The 21st Rijeka Days of Bioethics

URBAN BIOETHICS: FROM SMART TO LIVING CITIES BIOETHICAL DEBATE, REFLECTIONS AND STANDARDS

BOOK OF ABSTRACTS

Rijeka, Croatia, 17 – 18 May 2019

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University of Rijeka, Faculty of Medicine
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IMPRESSUM

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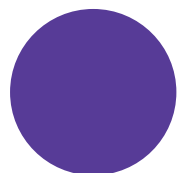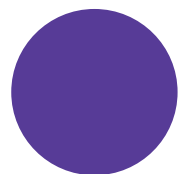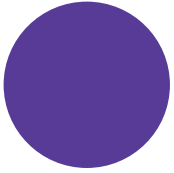
WELCOME ADDRESS

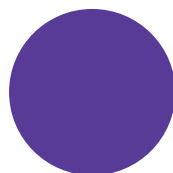The Rijeka Days of Bioethics are the oldest bioethical event in Croatia and one of the oldest in the region. For more than twenty years, it has been the main bioethical event organised by the Department of Social Sciences and Medical Humanities of the Faculty of Medicine at the University of Rijeka. The Rijeka Days of Bioethics are also the occasion for awarding the annual international "Fritz Jahr Award for the Promotion and Research of European Bioethics". Thanks to a generous donation by the Schwab Charity Foundation and a private donor, this year the main organiser is the University of Rijeka Foundation, and the aim is to upgrade the interdisciplinary and trans-sectoral approach to modern bioethical topics.

The title of this year's conference is *Urban Bioethics: From Smart to Living Cities. Bioethical Debate, Reflections and Standards*. For a long period of time, cities have been marginalised as a sui generis topic in bioethics. Due to the overall predominance of mainstream bioethical theory, the main topics have been located within biomedical sciences and healthcare. However, in the last few years there has been a serious transformation in bioethics (mainly due to the re-discovery of the works of Fritz Jahr and VR Potter), resulting in the introduction of its original environmental but also social and cultural perspectives. Such recent trends have also launched the sub-field of urban bioethics as a theoretical and practical response to the emerging process of urbanisation. Despite its potential, urban bioethics has so far remained on the margins of bioethical interests, urging a more complex interdisciplinary approach. Bearing all this in mind, the aim of the organisers is to give an impetus to urban bioethics by focusing on the entire integrated city body, its health, happiness and sustainability, thus going beyond traditional healthcare topics within the city and introducing new categories (architecture, culture, energy, environment and city landscapes, urban health, traffic, safety, etc.) In particular, we would like to investigate the bioethical aspects of urbanity for new smart-city contexts and the creation of a technological platform for bioethical reflections and standards. We might be able to create a list of specific "urban bioethical standards" as an upgraded version of the bioethical standards list related to the European Bioethics in Action project.

Iva Rinčić,
President of the Scientific Board

PROGRAMME

FRIDAY, MAY 17, 2019
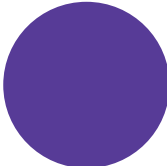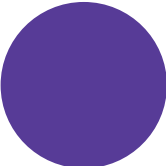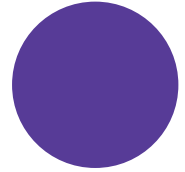
09:00–09:30   **Registration**
Venue: University of Rijeka, Faculty of Medicine, 3rd floor,
Vijećnica Room / Address: Braće Branchetta 20, Rijeka

09:30–09:45   **Opening ceremonies and welcome speeches**

09:45–10:00   **Jeffrey Chan** (Singapore):
Urban Ethics in the Age of Planetary Urbanisation

10:00–10:15   **Iva Rinčić** (Croatia):
From Bioethical Standards to Urban Bioethical Standards:
Rationale, Strongholds and Aims

10:15–10:30   **Michael Cheng-tek Tai** (Taiwan):
Future Urban Bioethics Standards from a Holistic
Point of View

10:30–10:45   **Hans-Martin Sass** (United States/Germany/China):
Urban Health and Happiness in Hutongs and High-rises

