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BIG IDEA

Augmenting and Accelerating Frontline Productivity

Accelerating Decision Velocity With AI and Automation Through Digital Labor

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RESEARCH

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EXECUTIVE SUMMARY

Today's frontline workers face a confluence of forces that will dramatically reshape business models, impact employee experience, transform customer experience, and affect stakeholder satisfaction. An aging population, war for talent, and shift to mass automation will forever transform the market for physical labor. Meanwhile, artificial intelligence (AI)–native vendors such as Cursor, Lovable, and Devin are already delivering "digital labor" that approaches human throughput on routine engineering tasks at exponential scale. This same approach will impact customer experiences and employee experiences at a machine scale never seen before and play a role in frontline worker productivity.

This once-in-a-generation opportunity to blend autonomous digital labor with human experiences will capture unmet demand while preserving accountability, client trust, and profitability in creating a new category of frontline worker productivity. Success will require a level of contextual relevancy that is anticipatory. Based on experiences with more than 2,000 global clients, Constellation presents a future framework where services are delivered by hybrid teams of humans and agents. The revolution in frontline workers has begun, and organizations that adapt will thrive.

BUSINESS THEMES

- New C-Suite
- Next-Generation Customer Experience
- Technology Optimization
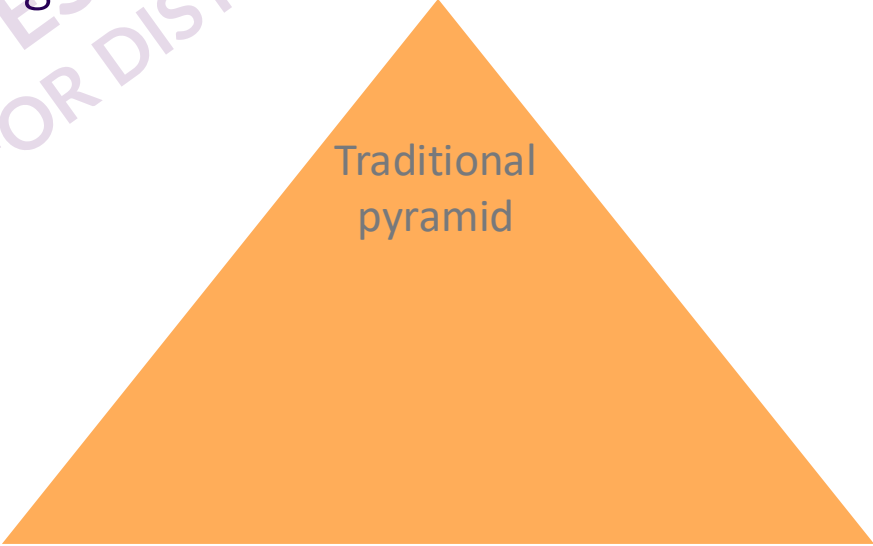- Data to Decisions
- Future of Work

DEATH TO THE PYRAMID, LONG LIVE THE DIAMOND!

Consequently, in an age of AI, the traditional pyramid is under attack (see Figure 1). As work transitions from mostly manual to mostly automated and a range of lower-level and higher-level tasks are replaced by AI, the need for a classic command-and-control pyramid structure goes away. In fact, automation and AI break off chunks of the pyramid with improved orchestration. As more humans manage more bots, the pyramid looks more like a diamond. Workers on the bottom levels of the pyramid are replaced or even age out. And in many cases, new product or service offerings hasten the reduction of humans as the level of automation increases (see Figure 2).

"Death to the pyramid, long live the diamond" gives way back to the pyramid over time as the number of humans decreases and more leverage is achieved with digital labor. Systematically blending digital workers with humans via an orchestration engine enables professional services organizations (PSOs) to capture a far larger share of their addressable market while safeguarding accountability, client trust, and profitability.

Figure 1. The Traditional Pyramid Is the Most Common Staffing Model

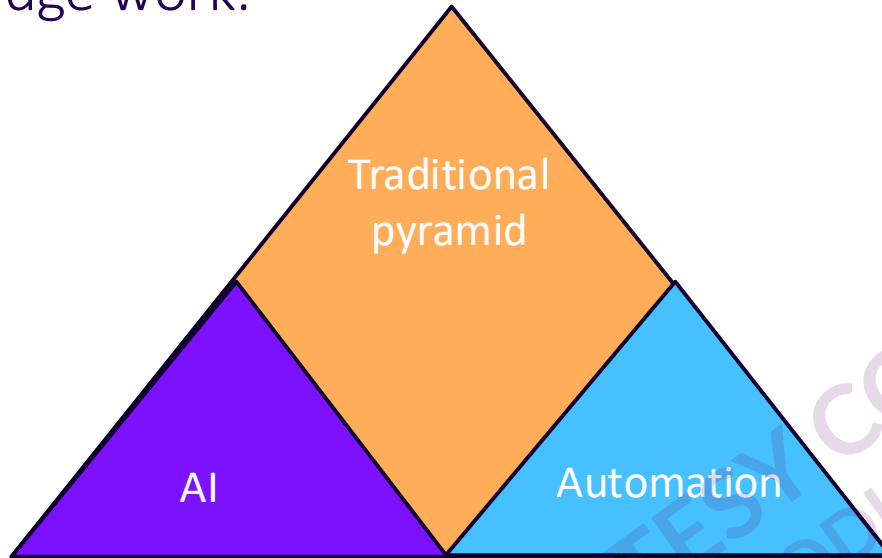Expect massive upheaval in white-collar knowledge work.

Traditional pyramid

Source: Constellation Research

Figure 2. The Pyramid Becomes a Diamond in an Age of AI

The pyramid becomes a diamond in knowledge work.

Source: Constellation Research

AI SHIFTS FROM BOARDROOM PRIORITY TO BUSINESS TRANSFORMATION IMPERATIVE

Almost every organization began its journey with an AI proof of concept (POC) in 2023. With just 13% of AI POCs converting into projects, organizations enamored of AI must keep their eyes on the prize. Projects that deliver a tangible return on transformation investment (RTI) focus on decision automation—not just the technology in AI, but also how these new systems move from agents to advisers.

Conversations with AI leaders confirm the shift from fear-of-missing-out (FOMO) POCs in 2023 to a budgeted item in 2024 (see Figure 3). Although AI budgets are up, they come at the expense of other projects in cybersecurity, customer experience (CX), operations, and even sales and marketing. In conversations with more than 100 C-suite decision-makers across the U.S., Constellation Research found budgets have opened up post-election, with AI the top priority for 2025.

