

AI Standardization Across NATO

Andy Fawkes

54th NATO Conference of Commandants – 13 May 2025

Context

Keeping Up With AI Developments ...



Does Anyone Really Know Where AI is Going?

- DeepSeek
Market
Correction –
27 Jan 2025



- Does Science
Fiction Gives
Us Clues?



Who Owns Our Technology Future?

Bryan Wells
Chief Scientist
NATO
July 2024



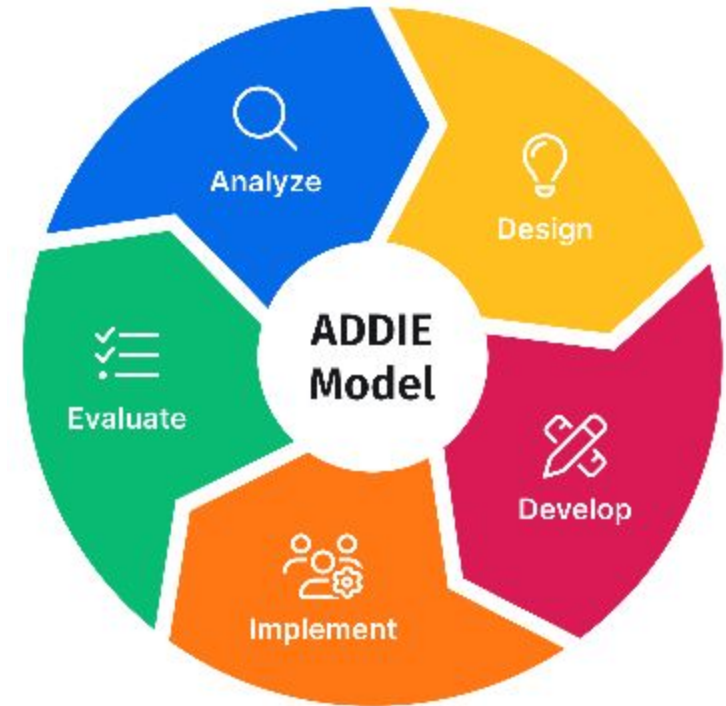
“... let’s wind the clock back 75 years ...
the defence sector owned the technical futures
... if we wind forward to 2024 ...
commercial decisions by companies
now drive the future of technology across the board ...”

How Can Generative AI be Used for Simulation/ Training Purposes?

AI Supporting the ADDIE Learning Model Process

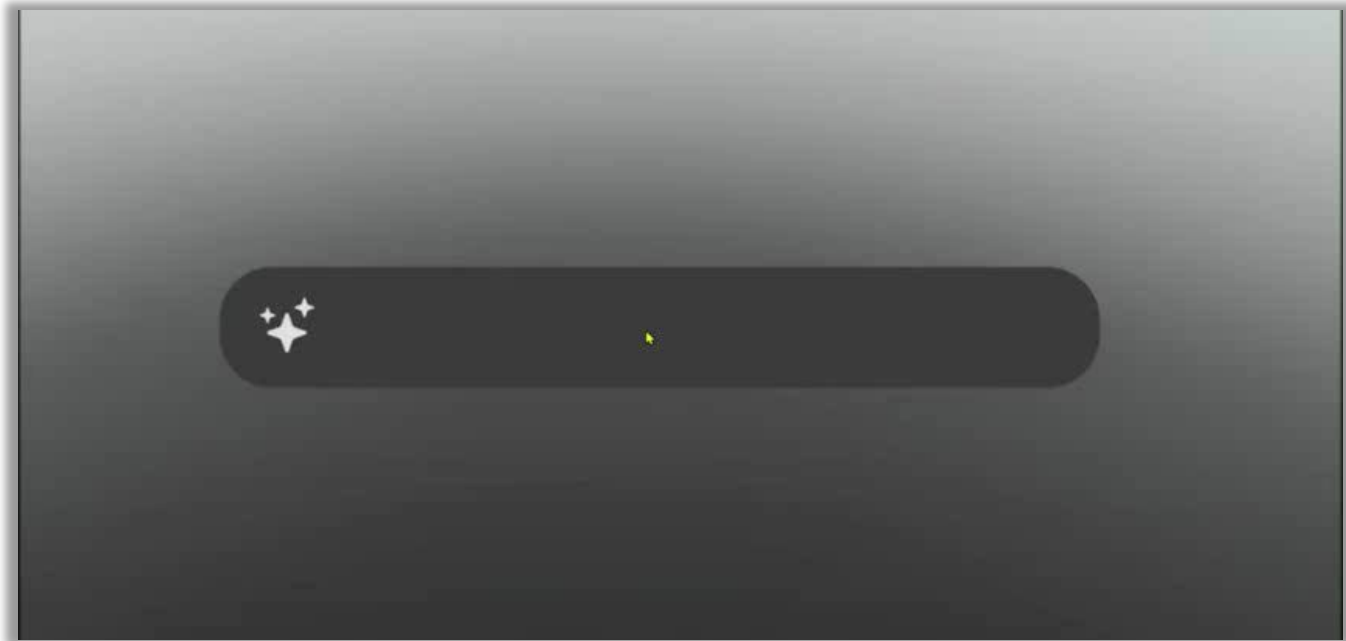
Analyze	AI examines learner data to identify skill gaps and training needs
Design	AI suggests content structure and formats tailored to learner profiles
Develop	AI helps generate and adapt learning materials, including text and media
Implement	AI personalizes learning experiences through adaptive delivery systems
Evaluate	AI assesses learner outcomes and recommends course improvements

