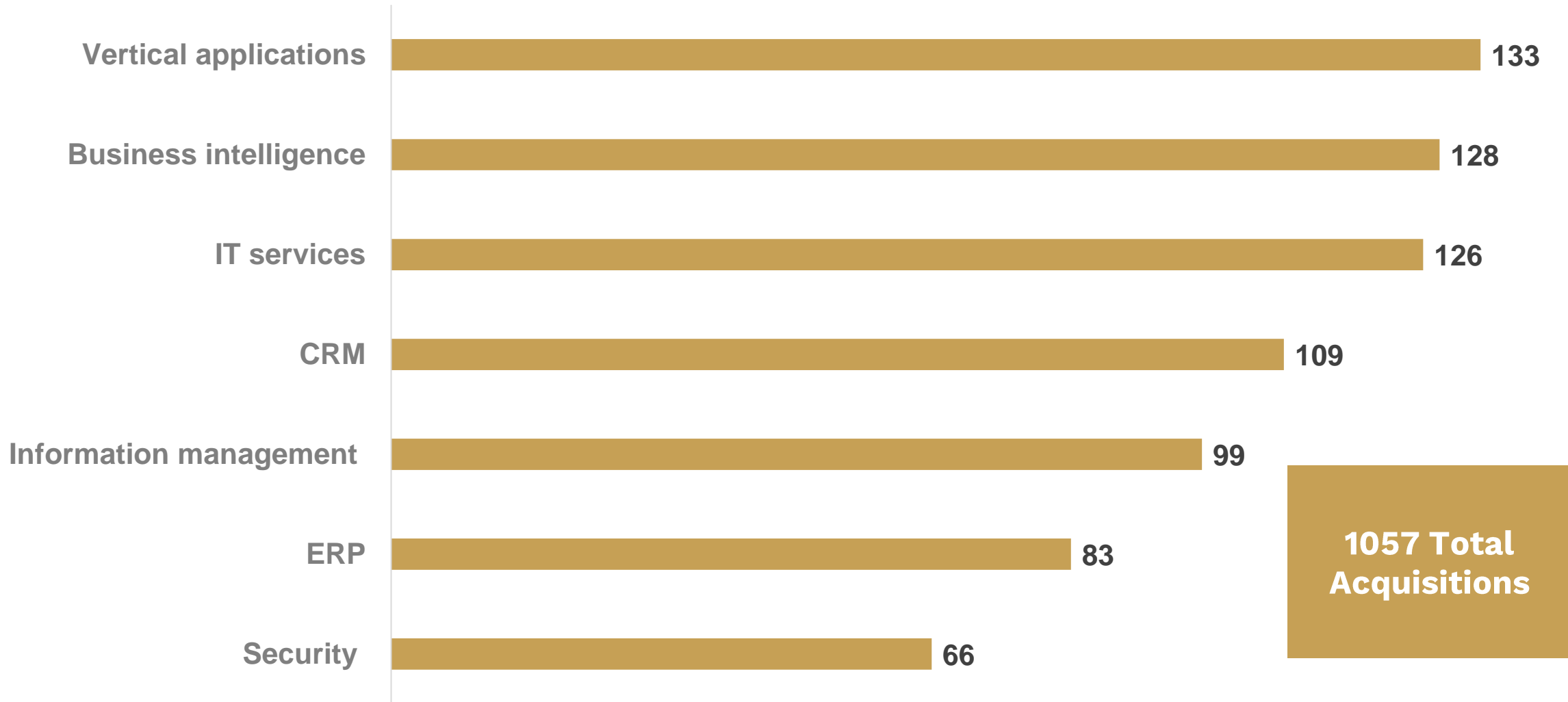


AI VC Funding

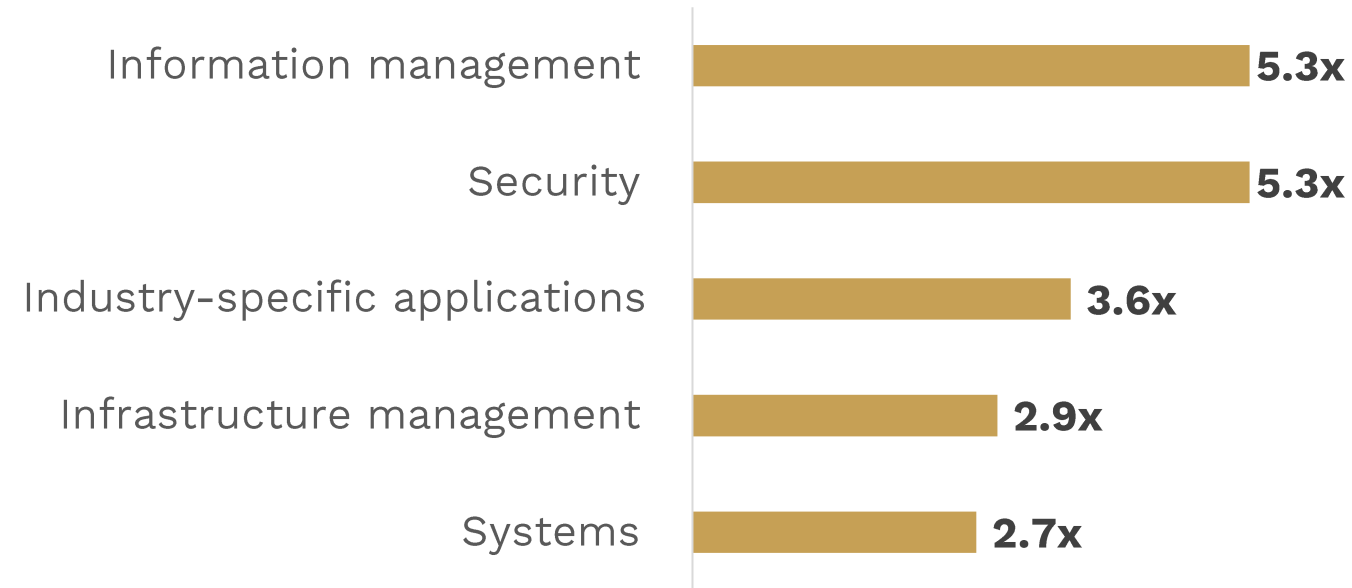


Source: Pitchbook & Corum Group

AI M&A Volume by Top Target Sectors: 2023

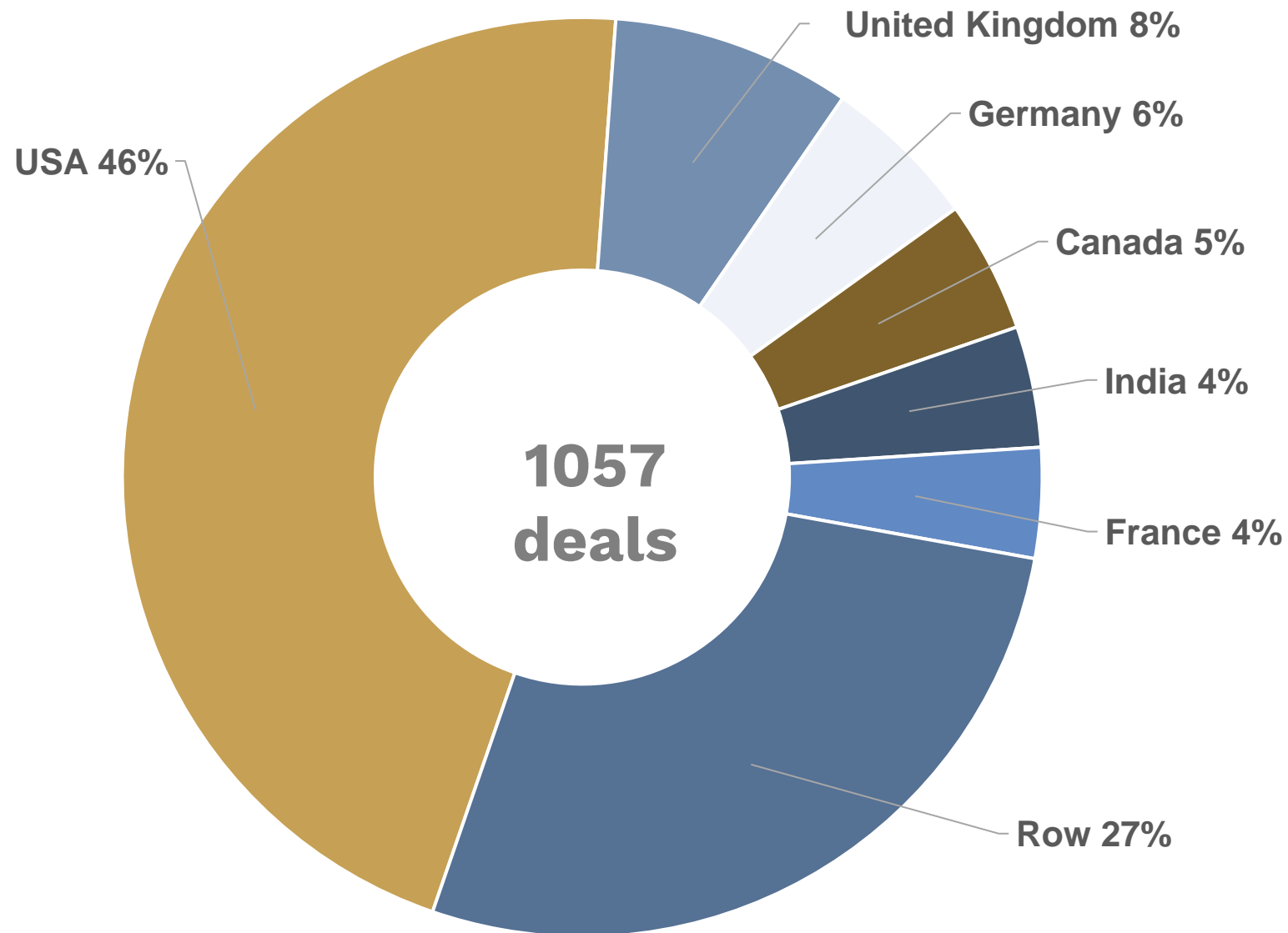


