

# Chapter 18


## Fourth Industrial Revolution (4IR) in the Global South: The Future of Work in Tourism – Challenges, Opportunities, and Future Prospects

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### ABSTRACT

*Future trends within the field of tourism research vary, whilst the predictions continue to be at the forefront of the discussions among the tourism practitioners and researchers. The change is so evident and continues to accelerate at a tremendous speed while at the same time the tourism industry remains fragmented and interdisciplinary. This chapter intends to present the view from the global south on the fourth industrial revolution concept in the tourism industry. Reviewing the literature on tourism and the 4IR as a research method is more relevant than ever because literature reviews play an important role as a foundation for all types of research. The future trends in the tourism industry are highlighted in this chapter, together with the common pitfalls and advantages of the 4IR in the tourism industry.*

### INTRODUCTION

Tourism planning is critical for the long-term success of any destination. If done well, it can ensure the longevity of the tourism industry in the area. This is reflected through the history of the first, second and the third industrial revolutions. There has been a paucity of academic gaze on tourism and the 4IR

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literature. Therefore, it is critical to contribute towards the body of knowledge of the tourism sector and the 4IR, particularly in the developing context such as South Africa. Change in one place affects the pace on how to deal with the change. We live in a connected society with several disruptions ranging from the technological connection, globalization, risks associated with climate change and the epidemics such as CORVID 19 (just to name a few). Consequently, organization are at a point where they have to cope with the major shifts in the technological, social, economic and environmental changes of this era. This paper presents a strategic outlook on the future of the tourism industry in the context of the 4IR from a global South perspective. Perhaps a background on the different types of industrial revolutions is important.

## **Background of the First, Second, Third Industrial Revolutions**

“The first Industrial Revolution was characterized by the substitution of water/ coal/ steam power, it all started in Britain’s textile industry in the mid-18<sup>th</sup> century, it was sparked by the mechanization of spinning and weaving. Over the subsequent 100 years, the first industrial revolution transformed every existing industry, from machines tools to steel manufacturing, the steam engine and railways” Schwab (2018: 7). Mpofu & Nicolaidis (2019) noted that water and steam engine were key aspects which ultimately made possible the convention of the farming and feudal society to a manufacturing society. According to Sudhakar (2018), the Second Industrial Revolution was from the 1940s to the 1970s. There was a scientific-technical revolution in which there was a rapid industrialization by means of oil, petroleum and electricity to power mass production processes and the mechanization of manufacturing. Electric energy was used to generate mass production processes” Mpofu & Nicolaidis (2019:3). “The second industrial revolution began in 1900 with the invention of the internal combustion engine” Xi et al. (2018: 90).

The Third Industrial Revolution started in 1960 and was characterized with the implementation of electronics and information technology to automate production” Xi et al. (2018: 90). The third industrial revolution involved the application of electronics and information technology, and was moulded by the post Second World War (Mpofu & Nicolaidis, 2019). The 4IR is building on the Third Industrial Revolution characterized by a fusion of technologies blurring the lines between physical, digital and biological spheres (Xi et al., 2018). The 4IR is changing how we live, work, and communicate. The transformation of the industrial revolution has transformed the ability to store, process and transmit information in digital form; reformatted almost every industry, and dramatically changed the working and social lives of billions of people. The cumulative impact of these three industrial revolutions has been an incredible increase in wealth and opportunity” Schwab (2018: 8). It is reshaping government, education, healthcare and commerce-almost every aspect of life” Trailhead (2019:1). The Caribbean Council (2019) noted that it means increased competition, reduce prices and restructure a market in ways that often result in changing the behaviour patterns of an existing market and how and where individuals are employed. However, the focus of this paper is on the 4IR.

## **The Fourth Industrial Revolution**

The impact of the 4IR has become topical, as it is associated with the Internet of Things, computerization, robotisation and smart networks and smart cities. Panfiluk et al. (2019) noted that such concepts are based on four groups of new technological systems: nanotechnology, biotechnology, computerization and communication as well as cognitive technologies. Schwab (2015) noted that the 4IR is associated with breakthroughs in fields such as artificial intelligence, robotics, the Internet of Things, autonomous

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