

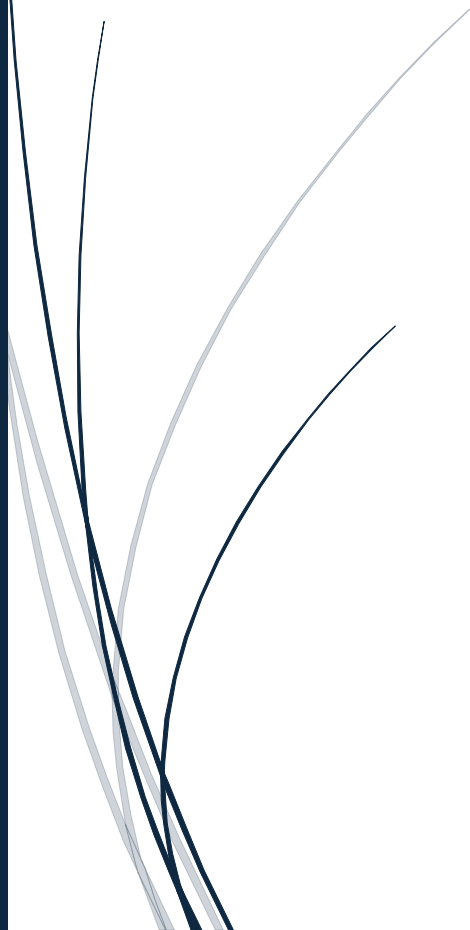


26/04/2026

The role of Artificial Intelligence in Hospitality and Guest Service: Cardiff Bay Arena

Hospitality and Guest Service Management
(BMTP4013)

Jacqui Jones



Amber Treharne (2502316)

1,649 words

I acknowledge the use of Bodyswaps and Microsoft Editor (AI Tools) on [25/04/2026] I used the prompts:

1. BodySwaps demo – for in class learning.
2. Microsoft Editor – for editing and proofreading.

I confirm that I have not presented any AI generated text as my own work. I confirm I have copies of my drafts, notes, and other resources I used before, and after the use of AI tools which I may be asked to provide in evidence.

Table of Contents

1. Introduction	3
2. Findings	4
2.1: Guest service.....	4
2.2: Hospitality Operations.....	5
2.3: CRM	6
2.4: Recruitment and training	7
3. Conclusion.....	7
4. Recommendations	7
5. References	9
6. Appendices	12

Introduction

As new technology develops, it impacts the current tourism and events sector. The industry is constantly changing, leading to mixed beliefs as if AI can enhance the guest experience. This report explores research based on AI and how it can be utilised for guest service, recruitment, training, hospitality operation and CRM to improve yield management for the development of Cardiff Bay Arena. Potentially opening in 2028, a new 16,500 capacity arena is under construction in Cardiff Bay under the Atlantic Wharf development. This will encourage global artists to perform in Cardiff and gain more visitors, boosting the economy. A focus is making this a sustainable, modern venue by using solar energy, “protecting sunlight” for other properties nearby and encouraging public transport (atlanticwharfcardsiff, 2026). By building this impressive arena, developers intend to create around a thousand jobs of all ranges benefiting the local community and music scene (Aitken, 2025). It is possible that AI is planned to be used in this arena as it could enhance management, modernise hospitality and simplify venue procedures.

Ottenbacher et al. (2009, 263 - 268) suggests that Hospitality can be defined as the friendly reception of guests. This includes welcoming, providing friendly service and creating an exceptional experience based on the needs of guests. The process of service in hospitality is important as the quality of what is put in is what the guests get out. Therefore, factors like facilities, staff, technology and materials impact guests' experience (Johnston et al, 2012).

According to Russell and Norvig (2016, pp. 1-4) artificial intelligence can be defined as a new form of technology that is flexible and relevant to any task. This can be categorised as it thinking and acting humanly or rationally, meaning how the artificial intelligence performs based on the information it understands. In essence, AI is a technology capable of performing tasks which usually require human intelligence. This can be through the form of computer technology and robotics (Russell and Norvig, 2016). In the context of hospitality and guest service, AI can be a useful tool to improve guest experiences and simplify job roles without taking away interactions which benefit from human connection.

