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Unlocking Competitive Advantage in the Age of Intelligent Systems

SESSION: AI-Driven Entrepreneurship and Innovation

October 28, 2025

Dave Chatterjee, Ph.D.
Duke University

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Agenda

- Professional Highlights
- AI as a Catalyst for Competitive Edge
- Founders’ Journey
- The CPD Framework
- Actionable Roadmap for Secure AI Adoption
- Q&A

Professional Highlights

Expertise and Roles

Subject Matter Expertise

- Cybersecurity Governance
- Strategic Management of Technologies
- Supply Chain Management

Roles

- Professor
- Author
- Editor
- Speaker
- Podcastor
- Consultant/Advisor

Author

THE WALL STREET JOURNAL.

MIT Sloan Management Review

California Management Review

MIS Quarterly

BUSINESS HORIZONS

Journal of Organizational Computing and Electronic Commerce

Taylor and Francis Ltd

S-Logix

IVEY | Publishing

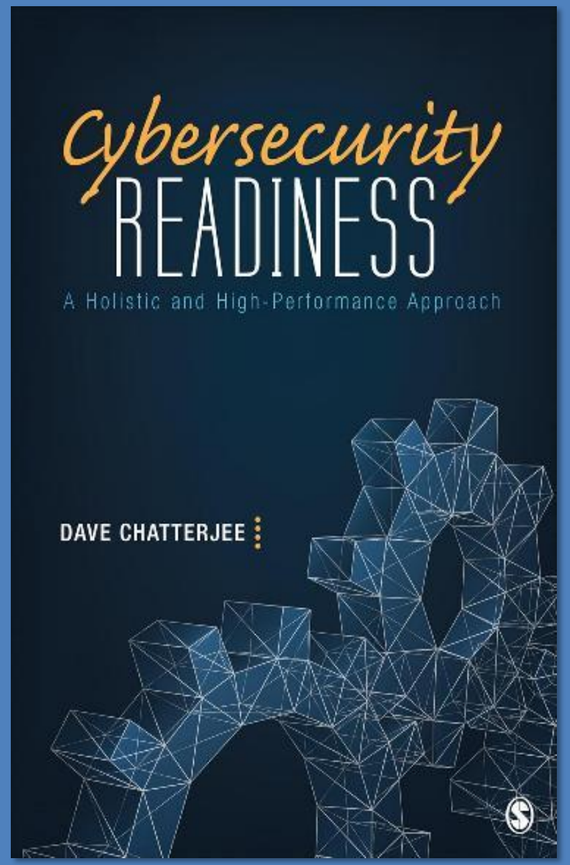
Communications of the ACM

Association for Computing Machinery

S-Logix

I by IMD

SAGE Publishing



Amazon

Sage

https:www.cybersecurityreadinesspodcast.com

