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Technology Edition

AI Everywhere



The Hotel Yearbook

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HY8



Creating Atmosphere: Design, AI, and the Human Experience of Hospitality

Mid-Stay

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James Watson argues that AI's most promising role in hospitality design is not to generate atmospheres autonomously, but to give human designers the precision and responsiveness needed to make spaces that genuinely breathe — adapting in real time to occupancy, mood, and moment. The risk, he warns, is not that AI replaces designers, but that without strong human vision guiding it, it flattens the industry into an algorithmically pleasant, characterless sameness.

CREATING ATMOSPHERE: DESIGN, AI, AND THE HUMAN EXPERIENCE OF HOSPITALITY

There is a moment, familiar to anyone who has ever walked into a well-designed space, when your attention and focus become more acutely attuned to your surroundings: the air feels different. Light falls on objects at a particular angle and with just the right intensity. The music reaches your ears at exactly the right volume. Everything in its right place. The overall effect is often hard to describe, but one thing's for sure: the experience is well designed and very intentional. This is ATMOSPHERE.

Designers create the invisible architecture that shapes how guests feel in an environment before a single word has even been exchanged. For most of my professional career, creating this sense of impact has been central to everything I do. From soundscapes to product design and artworks. I rely just as heavily on my instincts as I do my experiences and expertise, but now Artificial Intelligence has entered the chat, not to replace me, but to make the process of design more dynamic, responsive, and, at its best, genuinely interested in improving the end results of each project through an increased attention to detail.

In my early twenties, I began working with high-profile hotels and resorts in Las Vegas, and one thing I noticed was that, despite being in such a data-rich industry, the information was rarely used to develop the spaces' atmospheres. More specifically, it was difficult to use data to create meaningful design work. A hotel, casino, or resort might know whether a guest preferred a lower floor, whether they ordered room service after midnight, or whether they were traveling for business or pleasure, but did it really tailor the experience to each new visitor? Not really...but with the emergence of AI and integrated new technologies, that's all about to change.

In 2019, while walking through a property on the Las Vegas Strip, I noticed that the playlist on a Tuesday afternoon was the same as the musical playlist on the following Saturday night. Additionally, lighting in the lobby was either adjusted on a timer or by a front-desk manager who, in many cases, probably had other, more important things to worry about, but it got me thinking, what if I could help set the new standard as a designer through specific automations of both visual and sonic layers throughout the resort?

Fast forward only a few years, and we're finally able to talk about how these changes to atmospheric design parameters can be manipulated by connecting pools of data to the sensory environments in real time.

I used to envision how machine learning would analyze occupancy, weather, time of day, and year, while attaching profiles of guests to real-time changes, but in 2022, I started working with companies that are taking that vision even further by configuring biometric proxies such as crowd noise levels and other physical inputs, and autonomously adjusting the sonic and visual conditions of a space. The result is an atmosphere that breathes and responds to what is actually happening rather than what was programmed months or even years ago, back when the system was originally installed.

As a designer, I am inspired by these developments, and I want to go well beyond the current limitations of automation. I want to be able to reach into the future with AI to analyze the acoustic signature of a space, optimize song selection on the fly, and adjust the equalization, tempo, and energy of the music in response to measured ambient reflectivity within a room. Imagine a dining room filling up, and the conversation rising. The system could incrementally increase or decrease volume to maintain intelligibility without tipping past a point where guests strain to hear each other. As the room empties, AI can soften and slow the tempo, signaling, almost subliminally, a shift in the evening's mood.

It is important to note, however, that while AI adds the ability to manage these effects with granularity, precision, and responsiveness that human operators cannot realistically sustain, such advances often come with significant tension. The more precisely an atmosphere is engineered, the more legitimate the question becomes: Who are these experiences being engineered for and to what end? If every hotel group uses the same AI platform to generate its sonic and visual environments, trained on the same data and optimized for the same engagement metrics, the result could be a global hospitality landscape that is algorithmically pleasant but thoroughly devoid of character.

Consider, for a moment, the current trends leading towards homogenization in global hospitality, which has already advanced through the expansion of international brands and the dominance of popular design languages. Imagine, then, if a lighting scheme were chosen by someone who had spent only two weeks in the space before touching a dimmer. These are the types of scenarios that have repercussions that no optimization function currently accounts for. Issues, both seen and unseen, might continue to accelerate as AI tools are trained on the same aesthetic conclusions, spreading across thousands of properties worldwide.