Median Disclosed Exit Revenue Multiples

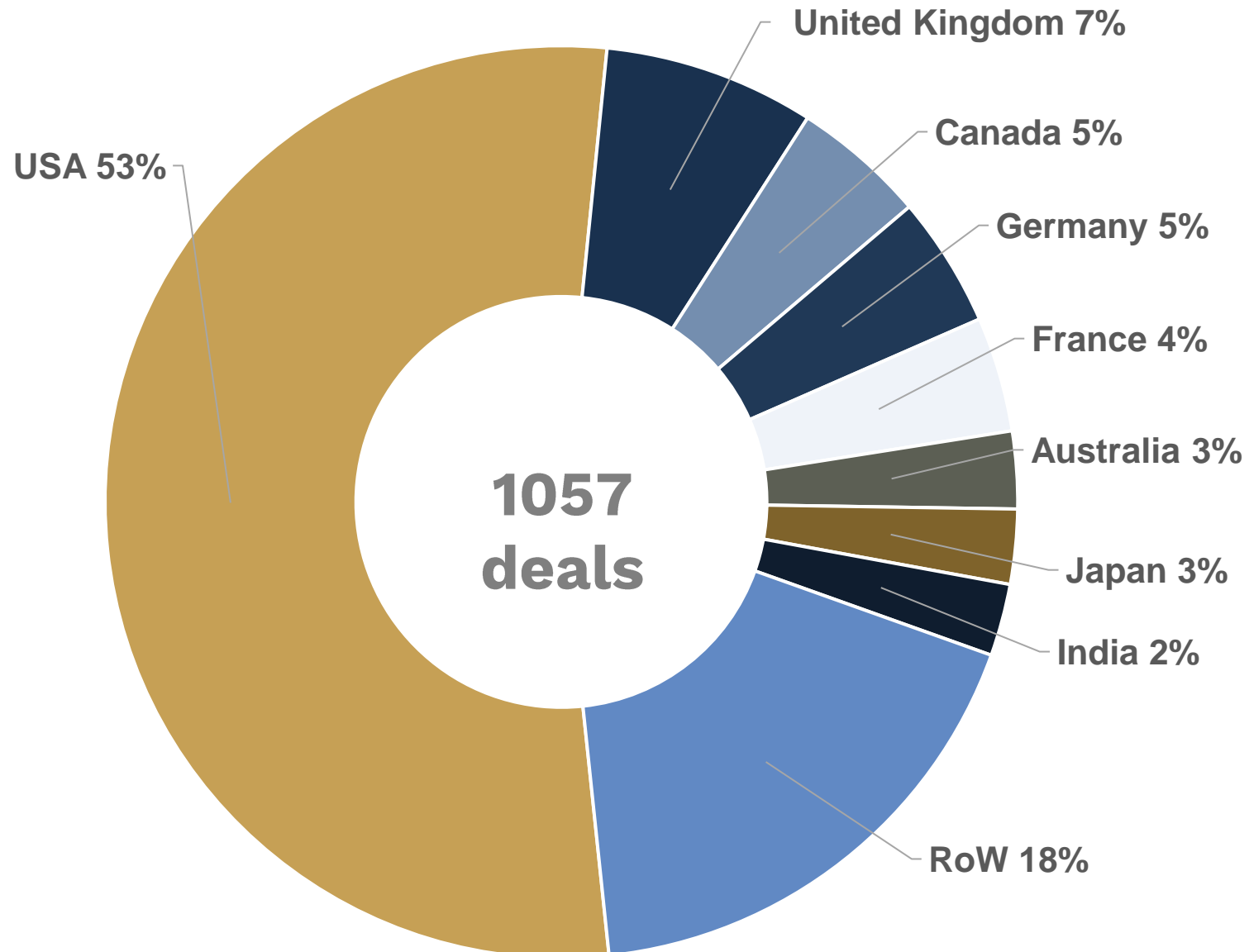


Deals analyzed	1057
Deal values disclosed	15%
Min deal size	\$24.2K
Max deal size	\$26.5B
Median deal	\$52M
Min EV/S	0.2x
Max EV/S	12.5x
