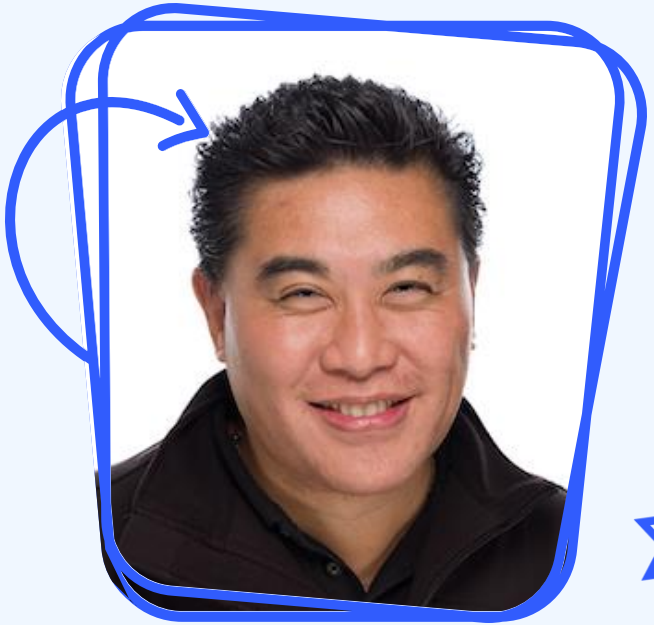
R “Ray” Wang

Constellation Research

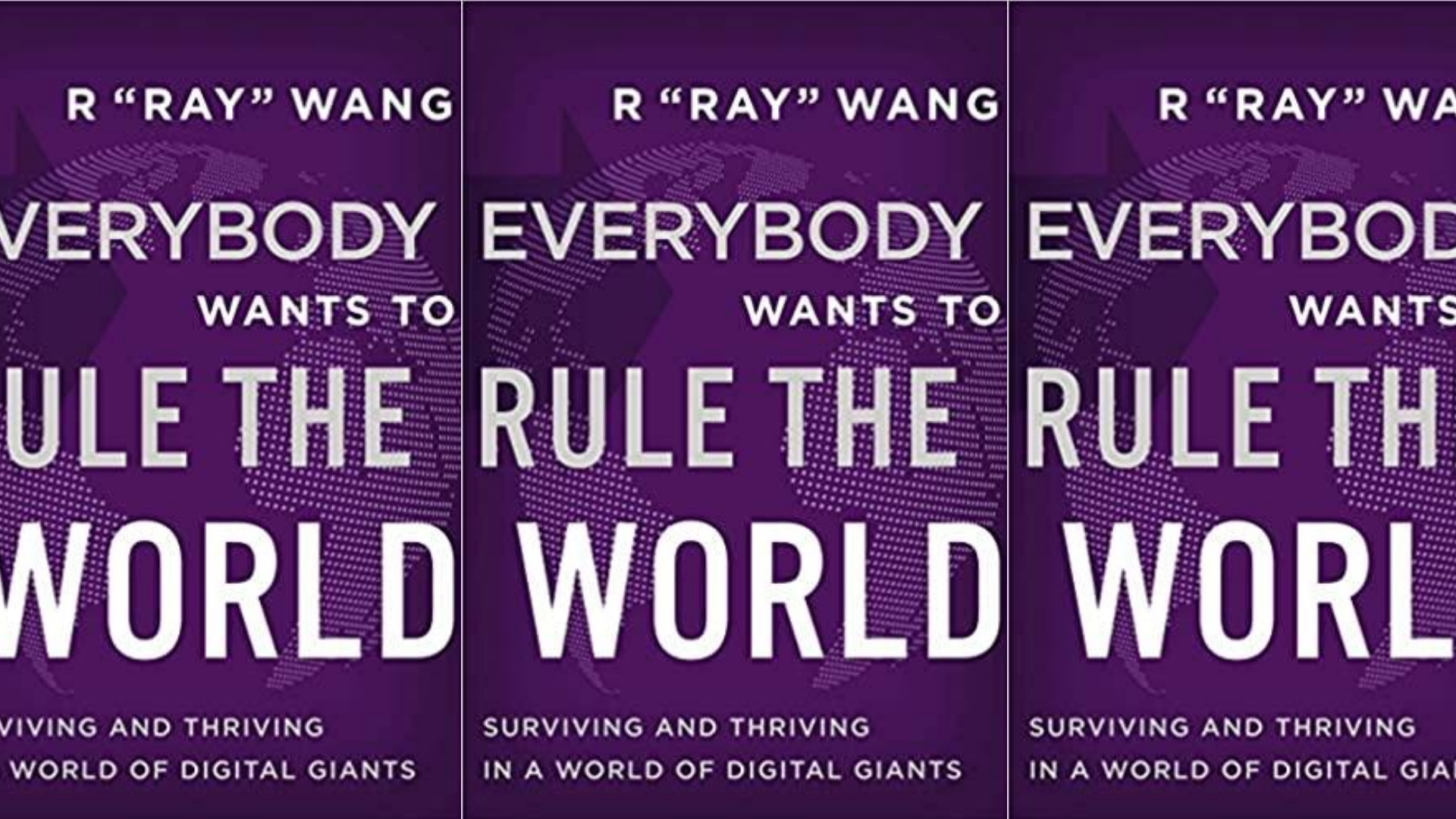
Founder and Principal Analyst



R “Ray” Wang

Constellation Research

Founder and Principal Analyst


R "RAY" WANG
EVERYBODY
WANTS TO
RULE THE
WORLD
SURVIVING AND THRIVING
IN A WORLD OF DIGITAL GIANTS

UserTesting THIS Connect city Tours

Mass Personalization at Scale for CX in an Age of AI

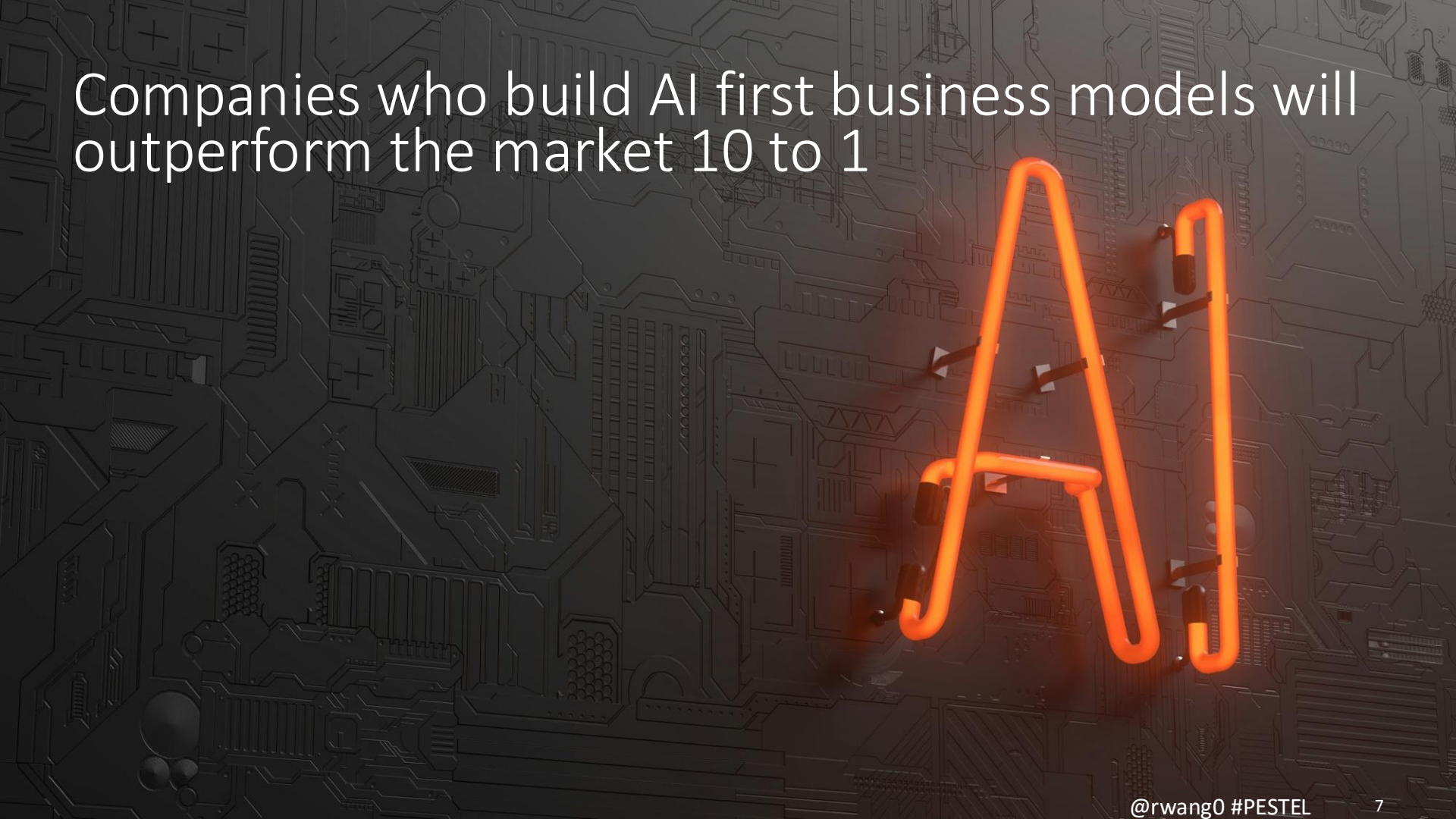
R “Ray” Wang,

Principal Analyst and Founder

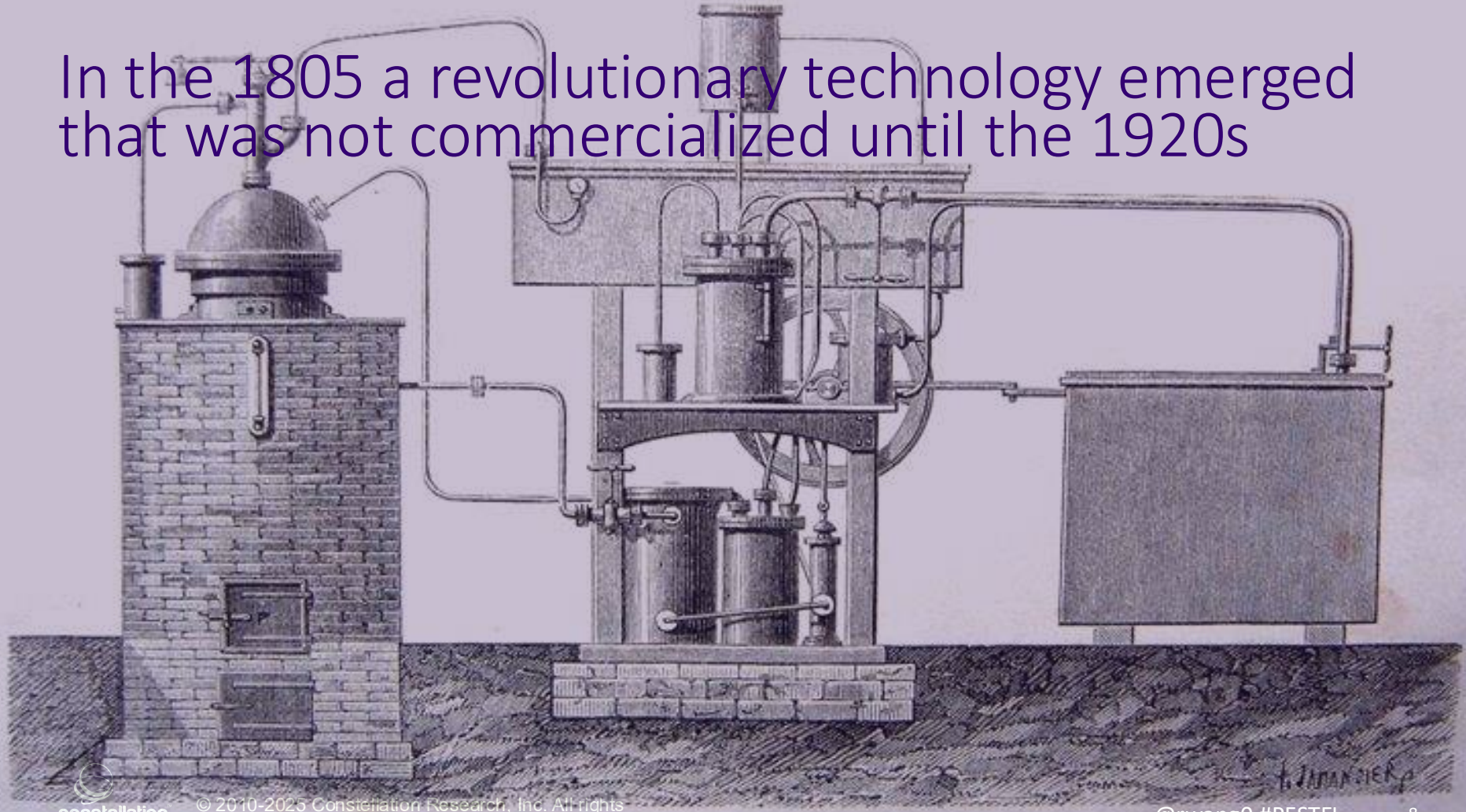
PESTEL is a futurist framework that takes a holistic view across six mega pillars

© 2010-2025 Constellation Research, Inc. All rights reserved

Companies who build AI first business models will outperform the market 10 to 1

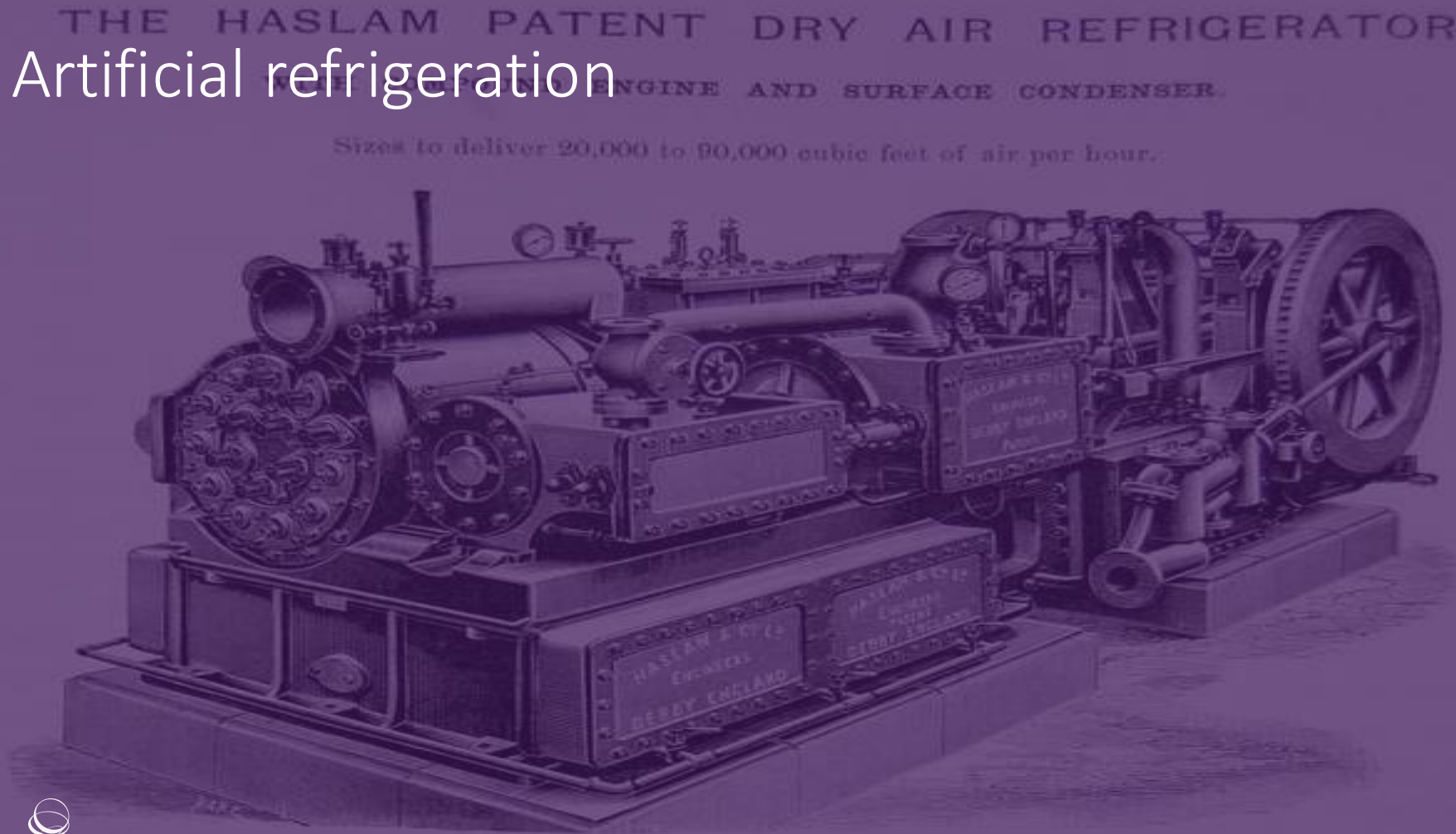


In the 1805 a revolutionary technology emerged that was not commercialized until the 1920s



