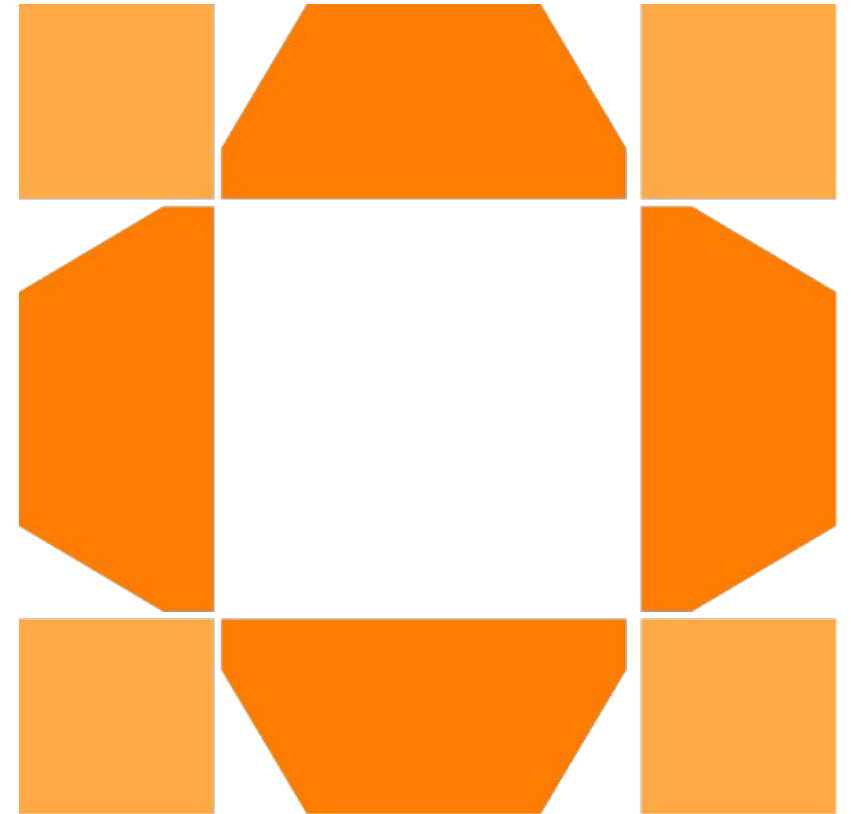# AI & Machine Learning in Investment Management

ALKYMI

What you'll hear today

- Introduction
- Hype and confusion
- LLM opportunities
- What is your north star
- Q&A

Introduction

- Founded in 2017 in NYC
- Building the business system for unstructured data

- Backed by Intel Capital, Canaan, Work-Bench and SimCorp

A few definitions first....

AI Hype, speed of innovation = overwhelming

Home / Innovation / Artificial Intelligence

This new technology could blow away GPT-4 and everything like it

The Hyena code is able to handle amounts of data that make GPT-style technology run out of memory and fail.

Bloomberg Professional Services ——

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Introducing BloombergGPT, Bloomberg's 50-billion parameter large language model, purpose-built from scratch for finance

March 30, 2023

BloombergGPT outperforms similarly-sized open models on financial NLP tasks by significant margins – without sacrificing performance on general LLM benchmarks
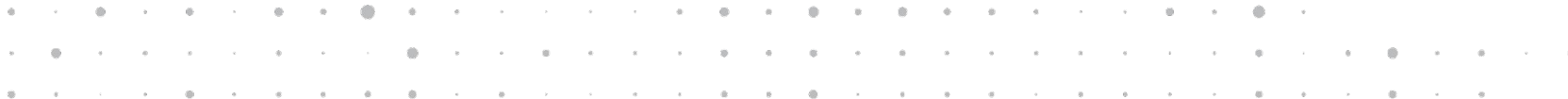

