Microchips With Your Salsa?: Robots Recharging the Restaurant and Hotel Industries

Insights
4.02.21

Imagine this: COVID-19 restrictions on indoor dining have lifted, you walk in to your favorite restaurant, and instead of seeing bussers patrolling tables, you see a three-foot tall robot scooting around the floor. No, you are not hallucinating after quarantining for too long. You are, however, seeing the hospitality industry embrace an increasingly widespread trend to adapt to a world where less human-to-human contact is desired instead of discouraged.

Where participating in technological innovation in their businesses was once a choice, restaurant and hotel employers are now using robots as a means of survival to stay operational and meet heightened health and safety standards for their workforce and customers amid the Coronavirus pandemic. Consequently, what was previously seen as a threat to the hospitality industry is now giving it life – albeit artificial.

R2D2 Who? Meet the New Bots on the Block

While the use of robots in other industries have been extensive, restaurants and hotels are relative fledglings in this space. The COVID-19 crisis has now forced employers to think outside the box to find efficient solutions to new-age problems, including adding team members that literally arrive in a box.

Hotels Entering the Robotic Age

Prior to March 2020, hotels across the world rolled out service delivery robots, or concierge robots, designed to deliver items such as water, food, towels, or packages directly to guests in their rooms without human assistance. These robots made it possible for staff to focus on other duties, while simultaneously providing a novel and remarkable experience to guests that increased occupancy and customer return and promoted brand recognition.

At the onslaught of the pandemic, hotels saw a dramatic decrease in guests booking rooms for leisure and business travel because of state and county restrictions. As time went on and our understanding of COVID-19 increased – along with the implementation of safety measures to slow its transmission – the hospitality sector began to slowly emerge. For those who could travel, hotels found their customer bases asking fewer questions to vet their stay along the lines of "Is the hotel cool?" and "Does the hotel have unique amenities?" and instead found them asking "Is this hotel

safe?" and "How often are the rooms cleaned?" To address the profound concerns around safety, hotels are deploying their concierge robots for contactless front-of-the-house service or room service. The robots take on the role of certain delivery services to provide peace of mind to guests and ensure social distancing.

Furthermore, hotels began using robots for perhaps their most impactful use during these times: deep cleaning. To strengthen and boost their cleaning protocols, hotels are adding an extra layer of protection through disinfection technology that destroys bacteria and viruses with ultraviolet light. One of the leading companies in UV robotics, Xenex, designed "Light Strike" robots initially for hospital settings but found the demand for them traverse various sectors including airports, train stations, cruise ships, and, of course, hotels. Currently, these Xenex robots run for approximately $100,000. However, high cost comes with steep reward. The hotel's regular cleaning is not replaced but enhanced as these robots provide a second sterilization without chemicals and after housekeeping leaves the room. A recent test found that after only two minutes of exposure to UV light at three-feet distance from these Xenex robots, they can eliminate the SARS-CoV-2 virus by 99.999%. This new method of sanitization is another line of defense against the virus in addition to CDC guidelines on prevention.

Restaurants Also Using Robots

Hotels are not the only sector "caching" in on the use of robotics. The pandemic has impacted restaurants in much the same way as hotels. There is a new focus on limiting human interaction, increasing cleanliness, and creating revenue with less occupancy, staff, and smaller menus. Robotic restaurants once seen as the future are becoming a reality.

Quick service restaurants have found new ways to improve their drive-thru lanes already inherently designed to provide food to customers through limited human contact. With artificial intelligence technology, quick service restaurants are using voice technology and customized menu boards to reduce service times and induce customers to buy more food. The automated voice technology is always calm under pressure, never forgets or mistakes a customer's order, and along with the customized menu board, makes food suggestions specific to other items the customer orders or popular items in the geographic location.

Restaurants are also adding other robots to their workforce. One quick service group recently introduced a robotic fry cook designed to cook patties on a grill, flip them, place them on a bun, and insert and remove fries from the fryer. Other restaurants use robots to press pizza dough, make salads, and even mix and serve cocktails.

Are Machines Better Than People?

