Residents' quality of life in Smart cities

Kay Applicant: Songling Chang

Supervisor: Dr Kay Melanie Smith

Introduction

A smart city is a set of policies and programs that aim to increase the efficiency and effectiveness of municipal services, encourage urban (re)development, facilitate private investment, and improve quality of life through investing in information and communication technologies (Edge et al., 2020). The emphasis on quality of life has been recognized as increasing important in smart city studies, for example, a smart city can be defined as a city exploiting information and communication technologies to enhance the quality of life of its citizens by providing them with improved services while ensuring a conscious use of the available limited resources (D'Aniello et al., 2020). However, previous studies have not often focused specifically on quality of life and citizen-centric issues. For this reason, this study places residents at the centre of smart city research and explores the concept of 'smart living' with a special emphasis on leisure.

Literature Review

The smart city' concept has emerged as a new trend to answer challenging issues related to urban development. Transformation of a city system into a smart system is meant to improve the quality of life for its people and their way of living, its environment, economy, transport, and governance (Muvuna et al., 2020). Research suggests that the basis of smart cities is the combination of human capital, social capital, information and communications technology infrastructure, in order to generate economic development, improve well-being and quality of life (Capdevila & Zarlenga, 2015; Dumay, 2016).

Research Question – *What is the role of tourism, leisure and culture in smart cities?*
Research Methods

The focus of the primary research will be to assess the importance of 'soft' smart city services, namely culture and leisure for residents within 'the art of living' and 'smart living' and to evaluate how far technology enhances experiences. Like in other quality of life studies, this research will use subjective measurements (Macke et al., 2018; Uysal et al., 2016). The proposed methods are as follows:

- The measurement of the role that culture and leisure play in residents' QOL in Budapest, including the importance of smart technology. A questionnaire will be distributed online, for example, via local residents' forums in different districts of the city. A representative quota sampling technique will be used based on the most recent Census data for demographic characteristics.
- A sentiment analysis will be undertaken using web script on Tripadvisor or Twitter. This can be an ideal method to analyse local people's opinions. Based on Twitter comments relevant to QOL, a Natural Language Processing or Natural Language Understanding can be taken advantage of.