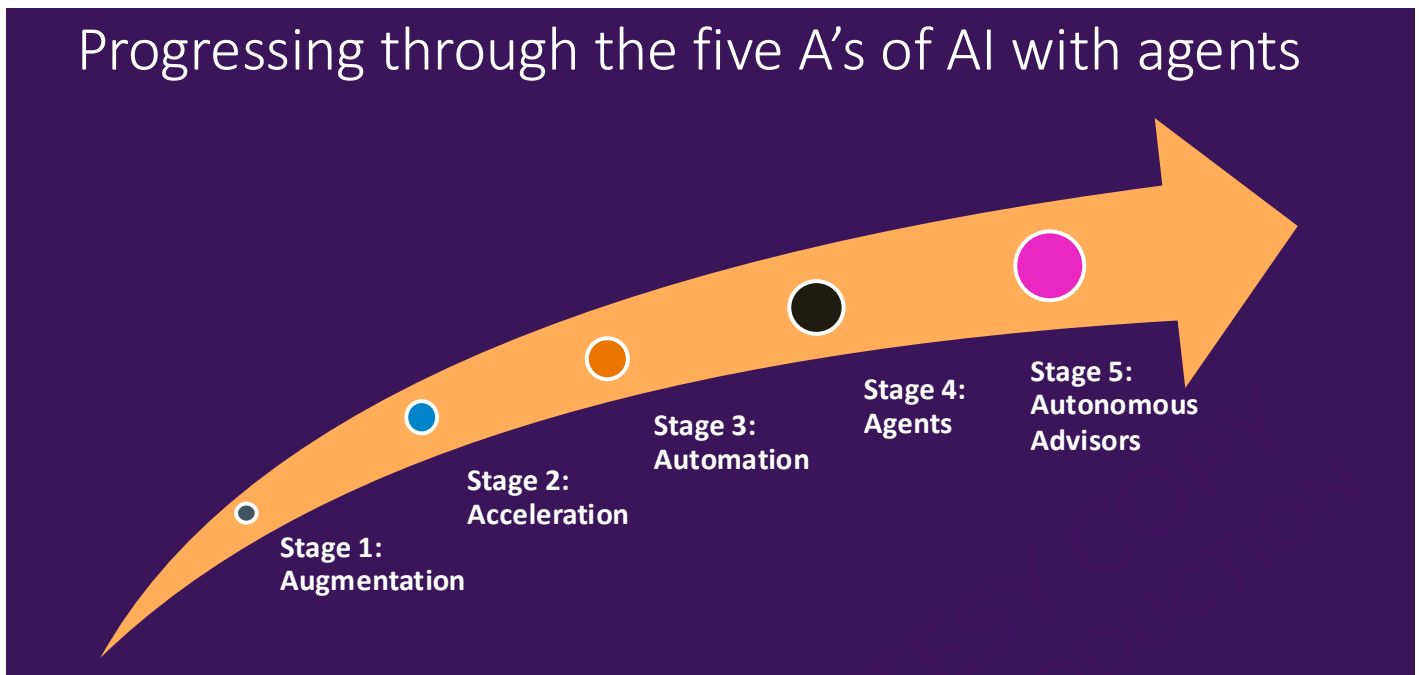## Figure 3. The AI Timeline Favors Data Collectives

2023	2024	2025	2026	2027
FOMO POC	**Budgeted AI**	**Data Scarcity**	**Data Collectives**	**Dark Ages**
Do a POC, steal from existing budgets, get the POC out before the board asks.	Secure AI budget, focus on applied AI, make the AI work, prove a use case.	Realize there is not enough data to reach the precision level required for stakeholders to trust.	Pool data by industry value chains and build data partnerships.	Death of publicly available data as most critical information is inside closed networks and data collectives.

AI Timeline

Source: Constellation Research

AI MOVES FROM AUGMENTATION TO ADVISORS IN FIVE STAGES OF AUTONOMOUS MATURITY

The rush to AI projects often comes as an all-or-nothing approach. However, lessons learned from Constellation's Executive Network (CEN) members show a gradual and measured approach. Agentic AI is a Level 4 autonomous technology. Constellation sees five phases to adoption from both a business and cultural point of view (see Figure 4):

1. **Augmentation.** Organizations begin by finding tasks that benefit from augmenting existing workflows and learning where exceptions are needed. During augmentation, human decision-making is prioritized.

2. **Acceleration.** As more data is taken into consideration and training improves, false positives and false negatives are worked out to accelerate progress. This precursor step to full automation takes advantage of rule-based systems.

3. **Automation.** Once a level of confidence has been achieved as more data points are assimilated, organizations can act with confidence toward automation. Automation and natural language processing (NLP) techniques power these interactions. Deterministic automation builds on machine learning (ML)–based data analysis, rules, and structured data interactions.

Figure 4. The Five Stages of AI Maturity

Progressing through the five A's of AI with agents

Stage 1: Augmentation
Stage 2: Acceleration
Stage 3: Automation
Stage 4: Agents
Stage 5: Autonomous Advisors

Source: Constellation Research

4. **Agents.** Automated agents play a role in improving personalization at scale via large language model (LLM)–powered solutions. Although human-first, the AI agent assists in decision-making, has full contextual awareness, applies probabilistic models, learns from interactions, and delivers dynamic responses.

5. **Advisors.** Advisors serve as autonomous agents. They provide capabilities in prevention and prediction built on the overall accumulated knowledge and insight from the business graph. Advisors complete end-to-end tasks, know how to reason, interact in multimodal nodes, take actions on behalf of a human, and operate with dynamic context and learning. They can simultaneously communicate with other agents and/or humans.

The bottom line: Take a measured and deliberate approach to adopting AI.

DIGITAL LABOR AND THE AGE OF AI CREATES EXPONENTIAL EFFICIENCY

Exponential efficiency refers to an algorithm or function whose running time grows exponentially with respect to its input size. In other words, as the input gets larger, this type of algorithm experiences a rapid increase in its execution time (see Figure 5).

The simple rule for exponential efficiency in the first order is 10x better or 10x cheaper.

In the second order of exponential efficiency, organizations achieve 10x better *and* 10x cheaper.

In the third order of exponential efficiency, organizations achieve 10x better, 10x cheaper, and 10x faster.