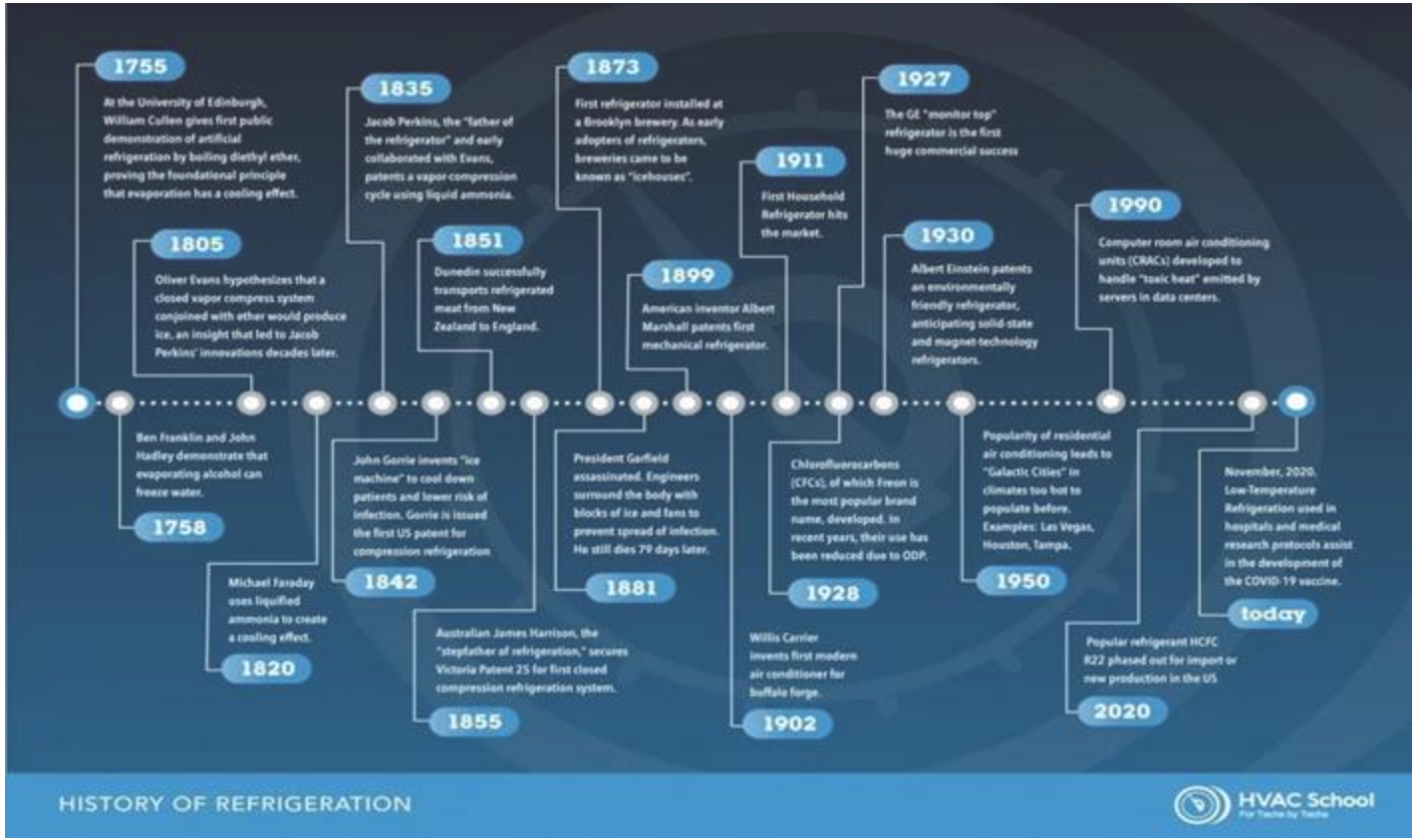
© 2010-2025 Constellation Research, Inc. All rights reserved

Artificial refrigeration



© 2010-2025 Constellation Research, Inc. All rights reserved

Commercialization begins in the 1920's

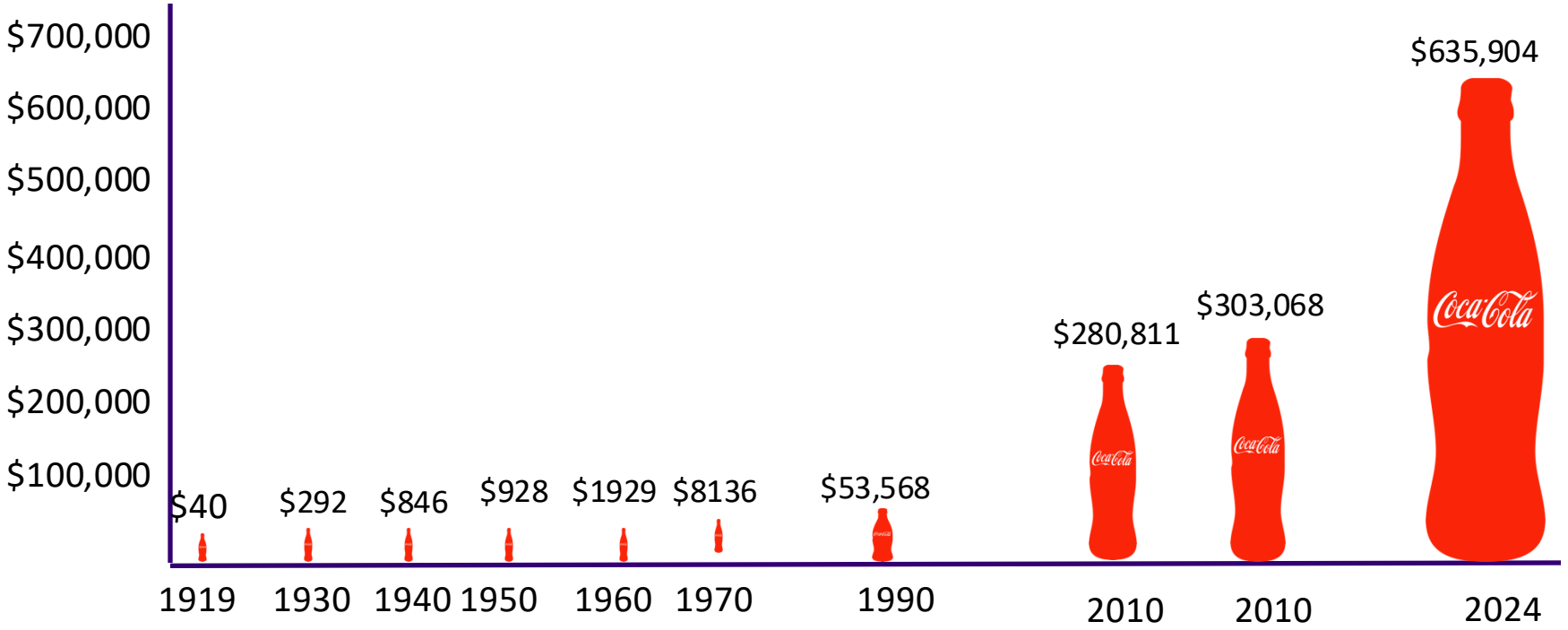


© 2010-2025 Constellation Research, Inc. All rights reserved

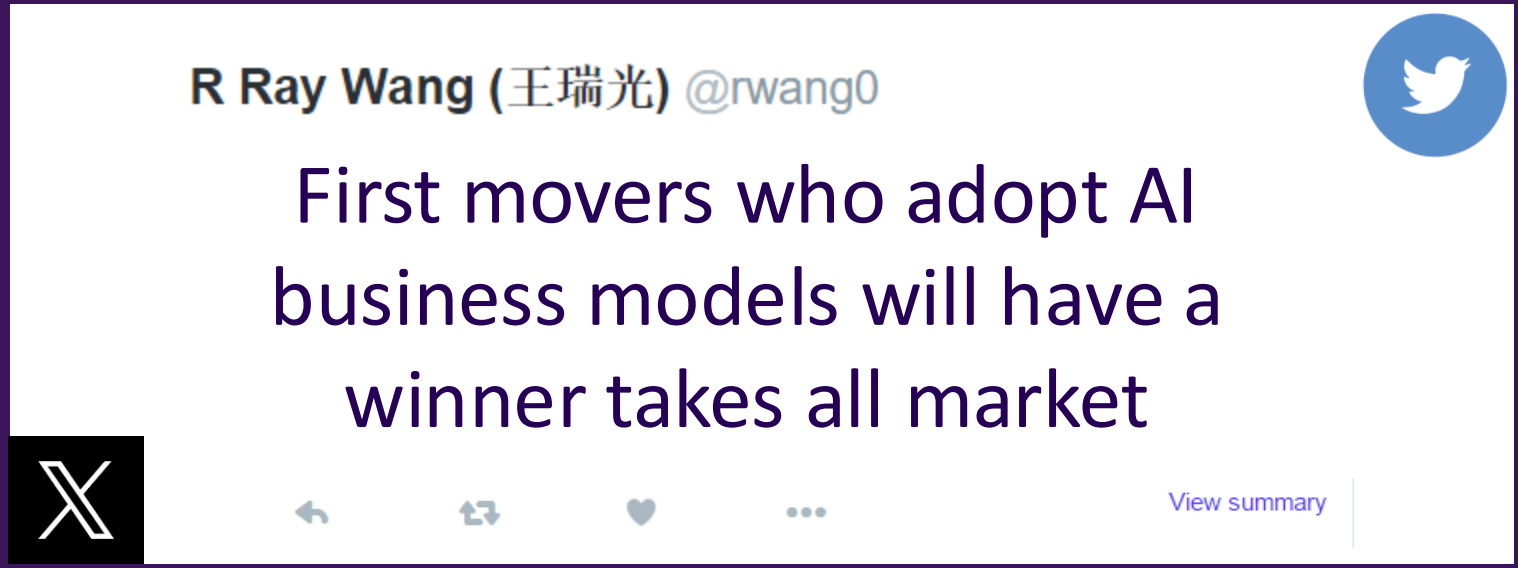
Who won the battle for Artificial Refrigeration from the 1920's?

constellation RESEARCH
© 2010-2025 Constellation Research, Inc. All rights reserved

Who won the battle for Artificial Refrigeration from the 1920's?



© 2010-2025 Constellation Research, Inc. All rights reserved



© 2010-2025 Constellation Research, Inc. All rights reserved

Investment in AI must come from somewhere.