Median EV/S	3.3x

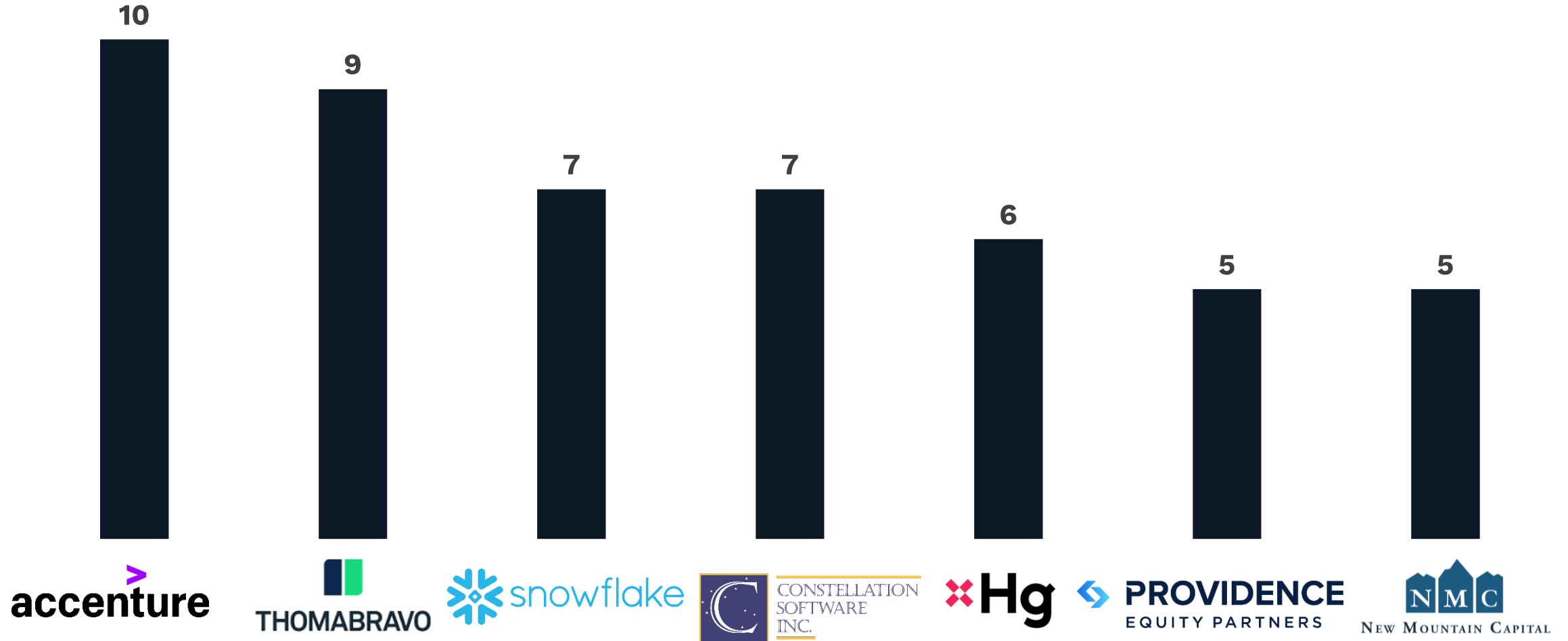
AI Sellers by Geography: 2023



AI Buyers by Geography: 2023



AI Top Buyers: 2023



Recent Largest Deals



Generative AI-based analytics software



Transaction Value: \$3.5B and 4.8x EV/Sales
Announced Date: December 2023


 StreamSets  webMethods

webMethods and StreamSets divisions of Software AG, which provide data integration and API management solutions