This continues as organizations achieve the holy trifecta of faster, better, *and* cheaper.

Yes, all three can be achieved when exponential efficiency is applied. Now, many leaders may contemplate whether or not this is possible. Recently, both X (formerly Twitter) and Meta (formerly

Figure 5. The Progression of Exponential Efficiency

Level 1:
10x better *or* 10x cheaper

Level 2:
10x better *and* 10x cheaper

Level 3:
10x better *and* 10x cheaper *and* 10x faster
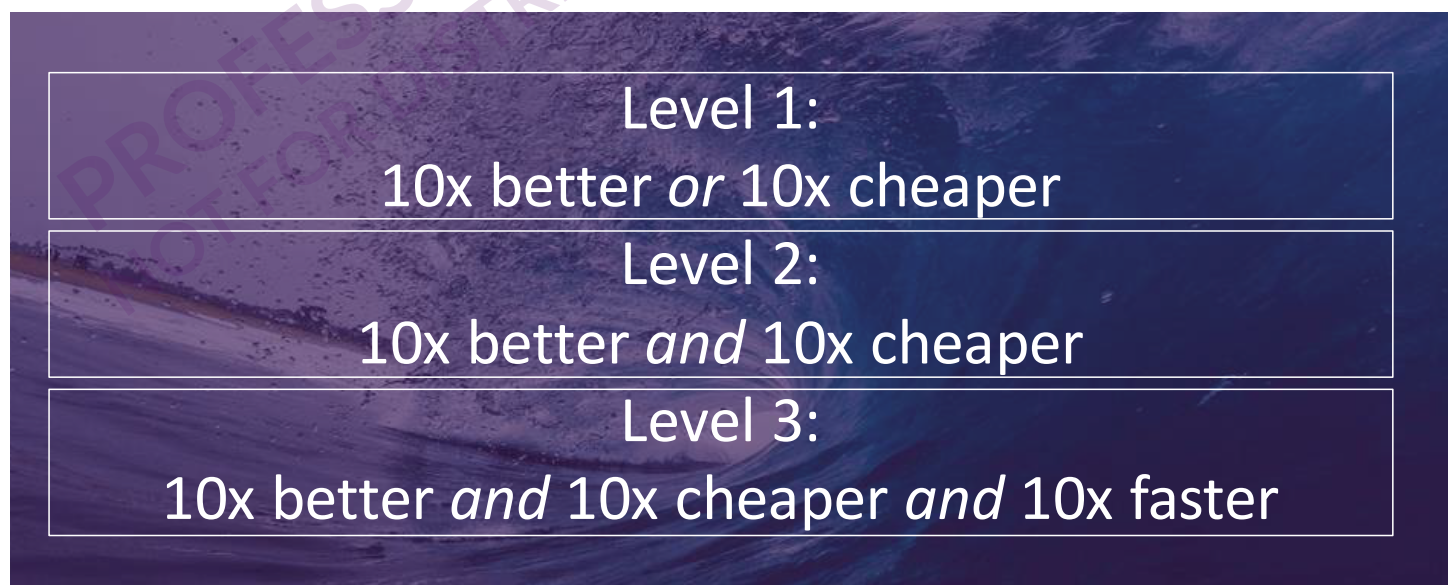
Source: Constellation Research

Facebook) have found ways to cut their engineering teams via both AI and automation to achieve exponential efficiency. X cut two-thirds of its engineering staff and others with little detriment. Meta continues to cut one-third or more of its engineering teams and others with very little detriment. In fact, in back-office financial operations, the company may be able to get to 50% automation in the next two years.

Exponential Efficiency Will Help Pay for AI

More than just paying for the high cost of AI, organizations see the potential but need to fund innovation with cost savings. Today's cost structures are no longer sustainable for the AI era. Legacy infrastructure costs must be reduced by one-tenth or improvements must be 10 times better to achieve exponential efficiency. In the Internet Age, telecommunications, commerce, distribution, and financial services costs were exponentially cut to make way for this new transformational technology. These innovations paved the way for thousands of new business models and monetization techniques, leading to explosive growth and societal advancement. In almost every industry, the dawn of exponential efficiency has arrived, yet legacy players struggle to grasp the impacts.

Autonomous Digital Labor Will Cut Across Multiple Ecosystems and Functional Fiefdoms

In times of exponential efficiency and declining population growth, digital labor will become the norm. Collaboration between humans and machines will change the future of work, especially for frontline workers. Organizations must focus on when and where to include humans in the decisions, not on where to automate. Ethical and responsible practices for digital labor must conform to country-specific and cultural requirements. Full-time equivalents (FTEs) will be replaced at 100x scale by 2030.

AGENTIC USE CASES MUST SHIFT FROM MAPPING HUMAN ROLES TO COLLAPSING DECISION TREES

CXOs exploring agentic AI early use cases for their enterprise should consider the importance of shifting from mapping human roles to collapsing decision trees in their evaluation and expand horizontal skills to meet industry-vertical capabilities. Enterprises will need agents that span across

multiple departments and traverse multiple business processes. Constellation believes that early adopters and mature agentic AI enterprises eventually will prioritize platform-agnostic agents and partner with services firms and agentic factories that can help them design, build, govern, orchestrate, refine, and retire agents.

Many of today's use cases augment and amplify a raft of horizontal skills, including the following:

- Audio processing

- Automated file retrievals

- Anomaly detection

- Attachment processing

- Bias mitigation

- Cleaning and normalization

- Code interpretation

- Contextual awareness

- Escalation router

- Email extraction

- File comparisons

- Function calling

- Idea generation

- Image recognition and optical character recognition (OCR)