© 2010-2025 Constellation Research, Inc. All rights reserved

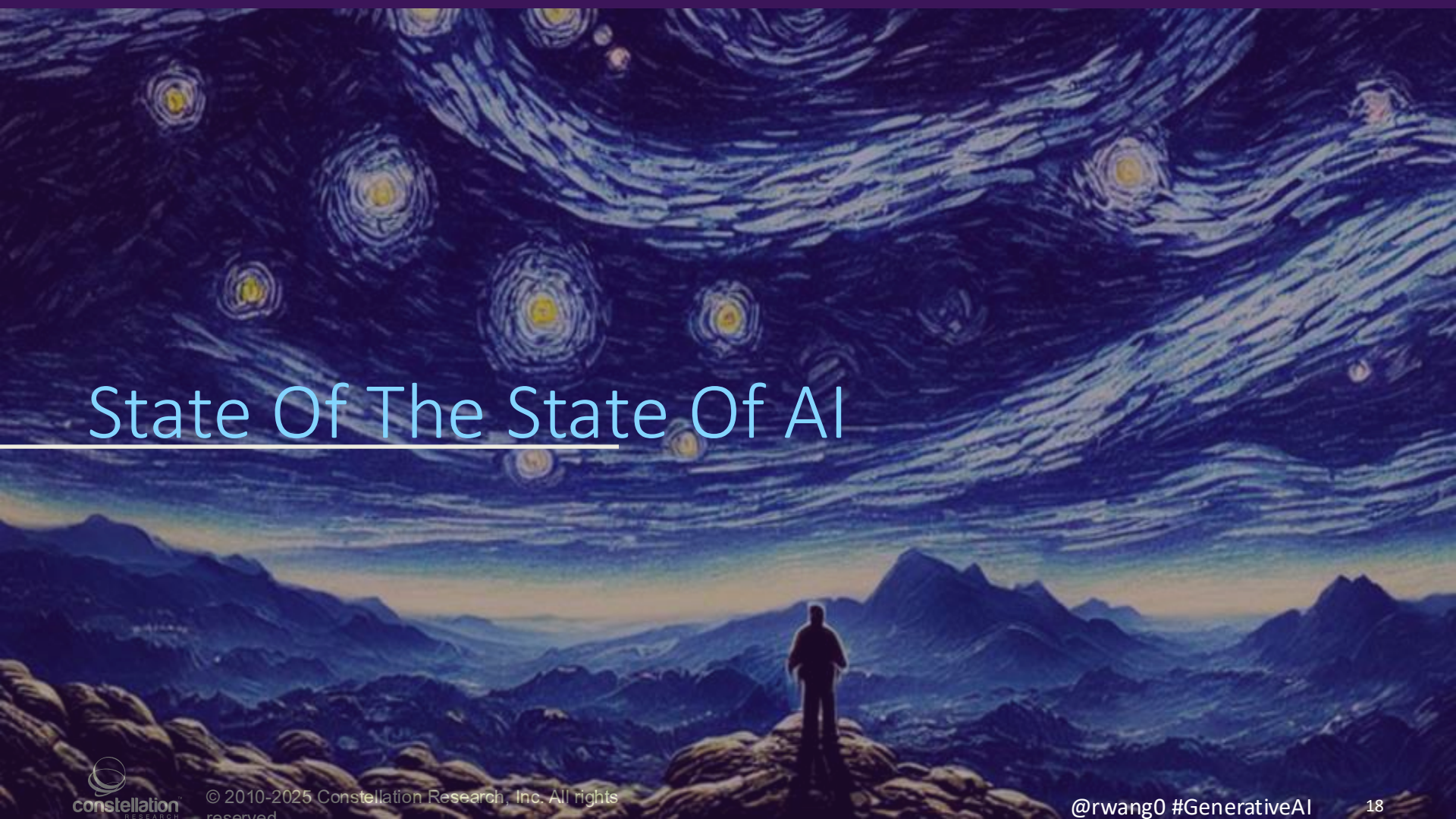
AI arbitrage is real

Consumers will have their own digital agent

© 2010-2025 Constellation Research, Inc. All rights reserved

Every employee will be AI enabled in 2025

© 2010-2025 Constellation Research, Inc. All rights reserved

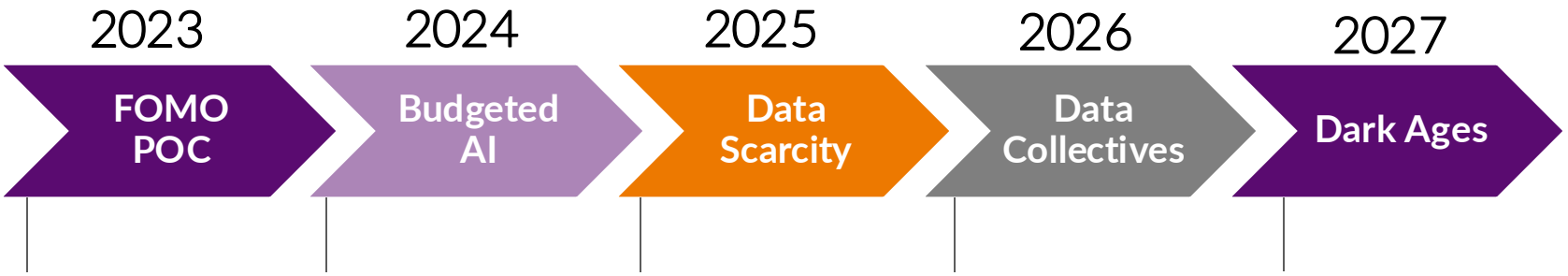


State Of The State Of AI

© 2010-2025 Constellation Research, Inc. All rights reserved

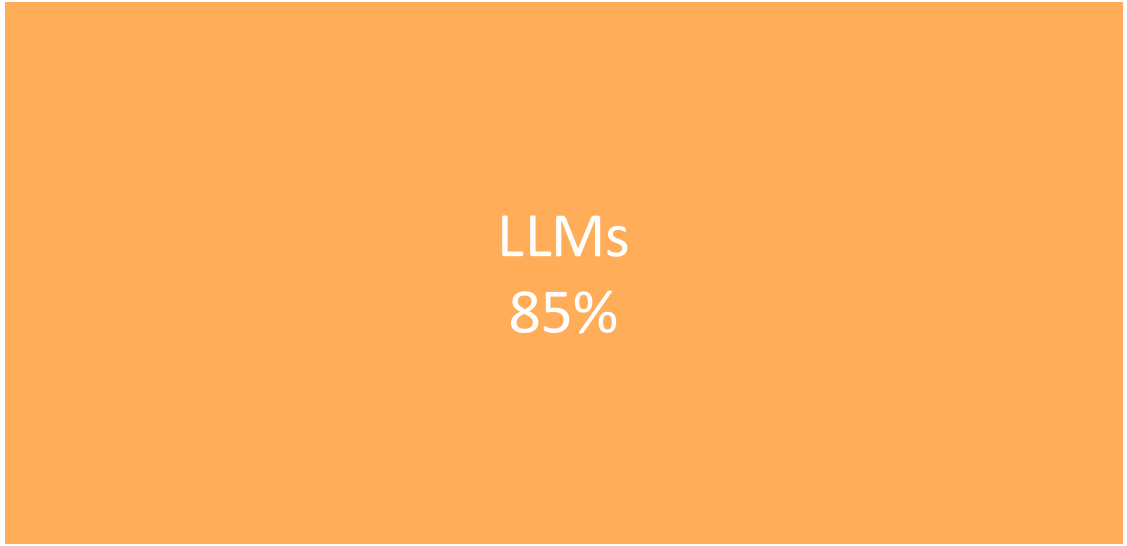
AI Timeline

AI Timeline



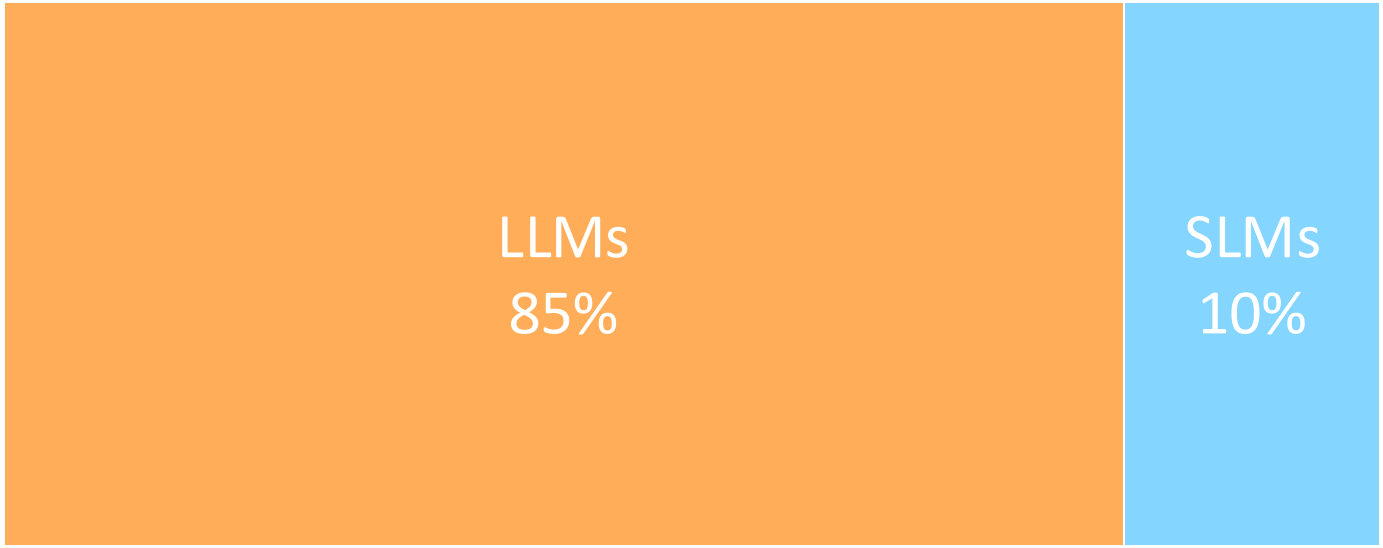
© 2010-2025 Constellation Research, Inc. All rights reserved

LLM’s only go so far on 85% accuracy



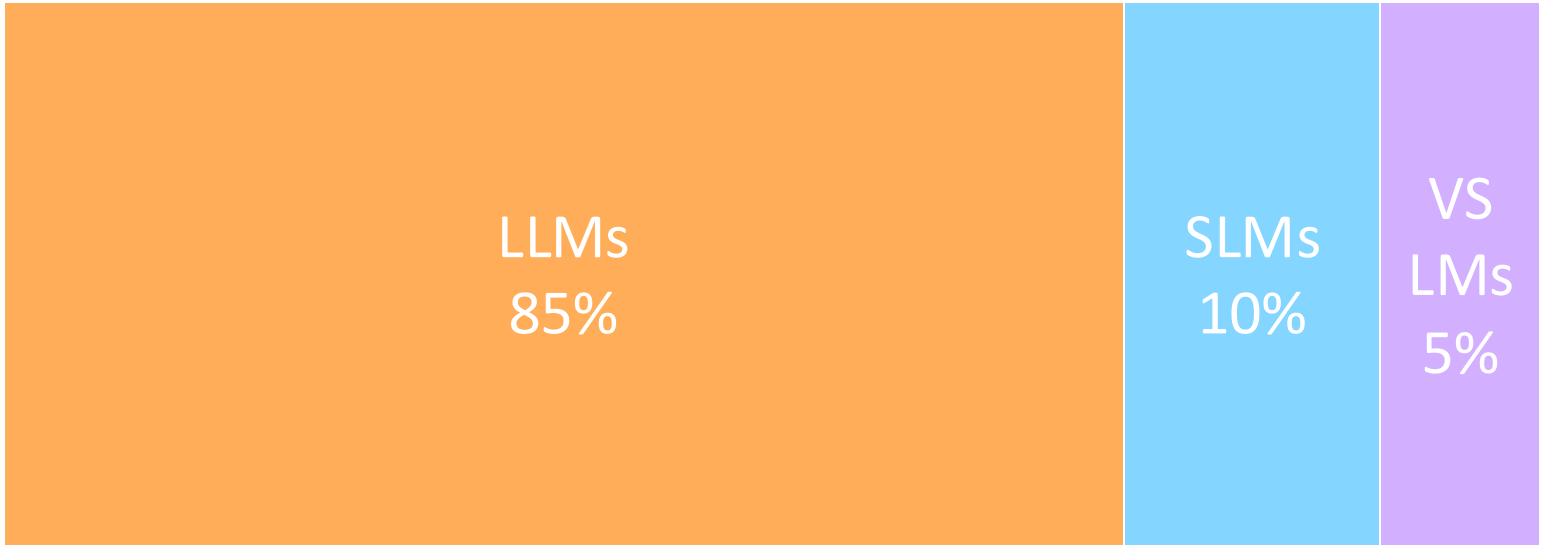
© 2010-2025 Constellation Research, Inc. All rights reserved

The next 10% is as hard as the first 85%



© 2010-2025 Constellation Research, Inc. All rights reserved

To get to near accuracy create data collectives



© 2010-2025 Constellation Research, Inc. All rights reserved

Generative AI vs Agentic AI

	Generative AI	Agentic AI
Purpose	Content creation	Autonomous action and decision making
Function	Generates new data based on patterns	Plans, executes tasks, and adapts to goals with minimal human input
Characteristics	Reactive, follows pre-defined steps, single-step workflow	Proactive, iterative workflows, and adaptable
Limitations	Struggles with complex tasks, and adaptive situations	Capable of handling complex multi-step and making independent decisions

constellation RESEARCH
© 2010-2025 Constellation Research, Inc. All rights reserved

Five Big Business Themes for 2025

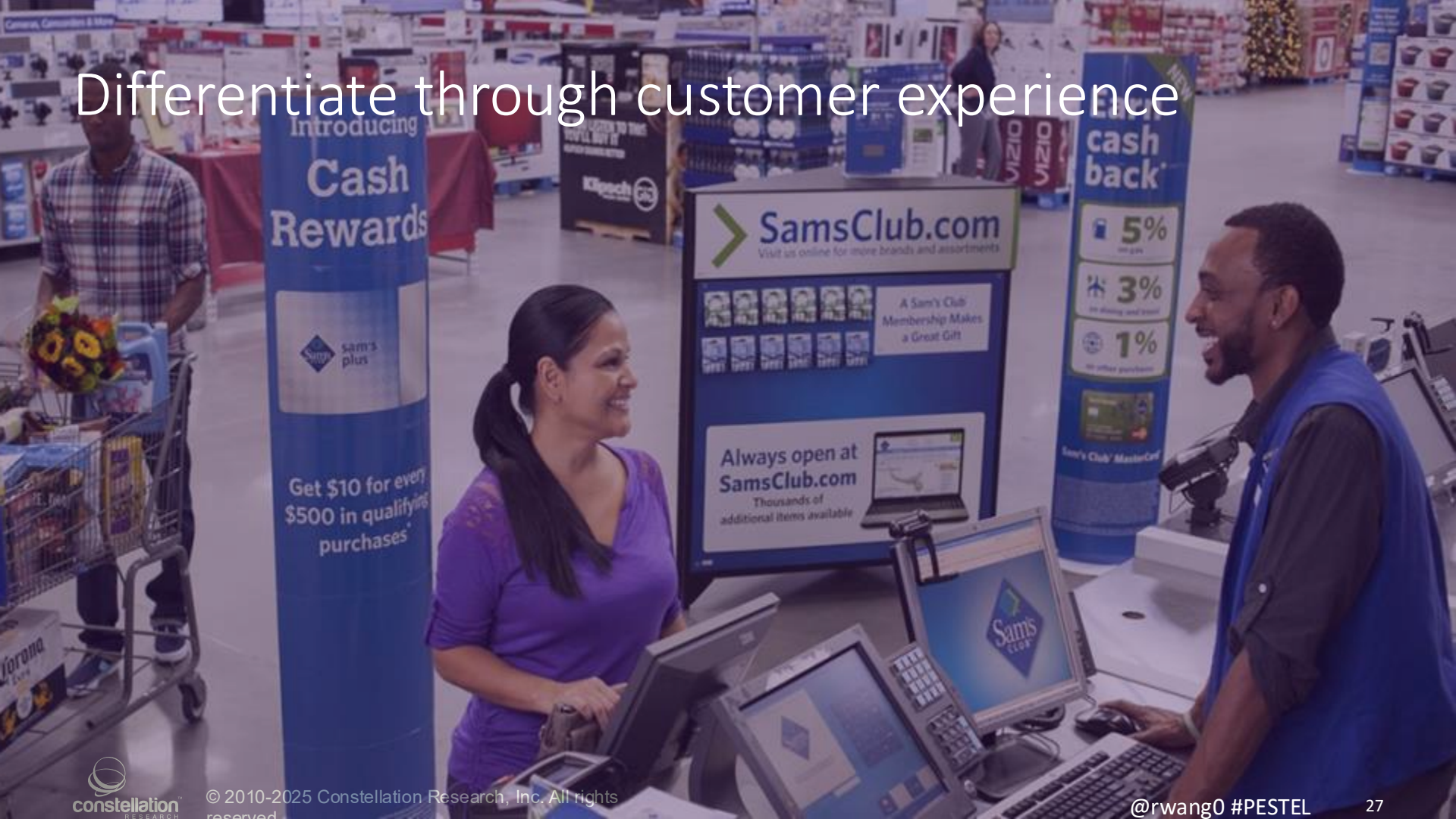
© 2010-2025 Constellation Research, Inc. All rights reserved

Margin compression continues

Resilient growth through flywheels

© 2010-2025 Constellation Research, Inc. All rights reserved

Differentiate through customer experience



© 2010-2025 Constellation Research, Inc. All rights reserved.

Augment and accelerate the future of work with safety and efficiency

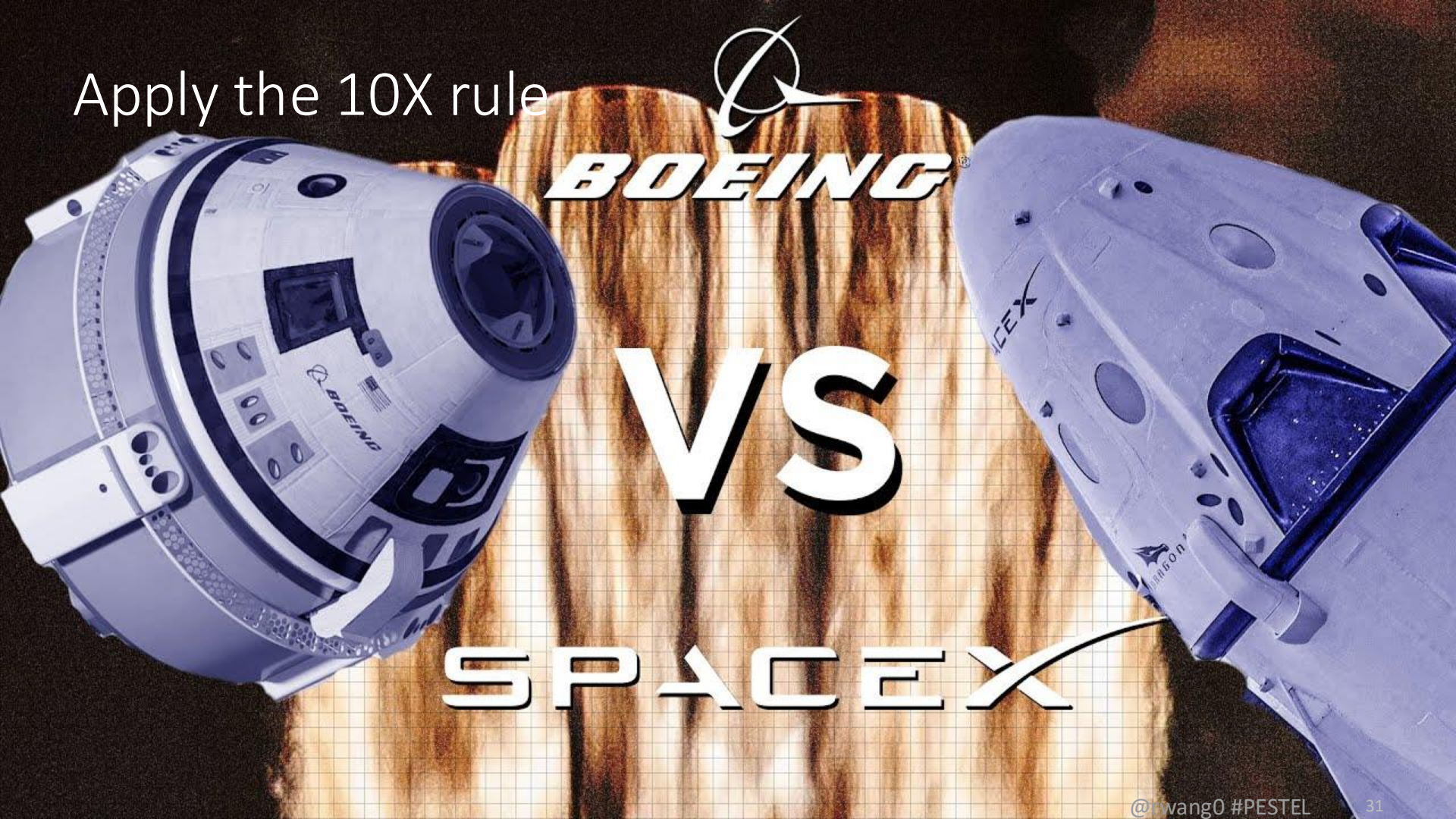
© 2010-2025 Constellation Research, Inc. All rights reserved

