

Navigating Meaningful, Authentic Learning Through Partnership-Driven Pedagogies and Cross-Sector Collaboration

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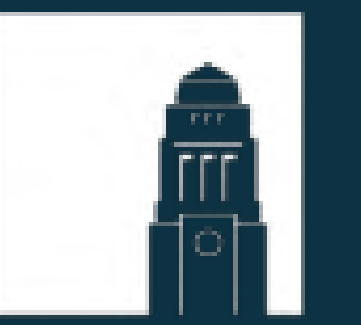
Full texts:



Introductory video:



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Disconnect in discipline-research-intensive universities

External partnerships thrive in **research**, less in **teaching**

Work-integrated learning offers:

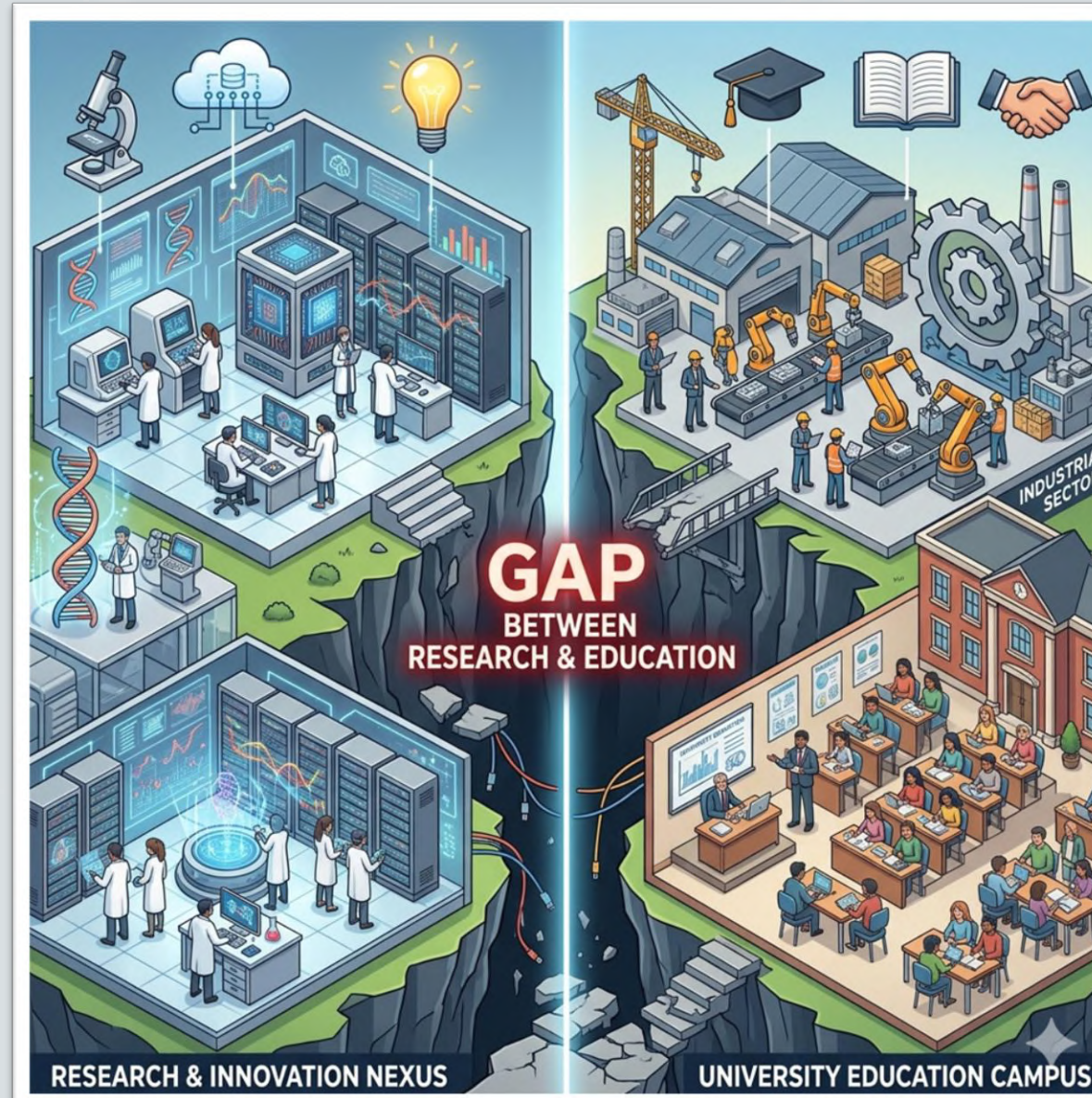
✓ Employability benefits

But.....

⚠ Challenges in equity, access, scalability

⚠ Inconsistent coordination especially in engineering (Vuoriainen et al., 2024)

A need for **systematic, integrated partnership models**



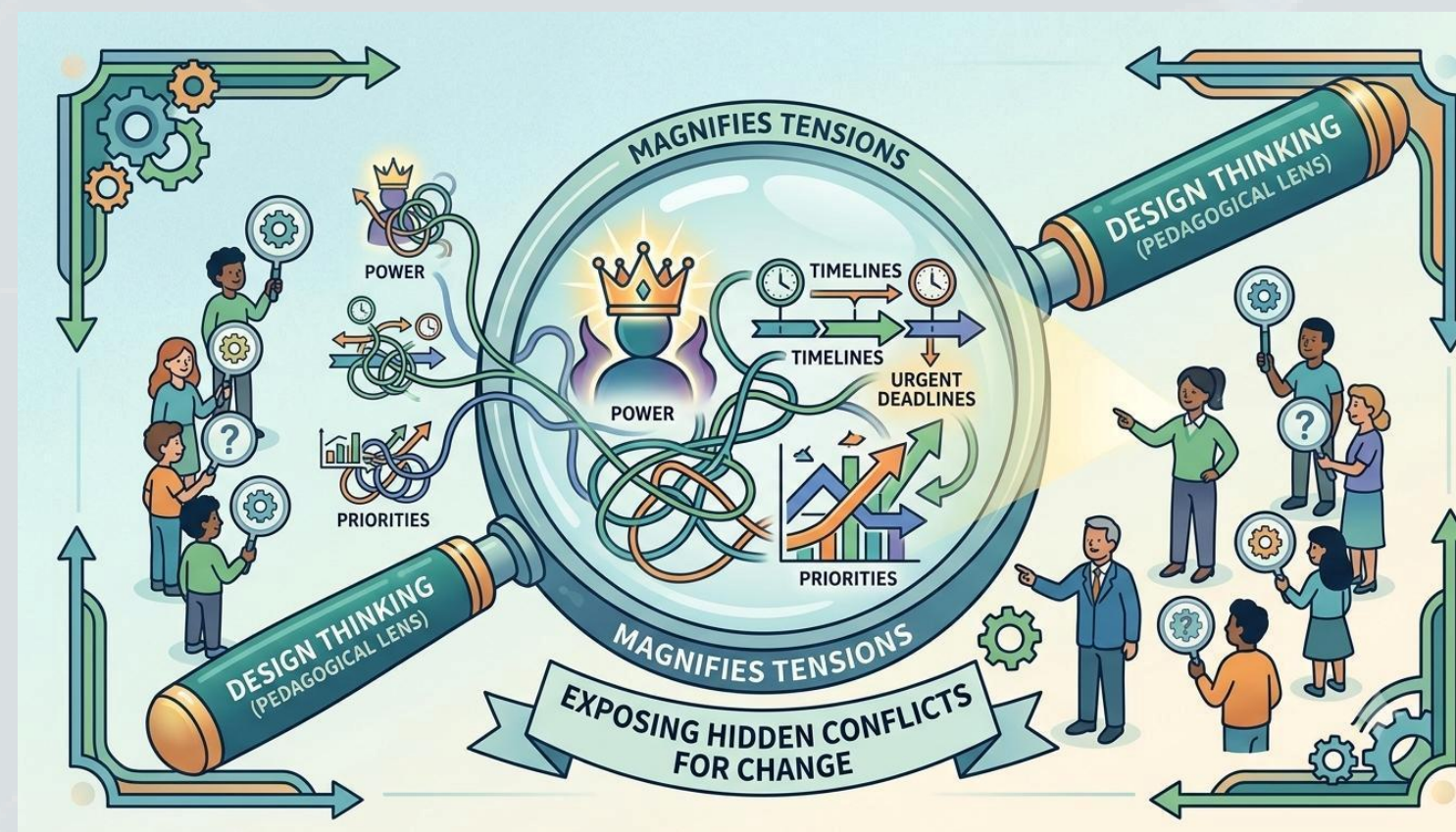
Design thinking as a pedagogical lens (McLaughlin et al., 2022)