Overall	AI speeds up the ADDIE process and enables a dynamic, data-driven learning system
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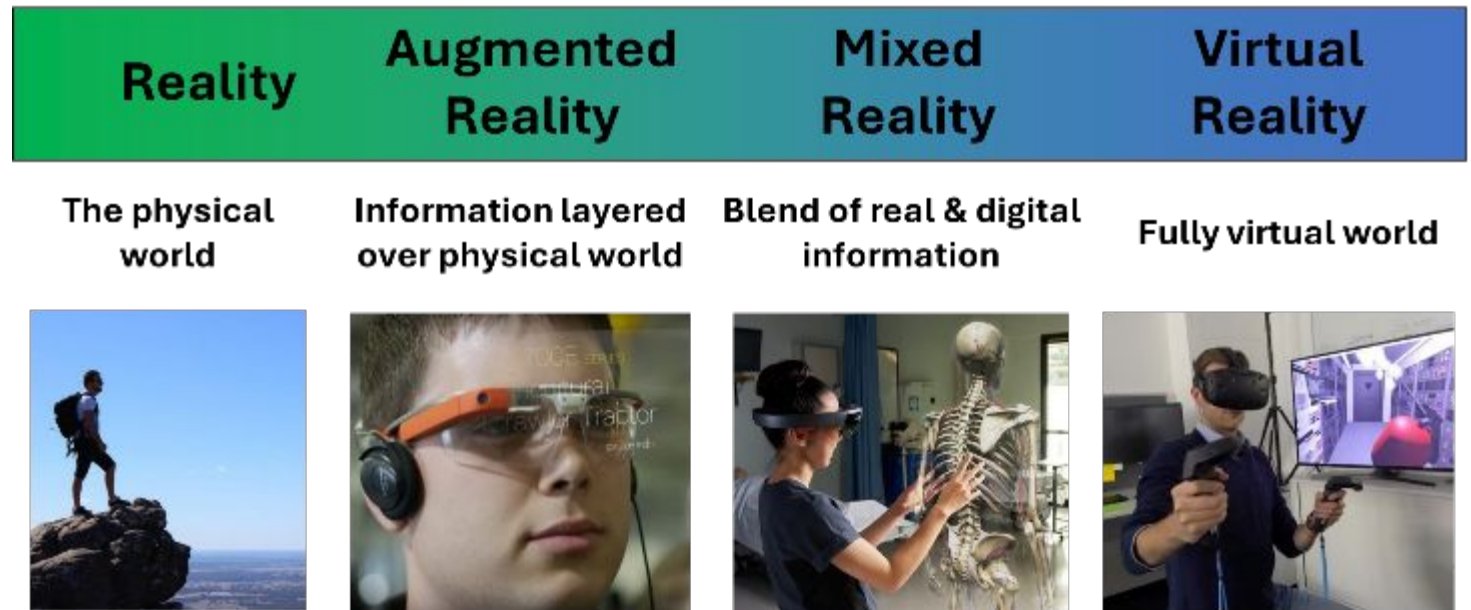


OpenAI
Sora
& Roblox

Text to
Video & 3D
Worlds



Simulation and eXtended Reality (XR) as Data Generators



**We Worry
About
Physical
Fitness**

**What About
Mental
Fitness &
Teamwork?**



What Considerations Does NATO Need to Keep in Mind When Sourcing Data to Train AI?

