## Assembling information systems to design better patient experiences

**Abstract**

**Statement of the Problem:**

You cannot have digital transformation in healthcare without experience transformation, and it is technology that sits are the core of this transformation. Healthcare provider organisations are dynamic environments and increasingly, organisational capabilities are supported and facilitated by their information systems and infrastructure, to deliver high quality, efficient and patient centred care. The challenge is how to assemble these technologies to support and innovate the experience of patients, through coordinating the interaction between people, process, and systems. As hospital care evolves, digital information systems move towards the centre of creating the patient and staff experience. It has been proven that a positive experience impacts health outcomes, so we need to change the approach to patient experience from post-episode surveys and refining specific processes, to designing what we want a good experience for our patients to look like.

**Methodology & Theoretical Orientation:**

Using a design science research methodology, the Sense of Coherence theory, a well-established model for assessing an individual's resilience to stressors in their environment, was combined with established information infrastructure maturity to devise a unified approach to patient experience. Findings: A set of tools were developed that allows strategic deployment of information systems capabilities to be based on healthcare experience design. In partnership with information architects, these can be linked using well-established information capability frameworks, such as INFRAM.

**Conclusion & Significance:**

The collaboration between academia and industry has resulted in a practical framework to support optimal patient experience using the capabilities that hospital digital technology and information infrastructure already provides. Called the Information Infrastructure to Experience Framework, it provides a bridge where the imagination of clinical care designers and information technologists can envision new ways of delivering physical, virtual and hybrid models of care explicitly designed around the patient experience.

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**Biography**

Professor Trish Williams is a leader in research and innovation in digital health. Trish is Cisco Chair and Professor of Digital Health Systems at Flinders University, Director of Flinders Digital Health Research Centre, and Director of Cisco-Flinders Digital Health Design Lab and Digital Health IOT Laboratory. Internationally recognised in her field, Trish applies 40 years of experience in healthcare computing to research and practical outcomes in cybersecurity, health IoT, mobile health, medical devices, governance, patient safety, and health software safety. Trish is a passionate contributor and advocate for digital health informatics standards, Co-Chair HL7 International Security Workgroup and national expert on health informatics, security and medical device ISO standards. She has authored over 140 medical information security and safety publications

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