Findings

This technology could be incredible to utilise in hospitality and guest service to be used for tedious tasks, help in staff shortages and improved speed of service. If AI is used in a unique way it could support the launch of Cardiff Bay Arena, making this an attraction part of the venue.

2.1: Guest Service

AI powered chatbots, robots and smart assistants become useful in delivering smart, efficient hospitality that increases customer satisfaction with persistent quality and personalised experiences. There are many ways AI can be used in hospitality like to improve room service by using voice assistants for room controls and robots which can provide room service (Gursoy, 2025) as well as direct customers to their room on arrival. For the arena, this can be used to minimise food wastage and predict menus specific audiences will enjoy, deliver goods to guests' seats and help to locate them.

Jarrett (2025, pp. 8) discusses this topic in relation to the effectiveness of AI by predicting what should be changed to enhance menus so there is less food wastage. AI can be used in this context to gather guests' information to make the experience more personalised for them to predict the types of food and beverage that should be sold specific to the demographic of the show. Even though this could mean storing guests' information which could cause them to be at risk of a data breach if the arena is not aware of how the information is stored and how it can be protected (Ali, F, *et al.*, 2026). Ritz Carlton's "Mystique" system is an example of how AI can be newly utilised to provide this level of service. This system can benefit the guest as it combines guest service with a system which gathers guests' information. Anywhere in the world, Ritz Carlton can present guests ready with what they usually ask for (Michelli, 2008).

Although this smart technology is modern and can improve service in several ways, this does not come without its possible negative impacts. A main issue with incorporating AI into guest service could be the lack of emotional intelligence if it is heavily incorporated to mirror front of house staff. Guests could experience frustration if AI cannot comprehend the answers to some specific questions as some argue it cannot interact as personally as a human could (Chauhan, 2024). AI does not provide a human connection which some demographics of customers may prefer

to have as it is familiar and could provide a deeper connection than with AI. A survey by Phillips (2025) shows that 70% of participants prefer to speak to a human rather than AI as they provide more care and empathy in customer service (see appendix 1). Although it can be beneficial if combined with human guest service as it could improve efficiency and speed of service to increase revenue.

2.2: Hospitality operations

Robotic bars could be used in the arena to improve speed of service like on cruise ships. These are helpful in providing accurate measurements to make consistent drinks over time and perhaps improved speed of service. Besides this, many guests have found this to be a novelty and after one purchase they prefer interaction with a human bartender (Royal Caribbean, 2019).

Co-op Live's "Tap, Grab, Go" self-service food and beverage kiosks are powered using AI technology. This maximises revenue and leaves customers satisfied by delivering fast paced service at ease with minimal queues and waiting. The self-automated drinks service combines cameras, sensors and self-pour machines with AI to create high quality beverages (Mugridge, 2026). The Atlantic Wharf arena could benefit in investing in this technology as it will have the largest capacity of all arenas in Wales, attracting global visitors and boosting the Welsh economy. This modern approach to food and beverage allows a convenient "elevated fan experience" during high capacity shows so that fans can return to the performance with ease (Co-op Live, 2026).

On the other hand, from existing knowledge there could be concerns with guests being anxious to use this technology as they prefer familiarity or simply be confused with how this operates compared to standard bars and kiosks.

2.3: CRM

Hospitality can not only benefit from robots being powered by AI to improve guest service but also technology to improve systems. Wood (2013) suggests the importance of understanding customer's needs and behavior in order to improve CRM. Shoemaker and Lewis (1999) as cited in Wood (2013) imply that specific types of customer profiles can be gathered such as preference of service and personalised profiles as well as the guest's expectations. This ensures that staff members have relevant information to make each stay or experience feel special and unique. This relates to Cardiff Bay Arena as AI can be used to improve customers experiences through CRM by analysing how, where and when they can increase revenue whilst benefiting the guest.

