



GHN Perspectives: Harry Wheeler



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Advancing Hospitality: The Impact of Technology on Hotel Design

Technology is changing the face of hospitality design – from team collaboration and design approach to the increased accessibility of enhanced design options, materials, and resources. By leveraging technology to maximize efficiency and improve design functionality, today’s hospitality designers can reduce costs, expand the usable life of projects, and elevate the overall design and guest experience.

Let’s take a look at the many ways technology is having a huge impact on traditional hotel design.

Approach and Methods

Digital presentations using conference calls and GoToMeeting are quickly replacing in-person meetings and conventional physical design boards. This makes it quicker and easier to collaborate with the entire project team, and also saves time and money in the form of travel and shipping costs of physical renderings and drawings.

Software programs like Photoshop and SketchUp are taking the place of standard hand renderings, as they offer the ability to more easily modify and update drawings as design changes are made. They can also show actual finishes, and furniture, fixtures, and equipment in elevations and models, which streamlines the design process.

Revit, a newer building information modeling program, gives hotel designers a



completely different way of drafting. Now, we can create true 3D designs that show heights, widths, materials, fire ratings, sound ratings, and essentially all components of a design. Basically, we can create virtual living buildings where all design elements are represented and interrelated.

Newforma is another way we are using technology to simplify the manner in which we approach and save project information. A project management system that allows for virtual documentation and archiving, it offers a great alternative to physical storage options. Where we used to have boxes of shop drawings, emails, and transmittals, now all project information is conveniently archived in one place, electronically, where it can be easily searched for and retrieved.

3D printing has also emerged as a powerful technological ally for designers. With no tooling required, this resource allows hotel designers to use SketchUp or Revit drawings to create plastic models of buildings, furniture, and essentially any part of our designs. It eliminates the cost and need for building your own models. Anything can be 3D printed, which you can then physically touch and feel. This option offers convenience, reduces our carbon footprint, and forces us to reassess traditional modes of production and distribution based on material resources. It also allows designers to recreate and improve upon designs quickly and easily based on project team feedback and consumer trends.

Materials and Resources

Technology has created countless new opportunities in the interior design world. With flooring, designers can now customize carpet designs online and view final results immediately. This makes it simpler to make changes throughout the design process. Materials like luxury vinyl tile (LVT) offer the look of hardwood floors and have greater durability in commercial applications. Other materials like porcelain tile are also becoming increasingly popular due to its ability to provide a lot of choices that accurately mimic the look of wood or natural stone, and because of its superior durability in commercial applications as well.

Combining unique materials and the latest in lighting can create a unique and stunning focal point in any design. At the recently opened Hilton Garden Inn Marlborough the main corridor leading hotel guests from the lobby to the elevator bank is highlighted by a backlit Bamboo wall. The lighting streams through patterned wall perforations using multiple programs which change colors throughout the day and night, bringing animation and interest to a high traffic area.



Using technology for digital printing has gained popularity among hospitality designers. In the Westin Boston, for example, the back-of-house corridor features a large floral mural printed on wallcovering that is visible from the outside of the building, especially at night when the interior is lit. The Residence Inn Boston Downtown/Seaport too features digitally printed images on wallcovering, which we used as the focal design element in the guestrooms.

Glass image printing is progressively more prevalent among today's cutting-edge hotels. In the Envoy Hotel in Boston, guestroom bathrooms are framed by custom art glass printed with historic harbor maps using the hotel's signature yellow. Custom tile-work is also an innovative new design option that we've been using more and more in our hotel designs. Some companies, such as Boston-based Artaic, specialize in designing and fabricating custom tile-work and mosaics with robotic production. We provide them with a selected image, which the company puts into a computer program that specifies which tiles go in which locations to create a custom tile-work design from the original image.



Screens and Gadgets

No surprise here, but technological gadgets are now a staple in the hospitality design world. iPads, tablets, and smartphones are being used for guest check-in, bypassing the traditional front desk. Instead, smaller check-in stations or pods are being designed so hotel staff can greet and approach guests with ease. Smartphones and apps are being used in lieu of guest room key cards, and to charge purchases to rooms.

It's become commonplace for us to talk to our smartphones even when not making a call to find information or use voice activated commands for common tasks. Recently Starwood implemented Aloft Voice-Activated Hotel Rooms in two locations, the result of their "Project: Jetson" experiment. These new voice activated hotel rooms uses the commonly known 'Hey Siri' through the Aloft app or in-room iPads. Guests can use this to control their environment, including room temperature, lighting, and music, or explore local attractions.



In the Envoy Hotel in Boston, gadgets are being taken to another level. The hotel's billiards table features an interactive 65-inch touch screen that serves as a one-of-a-kind entertainment center where guests can play games, go online, and interact with one another. The touch screen table hosts various multi-touch games including virtual pool. The main menu also directs guests to helpful websites about the area such as suggestions for restaurants, weather updates, and local sports news. And, the multi-user software allows many guests to simultaneously run different applications.



New Virtual Reality

As hotel designers, we are in an exhilarating time as technology expands our accessibility to new design approaches and methods, materials and resources, and digital screens and gadgets – enhancing our ability to create unique and customized designs that improve the overall guest experience. From a cost perspective, technological advances create increased opportunities for improved functionality and efficiencies, reduces cost, and offers longer usable lives for our properties. Our new virtual design reality is a bright one.

Group One Partners, Inc., is a member of GlobalHotelNetwork.com and Mr. Wheeler is a member of [GHN's Architects Committee](#).



About the Author

Harry Wheeler AIA, NCARB, LEED is a principal at Group One Partners, Inc., an award-winning hospitality design firm based in Boston that specializes in architectural, interior design, and purchasing services for hospitality properties. Wheeler is a registered architect in more than 15 states and a member of numerous architectural, lodging, and marketing associations. For more information visit www.grouponeinc.com or email Wheeler at harry@grouponeinc.com.