Transaction Value: \$2.3B
Announced Date: December 2023



AI-driven and video-based work communication SaaS



Transaction Value: \$975M
Announced Date: October 2023



Seller: Volpara Health [New Zealand]

Buyer: Lunit [South Korea]

Announced Date:

December 2023

Transaction Value:

\$193M and 7.9x EV/Sales

Seller Description:

AI-based breast cancer detection software

Rationale:

“Volpara’s AI-powered mammography solutions, operational in over 2,000 US medical sites, would catapult Lunit into the forefront of the American market. (...) This alliance would position us to lead innovation in cancer diagnostics and therapeutics, benefitting healthcare professionals and patients alike,” said Lunit CEO Brandon Suh.



Seller: Fotonation [USA]

Buyer: Tobii [Sweden]

Announced Date:

December 2023

Transaction Value:

\$45M

Seller Description:

Computational imaging and computer vision solutions

Rationale:

The Transaction is of a transformational character for Tobii, with the creation of a new business segment named Tobii Autosense which features one of the strongest product offerings in the Automotive Interior Sensing market.

BuntPlanet^o

SIEMENS

Seller: BuntPlanet [Spain]

Buyer: Siemens [Germany]

Announced Date:

December 2023

Transaction Value:

Undisclosed

Seller Description:

AI-powered water management SaaS

Rationale:

This acquisition helps Siemens in strengthening the application of AI in water management and leakage detection.



Seller: Ammagamma [Italy]

Announced Date:

November 2023

Transaction Value:

Undisclosed

Seller Description:

AI & generative AI consulting services

Rationale:

Ammagamma will join Accenture's growing network of AI professionals as part of its Advanced Center for AI in Europe.



Buyer: Accenture [Ireland]



Seller: Tessian [United Kingdom]

Buyer: Proofpoint [USA]

Announced Date:

October 2023

Transaction Value:

Reported \$300M and 7.5x EV/Sales

Seller Description:

AI-enabled email security & data protection SaaS

Rationale:

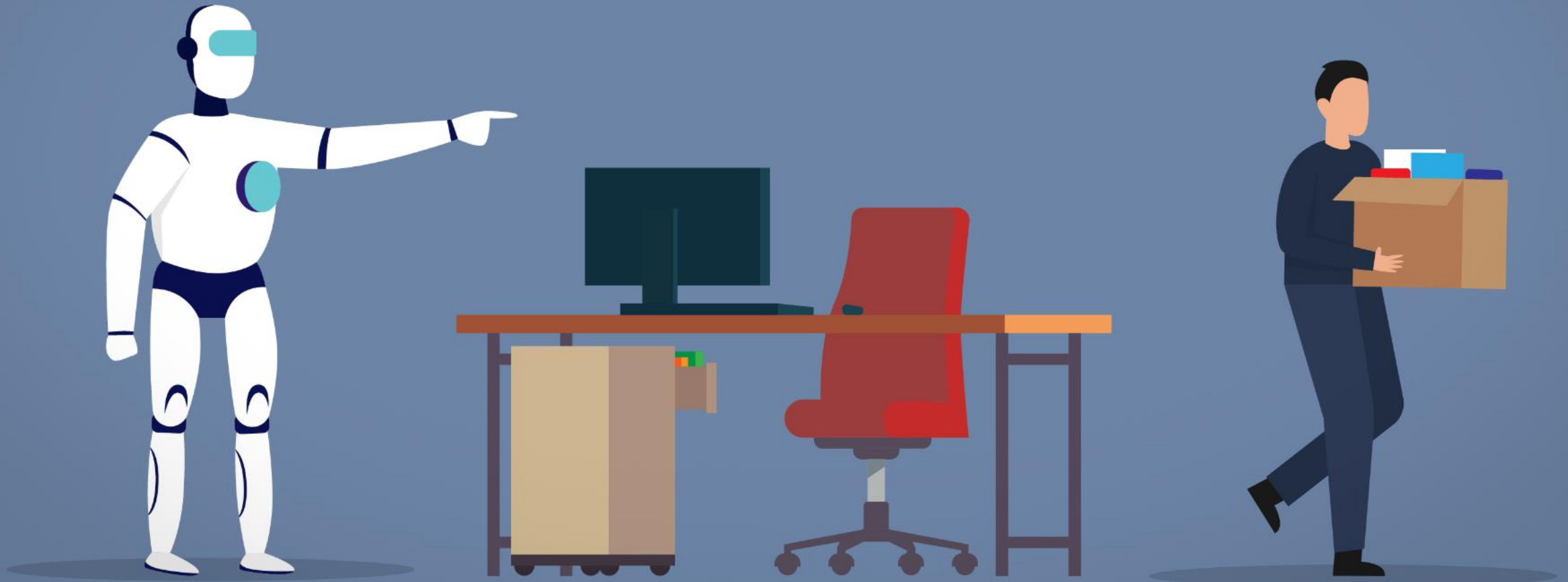
Using behavioral AI, Tessian's email security platform will enhance Proofpoint's email data loss prevention (DLP) offering by addressing accidental data loss and malicious insiders through its seamless Microsoft 365 and Google Workspace deployment.