Call for Action – Collect Data!

“ ... Data analysis is essential for us to understand how we change training in the future.

We need to be recording data in our training systems far more radically than we currently are.

If we had for the last 20 years recorded every single mission we've flown in a Typhoon simulator we could now use AI to analyse that data and think about for example how many times did the pilot make a particular manoeuvre? ... ”

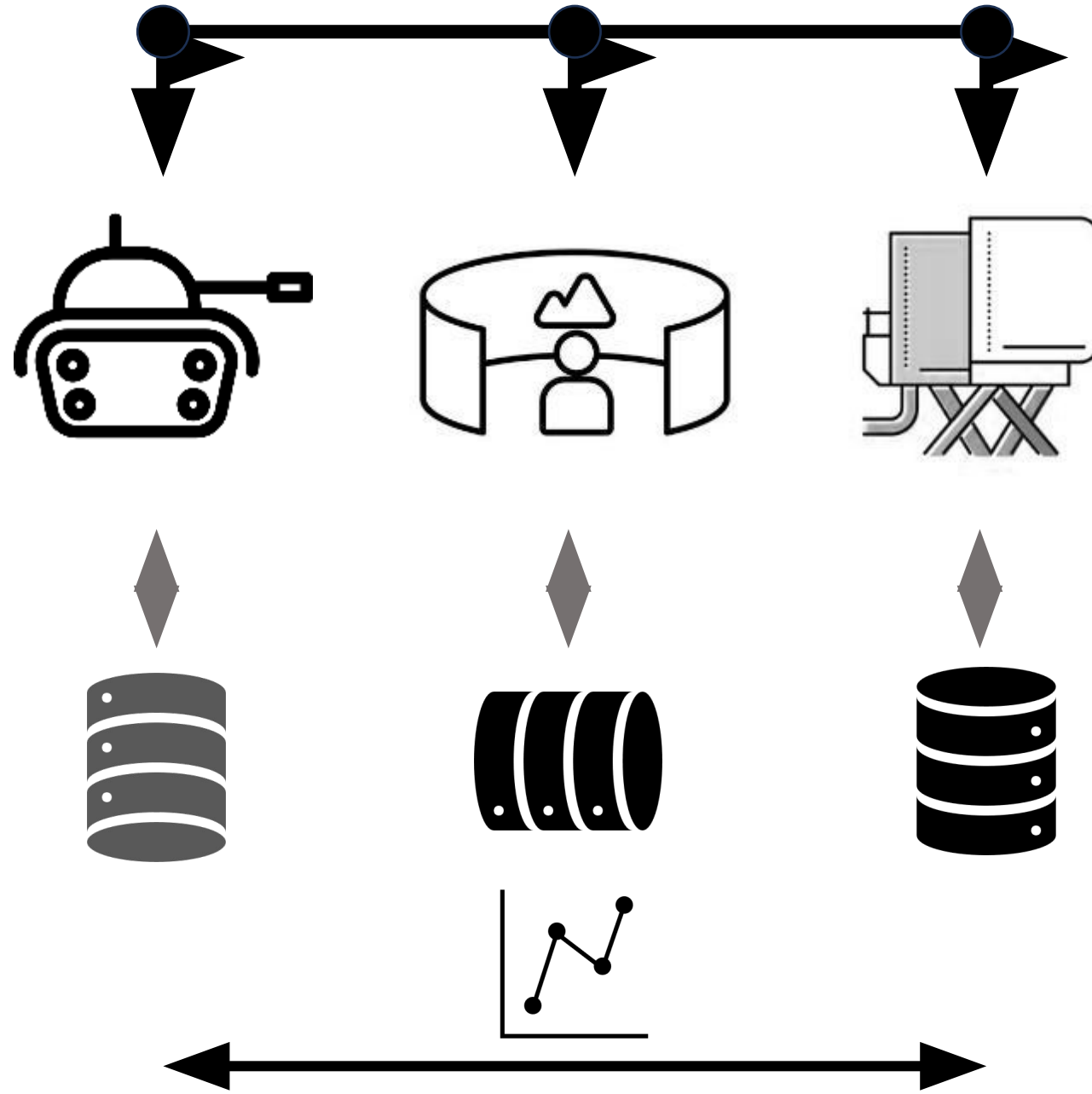


IT2EC 2025 (Oslo)
AVM Ian Townsend,
Director of Training for
the UK RAF

Warfighter Data Here, There, Everywhere

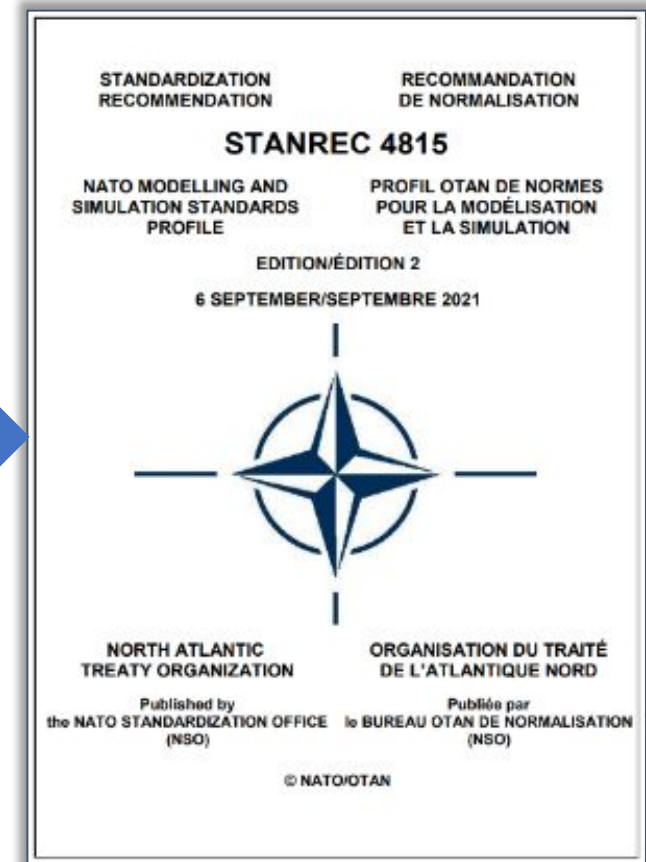


Training Systems Interoperability



MSG-234 – Training Data Analytics and Standards

Our Mission





Uniting Human Data — Warfighter Digital Twins