FORBES > INNOVATION > ENTERPRISE TECH

EDITORS' PICK

Auto–GPT May Be The Strong AI Tool That Surpasses ChatGPT

The question isn't "how do I use LLMs?"
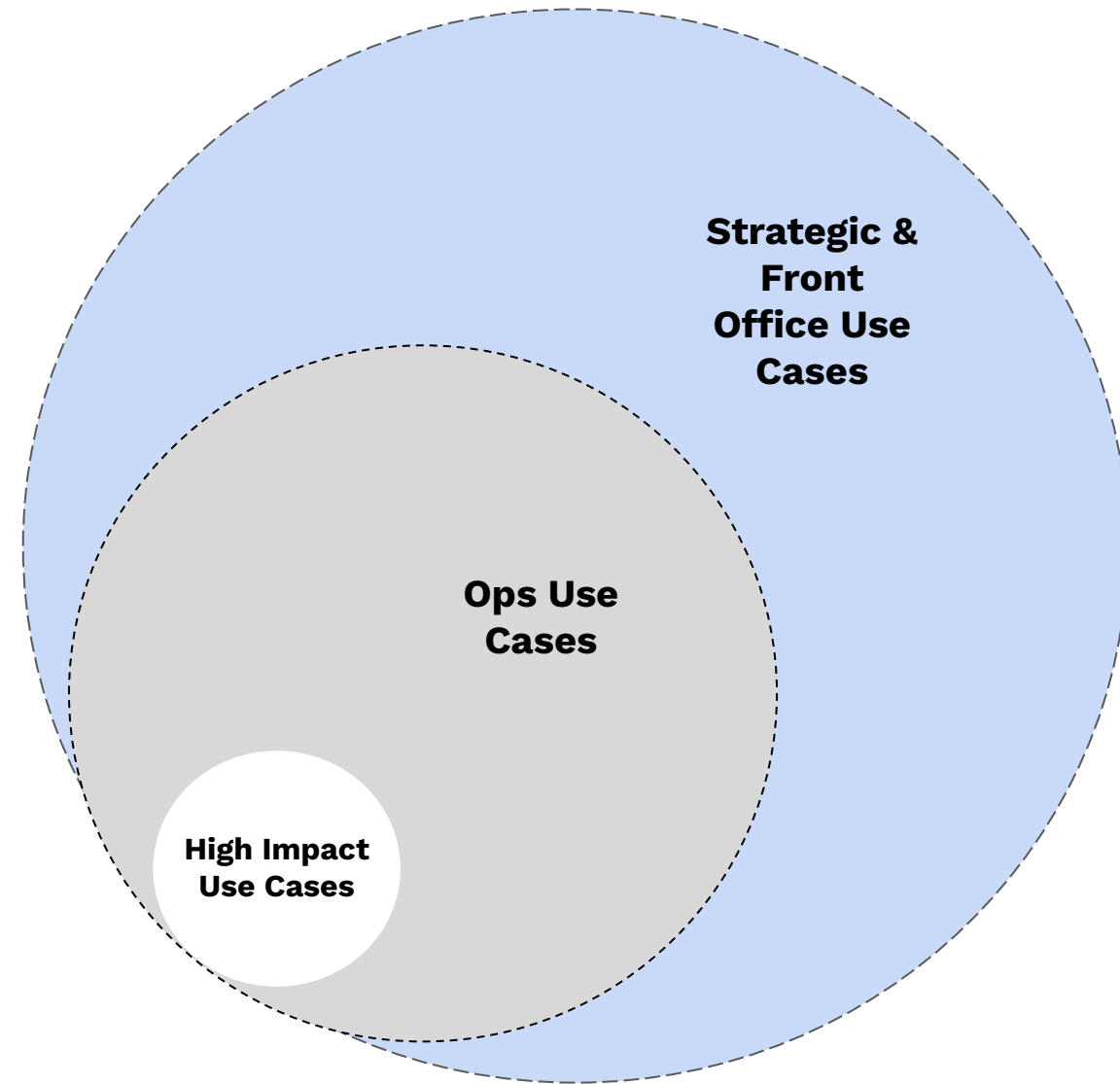
The question is "what do I miss out on if I don't?"