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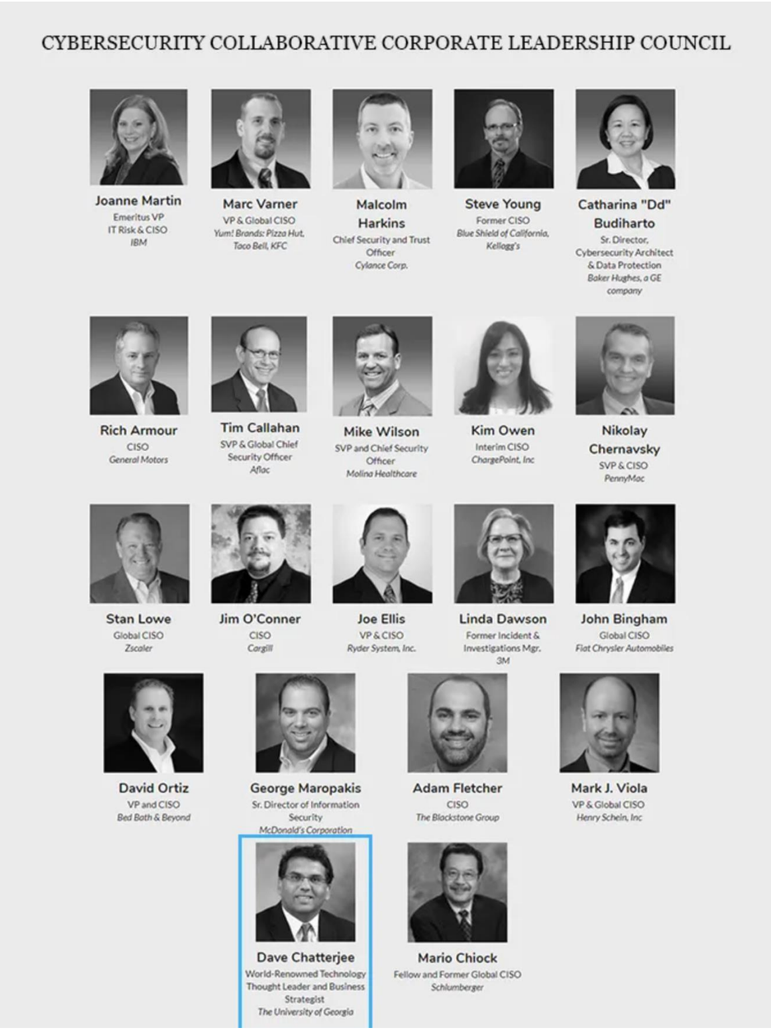
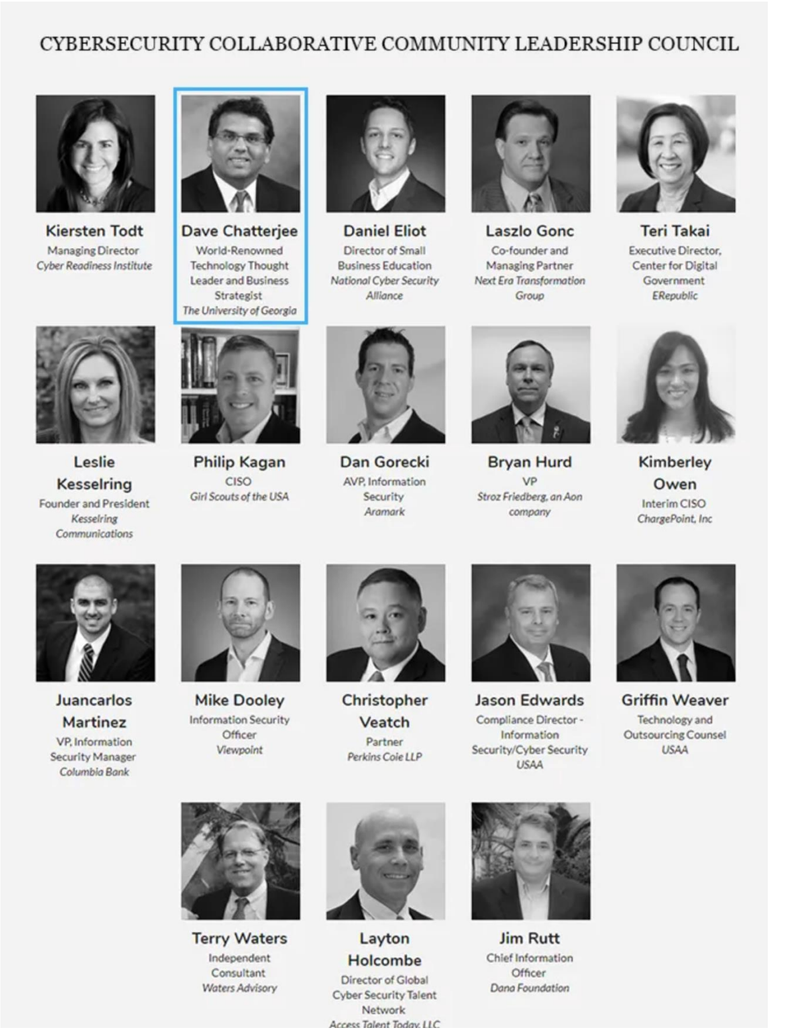
Professional Highlights

Cybersecurity Leadership Council and SWAT Team





Professional Highlights

Speaker/Moderator

AI as a Catalyst for Competitive Edge

Identity and Access Innovation

- **Passwordless and device-bound authentication** (Beyond Identity, Badge).
- **Multi-cloud identity orchestration** (Strata Identity).
- **Deepfake-resilient verification** (Nametag).

Goal: Shrink attack surfaces while creating seamless, trusted user experiences.

Autonomous Cyber Defense

- **Agentic AI for patching and remediation** (Root, Vicarius).
- **AI-driven model and data-layer protection** (HiddenLayer, Nightfall).
- **Autonomous DDoS and behavioral defense** (NETSCOUT, DTEX).

Goal: Accelerate detection and response beyond human reaction time.

AI Trust, Safety & Compliance

- **Post-quantum and crypto-ready infrastructure** (Futurex).
- **Data classification and compliance automation** (Normalyze/Proofpoint).
- **Governance dashboards for AI risk oversight** (Pangea)

Goal: Ensure that innovation keeps pace with evolving legal and ethical standards.

