ROBOTISED HOSPITALITY

HACK HOSPITALITY

School of Hospitality and Tourism Management
University of Surrey
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Applications and Implications of AI in Hospitality

The Department of Hospitality in collaboration with the Centre for Research and Enterprise (CRE) within the School of Hospitality and Tourism Management at University of Surrey kick started Hack Hospitality, a series of collaborative workshops to discuss the applications and implications of artificial intelligence (AI) and robotics in hospitality. The inaugural workshops were held in Central London on 12 February 2019 and in Guildford on 19 February 2019.

“Surrey’s Hack Hospitality is a platform that brings together researchers and industry experts to co-design intelligent hospitality systems.”

Hack Hospitality brought together Surrey’s research team with experts in AI and robotics, as well as thought leaders in the hospitality and travel industry to envision the future of hospitality. Workshop participants engaged in creative thinking and collaborative exercises facilitated by LEGO® SERIOUS PLAY® method to think about how to best implement AI and robots in hospitality and how the roles of employees will be transformed as a result of increasing automation.

Workshop Participants

- Arora Group
- BotsAndUs
- The Bot Platform
- Casual Dining Group
- The Cato Bot Company Ltd.
- Crepeaffaire Ltd.
- D&D Restaurants
- Fit Food & Juice Bars
- Gin Kitchen
- Humanise.AI
- Institute of Hospitality
- Karakuri
- Lakeside Restaurant
- McDonald’s
- Moving Food
- Rarely Impossible
- SACO Apartments
- SHTM
- Visit Surrey
- WTTC
The Best Things about Hospitality

What makes hospitality a great industry to work in?

- Pursuing new knowledge whilst cheering on coming generations.
- Empowering staff to create and deliver great service.
- Constantly moving onwards, keeping an eye out for new opportunities.
- Facilitating knowledge-sharing between different stakeholders.
- Unlocking new knowledge to solve problems and help people.
- Solving problems as you go; adapting to dynamic situations.
- Working with brilliant people, testing and scaling-up new ideas.
- Helping people reach their full potential and progress their careers.
- Using technology to solve problems.
- Facilitating communication and broadening people’s horizons.
- Helping others reach their full potential whilst enjoying the journey.
- Exploring uncharted waters; travelling and meeting new people.
- Facilitating collaboration between diverse stakeholders.
- Working with and for people in a fun, creative fashion.
- Facilitating knowledge sharing between different stakeholders.
- Sense of achievement.
- Giving a voice to others, celebrating their achievements.
- Managing complex systems by utilising all resources to the max.
- People, people, people.
- Maintaining high standards, sustaining steady growth, adapting to changes in environment.

“The best thing about working in hospitality is... being able to solve problems through collaboration, empowerment, technology, and research.”
Envisioning the Future

How to integrate these qualities into employees’ experiences?

- Using technology to eliminate friction points, leading to less conflict and a better working environment.
- Using technology to carry out mundane tasks, freeing managers to focus more on employees and employees to focus more on customers.
- Investing in employees by giving them opportunities to develop themselves and learn new skills.
- Using gamification and appropriate competition as tools for creating better, more agile service organisations.
- Showing appreciation to your employees doesn’t have to cost anything and should be a given.

Roles of Technology

- Eliminate friction points
- Carry out mundane tasks
- Upskill employees
- Create agile service organisations
Envisioning the Future

What might a restaurant of the future look like?

- **Dining in space!**
- **Restaurants will be ultra-seamless and optimised. People deal with people, but technology helps out and enhances all interactions.**
- **Eating out will not be tied to a specific location anymore.**
- **Employees are the most important competitive advantage now and in the future.**
- **Eliminating unnecessary wait with ultra-personalised service.**
- **Restaurants as a hub that connects people from all over the world virtually.**
- **Modular, ultra-adaptable restaurants; technology facilitating better communication between people.**
- **Hyper-personalised meals; restaurants will primarily be a source of optimal nutrition.**
- **Streamlining service process by removing unnecessary friction.**
- **On-demand fresh ingredients made possible by ubiquitous drones.**
- **Intuitive robots delivering empathetic service.**
- **Personal service robots that learn to give personalised recommendations.**
- Robots taking care of most basic tasks in life in a personalised, environmentally and economically sustainable way.
- Restaurants research food and provide recipes; technology prepares food and creates the servicescape at your home, connecting you to other diners across the world (or the galaxy)!
- Intuitive robots reducing friction points in restaurants by taking customers to their tables.
- Robots taking care of irritating tasks; humans doing creative, happy, easy, and pleasant things.
- Tableside payment system that improves table turnover and increases customer satisfaction by reducing unnecessary wait.
- Delegating mundane jobs to robots, allowing people to focus on higher quality jobs; making sure everything we do is sustainable (ultra-circular economy).
- Highly customisable and frictionless service offering; the restaurant is there to facilitate you having a great time with your friends.
- Table-clearing and cleaning robots to increase efficiency in QSRs.

“Restaurants in 2039 will have ultra-personalised, seamless service and food, transformable interiors, and agile offerings.”
Envisioning the Future

How do we get there?

- *Finding processes that are currently done by people, but where humans don’t add any value.*
- *Technology is only a means to an end. Too often the focus is solely on technology, or the customer, and not on what it does to employment, for example, motivation or tips.*
- *Striking a balance between technology and people by removing irritants but not (all) social interaction.*
- *Competing mindsets: using technology to do something new or novel vs. using technology to solve problems.*
- *Fully capitalising on technology requires a fundamental shift in organisations and traditional ways of doing business.*

“Restaurants in 2039 will not be tied to a physical location anymore.”
Envisioning the Future

What if stakeholders resist change?

- It’s all about providing choice: different offerings for different situations and segments, as well as a myriad of ways of going through the actual service processes.
- How well you manage expectations, both internal and external, determines how long you will survive as a business.
- If technology offers advantages, people will go for it, and once that happens, it will feel strange to go back to the old systems that don’t offer the same benefits.
- New systems should be appropriately piloted in order to increase the likelihood of successful adoption.
- Cultural differences need to be carefully considered. There are no one-size-fits-all solutions.

Restaurants of the Future

Frictionless service that’s centred around human connection.

Mundane tasks will be replaced by creativity and research.

Environmental and economical sustainability will become universal values.
Key Takeaways

If successfully implemented, **AI and robotics** may (1) assist hospitality employees by **taking over routine tasks**, thus allowing more time to be spent with customers, (2) **improve the service offering** by removing friction and unnecessary wait points in the customer journey.

In order to capitalise on the **automation revolution** businesses need to carefully examine their existing **service processes**, identify any steps where the **human** does not add value, and revamp those by delegating tasks to intelligent **machines**.

Involving **technology companies** in the process early on is recommended.

Several **challenges** still remain. It is imperative that businesses carefully consider and manage the **potential pushback** from customers and employees. Particularly critical is the **transitional phase**.

**Cultural differences** might also impact the acceptability of robotised services.

However, consistently delivering added value, benefits, or advantages over old systems is believed to eventually win stakeholders over.
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