

# BCS ITLF Symposium: Suggested Topic Priority for 2026

Chair: Kevin Eagles



IT Leaders  
Forum

**Symposium**  
13<sup>th</sup> November 2025



# BCS ITLF Symposium:



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## FORMAT:

### 1. Five Main Proposals for 2026 ITLF Focus:

- Leadership in Strategic AI Delivery - Dave Sutton (KE stand-in)
- Critical thinking in Business - better decisions, faster - Craig Cockburn
- Architecting Resilience - Paul Reason
- BCS Cyber Security Collaboration with IET CEng (Cyber) - Internet Avalanche (IA) failure - Dr Walter Green
- Cognitive Blind Spots in Security Frameworks:  
From Cybersecurity to AI Governance - Vsevolod (Sam) Shabad

### 2. KE Wildcard Slide 😊

### 3. Open Floor Discussion

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Leadership in Strategic AI Delivery  
Dave Sutton (Kevin Eagles standing in)



# AI as a Strategic Enabler of Business Systems

*Embedding Intelligence Across Business and IT Processes*



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- AI now enables intelligence within:
  - Business operations and IT platforms
  - Design and development workflows
  - Decision-making and service delivery
- Benefits include:
  - Integration across business processes and functional areas
  - Acceleration of development and implementation timescales
  - Shift of AI design and build from expert groups to empowered business users
  - Technical design is becoming automated enabling in-house development
  - Businesses can focus on Business Opportunities
- Strategic AI unlocks adaptive, insight-driven organisations

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# Reimagining Business Models Through Strategic AI

*From Tactical Tools to Transformational Capability*



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- Strategic AI allows us to:
  - Rethink business models and service delivery frameworks
  - Embed intelligence into the fabric of organisations
  - Align operations with long-term national and sector goals
- Common sectors (Utilities, NHS, Local Government) share:
  - Business objectives
  - Data and systems needs
  - Opportunities for collaboration, sharing and reuse
- Shared AI ecosystems reduce duplication and cost, while increasing resilience
- Shared business and technical solutions, knowledge and best practice can dramatically improve national infrastructure, and reduce costs and delivery timescales.
- Bespoke technical solutions inhibiting collaboration can be overcome.

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# Building National Capability for AI Deployment

*Strategic AI Delivery as a Sovereign Asset*



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- AI must be treated as a **national capability**, not a tactical add-on
- Requires investment in:
  - Business Systems Design
  - Programme and Service Management
  - Enterprise Architecture
  - Semantic and interoperable data models
- UK must retain control over:
  - AI strategy and delivery
  - Technical leadership and assurance
  - Ethical and inclusive adoption across sectors
- BCS can convene and guide this transformation

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# The Risk of Inaction and the Role of BCS

*Safeguarding the Future Through Strategic Leadership*



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- Risks of fragmented, tactical AI adoption:
  - Poor security and resilience
  - Duplication of effort and cost
  - Loss of capability through outsourcing
  - Tactical rather than strategic futureproof solutions
- Strategic AI governance ensures:
  - Smarter, futureproof systems
  - Sovereign oversight and ethical standards
  - Inclusive opportunity and global leadership
- **BCS can lead the way:**
  - Convening cross-sector expertise
  - Supporting capability development
  - Embedding AI into the UK's digital infrastructure

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# Thank you

- Dave Sutton
- davesutton19@gmail.com



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**Critical thinking in Business**  
**better decisions, faster**  
Craig Cockburn



# Decision making in business

## RIGOROUS DECISION-MAKING

# 50%



## THE RIGOUR OF BOARD DECISION-MAKING IS A KEY FOCUS FOR DIRECTORS

Nearly 50% of directors consider the rigour of board decision-making is their top improvement priority in terms of procedures for the effective functioning of their boards. Furthermore, 47% of directors stated that enhancing board analysis and decision-making processes including the use of data analytics is their key focus for improving board governance over the next 3 to 5 years.