10:45–11:00   **Kostas Theologou** (Greece): Space and Ethos:
The Inextricable Cultural Bi-pole of Urban Bioethics

11:00–11:15   **Hyeong Ju Kim, Chan Kyu Lee** (South Korea):
A Groundwork of the Artificial Intelligence Humanities

11:15–11:30   **Break**

11:30–11:45   **Dejan Mumović** (United Kingdom):
Smart Buildings and Bioethics: Competence, Integrity
and Responsibility

11:45–12:00   **Lisa Schweitzer** (United States):
Locational Privacy and the Smart City

12:00–12:15	**Dina Šimunić, Srećko Gajović** (Croatia): The Smart Innovative City
12:15–12:30	**Ji Won Shim** (South Korea): The Minimalist Robot Form in Smart Cities
12:30–12:45	**Ji Won Shim, Sun Yong Byun** (South Korea): The Study of Ethical Issues Involving Surgical Robots in Urban Bioethics
12:45–13:00	**Break**
13:00–13:15	**Predrag Slijepčević** (United Kingdom): The Biocentric View of the Metropolis
13:15–13:30	**Tin Oberman** (United Kingdom): Urban Soundscapes
13:30–13:45	**Vanja Vasiljev** (Croatia): Urban Health
13:45–14:00	**Gilberto Marzano** (Latvia/Poland/Italy): Crowdsourcing: A Challenge for Citizens' Participation
14:00–14:15	**Hanna Hubenko** (Ukraine): A Bioethics Workshop: An Urban-Cultural Project
14:15–14:45	**General discussion and concluding remarks**
15:00–15:15	**Fritz Jahr Award ceremony**
	Venue: University of Rijeka, Faculty of Health Studies / Address: Viktora Cara Emina 5, Rijeka (5 minutes' walking distance from the conference venue)
15:30–16:30	**Lunch**
19:30–21:00	**Rijeka – Trsat Castle visit** (tbc)

SATURDAY, 18 MAY 2019

10:00   **Study trip to Istria and "the smallest city in the world"**

15:00–17:00   **Lunch**

18:00   **Return to Rijeka**
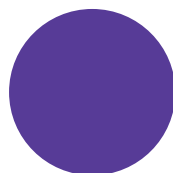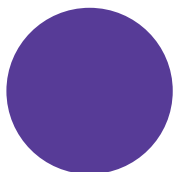
PAPER ABSTRACTS
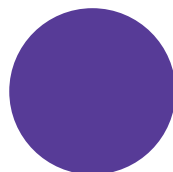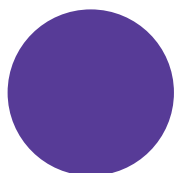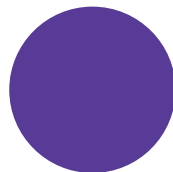
URBAN ETHICS IN THE AGE OF PLANETARY URBANISATION

Jeffrey Chan

Today, most of us live in an urban environment of our own making. This environment is also increasingly totalising or planetary in scale, consuming either the "natural" environment or subsuming it under its manifold. In becoming comprehensive, the urban environment now connects different lives and living and artificial systems in ways, levels and impacts that are unprecedented. This expansive encirclement of urbanisation today means that more of the world (the heavens [e.g. geoengineering the climate] and earth [e.g. living species adapting to cities]) will fall under our deliberate design and care. Destiny, it seems, has become an urban responsibility. If so, how then does the urban shape the ethical and in what ways? What are the new ethical issues and problems, but also moral responsibilities and possibilities, that are brought about by planetary urbanisation? This paper will discuss the basic tenets of urban ethics, and examine a handful of focal points that are of interest to attendees at this conference.

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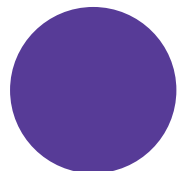
A BIOETHICS WORKSHOP: AN URBAN-CULTURAL PROJECT

Hanna Hubenko

Urban bioethics is an adaptive mechanism of survival/coevolution of humans and nature in a globalised world. It offers normative guidance for urban problems and "inclusion scenarios" to address them. We have identified three main characteristics of urban bioethics: inclusion; integration; multiculturalism.

