



Faculty of Design

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## A Systemic Approach to Proximity Through Design for Relations

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DESIGN  
STRATEGIES

# RSD11

A systemic approach to proximity  
through design for relations

15 Oct 2022



# A FOREWORD

Who are we

**DESIGN+STRATEGIES** is a research group in Strategic Design of the Design Department, in Politecnico di Milano. It tackles complex innovation challenges by enabling design culture in companies and public and private organizations at local and international levels.

Design+Strategies performs research, applied research, and training activities, focusing and exploring the areas:

- Design in Organization, **DESIGN FOR ECOSYSTEM DEVELOPMENT**
- Cross-fertilization with/for Creative Industries.



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POLIMI

# A FOREWORD

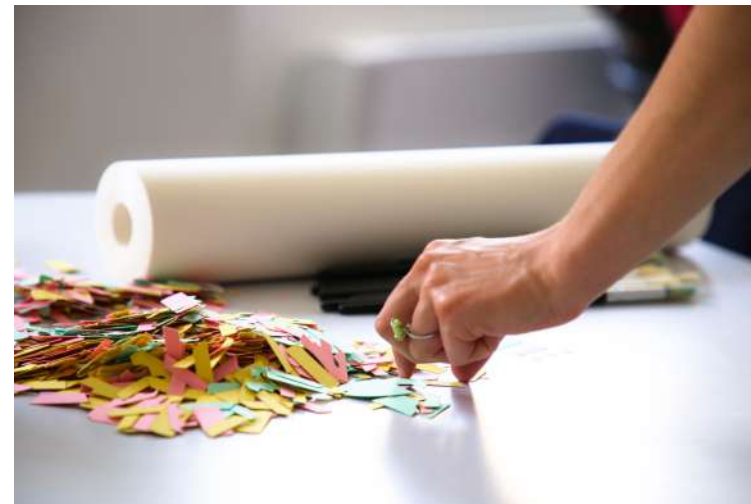
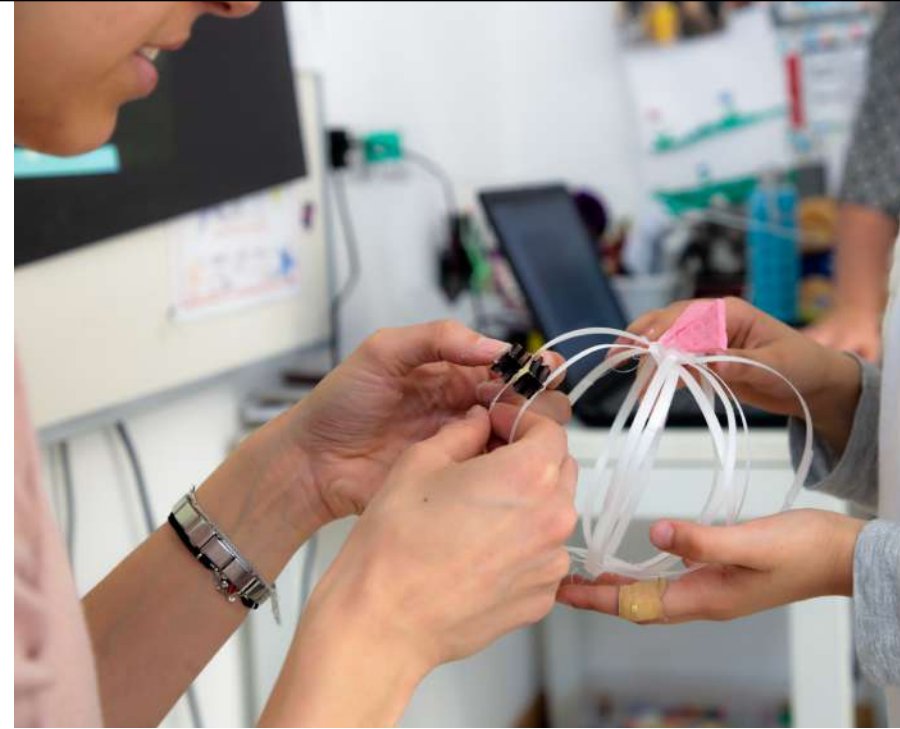
## What we do

### DESIGN FOR ECOSYSTEM DEVELOPMENT

sees design as a strategic and creative factor to trigger **SOCIAL COLLABORATION** and **CONNECTIONS**, which will actively lead to reshaping the existing (social-economic) systems towards mission-oriented innovation and evaluation.

Specific research topics (specific fields of application):

- **DESIGN FOR SOCIAL INCLUSION AND SENIOR CITIZEN ENGAGEMENT**
- Design for social business development
- Design for guiding sustainable development
- **DESIGN FOR PROXIMITY AND 15-MINUTE CITY SCENARIO**



# A FOREWORD

## A systemic approach to proximity through Design for Relations

- **Methodology**
- **Narrative Literature Review**
- **Theoretical Framework**
  - Systemic Proximity model
- **Research Opportunities**
  - Design for Relations proposal
  - Conclusions



Relating Systems Thinking and Design  
2021 Symposium  
University of Brighton, Brighton, UK,  
October 13-16, 2022

### A SYSTEMIC APPROACH TO PROXIMITY THROUGH DESIGN FOR RELATIONS

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Proximity has lately become a keyword to approach territorial enhancement goals. The most common representation of proximity at the urban level is the idea of the 15-minute city, which has gained massive attention in political, economic, social, and academic discourses. However, this idea is not new in the worldwide panorama and during the COVID-19 pandemic has gained renovate attention because of contextual extraordinary conditions. However, this idea of proximity in so-called normal conditions manifests some clear social limits. In our paper, we want to propose and discuss a wider systemic approach and consequent definitions of proximity in connection with the different actors that compose and drive our societies. In the Design for Relations, we will identify a systemic and valuable strategy to overcome the previously discussed limits.

**KEYWORDS:** systemic design, systemic proximity, design for relations, quintuple helix.  
**RSD TOPICS:** Methods & Methodology, Society & Culture

#### Introduction

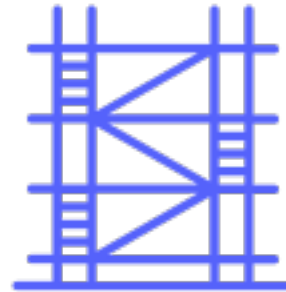
Cities have always been objects of change, exchange nodes, and innovation centers. Cities are the points of intersection of different cultures, needs, and histories that inevitably meet and collide due to internal and external factors. Cities have become debates of change increasingly from the grassroots, from single individuals, groups and

# METHODOLOGY

A systemic approach to proximity through Design for Relations



NARRATIVE  
LITERATURE REVIEW



THEORETICAL  
FRAMEWORK



RESEARCH  
OPPORTUNITIES

A narrative literature review (Baumeister and Leary, 1997) was developed and analysed. The reflection gives a critical perspective on the **15-minute city**, stressing its promise and the severe problems that have arisen. Then, we identified three main systemic approaches to **proximity** based on their economic, accessibility and attractiveness, living and relational dimensions that helped us define a theoretical framework of the so-called **Systemic Proximity**.