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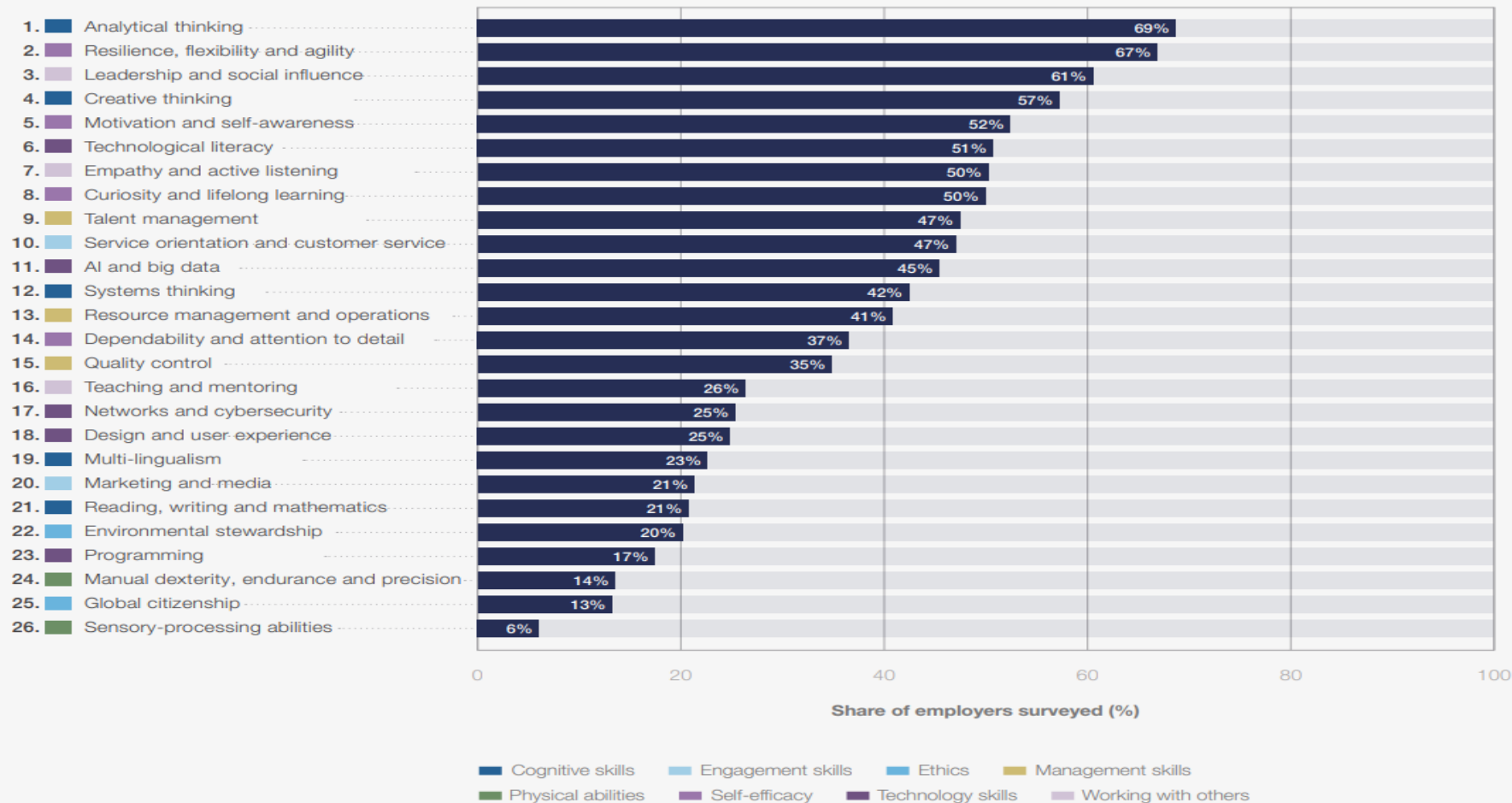


# Decision making in business

FIGURE 3.3

## Core skills in 2025

Share of employers who consider the stated skills to be core skills for their workforce.



Source

World Economic Forum, Future of Jobs Survey 2024.

Note

The Future of Jobs Survey uses the World Economic Forum's Global Skills Taxonomy.

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# Decision making in business

- What is critical thinking, history and applications
- How it has been adapted to business
- How it works
- Why it matters
- Feedback and praise from business leaders
- A few practices
- My experience in this field
- How can you get started?

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# Thank you

- Craig Cockburn
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Architecting Resilience  
Paul Reason



# Background

Recent news about Major Companies being 'hacked' in a way that they cannot recover their operation for weeks and months to fully complete the recovery.

The cost to the organisation is significant and is impacting the GDP of the country.