- 1. The AI sector saw M&A deal volumes continue to grow in 2023. PE firms accounted for the buyer in 24% of all deals last year.**
- 2. Vertical Applications became the largest subsector by transaction volume, followed by Business Intelligence and IT Services. Additionally, Information Management and Security saw deals with favorable revenue multiples.**
- 3. North America represented the largest M&A market for AI companies in terms of deal volume, as over half of buyers and sellers came from this region. About a third of the market was represented by EMEA companies and 12% by APAC-based companies.**
- 4. Generative AI - one of the key disruptive technology trends in 2023, will continue to lead digital transformation in various industries in 2024. A shift towards smaller, more personalized and efficient AI models is also expected.**

A.I.'s impact is substantial.

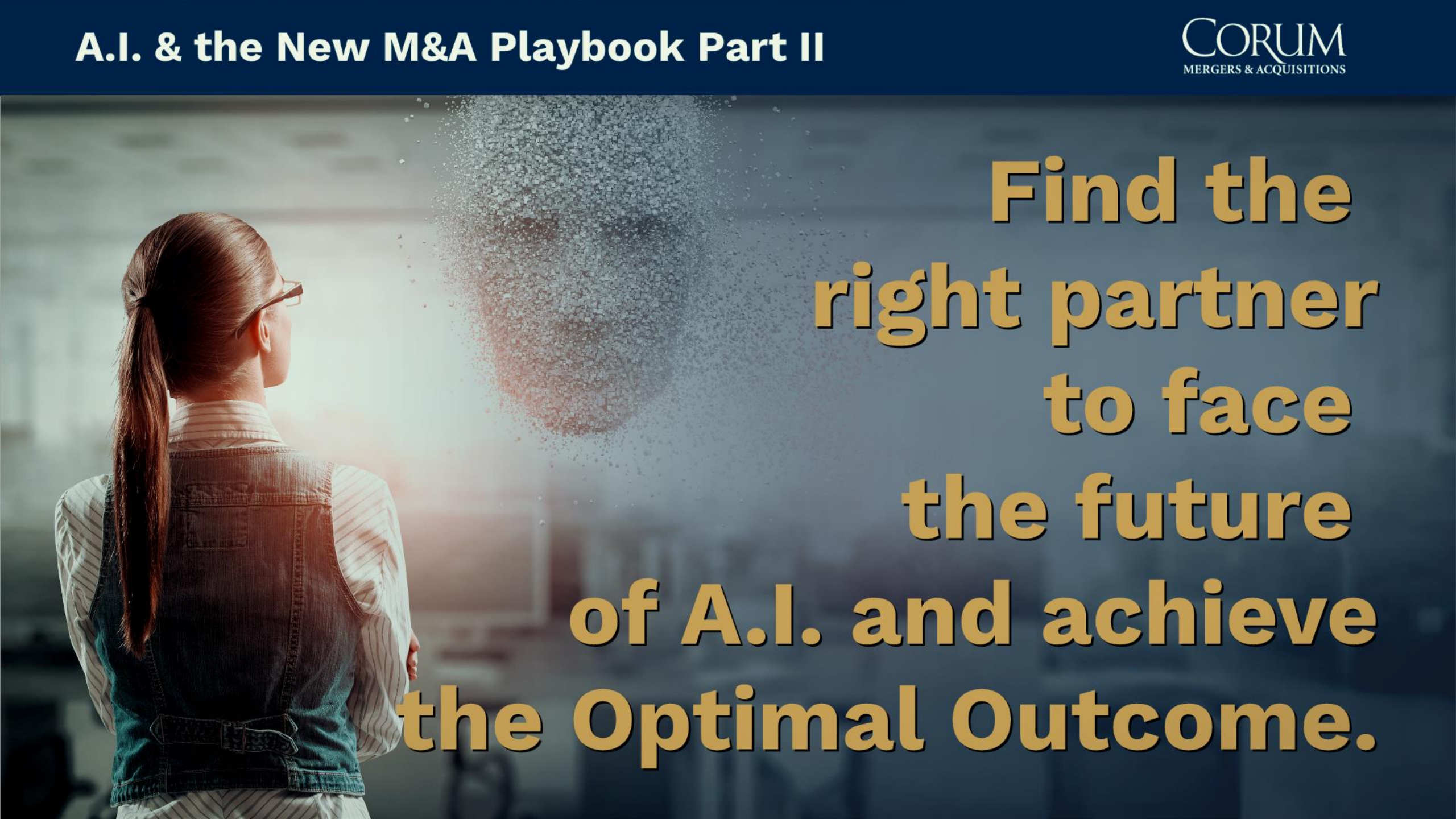