The paper concludes with an open research request to highlight the contentious topic of **Design for Relations**.

# NARRATIVE LITERATURE REVIEW





# NARRATIVE LITERATURE REVIEW

## Introduction

After two years of emergency due to the COVID-19 pandemic, cities are under the crosshairs of study and experimentation. Concepts such as **URBAN REGENERATION** and **SOCIAL RESILIENCE** are re-emerging and creating new forms of sociality and proximity (Ferri et al., 2021), but, at the same time, they are bringing out different complexities. The societies have actually begun to experience the collision of various and opposing trends (Manzini & Menichinelli, 2021). In this paper, we provide a theoretical perspective and overview of the ideas and principles of the **15-MINUTE CITY** and discuss a wider **SYSTEMIC APPROACH** and consequent definitions of **PROXIMITY**.







## NARRATIVE LITERATURE REVIEW

The 15-minute city.

A contemporary idea coming from the past

In each city around the world, a loud **CALL FOR HUMANITY** is being reawakened, which the urban activist Jane Jacobs longed for in American cities half a century ago (1961). The pandemic renewed attention to both old and new interventions worldwide that all share the same goal of beckoning the **QUALITY OF LIFE** and urban regeneration.

- City as an Ecosystem by Salvador Rueda In 1987 (Torti & Santasusagna, 2018),
- The Transition Towns By Hopkins (2005)
- The Walkable City By Jeff Speck (2013),
- The 15-min City By Carlos Moreno (2016),
- The Open City By Richard Sennett (2018),
- The Soft City By Jan Gehl (2019),
- The City Of Proximities (Manzini, 2021).





## NARRATIVE LITERATURE REVIEW

The 15-minute city.

A contemporary idea coming from the past

**DIGITALIZATION** and transformative social innovations are becoming a widespread practice because of the combination of two main factors: on the one hand, the diffusion of the **INFORMATION** and communication technologies that enable and **CONNECT PEOPLE**; on the other hand, an increasing number of people to respond actively. Digitalization can improve citizens' quality of life by increasing social inclusion and addressing the climate crisis. But it can lead to and worsen economic and social disparities (Hollands, 2008). Another essential factor to consider while designing for the 15-min city or the city of proximity is digitalization, a process already very crucial in defining the so-called Smart Cities (Moreno et al., 2021; Allam et al., 2022).





## NARRATIVE LITERATURE REVIEW

The 15-minute city.

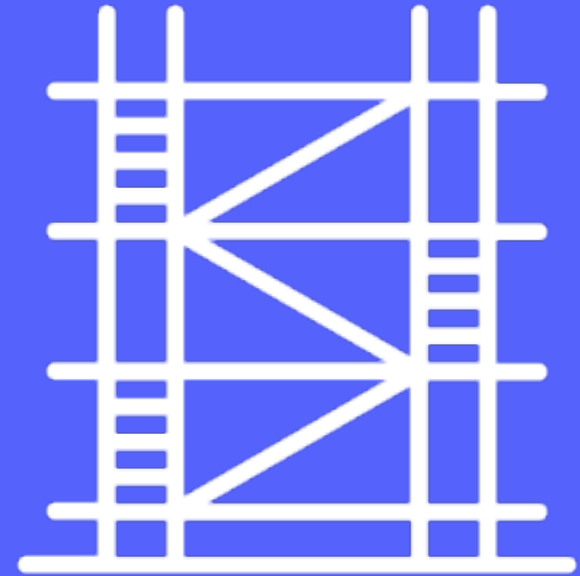
A contemporary idea coming from the past

In this context, design culture has changed from being a method for creating products to one that aids in resolving **COMPLEX SOCIAL ISSUES** (van der Bijl-Brouwer & Malcolm, 2020).

These principles are the cornerstone of the **SYSTEMIC DESIGN DISCIPLINE**, which blends systems thinking and creative problem-solving techniques. It is possible to achieve alternative outcomes (Battistoni & Barbero, 2018) and good **TRANSITIONS** by approaching the area from a systemic lens, from a horizontal viewpoint, and by refocusing on the interactions that may be formed among social actors and individuals.



