

# TeMA

Journal of  
Land Use, Mobility and Environment

print ISSN 1970-9889 e-ISSN 1970-9870  
FedOA press - University of Naples Federico II

DOAJ

anvur Rivista scientifica  
di classe A - 08/F1

Scopus WEB OF SCIENCE



## NEW CHALLENGES FOR XXI CENTURY CITIES

Global warming, ageing of population, reduction of energy consumption,  
immigration flows, optimization of land use, technological innovation

Vol.17 n.2  
August 2024

TeMA Journal was established with the primary objective of fostering and strengthening the integration between urban transformation studies and those focused on mobility governance, in all their aspects, with a view to environmental sustainability. The three issues of the 2024 volume of TeMA Journal propose articles that deal the effects of global warming, the ageing of population, the reduction of energy consumption from fossil fuels, the immigration flows from disadvantaged regions, the technological innovation and the optimization of land use.

TeMA is the Journal of Land Use, Mobility and Environment and offers papers with a unified approach to planning, mobility and environmental sustainability. With ANVUR resolution of April 2020, TeMA journal and the articles published from 2016 are included in the A category of scientific journals. The articles are included in main scientific database as Scopus (from 2023), Web of Science (from 2015) and the Directory of Open Access Journals (DOAJ). It is included in Sparc Europe Seal of Open Access Journals, and the Directory of Open Access Journals.



## NEW CHALLENGES FOR XXI CENTURY CITIES:

Global warming, ageing of population, reduction of energy consumption, immigration flows, optimization of land use, technological innovation

2 (2024)

### **Published by**

Laboratory of Land Use Mobility and Environment  
DICEA - Department of Civil, Architectural and Environmental Engineering  
University of Naples "Federico II"

TeMA is realized by CAB - Center for Libraries at "Federico II" University of Naples using Open Journal System

Editor-in-Chief: Rocco Papa  
print ISSN 1970-9889 | online ISSN 1970-9870  
Licence: Cancelleria del Tribunale di Napoli, n° 6 of 29/01/2008

### **Editorial correspondence**

Laboratory of Land Use, Mobility and Environment  
DICEA - Department of Civil, Building and Environmental Engineering  
University of Naples "Federico II"  
Piazzale Tecchio, 80  
80125 Naples

web: [www.serena.unina.it/index.php/tema](http://www.serena.unina.it/index.php/tema)  
e-mail: [redazione.tema@unina.it](mailto:redazione.tema@unina.it)

The cover image shows railway street in Hanoi, Vietnam (Source: TeMA Journal Editorial Staff).

TeMA. Journal of Land Use, Mobility and Environment offers researches, applications and contributions with a unified approach to planning and mobility and publishes original inter-disciplinary papers on the interaction of transport, land use and environment. Domains include: engineering, planning, modeling, behavior, economics, geography, regional science, sociology, architecture and design, network science and complex systems.

With ANVUR resolution of April 2020, TeMA Journal and the articles published from 2016 are included in A category of scientific journals. The articles published on TeMA are included in main international scientific database as Scopus (from 2023), Web of Science (from 2015) and the *Directory of Open Access Journals* (DOAJ). TeMA Journal has also received the *Sparc Europe Seal* for Open Access Journals released by *Scholarly Publishing and Academic Resources Coalition* (SPARC Europe). TeMA is published under a Creative Commons Attribution 4.0 License and is blind peer reviewed at least by two referees selected among high-profile scientists. TeMA has been published since 2007 and is indexed in the main bibliographical databases and it is present in the catalogues of hundreds of academic and research libraries worldwide.

---

#### **EDITOR-IN-CHIEF**

Rocco Papa, University of Naples Federico II, Italy

---

#### **EDITORIAL ADVISORY BOARD**

Mir Ali, University of Illinois, USA  
Luca Bertolini, University of Amsterdam, Netherlands  
Luuk Boelens, Ghent University, Belgium  
Dino Borri, Politecnico di Bari, Italy  
Enrique Calderon, Technical University of Madrid, Spain  
Pierluigi Coppola, Politecnico di Milano, Italy  
Derrick De Kerckhove, University of Toronto, Canada  
Mark Deakin, Edinburgh Napier University, Scotland  
Carmela Gargiulo, University of Naples Federico II, Italy  
Aharon Kellerman, University of Haifa, Israel  
Nicos Komninos, Aristotle University of Thessaloniki, Greece  
David Matthew Levinson, University of Minnesota, USA  
Paolo Malanima, Magna Graecia University of Catanzaro, Italy  
Agostino Nuzzolo, Tor Vergata University of Rome, Italy  
Rocco Papa, University of Naples Federico II, Italy  
Serge Salat, UMCS Institute, France  
Mattheos Santamouris, NK University of Athens, Greece  
Ali Soltani, Shiraz University, Iran

---

#### **ASSOCIATE EDITORS**

Rosaria Battarra, CNR, Italy	Seda Kundak, Technical University of Istanbul, Turkey
Matteo Caglioni, Université Cote D'azur, France	Rosa Anna La Rocca, University of Naples Federico II, Italy
Alessia Calafiore, University of Edinburgh, UK	Houshmand Ebrahimpour Masoumi, TU of Berlin, Germany
Gerardo Carpentieri, University of Naples Federico II, Italy	Giuseppe Mazzeo, Pegaso Telematic University, Italy
Luigi dell'Olio, University of Cantabria, Spain	Nicola Morelli, Aalborg University, Denmark
Isidoro Fasolino, University of Salerno, Italy	Enrica Papa, University of Westminster, United Kingdom
Romano Fistola, University of Naples Federico II, Italy	Yolanda Pena Boquete, AYeconomics Research Centre, Spain
Stefano Franco, Politecnico di Bari, Italy	Dorina Pojani, University of Queensland, Australia
Federica Gaglione, University of Sannio, Italy	Nailya Saifulina, University of Santiago de Compostela, Spain
Carmen Guida, University of Naples Federico II, Italy	Athena Yiannakou, Aristotle University of Thessaloniki, Greece
Thomas Hartmann, Utrecht University, Netherlands	John Zacharias, Peking University, China
Markus Hesse, University of Luxembourg, Luxembourg	Cecilia Zecca, Royal College of Art, UK
Zhanat Idrisheva, D. Serikbayev EKTU, Kazakhstan	Floriana Zucaro, University of Naples Federico II, Italy
Zhadyra Konurbayeva, D. Serikbayev EKTU, Kazakhstan	

---

#### **EDITORIAL STAFF**

Gennaro Angiello, Ph.D. at University of Naples Federico II, Systemica, Bruxelles, Belgium  
Annunziata D'Amico, Ph.D. student at University of Naples Federico II, Italy  
Valerio Martinelli, Ph.D. student at University of Naples Federico II, Italy  
Stella Pennino, Ph.D. student at University of Naples Federico II, Italy  
Tonia Stiuso, Research fellowship at University of Naples Federico II, Italy

## NEW CHALLENGES FOR XXI CENTURY CITIES:

Global warming, ageing of population, reduction of energy consumption, immigration flows, optimization of land use, technological innovation

2 (2024)

## Contents

**189** EDITORIAL PREFACE  
Rocco Papa

### FOCUS

**193** **Towards participatory urban planning: insights from citizens.  
Results of a survey on the local effects of climate change in Parma**  
Ilaria De Noia, Barbara Caselli, Astrid Kemperman, Silvia Rossetti, Peter van der Waerden

### LUME (Land Use, Mobility and Environment)

**213** **The 15-minute cities concept applied to a Brazilian neighbourhood:  
case study of the cidade universitária Pedra Branca neighbourhood in Palhoça-SC**  
Marcela Juliana Cargnin, Cintia de Castro Marino, Thaísa Leal da Silva

**231** **Highlighting circular cities trends in urban planning.  
A review in support of future research tendencies**  
Giulia Marzani, Simona Tondelli