- Input document validation

- Integration

- Layout parsers of documents

- Next best action

- Search engine integrations

- Search rank optimization

- Statistical analysis

- Summarization

- Table extraction

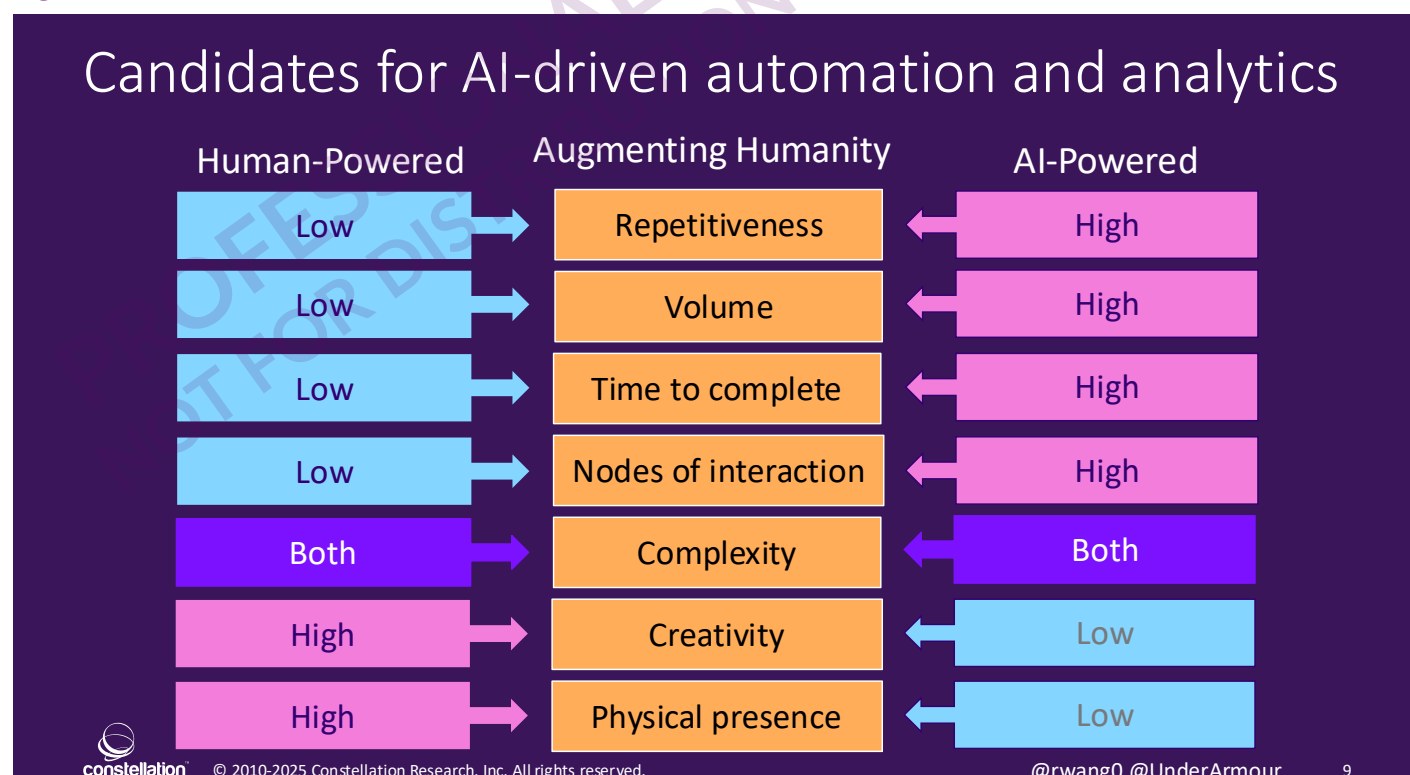- Ticket routing

- Time-series analysis

However, expect a combination of industry-vertical capabilities along with the need to orchestrate and manage agents across a variety of applications, business processes, and industry value chains.

LEARN WHEN TO DESIGN FOR MACHINE SCALE VS. HUMAN TOUCH

Recent client conversations indicate a desire for designing new AI-driven smart services. The rush to incorporate AI into processes often requires a deeper examination of which services should be AI-enabled. Constellation's latest framework for augmenting humanity encompasses seven factors (see Figure 6):

1. **Repetitiveness.** The more a process is repeated, the more likely the process should be AI-powered. One-offs and custom processes with minimal repetition are lower-priority candidates for AI.

2. **Volume.** When the volume of transactions and interactions exceeds human capacity, the smart service should be AI-powered. Volumes within human capacity will remain human-powered.

Figure 6. Seven Parameters for Human-Powered vs. AI-Powered Skills

Candidates for AI-driven automation and analytics

Human-Powered	Augmenting Humanity	AI-Powered
Low	Repetitiveness	High
Low	Volume	High
Low	Time to complete	High
Low	Nodes of interaction	High
Both	Complexity	Both
High	Creativity	Low
High	Physical presence	Low

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Source: Constellation Research

3. **Time to complete.** High time-to-market requirements favor AI-powered approaches. Lower time-to-completion requirements will remain human-powered.

4. **Nodes of interaction.** Simple interaction nodes will lean toward being human-powered. AI works best for complex and high-volume nodes of interaction.

5. **Complexity.** Good candidates for AI-powered are those that include complexity beyond human comprehension and simple tasks that can be optimized by AI.

6. **Creativity.** The cognitive processes required for creativity mostly reside with humans today, with higher creative processes less likely to be AI-powered. However, with advancements in cognitive learning, one can expect creativity to improve with AI-powered approaches over the next decade.

7. **Physical presence.** Processes that require a heavy physical presence will most likely require human-powered capabilities. However, processes that put lives in jeopardy serve as great candidates for being AI-powered and automated. In general, low physical-presence requirements play well to AI-powered approaches.

THE AI END GAME IS DECISION AUTOMATION AND DECISION INTELLIGENCE

Decision automation applies business rules, data analysis, workflows, and AI to automate the decision-making process in both operations and strategy. For business process leaders in CX, this could be knowing when to make ad buys for a campaign, change pricing for dynamic discounting, send follow-up texts for future upselling/cross-selling, or check in on customer satisfaction after a new purchase. The goal is to take every end-to-end business process and reimagine the following five steps toward cognition (see Figure 7):

1. **Learn.** Replicating the five senses, AI systems will collect contextually relevant information around them, including time, location, process, weather, business process context, heart rate, and eye tracking.