# THEORETICAL FRAMEWORK



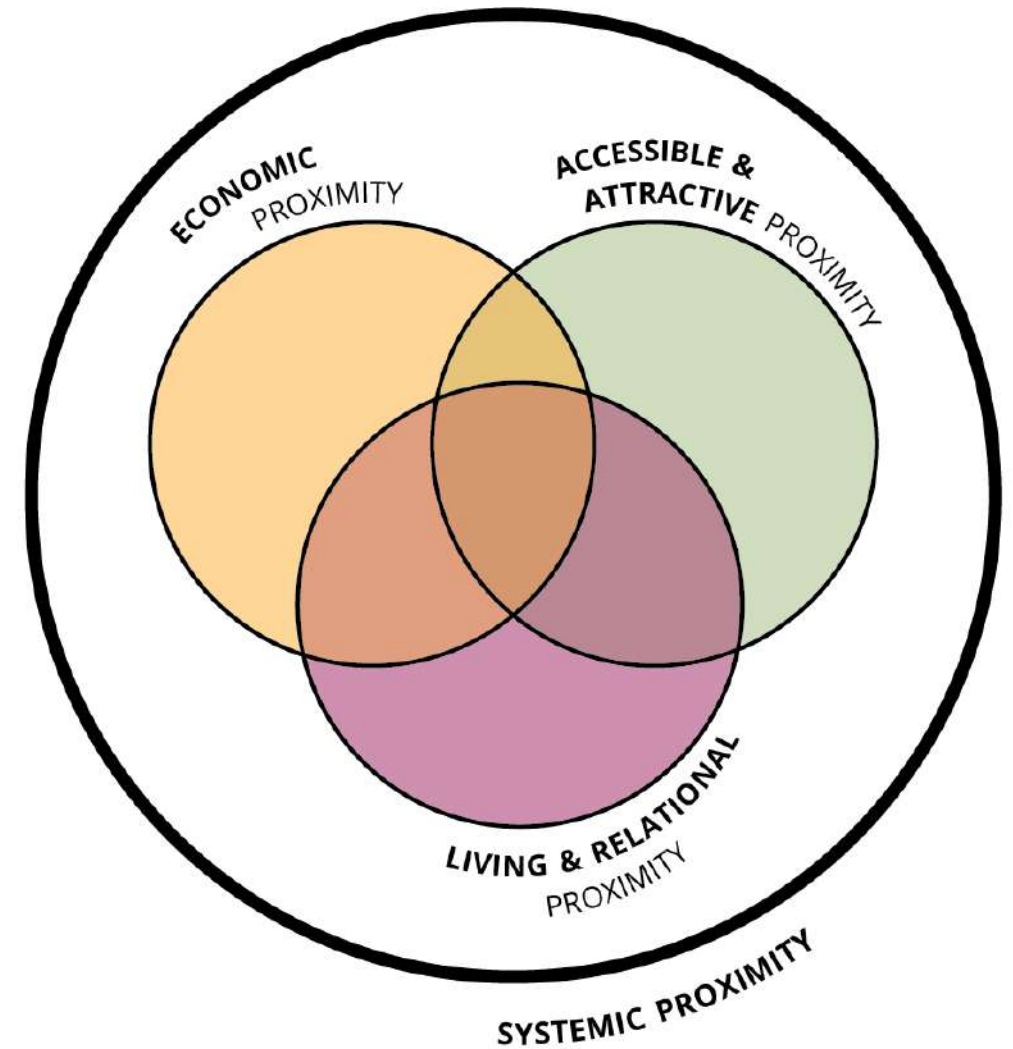


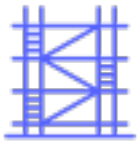
## THEORETICAL FRAMEWORK

### The systemic nature of proximity

The word "proximity" means the quality or state of being proximate, "closeness". Many **ACADEMIC FIELDS** have embraced and defined the frequently used word, including social psychology, sociology, economic geography, organizational studies, and many others. This paper addresses proximity systemically and is understood as a set of different factors, tangible and intangible touchpoints, and actors connected by various relations. Here, we will present three primary systemic approaches to proximity, which we can classify (in chronological order) as follows:

**ECONOMIC PROXIMITY**, **ACCESSIBLE AND ATTRACTIVE PROXIMITY**, **LIVING AND RELATIONAL PROXIMITY**.



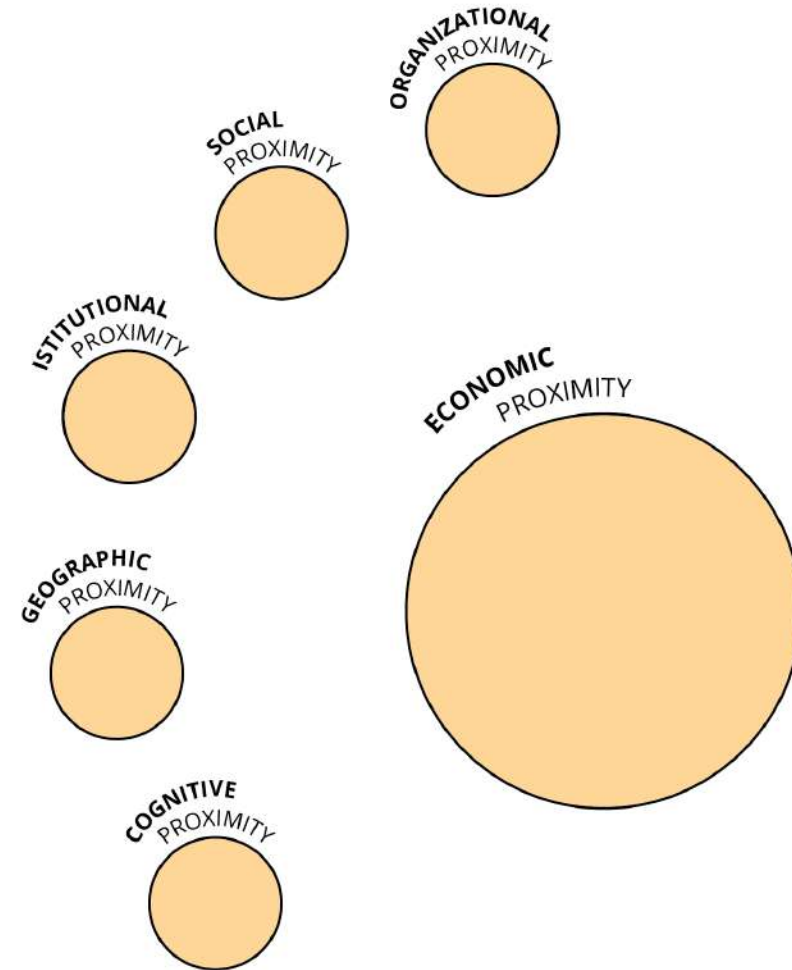


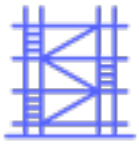
# THEORETICAL FRAMEWORK

## The systemic nature of proximity – *economic proximity*

The most common way to define proximity is by looking at the **PHYSICAL DISTANCE** between two actors. Torre and Gilly (2000) provided **A BROADER ANALYTICAL DEFINITION OF PROXIMITY**, looking at it as an "umbrella" concept, including cognitive and physical aspects. Boschma (2005) defined five aspects of proximity in the Evolutionary Economic Geography (EEG) field, which is particularly valuable in our discussion:

- Institutional proximity
- Social proximity
- Geographic proximity
- Cognitive proximity
- Organizational proximity



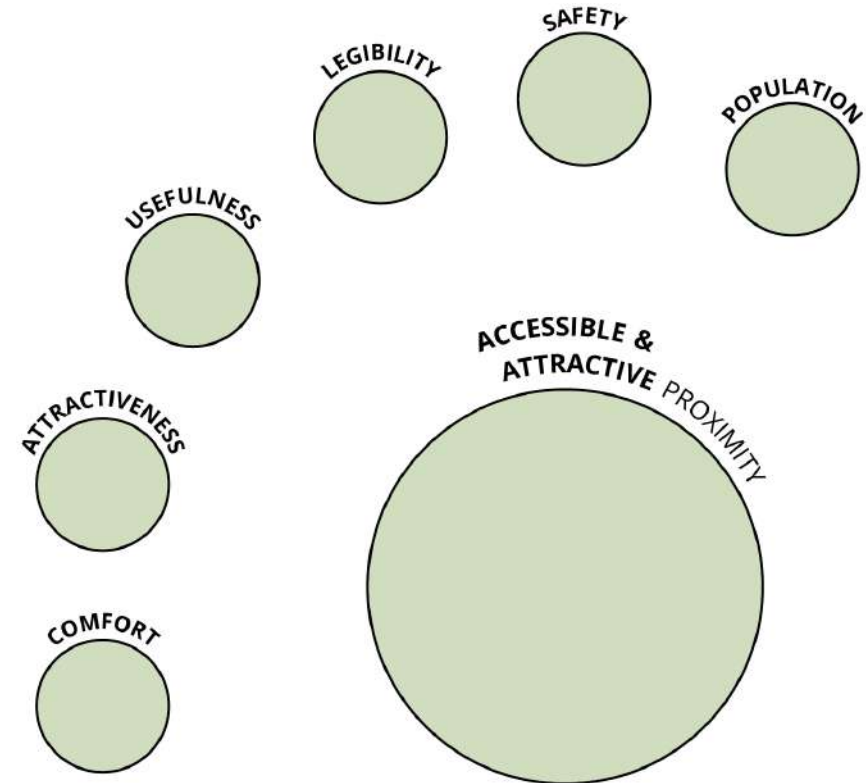


## THEORETICAL FRAMEWORK

The systemic nature of proximity – *accessible and attractive proximity*

**WALKABILITY** has emerged as an important aspect in defining and being defined by various proximity characteristics. A **WALK**, according to Speck, must meet four key criteria: it must be useful, safe, comfortable, and interesting. This definition emphasises both the hard and soft characteristics that a neighbourhood must achieve in order to be considered walkable. Starting from Speck (2013), Gorrini and Bandini (2018) identified a set of indicators to evaluate walkability: **USEFULNESS**, **COMFORT**, **SAFETY**, **ATTRACTIVENESS** and **LEGIBILITY**.

