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A FAUSTIAN EXCHANGE: WHAT IS TO BE HUMAN IN THE ERA OF UBIQUITOUS TECHNOLOGY?

U-cities reshaping our future: reflections on ubiquitous infrastructure as an enabler of smart urban development

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Abstract This article discusses the background, nature and application of the concept of ubiquitous city, presenting u-city initiatives of affluent and techno-savvy cities in Asia and the West with special reference to the case of South Korea. The focus is on how ubiquitous technologies have been and can be utilised in developing urban infrastructure, including town planning, street and property maintenance, water supply, public transportation and environmental protection. Such an emerging infrastructure is expected to provide everyone with an opportunity to access urban infrastructure and services with the help of ubiquitous technologies. However, in order to become reality, this requires some kind of democratisation of technology, which is a neglected topic in u-city discourse. It is also important to analyse u-city developments from the point of view of production of space with special reference to the potential colonisation of everyday life. Theoretically speaking, one answer to such compelling questions about the rationale of u-city development can be sought from the idea of the 'right to the city', a slogan originally coined by Henri Lefebvre. This approach highlights the importance of involving people to envisioning the future of urban form starting from the perspective of their everyday life. Such a dimension should be given more prominent role in current u-city developments.

Keywords Ubiquitous technologies · Ubiquitous city · u-City · u-Infrastructure · u-Service · Democratic governance · South Korea · New Songdo City · Seoul

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1 Introduction

Urban settlements have been shaped by many forces, expressing the interplay of human endeavour and the limits to the manipulation of nature (see, e.g., Mumford 1938, 1961). Technological development is an expression of the latter dimension, serving both as the conditioning factor and the opportunity horizon depending on the perspective. However, it seems that it is increasingly compelling to apply new technologies in order to meet the continuously evolving needs of individuals, organisations and territorial communities in the world of global interdependencies. It looks as if the pace of technological development and especially that of information and communication technologies (ICTs) is so fast that we are not necessarily able to consider all the relevant aspects of their application, not to speak of the ability to evaluate their social impacts.

In urban communities, this challenge boils down to difficulty to understand how to deal with diverse urban problems in the context of increased technological intermediation of social processes. This is a dilemma that city managers have faced since the 1990s with the rise of the Internet in particular, but it seems that the accelerated pace of change will further increase complexity, one of the new factors in the process being the rise of ubiquitous computing and its potentially radical consequences (Macias-Diaz 2010). This development has already started to affect spatial processes, including spatial aspect of production, consumption, governance, transportation, communication and other forms of social life, even though the development is still in its infancy. Ubiquitous city relies on the comprehensive utilisation of cutting-edge technologies in providing flexible access to digital resources and remote control. It offers a radical perspective on urban life, making it one of the candidate concepts to guide the making of the