**249** **Right-based approach to urban accessibility: analysis of user perspective**  
Cihan Ercetin

**265** **Managing local knowledge about NBS in spatial planning.  
A group model building approach**  
Stefania Santoro, Giulia Mastrodonato, Domenico Camarda

**285** The relationship between walkability and landscape values in transportation.  
**Examination of landscape values in urban area transportation axes**  
Zeynep Pirselimoglu Batman, Elvan Ender Altay, Sena Şengül

**309** A scoping review of urban design and planning studies on the Covid-19  
**pandemic and elements of the built environment**  
Pouria Boujari, Sarah Ghamar, Mahdi Nasirian, Fateme Ghapanchian, Mahtab Khajavi,  
Atieh Ghasemi, Mohsen Bahari, Yasin Delavar, Hamideh Garrousi

**339** The identification of rurality at Nuts-3 level in Turkey  
Seda Özlü, Sinem Dedeoğlu Özkan, Dilek Beyazlı

## REVIEW NOTES

**357** Energy transition and renewable energy policies in Italy  
Valerio Martinelli

**363** Strategies and instruments for active mobility: a European overview  
Annunziata D'Amico

**373** Global warming or global warning? A review of urban practices  
**for adaptation to extreme heat**  
Stella Pennino

**383** Exploring approaches and solutions for urban safety: a focus on childhood  
Tonia Stiuso

TeMA 2 (2024) 249-264

print ISSN 1970-9889, e-ISSN 1970-9870

DOI: 10.6093/1970-9870/10510

Received 6<sup>th</sup> December 2023, Accepted 22<sup>nd</sup> July 2024, Available online 31<sup>st</sup> August 2024

Licensed under the Creative Commons Attribution – Non Commercial License 4.0

<http://www.serena.unina.it/index.php/tema>

## Right-based approach to urban accessibility: analysis of user perspective

**Cihan Erçetin**

Spatial Applications Division Leuven (SADL)

KU Leuven, Leuven, Belgium

e-mail: [cihanercetin@gmail.com](mailto:cihanercetin@gmail.com)

ORCID: <https://orcid.org/0000-0002-8715-3696>

### Abstract

To access urban services, the spatial components of urban space must enable every possible trip route to be devoid of any barriers, including those relating to the legal framework, metropolitan area, society, and administration. The right to access is for understanding the barriers to accessibility. Therefore, what is the required state necessary to put forth the significance of the motto, "accessibility for all"? Is it only making urban space accessible, or is it also a matter of perceiving accessibility as a right?

The research aims to reveal the deficiencies of the perception that accessibility is a human right. The research question is, "how do the barriers prevent people with disabilities from obtaining their right to access?" In the user perspective analysis, twelve focus group discussions were conducted in Ankara with various members of persons with reduced mobility (PRM). The primary finding from both the theoretical review and these discussions is that accessibility must be perceived as an integrated concept with the inclusiveness of urban spaces, emphasizing the social and spatial dimensions of the issue. It is an inclusive right that unequivocally must be extended to all individuals, encompassing every individual of PRM.

### Keywords

Mobility; The right to the city; Accessibility; Right to access; Disabled.

### How to cite item in APA format

Erçetin, C. (2024). Right-based Approach to urban accessibility: analysis of user perspective. *TeMA - Journal of Land Use, Mobility and Environment*, 17(2), 249-264. <http://dx.doi.org/10.6093/1970-9870/10510>

## 1. Introduction

A city is a dynamic space where individuals live, behave, and interact, with urban activities interconnected through mobility and accessibility. Accessibility serves as the link between individuals and public spaces, establishing the conditions necessary for the right to access. Without an inclusive urban environment ensuring access and mobility for all, it is impractical to discuss the appropriation of urban space, participation in social networks, and the production of urban space. Thus, the concepts of the right to the city and accessibility form a critical connection between persons with reduced mobility (PRM) and a rights-based approach.

Human beings have essential social and physical needs, with mobility being crucial for accessing shelter, food, employment, and social interactions. Mobility facilitates activities like shopping, working, socializing, and participating in public life, all of which contribute to self-actualization (Kenyon et al., 2002). However, limited mobility can impede access to both formal and informal social networks, exacerbating isolation and reducing engagement with goods, services, social activities, family, and friends. This highlights the critical role of mobility in fostering an inclusive and connected urban environment.

Urban conflict and the Right to the City are interconnected concepts explored by Harvey (2008) through the lens of class, capitalist production, and urbanization, and by Castells (2015) through class and urban social movements. Lefebvre (1996) initially introduced the concept, emphasizing the transformation and reproduction of urban space. Harvey (2008) further argued that urban space is both shaped by and shapes the people. Achieving these rights requires mobility capabilities within the framework of equality, human rights, and freedom. Consequently, accessibility, transport equity, and mobility justice are essential for addressing systemic inequalities and promoting social justice in transport planning and policymaking. (Murray and Davis, 2001; Pereira et al., 2017; Verlinghieri & Schwanen, 2020). However, merely possessing mobility capabilities as an able-bodied individual is insufficient. The right to access necessitates an accessible urban environment and sustainable social quality, supported by urban policies that ensure the longevity and inclusivity of settlements.

The research aims to establish a foundation by addressing the question: What conditions are necessary to underscore the importance of the motto "accessibility for all"? Is it solely about making urban spaces accessible, or does it also involve perceiving accessibility as a fundamental human right?

## 2 From the right to the city to the right to access

According to Lefebvre (1996), the Right to the City entails overcoming the alienation of urban space and reintegrating social connections, allowing inhabitants to appropriate urban spaces. This concept involves residents collectively inhabiting and utilizing urban areas for social interaction and self-actualization. Purcell (2013) expands on Lefebvre's idea (2015), suggesting that appropriation redefines rightful ownership, proposing that the city belongs to its inhabitants. Thus, urban spaces become areas for learning, interaction, and connectivity, fundamentally owned by those who live in them.

The Right to the City concept, as noted by Purcell (2002, 2013), encompasses two fundamental rights: the right to participation, enabling citizens to actively engage in policymaking and social connections, and the right to appropriation, allowing urban dwellers to gain control over cities and urban processes, fostering collective interaction and free expression. Harvey (2008) elaborated on this concept, highlighting that the right to the city goes beyond individual access to urban resources, encompassing a collective capacity to reshape urbanization and, consequently, societal norms. This is fundamental yet often neglected and has the potential to unify diverse social movements globally by highlighting the connections between urbanization, social justice, and marginalization. The Right to the City has the potential to unite various social movements globally by emphasizing the interconnections among urbanization, social justice, and marginalization. Şen (2012) and Mackett et al. (2004) further contends that the exclusion of certain groups from society not only results in their exclusion from social life but also from becoming recognized as fully participating individuals within

society. Castells (1977) advanced the Right to the City concept through the lens of space production, critiquing Lefebvre's ideas (2015) on spatial appropriation and production. Like Harvey (2003), Castells (2015) views the right to the city as a collective rather than an individual right, emphasizing its goal of achieving a just and more equitable urban environment for all individuals. In short, Lefebvre (1996), Harvey (2008), and Castells (2015) underscore that the Right to the City involves the equitable appropriation of urban benefits by residents, their active participation in decision-making processes, and the realization of fundamental rights and freedoms for all inhabitants.

Urban mobility plays a crucial role in both social and economic development by enabling individuals to access various city amenities, including services, employment opportunities, education, social interactions, and recreational activities (UN-Habitat, 2008), which indicates that mobility is significant in obtaining the Right to the City in participation and appropriation practices. Enhanced mobility, however, can alleviate multiple issues associated with social exclusion by facilitating access to opportunities that can enhance individuals' economic prospects, improve their well-being, and promote a lively social environment, all of which contribute to fostering a sense of inclusion among individuals (Roger et al., 2009). This comprehensive understanding of urban mobility underscores its pivotal role in promoting inclusive mobility, a concept that emphasizes equitable access to mobility systems and urban opportunities for all, thereby addressing social disparities and fostering a more inclusive urban fabric. Inclusive mobility encompasses two interpretations (Jeekel, 2018): the weaker one focuses on reducing social exclusion through improved transport systems, while the stronger interpretation aims to enhance community interaction and cohesion by promoting shared travel experiences and public modes of urban mobility. In this context, the right to mobility refers to the entitlement to move freely and be mobile within urban space, ensuring accessibility to urban functions and opportunities.