Pei et al. (2019) added **POPULATION** to these indicators to acquire qualitative information on the sorts of players present, their activities, and behaviours in those locations.

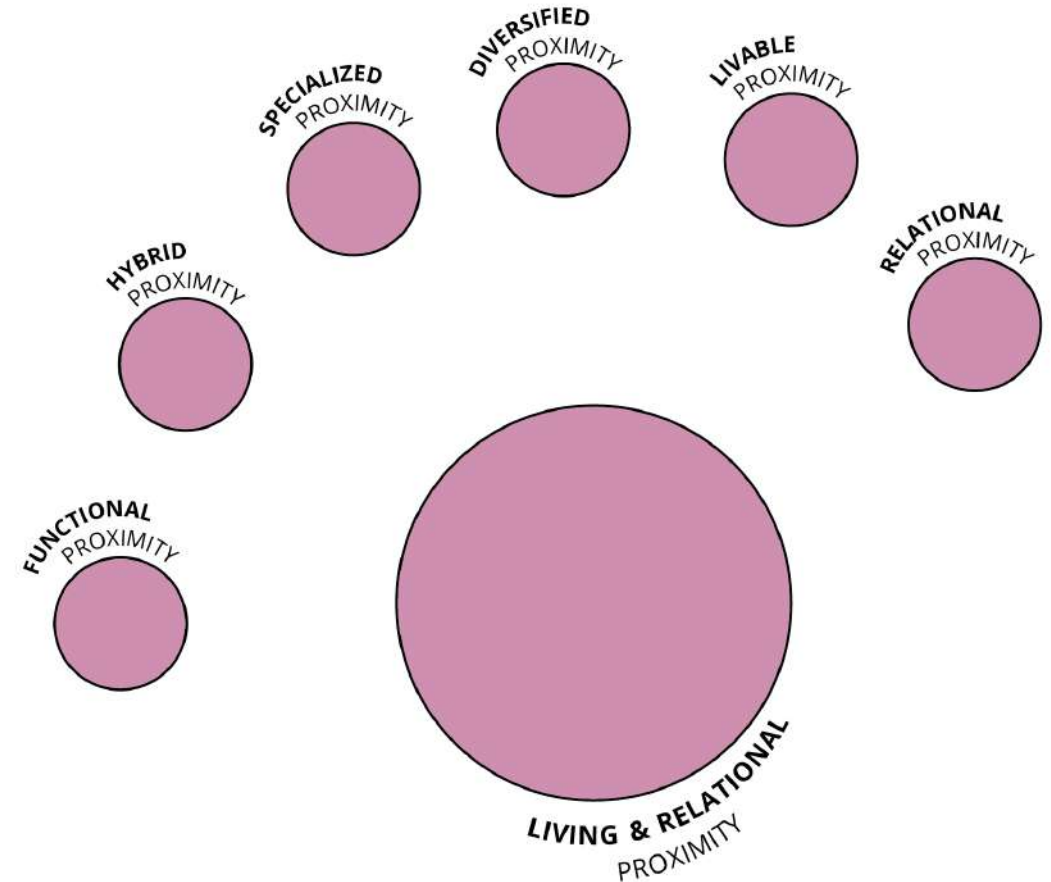




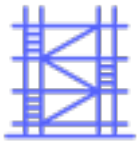
## THEORETICAL FRAMEWORK

The systemic nature of proximity – *living and relational proximity*

More recently, Manzini (2021) identified several typologies of proximity closely related to citizens (and city users) more than companies and workers, as Boschma mentioned. **FUNCTIONAL PROXIMITY** refers to characteristics that make it possible to live biologically, to the services provided by the location. **RELATIONAL PROXIMITY** determines whether and to what extent a particular proximity system is favourable to the creation of novel types of community. **SPECIALIZED PROXIMITY** only gives one option: a single service or one kind of activity. **LIVEABLE PROXIMITY** is **DIVERSIFIED**, relational, and **HYBRID** because it provides various services and is supported by a digital infrastructure that links local activities to global networks.





