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WHITE PAPER

AI Meets Human Hospitality

Who will run our hotels in 25 years
– Humans or Robots?





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Executive Summary

A thought-leaders breakfast, hosted by IDeaS Revenue Solutions and SiteMinder, was held during World Travel Market (WTM) London on 7th November 2017 and involved an interactive workshop run by Monica Or, founder of Star Quality Hospitality Consultancy.

The audience, consisting of hoteliers from some of Europe's most renowned hotel brands, shared ideas and viewpoints as to who would run our hotels in 25 years – humans or robots? Live polls and surveys were carried out to collate and rank those ideas.

The results from this initial workshop were revealed in a webinar held on 5th December 2017. The audience from this event, which consisted of hoteliers from around the world, were asked the same questions.

This white paper shares the collective findings from both events to explore what can happen when artificial intelligence (AI) meets human hospitality.

AI Meets Human Hospitality

The Internet of Things (IoT) was invented in the late 1980s, and the World Wide Web as we know it came into existence in the late 1990s. In just over 25 years, the way we use technology has evolved rapidly, and at its current rate of growth, it is anticipated that we will need to further dramatically change how we operate our hotels over the next 25 years.

In this white paper we will answer the following questions:

- **Who will run our hotels in 25 years** – humans or robots? We take a glimpse at what happens when our hotels are run entirely by robots.
- **Will human hospitality be enough to stop the robots from taking over?** Find out what hoteliers think about this.
- **How can hotels of the future embrace technology to enhance the guest experience?** Learn what hoteliers believe could happen at their hotels.
- **What does this mean for hoteliers?** Find out the next steps you should take.

Who will run our hotels in 25 years – humans or robots?

To set the scene, hotelier participants of our study were shown a short video of the Henn na Hotel in Japan, which literally translates into English as 'weird' hotel. Why weird? In 2015, it became the first hotel to be run entirely by robots.

The Henn na Hotel has everything from 'humanoids' (robots that look like humans) and robotic dinosaurs checking guests in, to butler robots carrying guests' luggage to their room. Guests enter their room using facial recognition, and inside is a robot companion which is a fount of all knowledge and there to assist guests during their stay.

Would you want to stay in a hotel run entirely by robots?

Having seen what is possible, we asked our hotelier audiences this question during the WTM workshop and webinar.



The overwhelming majority answered: No.



What is AI?

The use of technology in our hotels is more than just robots. We asked our hotelier audience about their understanding of AI, and they formed a word cloud depicting it. The key words were: learning, data, robot, responsive, machine, future and intelligence.

AI, in its most basic form, is machine learning, which we currently use in our everyday lives. How does Facebook recognise you in your photos? Through facial recognition. How does Amazon know what suggestions to make for your next purchase? Through the algorithms it has programmed as it learns from your browsing choices. This same technology can be used in the way we operate our hotels.

Apple has introduced us to Siri, Amazon has introduced us to Alexa and Google has given us Google Assistant. These are voice-activated aids that can answer our everyday questions. As they creep into our everyday usage, we get more comfortable with their presence and use. Will they ever have more knowledge than our trusted hotel concierge, however? This leads us to the next question we posed to hoteliers.

Will human hospitality be enough to stop the robots from taking over?

This is the question on everyone's minds. To answer this, hoteliers were split into three groups to consider this from the viewpoint of the human hotelier, the robot and the human guest.

'The Human Hotelier' point of view

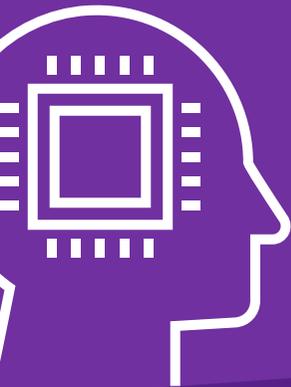
Humans are all about customer service and guest loyalty. They are adaptable and can tailor their service. They can multitask and have a superior ability to read emotions. They can deliver a soft, joined up service, giving attention to detail and, in some instances, can be cheaper to employ than technology.



'The Robot' point of view

Robots can work 24 hours a day, are faster and often cheaper, are always polite and can speak all languages. However, while humans can make mistakes, robots can break down and are not capable of 'humanising' the process with empathy and emotion.

For this group it was important that robots were left to look like machines and not humans.



'The Human Guest' point of view

This is about combining the technology and human touch to create a genuine experience.

It is about robot technology developed by hoteliers.

So, while robots can replace service in this instance, **human interaction is still required.**

This group suggested there was a clear place for technology, but the focus should be on how that technology is implemented in hotels.



What aspects of AI excite consumers the most?

As mentioned earlier, aspects of AI are already being used in our everyday lives and are becoming a normality for many. The following research carried out by Northstar Travel in 2017 shows which applications of AI excite consumers the most. This has been compared to how it relates to the guest journey.



- Pre-Arrival** Chatbots on our websites.
- Arrival** Driverless cars bringing our guests to our hotels.
- Check In** Facial recognition to unlock doors.
- Bedrooms** Temperature control, use of tablets, voice activation.
- During the stay** Personal companions – Hilton has Connie the AI Concierge, Radisson Edwardian has Edward the AI chat bot, Aloft has Botlr to pick up and deliver guest amenities.

