URBAN ASSEMBLAGE: THE CITY AS ARCHITECTURE, MEDIA, AI AND BIG DATA.

• Paper / Proposal Title:
Rethinking the notion urban Assemblage through Artificial Intelligence and Knowledge Graphs

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• Abstract (300 words):
Assemblage is a complex philosophical idea. Theorised by philosophers Deleuze and Guattari (Deleuze and Guattari 1980), Assemblage Theory frames social complexity emphasising fluidity, exchangeability, and the multiple functions that create entities connectivity. Architecture theory adapted the concept to the urban environments defining it as “an entity that emerges from the interaction of parts” instead of a collection of buildings, streets and people (Dovey 2009). Crucial to connecting Deleuze’s understanding of assemblages with architecture is the role multiplicity plays in developing a philosophy that avoids dualism. The meaning of a place emerges from the interplay of different things, what we encounter, both physically and emotionally (Dovey et al., 2009). The rapid evolution and integration of digital technologies in urban environments add another dimension to what informs the notion of a city assemblage. From the Internet of Things to Ubiquitous Computing, AI, and Big Data, all these technologies contribute to
the configuration of new hybrid assemblages.

Concepts such as ‘Assemblage’ can help anchor a place to a discussion about its heritage (Salah Ouf, 2001). However, these concepts are sometimes criticized as detached from the understanding of how cities change and evolve according to the local communities’ needs (Jive’n & Larkham, 2003). Moreover, migration flows continue to influence the contemporary urban panorama, dynamize the city and its heritage. The inclusion of new digital technologies such as AI and Big Data can prove fundamental in updating the conception of urban city assemblages for a more inclusive and contemporary one. In this article, we present MEMEX, a digital tool which can advance the notion of urban assemblage by connecting realities and memories of underserved migrant communities to the local sense of place and heritage, enriching and extending the notion of urban assemblage through the use of Artificial Intelligence and Augmented Reality.

• Author(s) Biography (200 words each):

Valentina Nisi is tenured Associate Professor at IST, University of Madeira, Adjunct Faculty at the HCI Institute Carnegie Mellon and founding researcher at the Interactive Technologies Institute LARSyS. Her research resides at the crossings of Interactive Storytelling and Gaming, Design and HCI. Her work focuses on designing and producing digitally mediated experiences that bring awareness to pressing social and environmental issues through games and storytelling. Valentina previously worked at MediaLab Europe (2001 to 2006) the European MIT Research partner in Dublin, Ireland, and in Amsterdam, where she co-founded FattoriaMediale, an Interactive Media and Culture Foundation, operating internationally between 2006 and 2008. Valentina holds a first degree in Fine arts form Turin Albertine Academy, an MSc in Multimedia Systems and a PhD in Location Aware Narratives from Trinity College Dublin, Ireland and an Abilitation (Agregação) in Digital Media from the faculty of Engineering of Porto University. Her work has been published and shown internationally. She has served on the organising and scientific committee of numerous international, peer reviewed conferences, most recently, CHI 2020 and 2019, NordiCHI 2020, CHIIItaly 2021, ICIDS 2020 and 2018, DIS 2020, 2017.