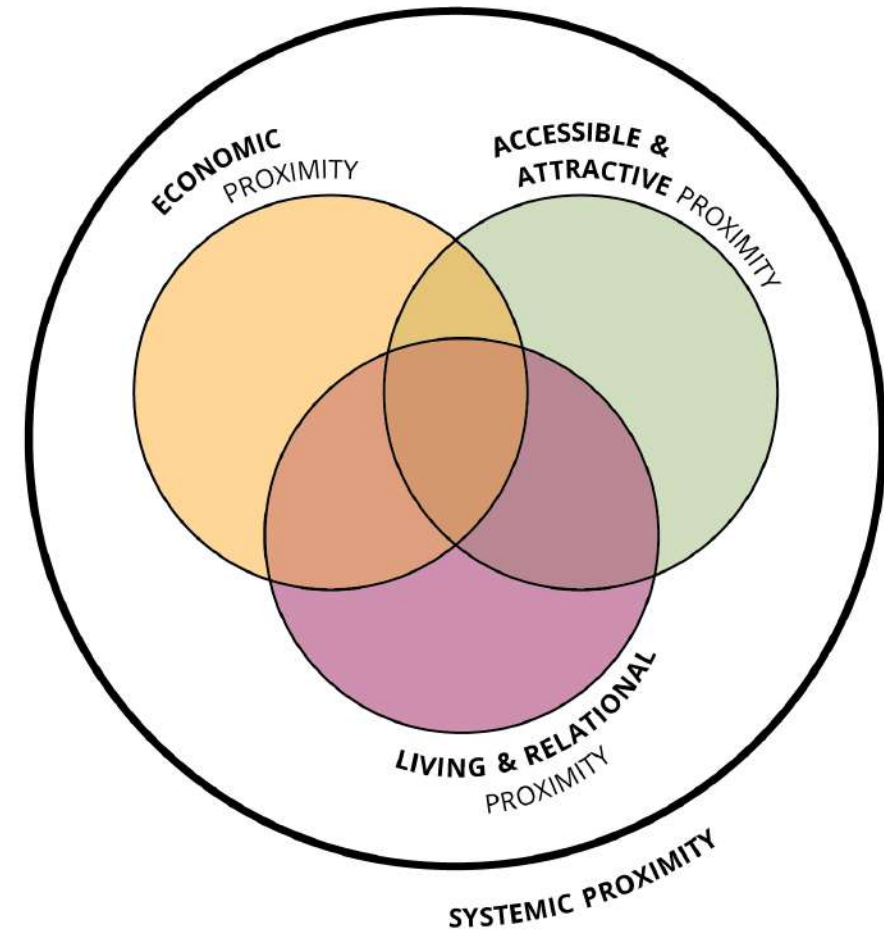


## THEORETICAL FRAMEWORK

### Systemic Proximity model – *first draft*

The most common urban representation of proximity is the concept of the 15-minute city, which has received widespread attention in political, economic, social, and academic discourses. The **NARRATIVE LITERATURE REVIEW** and the **CROSSOVER** of previous, ongoing, and upcoming **RESEARCH** allowed us to identify several crucial factors helpful to develop a distinctive viewpoint on the **SYSTEMIC NATURE OF PROXIMITY** shaping contemporary urban contexts.

Proximity has been studied as a peculiar and valuable attribute for both the economy and society at large.



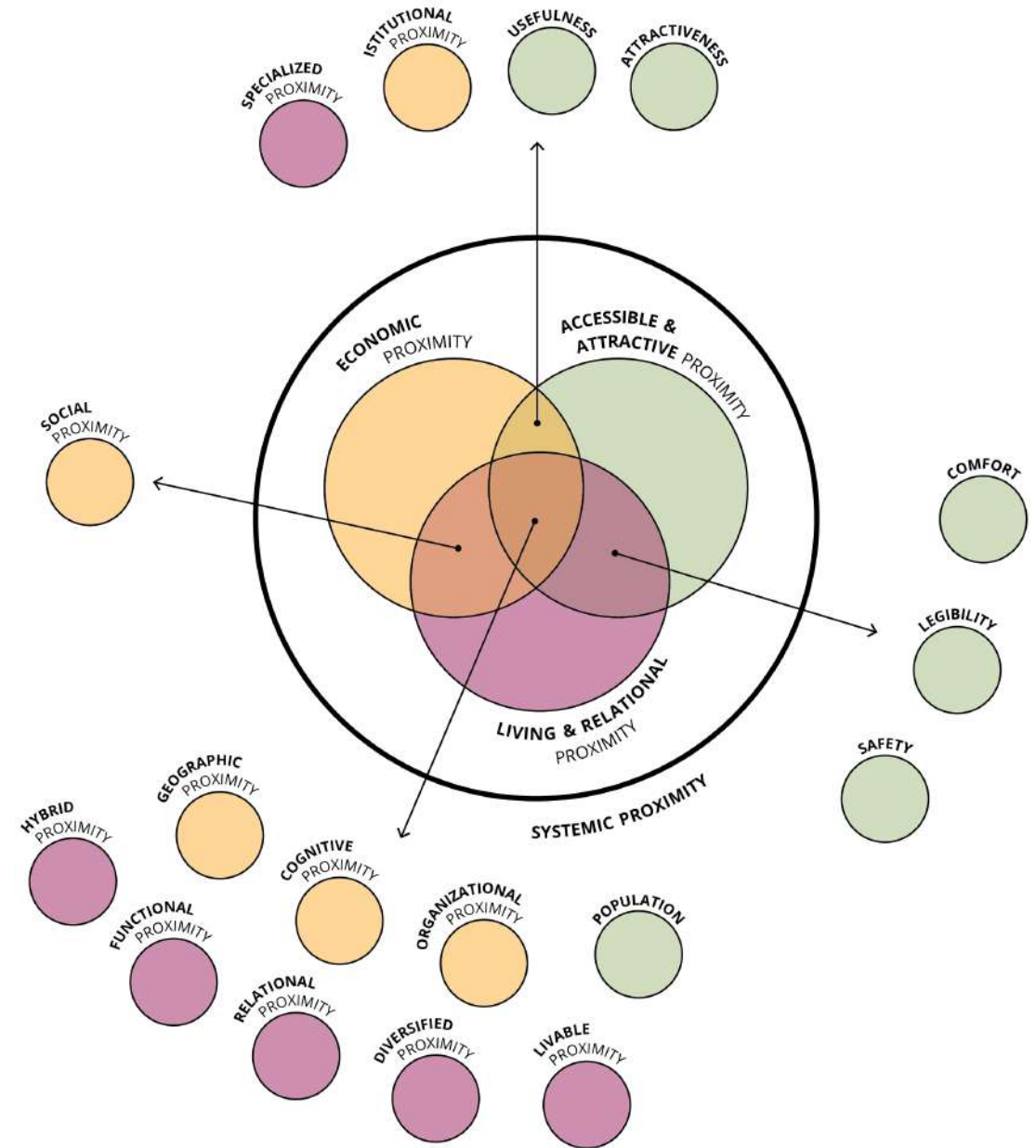


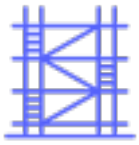
# THEORETICAL FRAMEWORK

## Systemic Proximity model – *first draft*

Starting from the discussion on the 15-minute city model, we selected **THREE MAIN APPROACHES TO PROXIMITY**: the first (Boschma, 2005), mainly related to the **ECONOMY**; the second (Bandini and Gorrini, 2018; Pei, 2019), which focused on **WALKABILITY**, looked specifically at the accessibility and attractiveness of urban areas; the third (Manzini, 2021), mainly focused on **LIVING COMMUNITIES** and their **RELATIONS** and connections with other individuals and communities and with physical spaces.

As can be seen in the figure, no category applies only to one area of proximity.



