

Future-Proofing Simulation Practice | Full day

SIGs Involved: Emergency Medicine / Pharmacy / Sustainability / Technicians and Learning Technologists

Background: Health and care simulation services are, more than ever, expected to respond to evolving pressures including financial constraints, staff shortages, technological advancement, environmental and sustainability targets and changing learner or organisational expectations.

Artificial Intelligence (AI) and sustainable practices are emerging as major drivers of change, offering opportunities to improve efficiency, accessibility, educational quality, and environmental impact. However, both also raise important questions regarding ethics, governance, resource allocation, equity and workforce implications.

Simulation practitioners, educators, technicians, clinicians and organisational leaders require space to critically explore these developments, challenge assumptions and consider how simulation can remain effective, responsible and future-focussed.

This Xperience day workshop provides an opportunity for multiprofessional collaboration to explore and hopefully answer the question: How do we future-proof simulation practices in health and care?

Session description: This interactive, multiprofessional workshop explores how health and care simulation can evolve to meet future demands through sustainable practice and responsible integration of artificial intelligence (AI).

The morning session introduces two key themes through facilitated parallel workshops: **sustainability in simulation practice** and **AI in healthcare simulation**. Participants will examine benefits, limitations, risks, ethical considerations and practical implications relevant to educators, technicians, clinicians and organisations. Through mixed-group discussions, delegates will identify emerging opportunities, tensions and challenges. Outputs from these sessions will then inform a group debate focused on **future-proofing simulation**, enabling participants to challenge assumptions, consider trade-offs and identify shared priorities for the future.

The afternoon session shifts from discussion to application. Participants will rotate through three practical stations addressing:

- **Designing sustainable simulation programmes** through reducing waste, improving efficiency and maintaining educational quality
- **Applying AI in simulation practice**, considering implementation, governance, ethical boundaries and workforce implications
- **Future-proofing simulation**, using real-world scenarios to navigate competing priorities such as budget constraints, environmental targets, technological innovation, and faculty roles

Working in small, multiprofessional groups, participants will develop solutions and reflect on trade-offs influencing simulation practice. The session concludes with a whole-group feedback discussion, sharing key insights, practical takeaways and priorities for advancing sustainable and future-ready healthcare simulation.

Aim(s):

- 1) Enable the participants to critically explore sustainability and AI within health and care simulation and evaluate the implications for practice
- 2) Develop practical approaches to future-proof simulation programmes through collaborative discussion

Objectives: By the end of the workshop, participants will have/be able to:

- 1) **Discuss** the opportunities, challenges, ethical considerations and unintended consequences associated with sustainability initiatives in health and care simulation
- 2) **Evaluate** the potential role of AI within simulation design, delivery, assessment and debriefing, including governance and ethical implications
- 3) **Analyse** competing priorities influencing simulation practice, including educational outcomes, environmental impact, cost, innovation and workforce considerations
- 4) **Apply** sustainability principles and AI approaches to redesign or enhance simulation programmes within realistic operational constraints
- 5) **Identify** practical actions, safeguards and strategies that can support more sustainable, ethical and future-ready simulation services
- 6) **Collaborate** across professional groups to discuss complex challenges and develop shared priorities for the future of simulation practice

Target audience: Simulation practitioners, educators, technicians, clinicians and industry/organisational leaders.

Particularly aimed at anyone wanting to investigate and discuss ways of future-proofing simulation in terms of common challenges we encounter and emerging technologies.