Exponential efficiency disrupts markets

© 2010-2025 Constellation Research, Inc. All rights reserved

Apply the 10X rule

Apply the 10X rule



Apply the 10X rule

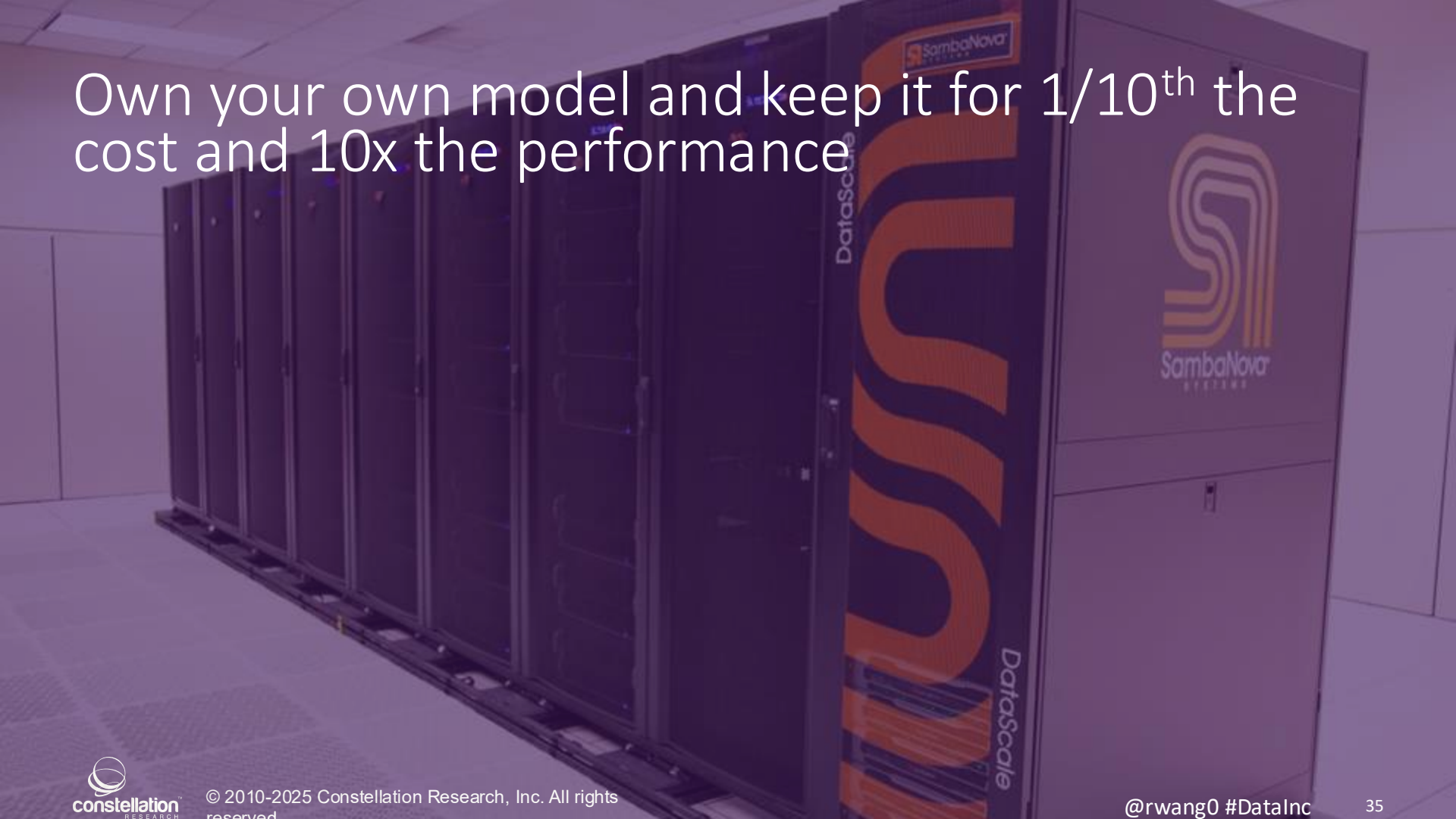
© 2010-2025 Constellation Research, Inc. All rights reserved

Apply the 10X rule

Apply the 10X rule

constellation RESEARCH
© 2010-2025 Constellation Research, Inc. All rights reserved

Own your own model and keep it for 1/10th the cost and 10x the performance



© 2010-2025 Constellation Research, Inc. All rights reserved

How will the west complete with $0.00/KwH?

© 2010-2025 Constellation Research, Inc. All rights reserved

Exponential efficiency waves

Level 1:
10X Cheaper OR 10X Better

Level 2:
10X Cheaper AND 10X Better

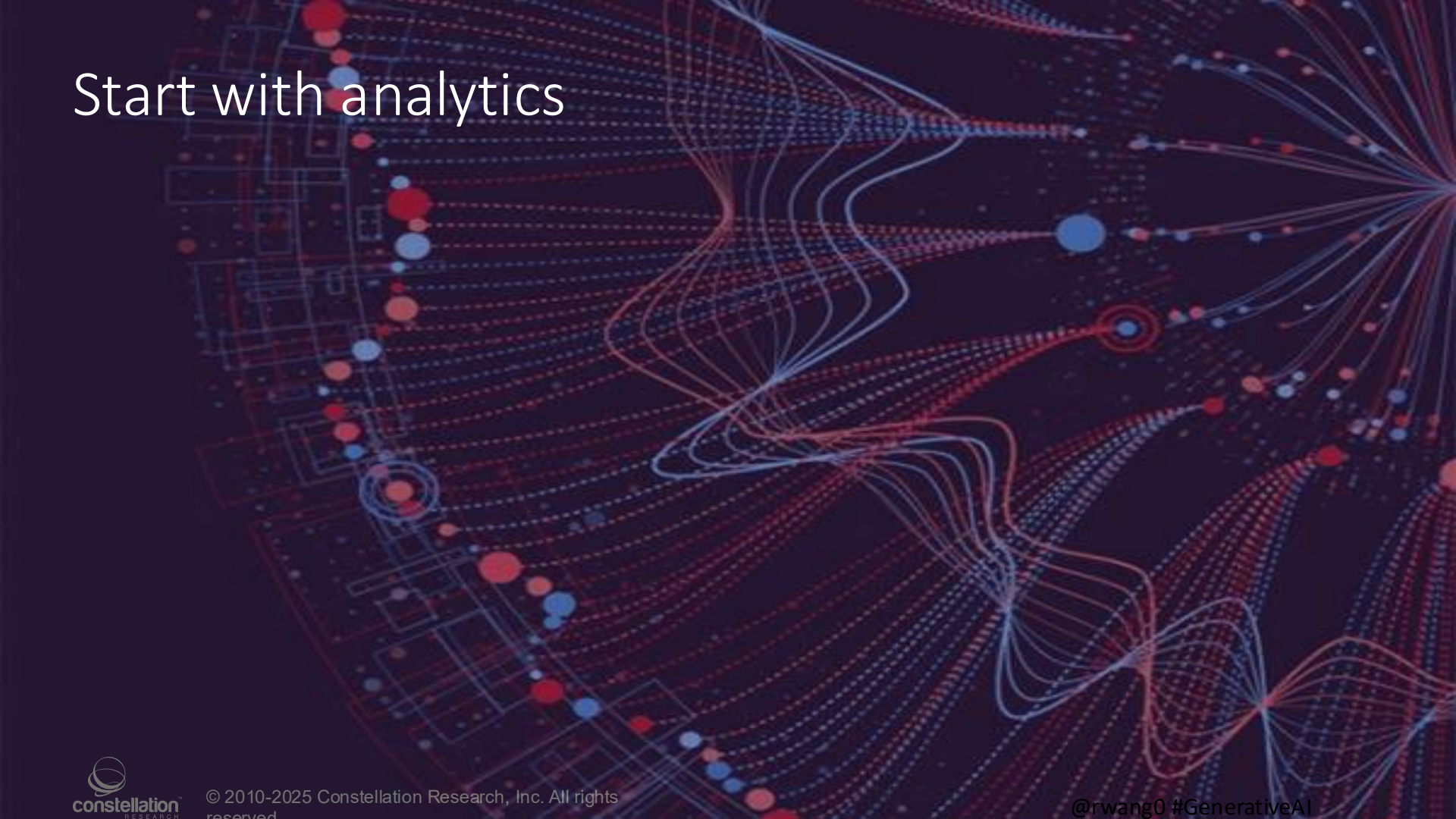
Level 3:
10X Cheaper AND 10X Better And 10X Faster

© 2010-2025 Constellation Research, Inc. All rights reserved

Compete For Decision Velocity

© 2010-2025 Constellation Research, Inc. All rights reserved

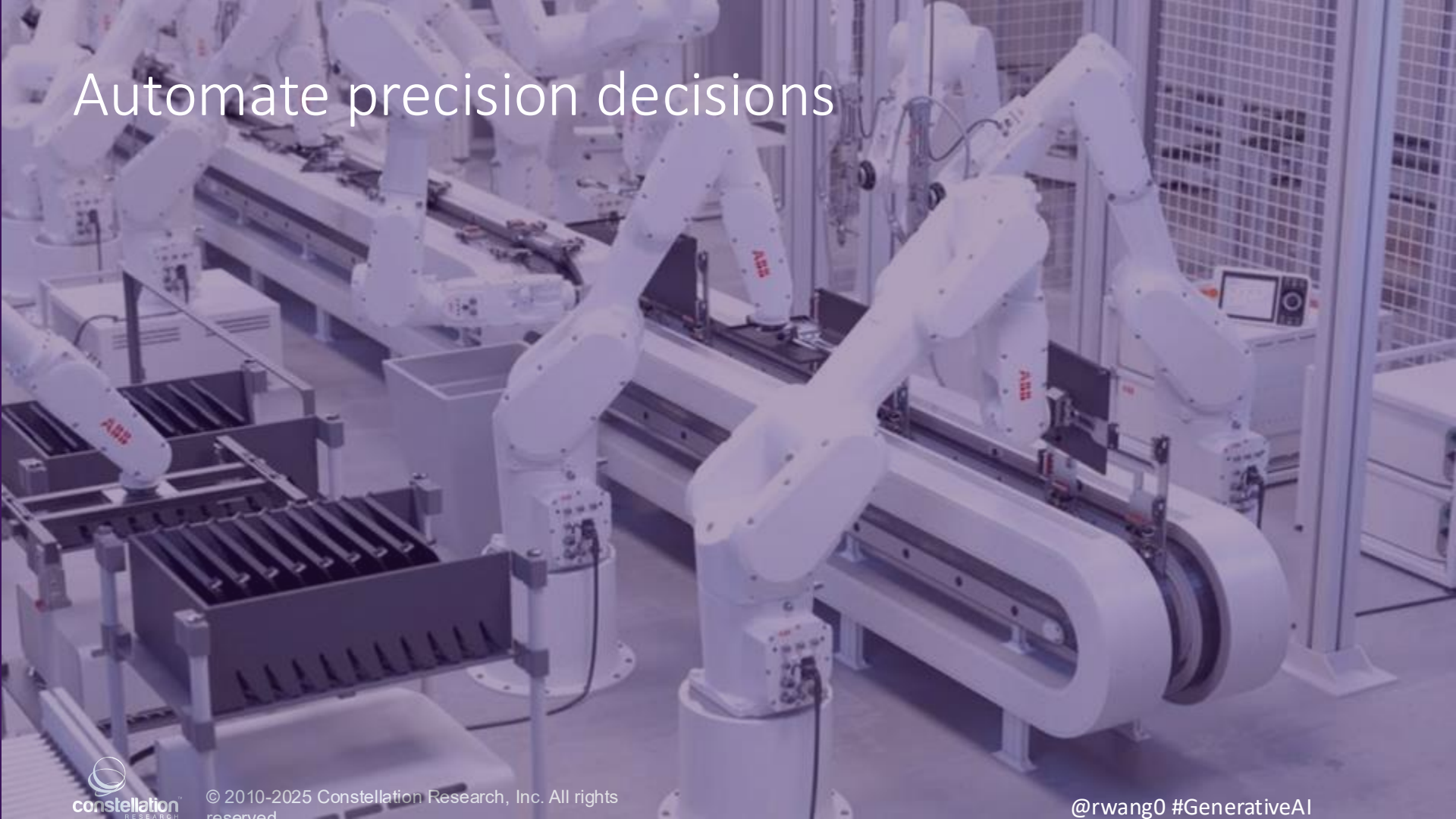
Start with analytics



© 2010-2025 Constellation Research, Inc. All rights reserved

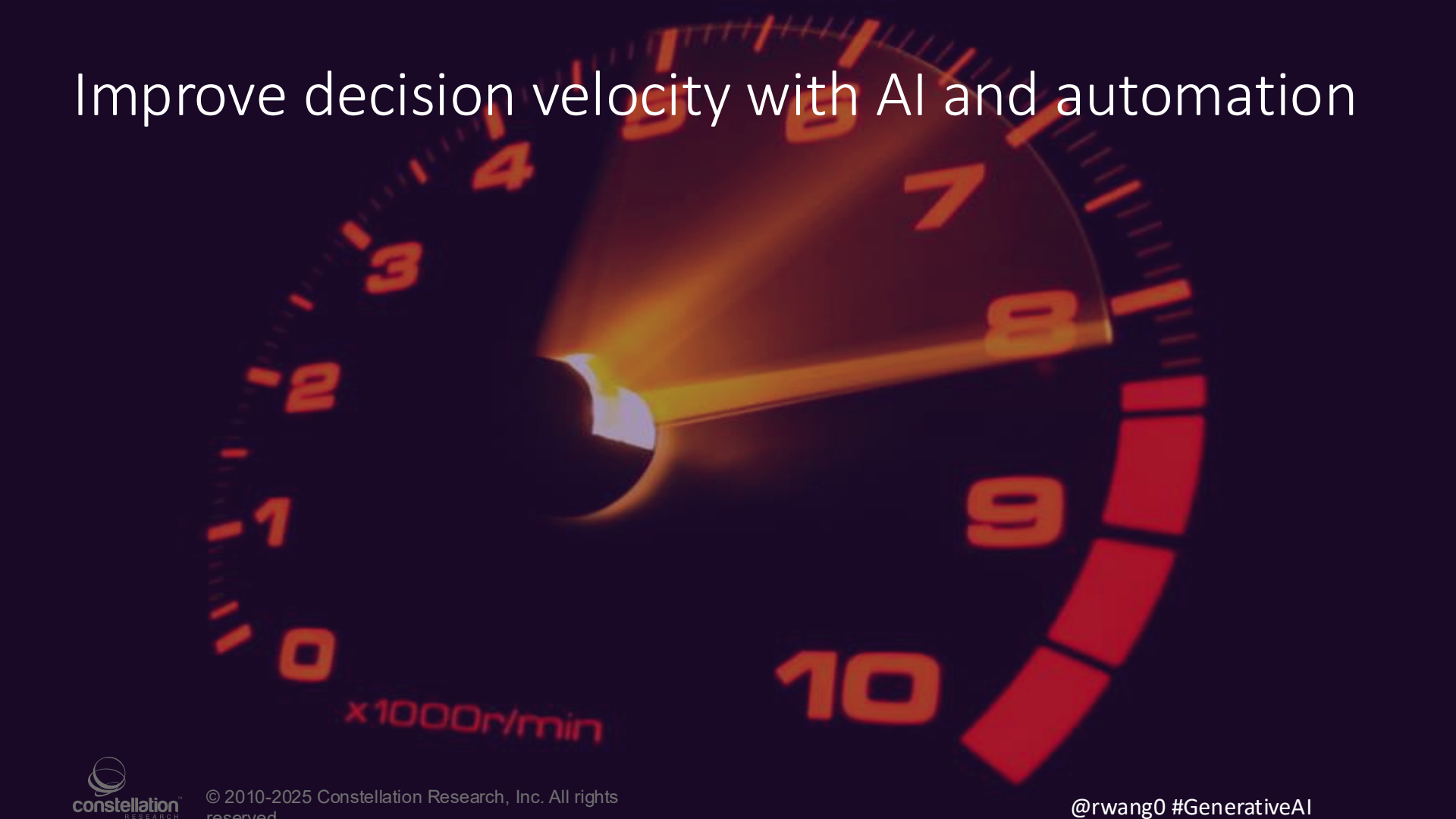
Build dynamic feedback loops and signal intelligence