We propose the creation of an integrative platform for bioethics (InPlatBio) which will be implemented in the online and offline life of cities. Examples of such offline platforms in the field of education are the training of bioethics specialists (courses, training, exchange of experience, bio-art, participative theatre). Highlighting scientific, social and political decisions, attitudes towards ethical dilemmas in the modern world, and emerging hybrid professions in incompatible areas is an urgent task that needs to be developed on the InPlatBio online platform. Educational programmes in urban bioethics in all spheres of society contribute both to an understanding of the social sciences in this field and also help teachers and public activists to develop measures that influence professional attitudes and behaviour towards life practices and problems.

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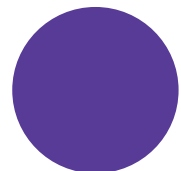
A GROUNDWORK OF THE ARTIFICIAL INTELLIGENCE HUMANITIES

Hyeong Ju Kim, Chan Kyu Lee

The aim of the artificial intelligence humanities is to present humanistic suggestions into our lives and academia regarding how humans will live in smart cities surrounded by artificial intelligence technology. It is with this purpose in mind that we introduce our groundwork of artificial intelligence humanities and share our sense of concern. The artificial intelligence humanities as a concept consists of three elements: artificial intelligence, the content of the humanities, and the methodology of the humanities. The content of the humanities consists of the derivatives of the traditional humanities, namely linguistics, literature, history, ethics, sociology, and cultural studies. These six research areas, disciplines created through the traditional humanities' acceptance of the changes brought about by the age of intelligence, are derived by reflecting on the self and the world, and applying them to the world as it exists today in the age of artificial intelligence and the humanities.
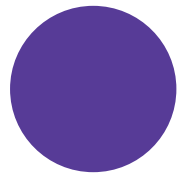
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CROWDSOURCING: A CHALLENGE FOR CITIZENS' PARTICIPATION

Gilberto Marzano

In the last few years, mobile phones have changed social interactions from being one-to-one exchanges into broadcast-like communications, allowing an individual to simultaneously interact with a multitude of people and, more recently, with smart objects, namely intelligent devices and programs too. As a consequence, new modalities for involving citizens in participatory processes can be applied.

Citizen sourcing is a crowdsourcing practice applied by governmental institutions that has as its goal the collecting of ideas, suggestions, and opinions from the multitude of citizens at large.

Several studies have investigated crowdsourcing applications in different contexts that include business and social innovation and citizen sourcing (Hossain & Kauranen, 2015).

Mobile crowdsourcing and crowdsensing are relatively new but very promising sectors, since they can produce new forms of citizen participation and socialisation. From this perspective, the virtual representation of numerous uniquely identifiable objects will form a pervasive infrastructure that can support the enhancement of communities' liveability.

In this paper, we illustrate and discuss the opportunities and issues related to crowd-based applications. Indeed, involving citizens' participation might well require complex evaluations and articulated processes as well as caution in respecting their privacy and ensuring transparency.
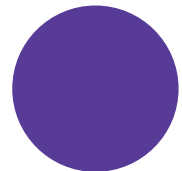
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SMART BUILDINGS AND BIOETHICS: COMPETENCE, INTEGRITY AND RESPONSIBILITY

Dejan Mumović

Smart buildings are complex, dynamic, socio-technical systems seeking to provide solutions to a multitude of ill-defined and conflicting issues, including the basic truth that the built environment is fundamental to the occupants' sense of well-being. It is the totality of this idea that we need to understand and appreciate. One of the key challenges in the building sector is how to design and operate smart buildings that use big and small data to support creative pursuits and enhance the comfort, health and well-being of occupants. This challenge has opened up several ethical issues related to competence, integrity, and responsibility in academia and industry.

This talk focuses on two aspects of academic activities: a) the introduction of bioethical principles in the education of a new generation of building industry professionals, and b) the role of bioethics in understanding the interactions between the built environment and health, human well-being, productivity, energy use and climate change.