Assumptions about the company:

- Systems are highly integrated including suppliers and other 3rd parties
- Integration is place, tooling that provide data, application and business mechanisms
- Security in place [but obviously incomplete]
- Have Disaster Recovery (DR) in place and is tested
- Have immutable backups in place
- DR Insurance is in place

We are looking to discuss what could be improved upon with major changes to the systems

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# Event

A major attack rendering systems inoperable, aimed to encrypt underlying data with a ransom to enable keys to decrypt the data.

## Impact:

- Loss of Business and major supply chain disruption
- Business and IT out-of-sync
  - IT systems do not reflect the current operational state.

## Options:

1. Pay ransom
  - Issues (1) Dealing with Criminals
  - (2) Recovery may be out of sync anyway
2. Implement Recovery
  - including resync of the IT systems to operation

## Issues:

- Complexity of recovery
- IT systems and the Operation are out of sync
- What expense will this incur, lost or spoilt stock, incomplete production

## Remedial Actions

The following will need to be accomplished:

1. Isolate the systems from the internet
2. Remove the attack vector
3. Recover all systems and data (by whichever option)
4. Realign the IT systems to the Operation
  - a. This is the complicated part and may require emptying the production line for restart
  - b. Loss of parts and build quality could be significant
5. Restart the systems
6. Reconnect to internet

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# What could we do instead?

A key issues here is if we are spending large amounts on our cyber security why are we looking at other approaches, until we have this sort of event!  
Insurance will be limited.

We need to adopt cost effective approaches based on existing technology, such as:

- **System Segregation, providing isolation for key systems**
  - Keeping the key production systems further away from attackers with controlled interfaces.
  - Having complete data (complete copies)so the system can run for short periods in isolation and allowing production process to complete
  - This may need changes to some changes to the Just-In-Time stock operations.
- **Transactional logging, that can be read and replayed to recover our system**
  - An immutable log of the transactions, would enable replay to get the systems up to the state of the operation.
  - Integration could be expanded so that transactions are written to a external service, which can be read.

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# Next Steps

- Discussion & Questions
- What other components can be managed in the same way?
- Is it worth developing this as a white paper?
- Can you help?

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# Thank you

- Paul Reason
- Paul@Reason.me.uk



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BCS Cyber Security Collaboration  
with IET CEng (Cyber)

**Dr Walter Green**

PhD, MScEng, CEng, CITP, FBCS, FIET FAIM,  
SMIEEE, FIEAust



# Introduction

- In my opinion the UK has made a significant impact on the security of IoT devices.
- There are opportunities to significantly improve the security of IoT and IIoT devices.
- **Several of the standards and OS used today have lacked an integrated approach.**
- The **BCS** and the **IET** have the combined competencies to deliver more systems with significant improvements in **security and flexibility.**

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# Introduction (cont...)

- Need for Collaboration
- **BCS members** have the competencies in **operating systems** and **coding practices**,
- **IET engineers** have the mathematics and telecom competencies in assessing the **level of security of systems** and **telecom network** issues.
- **ALL** of these Competencies are needed for **Autonomous** Systems
- The discovery in 2024 of a **new Cyber Threat** will be used to demonstrate the need for **Collaboration**

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# Autonomous Systems Weaknesses

- **Operating Systems**  
Deficient OS with little or no security  
No internet Stack security  
No protection of Code  
No Safe Storage of Forensic Investigation Data
- **Level of Security**  
Weak (Less than 256 Bits) or No Passwords  
Password management weak or non existent
- **Network**  
Internet and protocols are inherently unstable
- Weak Authentication and Validation

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# Internet Avalanche Discovery

- Internet Instability
  - **Advanced Maths and Telecom Theory** to transform Internet Instability criteria into measurable parameters
  - Application of **Telecom traffic theory** to understand how an Internet Avalanche is activated
- Internet Risk Management
  - Interaction of **End-User behaviour** and **common network designs** that cause Internet avalanches to occur
  - Why Internet Avalanche failures occur and **restore without human interaction** and with **no trace** of what happened

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# Internet Avalanche Summary

- **Three types** of Internet Avalanche (IA) failure
  - **Intermittent Poor** services to internet, servers and printers
  - **Simultaneous Loss** of Telephone, Email and Internet
  - **Increasing Outgoing** bandwidth
- Keep **Ratio** of Incoming traffic to Outgoing Link capacity to **less than 10**, preferably less than 6
- The amount of traffic to **start** an IA is **much higher** than the traffic to maintain and IA
- An **undesirable feature** of an IA network failure is the **reduction in Outgoing Link** capacity

