UCD School of Geography Seminar Series

The Artificial Intelligence-City Nexus: Urbanistic Perspectives on AI

Dr Federico Cugurullo, Trinity College Dublin

Date: Thursday, 19th of September

Time: 15:30 – 16:30

Format: In-person, A105 in the Newman Building

Innovation in artificial intelligence (AI) is transforming cities in unprecedented ways. In this presentation we will explore the connections between AI and the urban by focusing on the concept of urban AI and reflecting on its most prominent incarnations: autonomous vehicles, urban robots, city brains and urban software agents. We will then see how the emergence of urban AI is producing a new urbanism, an AI urbanism, that originates from smart urbanism but also departs from it along three main axes, namely function, presence and agency. Empirically, we will draw on the findings from several international case studies to examine the repercussions of urban AI and give evidence of how the emergence of AI in cities is reshaping urban society, urban infrastructure, urban governance, urban planning and urban sustainability. Theoretically, we will discuss the implications of the emergence of urban AI for urban theory and the future of cities. We will conclude the presentation with a warning about the impending risks posed by multiple urban AIs and the obscure black boxes driving their operations, but also with an invitation to politically engage as citizens with increasingly autonomous cities that might forever escape our understanding and thus our control.

Biography

Federico Cugurullo is Assistant Professor in Smart and Sustainable Urbanism at Trinity College Dublin. His research is positioned at the intersection of urban geography, political philosophy and experimental urbanism, and explores how ideas of sustainability are cultivated and implemented, with a focus on projects for smart and eco-cities.

He is currently researching how artificial intelligence (AI) is impacting on urban governance and planning, thereby influencing the sustainability of cities.

Federico has done extensive empirical research in the Middle East and Southeast Asia where he has investigated the sustainability performance of supposedly experimental cities such as Masdar City in Abu Dhabi and Hong Kong. His work has been used by the United Nations and

the United Kingdom's Department for Environment, Food & Rural Affairs (DEFRA) to foresee future urban challenges and develop preventive policies.

Building upon his empirical research on AI, Federico has contributed to the development of the theory of autonomous urbanism. Other theoretical contributions include the concept of urban eco-modernisation, the notion of urban artificial intelligence, the development of urban equations and the critical theory of Frankenstein Urbanism.

Before joining Trinity College Dublin, Federico held positions at the University of Manchester, King's College London and the London School of Economics and Political Science.