While introducing automation in the hospitality industry has indisputable benefits, the question remains whether adding robots to the workplace means the inevitable eclipse of humans. However, the reality is that the robots used in the hospitality industry are supplements to human workers and

the reality is that the robots used in the hospitality industry are supplements to human workers and are designed to assist rather than replace them. For example, a robot may be programmed to operate independently such that it can move without human assistance, operate an elevator, detect stationary or moving objects within a certain distance, navigate to a specified room or location, and even announce its presence upon arrival. A robot may greet a customer more pleasantly before an order and may suggest a menu item based on data that the guest would not have ordinarily thought of.

But what happens when the robot delivers a soda to a guest's room but the guest ordered a coffee and is now upset at the mistake? What if the robot is unable to understand what the customer means when they order an item using a word or phrase that is different than the actual name of the menu item? The robot cannot have a dynamic conversation with the guest and resolve the concerns. Rather, the guest must contact a human employee who is trained and equipped to address complaints. Even with the most sophisticated artificial intelligence technology, a robot's programming will dictate its abilities whereas humans can respond to situations offhand.

Moreover, much like humans, machines break down and malfunction. While an employee can take a sick day and heal on their own, the robot needs a human to fix it. Therefore, the more robots are used, the greater need there is for employees who can make, program, and repair them. One cannot exist or function without the other, thereby ensuring job protection instead of elimination. In hotels, the use of robots has caused management to hire more staff than they originally would have had because guests were impressed with the level of effectiveness and cleanliness and were capable of catering to more guests, so the number of guests rose.

Additionally, with robots handling certain basic tasks and performing labor without pay, employees can focus on higher-level tasks and labor costs can be reallocated. Thus, through automation, restaurants have been able to offer their employees higher wages, health benefits, and even training opportunities for more skilled jobs. Automation therefore allows hotels and restaurants to increase their investment and commitment to employees by creating advancement and encouraging development.

The Nuts and Bolts of Implementation

For those businesses with the ability to implement robotics into their workplace, the first hurdle is the potential six-figure or more investment. However, absent repair and maintenance costs for the life of the robot, the projected cost over time remains relatively low because robots do not earn hourly wages or salaries. Further, the more businesses that purchase and use robots, the less expensive they will become over time and the initial investment cost diminishes.

Secondly, it is pivotal to understand that robots cannot replace humans and people may not like robots as much as we think. Initial feedback on automated voice technology revealed a marked intolerance to the inhuman voice patterns and lack of interaction. Despite machine operated customer service telephone lines implemented to streamline processes, many people still prefer to speak to a live representative and choose that option at the outset of the call. Because most

speak to a live representative and choose that option at the outset of the call. Because most Americans have largely been confined to their homes for over a year, some people crave appropriately distanced human interaction more than ever before. While the novelty of having a cocktail prepared and handed to you by an electronic arm may bring you to a restaurant, what keeps you coming back is the service you receive from the waitstaff.

In the same vein, customers expecting a "real" server or hostess may be disappointed to find an automated robot at the front-of-the-house. Keeping the high-tech machinery in the back where customers can reap the benefits without actually seeing the robot will facilitate efficiency and prevent any risk in customer interaction with a pre-programmed, rigid machine.

The overarching takeaway is that adding robots can enhance customer and guest experience, but people are the cornerstone of businesses. Excellent service cannot be achieved through machines only but may be achieved through gradual integration of robots into the workplace and workforce. As with any new concept, customers and businesses alike need time to adjust and grease the wheels before things run smoothly. In assessing whether to introduce robots to the workplace, employers should consider whether their environments and customers would be open to such a concept, whether the financial investment is prudent, and how the technological innovation would best support and expand the specific business.

Conclusion

The hospitality industry has been one of the hardest hit by the Coronavirus pandemic but has also shown to be one of the most resilient and adaptive. Utilizing technology is integral for the hospitality sector's success on the long road to rebuilding post-pandemic. By balancing the use of robotics to make existing processes more sanitary, efficient, and productive while also maintaining its commitment and dedication to a skilled human workforce, businesses industry-wide may safeguard employee and customer health and ensure growth and revitalization.

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