Moves beyond **solutioneering** focusing on:

🖼 Problem framing of stakeholders' needs through

Empathise → Define → Ideate → Prototype → Test

- Connecting industry needs to learning outcomes
- Exposure to real-world complexity
- Surfacing tensions amongst stakeholders



Redefining authenticity (McArthur, 2022)

💡 Authenticity ≠ mimicking workplaces

Authenticity develops:

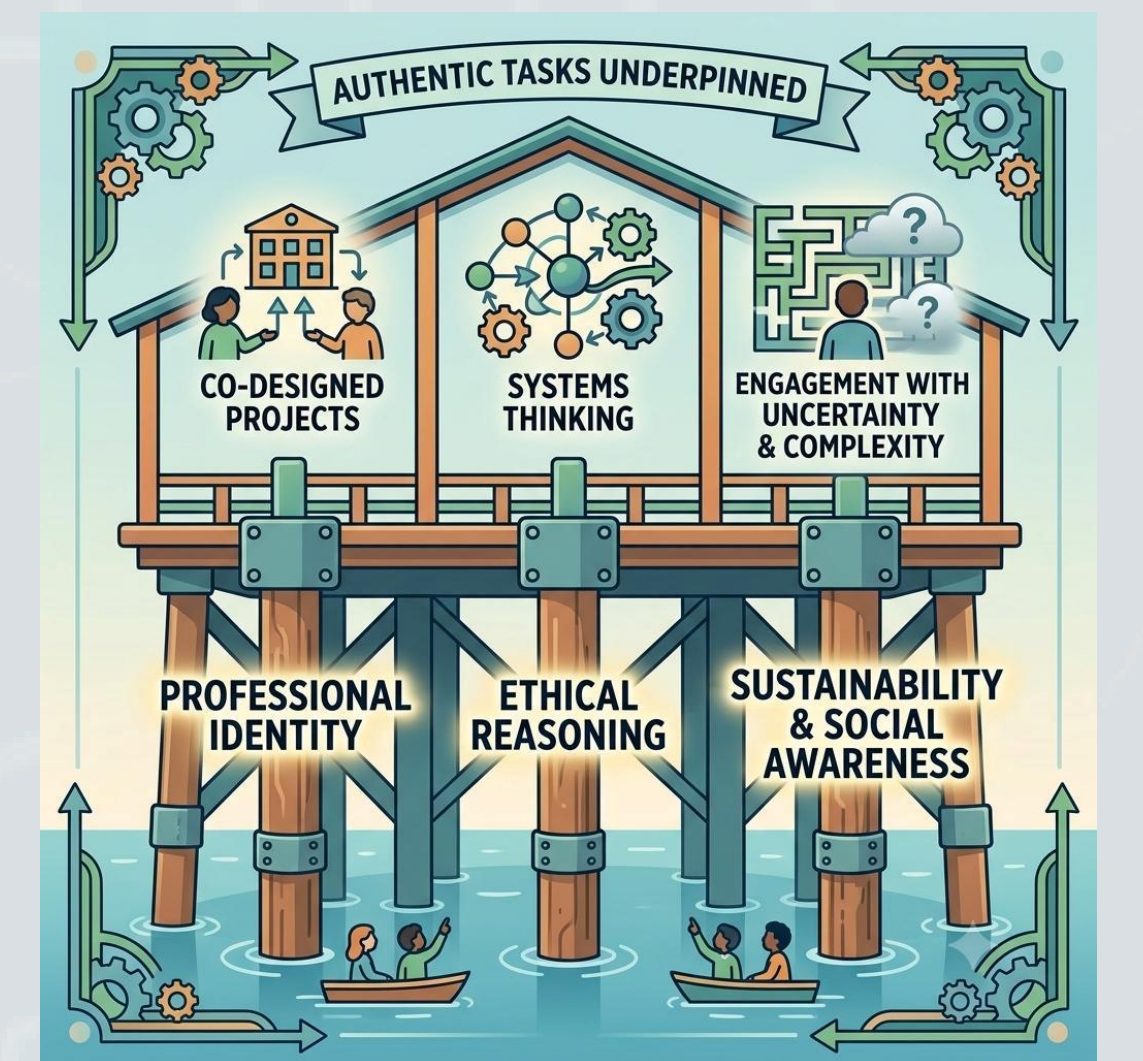
- **Professional identity**
- **Ethical reasoning**
- **Sustainability & social awareness**