Figure 7. Building Precision-Automated Decisions Takes Five Steps

Learn, understand, recommend, act, repeat
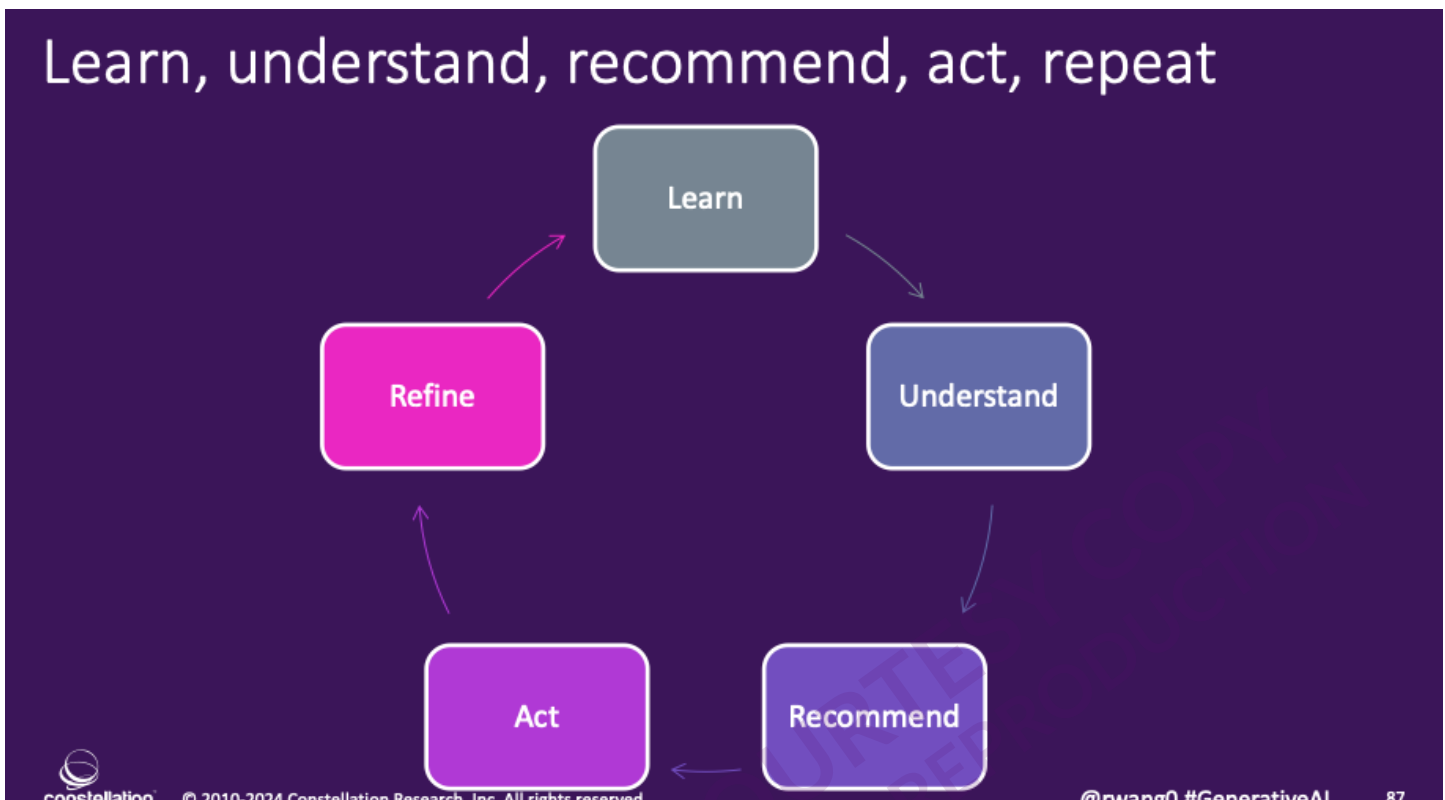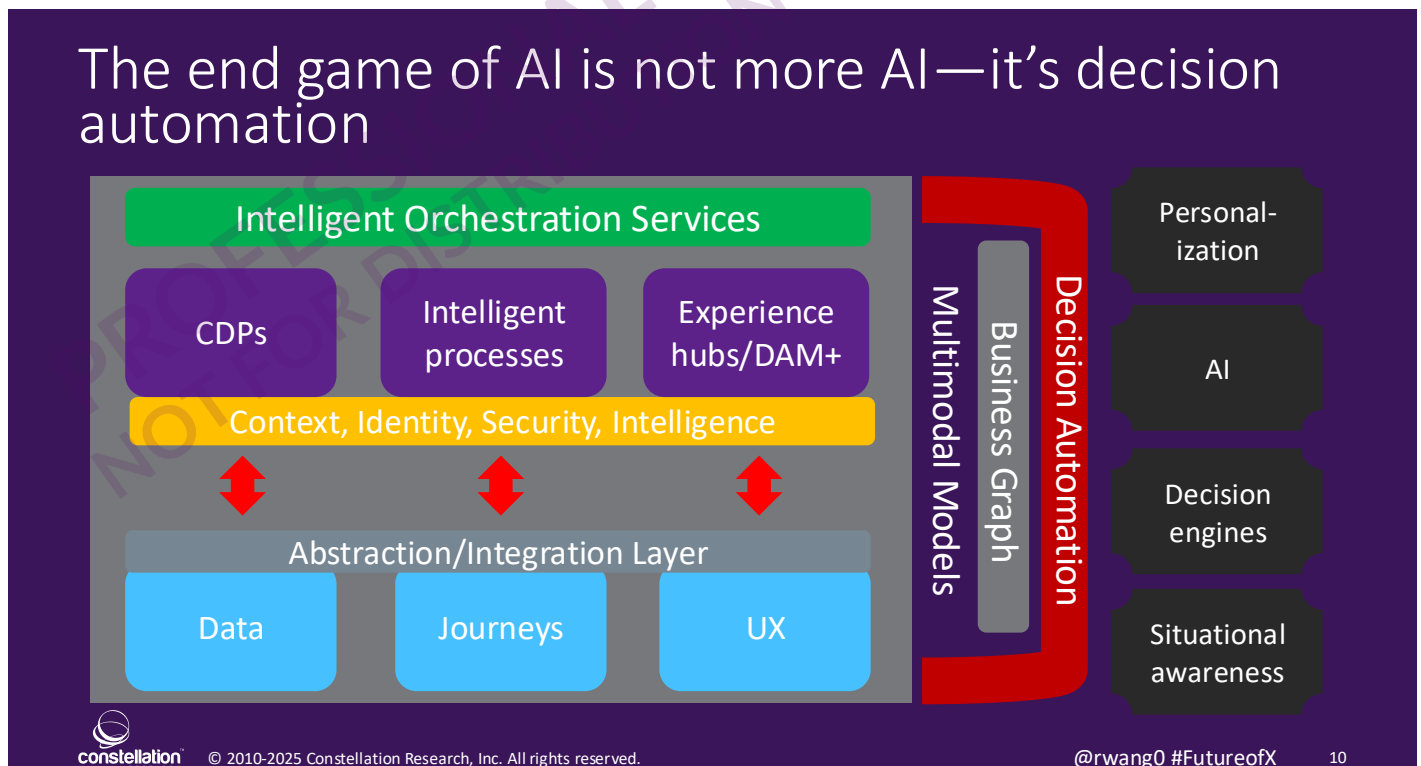
Source: Constellation Research

2. **Understand.** Applying some level of reasoning, systems will take into account the current environment and compare past interactions with future predicted interactions to find some level of reason and understanding in the business graph.