The right to mobility is a fundamental aspect of urban equity, significantly influencing access to essential services and opportunities within cities. Ensuring mobility rights is crucial for advancing social inclusion and economic development. In line with this, accessibility, defined as the ease of reaching desired destinations, is central to this concept. Recent research emphasizes that improving urban mobility infrastructure can enhance accessibility, thereby reducing social exclusion and promoting inclusive urban communities, as noted by Cargiulo (2018), Manfredini & Di Rosa (2018) and Battarra (2018). For example, enhancements in public transportation systems and the design of pedestrian-friendly urban spaces have been shown to increase access to employment, education, and healthcare for marginalized populations (Lucas, 2012; Papa et al., 2017). Therefore, urban policies that incorporate the right to mobility with an emphasis on enhancing accessibility are crucial for creating equitable and vibrant cities (Bertolini et al., 2012; Geurs et al., 2016). The close relationship between the right to mobility and accessibility underscores the centrality of movement within and between urban services, social capital, and public spaces as essential for participating in urban processes. Accessing and experiencing the appropriation of urban space are fundamental aspects of this dynamic. At a foundational level, engaging in public spaces constitutes a democratic exercise by experiencing and interacting with the city and society (Castaneda, 2019; Ferreira & Batey, 2007). Essentially, every individual possesses the right to access urban assets and resources, thereby encompassing the right to mobility within the right to accessibility. When considering the production processes of urban space, the right to mobility extends the trajectory of the Right to the City further, as active participation in the collective production of space necessitates mobility and access to urban assets and the city itself (Hannam et al., 2006).

There is a body of literature that examines the interrelationship between mobility rights and accessibility across diverse thematic frameworks. Coggin & Pieterse (2015) argue that executive policy choices regarding the provision and regulation of public transport should be assessed through a rights-based prism and should be subjected to dialogic interaction with the judiciary, within a substantive, rights-based understanding of mobility and urban accessibility. This perspective underscores the necessity for a legal framework that integrates mobility rights with urban planning to enhance accessibility. Lid (2010) discusses universal design, advocating



for it as a strategy to reduce architectural barriers and promote accessibility and equality. This aligns with Jackson's (2018) argument that built environment practitioners must recognize the disabling effects of current practices and engage directly with people with disabilities to better understand accessibility needs. Similarly, Levine and Karner (2023) identify four opportunities to address the needs of disabled people in transportation planning in the United States, emphasizing the importance of inclusive planning practices. Moreover, Tudzi et al., (2017) provide recommendations for universities to protect the rights of students with disabilities, highlighting the need for policies and accreditation standards that enforce accessibility. Gready (2008) also contributes to this discourse by exploring rights-based approaches to development, emphasizing the added value of such frameworks in promoting social inclusion and accessibility. These contributions highlight the stance of a rights-based approach in enhancing social inclusion and accessibility, demonstrating its critical role in reshaping urban planning and transportation policies.

The ideal urban mobility structure is free from barriers to reaching public transport vehicles, stops, stations, and platforms. Access to these components must be guaranteed for universal use (Heiser, 1995). For instance, Odame (2022) highlights that public transport plays a critical role in ensuring access to facilities like schools and hospitals, especially for those in the low and middle-income range who have limited private car ownership. Unfortunately, the conditions of the physical environment, including transport services, do not cater to the needs of minority travelers. Therefore, accessibility must begin at the point of origin and extend to the destination within the city. Achieving such a seamless mobility flow necessitates the implementation of sustainable transport policies and design solutions. Ensuring accessibility in the urban environment and public transport requires careful design of urban spaces and consideration of socio-spatial solutions. However, urban planning and transport design can sometimes create accessibility issues and become exclusionary towards PRMs. (Barnes, 1991; Zajac, 2016). A significant portion of travellers face limitations or physical impairments, navigate with baby strollers or luggage, or encounter cities with complete unfamiliarity. On average, 12-16% of a country's population is considered disabled, and an additional 20-25% experience mobility difficulties. Consequently, urban transport systems and the physical environment must be designed to be user-friendly and accessible, adhering to universally accepted principles of universal design and the right to access for all. This approach ensures that the entire transport system is accessible and easy to use for people with disabilities and others with mobility challenges (Hultgren, 1995; Ling Suen & Mitchell, 2003).

From a rights-based perspective, accessibility extends beyond urban spatial policies for individuals with disabilities and applies universally. Recognizing the right to access as a fundamental human right invokes the essence of the first article of the Universal Declaration of Human Rights (United Nations, 1948) emphasizing inherent dignity and equal rights for all individuals. This broader interpretation underscores the importance of inclusive urban mobility and equitable access for everyone, not just those with disabilities. The rights and equality dimension imply that accessibility is an outcome of the combination of spatial, societal, and administrative policies and implementations, and accessibility is a matter for not only a specific group of people with disabilities but also for any person having reduced mobility. Once it is accepted that everyone is equal no matter what the cultural, ethnic, socio-economic condition or level of ability to access is, it becomes inevitable that the right to access is for all-encompassing needs and demands of different groups of PRM. To ensure the needs and demands of various beneficiaries of accessibility, the platforms to obtain their ideas about what their experiences are considering barriers against the right to access need to be provided by administrative authorities. Before having such a participatory decision-making platform to discuss their right to access, local and government policymakers must be considerate to PRMs as equally as all others. Another most prominent example legal document is the U.S., The American with Disabilities Act (ADA), which states the characteristics of accessibility in section 4.3.2 under the title of "Accessibility Guidelines for Buildings and Facilities". The definition emphasizes that accessibility should not be limited to urban space (e.g., optimum standards for

sidewalk width, ramps, and crossings); it needs to be considered for all the components of the city that a person could encounter while commuting from one point to another in the city (ADA, 2005).

In 2010, Strategy for the Rights of Persons with Disabilities 2021-2030 was published by the European Union, emphasizing the rights of people with disabilities and their participation in social life and economic activities without facing any discrimination and social exclusion. Under the Strategy titled "Equal Access and Non-discrimination," the concept of accessibility was addressed in relation to access to justice, freedom, social protection, goods and services, art, culture, recreation, and leisure. (European Commission, 2010). In other words, the Strategy implies the Right to the City in accordance with the Right to access the city. United Nations (2013) also notes that accessibility of places, services, or any physical component of the urban environment for people with disabilities means that anyone can easily reach, enter, exit, and use without facing barriers. It is essential to ensure that individuals with disabilities can exercise all rights within the city, thereby guaranteeing their freedom and equal participation in society alongside others.

In recent decades, contemporary debates have increasingly aligned with the United Nations Sustainable Development Goals (SDGs) to guide nations towards a more sustainable and resilient future (UITP, 2019; Hidayati, 2021; Oviedo et al., 2022). Accessibility is a matter of the sustainable future of cities mentioned under the 11th goal (Sustainable Cities and Communities) as "Creating accessible cities and water resources, affordable, accessible, and sustainable transport systems, providing universal access to safe, inclusive, accessible, and green public spaces" (United Nations, 2015). The implications of UN accessibility within the framework of the SDGs closely resonate with the objectives of this research, although notable discrepancies persist. SDG-11 places a strategic emphasis on accessible urban environments, transport, and public spaces, centralizing spatial accessibility. However, accessibility transcends spatial considerations, as societal and administrative barriers equally influence its definition. This suggests that a robust conceptualization of accessibility must extend beyond mere physical access and legal frameworks, incorporating a broader spectrum of determinants to encompass the multifaceted nature of accessibility comprehensively.