Automate precision decisions



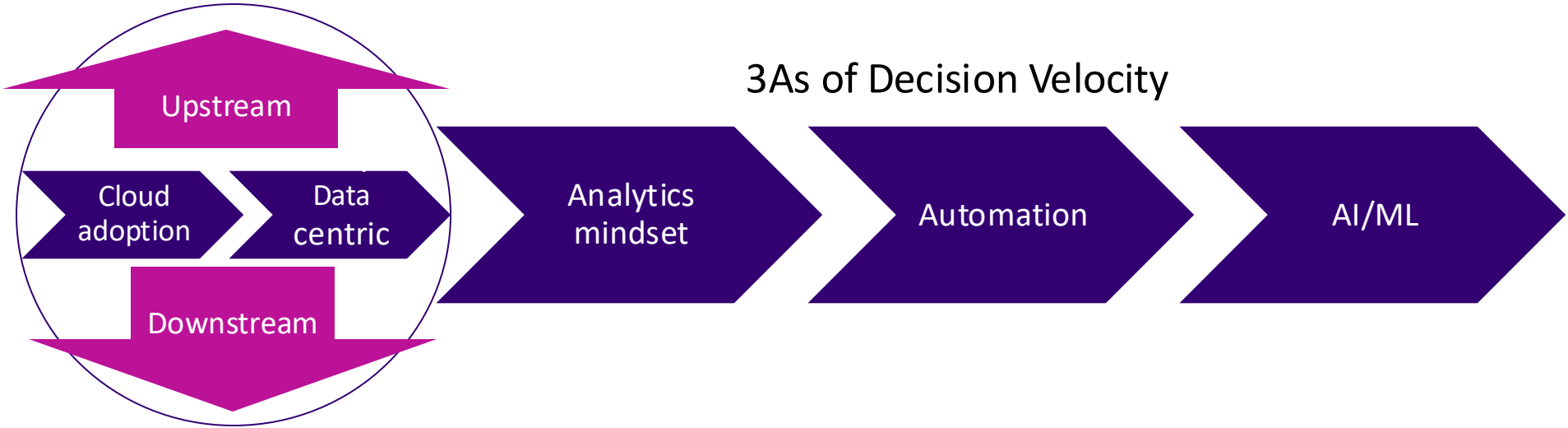
© 2010-2025 Constellation Research, Inc. All rights reserved

Improve decision velocity with AI and automation



© 2010-2025 Constellation Research, Inc. All rights reserved

Five fundamental technologies needed to achieve data supremacy



© 2010-2025 Constellation Research, Inc. All rights reserved

The competitive moat is the business graph

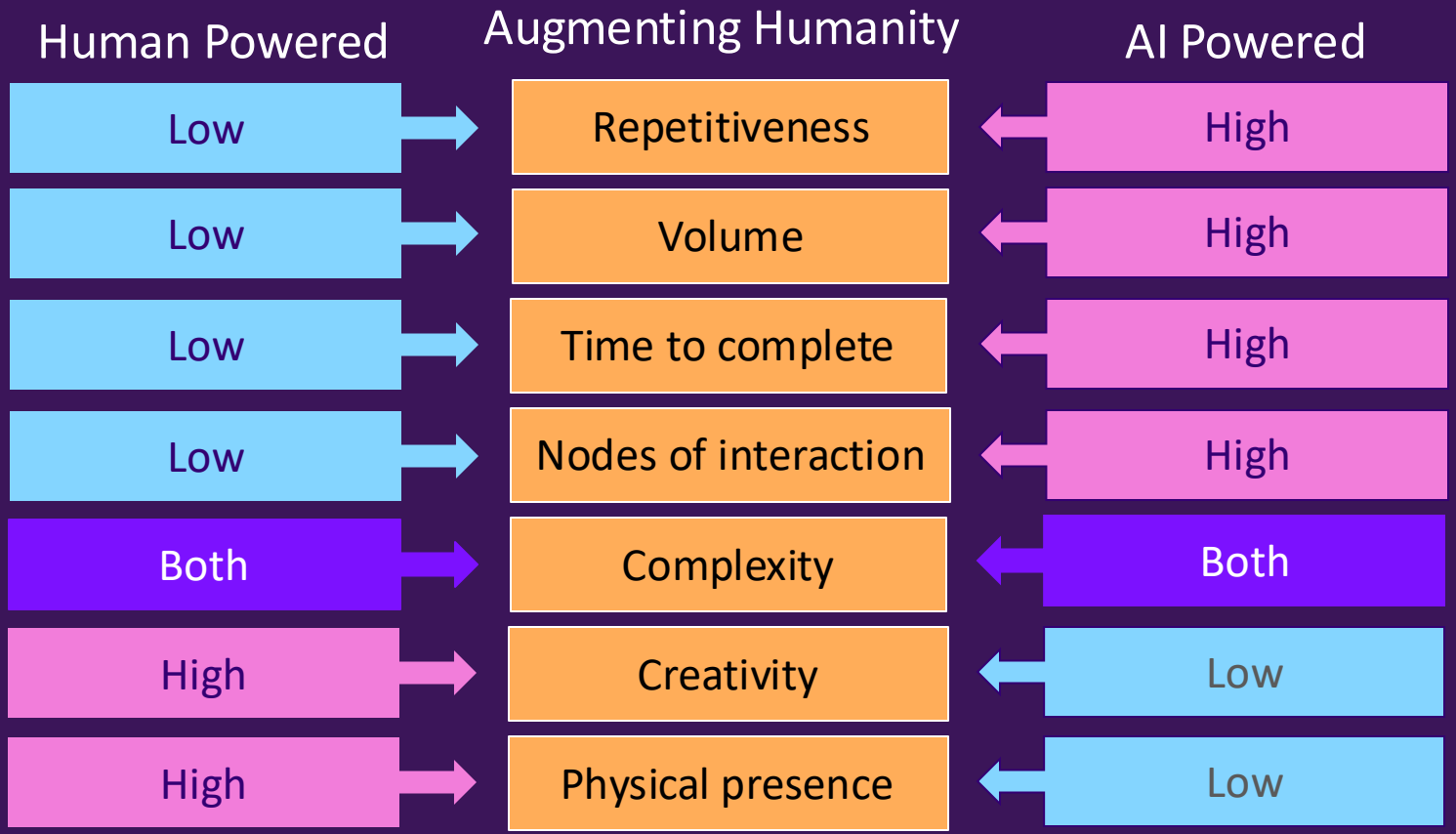
© 2010-2025 Constellation Research, Inc. All rights reserved

The business graph leads to autonomous systems

Elements	Transactional Systems	Engagement Systems	Experiential Systems	Relevance Systems	Autonomous Systems
Circa	1950s+	2000+	2005+	2010+	2015+
Design point	Continuous improvement	Sense and respond	Agile and flexible	Intention driven	Decision driven
Challenge	Massive computing scale	Massive social scale	Massive contextual scale	Massive individual scale	Massive decision scale
User Experience	Computing based	Interactive	Bionic	Personalized	Natural
Comms Style	Broadcast dictatorial	Conversational	Role tailored	Sentient	Human like
Speed	Just in time	Real time	Right time	Anticipatory	Space time continuum
Impact and reach	Departmental/ corporate silos	Interconnected	Segmented value chains	P2P networks	Virtual
Info mgmt	Highly structured	Loosely structured knowledge	Immersive streams	Self aware embedded knowledge	Continuous learning
Intelligence	Hard coded	Deterministic business rules	Probabilistic pattern based	Predictive	Situational awareness
Examples	Payroll, ERP, CRM	Social and collaboration	Ad networks, gamification	Decision support, VRM	Augmented humanity

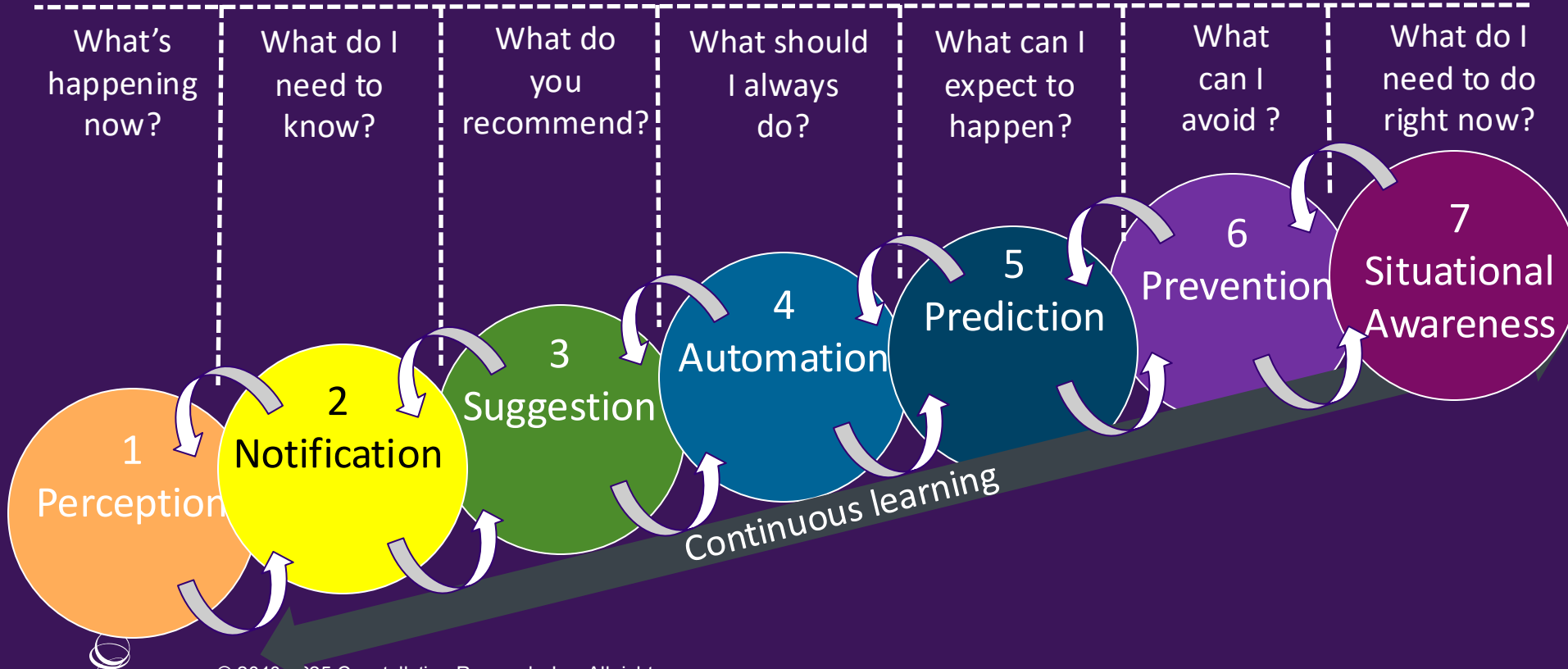
constellation RESEARCH
© 2010-2025 Constellation Research, Inc. All rights reserved

Candidates for AI driven automation and analytics



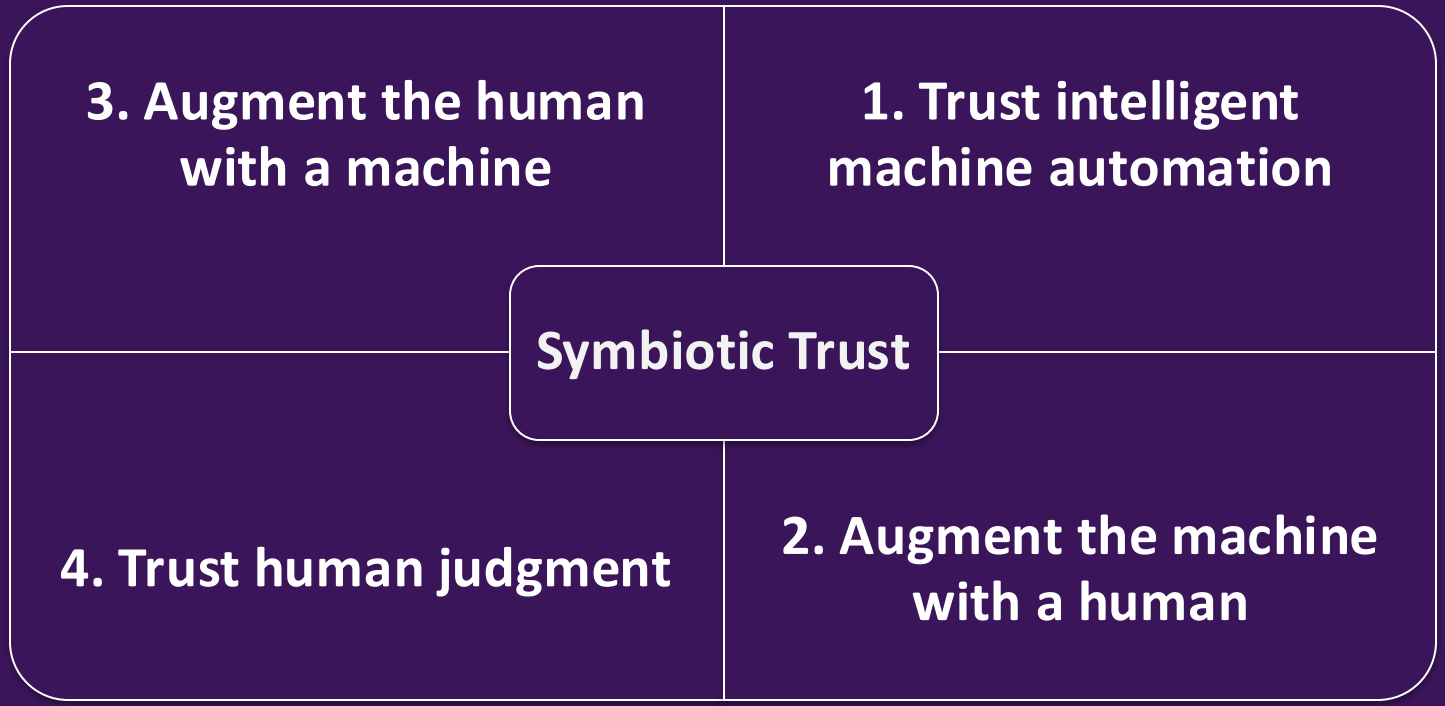
© 2010-2025 Constellation Research, Inc. All rights reserved