3. **Recommend.** Studying past behavior and adjusting for current conditions, systems will make a series of recommendations that will create dynamic signals to be used in future learnings.

4. **Act.** Acting on decisions takes the decision automation lifecycle into reality and allows systems to determine the consequences of an action.

5. **Refine.** When systems understand the consequences of an action, they take the last step of decision automation: seeking to mitigate the false positives and false negatives of a decision outcome.

DESIGN FOR BETTER DECISIONS

The path to decision automation requires a holistic approach and begins with creating an abstraction layer on transactional systems, including data, customer journeys, and user experiences. Most organizations have worked hard to relegate these transactional systems to a maintenance mode while adding context, identity, security, and intelligence to create the foundation blocks for intelligent orchestration.

The result has been a flurry of activity to aggregate data in data lakes and tie that data to intelligent processes and experience hubs to form intelligent orchestration services. These intelligent orchestration services enable organizations to form the business graph and multimodal models that will power decision automation (see Figure 8).

Figure 8. The End Game of AI Is Not More AI but Better Decisions

The end game of AI is not more AI—it's decision automation

- Intelligent Orchestration Services
  - CDPs
  - Intelligent processes
  - Experience hubs/DAM+
- Context, Identity, Security, Intelligence
- Abstraction/Integration Layer
  - Data
  - Journeys
  - UX
- Multimodal Models
- Business Graph
- Decision Automation
  - Personalization
  - AI
  - Decision engines
  - Situational awareness

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Source: Constellation Research

By achieving a state of decision automation, organizations can deliver on personalization, AI, decision engines, and situational awareness. The traditional rallying cry for 360-degree customer views, supply chain control-tower precision, or efficient financial revenue operations can be achieved through decision automation, as can tangible effects on your bottom line.

AI MATURITY REVOLVES AROUND 10 ATTRIBUTES

Whatever gains expected from digital transformation will be blown to shreds by AI exponentials at a logarithmic scale not seen since the advent of the internet. Although at first this may sound like more AI hyperbole, the early indications for organizations that begin their journey as AI natives by design show a tremendous advantage versus the AI-enabled that must reduce their legacy-technology, cultural, and financial debt.

Constellation sees a progression for AI maturity that begins with AI Luddites and ends with AI exponentials. Here are the 10 defining characteristics:

1. **Level of AI investment.** Organizations must overcome technical debt and then invest at double or triple their current rates in AI fundamentals such as data strategy, decision automation, and language models.

2. **Stage of AI maturity.** Constellation's definition of AI maturity ranges from augmentation to acceleration, automation, agentic, and autonomous.

3. **Value of data.** How organizations appreciate their data reflects their maturity in AI. Those organizations that take their data for granted will differ in how they source, curate, nurture, and renew their data.

4. **Monetization models.** Traditional businesses monetize the sale of products and services. Greater levels of digitization enable experiences, outcomes, and revenue share.

5. **Means of production.** This attribute assigns the default assumption of how work gets done and ranges from full human involvement to full digital labor.

6. **Agentic usage.** Organizations range from no agents to multiple agents and multiple platforms. The goal is to create an agentic ecosystem.

7. **Machine scale.** This attribute addresses the percentage of human-led or machine-led output.

8. **Profit per employee.** As AI investments increase, expect digital labor to create massive leverage as profit per employee grows.

9. **Growth expectations.** AI ushers in an era of exponential efficiency and growth. Expectations move from double-digit percentage growth to 10x and 100x growth.

10. **Partnerships.** Partnerships mature from technology providers and enablers to new data signals and data collectives that share data. The most advanced AI exponentials build Data Inc. business models that monetize data in complex ecosystems.

HERE COME THE AI EXPONENTIALS

Considering the 10 attributes of AI maturity, Constellation's research team finds five distinct levels. At the very top of the maturity model, the AI exponentials start out as AI natives but focus on automation and decision velocity to achieve 100x to 1,000x returns. Although AI Luddites may make their way to more enablement, the biggest opportunity is moving from AI-aware to AI-enabled as they compete with the AI natives. The following are Constellation's five levels of AI maturity (see Figure 9):

- **Level 1: AI Luddites.** AI Luddites have made minimal investment in AI and barely have a data strategy. Monetization models predominantly focus on product and services revenues. Means of production are majority human-driven with very little agentic usage. These organizations have not applied machine scale and have a profit per employee below $250,000. Growth is in the low percentage points.

- **Level 2: AI awares.** AI awares know that they must make AI investments but are constrained by their legacy technical debt and make moderate investments. Although they focus mostly on

Figure 9. The Progression From AI Luddites to AI Exponentials

constellation RESEARCH	LEVEL 1 AI Luddites	LEVEL 2 AI Aware	LEVEL 3 AI Enabled	LEVEL 4 AI Natives	LEVEL 5 AI Exponentials
Level of AI investment	Minimal	Moderate	High	Immersive	Excessive
Stage of AI maturity	None	Augment to Accelerate	Accelerate to Automate	Automate to Agentic	Agentic to Autonomous
Value of data	Presumed	Sourced	Curated	Nurtured	Renewed
Monetization models	• Product • Services	• Product • Services • Experiences	• Product • Services • Experiences	• Product • Services • Experiences • Outcome	• Product • Services • Experiences • Outcome • Rev Share
Means of production	Human	Human in the Loop	Human + Machine	Digital Labor	Digital Labor
Agentic usage	None	• Single • Solo Platform	• Multiple • Solo Platform	• Multiple • Cross Platform	• Agentic • Ecosystem
Machine scale	Below 10%	10 to 30%	30 to 50%	50 to 80%	Over 80%
Profit per employee	Below $250K	$250K to $500K	$500K to $1M	$1M to $5M	$5M+
Growth expectations	0 to 10%	10 to 50%	50 to 100%	100% to 1,000%	1,000% to 10,000%
Partnerships	None	• Technology • Enablers	• Technology • Enablers • Signals	• Technology • Enablers • Signals • Data collectives	• Technology • Enablers • Signals • Data collectives • Data Inc.