Founders’ Journey

Motivations

Firsthand Exposure to Risk:

- Several founders came from security or identity management backgrounds and had seen how traditional defenses collapsed under new forms of attack.
- Their ventures were born out of a determination to close those gaps—
  - whether that meant eliminating passwords (as in Beyond Identity and Badge);
  - defending AI models from manipulation (HiddenLayer); or
  - authenticating humans in a world of deepfakes (Nametag).

Belief in Trust as a Differentiator:

- They recognized that trust—once a compliance box—was becoming a market-winning feature.

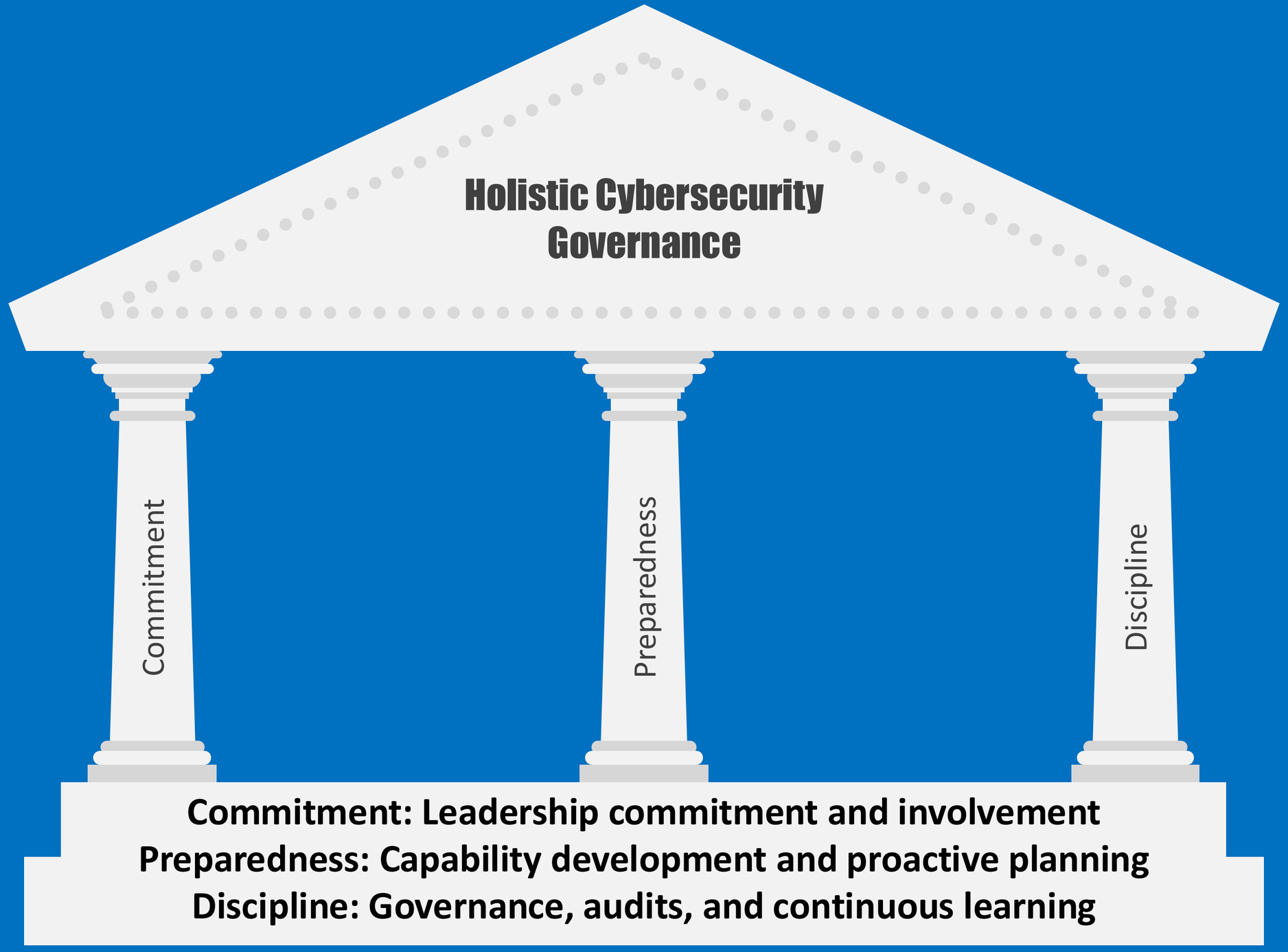
Hurdles Encountered

- **Market Skepticism and Investor Fatigue:**
  - Early adopters were cautious about replacing legacy systems with AI-driven defenses.
  - Convincing boards and CISOs
- **Talent and Technical Complexity:**
  - Recruiting specialized AI security talent
  - Build teams capable of both pioneering new algorithms and translating them into practical, compliant solutions.
- **Regulatory and Ethical Grey Zones:**
  - As AI outpaced existing laws, companies faced ambiguity around privacy, fairness, and liability.
  - Had to impose higher ethical standards on themselves