Assign outcomes, amplify with Artificial Intelligence



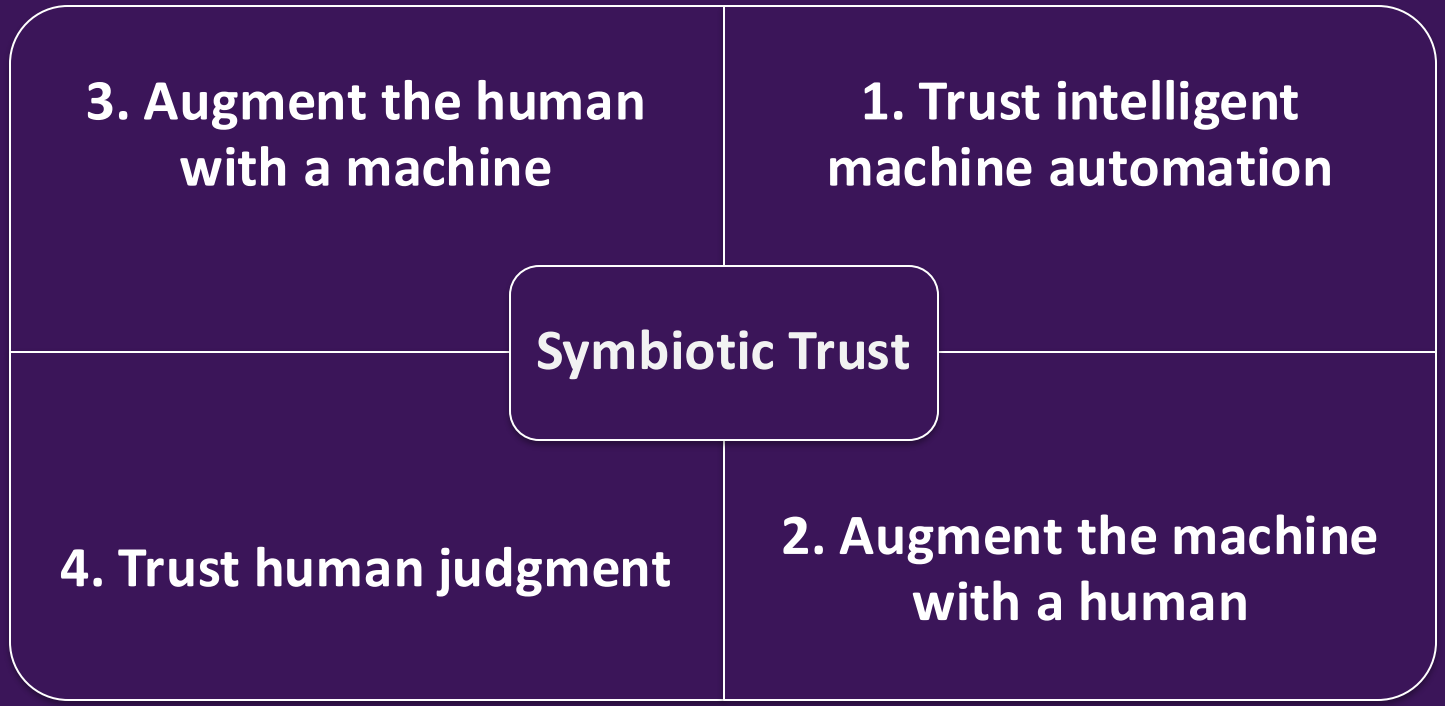
© 2010-2025 Constellation Research, Inc. All rights reserved

The four big questions we must answer in this autonomous decade. When do you…



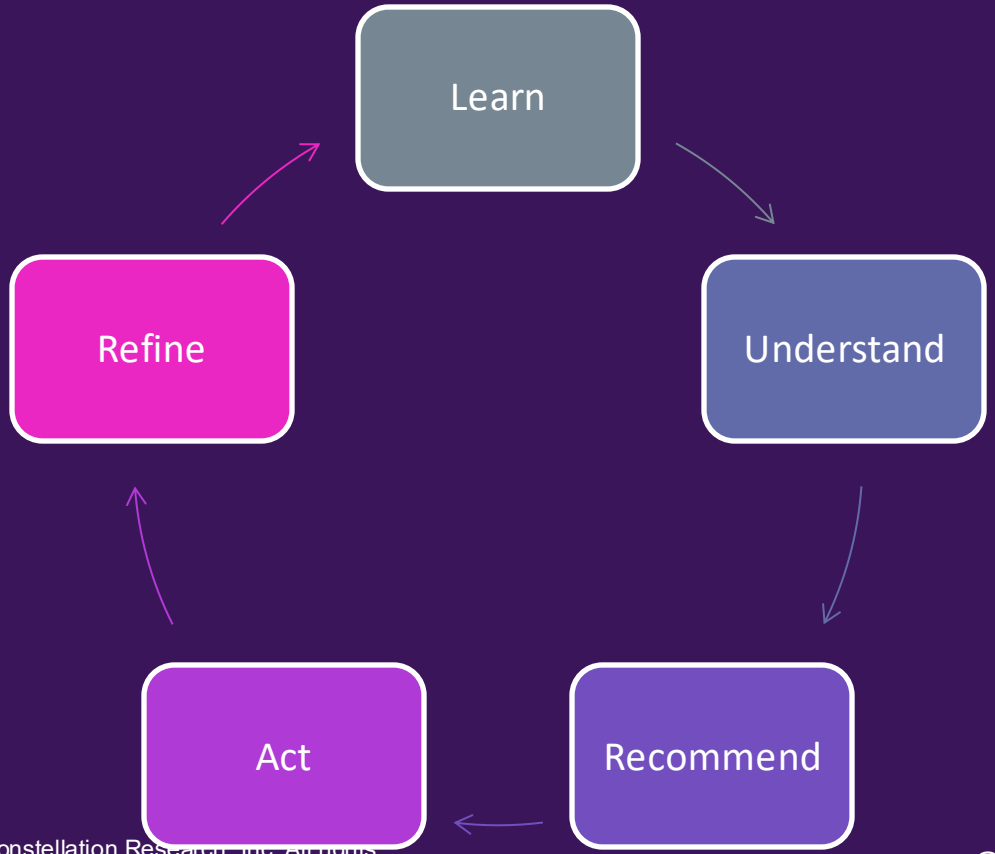
© 2010-2025 Constellation Research, Inc. All rights reserved

The design point is when and where do you insert a human into the process



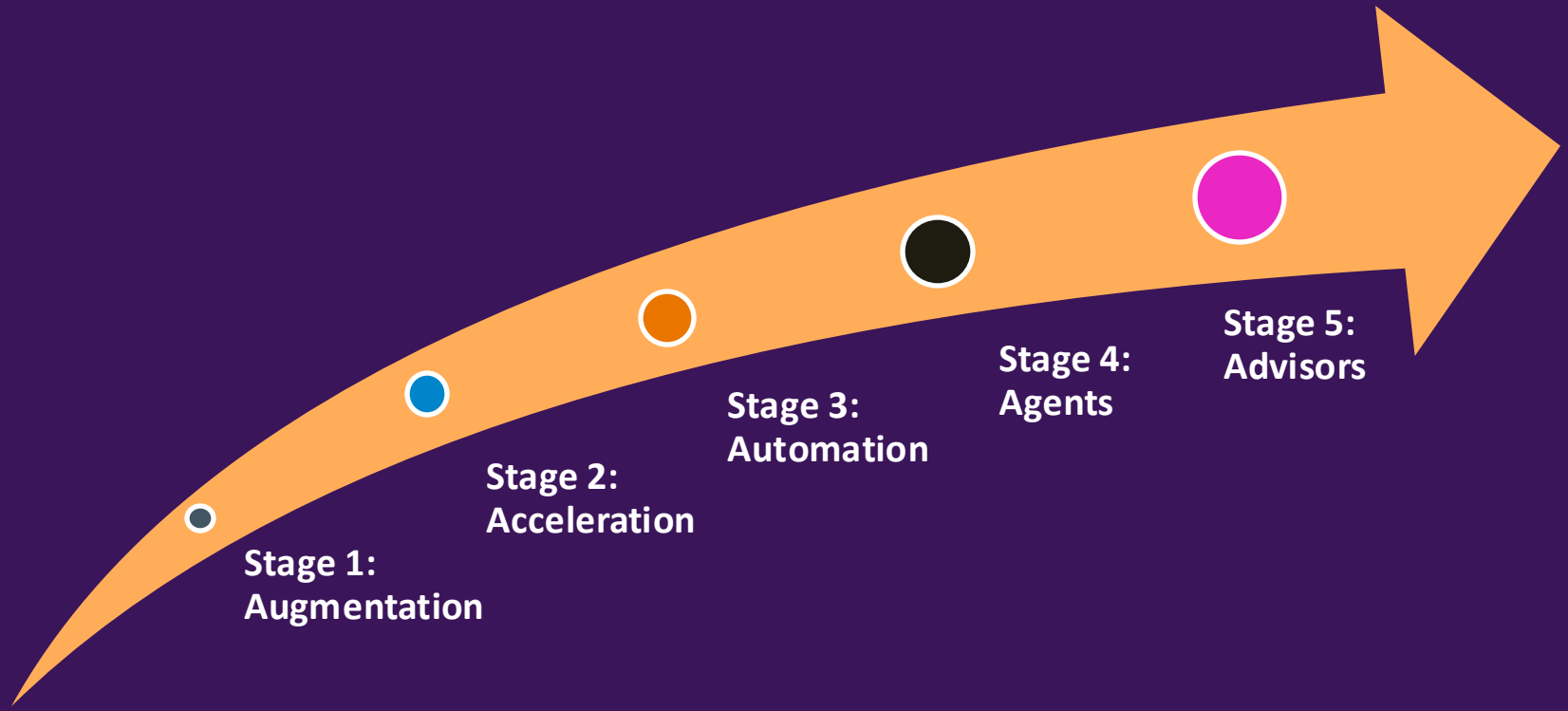
© 2010-2025 Constellation Research, Inc. All rights reserved

Learn, understand, recommend, act, repeat



© 2010-2025 Constellation Research, Inc. All rights reserved

Progressing through the five A's of AI



© 2010-2025 Constellation Research, Inc. All rights reserved

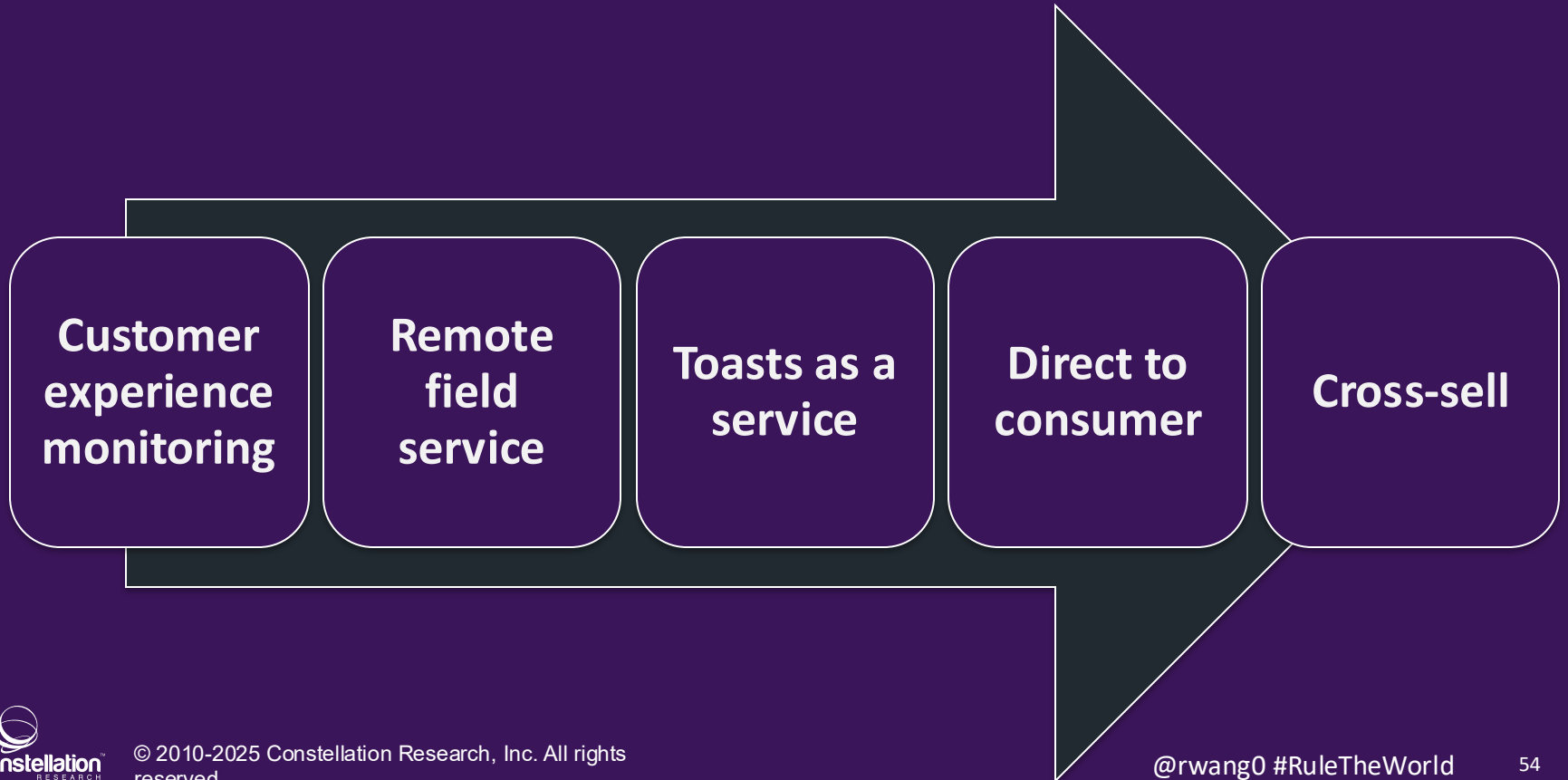
Mass personalization at scale

© 2010-2025 Constellation Research, Inc. All rights reserved

Build AI driven CX oriented business models

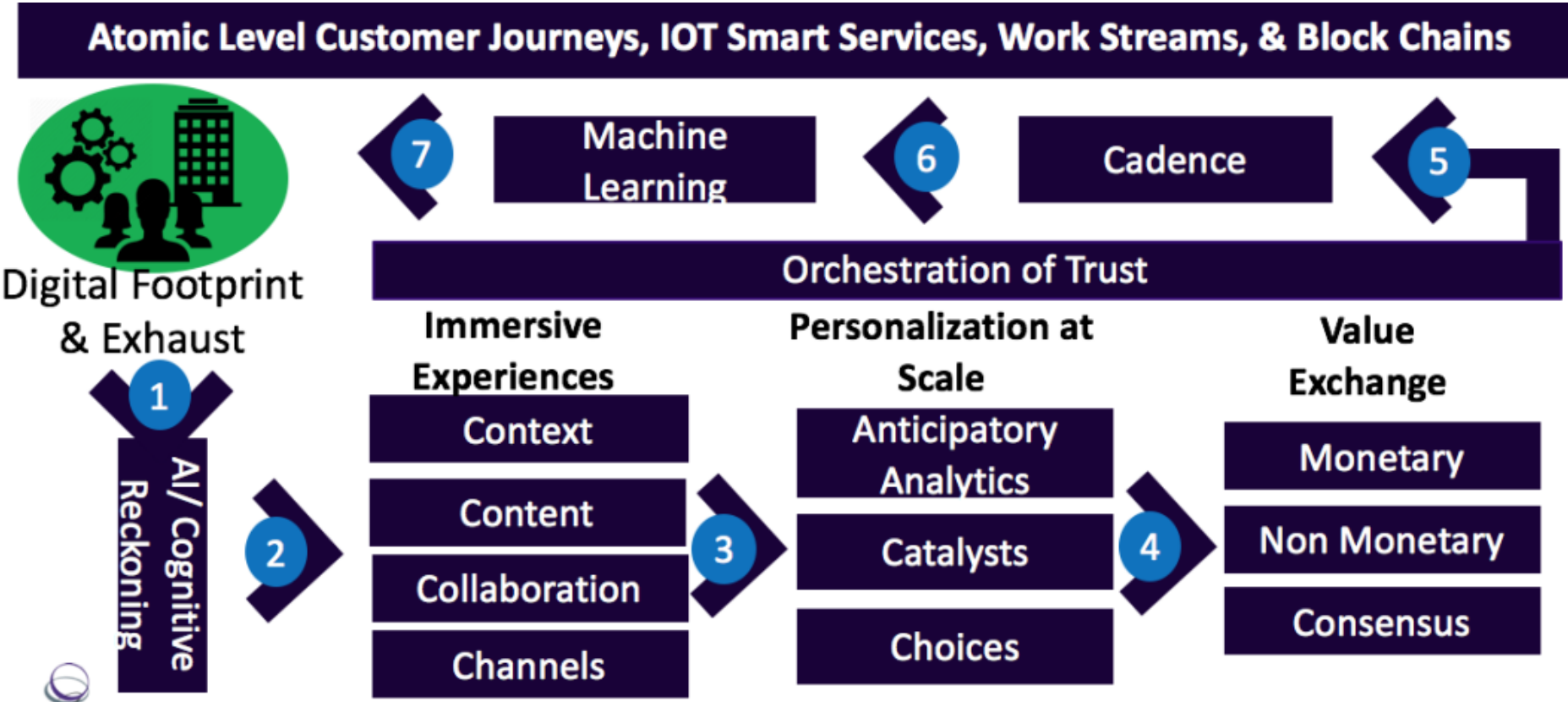
© 2010-2025 Constellation Research, Inc. All rights reserved