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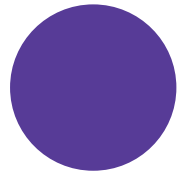
URBAN SOUNDSCAPES

Tin Oberman

Research on urban soundscapes considers acoustic environments by focusing on their perceptual qualities. It switches the focus from noise to sound as a whole, and eventually aims to move from noise maps to soundscape maps on a small scale and detailed sound planning and the design of public spaces on a large scale. In recent years, it has been followed by ISO 12913-1:2014 and ISO/TS 12913-2:2018.

The ERC-funded project "Soundscape Indices" conducted at UCL IEDE features interdisciplinary analyses of urban acoustic environments with the aim of effectively measuring their perceptual impact as a basis for environmental design.

The project encompasses field and laboratory research in order to characterise soundscapes by capturing them and establishing a comprehensive database which serves as a basis for the laboratory testing of perceptual and physiological effects.

Recent results feature work on topics connecting urban soundscapes and public health, soundscape standardisation and the development of new soundscape indicators.

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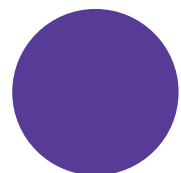
FROM BIOETHICAL STANDARDS TO URBAN BIOETHICAL STANDARDS: RATIONALE, STRONGHOLDS AND AIMS

Iva Rinčić

Interest in research, deliberation and reflection on urbanity has been present for a long time. Due to rapid urbanisation in the last few decades, such interest has intensified, attracting scholars from different disciplines and creating new platforms for discussion.

The first indicators of a "bioethical" interest in urban life are already present in Potter's early papers (urban ethics), and developed in a lecture related to the quality of the environment (Potter, 1966). However, a more extensive research of urban bioethics has remained on hold until recently, mainly due to the dominance of the bioethical mainstream biomedical paradigm.

In 2017, the European Bioethics in Action project (funded by the Croatian Science Foundation) ended, resulting in a list of general bioethical standards related to animals, plants and human health. The aim of this paper is to present the rationale of bioethical standards, followed by a proposal for developing a list of urban bioethical standards in specific urban-related categories.

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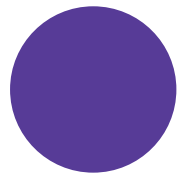
URBAN HEALTH AND HAPPINESS IN HUTONGS AND HIGH-RISES

Hans-Martin Sass

Human communities, like all individual human and non-human bios and all biotopes, have long or short lives, depending on the stability and flexibility of their internal metabolism and interactions within their natural, cultural, economic and political biotopes. Urban bodies can be described as complex integrated adjustable systems (CIAS). Small entangled communities such as hutongs, which have existed in China for over 2,000 years, and the high-rise apartment buildings of the 21st century, each with 30 to 300 more or less private living quarters and shared public spaces may belong to smaller or larger cities. They represent more or less healthy and stable communities based on interpersonal and interfamilial interaction, trust and solidarity, and a shared interest and involvement in sports, arts, gardening, social and other activities. Hutongs and apartment high-rises are cells and organs of larger social, cultural, economic and political bodies such as states and non-states. Urban and other communities are interconnected by common histories, narratives and visions, religions and cyberspace internets. Religions and new internet communities extend beyond the local communities of hutongs, apartment buildings, cities and businesses, and they may support or threaten local urban community and coherence. A list of social, cultural, and architectural structures will be discussed which may support flexible and integrated stability in happy and healthy, pluriperspective and plurifaceted human communities.
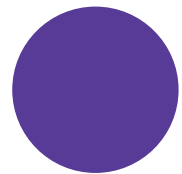
Hans-Martin Sass, Georgetown University, United States of America / Ruhr University, Germany / Renmin University, Peking / Peking Union Medical College, China
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LOCATIONAL PRIVACY AND THE SMART CITY

Lisa Schweitzer

Locational privacy entails the ability to control information about location. Early on in our discussions of technology and privacy, Helen Nissenbaum (2004) argued against a large body of proposed privacy theory in ethics which held that individuals did not have locational privacy in public spaces like sidewalks or streets where they appear "in plain sight". This paper revisits Nissenbaum's premise that locational privacy is critical to a right to privacy. I argue that of all the potential ethical concerns in the bioethics of the smart city, most derive from questions about whether individuals who encounter and use these technologies truly consent to having their locational information disclosed, collected analysed and sold. I further argue that both public sector and private sector actors have inadequately addressed consent even with terms of use and disclosure.