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Source: Constellation Research

augmentation to acceleration for AI use cases, they must complete investments in their data strategy. These organizations rely on sourced data from internal repositories with some external signals. Monetization models add experiences to their product and services mix. Humans are in the loop as part of the means of production, yet these organizations are growing their automation and AI adoption. Agentic usage focuses predominantly on single agents and solo platforms. Consequently, 10% to 20% usage at machine scale leads to a profit per employee of $250,000 to $500,000. Early successes take these organizations to a 10% to 50% growth expectation. Partnerships focus on technology vendors and system integrator enablers.

• **Level 3: AI enabled.** The AI enabled believe they must compete with AI natives and have board commitments to make the necessary investments required to compete and win. As they move from acceleration to automation in their stage of AI maturity, a focus on curated data dominates their data strategy. Richer datasets enhance these organizations' product, services, and experiences monetization. This shift from human-in-the-loop to human-plus-machine results in huge operational

efficiencies and greater profitability. This move also reflects a multi-agentic strategy across many solo platforms. As machine scale moves to a 30% to 50% level, profit per employee moves to $500,000 to $1 million. Growth expectations will increase from 50% to 100%. One distinguishing trait of AI-enabled organizations comes from their partnerships for additional signals as they build toward being Data Inc. companies.

- **Level 4: AI natives.** AI natives start out with a full immersive level of investment. Their leaders know that automation is a given and agents will drive decision velocity. When and where they insert a human is the question, not where automation will succeed. AI natives begin with the end in mind; they realize that outcome-based monetization models require a different design point and use digital labor to achieve these means. End-to-end processes are delivered across multiple agents in a cross-platform approach. With between 50% and 80% of work achieving machine scale, profit per employee ranges from $1 million to $5 million. Growth expectations are between 100% and 1,000% for these high-flying organizations. While AI natives often partner with technology firms, enablers, and signals, they add data collectives to build market ecosystems for data.

- **Level 5: AI exponentials.** AI exponentials start as AI natives and often are founder-led companies that take an excessive and disciplined investment approach to AI tools and techniques. This shift from agentic to autonomous relies on a deep and comprehensive data strategy that treats data as a renewable resource. AI exponentials often take outcome-based monetization to the next level with revenue-sharing agreements as their use of digital labor creates an unfair advantage. These organizations grow at 1,000% to 10,000% and have mastered Data Inc. partnerships.

LEGACY FIRMS CAUGHT BETWEEN TWO S-CURVES

As the renowned Harvard Business School professor Clayton Christensen pointed out in December 1992, the technology S-curve framework described how organizations and industries would substitute new technologies for old technologies. His report, Explaining the Attacker's Advantage, details how an architectural innovation such as agentic AI could upend legacy players.

One of his best quotes that describes the scenario faced by companies that are not AI-native is the following:

> **"I show that it is in** *architectural,* **rather than component innovation, that entrant firms exhibit an attacker's advantage…"**

As the attackers, AI natives and AI exponentials have the architectural advantage via agentic AI that will upend legacy software firms, technology services providers, and industries that fail to make the architectural shifts required in this agentic AI revolution.

Operating at Machine Scale in a Human Environment

In the computing world, Moore's Law stood for 50 years. In 1965, Gordon Moore, one of the cofounders of Intel, observed that the number of transistors that could be placed on a microchip doubled every two years. This guiding principle for the semiconductor and high-tech industry led to Moore's Law, where compute doubles every two years.

In the AI world, there's Ray's Law. AI intelligence is expected to double every seven months. At this seven-month doubling rate, two years will comprise a 1,500% increase. In six years, AI intelligence will be 10,000%. Today's expectation of scale will rapidly exceed the human capacity to grasp machine scale.

For instance, successful leaders at legacy companies achieving a 30% to 50% return from digital and AI investments often believe they have realized significant gains. Most boards will find these returns to be above average and then rest on their laurels. While 30% to 50% returns already defy the average, AI exponentials operate at a scale that expects 10x to 100x returns.

Unfortunately, boards, business and technology leaders, and investors need to shift from linear thinking to geometrical thinking regarding expectations of scale. Thus, operating at machine scale in

a human-scale environment creates new challenges for leaders, because they are now competing at machine scale and a deliberately inhumane pace of decision velocity. As markets hasten into winner-takes-all duopolies, perception will dictate reality in these faster decision cycles. Expect time frames to shorten and expectations to rise.

Last Generation of Managers to Manage Only Humans

Today's managers navigate a human-only world. Regardless of industry, managers in a world of agentic AI must manage both humans and agents. In fact, many humans will also be managed by agents. In many cases, the most common team members may be agents. This shifting of highly repetitive, high-volume, massively mundane work to AI agents will lead to the world's fastest recession of white-collar jobs.

While this will hasten the reality of white-collar job losses, organizations can expect both a reduction of labor and more opportunities to solve problems that could not be solved before. The shifting of the traditional white-collar jobs and layers of management to flatter structures and tiny teams will reshape the business environment. As the last generation of managers to manage only humans, the future workforce will have the time to apply AI to create new offerings, manage other agents and humans, and automate decisions. Expect AI to reduce cycles for new-product introduction (NPI). With an army of creator capitalists emerging, AI agents will be the cofounders of the next hot startups.

Pricing by AI Outcomes, Not by Number of People

Today's pricing for products and services reflects a per-user human point of view. In a world of AI agents, pricing will be by outcomes and revenue share. Agentic AI takes APIs and ties them to reasoning engines to achieve an outcome. As expectations center around outcomes and decision automation, buyers will pay for goal completion over time instead of per user. Organizations are no longer renting by seat; they are moving to cost per thousand (CPM), and organizations must create differentiation in the agentic pattern.

Tiny Teams Will Rule the World

The history of technology is full of tiny teams. When Apple cofounder Steve Jobs once was asked what he did, he famously replied, "I run the orchestra." The late Warren Bennis, a scholar, organizational consultant, and leader, noted that "The factory of the future will have only two employees: a man and a dog. The man will be there to feed the dog. The dog will be there to keep the man from touching the equipment." With the advent of AI, the following tiny teams have taken the world by storm:

- **Cursor.** An AI coding company went from $0 to $200 million in annual recurring revenue (ARR) in 21 months with 20 people.

- **Bolt.new.** A full-stack app builder grew from $0 to $40 million ARR in 20 months with 15 people.