How Should The Standardization of AI Across the Alliance be Determined?

**Whose
Is
Responsible
?**

See my
password
on the back
side



AI Standardisation Way Forward?

- Leverage Existing NATO Standardisation Bodies
- Establish Common Technical & Data Standards
- Adopt a Phased, Collaborative Approach
- Invest in Leadership, Education, and Expertise
- Address Ethical, Privacy & Security Issues



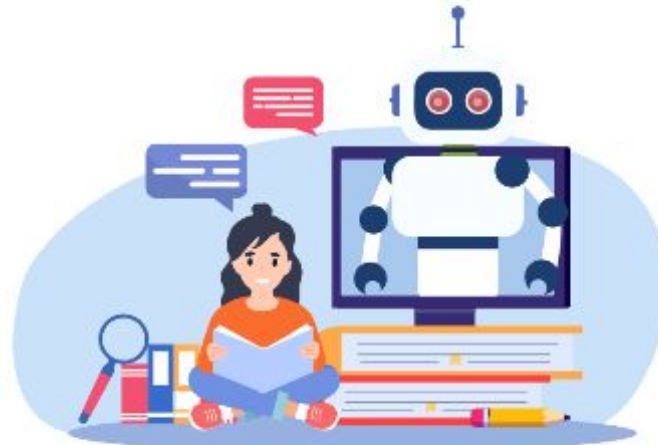
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Standards for Human AI Knowledge? Students & Teachers



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AI competency framework for students



Education
2030

- A human-centred mindset
- Ethics of AI
- AI techniques and applications
- AI system design



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AI competency framework for teachers

