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Harnessing Digital Twin Technology (EU AI Act)

Our latest whitepaper discusses how the EU AI Act provides regulatory safeguards to support the synergy between digital twin technology and general-purpose AI systems.

What are three support measures for digital twin innovation?
See **Slide 2** for details.



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Three support measures for digital twin innovation:

Risk-Based Regulation

The Act ensures that digital twins integrating general-purpose AI (GPAI) meet strict safety, transparency, and accountability standards, especially in critical sectors like healthcare, manufacturing, and infrastructure.

Technical Documentation and Compliance

The Act ensures that digital twins integrating general-purpose AI (GPAI) meet strict safety, transparency, and accountability standards, especially in critical sectors like healthcare, manufacturing, and infrastructure.

Data Governance and Security

The Act ensures that digital twins integrating general-purpose AI (GPAI) meet strict safety, transparency, and accountability standards, especially in critical sectors like healthcare, manufacturing, and infrastructure.

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Mechanisms for safe AI deployment:

📌 **Simulation and Test Environments** – Digital twins act as safe testbeds for AI models, allowing organizations to assess risks and optimize performance before real-world deployment.

📌 **Transparency and Human Oversight** – The EU AI Act strengthens requirements for explainability, ensuring that decisions driven by AI-powered digital twins are understandable and accountable.

📌 **Innovation and Market Growth** – By offering regulatory sandboxes and funding opportunities, the EU AI Act accelerates the adoption of digital twin technologies while safeguarding societal interests.

How does the EU AI Act harness digital twin technology?
Read the whitepaper for details.

European Commission

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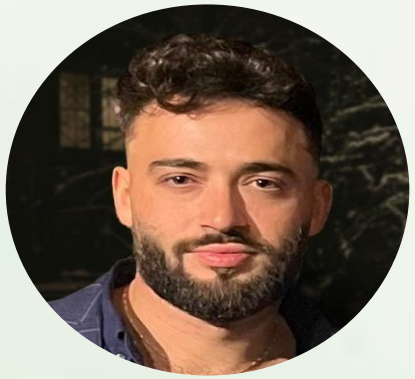

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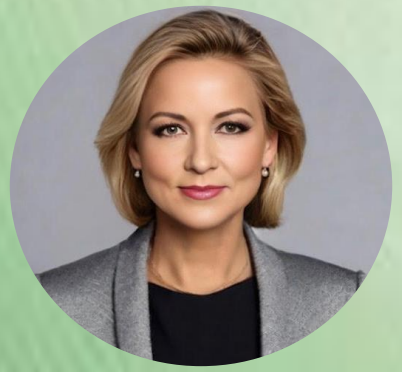

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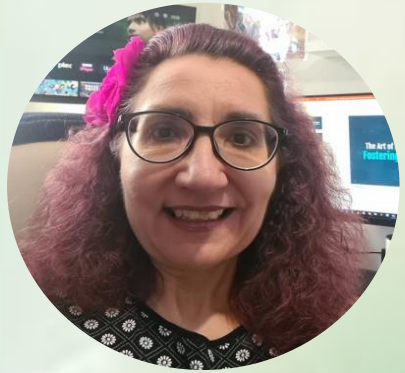

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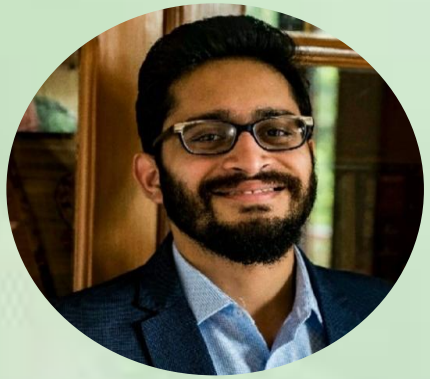

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