

67 Intelligent Service Robots to enter the Hospitality Industry: Job Termination or Gospel to Waitress

Jiaji Yang & Esyin Chew

EUREKA Robotics Lab, Cardiff School of Technologies, Cardiff Metropolitan University

Introduction and Motivation

With the increasing application of AI robot technology in real-life, some robots have been applied in the service industry in Asia. However, since 2012, the application effect of humanoid robots in the service industry is not ideal and hardly goes beyond gimmicks or dull automation. There are challenges with the application and public acceptance of intelligent humanoid robots in the service industry.

This research builds on the existing capabilities of the EUREKA Robotics and aims to disrupt and enhance humanoid robotic programs by studying the public's acceptance of the use of AI robots in the hospitality industry in Wales.

Key Findings

As the first Humanoid Robotic Waitress in Wales, the research develops a novel robot serving program and allows Robot Eureka to serve in a café in Cardiff with engaging HRI and mixture of 23 customers' feedback. Most customers expressed positive attitude towards the acceptance of humanoid robots. Some are concerned about the human job security and privacy issues. All customers accept robots as their co-workers and almost half can accept occasional errors made by robots.

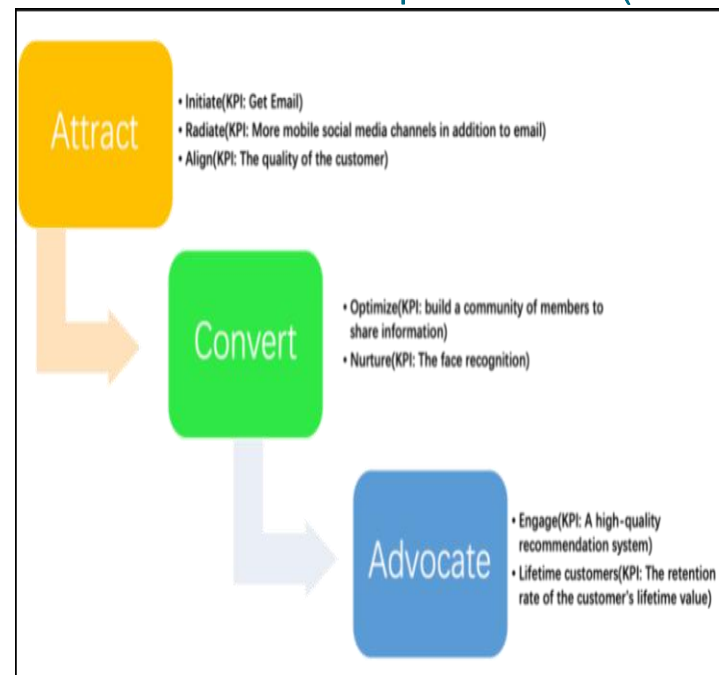
HRI with Intelligent Humanoid Robot: Robot EUREKA Gen-1 in a Cardiff Café



Research Methods

1. Customers-robot interactivities (HRI)
2. Questionnaires
3. Automated captured data during the HRI triangulated with informal interview with customers and researchers' observation.

iRobot Customer maturity eXperience Model (iRCXM)



Conclusion & Recommendation

All customers were happy to let Robot to capture their faces and details for customer registration. They are willing and believe that robots can properly keep their private information. All HRI sessions satisfied the "Attract" stage and most HRI session satisfied the "Convert" stage for the iRCXM model. The study proposes an cutting-edge interactive model for hospitality robots with Customer Maturity Experience Model.