Systems X is a CRM system that uses AI to monitor and empower staff to improve customer experiences. Their AI agents feature built for travel can book and organise itineraries efficiently through chatbots or calls 24/7 (SystemsX, 2023). This arena could use this system to benefit from an AI chatbot and organise performances effectively. For example, to increase yield, they could use an AI powered CRM to predict which performances to keep bars open throughout or reduce prices of tickets which have not sold shortly before the show to maximise revenue. Swansea Arena (ATG) uses "Monday" another AI powered CRM software to organise company statistics, bookings and events. This is specific to each company's needs and is efficient for a fast-paced workplace (Monday.com, 2026). This new arena in Cardiff Bay could utilise a similar approach, using artificial intelligence to simplify CRM without taking away the ability for managers to edit and personalise it. Potential downsides include a risk of data breach and inaccurate information but with a trustworthy type of CRM this can be avoided (Bholane, 2023 p. 42).

2.4: Recruitment and training

Bodyswaps is a virtual reality AI powered platform for guest service training through different scenarios. This can be a useful, modern way for interview practice and preparation for work in hospitality (Bodyswaps® 2026).

AI could be supported for training and recruitment in this new arena in the form of a practical learning platform through VR or even robotics for practical training. ATG (Swansea arena) only supplies staff with online training due to minimal costs and lack of time. Therefore, practical training could be improved for Cardiff Bay Arena by utilising technology to minimise wastage and time while training.

Conclusion

Ultimately there are many positives and negatives to applying artificial intelligence to Atlantic Wharf Arena, but this should be supported for this project launch as it can create many benefits in the venue if used as a tool alongside staff. This gives guests the option to talk to humans if complex issues arise. Although venue directors should be aware of how their technology stores information, perhaps only using it for tedious tasks to begin with could be beneficial. CRM can help this arena to maximise profits and provide customers with the best service. It can speed up the process of getting customers through the doors and serving them, allowing guests more time to purchase consumables; improving performance financially

Recommendations

- In a fast-paced environment AI could help solve customer's problems quickly at box office.
- Robots at the entrance could help customers to locate their seats as well as deliver to seats.

- Implementing a self-service bar could prevent long queues and serve more guests in time periods to maximise profit.
- CRM systems could organise employee data, upcoming performances, statistics from past performances and creative ways to maximise profit.
- AI could be utilised for chatbots and personalisation in customer's accounts.

References

Aitken, C. (2025). Cardiff Bay arena gets go ahead with 2028 opening date. *BBC News*. <https://www.bbc.co.uk/news/articles/cdrk7zkr0p3o>. (Accessed 3 Apr. 2026).

atlanticwharfcardsiff (2026). *The Arena*. atlanticwharfcardsiff. <https://atlanticwharfcardsiff.co.uk/> (Accessed 3 Apr. 2026).

Ali, F., & Ali, L. (2026). Agentic AI in Hospitality and Tourism: Opportunities, Risks, and Research Pathways. *Journal of Travel Research*, 65(4), 1248-1261.

Bholane, K. P. (2023). *AI Powered CRM Its Implications, Pros, Cons and Future*. ResearchGate. https://www.researchgate.net/publication/384332891_AI_Powered_CRM_Its_Implications_Pros_Cons_and_Future (Accessed 25 Apr. 2026).

Bodyswaps® (2026). *Bodyswaps: VR Soft Skills Training* Provider. <https://bodyswaps.co/>. (Accessed 11 Apr. 2026).

Chauhan, D. (2024). *As a head of a company deeply entrenched in hospitality technology, I've seen firsthand how Artificial Intelligence (AI) is transforming the industry. From personalized guest experiences to operational efficiencies, AI has opened doors to opportunities that were once unimaginable*. LinkedIn.com. <https://www.linkedin.com/pulse/dangers-ai-hospitality-my-perspective-practical-hotels-deepak-chauhan-39qme/>. (Available 14 Apr. 2026).

