

URBAN AND REGIONAL DEVELOPMENT

Toward a redefinition of territorial accessibility

Funded By	Dipartimento DIST FONDAZIONE CRT CASSA DI RISPARMIO DI TORINO [Piva/CF:06655250014]
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Context of the research activity	<p>The research project will be focused on theoretically de-constructing the concept of the 15-minute city, analysing how it has been applied in urban policies, and redefining it through the development of indicators that integrate physical (transport-related) and virtual accessibility to services. These indicators will allow to assess the spatial justice in the distribution of current levels of accessibility to services inside a given area, to support more equitable planning models and processes.</p>
	<p>Descrizione</p> <p>The concept of the 15-minute city is receiving increasing attention, both in planning practices and in the academic literature, especially now that the pandemic has made evident the need for a minimum set of proximity-based services accessible by active travel. Most issues of this concept can be traced back to more or less past planning ideas such as the garden city, the neighbourhood unit, the superblock etc. However, the 15-minute city is often being reduced to a mere political slogan and employed as a city branding device with little measurability or benchmarks. As a matter of fact, the adoption of the concept in practice is generally limited to merely advocating planning principles such as walkability or those 3Ds (density, diversity, design) of the built environment that encourage active mobility. On the other hand, the introduction of lockdowns and movement restrictions due to the</p>

Objectives

current health emergency has generated several opportunities to modify the previous relational schemes, with deep modifications to the working conditions and the access to territorial services. However, the 15-minute city is generally conceptualized in the academic literature and implemented in urban policies exclusively with reference to physical accessibility.

The proposed PhD research project aims at de-constructing and operationalising the concept of the 15-minute city, in order to let emerge its scientific robustness and its planning and design potential. The research should try to deal with (some of) the following theoretical and methodological questions, which at now remain partially unresolved:

1. Which are the original and innovative elements of the 15-minute city concept, when compared to previous planning ideas such as Howard's Garden city, the neighbourhood unit, the Central place theory, the urban vitality approaches of Jane Jacobs, the geography of time by Torsten Hägerstrand, the human-scale urban design by Christopher Alexander and Jan Gehl, the principles of New Urbanism and Smart Growth?

2. How is the 15-minute city being interpreted and applied both in scientific studies and in planning strategies, with reference to a few main variables such as the spatial scale (the whole city? self-sufficient neighbourhoods?), the travel means (walking, cycling, public transport, car...), the set of activities to be accessed (which kind of local services?), the time threshold (30, 20, 15, 10 or 5 minutes?), the service users (the elderly, the children, the disabled, the whole population...)?

3. How can we exploit the heritage of operational research on accessibility measures and indicators that was developed in the field of regional sciences in the second half of the last century, in order to develop new metric tools and approaches to complexify the operationalisation of the 15-minute city? Furthermore, how can we avoid reducing these accessibility indicators only to the two dimensions of land use and transport, and conversely how can we root them in those spatial, economic, social, and personal factors, which influence the actual affordability of services and opportunities?

4. How can physical accessibility to services be integrated with virtual accessibility via ICT? In the past two decades, many studies have discussed the impacts of digital technologies on travel behaviours, while only a few have dealt with their impacts on accessibility. The development of accessibility measurements incorporating ICTs is a major challenge for assessing both the actual opportunities to use a service, and the spatial justice in the distribution of these opportunities inside a given area (also taking into account factors of digital divide).

While the first three above-mentioned research issue are aimed at correctly framing the topic from a theoretical and methodological view, the fourth issue will be the more innovative core of the thesis. The PhD candidate will be asked to strictly cooperate with the SDG11Lab, in order to exploit the spatial data this laboratory can provide, elaborate them and develop accessibility indicators and indexes that can support planning activities for more effective and just cities.

The research project will contribute to DIST's research field "Urbanisation", in relation to key issues such as societal challenges, urban inequalities, territorial governance. It will adopt an interdisciplinary approach involving (at least) two scientific disciplinary sectors, such as ICAR/05 and ICAR/20.

Skills and competencies for the development of the activity

The candidate should have a good knowledge of urban planning theories and models, and master skills related to the analysis and elaboration of spatial data through geographical information systems, the development of socio-spatial indicators and indexes, policy analysis and assessment.