Nissenbaum, Helen. "Privacy as Contextual Integrity. (Symposium: Technology, Values, and the Justice System)." Washington Law Review 79, no. 1 (2004): 119-157.

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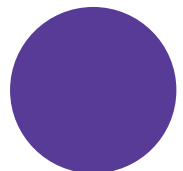
THE MINIMALIST ROBOT FORM IN SMART CITIES

Ji Won Shim

Today, with the development of technology, we are trying to build smart cities. In Korea, we plan to build smart cities in Busan and Sejong City by 2021. Smart cities have a positive as well as a negative side. They will change the ways of life of human beings (e.g. from owning to sharing). However, smart cities will have many negative aspects that we have overlooked. In this study, the form of robots used in smart cities will be examined. Smart cities are heading in a positive direction by using various robots. In smart cities, we will live together with such robots. In many studies, researchers have attempted to create robots with similar forms and emotions to human beings. Nowadays, there are robots that are cat-robots but have no cat face but only a tail, or there are abstract robots which minimise the function and design of robots. The Media Innovation Lab (miLAB) has developed a "greeting machine" robot with Cornell University in the US.

Minimalism today has an important meaning in a philosophical sense and also has a bearing on the practical aspect of human life. In this paper, I want to apply this minimalism to the robots that will coexist with us in our future society.

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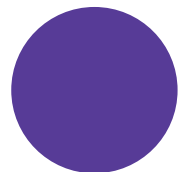
THE STUDY OF ETHICAL ISSUES INVOLVING SURGICAL ROBOTS IN URBAN BIOETHICS

Ji Won Shim, Sun Yong Byun

The implications of surgical robots are very broad, and as a result the discussion on surgical robots is not clear. In this paper, we will try to clarify the concept of surgical robots by looking at the development status and characteristics of current surgical robots in various contexts (e.g. urban, rural, smart city, etc.) We will also analyse by type various cases involving surgical robots in urban bioethics. Through such an analysis, this paper would like to highlight the ethical problems caused by the use of surgical robots in urban bioethics in the following areas: remote surgery, health inequality, decision-making problems, medical information problems, responsibility problems. On the basis of these ethical issues, we would like to discuss the goals that surgical robot ethics should aim for in urban bioethics.
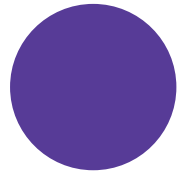
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THE BIOCENTRIC VIEW OF THE METROPOLIS

Predrag Slijepčević

The concept of biocentrism implies that the study of nature must not rest solely on anthropocentric postulates. Instead, the study of nature should search for universal principles shared by all organisms. A scientific and philosophical discipline that can accommodate this requirement is evolutionary epistemology (EE). The key principles behind EE are: (i) organisms are knowledge systems, (ii) evolution is the process of knowledge acquisition, and (iii) some forms of knowledge acquisition are universally shared. Using the above principles, it is possible to place the human species in a wider evolutionary context and identify other species that share putative human-like practices. These include technological behaviour, ranging from the invention of agriculture to building large structures, including the emergence of social settlements with all the necessary infrastructural requirements reminiscent of anthropogenic urban centres. The only animals, apart from *Homo sapiens*, capable of technological and urbanised behaviour are rare species of social insects, including ants, termites and bees. In this presentation, I will focus on the form of social behaviour known as eusociality, which enables technological and urbanised behaviour. In particular, I will focus on the concept of the metropolis as the consequence of eusocial behaviour. A typical insect colony, a biological metropolis, shows all the major features of a human metropolis. This analysis can be useful in assessing human technological behaviour and relevant bioethical implications.

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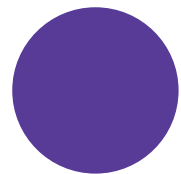
THE SMART INNOVATIVE CITY

Dina Šimunić, Srećko Gajović

The innovator Nikola Tesla said: "When wireless is perfectly applied, the whole Earth will be converted into a huge brain". The European Commission defines a smart city as "a place where traditional networks and services are made more efficient with the use of digital and telecommunication technologies for the benefit of its inhabitants and business". However, technological progress has been greater than expected, due to global interconnectedness and interaction. A smart environment already encompasses, for example, continuous outdoor and indoor air pollution monitoring. Work in smart health has progressed significantly, e.g. in vital signs monitoring and patient surveillance. Current and future technological solutions contributing to smart cities and increased quality of life will be discussed.