New AI business models powered by data



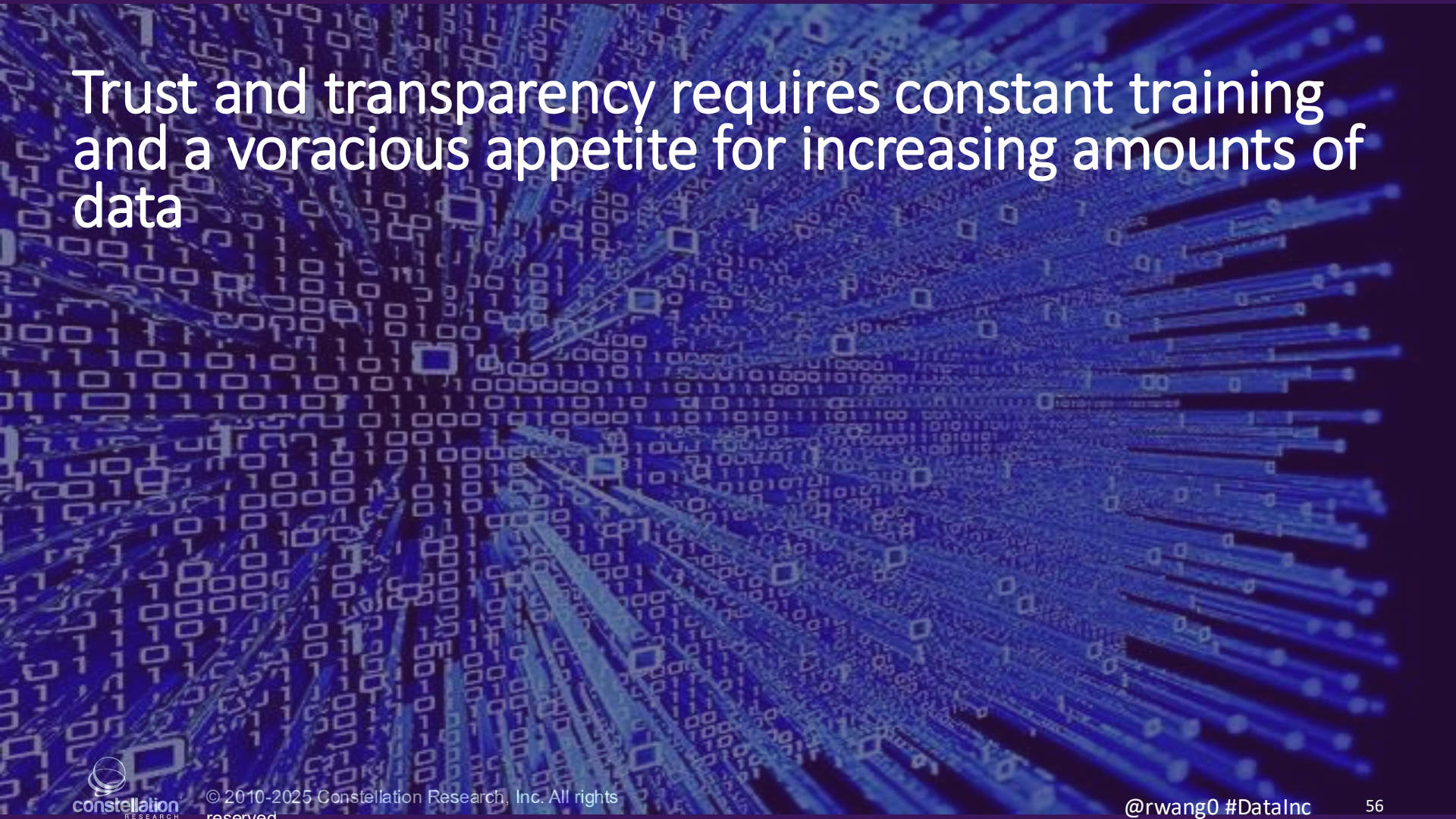
© 2010-2025 Constellation Research, Inc. All rights reserved

Seamless connected experiences by design



constellation RESEARCH © 2010-2017 Constellation Research, Inc. All rights reserved.

Trust and transparency requires constant training and a voracious appetite for increasing amounts of data



© 2010-2025 Constellation Research, Inc. All rights reserved

Yet, data half life makes much of your data worthless in seconds

© 2010-2025 Constellation Research, Inc. All rights reserved

The battle for more data and increasing number of signals requires data mastery

© 2010-2025 Constellation Research, Inc. All rights reserved

Data mastery results in not only better AI use cases but a new class of organizations

© 2010-2025 Constellation Research, Inc. All rights reserved

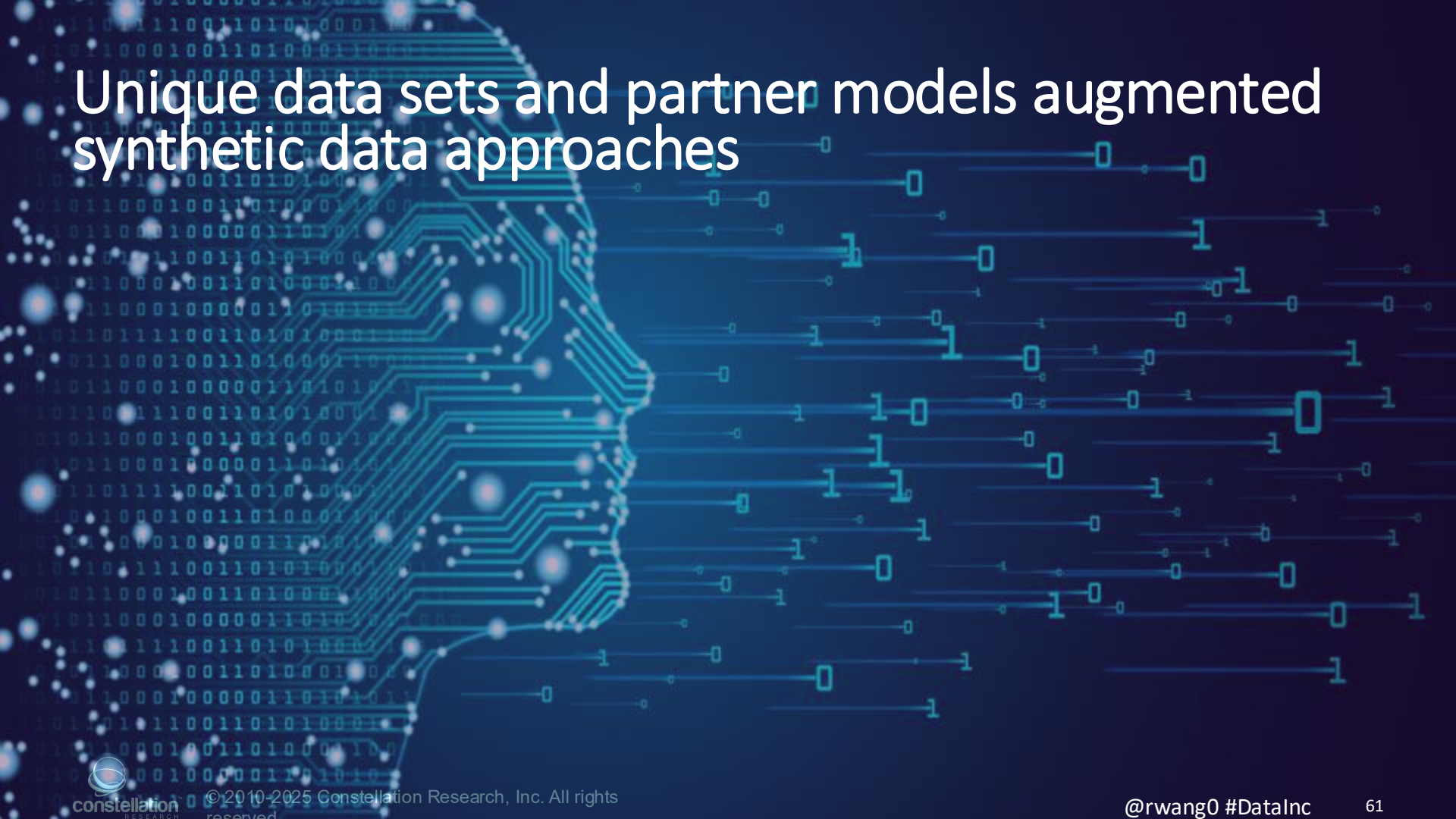
You need deep data resident knowledge of the flat sides of the data

To know what you know and what you do not know, that is true knowledge.

- Confucius

© 2010-2025 Constellation Research, Inc. All rights reserved

Unique data sets and partner models augmented synthetic data approaches

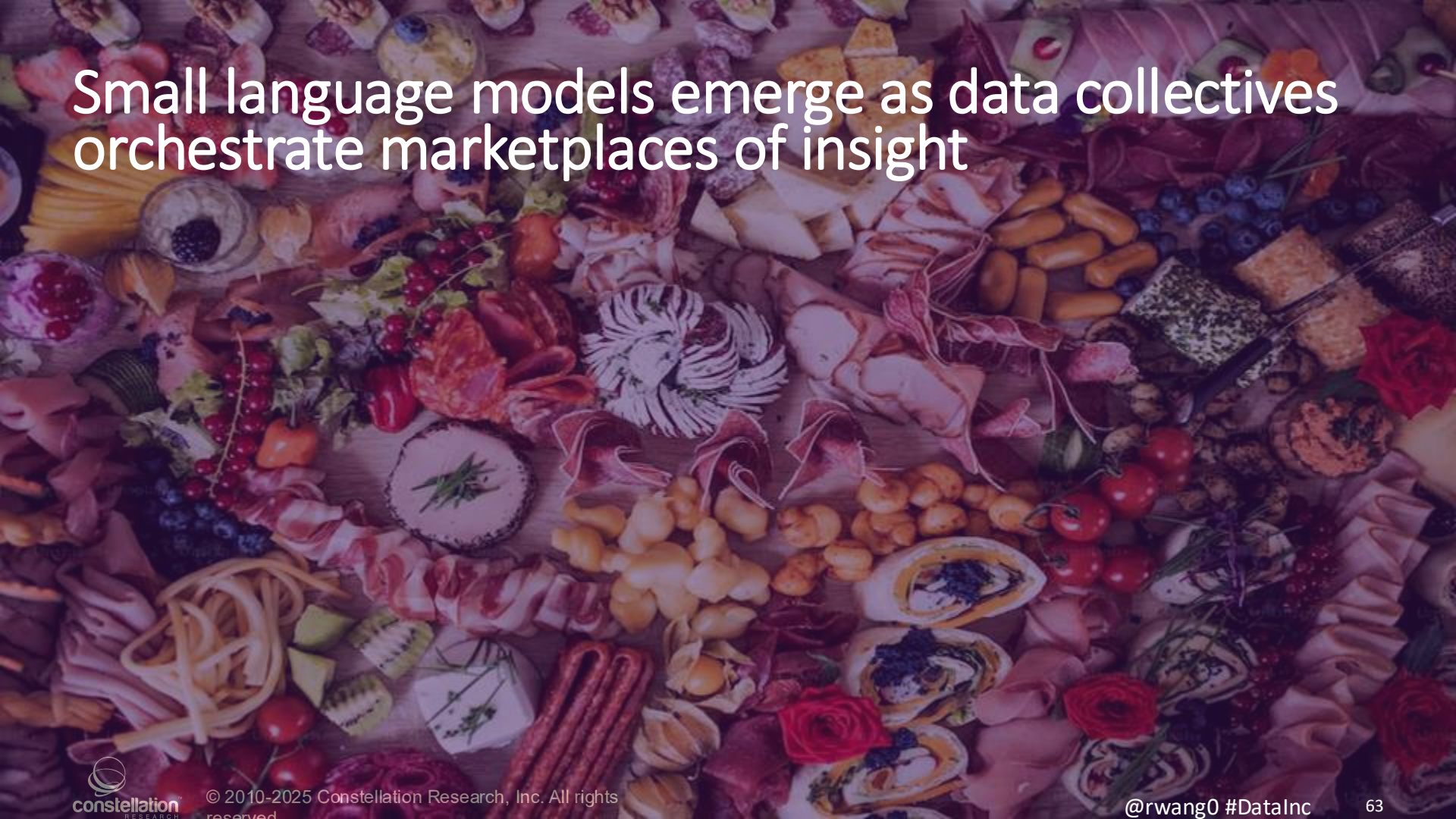


© 2010-2025 Constellation Research, Inc. All rights reserved

No organization has enough data and data collectives will be required for success

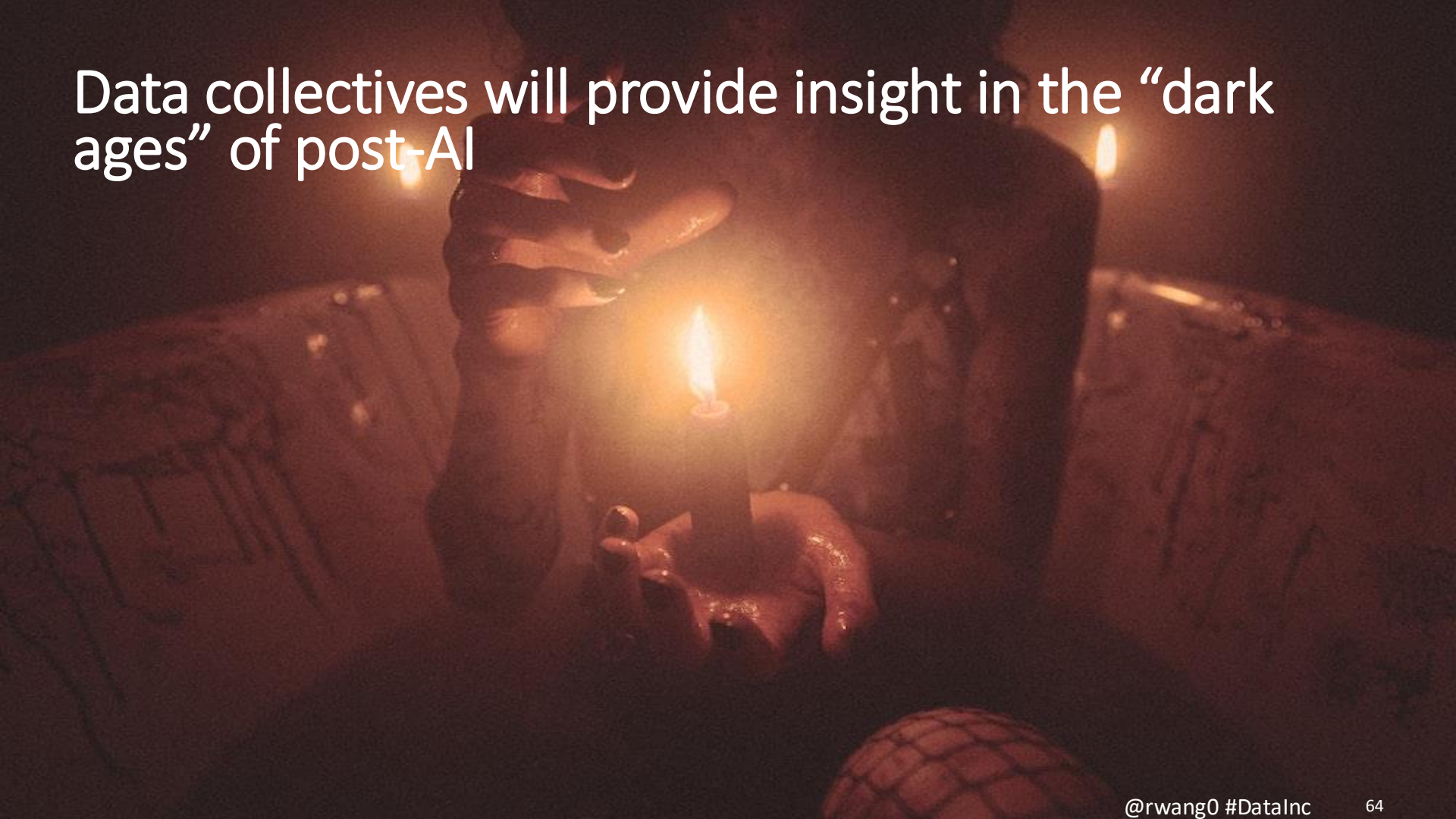
© 2010-2025 Constellation Research, Inc. All rights reserved