This research highlights the essential role of urban mobility and accessibility in fostering social inclusion and economic development. It underscores the intrinsic connection between the right to mobility and the right to access, emphasizing the need for sustainable transport policies and inclusive design solutions. By adhering to universal design principles, urban environments can better serve individuals with disabilities and mobility challenges. This approach supports the broader concept of the right to the city, facilitating participation in urban processes and promoting a just and equitable urban landscape where all individuals can exercise their rights and freedoms. Hence, the formulation of urban policies that integrate the right to mobility with a strategic focus on enhancing accessibility is imperative for the development of equitable and dynamic urban environments.

### 3. Methodology

In this part, how the research findings are produced is explained. First, the aim and research question are mentioned. Then, the research method is described, including the philosophical approach, sample group, case area selection, and data collection.

#### 3.1 Aim and research question

In this research, the user perspective represents prominent members of PRM which is to obtain qualitative data through focus group discussions with an interpretivist approach. Within this perspective, data obtaining is a subjective process generated by participants' contributions, discussions, argumentations, and compromises.

The research aims to reveal the deficiencies of the perception that accessibility is a human right. The research question is, "How do the barriers prevent people with disabilities from obtaining their right to access?"

### 3.2 Research method

Interpretivism (or phenomenology) is the philosophical approach to complement the data obtained from case study research. The interpretivism philosophy entails researchers interpreting study elements by incorporating human factors into the analysis. Interpretive researchers believe that only social constructions such as language, consciousness, shared meanings, and instruments provide access to given or socially constructed reality (Myers, 2009; Dudovskiy, 2021). In line with this, focus group discussions are group interviews in which participants are asked to discuss specific themes in a somewhat casual setting to reveal underlying issues and concerns about norms, beliefs, and values (Bloor et al., 2001). This qualitative research method aims to gain a deeper understanding of social issues. Rather than a statistically representative sample of a larger population, the approach tries to acquire data from a purposefully selected group of individuals (Nyumba et al., 2018). In the analysis of user perspective, 12 focus group discussions were carried out between 04.03.2021-05.05.2021 in Ankara with different members of PRM. Survey questions were discussed within groups, and valuable outputs were generated, contributing to the formation process for accessibility problem definition.

#### Rationale of sample group and case area selection

Ankara, the capital city of Turkey, is situated in the heart of the Anatolian region, known for its expansive and varied geography. The city's topography includes hills and plateaus, influencing its urban development and transportation infrastructure. Ankara's urban planning has historically focused on accommodating its growing population and expanding metropolitan area, leading to a mix of modern developments and historic neighborhoods. Challenges remain, particularly in addressing physical barriers such as uneven sidewalks and inadequate public transportation facilities. The mobility context in Ankara is characterized by a network of buses, metro lines, and a developing light rail system, aimed at improving connectivity across the city. These efforts are aligned with Ankara's goal of promoting sustainable mobility solutions and enhancing the overall urban experience.

The first criterion for participants in focus group discussions was in the category of PRM in Ankara. Thirty-six people were registered as the focus group participants' candidates, and discussions were carried out with 32 participants in 12 focus group discussions. The reason for stopping the number of focus group discussions at 12 is that the scope of the discussions to obtain the required answers satisfactorily regarding accessibility and right to access reached its saturation level. The participants' details are given in Tab.1, including which focus group discussions include which kinds of people with disabilities.

	<b>The number of participants of focus group discussions</b>	<b>Which focus group discussion (FGD) includes which disability types</b>
The ones responded positive to register discussions	36	--
The total number of participants attended	32	--
Physically impaired	21	FGD-1, FGD-2, FGD-3, FGD-5, FGD-6, FGD-7, FGD-8, FGD-9, FGD-10, FGD-11
Visually impaired	7	FGD-1, FGD-4, FGD-7, FGD-9
Parents with baby stroller	4	FGD-12

**Tab.1 Number of participants to focus group discussions with disability types**

The participants of focus group discussions were randomly selected from the people living in Ankara who have different reduced mobility characteristics as:

- Physical impairment: Persons with a wheelchair or walking stick (or using both);
- Visual impairment: Persons with at most 20% or no visual ability;

- Parents with baby stroller: Parents using the single baby stroller and twin baby stroller.

Among people with disabilities in Türkiye, those with physical and visual impairments have the highest population percentage.

Selected PRMs are living in Ankara, in differentiated parts of the city. The reason for choosing Ankara as a case study area for the focus group survey is that Ankara hosts many non-governmental organizations (NGOs) related to disability. The challenge of finding the most relevant participant for focus group discussions has been minimized by contacting related NGOs in Ankara. Some specific participants of focus group discussions were selected as the Head of the Ankara Provincial Disability Assembly, the Head of Yenimahalle Disability Assembly, the Head of the Orthopedically Disabled Solidarity Association, the Head of Türkiye Confederation of People with Disabilities, the Head of the Association of People with Disabilities Working in the Public Service, Member of METU without Barriers Student Club, Head of the *Memursen* Disability Commission, and Head of Active Visually Impaired Association.

The participants' opinions of focus group discussions are presented in the text without mentioning their names. Instead, pseudonyms, such as F1-A, are read as 'first focus group discussion-opinion of the participant A (A is the first letter of the participant's name) to respect personal privacy principles. In some focus group discussions, more than one participant could have a name starting with the same first letter. In such cases, the pseudonym is formed as F1-K1 and F1-K2.

## Data Collection

The user perspective was examined through focus group discussions, which were deemed an effective method for capturing the viewpoints of directly affected groups of PRMs. Conducting group discussions, rather than individual in-depth interviews, is justified by the potential of face-to-face interactions and discussions to generate new ideas and approaches from the diverse perspectives and interactions among participants. Accessibility in Türkiye is a contentious issue influenced by various interest groups, conflicting ideas, socially exclusive behaviors, and urban transport policies. Therefore, the interaction among PRM participants within group discussions was anticipated to create a new learning environment, fostering the emergence of new ideas and questions.

Some specific steps defining characteristics of focus group discussions are as follows:

- All focus group discussions were conducted through online meetings in case of the COVID-19 pandemic;
- Making groups with a mix of people with physical and visual impairment was prioritized. Only the last meeting was composed of four parents using a baby stroller;
- The optimum number of participants was determined for each meeting as three people. In some discussions, the number of participants became four and sometimes two due to absent participants;
- Each meeting lasted for about 60 to 120 minutes, depending on the number of participants and content of the discussions.

The questions asked during focus group discussions are separated into two categories: spatial accessibility and open discussion questions about the social, administrative, and right-based context of accessibility in the second part, the aim is to open discussions about the underlying reasoning behind accessibility barriers are, and how to consider accessibility as a right; in this article, the part of data related to 'the right-based approach of accessibility' is presented and discussed.

## 4. Findings

Accessibility refers to the ease or difficulty of accessing urban services. If an individual successfully reaches their destination, the route is deemed 'accessible'; conversely, if they cannot, it is considered 'inaccessible.' The primary determinant of accessibility is urban space itself. However, a rights-based approach to accessibility

challenges this notion by questioning whether there are other underlying factors that impede access. This perspective prompts a deeper examination of the systemic and structural barriers that may exist, thereby broadening the scope of accessibility beyond mere physical proximity. In this respect, this part demonstrates how collected qualitative data to be classified under certain themes related to right to access.

### Re-defining accessibility: is it only accessing from one point to another?

The concept of accessibility extends beyond the simplistic notion of moving from one point to another. It encompasses various dimensions, including spatial, societal, and administrative factors, which together define the comprehensive and multifaceted nature of seamless accessibility. In this research, user perspective contributed to the discussion of how to define accessibility, as also noted by Stauskis (2018). Participant F9-E2 highlights the relationship with respect. "Accessibility means respect to all; to any able-bodied individual and any single person with a disability, respect to a mother with the baby stroller to get on the elevator, and respect to us." Related with defining accessibility, Participant F8-V emphasizes societal barriers.

