

Chapter 10

Service Automation and Festivals: Technologies and Their Impact Upon Sustainability of Events

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ABSTRACT

The United Nations' sustainable development goals have created an environment in which the world's population are attempting to link various human activities with improvements in the ways that humans do things to ensure a more sustainable future. In this chapter, the author concentrates upon festivals and other events, focusing upon how various service automation technologies will work to support sustainability in the events industry, a component of SDG 12. The chapter will focus upon how technologies will increase efficiency of operations and reduce energy consumption. The chapter will also highlight some of the major challenges, illustrating what innovations and improvements will need to be made to ensure that festivals can achieve the maximum level of sustainability possible. The chapter ends with a discussion of the externalities of the increased use of automation technologies to show that there will have to be adjustments to not only the way that services are delivered but also to the expectations of the consumers.

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INTRODUCTION

The tourism and hospitality industries are industries that consume a great deal of materials, energy, water, construction materials, and produce waste. While nearly any human activity will include the use of various inputs and result in a number of wastes, the added element of transportation and intercontinental aspects of transportation for tourism and events are quite wasteful and have a noteworthy impact upon the environment (Ahmad et al., 2019; Sharpley, 2021). While it would be impossible to eliminate all negative social, economic, and environmental externalities from hospitality, tourism, and events, there may be ways in which current and future technologies may reduce waste, minimize the impact up resources, and generally decrease the negative consequences associated with tourism, hospitality, and related industries.

There is a history associated with concerns with environmental protection and sustainability. During the late 1960s there was a growing movement that focused upon the protection of the environment and this developed into our new sense of “sustainability.” In 1968, Paul and Anne Ehrlich (1968) published their groundbreaking book, *The Population Bomb*, in which they discussed the concern that the Earth is overpopulated and made predictions about future environmental collapse. It was also the same year that the Club of Rome was founded as an informal organization concerned with important global issues, one of which is environmental issues. By 1970, societal concerns with environmental issues had grown a great deal, enough that the first Earth Day was declared. By the 1980s, there was increased concern and institutionalization of environmental concerns with the production of the Brundtland Report (WCED, 1987). The most massive and most global institutionalization of environmental concerns is the UN’s 17 Sustainable Development Goals (SDGs), having been put into place in 2016 as a list of goals and indicators towards environmental, economic, and social goals to be met by 2030.

So, while tourism is a massive part of the economy globally, one of the globe’s major industries, we also see that the tourism economy is projected to expand. By 2033, it is estimated that the global tourism industry will be worth \$15.5 trillion economy with the US component of the economy being worth \$3 trillion (Girma, 2023). With the expansion of the tourism economy, a person would expect that the negative external impacts of the economy would be increased in size. However, this is an opportunity for the use of automation technologies to play a role in improving the efficiency of the use of energy and raw materials in tourism-related businesses. In this chapter, we will first discuss what is meant by “sustainability,” showing that it is often a word used in conjunction with tourism and tourism-related industries. Then, we will illustrate the ways in which we expect that automaton technologies will be used in ways to assist in making events (a subset of the tourism and hos-

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