Before GPT

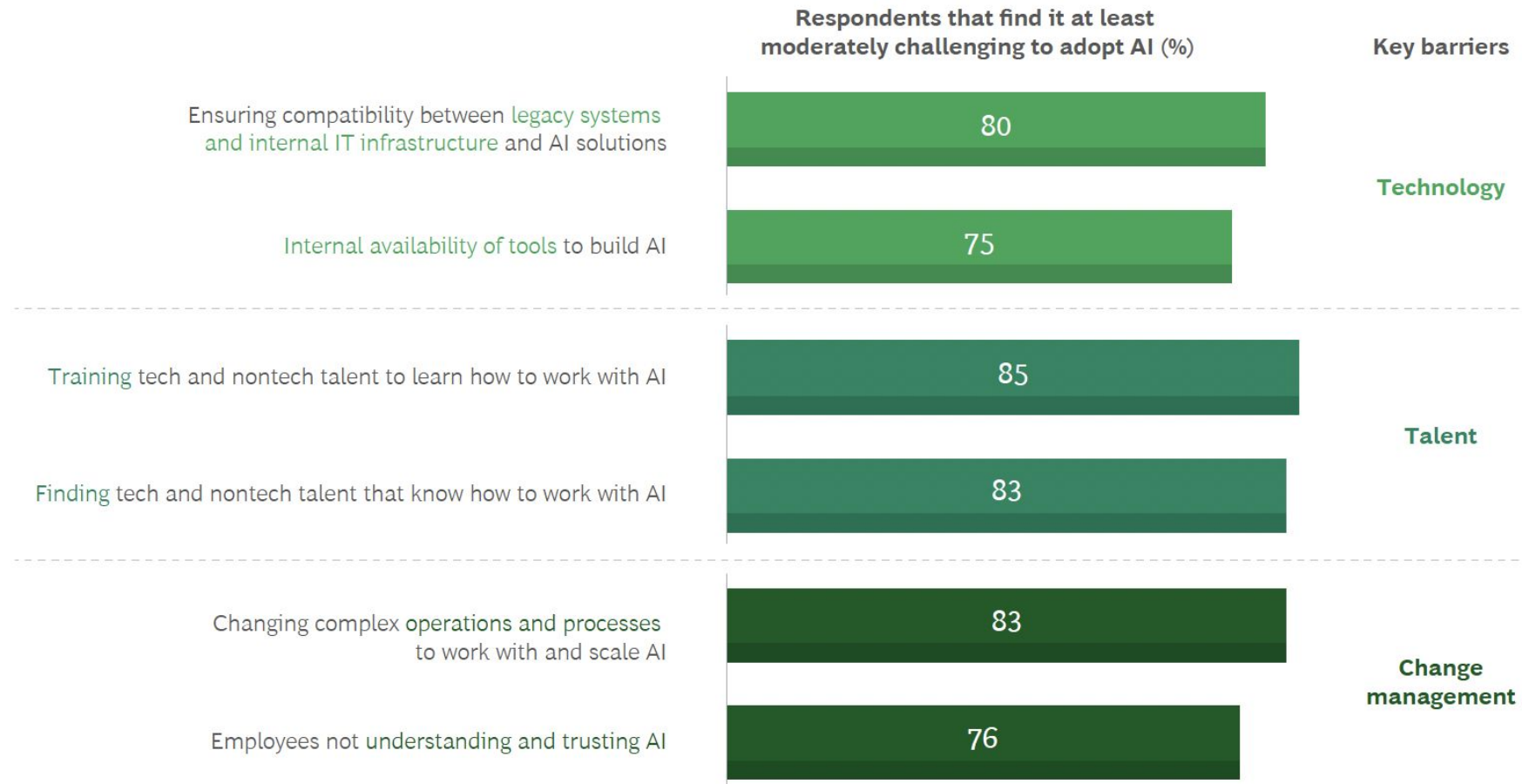Only some *data* workflows justified investment in automation.

Since GPT

LLMs unlock virtually 100% of all use cases and introduces a completely new set of applications.

Strategic & Front Office Use Cases

Ops Use Cases

High Impact Use Cases

Key Challenges to Adoption

Key Barriers That Incumbents Face when Adopting AI

Respondents that find it at least moderately challenging to adopt AI (%) — Key barriers

Barrier	%	Key barrier
Ensuring compatibility between legacy systems and internal IT infrastructure and AI solutions	80	Technology
Internal availability of tools to build AI	75	Technology
Training tech and nontech talent to learn how to work with AI	85	Talent
Finding tech and nontech talent that know how to work with AI	83	Talent
Changing complex operations and processes to work with and scale AI	83	Change management
Employees not understanding and trusting AI	76	Change management

Source: BCG and BCG Henderson Institute 2022 survey of 600 industry incumbents in six countries (China, France, Germany, India, UK, and US).