As such, the designer who employs AI to visualize, model, and create alternatives to an original concept or theme will not be replaced by the technology, but instead, be amplified by it. Through the utilization of emerging AI technologies, the human mind will be more readily available to focus on higher-level tasks, giving the designer and artist of the future an increased freedom to explore any number of creative possibilities, but even then, each project will still undoubtedly require taste, sensibility, and careful discerning judgment.

Design, then, at its most impactful, clearly communicates that actual human beings cared enough to make specific choices in a specific setting. Design is considered, and AI augments that special care without substituting for it.

As I see it, the most promising applications of AI treat the technology not as an autonomous decorator, but rather as an instrument for extending human creativity and ability.

In the future, responses to the human condition will be paramount to AI's interaction and development. Static designs, however brilliant, cannot account for the fact that a space is experienced differently by different people with different histories and different needs. The same dining room that feels intimate and warm at eight in the evening can feel harsh and exposed at noon. The lobby, humming with shimmering energy on a Friday afternoon, can feel bleak, institutional, and colorless on a Monday morning.

Here, environmental psychology can confirm what good designers already know intuitively, that color and shape can affect visitor pace and mood, volume affects perceived crowding and excitement, and genre carries powerful associations that either reinforce or undermine a brand's intended identity. A spa that plays aggressive electronic music, however briefly, has failed its mission. A cocktail bar that uses bright white LED's on a Friday evening has miscalculated something fundamental, and not just in terms of design, but as an oversight of expectation.

Eventually, more sophisticated applications will identify blind spots in the system and will layer in analytical data appropriately. A boutique hotel that knows its current guests might skew slightly toward youthful travelers from a particular region and can weight its musical playlists accordingly, not to stereotype but to create a sense of recognition where the message is clear... "We want you here."

Interestingly, these current and future developments in AI do present us with a new kind of collaborator. One whose possibilities and risks are worth taking seriously, but the best designers understand that beauty is a function of aesthetics and will allow AI to perform a very special type of magic that extends beyond the simple principles of form and function, and instead will attempt to gain access to our psychological, emotional, and behavioral depths.

As such, a well-proportioned room reduces anxiety. A considered view, whether that of a garden, a cityscape, or a carefully illuminated work of art, gives the eye somewhere to rest and the mind permission to relax. Light that shifts connects guests to the circadian rhythms of the natural world, even deep inside a building. These are not sentimental observations, but rather findings from environmental psychology replicated across decades of research.

Beauty, then, is not just decorative. It is the means by which a space tells its guests that they are important. That their comfort, their pleasure, and their feelings have been carefully examined. AI becomes interesting in this context not when it autonomously generates aesthetics, but when it helps human designers think more holistically, execute more precisely, and respond more dynamically to what guests actually wish to experience.

At the center of the industry's most enduring properties is a combination of both innovation and human interest. These are the destinations that guests return to, not because the beds are necessarily the most comfortable or the menu is the most technically accomplished, but rather because the place has a quality of soul.

These locations are almost invariably the product of strong human vision. Beauty that moves between people tends to come from a place of passion, transmitted through a specific person's perspective and shaped by a collection of encounters spanning both time and space.

Again, to be clear, AI is NOT a replacement for the designer but rather an extension of design tools and philosophies aimed at improving the grand design. In the end, the human experience in any environment turns on a few very simple questions. Did someone care enough to create this? Did a real person, or more likely, many real people, think carefully about what this moment means? This room, this music, this table setting? What does this moment in this atmosphere mean to any one guest?

AI does not immediately aim to answer those questions, but it can create the conditions in which human care is better expressed, more precisely realized, and more consistently delivered, which I believe is meaningful. In 2026 and in the years that follow, I am excited to see how AI is used to enhance the world around us. I believe that those who will perform best are quickly learning that the technology is only as good as the human vision that guides it.

Great design, then, is far more than just a collection of visual and auditory cues, but rather, it is a considered language that shapes our memories, influences our emotional states, and can help determine whether a guest feels truly welcomed or merely processed. When applied thoughtfully, AI offers us the possibility of atmospheres and environments that are not simply designed, but created to come alive through deep human connection! In the end, what a guest remembers will not be the algorithm but rather how they felt about the experience and the memories that they take home with them long after check out.