*Accessibility is the removal of barriers that society puts against us. Without barriers, we could be anywhere. In working life, entertainment life, and socializing with people... Accessibility can be called the removal of societal barriers. When there is no barrier, we aim to live on equal terms with everyone in society.*

Furthermore, participant F5-F focuses on the beneficiaries of accessibility policies by mentioning societal and administrative aspects.

*We are not disabled. We have some shortages with our capabilities. The cause of our accessibility problems is those who created disabler cities for us. There might be a deficiency with my feet, but it does not mean I cannot sustain my own life. Societal and governmental barriers need to be eliminated. They should not seize our rights.*

The user perspective underscores a rights-based approach, aligning with the contributions of Sager (2006) and Harvey (2008), who assert that mobility should be regarded as a fundamental right intrinsically linked to the social needs of every individual within society. In line with this, the concept of accessibility revealed several interconnected themes. Primarily, accessibility is framed as an issue of respect for all individuals, encompassing both those with and without disabilities. This perspective broadens the traditional view of accessibility beyond mere spatial aspect to include societal dimension and behaviors. Additionally, the removal of societal barriers is emphasized as a critical component, suggesting that seamless accessibility involves dismantling societal norms and structures that hinder equal participation. Furthermore, the discussion highlights the significant role of administrative and policy-related barriers in creating what can be termed "disabler cities." This underscores the necessity for comprehensive policy interventions aimed at eliminating these barriers to ensure equitable access

Barriers hindering the exercise of the right to mobility can be categorized into three primary domains, as (Kett et al. (2020) indicated: institutional factors (such as legislation, political will, and policies), environmental factors (including infrastructure, vehicles, and information), and attitudinal factors (involving transport staff, fellow passengers, and insufficient accessible information). In practice, these categories frequently intersect. Collectively, these themes suggest that accessibility is a multifaceted concept that requires a holistic approach, integrating physical, societal, and administrative dimensions to create inclusive urban environments and policies that promote equality for all individuals. In line with this, the research supports this approach by putting a right-based point of view to accessibility with interdependently related legal, spatial, societal, and administrative aspects.

### Accessibility and the right to access

Adopting a rights-based approach necessitates recognizing accessibility as a fundamental human right within the context of disability and accessibility perceptions. The persistent examination of accessibility through its



interdependent dimensions—spatial, societal, and administrative—underscores the importance of addressing this concept from a rights-based perspective. Obtaining the right to access requires active citizenship, where individuals engage in collective action to advocate for their needs. The social aspects of accessibility involve fostering community support and raising awareness, while the administrative aspects demand effective policy implementation and enforcement. Both aspects are crucial to ensuring that accessibility is not only a legal mandate but also a lived reality for all citizens.

The right to access represented a central part of focus group discussions. The right-based approach to accessibility is a commonly accepted fact despite unification problems among people with disabilities. Participant F4-S establishes the link between rights and accessibility.

*It is necessary to act from a right-based approach. If accessibility is examined from a religious point of view, we get a different definition from a cultural point of view again different. However, it needs to be examined from the perspective of the rights of people with disabilities. If there is no right-based approach, someone else decides on our behalf of us.*

Participant F1-K2 also exemplifies the acquisition of the right to access through demonstrations as one of the pioneers leading the enacting process of the legislative framework for people with disabilities as active citizens.

*I have served as the general chairman of the Orthopedically Disabled Solidarity Association for 28 years. I have contributed to 90% of the enacted laws about the rights of people with disabilities in Türkiye. As a representative of the association and the Ministry of Environment, Urbanization and Climate Change, I put much effort into the legislative framework in Türkiye. Protests are necessary to win rights. Our association was an activist one. We held demonstrations in Kızılay, closed the Metro, and chained ourselves in front of the prime minister's office. In other words, rights were not given to us; we obtained our rights ourselves. Now people with disabilities are worried about if something wrong happens to our rights or if we lose the rights we have won. The fear of losing them is the most significant barrier for people with disabilities in their future struggles.*

Another example of an active citizen who defines herself/himself as:

*I am a member of an association that puts forward specific standards on accessibility and struggles for the sake of the rights of people with disabilities. We have also created a platform named 'keep struggle' to avoid being disabled. Sometimes, we do activities, events, and protests.*

Similarly, Participant F4-S puts being an active citizen from a right-based approach.

*I have had visual impairment from birth. I am a psychology graduate from Middle East Technical University and am retired now. I am a manager at the Turkish Federation of the Visually Impaired. My struggle in disability organizations is a right-based struggle, and I carry out struggles in the field of women, especially disabled women.*

The reflection of Harvey's (2008) collective thinking and action concepts predominantly emerged within the user perspective. Participant F1-K2 stated that there are plenty of NGOs with varying interests.

*Hundreds of associations are working on the same issue for people with disabilities. We are not united even within ourselves. We cannot take action without being united. We need to be together, but we cannot. Right now, we have two confederations, very interesting, one closer to one political view and the other closer to the other. In this sense, people with disabilities also act according to their interests. Most people either establish an association or become members for their benefit, and everyone generally pursues their interests.*

From another outlook, Participant F1-C explicitly emphasizes the need for collective action and urban social movement, as Castells (1977) and Harvey (2012) discussed.

*We are doomed to creep as long as we do not raise our voices unless we unite and do demonstrations. I am a member of the executive committee of Ankara's first disabled assembly. While defending the rights of people with disabilities, they seem as if they can do any demonstrations or protests, but there has been no action—shame on those who seek the rights of people with disabilities in this way.*

These contributions examine the intersection of rights advocacy and activism within the disability community, focusing on key themes that emerged from focus group discussions. Participants underscore the necessity of a rights-based approach to accessibility, arguing that decisions regarding accessibility should be grounded in human rights principles rather than cultural or religious perspectives. The article highlights the instrumental role of activism and demonstrations in securing legislative frameworks and advancing the rights of people with disabilities, as exemplified by one of the participants' statements that *"protests are necessary to win rights."* There is also significant concern expressed about the potential regression or loss of rights gained, serving as a barrier to future progress. Internal disagreements within the disability community were also identified as a challenge to collective action, with calls for unity and cohesive advocacy efforts to amplify their voices effectively. Overall, the complexities and challenges of disability rights advocacy, advocating for a continued rights-based approach and collective action to safeguard and advance the rights of people with disabilities were highlighted.

Another discussion topic that emerged from the user perspective is participation as a right paving the path towards obtaining the right to access. Participation in decision-making processes and inspection systems enable people with disabilities to express their daily spatial experiences to policy-makers and implementers. Plenty of participants of focus group discussions put forth their opinions in this respect. Participant F3-Y mentioned the significance of participation: "Policy-makers should involve people with disabilities in processes. But, policy-makers need to make the call. Otherwise, individual efforts of people with disabilities do not work". In addition, participant F4-S, as a visually impaired person, gives an idea about how the process should be and should not be.

*Participation is very important in decision-making. Policy-makers should make invitations to disabled groups and involve them in the processes. However, it should not be like 'invite disabled groups, listen to them, then ignore what they say and implement what we planned as before.' Participation also needs to be free from political biases while selecting the participants.*

The inspection system was also stated as an administrative barrier from the user's perspective. Participation in inspection processes is valued by participants F1-K2.

*Inspections are carried out in some buildings about the accessibility of people with disabilities, but we are not called Yenimahalle City Council Disabled Assembly representatives; we are not informed. We search and sometimes find such inspections and attend.*

Similarly, participant F3-K expresses her/his desire to participate in infield analyses directly.

*Municipalities design tactile pavement. However, it goes, then a tree emerges, tactile pavement is interrupted, and then continues from the other side of the tree. No. Municipalities should invite people like me or me to design together. I can express what I feel; they cannot know.*

This is in line with the contribution made by Purcell (2013), stating that participation in decision-making can be considered an awakening making participants feel embedded into social and urban spatial relations. Being both the beneficiary and a part of decision-making will probably result in a new dignified urban well-being. Participant F7-V made the last contribution as a suggestion on how to arrive at a consensus and participate in budget management allocated to disability policies.