Where are we? Experimental phase

AI 2023 Readiness Report from Scale AI

- 72% of companies plan to increase their AI investments every year over the next three years

- 59% of those companies view AI as critical to their business next year, while 69% believe it'll be critical in next three years
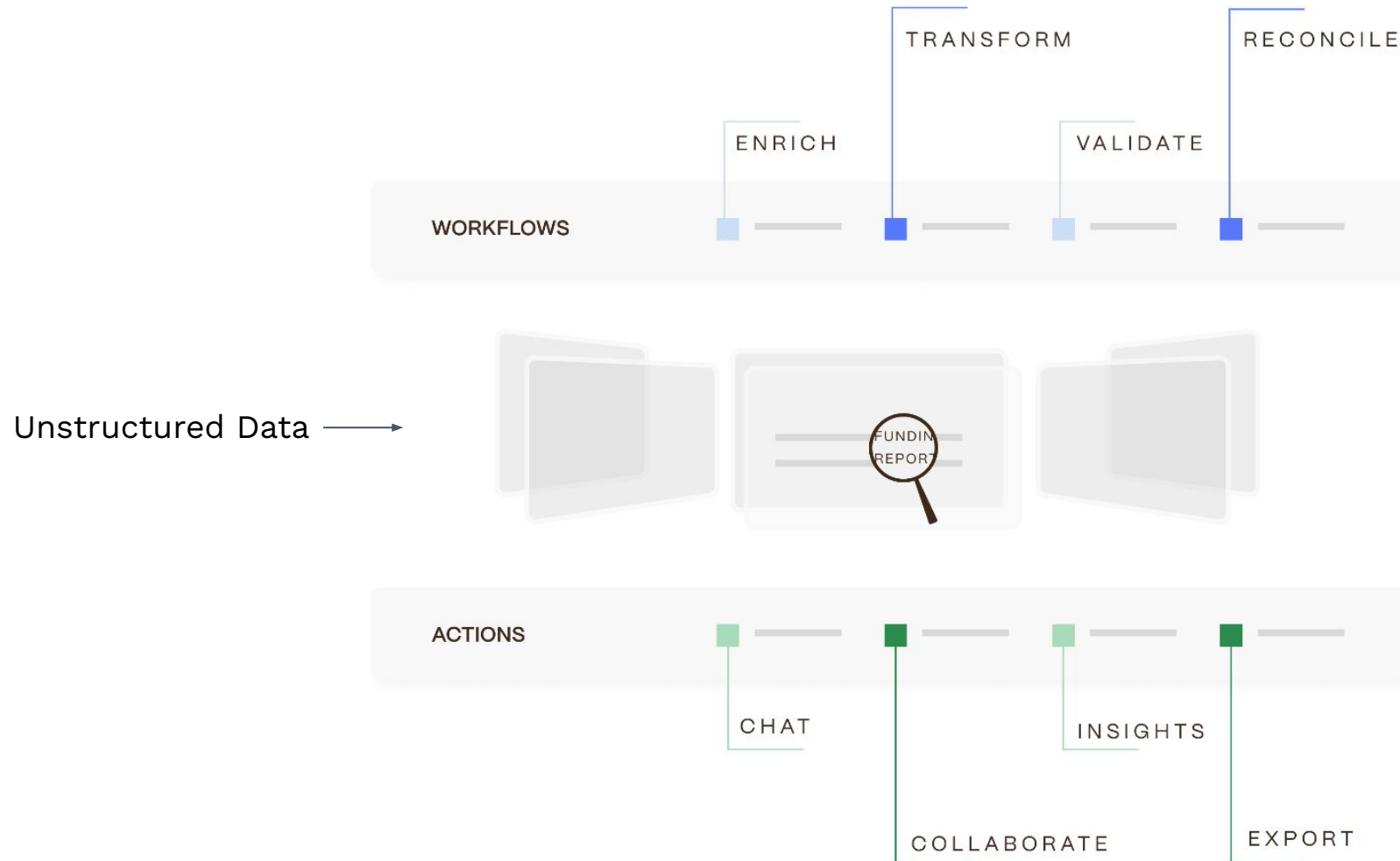
"Companies that use specialized or proprietary data to fine-tune applications can achieve a significant competitive advantage over those that don't."

McKinsey & Company

Exploring opportunities in the generative AI value chain

The Big Picture: LLMs at the Heart

How do LLM-powered tools change the game?