Overcoming Adversity

- **Relentless Experimentation**
  - Each setback—failed pilots, funding gaps, regulatory delays—made them even more determined.
- **Strong Belief and Vision**
  - **Long-term vision: make security an enabler and not an obstacle**.
- **Strategic Partnerships**
  - Collaborations with cloud providers, cybersecurity firms, and government agencies lent credibility and helped scale adoption.
- **Transparency and Education:**
  - Founders made openness a strategy—
    - Publishing research;
    - Open-sourcing tools; and
    - Engaging in dialogue with regulators to set new benchmarks for AI safety and accountability.

The Commitment-Preparedness-Discipline (CPD) Framework


Holistic Cybersecurity Governance
Commitment
Preparedness
Discipline
Commitment: Leadership commitment and involvement
Preparedness: Capability development and proactive planning
Discipline: Governance, audits, and continuous learning

The ‘Commitment’ Dimension

Success Factors

The ‘Preparedness’ Dimension

Success Factors

The ‘Discipline’ Dimension

Success Factors

Actionable Roadmap for Secure AI Adoption

1. Commitment – Secure AI Starts at the Top

Goal: Ensure leadership buy-in, clear governance, and ethical alignment before AI deployment.

Action Step	Deliverable	Example in Practice
1.1 Executive Alignment	Board-approved AI security charter	A hospital board ratifies an AI governance policy mandating bias testing, explainability, and robust security controls.
1.2 Ethical & Regulatory Commitment	AI ethics code aligned with sector-specific laws (HIPAA, GDPR, etc.)	A financial services firm integrates AI compliance into its enterprise risk management framework
1.3 Budget & Resource Allocation	Dedicated AI security funding and cross-functional team	AI security lead appointed with budget for red-teaming and continuous monitoring tools.

Checkpoint: Leadership signs an AI security pledge, making it part of annual strategic objectives.

2. Preparedness – Building a Resilient AI Ecosystem

Goal: Architect, test, and train before deploying AI into critical workflows.

Action Step	Deliverable	Example in Practice
2.1 Threat Modeling & Risk Assessment	AI-specific threat matrix (data poisoning, adversarial ML, model inversion, prompt injection, etc.)	Pharma R&D lab runs tabletop exercises on model manipulation during drug discovery.
2.2 Secure AI Design	Security-by-design AI architecture with layered defenses	Zero Trust principles applied to AI pipelines (restricted data flows, encrypted model storage).
2.3 Data Protection & Quality	Verified data lineage and integrity controls	Manufacturing AI models use digitally signed sensor data to prevent spoofing.
2.4 Workforce Preparedness	AI-specific security training	Staff learn to detect and report adversarial prompts or suspicious AI outputs.
2.5 Simulation & Testing	Pre-production adversarial testing	Bank uses red teams to simulate fraud attempts exploiting generative AI chatbots.

Checkpoint: AI system passes adversarial penetration test and compliance audit before production launch.

3. Discipline – Sustaining Security Over Time

Goal: Maintain vigilance and adaptability as threats evolve.

Action Step	Deliverable	Example in Practice
3.1 Continuous Monitoring & Anomaly Detection	AI security dashboard with real-time alerts	Healthcare AI tool flags anomalous diagnostic suggestions for human review.
3.2 Model & Data Drift Management	Quarterly retraining with bias and security checks	Insurance AI models are retrained to account for new fraud patterns.
3.3 Incident Response Integration	AI-inclusive IR playbook	Cybersecurity team has specific steps for AI model compromise scenarios.
3.4 Governance Reviews & Audits	Annual AI ethics and compliance review	Independent auditors validate model fairness and robustness.
3.5 Cross-Industry Intelligence Sharing	Membership in AI threat-sharing consortiums	Energy company shares adversarial AI attack indicators with sector peers.

Checkpoint: Post-deployment reviews show adherence to security SLAs, minimal bias drift, and timely incident handling.

Phased Timeline

- **Phase 1 (0–3 Months):** Commitment
  - Establish governance, security budget, create AI ethics & security charter.
- **Phase 2 (3–9 Months):** Preparedness
  - Threat model, secure AI design, red-team testing, workforce upskilling.
- **Phase 3 (Ongoing):** Discipline
  - Deploy continuous monitoring, audits, intelligence sharing, and retraining cycles.