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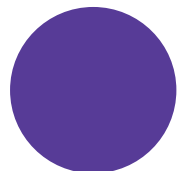
# FUTURE URBAN BIOETHICS STANDARDS FROM A HOLISTIC POINT OF VIEW

Michael Cheng-tek Tai

The United Nations has calculated that half of the world's population lived in urban areas at the end of 2008, and has projected that by 2050 about 64% of the developing world and 86% of the developed world will be urbanised. Urbanisation creates enormous social, economic and environmental challenges, such as land development, climate change, factory construction, water and air pollution, habitat fragmentation, etc. These all have impacts on the health of living beings, especially on humans.

The WHO has defined health as a "state of complete physical, mental and social well-being not merely the absence of disease or infirmity". It is a dynamic condition of constant adjustment and adaptation in response to stress and change in the environment in which one is in. The formation of urban centres brings together a large number of people living in relatively small places we call cities. People move to urban centres to seek better opportunities for jobs, education, healthcare, living conditions, and recreational activities to name just a few factors. Facing this reality, we must ask if an urban bioethics can be attempted to help develop healthy lifestyles and better relationships between humans and the environment, humans and their fellow people, and humans and other living beings.

Whose responsibility is it to maintain good health? Undoubtedly, the answer is each individual himself/herself. Medical sociology, however, assumes that besides the individual, society, community and government all have to share part of the responsibility. Therefore, urban bioethical standards need to consider, as a minimum, environmental, physical, mental and social factors, in other words a holistic perspective needs to be adopted. This presentation will try to suggest the kind of urban centre that is bioethically viable not only in terms of hardware construction but also the software services that this hardware provides, and to give a list of basic standards for a viable urban bioethics based on the essence of bioethics as defined by Fritz Jahr: "respect every living being on principle as an end in itself and treat it, if possible, as such".

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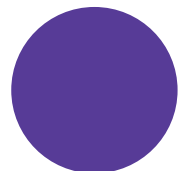
SPACE AND ETHOS: THE INEXTRICABLE CULTURAL BI-POLE OF URBAN BIOETHICS

Kostas Theologou

Ethics and space inextricably consist of the core of our urban culture; *ethos* condenses space and ethics, both interwoven within a dual perspective, *etymological and cultural*, related in an inseparable way. We set off from the Sanskrit origin of ethos providing the basis for our reasoning. Since space is unavoidably related to ethics (=ethos < Gr. ήθος, έθος), ethos is the morality crystallised as a specific value code in various environments like *the city* (urban ethics), etc.

Given the above, the city is a prominent space for deploying citizens' codes of conduct, taking into account the particularities of all groups (e.g. third age or children), in order to render an urban environment *worth living in for all city dwellers*. This framework gives standing to the branch of "urban bioethics".