Co-op Live. (2026). *Tap, Grab, Go*. <https://www.cooplive.com/tap-grab-go-c3b1> (Accessed 18 Apr. 2026).

Gursoy, D. (2025) 'Artificial intelligence (AI) technology, its applications and the use of AI powered devices in hospitality service experience creation and delivery', *International Journal of Hospitality Management*, 129, pp. 104212. Available at: <https://doi.org/10.1016/j.ijhm.2025.104212>.

Jarrett, C. (2025). *HOSPITALITY 5.0: FUTURE PROOFING SKILLS, SPACES AND SERVICE THROUGH AI INNOVATION*. Institute of Hospitality Round Table White Paper. University of Wales Trinity Saint David. https://moodle.uwtsd.ac.uk/pluginfile.php/1167157/mod_resource/content/1/Round-Table-White-Paper-Future-proofing-skills-spaces-and-service-through-AI-innovation.pdf (Accessed 9 Apr. 2026).

Johnston, R., Clark, G. and Shulver, M. (2012) *Service operations management : improving service delivery*. Fourth edition. Harlow, Essex, England; Pearson.

Michelli, J. (2008). *Take It From Ritz-Carlton: Data Is Nothing Without the Personal Touches*. Customer Think. https://customerthink.com/data_nothing_personal_ritz_carlton/ (Accessed 8 Apr. 2026).

Monday.com. (2026). *AI Powered CRM for Hospitality - Monday.com*. <https://monday.com/crm/content/industry/hospitality> (Accessed 13 Apr. 2026).

Mugridge, E. (2026). *Co-op Live unveils Europe's first fully frictionless, autonomous market & self-serve bar integration to elevate fan experience – Event Industry News*.

Event Industry News. <https://www.eventindustrynews.com/news/co-op-live-unveils-europes-first-fully-frictionless-autonomous-market-self-serve-bar-integration-to-elevate-fan-experience> (Accessed 17 Apr. 2026).

Ottenbacher, M., Harrington, R., & Parsa, H. G. (2009). Defining the Hospitality Discipline: a Discussion of Pedagogical and Research Implications. *Journal of Hospitality & Tourism Research*, 33(3), 263-268.

Phillips, R. (2025). *New data: 10 stats that show why human customer service still wins*. AnswerConnect Blog. <https://www.answerconnect.com/blog/business-tips/human-customer-service-stats/>. (Accessed 22 Apr. 2026).

Royal Caribbean (2019). *Bionic Bar® | Robot Cruise Bar | Royal Caribbean Cruises*. Bionic Bar. <https://www.royalcaribbean.com/cruise-dining/bionic-bar>. (Accessed 25 Apr. 2026).

Russell, S.J. and Norvig, P. (2016, pp. 1-4) *Artificial intelligence: a modern approach*. 3rd ed. Boston, Mass: Pearson.

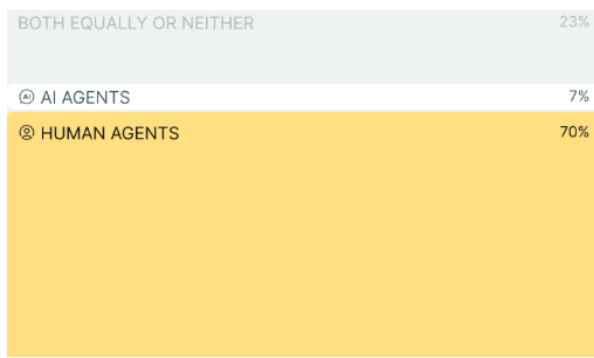
SystemsX. (2023). *About Us*. <https://systemsx.co.uk/about-us/> (Accessed 11 Apr. 2026).

Wood (2013) *Key concepts in hospitality management*. London:, SAGE Publications Ltd

Appendices

Appendix 1:

a: A study by Phillips (2025) depicting the number of correspondents who prefer to be served by human agents in customer service:



b: A chart representing this statistic

