

# 4<sup>th</sup> Space as Smart Information Ecology with Design Requirements of Sustainability and Ethics and Prerequisite of Inclusion

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IS4SI 2021

14th September

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# Introduction: Social Capital

Social capital is based on networks of relationships between people, with shared norms, values, reciprocity and understanding that facilitate cooperation between different groups.

Such networks are typically very dynamic informational ecologies (Florida).

# Social Network's Places and Spaces

Social networks are connected to specific spaces and places in the knowledge economy (Morisson).

A typology over such spaces is that the 1<sup>st</sup> place is the home, the 2<sup>nd</sup> place is work and

the 3<sup>rd</sup> place are cafés and other informal places where people meet "to enjoy each other's company" (Oldenburg & Brissett).

Morisson argues that the previous separation between the home and work now is blurred, and that new places for social and co-creation purposes are emerging.



Oldenburg, Ray (2000) Celebrating the Third Place: Inspiring Stories about the "Great Good Places" at the Heart of Our Communities. New York: Marlowe & Co.  
Morisson, Arnault (2018). "A Typology of Places in the Knowledge Economy: Towards the Fourth Place". Springer.  
[https://en.wikipedia.org/wiki/Third\\_place](https://en.wikipedia.org/wiki/Third_place)

# The 4<sup>th</sup> Space

The combination of the first place (home), second place (work), and the third place - is introduced as a fourth place (Morrisson).

The 4<sup>th</sup> space concerns informal space that can support networking, mingling, collaboration, face-to-face interactions, as well as the exchange of tacit knowledge.

# The 4<sup>th</sup> Space

The 4th Space is the new type of social environments that are unifying:

- *co-living spaces* where people live and work under the same roof (combination of 1<sup>st</sup> and 2<sup>nd</sup> space)
- *co-working spaces* where people share work and socializing space (combination of 2<sup>nd</sup> and 3<sup>rd</sup> space) and
- *co-mingling spaces* where people share living and social life (combination of 1<sup>st</sup> and 3<sup>rd</sup> space).

The 4<sup>th</sup> space can be considered to hold a diversity of new social environments, typically referred to as hacker spaces, maker spaces, Living Labs, FabLabs, shared living spaces, coliving, and coworking spaces.

# March 2020 Special Issue of the 'Annals of the AAG\*' on Smart Spaces and Places

Spaces and places are understood broadly from a range of views, including social, cultural, political, ethical, legal, economic, behavioral, ontological, and cognitive perspectives. special issue is divided into four thematic areas:

- (1) Spaces, places, and smartness;
- (2) Analytical smartness;
- (3) Critical smartness; and
- (4) Smart sustainability and policy

\*Annals of the American Association of Geographers Special Issue:

<http://news.aag.org/2020/02/march-2020-issue-of-the-annals-of-the-aag-now-available/>

# Generative Mechanisms Behind Spaces & Need for Value-based Design

Today, communities are manifested and developed as digital rhizomatic connections in a world of smart phones and computers, contributing to the blurred separation between home, work and other social spaces.

However, research shows how some citizens are currently excluded from access to various parts of society, for example due to lack of motivation, skills, low income, and preferred types of communication.

# Generative Mechanisms Behind Spaces & Need for Value-based Design

Access to information and skills to use communication technology is a necessity for informed participation in democratic societies.

This is why sustainable value-based design with accessibility as basic requirement needs to be considered in a networked society on all levels of organization.

People of all ages and kinds of impairments can take part in and move smoothly between the different spaces.

This perspective is supported by the SDG goal 10 - Reduced inequalities between and within countries.



# Open Questions

Emerging virtual communities within the digital 4th Space open variety of important questions.

- How can digital communities be structured and organized on communicative, structural, legal, economic, interactive design and techno-social levels to thrive while bridging the digital divide within societies?

As such, it fulfils the functions of a smart digital community place (Morisson, Oldenburg), space (Horni, Soja) or hybrid space and place, also known as "Splace" (Shaw & Sui) for science, economy, politics, culture and smartness by creating value for individuals and organizations, taking into account the different perspectives and wishes (Granovetter).

# Open Questions

Moving from the 1st private Space and 2nd working Space to a 3rd Social Space (Oldenburg), through digital and virtual networks of rhizomes (Deleuze & Guattari), to 4th Space (digital-social) and back, [is a process which generates new infrastructures and interactions.](#)

Both conceptually and physically, these new [informational ecologies](#) (Floridi) are radically changing human and social relationships, especially with ICT and smartness/AI.

[- How are we going to design & build those emerging informational ecologies in a sustainable and human-centric, inclusive ways?](#)

# Transdisciplinary/Interdisciplinary Approaches for Value-based Design of 4<sup>th</sup> Space

Taking into account transdisciplinary nature of these questions, it is necessary to combine different approaches through the implementation of [co-producing knowledge methodologies](#) as its core principle, to achieve the following:

- 1) [The communicative design of the spaces in a user-centered way](#): That is, understanding the capabilities of the human user and their spatial preferences around the smart digital content and human-human interactions.
- 2) The moral, ethical, and legal requirements within the 4th Space: That is, the question of [new analogue and digital identities and types of involved agencies](#).
- 3) [The cognitive, structural, economic, social and technological challenges](#), setting up the user context and physical/virtual environment, connecting AI, gamification, and virtualization.