*What is missing in this process is that there is no consensus and unity among NGOs. I think what is needed is a disability administration institution that takes action as a whole unit and has the authority to inspect and act as an expert. Moreover, NGOs will be able to come together under this institution to discuss the allocated budget, the money we have, and our needs and priorities.*

The outcomes from the focus group discussions revealed that policymakers and scholars typically conceptualize accessibility primarily through a spatial lens. This narrow focus often results in urban space interventions that lack comprehensive and sustainable impacts. For instance, while constructing elevators for overpasses or ramps may address physical barriers, the absence of an effective maintenance and inspection mechanism renders these solutions inadequate. Similarly, providing lifts on buses to comply with public transport

accessibility rules is insufficient if drivers are unaware of their operational status. Furthermore, administrative policies aimed at benefiting people with disabilities frequently carry an unintended stigmatizing effect, making these individuals feel marginalized.

To formulate effective accessibility policies, it is crucial to integrate spatial, societal, and administrative aspects. For example, the construction of new sidewalks with tactile pavements must not only adhere to spatial standards but also ensure uniform width and appropriate slope to avoid societal repercussions, where individuals with disabilities require assistance. Additionally, administrative strategies should encompass comprehensive planning and sensitive design, addressing accessibility not just in isolated places but across entire urban area. Without such an integrative approach, solutions remain fragmented, creating disruptions in the accessibility chain, such as inaccessible bus stops or non-functional lifts, ultimately hindering the daily mobility of individuals.

As a result, persistent cycles of inaccessibility obstruct PRMs from exercising their right to access. Without adopting a rights-based approach that prioritizes the right to access in the development of accessibility policies in Türkiye, it will remain impossible to create urban environments where accessibility is achieved seamlessly and without barriers

### Independent mobility and right to access

Independent mobility is crucial for the right to access, as human rights are universal and each individual is equal. Therefore, everyone must have the right to access, facilitated by independent mobility. However, ensuring the right to access is not the only precondition. Spatially and societally sustainable rights to access are the two others -and related -components. Firstly, urban space, along with its public transport infrastructure, needs to be accessible, which represents spatial accessibility. Without spatially sustainable accessibility, the accessibility chain for PRMs is often disrupted, leading to frequent failures in their urban trips. For example, consider an individual who decides to attend a theater performance and secures a front-row ticket (inspired by the story told by participant F9-E2). This person independently checks the bus schedule online, walks to the bus stop, boards the bus, and then navigates the theater building and hall, including descending the stairs, entirely on their own. This scenario illustrates the successful integration of various components of an accessibility chain, emphasizing the importance of managing each step independently, which signifies independent mobility. As noted by Meşhur (2016), barriers significantly hinder the elderly and disabled from moving freely without assistance, adversely affecting their full participation in urban and social life. Therefore, independent mobility is a critical aspect of the right to access, denoting the ability to utilize urban services without requiring assistance from others. The aforementioned example should represent a typical experience for any individual in society, reflecting a rights-based approach to accessibility

User perspective made remarkable contributions to the discussion of independent mobility. Participant F6-M sincerely desires independent mobility in daily trips and stated: "Sometimes I say, I wish I could be able to do my daily work without being helped. I would like not to be dependent on a parent. This is exactly what accessibility is. However, I need help. I wish I could handle my work without help". A similar contribution came from a visually impaired person, participant F9-E1.

*They planted many trees in the middle of the sidewalk, and the sidewalks are high. I cannot get down, and I have to ask for help. For example, I hesitate to ask someone for help while getting down from the pavement, except for my family. I would love to be able to do it myself.*

The general understanding in Türkiye is that once a person with a disability is seen, s/he indeed needs help. However, this is the issue that persons with visual impairment specifically complain about. Participant F3-Y gives an interesting example of such a situation.

*Perception must change. Otherwise, this system will stay the same. People's point of view is sometimes bizarre; sometimes their only problem is to take my arms and help while walking. He thinks he has to do that. I say I do not need it; I can do it myself. He says no, I will take your arm. Why?*

The misunderstanding on under what conditions people with disabilities are helped was also mentioned by another visually impaired participant, F4-S.

*Since I do not trust traffic lights, I always cross streets with the help of someone else. Even if there are audible lights, I do not trust them because drivers do not obey the traffic rules in Türkiye. However, there is another problem. The fact that people want to take the arm of the visually impaired while crossing the street is not actually a behavior for the benefit of the visually impaired. On the contrary, the effort of the helper is to seem pleasant to ease her/his conscience.*

Lastly, the definition of accessibility is linked with independent mobility by participant F5-E from a rights-based perspective.

*Accessibility is the ability for all people to live independently. This is what each individual deserves. Everybody needs to be free and without dependence on anyone in each aspect of life. In other words, accessibility is a right like the right to education and housing.*

User perspectives reveal that needing assistance from other passengers or drivers when boarding a bus can cause social embarrassment for people with disabilities, highlighting the importance of enabling independent, unassisted mobility. Instances indicate that individuals with increased vulnerability, such as women, children, the elderly, and those with physical disabilities, encounter difficulties in undertaking journeys away from home. These difficulties are attributed to factors such as financial constraints, inadequate road infrastructure, and the deficiencies of public transport in terms of quality and reliability (Salon and Gulyani, 2010; Diaz Olvera et al., 2013). Consequently, PRMs may become reluctant to leave their homes, leading to social isolation. In this respect, socially sustainable accessibility entails creating accessibility chains that do not impose social consequences due to inaccessible urban spaces. Independent mobility is crucial for achieving social sustainability in accessibility.

To ensure independent mobility, the right to access must be accompanied by spatially and socially sustainable urban mobility trips. Given that everyone is equal, groups such as people with disabilities, elderly individuals, and parents with baby strollers should be able to access any urban service independently. However, the cultural inclination of Turkish people to offer help, while well-intentioned, can sometimes have the opposite effect, negatively impacting the independent mobility of PRMs. This deeply ingrained culture of assistance can inadvertently undermine the autonomy that is crucial for PRMs to navigate urban spaces independently. Persistent cycles of inaccessibility impede PRMs from exercising their right to access, highlighting the need for a rights-based approach that prioritizes access in Türkiye's accessibility policies. Securing this right requires active citizenship and collective action, where individuals advocate for their needs. The social dimensions of accessibility involve community support and awareness, while the administrative aspects demand effective policy implementation and enforcement. These measures are essential to ensure that accessibility is not only a legal mandate but also a living reality for all citizens. Therefore, spatial and social structures must be designed to facilitate independent mobility for everyone, ensuring that accessibility chains are seamless and barrier-free.

## 5. Conclusion and discussion

This research examines the right-based approach to accessibility by exploring the concept of accessibility, the right to access, and independent mobility. In the context of Türkiye, societal barriers appear to be as significant a challenge as physical barriers. People with disabilities experience a cycle of social exclusion and embarrassment due to the cumulative effect of spatial and societal obstacles. A simple task like running errands or commuting, which might take an able-bodied person five minutes on foot, can transform into a complex

socio-spatial challenge for someone with reduced mobility. While an able-bodied individual can navigate the sidewalk and reach their destination with ease, a person with limited mobility must engage in extensive pre-planning and strategize for potential obstacles. These obstacles include uneven sidewalks, malfunctioning bus lifts, unpredictable driver attitudes, and even the potential for social judgment from bystanders. All these social and spatial barriers collectively impede the fundamental right of access.

Passive individuals, neo-liberal urbanization, ignorance of policymakers, as well as other reasonings can all be the sources of the problem for not having the right to access; however, the primary concern of this research is the person who has been passivized along with inaccessible urban space and the societal consequences they face. Accessibility is a right for all, before the right to mobility, the right to the city, and the right to appropriation and participation.