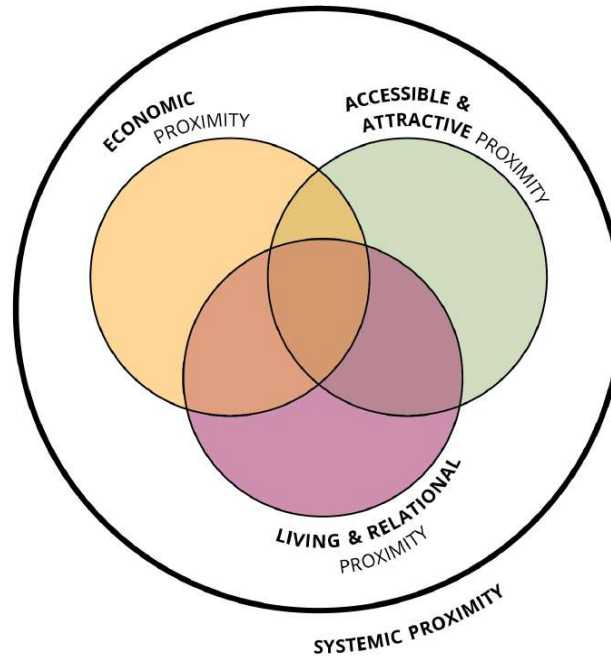


# THEORETICAL FRAMEWORK

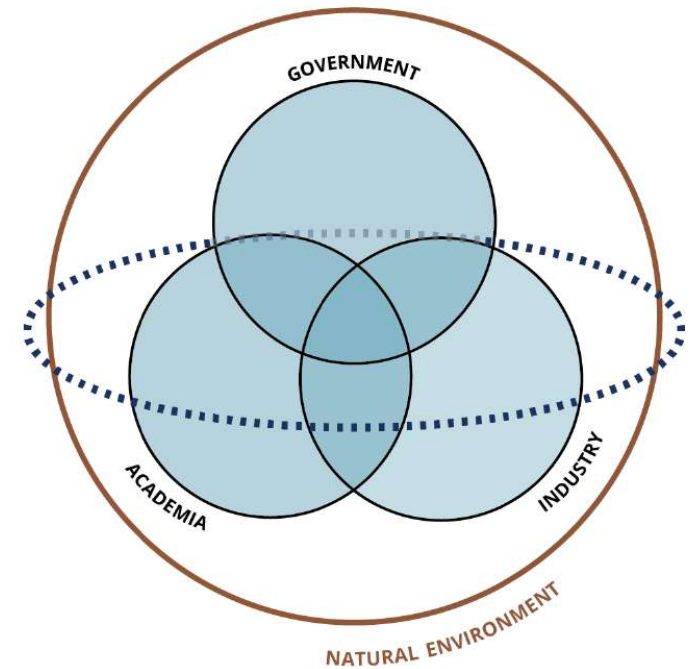
## Systemic Proximity model – second draft

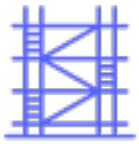
The first version of the Systemic Proximity's concept and components was shown on the preceding slide, but since the relational net is what really activates the notion, a second version is required.

In order to describe these **RELATIONSHIPS**, it is fundamental to mention the **QUINTUPLE HELIX**(QH) model. This model is the most recent iteration of earlier research works (Galvo, 2017; Carayannis and Campbell, 2009; McAdam et al., 2016; EC, 2012; MacGregor et al., 2010) aimed at describing and visualising innovation and economic development across various nations and regions.



CIVIL SOCIETY



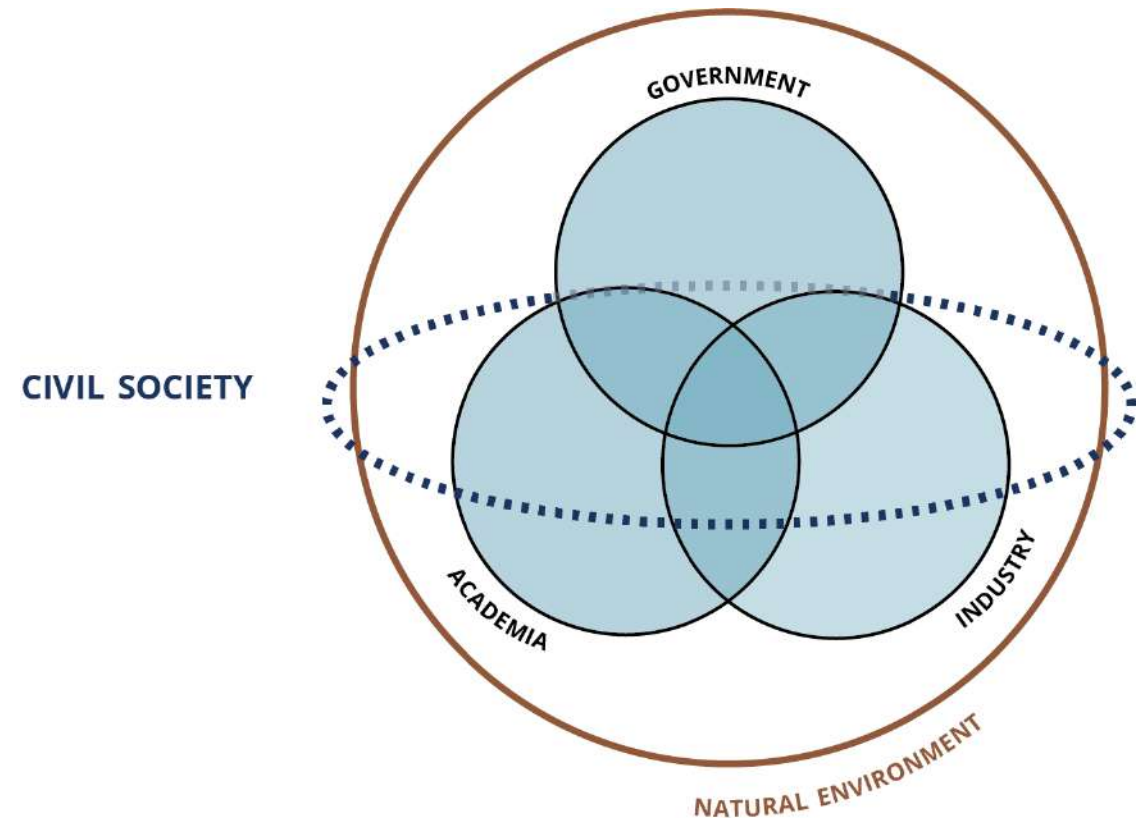


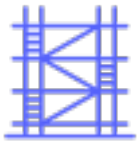
# THEORETICAL FRAMEWORK

Systemic Proximity model – *second draft*

**QUINTUPLE HELIX**(QH) is a framework theory that describes interactions between **ACADEMIA, INDUSTRY, GOVERNMENT, CIVIL SOCIETY, AND ENVIRONMENT**(, Industry, Government, Civil Society and Environment. The QH model helps us schematize the different groups of stakeholders whose relations are placed in the "Environment".

**RELATIONS** are both the fuel for the "proximity machine" and the outcome of well-designed proximity strategies. Urban spaces are not only a series of physical objects and structures in space (Lefebvre, 1991), they are also constituted of social spaces resulting from people's social life.