Focus:

- Public responsibility
- Societal context of engineering work

Example:

- ✨ Final-year industry-linked student project
- ✨ Incorporating standards
- ✨ Considering SDGs



Reflection as transformative practice

🔄 Reflection supports:

- Self-efficacy
- Critical thinking
- Identity formation

📌 Useful tip:
Reflect on *why* and *how* students should reflect



⚠ Beware!
Avoid tokenistic/
Ritualistic reflection

📌 My approach:

- Iterative development for continuous improvement
- Co-creation with students (Omland et al., 2025)
- **Practise what we preach** – educators reflect too.

Overview of the principles adopted in this partnership-driven engagement

Authenticity (Re-)Framing

- Maintaining relevance through continuous updates
- Considering context and constraints

Evaluation through Effort-Impact Analysis

- Assessing effectiveness through continuous feedback
- Evidenced by literature and shared practices



Empathy through Dialogue

- Developing understanding through community learning
- Recognising the importance of presence and interaction

Divergence & Convergence Theory

- Applying problem framing and solution development
- Informed and enhanced through reflection

Impact within and beyond classroom

🎯 Achievements:

- Successful link between industry and electrical engineering teaching (visits, curriculum development, lectures and projects)
- Cross-sector stakeholder engagement (alumni, utilities, supplies, consultants and staff)
- Publishable industry-linked projects

🏆 Since 2025, University of Leeds has been a member of **IET Power Academy**

📱 Scan to know about the Academy



References

- McArthur, J. 2022. Rethinking Authentic Assessment: Work, Well-Being, and Society. Higher Education. 84(3), pp.549–565.
- McLaughlin J.E., Chen E., Lake D., Guo W., Skywark E.R., Chernik A., and Liu T. 2022. Design thinking teaching and learning in higher education: Experiences across four universities. PLoS ONE. 17(3), pp.1-16.
- Omland, M., Hontvedt, M., Siddiq, F., Amundrud A., Hermansen H., Mathisen A.S., Rudningen G. and Reiersen F. 2025. Co-creation in higher education: a conceptual systematic review. High Education. 90, pp.1017–1047.
- Vuoriainen, A., Rikala, P., Heilala, V., Lehesvuori, S., Oz, S., Kettunen, L., and Hämäläinen, R. 2025. The six C's of successful higher education-industry collaboration in engineering education: a systematic literature review. European Journal of Engineering Education. 50(1), pp.26–50.

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