



Open Discussion #1

LISBON
April 2026

Theme

The Danger of Synthetic Use Cases

DataSys 2026 & ComputationWorld 2026



Coordinators

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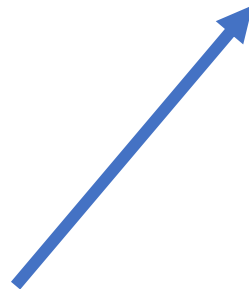
Prof. Dr. Petre Dini, IARIA, USA/EU



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- Marketing decisions
- Paradigm change on nature of data
- **Utility** (need): Proof of Market
- **Feasibility**: Proof of Concept
- **Usability**: Proof of Customer Adoption
- **Use Cases Proven** Catalog
- **Scale of users**: niche/large
- **Perenniality** (noun): The quality or **condition** of being perennial.
- **Perennity** (noun): Lastingness; perennial duration; the **state** of being perennial.



- **Technology-agnostic** needs
- **Technology-related** needs
- Based on existent/**persistent** needs
- Based on potential/foreseen/**predicted** needs
- **Individual-based user case**, vs. **critical mass-user case**



Petre Dini
IARIA
USA/EU

Business cases should be derived from a need that lasts supported by a critical mass of users for a lasting duration



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We are not only generating synthetic data, but also, we are generating **synthetic problems** and **synthetic value**.

If the use case is artificial, the success is artificial (synthetic value \neq from real/market value

What and how is happening?

AI enables **capability-first thinking**

Demos replace **real constraints**

Validation happens in **controlled environments**

What looks like success: clean workflows / impressive output / fast prototyping

What is missing: real user pain / operational constraints / measurable impact / accountability

Key Risks

Strategic drift → roadmap follows demos
False validation → “it works” \neq “it matters”
Hidden costs → integration, data, verification
Crowded priorities → real problems ignored

Quick Diagnostic

Who needs it?
Who pays for it?
What decision improves?
What happens when it fails?

AI makes it easy to fabricate usefulness.
Real value still requires real problems.

Reality vs Fabrication



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Q1. Reality vs Fabrication

How can we distinguish between a genuine use case and one engineered to showcase AI capability?

Q2. Demo Trap

Are organizations optimizing for what can be demonstrated rather than what should be solved?

Q3. Validation Illusion

If a use case works in a controlled environment, what guarantees its relevance in real operations?

Q4. Ownership and Accountability

Can a use case be considered real if no stakeholder clearly owns its outcome or failure?

Q5. Strategic Risk

Do synthetic use cases delay transformation by creating the illusion of progress?

Q6. Investment Discipline

Should organizations require “problem-first justification” before approving AI initiatives?



Petre Dini
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USA/EU

The most dangerous side of the success of a synthetic use case is the one solving a problem nobody had before.



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- **Real systems expose synthetic assumptions**
 - Supply chains and logistics networks immediately reveal solutions built on synthetic assumptions — real material and information flows do not tolerate “too clean” scenarios
- **Infrastructure decisions cannot afford false validation**
 - In transport and smart city planning, a synthetic use case validated in a controlled environment may generate multi-year infrastructure and budget commitments that cannot be easily reversed
- **Institutional monitoring as an answer**
 - Sector observatories (e.g. TRANSLOG) continuously confront AI outputs with real operational data — this is a structural response to the proliferation of synthetic use cases
- **“Problem-first” as a condition for regional technology funding**
 - Regional technology development programmes should require documented evidence of a real problem before approving AI initiatives — without this we produce innovation on paper, not in the economy



Katarzyna
DOHN,
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- **Synthetic Use Cases Accelerate Demos, Not Evidence. They...**
 - ... can be valuable in rapid prototyping because they allow teams to test technical feasibility quickly and at low cost.
 - ... are often too clean and too simplified, so they fail to reflect the ambiguity, inconsistency, and messiness of real organizational settings.
 - ... do not capture the real economic pressure, stakeholder conflicts, and operational constraints that shape actual Business Intelligence decisions.
 - ... provide a serious risk of overfitting, where a solution performs well on the synthetic scenario but lacks robustness in real world deployment.
- ... may support early exploration, but they should not be treated as sufficient evidence for validating a solution, its usefulness, or its organizational impact.



Prof. Dr. Maik
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STAGE IS YOURS

The Danger of Synthetic Use Cases



C-series 😊 .. and counting

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Core / Traditional (found in most organizations)

- **CEO** — Chief Executive Officer
- **COO** — Chief Operating Officer
- **CFO** — Chief Financial Officer
- **CMO** — Chief Marketing Officer
- **CIO** — Chief Information Officer
- **CTO** — Chief Technology Officer

Technology / Data / Security / Digital

CISO — Chief Information Security Officer

CDO — Chief Data Officer

CDAO — Chief Data & Analytics Officer

CDO (Digital) — Chief Digital Officer

CAIO / CDAO (AI) — Chief AI Officer / AI & Data

variants

CTO — (also product technology leadership)

CXO — Chief Experience Officer (customer experience)

Very Common Functional Chiefs

CHRO / CPO (People) — Chief Human Resources / People Officer

CLO — Chief Legal Officer (sometimes Chief Learning Officer — context-dependent)

CSO — Chief Strategy Officer

CRO — Chief Revenue Officer

CCO — Chief Commercial Officer or Chief Communications Officer

CAO — Chief Administrative Officer

CBO — Chief Business Officer

CPO — Chief Product Officer / Procurement Officer

Commercial / Customer / Market Roles

CCO (Customer) — Chief Customer Officer

CRO — Chief Revenue Officer

CSO — Chief Sales Officer

CBO — Chief Brand Officer

CBDO — Chief Business Development Officer





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Governance / Risk / Compliance

- **CCO (Compliance)** — Chief Compliance Officer
- **CRCO** — Chief Risk & Compliance Officer
- **CRO (Risk)** — Chief Risk Officer
- **CIGO** — Chief Information Governance Officer

Strategy, Innovation, Transformation

- **CINO** — Chief Innovation Officer
- **CTrO** — Chief Transformation Officer
- **CVO** — Chief Visionary / Value Officer
- **CIDO** — Chief Idea Officer (innovation-focused role)

ESG / Sustainability / Culture / People

- **CSO (Sustainability)** — Chief Sustainability Officer
- **CGO** — Chief **CHO** — Chief Happiness OfficeGreen Officer
- **CDO (Diversity)** — Chief Diversity Officer
- **CWO** — Chief Well-Being Officer

Operations, Supply, Facilities

- **CSCO** — Chief Supply Chain Officer
- **CPO (Procurement)** — Chief Procurement Officer
- **CLO (Logistics)** — occasionally used
- **CFOO / COO variants** — operations specialties

New / Trend-Driven / Experimental Titles

(Especially in tech companies and startups)

- Chief AI Officer
- Chief Platform Officer
- Chief Ecosystem Officer
- Chief Metaverse Officer
- Chief Trust Officer
- Chief Ethics Officer
- Chief Remote Officer
- Chief Community Officer

Specialized / Sector-Specific Roles (Increasingly Seen)

- **CAO (Accessibility)** — Chief Accessibility Officer
- **CMO (Medical)** — Chief Medical Officer (healthcare)
- **CNO** — Chief Nursing Officer
- **CISO (Physical Security)** — sometimes Chief Security Officer
- **CPO (Privacy)** — Chief Privacy Officer
- **CAgO** — Chief Agriculture Officer (agribusiness)
- **CAvO** — Chief Aviation Officer