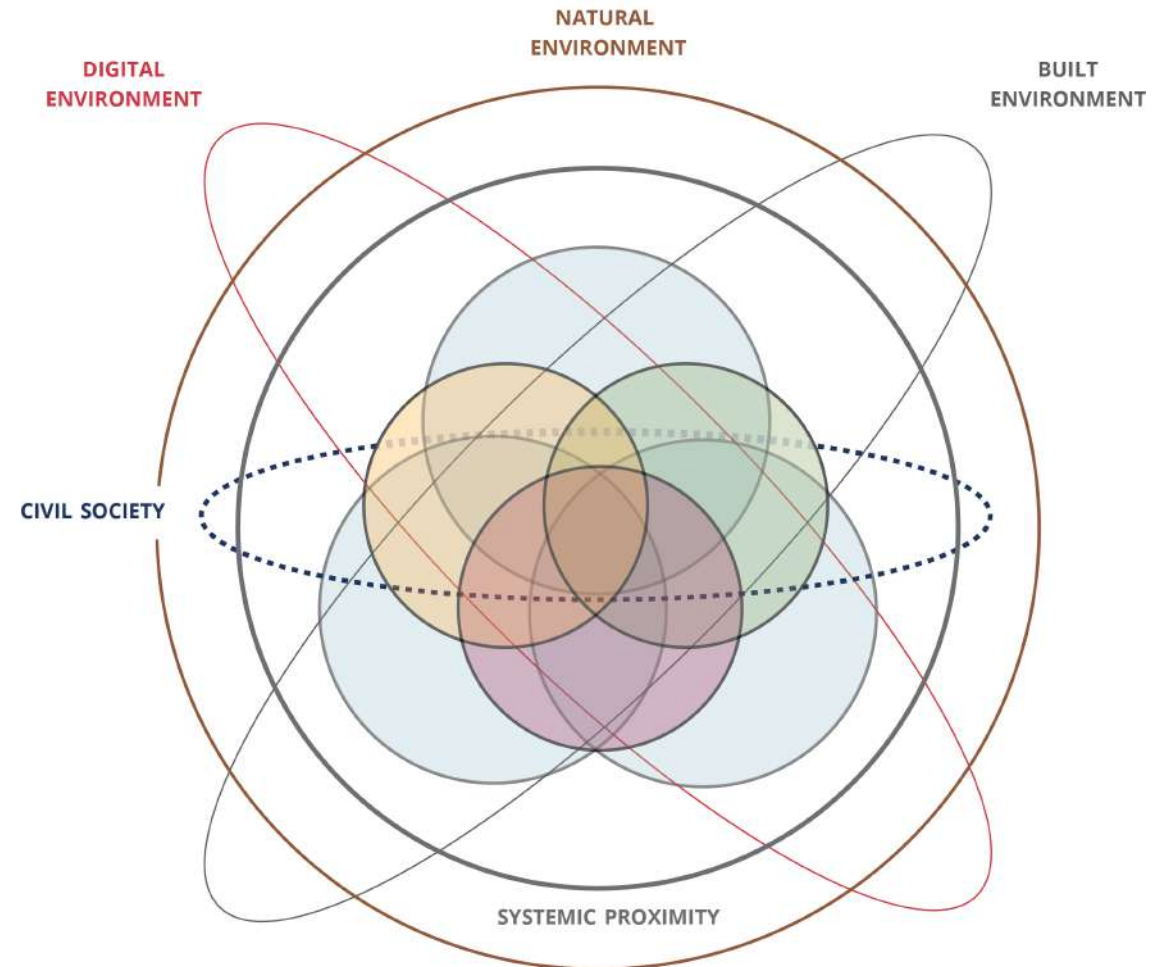


# THEORETICAL FRAMEWORK

## Systemic Proximity model – *second draft*

Given the variety of roles, we might speculate that the "citizen" role (the "civil society helix") includes and intersects the others because the civic part might be very relevant also for successfully and efficiently carrying out the other professional roles ("behave as a good citizen"). **RELATIONS** can generate urban life having the potential power to take action, as it happens in the case of social movements.

The second draft of the Systemic **SYSTEMIC PROXIMITY** is a theoretical framework that considers interactions between Academia, Industry, Government, Civil Society and Environment. In the original QH model, the "Environment" is considered natural; however, we should also consider the built and digital environment.



# RESEARCH OPPORTUNITIES

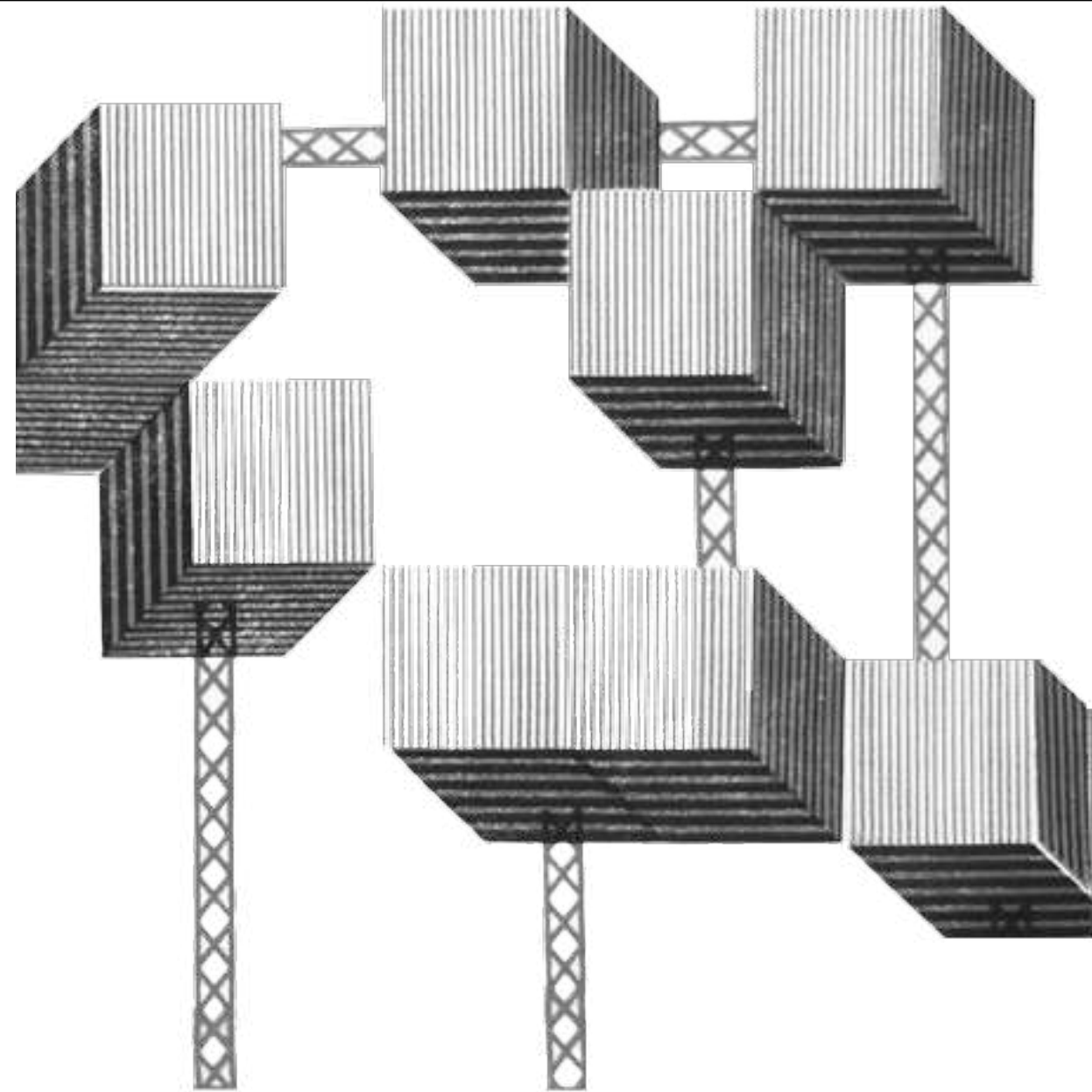




# RESEARCH OPPORTUNITIES

## Design for Relations

**Cities** are **complex systems** made up of networks of interactions, connections, encounters, dialogues, and, in some cases, communities. During the Design Thinking Talk hosted by the Observatory Design Thinking for Business of the Politecnico di Milano, John Thackara offers a list of three types of relationships within cities: **relationships with place, relationships between urban and rural environments, and civic relationships**. Design for Relations, proposed in this paper, aims at enabling and supporting human relationships in the city to positively trigger **social systemic change** (van der Bijl- Brouwer, 2022).