All of the above are just some examples of how AI is gradually being introduced into the hospitality industry.

How can the hotel of the future embrace technology to enhance their guest experience?

Putting hoteliers into three groups once more, we asked each group to focus on one aspect of the guest journey and to discuss what their hotel would look, feel and sound like in 25 years' time, taking into account the technology that would need to be used to make this a reality.

Each group fed back their thoughts which were entered into the poll, and then they were all asked to rank their top three ideas.

Booking and Pre-Arrival

For the booking and pre-arrival stage, the top three answers were:

- 1) Tailored pricing knowing what the guest is willing to pay
- 2) Website designed personalised to each guest
- 3) Following cookies for a tailored booking experience.

All of these suggestions are currently being introduced. Technology is available to have 'intelligent websites' follow users and track how long they have been on certain pages, which areas of your website interest them the most and, with this data, suggest specific web pages to aid their browsing and purchasing decisions.

Looking at the fourth most popular survey answer, personalisation is a key way of engaging hotel guests and use of guest profiles can assist with recognition of previous buying and preferences. As for survey response number five, the proactive planner – where you book a flight or a hotel room and it automatically puts it in your diary – this already happens, thanks to Google. Once you press that booking button, it is in your diary.

What is interesting when it comes to technology and bookings is that hoteliers appear to be stuck in a time warp. The technology they crave already exists; however, the systems they currently have are not always compatible.

Arrival and Check In

For the arrival and check in stage, the top three ideas were:

- 1) Voice and facial recognition, which is where Google Assistant comes in. Companies like Marriott, Hilton and Accor are currently trialling this. It is not yet perfect, but remember we are looking at AI that learns, so imagine in 25 years how much it will know.
- 2) Rooms set up according to guest mood. Here we are looking at the lighting, the temperature and having a living wallpaper the guest can interact with.
- 3) Teletransportation: where the guest is beamed up to the hotel. This is truly futuristic because we won't need the driverless car that is currently being experimented with.

During the stay

During the stay the top three ideas were:

- 1) Immediate, 24/7 service with on-demand technology. Currently hotels use the internet and smartphones to incorporate this, and they are discovering that guests don't like having to download yet another app to their phones. So, they provide tablets which have this already pre-programmed for the guest to use.
- 2) Tailored service. The example provided here was the guest who likes a certain beer brand unique to one country. Wherever that guest travels in the world, the hotel should have this information and ensure that particular beer is in the guest's room upon arrival. This is something large chain hotels can do with guest profile information.
- 3) Customer loyalty programs being linked to guest profiles. This is, again, something the larger chains are starting to do.

One other idea hoteliers suggested was microchipping. This is done to pets for identification and can now be used to open their cat flap, for example. It reads the microchip and the door opens for them.

This could easily happen to humans. Imagine having a microchip implant, going to the airport and walking through a scanner to be identified. Could we one day use that same information in our hotels?

Would you integrate AI into your hotels?

Having discussed the different ways technology could be used to enhance the guest stay, hoteliers were asked if they would now integrate AI in to their hotels.

95% YES 5% NO

The answer was a resounding Yes.



What does this mean for hoteliers?

One issue that repeatedly came up during our research was that hoteliers have been stuck with legacy systems that don't talk to one another. As technology has progressed, we have fallen behind. Consequently:

- Our understanding of AI and its capabilities is limited, and we need to expand our horizons.
- We need to be more innovative and adaptable. Play with the technology we have available and experiment with it.
- We need to find out what technology can do and how it can improve business.

Next Steps

Carry out an audit of your current systems and operations to find out what they do well and how they can be improved.

Work out what you want your systems to be able to do, as well as which processes can be made more efficient using AI.

Look at the current job roles of your team and see how they can be adapted to carry out less repetitive tasks so they can spend more quality time engaging with your guests.

Work with technology companies to incorporate relevant technologies into hotel systems and room design. The importance of having robot technology designed by hoteliers came out as a key point from hotelier participants.

Consider that:

Marriott in the USA is working with Samsung and Legrand to create futuristic hotel rooms with intuitive lighting and voice activated room controls. This means guests can:

- Use virtual assistants to request wake-up calls
- Have yoga routines on a full-length mirror
- Set the temperature in the shower
- Request housekeeping services.

Accor in Paris is designing smart rooms that are accessible and personalised. This means guests can access:

- Google Home Voice Assist
- Connected tablets to control lighting, music and TV
- Sleep aids and dream headbands with brain energy sensors
- Aromatherapy sensor aids so they can literally wake up and smell the coffee
- Shower capsules containing essential oils.

Technology in hotels should be used to enhance the guest experience, whilst keeping the art of human hospitality alive.

Concluding Thoughts

- Hoteliers need to get on board with technological advances
- Guests today are more tech savvy – they expect what they have in their homes to be in hotels
- Everything in the world today started as an idea – these ideas are rapidly becoming a reality



References

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