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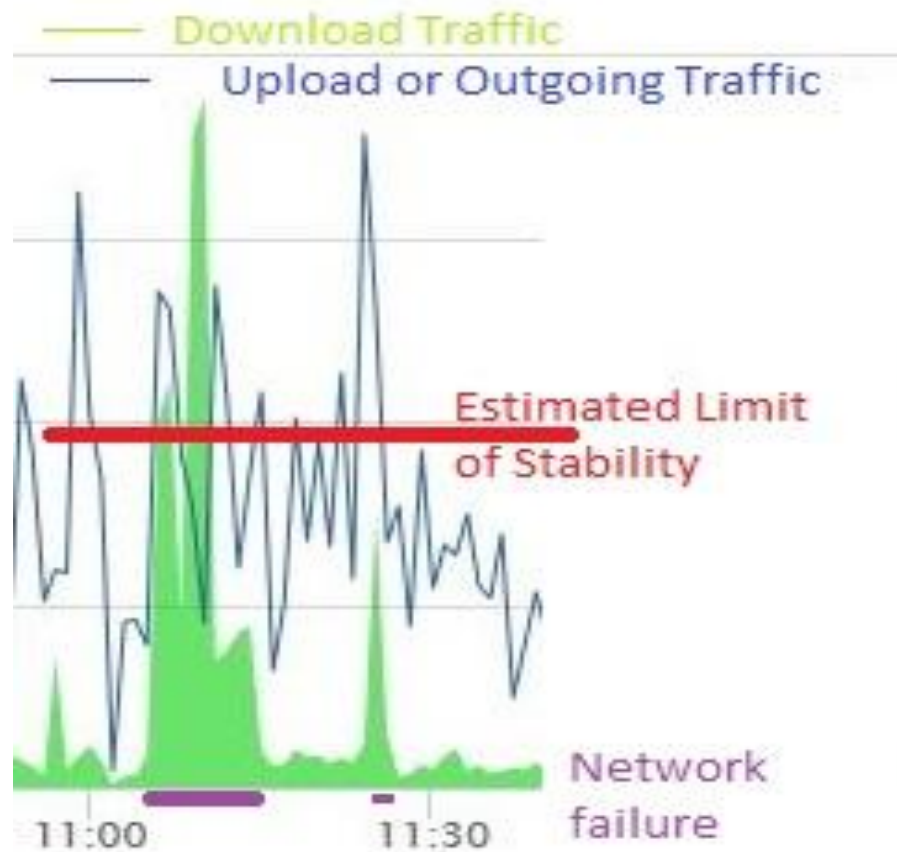
# Summary

- The BCS and IET implement a process to enable BCS members and IET members to collaborate when creating new solutions and/or responding to new threats.
- Possible projects are;
  - Collaboration on developing more **secure IoT and IIoT systems**
  - Collaboration on creating **Groups of Standards** to achieve different outcomes or tasks
  - Collaboration on responding to new **Threats**

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# Internet Avalanche Event



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Thank you

Dr Walter Green



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Cognitive Blind Spots in Security Frameworks:  
From Cybersecurity to AI Governance

Vsevolod (Sam) Shabad, FBCS

Based on SSRN Working Paper 5525340  
Full version available at <https://dx.doi.org/10.2139/ssrn.5525340>



# My background

- Born in USSR, UK resident since 2024
- Eight countries, six industries
- Studied in Russia, Switzerland, USA, UK
- Four decades in IT and Cybersecurity
- Former CISO & CIO of leading banks in Kazakhstan
- Principal Enterprise Architect @ BT Group
- Researcher @ University of Liverpool

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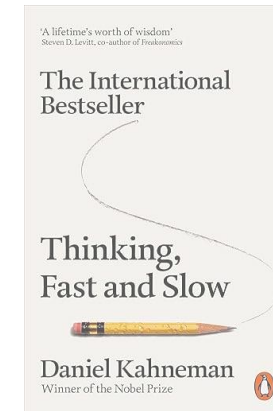
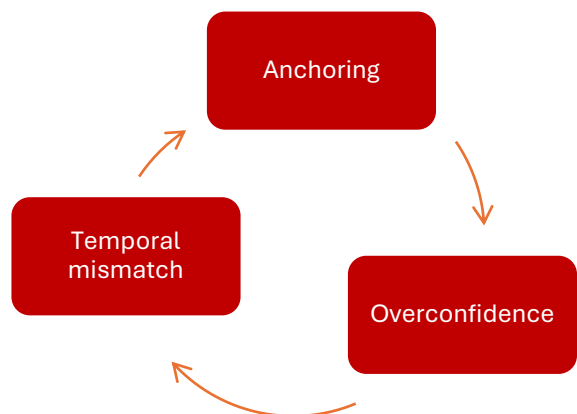
This experience revealed cross-sector patterns — the basis for today's analysis



