Chapter 1
Urban Life and Smart, Learning, and Future Cities:
Getting a Sense of the City – Past, Present, and Future

ABSTRACT

The purpose of this chapter is to provide an introduction and background to the concept of urban life generally and in relation to evolving understandings of smart cities. A review of the research literature is provided for urban life, smart cities, learning cities, and future cities identifying issues, controversies, and problems. The literature review enables formulation of a conceptual framework for urban life and the ambient in smart cities which is then operationalized for use in responding to the range of issues, controversies, and problems identified in the research literature. Using an exploratory case study approach involving survey and in-depth interviews, a series of research questions are developed for exploration as propositions, chapter-by-chapter in this book. Combining an explanatory correlational design with a case study approach, variables are identified for exploration, pertaining to urban life and smart cities in this chapter and the chapters that follow, informing directions for research and practice.

1. INTRODUCTION

This chapter explores the urban life concept from multiple perspectives and over time in relation to evolving understandings of smart cities, learning cities, and future cities. While urban life has been explored by Psatha, Deffner, and Psycharis (2011) in terms of "quality of urban life (QOUL)" as "a concept able to monitor the multidimensional nature of cities" it is also explored in addressing "the problems that undermine" QOUL such as "social inequalities, urban crime, poor environment, and traffic con[g]estion." Smart cities are described by Townsend (2013) as "places where information technology is combined with infrastructure, architecture, everyday objects and even our bodies, to address social, economic, and environmental problems." Nam and Pardo (2011) note that "a smart city is also a learning city" forming

part of the human infrastructure and social capital that make up the human factor component of smart cities, along with creative city, humane city, and knowledge city. Through their work, Nam and Pardo (2011) highlight the need for future research to explore the question: "how do smart technologies change a city?" giving rise to a key ambition of this book. Macionis and Parrillo (2013) provide a global overview of cities and urban life from a sociological perspective, addressing problems encompassing spiraling populations, quality of life (QoL), environment, and shantytowns while also focusing on the future of cities in the context of urban planning and "how current trends give us insight" in terms of growth and development. Schmitt (2019) explores the notion of future cities using "data driven approaches" that are "based on crowdsourcing and sensing" while seeing "the city as the most complex human-made 'organism'." Sumara and Alvermann (2022) draw attention to changing notions of literacy practices, important in this chapter for areas such as funding and what Boggs (2022) refers to as "economic relevance" and the efforts by students and others "to make themselves useful in their communities." As such, this chapter is significant in that it seeks to provide a sense of the city through the continuum of past – present – future, where urban life is the connecting thread and smart cities, learning cities, and future cities are the emerging and evolving concepts giving rise to, and motivating the explorations identified in the following objectives.

Objectives: The key objectives of this chapter are to: a) provide perspectives on urban life while introducing evolving understandings of smart cities; b) explore the concepts of learning cities and future cities in the context of urban life in smart cities; c) develop a conceptual framework for urban life and the ambient in smart cities, learning cities, and future cities; and d) formulate a series of research questions with propositions to be explored in the chapters that follow, based on the example provided in this chapter (e.g., the relationship between *funding* for smart city projects and factors such as *success* and *livability*).

As such, the key research question in this chapter is: *How does support for improving urban life emerge in the context of smart cities?*

2. BACKGROUND

From a sociological perspective, Wirth (1938) highlighted the "three variables" of "number, density of settlement, and degree of heterogeneity" as being able "to explain the characteristics of urban life." Cugurullo (2020) describes the smartness of cities by introducing the notion of "urban artificial intelligence" in the movement from "*automation* to *autonomy*." Concerned with exploring "a sustainable future for human and nature", Zhang and He (2020) provide an introduction to a special issue of smart technologies and urban life from a behavioral and social perspective, in the context of "the explosive growth of sensing technologies, artificial intelligence (AI), and Internet of Things (IoT)" contributing to "a paradigm shift in the ways of experiencing and researching urbanism." It is worth noting that a CitiesX course is being offered in the form of a massive open online course (MOOC), focusing on "the past, present and future of urban life" from an economics perspective enriched with perspectives from anthropology, history, and urban planning, to name a few (EdX, 2021). Batty (2022) speculates on the shape that future cities will take from an advanced spatial analysis perspective, claiming that the city as a concept will disappear in a future that is entirely urban.

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