Small language models emerge as data collectives orchestrate marketplaces of insight



© 2010-2025 Constellation Research, Inc. All rights reserved

Data collectives will provide insight in the “dark ages” of post-AI



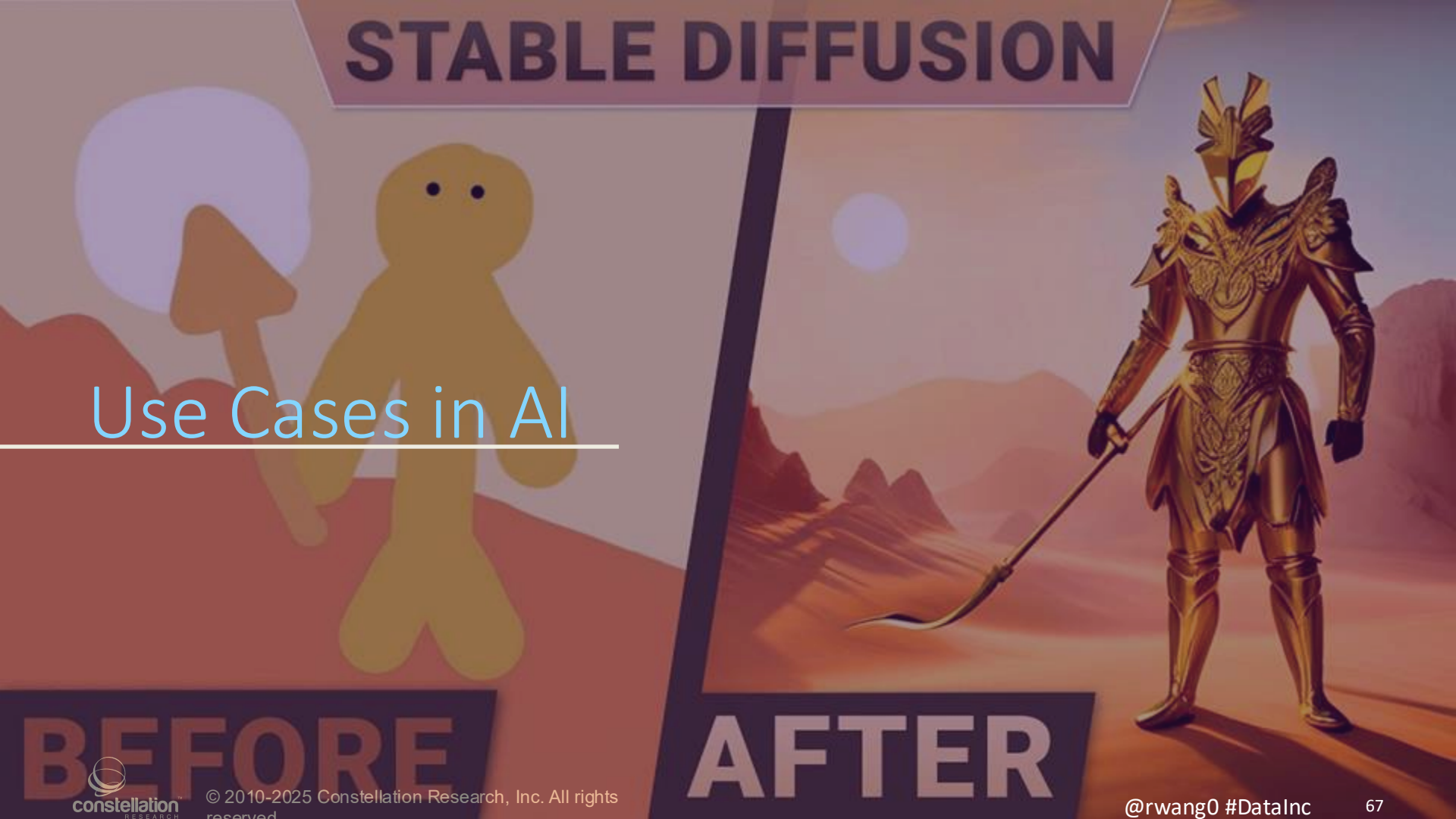
Most AI projects will fail due to lack of relevant data to reach precision decisions

© 2010-2025 Constellation Research, Inc. All rights reserved

Winners emerge with exponential advantages

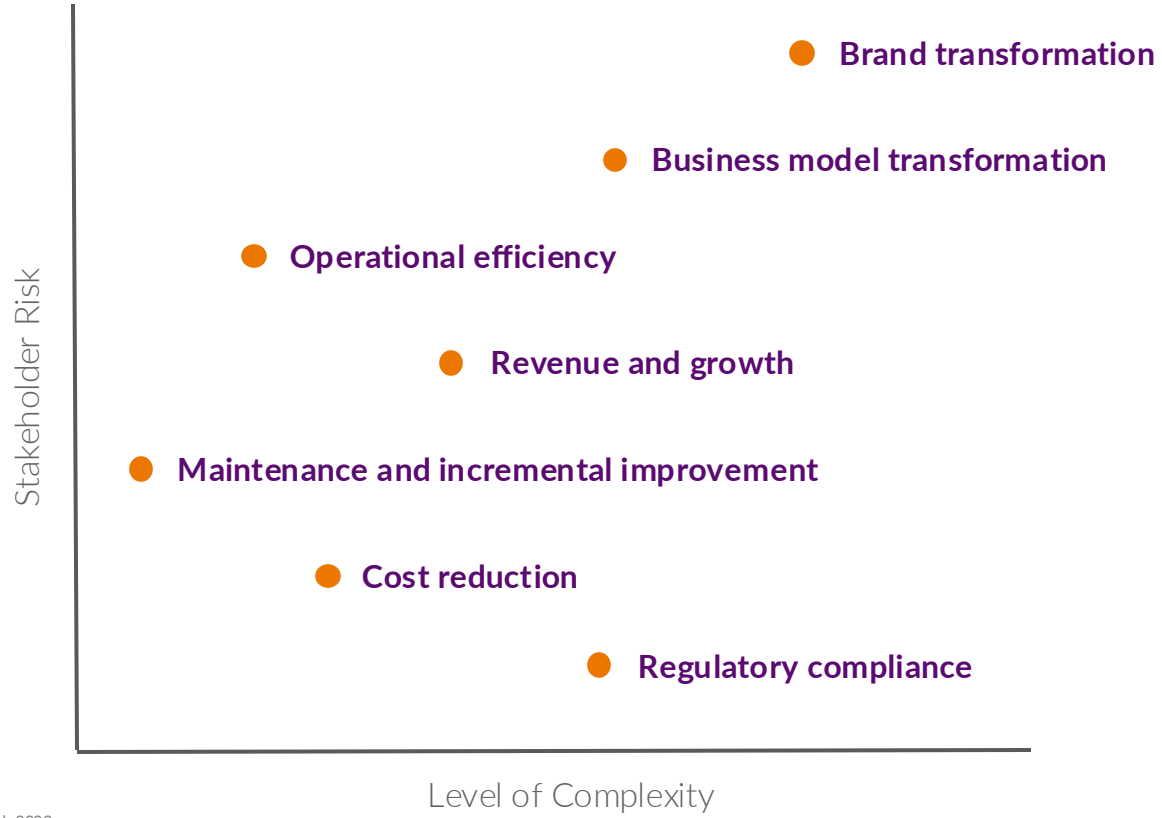
© 2010-2025 Constellation Research, Inc. All rights reserved

Use Cases in AI



© 2010-2025 Constellation Research, Inc. All rights reserved

Return on Transformation Investment



constellation RESEARCH
© Constellation Research 2023

The Frameshift Ahead

© 2010-2025 Constellation Research, Inc. All rights reserved

Where and when do you insert a human?

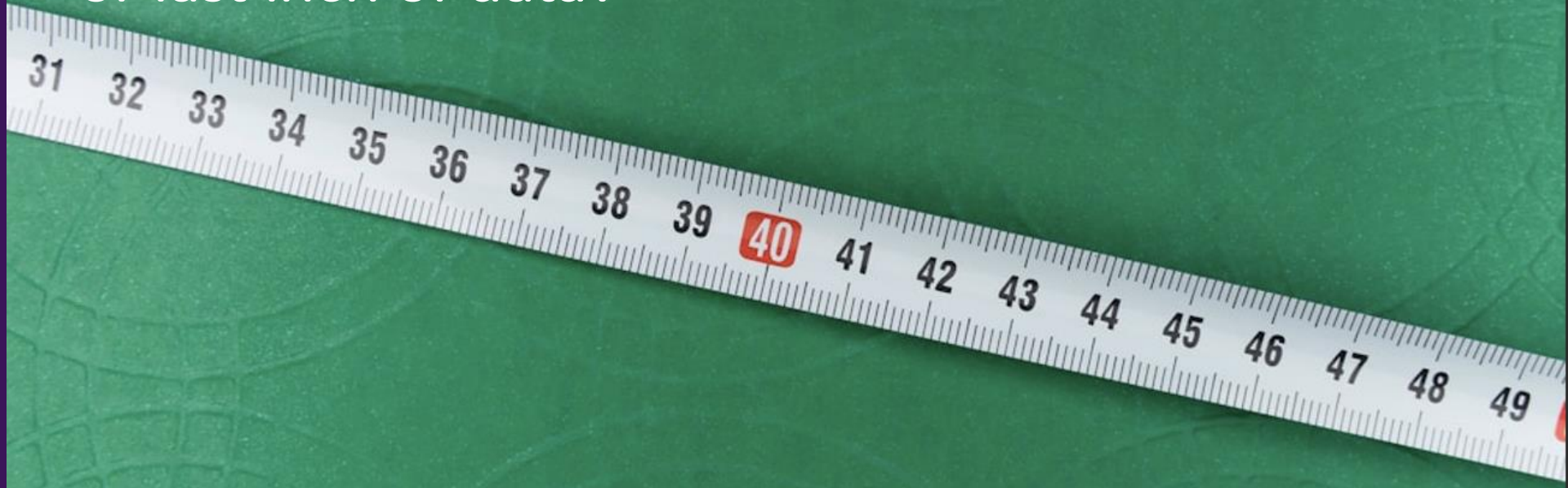
© 2010-2025 Constellation Research, Inc. All rights reserved

Can you operate at machine scale with humans?

Do you have enough data to get to precision decisions?

© 2010-2025 Constellation Research, Inc. All rights reserved

Who do you partner with to complete the last mile or last inch of data?



Who do you sue when something goes wrong?

© 2010-2025 Constellation Research, Inc. All rights reserved

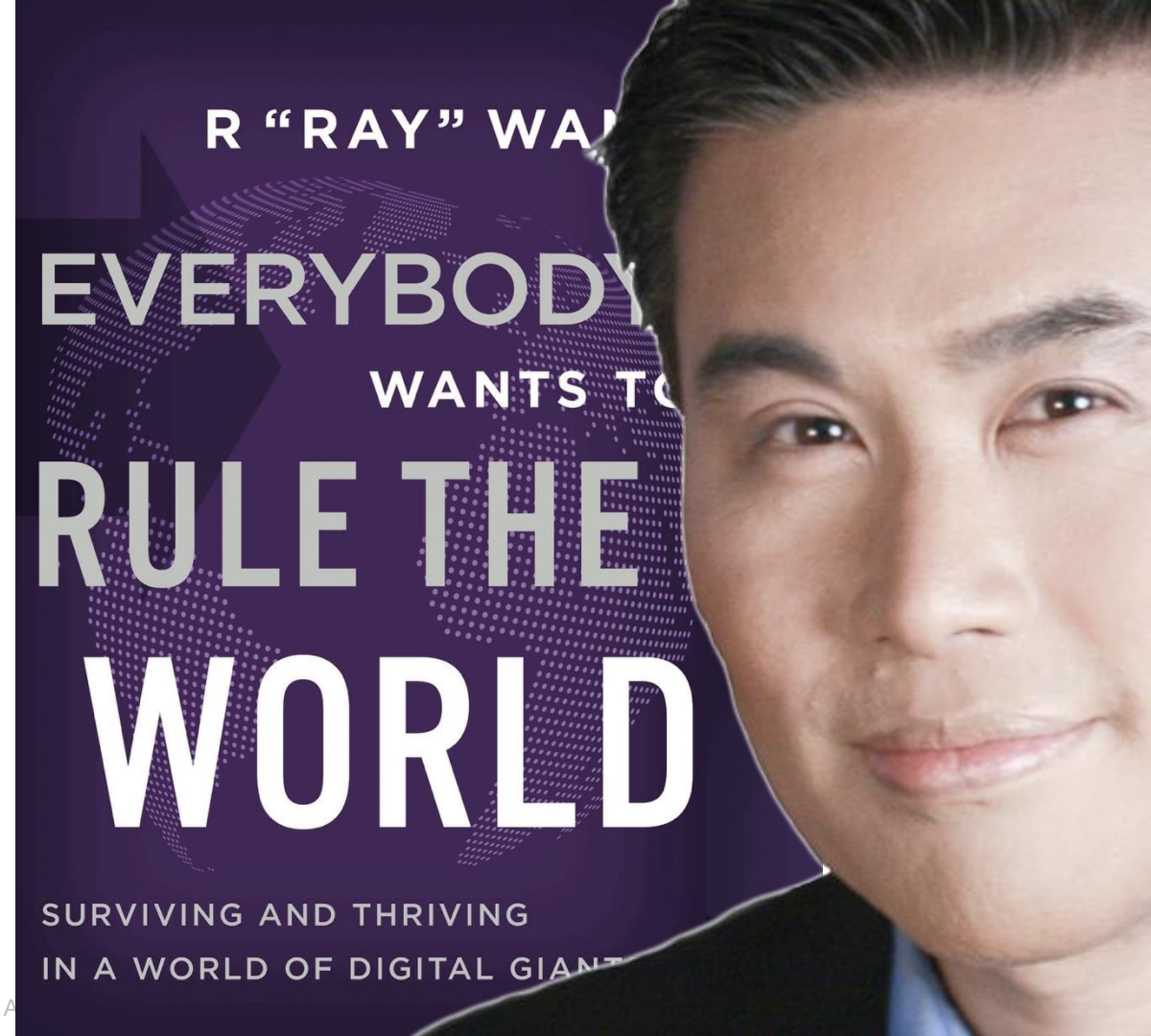
© 2010-2025 Constellation Research, Inc. All rights reserved

© 2010-2025 Constellation Research, Inc. All rights reserved

Thank you.
Any questions?

R “Ray” Wang

- +1.650.918.6619
- R@ConstellationR.com
- @rwang0
- www.raywang.org
- www.ConstellationR.com



constellation RESEARCH
© 2010-2025 Constellation Research, Inc. A
reserved

constellation™

RESEARCH

www.constellationR.com

San Francisco | Boston | Colorado Springs | Denver | Fr. Lauderdale | Los Angeles | Monta Vista

New York | NOVA | Pune | San Diego | Sydney | Washington, D.C.

THIS Connect City Tours

Thank you!

www.constellationr.com