# Why governance frameworks fail — even with “best practice”

- Anchoring bias: old assumptions treated as truth
  - NHS trusts anchored on 2014 plan → WannaCry **£92m**
- Overconfidence bias: compliance mistaken for resilience
  - “We followed the standards” — SolarWinds systemic compromise
- Temporal mismatch: governance moves yearly, adversaries weekly
  - $\approx 46:1$  prevention/recovery cost ratio (Ponemon, NAO)

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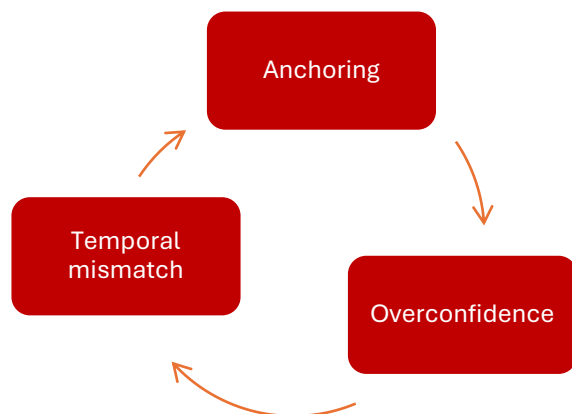




# AI governance repeats cybersecurity's mistakes

- Framework cloning: ISO 42001, NIST AI RMF mirror cyber logic
  - Anchored risk scopes → outdated assumption persists
- Exponential drift: AI evolves faster than governance cycles
  - AI security incidents doubled from 2024 to 2025 (Adversa AI)
- Missing feedback loops: no AI-specific threat intelligence
  - No CVE/STIX feeds → biases persist unchecked

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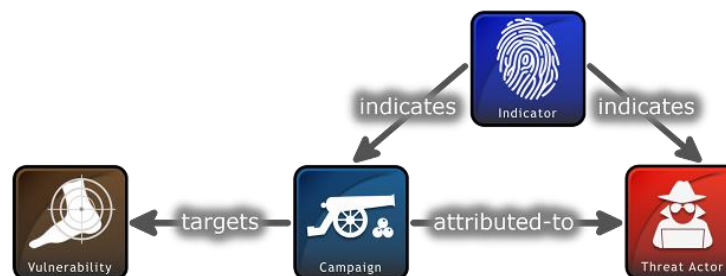
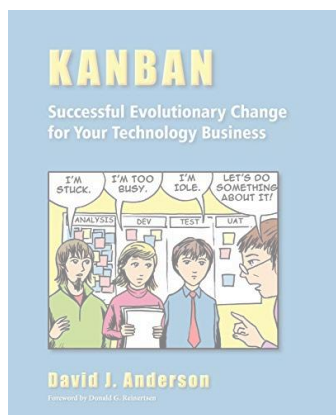




# Building bias-resistant governance

- Flow limits — shorten governance cycles
  - Apply WIP limits and iterative reviews → prevent anchoring on old plans
- Shared intelligence — AI threat-intel ecosystem
  - Extend STIX/TAXII feeds → create shared “IoC for AI”
- Bias checkpoints — structured challenge sessions
  - Periodic assumption challenging → counter overconfidence and inertia

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# Thank you



*Open to collaboration on bias-aware governance across cybersecurity and AI.*

Full 17-page preprint available on SSRN  
<https://dx.doi.org/10.2139/ssrn.5525340>

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Quick questions  
or comments?

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## Wildcard Slide

1. Mitigating the AI bubble (Southsea Bubble – Dot.Com meltdown)
2. Agentic AI (e.g., prompt injection, ethical concerns such as bias and accountability, and technical hurdles like data quality, system interoperability)
3. Legislating ethical use of AI (e.g., European Union's comprehensive AI Act )
4. Mitigating Aggressive Use of Drones (hostile use at civilian airports)
5. Guidance with Vibe coding (holy moly – where will it all end 😊)

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Open Floor Discussion



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