Individuals with disabilities have the right to participate equally in daily life and professional settings, similar to able-bodied individuals. Embracing a rights-based approach to accessibility begins with recognizing the fundamental right to access. Focus group discussions highlighted that individuals with disabilities experience social exclusion and embarrassment primarily in professional environments and during public transport journeys. Addressing spatial accessibility barriers requires acknowledging that individuals with disabilities are no different in social life from others, regardless of their level of access ability. Although spatial barriers often necessitate assistance, offering help without being asked can inadvertently perpetuate social exclusion. This act of assistance can lead to emotional and psychological consequences, exacerbating challenges faced by individuals with disabilities. To counteract this cycle of embarrassment and social exclusion, there is a critical need for a perceptual shift among able-bodied individuals, beginning with viewing people with disabilities and other PRMs as equal to everyone else. Central to this perceptual paradigm shift is the recognition that accessibility is a universal right, regardless of an individual's level of mobility.

The reasoning behind inaccessibility, particularly for Persons with Reduced Mobility (PRMs), raises important questions about societal values, urban planning priorities, and policy implementation. While legal frameworks often mandate accessibility, the persistent barriers suggest a deeper issue. One might question whether there is sufficient political will to enforce these laws effectively. Moreover, there's a cultural aspect where societal attitudes towards disability and assistance influence the experiences of PRMs. Additionally, the economic cost of retrofitting existing infrastructure versus building accessible structures from scratch can be prohibitive, leading to delays or inadequate accessibility measures. Furthermore, the fragmented nature of policymaking and urban planning can result in disjointed efforts that fail to comprehensively address accessibility. Finally, the lack of representation of PRMs in decision-making processes can perpetuate these issues, highlighting the need for more inclusive policies that prioritize the rights and needs of all citizens. Above all, a perceptual shift is crucial regarding the accessibility and perception of PRMs, challenging societal norms and fostering greater inclusivity in urban environments.

The findings underscore the importance of adopting a rights-based approach to accessibility, emphasizing the need for inclusive urban planning and policy-making that prioritize the needs of PRMs. However, the scope of applicability of the study may be limited by its focus on a specific cultural context, Türkiye, and its findings may not be fully generalizable to other regions with different socio-cultural backgrounds and urban infrastructures. Future research endeavours could consider conducting comparative studies across various cultural settings and urban geographies to enhance the broader applicability of the findings and deepen our understanding of accessibility issues faced by PRMs. The study acknowledges certain methodological limitations, including potential influences in participant selection and data collection methods, which may affect the validity and reliability of the findings. Future research could address these limitations by conducting comparative studies across diverse cultural contexts and employing mixed method approaches to achieve a more comprehensive understanding of the challenges faced by PRMs. Furthermore, exploring the effectiveness of specific policy interventions and technological innovations in improving accessibility could provide actionable



insights for policymakers and urban planners worldwide. In summary, while the study offers valuable contributions to the discourse on urban accessibility, future research efforts should strive to expand its scope and address methodological limitations to enhance the applicability and impact of its findings.

## References

- ADA (2005). Proposed ADA Standards for Accessible Design. United States Department of Justice Civil Rights Division. Retrieved October 15, 2019, from [https://www.ada.gov/archive/NPRM2008/ada\\_standards/proposedadastds.htm](https://www.ada.gov/archive/NPRM2008/ada_standards/proposedadastds.htm)
- Barnes, C. (1991). *Disability and Discrimination in Britain*. London, England: Hurst and Co. Ltd.
- Battarra, R., Zucaro, F. & Tremitterra, M. R. (2018). Smart mobility and elderly people. Can ICT make the city more accessible for everybody?. *TeMA - Journal of Land Use, Mobility and Environment*, 23-42, <https://doi.org/10.6092/1970-9870/5768>
- Bertolini, L., Curtis, C. & Renne, J. (2012). Station area projects in Europe and beyond: Towards transit oriented development? *Built Environment*, 38(1), 31–50. <http://dx.doi.org/10.2148/benv.38.1.31>
- Bloor, M., Frankland, J., Thomas, M. & Robson, K. (2001). *Focus groups in social research*. London, England: Sage Publications.
- Castaneda, P. (2019). From the right to mobility to the right to the mobile city: Playfulness and mobilities in Bogotá's cycling activism. *A Radical Journal of Geography*, 52(1), 58-77, <https://doi.org/10.1111/anti.12581>
- Castells, M. (1977). *The urban question: A Marxist approach*. Cambridge, MA: MIT Press.
- Castells, M. (2015). *Networks of outrage and hope: Social movements in the internet age*. John Wiley and Sons.
- Coggin, T. & Pieterse, M. (2015). A right to transport? Moving towards a rights-based approach to mobility in the city. *South African Journal on Human Rights*, 31(2), 294-314. <https://doi.org/10.1080/19962126.2015.11865248>
- Diaz Olvera, L., Plat, D. & Pochet, P. (2013). The puzzle of mobility and access to the city in Sub-Saharan Africa. *Journal of Transport Geography*, 32, 56-66, <https://doi.org/10.1016/j.jtrangeo.2013.08.009>
- Dudovskiy, J. (2021). Business research methodology. Interpretivism (interpretivist) research philosophy. Retrieved January 12, 2022, from [https://research-methodology.net/research-philosophy/interpretivism/#\\_ftn1](https://research-methodology.net/research-philosophy/interpretivism/#_ftn1)
- European Commission. (2010). *European Disability Strategy 2010-2020*.
- Ferreira, A. & Batey, P. (2007). Re-thinking accessibility planning: A multi-layer conceptual framework and its policy implications. *The Town Planning Review*, 78(4), 429-458, <https://doi.org/10.3828/tpr.78.4.3>
- Gargiulo, C., Zucaro, F. & Gaglione, F. (2018). A set of variables for the elderly accessibility in urban areas. *TeMA - Journal of Land Use, Mobility and Environment*, 53-66, <https://doi.org/10.6092/1970-9870/5738>
- Gready, P. (2008). Rights-based approaches to development: what is the value-added?. *Development in practice*, 18(6), 735-747, <https://doi.org/10.1080/09614520802386454>
- Hannam, K., Sheller, M. & Urry, J. (2006). Editorial: Mobilities, immobilities and moorings. *Mobilities*, 1(1), 1-22, <https://doi.org/10.1080/17450100500489189>
- Harvey, D. (2003). The right to the city. *International Journal of Urban and Regional Research*, 27(4), 939-941.
- Harvey, D. (2008). The right to the city. *New Left Review*, 23-40.
- Harvey, D. (2012). *Rebel cities: From the right to the city to the urban revolution*. London, England: Verso.
- Heiser, B. (1995). *The nature and causes of transport disability in Britain and how to overcome it*. London, England: Research Report-Policy Studies Institute.
- Hultgren, K. (1995). Increased quality of railway passenger service by means of the adaptation to the claims of the handicapped. *Mobility and Transport for Elderly and Disabled People*, 1, 273-287.
- Jackson, M. A. (2018). Models of disability and human rights: Informing the improvement of built environment accessibility for people with disability at neighborhood scale? *Laws*, 7(1), 10, <https://doi.org/10.3390/laws7010010>
- Jeekel, H. (2018). *Inclusive transport: Fighting involuntary transport disadvantages*. Elsevier.
- Kenyon, S., Lyons, G. & Rafferty, J. (2002). Transport and social exclusion: investigating the possibility of promoting inclusion through virtual mobility. *Journal of Transport Geography*, 10(3), 207-219, [https://doi.org/10.1016/S0966-6923\(02\)00012-1](https://doi.org/10.1016/S0966-6923(02)00012-1)
- Kett, M., Cole, E. & Turner, J. (2020). Disability, mobility and transport in low- and middle-income countries: A thematic review. *Sustainability*, 12(2), 589, <https://doi.org/10.3390/su12020589>
- Lefebvre, H. (1996). *Writings on cities*. Cambridge, MA: Blackwell.