Key Success Metrices

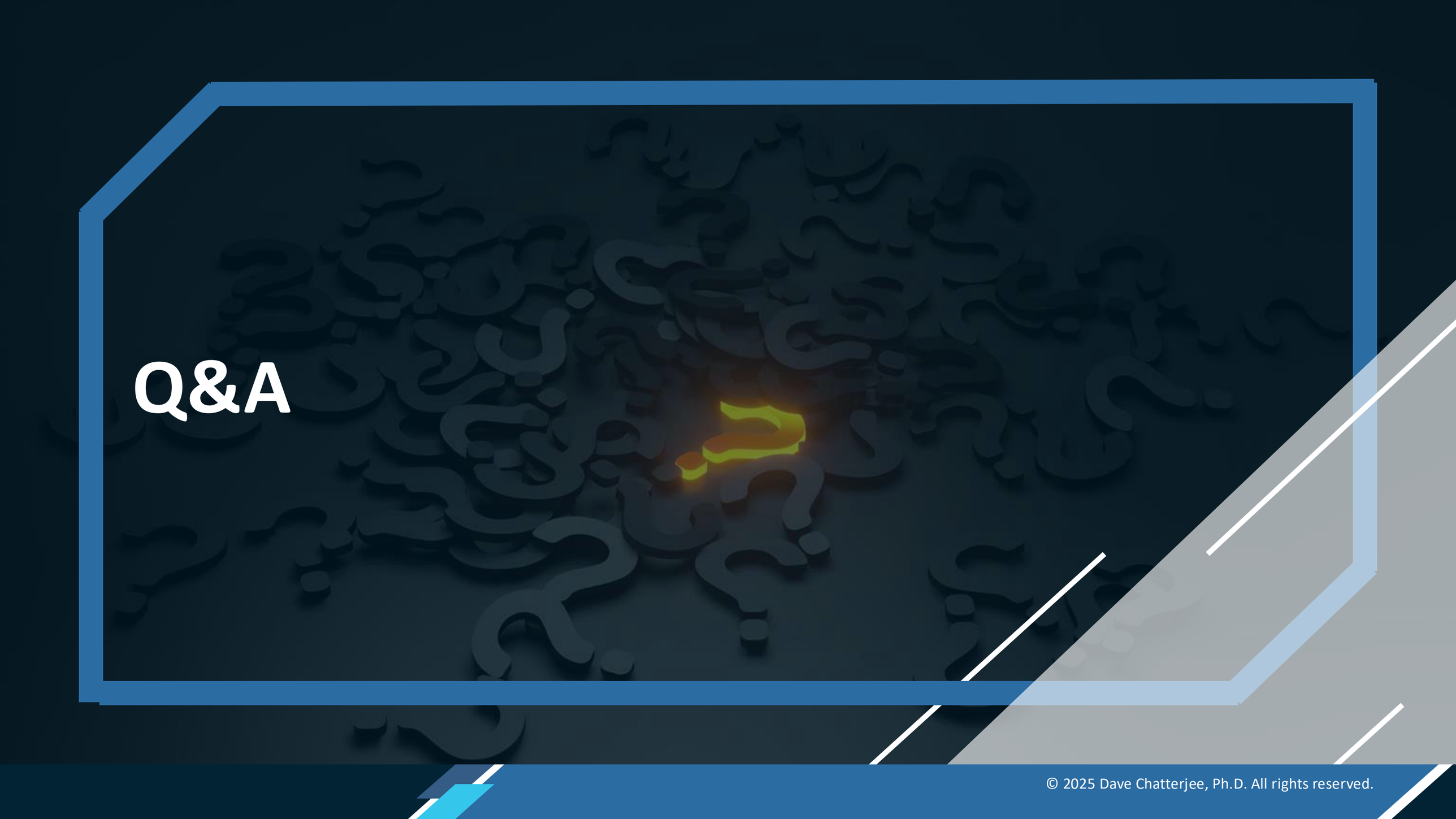
- **Governance**: % of AI projects passing pre-deployment security and ethics review.
- **Resilience**: Mean time to detect/respond to AI incidents.
- **Compliance**: Audit pass rates for AI-related regulatory requirements.
- **Trust**: Stakeholder satisfaction with AI transparency and reliability.

Concluding Thoughts

Concluding Thoughts

- AI is both an enabler and a risk amplifier—advantage flows from responsible adoption.
- Founder journeys reveal how adversity and expertise drive globally relevant innovation.
- CPD ensures AI is deployed securely, ethically, and at scale.
- Leaders who integrate trust and resilience into AI strategy will shape the future of competition.

Q&A



THANK YOU!!