A.I.'s impact is substantial.





**Time to get
off the fence!**

A woman with long brown hair in a ponytail, wearing glasses and a denim vest over a white shirt, is seen from the back, looking towards a large, glowing digital particle cloud. The background is a blurred cityscape.

**Find the
right partner
to face
the future
of A.I. and achieve
the Optimal Outcome.**

Part II



and the New M&A Playbook



We welcome your questions!

**Email questions to
info@corumgroup.com**

This event is being recorded
On demand webcast will be available at
www.corumgroup.com



MERGE BRIEFING

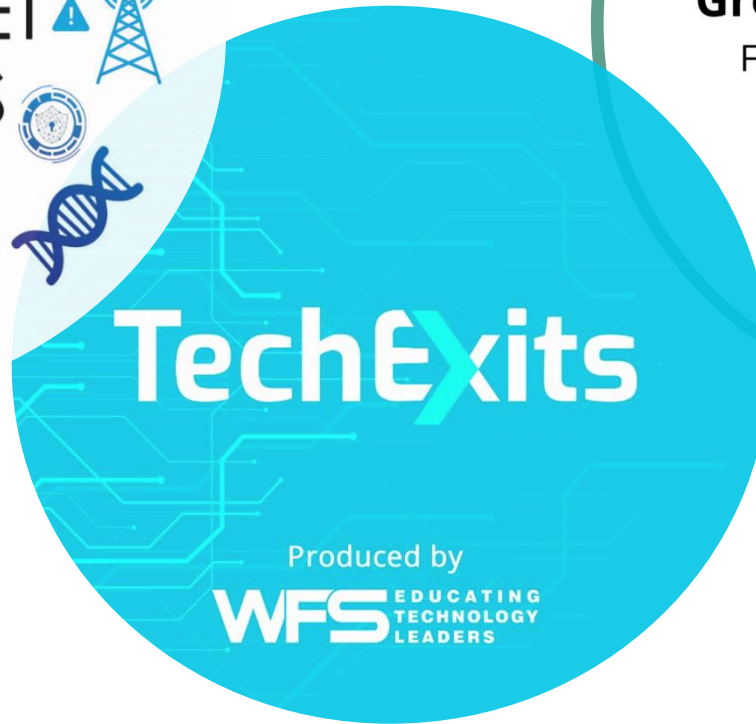


- **Half-Day**
- **Tech M&A Bootcamp**
- **The most attended tech executive conference in history**

- **90 Minutes**
- **Industry Update**
- **Overview of the M&A Process**



Webcasts



Podcasts



Conferences

After the Deal – Celebration



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Thank you!