

# 13

## Artificial Intelligence in the Hospitality Industry – Challenges and Sustainability Solutions

*Frederik Jan van der Meulen and Marit de Vries*

### Learning goals

After studying this chapter, readers will have the ability to:

- 1 Understand how AI can improve sustainability in the hotel business;
- 2 Determine the key sustainability concerns and solutions linked with AI in hospitality;
- 3 Examine the use of AI in boosting customer experience and operational efficiency;
- 4 Assess the economic consequences, including expenses and ROI, of AI integration in hospitality;
- 5 Investigate the ethical implications and cultural repercussions of using AI in a global hospitality environment.

### Introduction

Imagine yourself in the thought process of booking directly a hotel room for a next stay in a hotel. Back in the days, you picked up the phone to call the hotel or even in earlier days, you wrote a letter to make a reservation via mail or fax. In the years, technology has taken a flight, and we are now using, of course, our laptop or even more often, mobile phone to book the room. Though, how sustainable is your online search for a hotel room? And, when you arrive at the hotel, how sustainable are all the technology instruments used behind the scenes to make your stay more enjoyable?