- ○ Ask a natural language question, and get an answer
- ○ Summarize documents on demand, in any language
- ○ Quickly identify all People, Places, Organizations & more
- ○ On-demand reporting and data enrichment
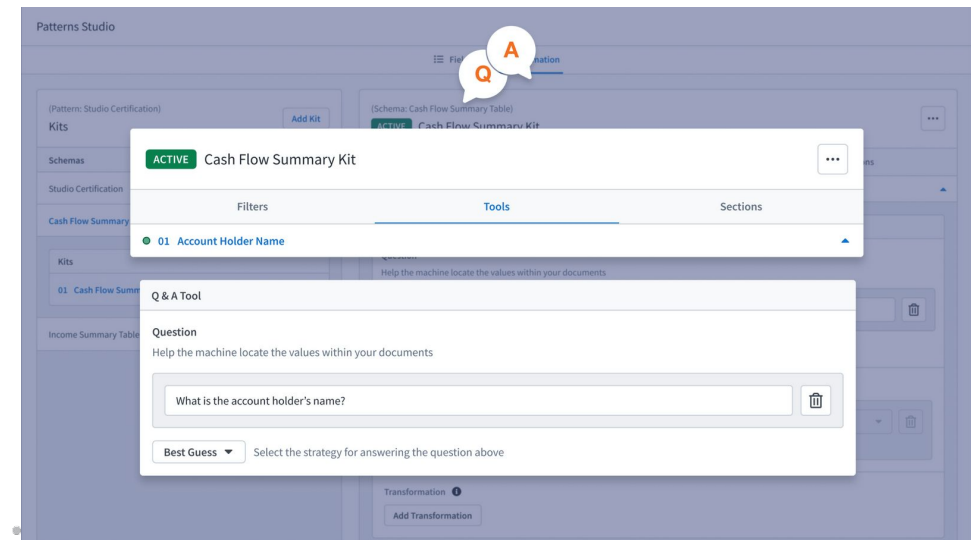
Opportunity: Transforming Operations
Machine Learning Automates Investment Operations

Opportunity: Transforming Front Office
Machine Learning Offers New Insights, Accelerates Decisions

Value Map: AI/ML Use Cases in Wealth Management

Use Cases	Example Data Sets		
Client Onboarding	Brokerage Statements	Onboarding Questionnaires	KYC and Identify Verification
	Signatures / Stamps / Seals	Asset Transfers	and more...
Alternatives and Private Market Data	Allocation, Sector & Exposure	Capital Calls & Distributions	K1 Reports
	NAV / Estimated Nav	Portfolio Summaries	Performance Estimates
	Monthly & Quarterly Reports	Exposure Report	and more...
Investment Performance Reporting	Global Reporting Initiatives	Data & Information Security	Climate & Risk Emissions
	Board Materials	EDGAR (N-PX, 13-F)	and more...
ESG Data Sourcing	Annual Sustainability Reports	Press Releases	Risk management Assessments
	Regulatory Filings	ESG Metrics and targets	Corporate Governance Guidelines

"Incumbents adopting AI should seek a transformer that provides three critical ingredients: tech, talent, and change management."

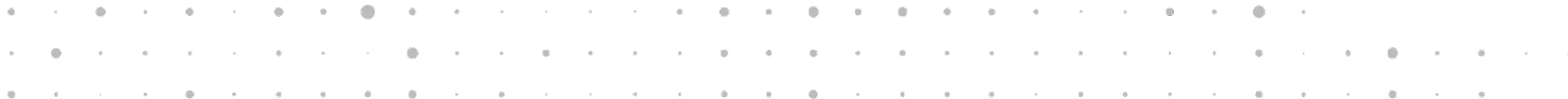*What's missing from your AI transformation is a transformer*

When can I use LLMs in my business?

Challenges

- lack of internal expertise

- data security and governance

- rapid technology iteration

Catalysts

- fast-follower advantages

- develop technology partnerships

- talent retention and satisfaction

Navigating security with LLMs

Myth

- If I use a LLM, my IP will be public information

- OpenAI will own my proprietary information

- My prompts are visible to everyone

Reality

- Open source tools like ChatGPT <u>can</u> store and learn from user input

- Companies using LLM models via API or their own self-hosted/created LLMs can offer more security, ensure customer data isn't shared externally

"To foster meaningful relationships with transformers, incumbents need to change their approach to risk and experimentation."

BCG BOSTON CONSULTING GROUP

What's missing from your AI transformation is a transformer

Thank you

Harald Collet, CEO of Alkymi

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