Climate, Land, and Virtual Custodians: Urban Indigenous Heritage, Natural Resource Management and Gamification through UE5 - Perspectives of the Virtual Songlines Digital Twin - The Indijiverse

Brett Leavy (Australia)

SUMMARY

My presentation explores how the Virtual Songlines Digital Twin (VSDT) details and documents the continuing First Nations perspectives and presence within Australia's major cities and regional towns. My main projects focus on Sydney, Melbourne, Brisbane, Adelaide, and Perth, and examine how digital mapping of historical and traditional campsites, bush food gathering places, hunting grounds, and art sites challenges the colonial narrative of terra nulius. By incorporating Model-centric Programming (MCP) and gamification through Unreal Engine 5.5, the VSDT creates an Adaptive Cultural Topology that transforms static geographical representations into dynamic, interactive cultural infrastructures. The gamification framework enables deeper engagement with traditional knowledge systems through immersive experiences, educational gameplay, and community-driven narrative development. The paper highlights the critical importance of urban waterways as both cultural heritage corridors and climate adaptation assets, demonstrating how traditional knowledge can inform natural resource management within the confines of waterways and ecosystems within the most developed areas of Australia.

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