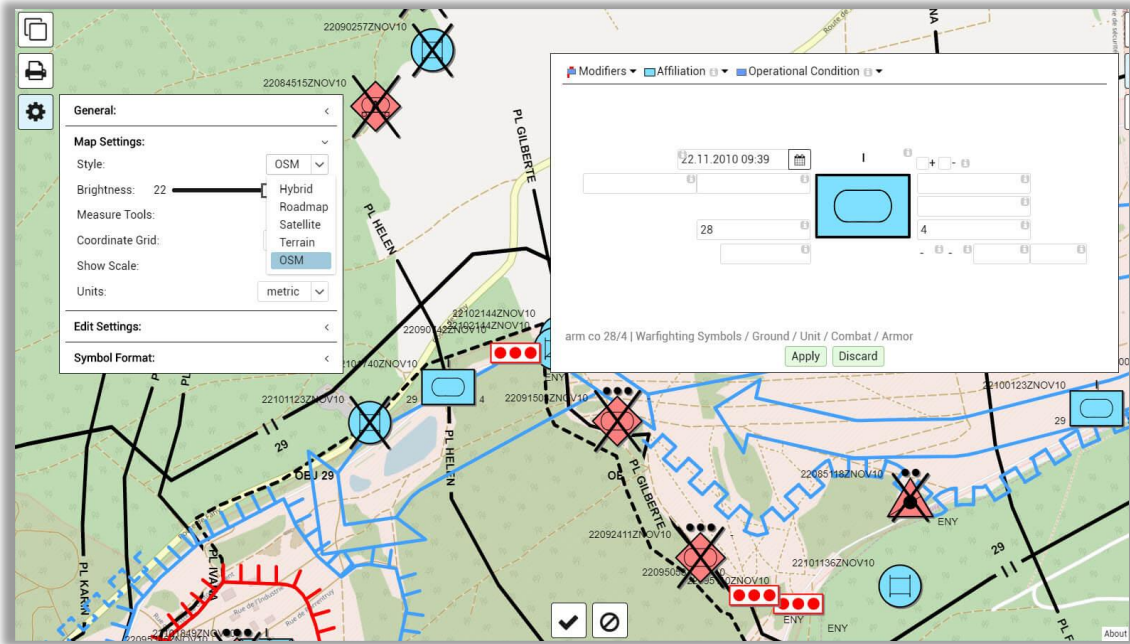


Education
2030

- A human-centred mindset
- Ethics of AI
- AI foundations and applications
- AI pedagogy
- AI for professional

What Is The Role Of Generative AI in the “Military Metaverse” and its Usage as a Digital Training Environment?

The Metaverse Signifies the Trend from 2D Digital Worlds to 3D Digital Worlds



The Real World is 3 Dimensional

The Military Metaverse

Building Blocks

eXtended Reality

**3D Simulated
Worlds**

Digital Twins

Standards

AI

Military Metaverse 2035

(NMSG
Symposium
2022)

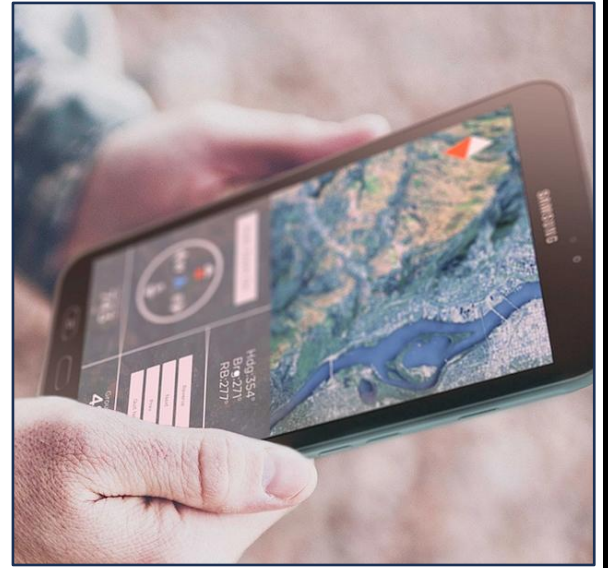


Unified 3D Digital World



THINKE

Military Metaverse Connected-Unified Approach to Training



Shared Data, AI, Applications, Networks, Scenarios

The Military Metaverse and Training

& the Role of Generative AI

The Military Metaverse represents a fundamental shift towards persistent, enterprise-wide, immersive, interactive digital 3D environments

- GenAI is a critical enabler for the shift to 3D, as it can **create quickly** and **easily** the novel, complex **content** and assets required for these digital worlds
- GenAI will also power **intelligent AI agents** within the 3D environment, such as realistic adversaries or virtual instructors
- Generative AI plays a key role in producing **synthetic data**, which is important for training other AI systems used in military applications

End