- **Lovable.** An AI full-stack product engineering company grew from $0 to $17 million ARR in 20 months with 15 people.

- **Midjourney.** An AI image generator grew from $0 to $200 million ARR in two years with 10 people.

- **Gamma.** An AI presentations and doc company grew tens of millions in revenue with 28 people.

In three years, Constellation expects the first $1 billion services company to be staffed by 1,000 FTEs. A 100-person software company will take out a $100 billion ARR company in the next three years. The first single-person $1 billion ARR company will arrive within five years. Companies that are driving millions in ARR with few employees dominate the new landscape.

LEGACY SAAS AI LACKS CONTEXTUAL RELEVANCY AND FRONTLINE WORKER PRODUCTIVITY NEEDS A SOLUTION

Legacy SaaS AI Lacks Contextual Relevancy

Most software-as-a-service (SaaS) AI systems cannot deliver on advanced AI capabilities such as AI-led troubleshooting, hyper-care, and resource optimization due to a lack of context. In the customer

support world, systems that support frontline worker productivity must have access to customer data, configuration settings, and standard operating procedure (SOP) documents. Access to internal intellectual property, best practices, and the organization's business and knowledge graphs is essential to delivering relevancy on the front lines for AI natives and AI exponentials.

Most organizations will no longer subject themselves to the tyranny of legacy SaaS companies jacking up pricing and delivering very little value and little context. These SaaS companies, which were once the disruptors and pioneers, now hinder companies from innovating by blocking access to customer data and forcing failing agents upon organizations held hostage to rented software.

Deeper and More Accurate Decisions Must Be Deployed In-Network

The speed and accuracy of decision automation will transform experiences from zero latency to anticipatory intent. The ability to achieve automation, decision velocity, and compliance breaks the paradox of choosing only two out of three when it comes to faster, better, and cheaper for new product offerings. To deliver the decision automation and decision intelligence required for an AI world, organizations seek a platform that both enables AI to make deeper and more accurate predictions and automates a wider array of processes.

In the past, organizations had to build these capabilities themselves or hope that a solution could be configured to requirements. New solutions that have AI deployed in-network will enable AI to access contextually relevant signals as needed. In addition, these platforms will provide a stronger collaboration model to work with internal AI development efforts to supplement gaps instead of a "rip or replace" model normally encountered when bringing in a legacy SaaS provider.

THE BOTTOM LINE: FRONTLINE WORKERS GAIN IMPORTANCE IN THE AI AGE

Robotic process automation (RPA) and a lot of early AI was about automating back-office processes and eliminating back-office workers, who had little impact on the customer experience. Frontline workers have a very strategic role. These individuals are the voice and face of the organization across

the entire customer journey. Frontline worker productivity focuses on empowering and elevating these workers to address escalations, exceptions, and strategic relations.

Allowing AI to have full context of the customer will help move AI for frontline workers from Level 3 capabilities to Level 4 and 5. Thus, Constellation expects that capabilities such as automatic assignment based on technical depth and agent capability, ambient information gathering, and pattern recognition of tribal knowledge will become essential tools for frontline worker productivity.

As one CEO, Chris Nicholas at Sam's Club, famously said, "I eliminated 100 million tasks, but then we added 3% more of our workers to the front line."

Several companies are starting this approach in the CX space, including the following three:

1. Sierra AI, a voice-based agentic support provider

2. Gong, a presales frontline worker solution

3. Kahuna Labs, an offering that solves for complex technical support

Customers can expect more AI natives to challenge the legacy SaaS companies in supporting frontline worker productivity.

RECOMMENDATIONS

Constellation recommends the following seven approaches for frontline worker productivity:

1. **Think bigger.** Bring a beginner's mindset to the design and strategy. Often cultural barriers such as the fear of change or the solving of a point solution instead of a holistic approach prevent breakthroughs. Instead of focusing on incremental improvement, focus on the largest impact. Imagine the entire end-to-end process and then redesign for the outcome with the biggest ROI.

2. **Ask where and when you insert a human.** Most design aesthetics focus on when and where to automate. Determining when human judgment is required will provide a more effective and efficient design point.

3. **Determine if you can operate at machine scale with humans.** Machines are making thousands of decisions per second. Humans might not be able to catch up, so how do you harmonize human scale with machine scale?

4. **Ask if the AI has enough data to get to precision decisions.** Achieving precision decisions requires internal and external data sources. For example, 85% accuracy in CX may be OK, but 85% accuracy in supply chains could mean a loss of $1 million per minute. In finance, 85% accuracy means someone goes to jail. Imagine what this means for healthcare.

5. **Work with partners to create the last mile or last inch of data.** Organizations will have to partner for more and more data across value chains to achieve a high level of comfort and trust.

6. **Ask whom one sues when something goes wrong.** Does blame lie with the system, the operator, the partner, or another third party?

7. **Expect to fail fast, but learn even more quickly.** The ability to iterate at the speed of thought also means that more solutions can be created for testing than ever. Organizations have more cycles to optimize for the right solution at the right time.

ENDNOTES

[1] R "Ray" Wang, Monday's Musings: Secrets Behind Building Any AI-Driven Smart Service, November 28, 2016. raywang.org/blog/2016-11/mondays-musings-secrets-behind-building-any-ai-driven-smart-service

[2] R "Ray" Wang, Ray's Law on AI Intelligence, Constellation Research, July 18, 2025. constellationr.com/research/ray-s-law-ai-intelligence

[3] Tiny Teams Hall of Fame, Next Play. tinyteams.xyz

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R "Ray" Wang is founder, chairman, and a principal analyst of Constellation Research and author of the popular enterprise software blog A Software Insider's Point of View. He previously was a founding partner and research analyst for enterprise strategy at Altimeter Group.

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ABOUT CONSTELLATION RESEARCH

Constellation Research is an award-winning, Silicon Valley—based research and advisory firm that helps organizations navigate the challenges of digital disruption through business model transformation and the judicious application of disruptive technologies. Unlike the legacy analyst firms, Constellation Research is disrupting how research is accessed, what topics are covered, and how clients can partner with a research firm to achieve success. Over 350 clients have joined from an ecosystem of buyers, partners, solution providers, C-suite, boards of directors, and vendor clients. Our mission is to identify, validate, and share insights with our clients.

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· Experienced research team with an average of 25 years of practitioner, management, and industry experience.
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· Founders of Constellation Executive Network, a membership organization for digital leaders seeking to learn from market leaders and fast followers.

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