The task is challenging, entailing issues of democratisation, social separation and inclusion, discrimination and egalitarianism. The novel human being conscientious of urban bioethics imposes a moral code on all citizens, containing notably the virtue of *syn-choresis*, [Gr. *synchōrēsis—syn + chōros* = space] the virtue of sharing space with stronger and weaker entities, under the conceptual toolkit of applied ethics.
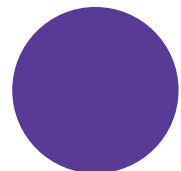
Kostas Theologou, National Technical University of Athens, Greece
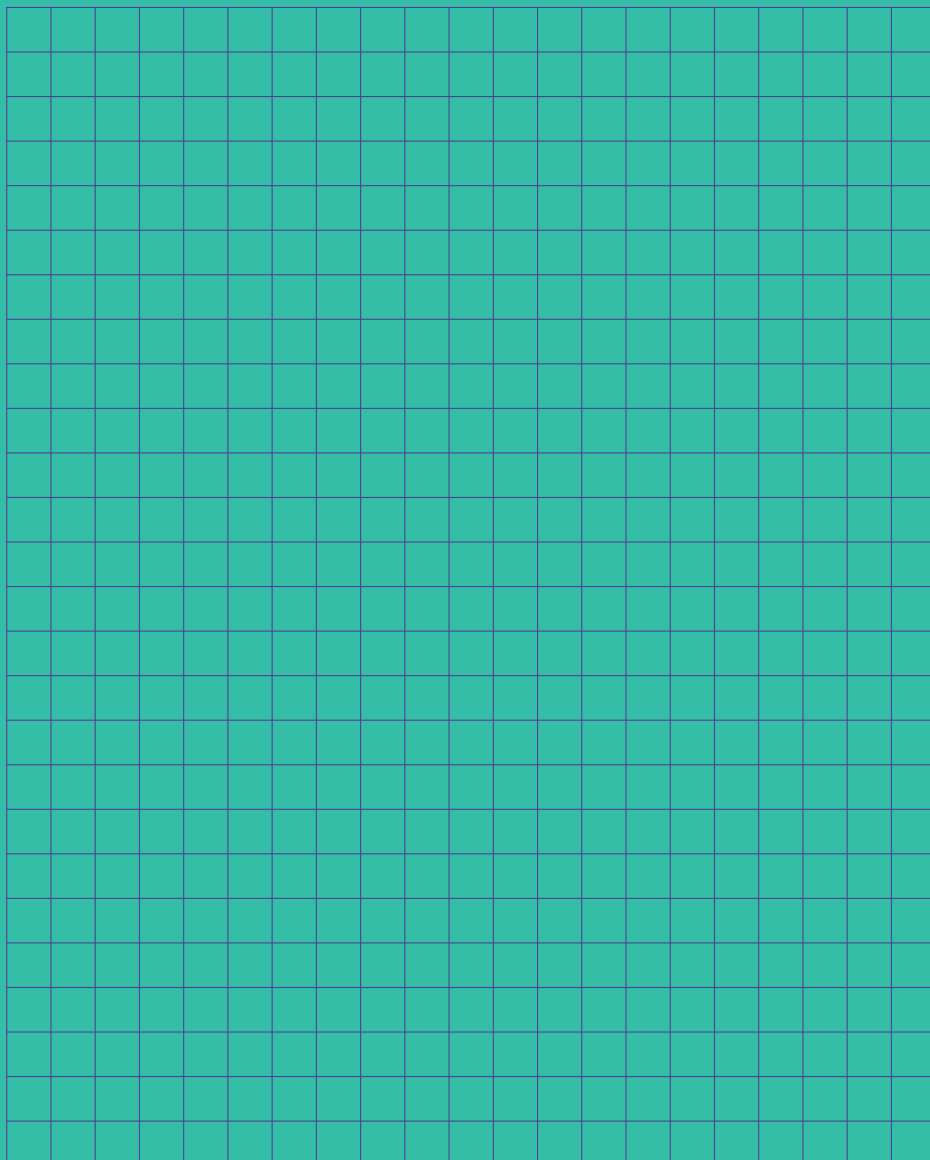cstheol@central.ntua.gr
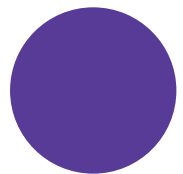
URBAN HEALTH

Vanja Vasiljev

According to the data of the World Health Organization, 54% of the population was living in urban areas in 2015. It is predicted that by the year 2030 this figure will be 60%, and by 2050 66% of the population will be living in cities. Although living in urban areas offers people advancement in social and economic domains, overcrowding could lead to challenges that include congestion, lack of funds to provide basic services, a shortage of adequate housing, declining infrastructure and rising air pollution. The health-associated challenges and risks of inefficient urban planning and management practices that could rise with migration to urban areas include air pollution, road traffic congestion, and lack of safe spaces for walking, cycling and physical activity. Such health-related hazards could contribute to rises in mortality and morbidity rates due to infectious and non-communicable diseases and injuries. This presentation will focus on health-related policies regarding sustainable urban planning.

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