## RESEARCH OPPORTUNITIES

### Design for Relations

In this framework, systems thinking becomes central, then Rovelli's words also acquire a much broader scope, which from physics crosses over into design.

Design for Relations aims to understand how relations can trigger and support Systemic Proximity. It takes its cues from both **technical disciplines** (e.g. Systems thinking) and **humanistic disciplines** such as Sociology and Urban Studies. In particular, it focuses on the relationships that arise, grow, and evolve during the creative process for **the city's complexity**.





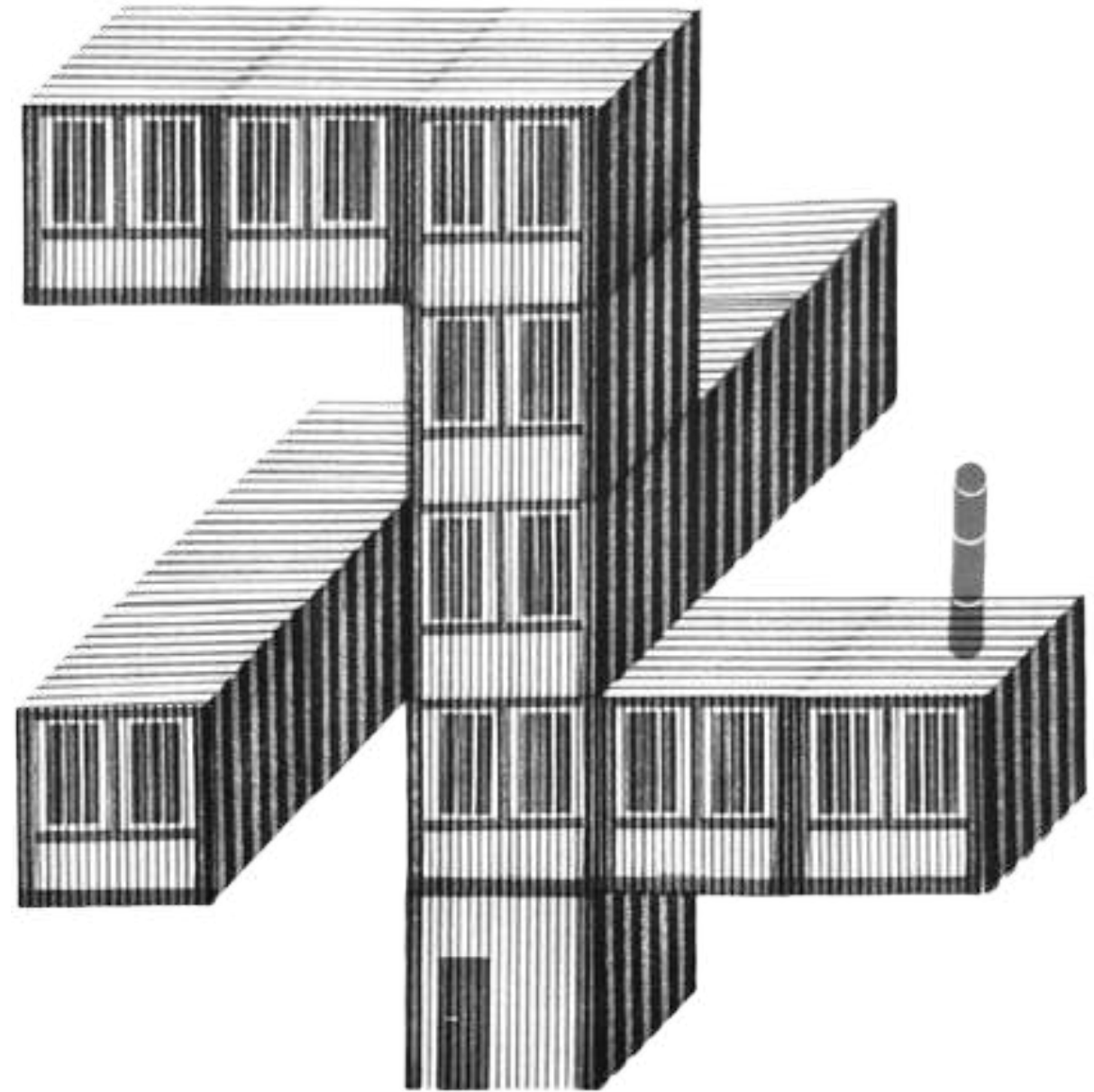


## RESEARCH OPPORTUNITIES

### Conclusions

The **Systemic Proximity** proposed in this paper does not exclude the existence of the types of proximity listed and addressed above, but instead brings them together and links their fundamental and relational aspects. It is based on adopting the Quintuple Helix that **holistically** and **dynamically** sees the interaction and **multiple relationships** between disparate stakeholders, sectors, and knowledge.

**Systemic Design** can contribute to addressing the complex challenges and problems that Systemic Proximity triggers.





## RESEARCH OPPORTUNITIES

### Conclusions

It is not yet clear whether **Design for Relations** will be recognized as a discipline or only an approach (or even a -design- objective); many authors are, in fact, implementing different interpretations to address the intersection between design and relationships. But this paper offers a **perspective** that seeks to **look at the relationships of proximity through a systemic, contextual, multipurpose vision**, thus considering all the ecological agency factors and social, economic, environmental, cultural, political, and otherwise. The discussion leads to a systemic and relational framework that can guide further design research.



# Thank you!

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# LIST OF IMAGES

Illustrations by Aurelien Debat

Illustration by Eli Matilda Anderson

<https://www.camillafalsini.it/wp/portfolio/piazze-aperte-milano-2020>

Medisproject Photography <https://www.medisproject.com/photojournal-duringcoronavirus-in-italy/>

Giovanni Hänninen <https://www.domusweb.it/en/art/gallery/2020/05/13/newideas-for-a-better-city-space-a-vailable.html#0>

Figure from Orii, 2020: 3

<https://cityscope.media.mit.edu/>

Medisproject Photography <https://www.medisproject.com/photojournal-duringcoronavirus-in-italy/>

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