- Lefebvre, H. (2015). *The right to the city*. Istanbul, Turkey: Sel Publishing. (Translated by Ergüden, I.)
- Levine, K. & Karner, A. (2023). Approaching accessibility: Four opportunities to address the needs of disabled people in transportation planning in the United States. *Transport Policy*, 131, 66-74, <https://doi.org/10.1016/j.tranpol.2022.12.012>
- Lid, I. M. (2010). Accessibility as a statutory right. *Nordic Journal of Human Rights*, 28(1), 20-38.
- Ling Suen, S. & Mitchell, C. (2003). *Accessible transportation and mobility*. Transportation Development Centre: Transport Canada. Paper A1E09: Committee on Accessible Transportation and Mobility.
- Lucas, K. (2012). Transport and social exclusion: Where are we now? *Transport Policy*, 20, 105-113, <https://doi.org/10.1016/j.tranpol.2012.01.013>
- Mackett, R., Paskins, J. & Titheridge, H. (2004). The incorporation of social inclusion into policies in Local Transport Plans (LTPs). AUNT-SUE Scoping Study Report. Retrieved from <http://www.londonmet.ac.uk/aunt-sue/publications.html>
- Manfredini, F. & Di Rosa, C. (2018). Measuring Spatial Accessibility for Elderly. An Application to Subway Stations in Milan. *TeMA - Journal of Land Use, Mobility and Environment*, 85-94, <https://doi.org/10.6092/1970-9870/5800>
- Meshur, H. F. A. (2016). Evaluation of urban spaces from the perspective of universal design principles: The case of Konya/Turkey. *TeMA - Journal of Land Use, Mobility and Environment*, 9 (2), 191-208. <https://doi.org/10.6092/1970-9870/378>
- Murray, A. T. & Davis, R. (2001). Equity in regional service provision. *Journal of Regional Science*, 41 (4), 557-600
- Myers, M. D. (2009). *Qualitative research in business and management*. London, England: SAGE Publications.
- Nyumba, T. O., Wilson, K., Derrick, C. J. & Mukherjee, N. (2018). The use of focus group discussion methodology: Insights from two decades of application in conservation. *Methods in Ecology and Evolution*, 20(32), <https://doi.org/10.1111/2041-210X.12860>
- Odame, P. K. (2022). Travel mode choice and its responsiveness to the needs of commuters with disability in the Accra Metropolitan Assembly. *TeMA - Journal of Land Use, Mobility and Environment*, 15 (3), 431-445. <http://dx.doi.org/10.6092/1970-9870/9062>
- Oviedo, D., Cavoli, C., Levy, C., Koroma, B., Macarthy, J., Sabogal, O., Arroyo, F. & Jones, P. (2022). Accessibility and sustainable mobility transitions in Africa: Insights from Freetown. *Journal of Transport Geography*, 105, 103464, <https://doi.org/10.1016/j.jtrangeo.2022.103464>
- Papa, E., Silva, C., te Brömmelstroet, M. & Hull, A. (2017). Accessibility instruments for planning practice: A review of European experiences. *Journal of Transport Geography*, 60, 167-178, <https://doi.org/10.5198/jtlu.2015.585>
- Pereira, R. H., Schwanen, T. & Banister, D. (2017). Distributive Justice and Equity in Transportation. *Transport Reviews*, 37 (2), 170-191, <https://doi.org/10.1080/01441647.2016.1257660>
- Purcell, M. (2002). Excavating Lefebvre: The right to the city and its urban politics of the inhabitant. *GeoJournal*, 58, 99-108, <https://doi.org/10.1023/B:GEJO.0000010829.62237.8f>
- Purcell, M. (2013). Possible worlds: Henri Lefebvre and the right to the city. *Journal of Urban Affairs*, 36 (1), 141-154.
- Roger, L. M., Kamalasudhan, A. & Titheridge, H. (2008). AMELIA: A tool to make transport policies more socially inclusive. *Transport Policy*, 15 (6), 372-378, <https://doi.org/10.1016/j.tranpol.2008.12.007>
- Sager, T. (2006). Freedom as mobility: Implications of the distinction between actual and potential traveling. *Mobilities*, 1 (3), 465-488, <https://doi.org/10.1080/17450100600902420>
- Salon, D. & Gulyani, S. (2010). Mobility, poverty, and gender: Travel 'choices' of slum residents in Nairobi, Kenya. *Transport Reviews*, 30 (5), 641-657, <https://doi.org/10.1080/01441640903298998>
- Stauskis, G. (2018). Monitoring user-based accessibility assessment in urban environments and in public buildings. *TeMA - Journal of land use, mobility and environment*, 11 (1), 89-106, <https://doi.org/10.6092/1970-9870/5426>
- Şen, S. (2012). Kentlilik üzerine düşünmek. *Eğitim, Toplum ve Bilim Dergisi*, 110-117.
- Tudzi, E. P., Bugri, J. T. & Danso, A. K. (2017). Human rights of students with disabilities in Ghana: Accessibility of the university built environment. *Nordic Journal of Human Rights*, 35 (3), 275-294. <https://doi.org/10.1080/18918131.2017.1348678>
- UITP (2019). *Mobility and the SDGs: A safe, affordable, accessible and sustainable transport system for all*. Brussels: the International Association of Public Transport (UITP). Tratto il giorno May 31, 2024 da [https://cms.uitp.org/wp/wp-content/uploads/2021/04/190520-UITP-UCLG\\_on\\_Mobility\\_and\\_SDGs.pdf](https://cms.uitp.org/wp/wp-content/uploads/2021/04/190520-UITP-UCLG_on_Mobility_and_SDGs.pdf)
- UN-Habitat (2008). *State of the world's cities 2010/2011: Bridging urban divide*. Earthscan Publishing, London.
- United Nations (1948). *Universal Declaration of Human Rights*. United Nations. Retrieved from: [http://www.un.org/en/udhrbook/pdf/udhr\\_booklet\\_en\\_web.pdf](http://www.un.org/en/udhrbook/pdf/udhr_booklet_en_web.pdf)

United Nations (2013). New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development. New York: United Nations Publications

United Nations (2015). Sustainable Development Goals: 2030 Agenda for Sustainable Development. Retrieved from: [https://www.un.org/disabilities/documents/sdgs/disability\\_inclusive\\_sdgs.pdf](https://www.un.org/disabilities/documents/sdgs/disability_inclusive_sdgs.pdf)

Verlinghieri, E. & Schwanen, T. (2020). Transport and mobility justice: Evolving discussions. *Journal of Transport Geography*, 87, <https://doi.org/10.1016/j.jtrangeo.2020.102798>

Zajac, A. P. (2016). City Accessible for Everyone – Improving Accessibility of Public Transport Using the Universal Design Concept. *Transportation Research Procedia*, 14, 1270-1276, <https://doi.org/10.1016/j.trpro.2016.05.199>

## Author's profile

### Cihan Erçetin

He is a post-doctoral researcher at the Department of Earth & Environmental Sciences, Spatial Applications Division Leuven – SADL. He currently works under UPPER – Unleashing the Potential of Public Transport in Europe – Horizon Europe project with a special emphasis on the Serious Games publication as a co-creation practice from UPPER, project manager of the partner in Türkiye for the 15 Minutes City ERA-NET proposal for Driving Urban Transition (DUT) Call, modal share calculation and user satisfaction assessment methods, and transition pathways of UPPER cities' measures related to the Theory of Change. He is also working on research articles about cycling policy assessment in the city of Leuven and innovative co-creation methods. Cihan's expertise also involves working as a teaching assistant at the Middle East Technical University, City and Regional Planning Department (2011-2022), and as a consultant/sectoral expert in the projects about Green City Action Plan, Cycling Masterplan, accessibility of public transport, institutional mapping (Google Mymaps), and accessibility barriers mapping (ArcGIS Online). He also has academic research experiences on urban design, urban mobility policy discussions, bike-sharing system planning and management, and legal-spatial-societal-administrative accessibility barriers of Persons with Reduced Mobility, and co-defining the barriers during his Master's and PhD.