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HITEC<sup>®</sup>

BYTES

# Special Report

## Women of Hospitality Technology

Profiles and Interview

HFTP Hospitality Technology  
Hall of Fame 2019 Inductee:  
Sudharshan Chary

Connectivity

Data Management

Artificial Intelligence

Data Regulation Update

Hotel Technology Budget

Hospitality Labor Costs

Hospitality AV Dictionary

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# 2019 HITEC Bytes Special Report

## Table of Contents



### Special Feature: **Women of Hospitality Technology** Profiles of the industry's notable and influential female IT executives

<b>16</b> Introduction	<b>24</b> Tammy Farley	<b>30</b> Keryn McNamara
<b>18</b> Margaret Ady	<b>25</b> Sarah Fults	<b>31</b> Tammy Peter
<b>20</b> Juli Barter	<b>26</b> Jennifer Green	<b>32</b> Geneva Rinehart
<b>21</b> Gabriela Bratkovichs	<b>27</b> Dayna Kully	<b>33</b> Iris Steinmetz
<b>22</b> Anita Chan	<b>28</b> Kelly MacPherson	<b>34</b> Suzy Treece
<b>23</b> Robin Deyo	<b>29</b> Shannon McCallum	<b>35</b> Heide Werthamer

#### **8 2019 HFTP International Hospitality Technology Hall of Fame**

Profile for the 2019 inductee Sudharshan Chary and Hall of Fame inductee gallery.

#### **12 The Spark that Lit the Fire**

As they prepare to serve as distinguished panelists at the *Women in Hospitality Technology Luncheon*, four industry leaders reflect on how they got here.

*By Eliza Selig*

#### **36 In Today's Smart World, People Don't Just Want to be Connected, They Expect It**

Smart technologies like location-based services, digital signage, tailored Wi-Fi landing pages, and custom hotel and venue applications amplify the guest experience.

*By Ken Torres*

#### **38 The Evolution of Data Use: Moving From Silos to Interconnected Wisdom**

A well-designed data strategy and a data-centric board room have emerged as key components in achieving superior guest experiences in modern hotels.

*By Carson Booth, CHTP*

#### **40 Unleashing AI and Personalization for Hotel Bookings**

AI can develop targeted, relevant sales and marketing material aimed at specific individuals or groups to create booking journeys that are individually tailored to the needs or preferences of each user.

*By Rich Tuckwell-Skuda*

#### **42 Armed with Regulations, Is Personal Data Safer?**

One year after its implementation in the EU, GDPR has increased awareness of privacy rights and presented unique business opportunities for data holders.

*By Alvaro Hidalgo*

#### **44 Design Thinking and Futures Thinking: Scope for Application in Hospitality**

Use these problem-solving techniques to spark creativity while designing new products and services.

*By Sanjay Nadkarni, Ph.D.*

#### **46 Divvying Up the Hotel I&T Budget**

Data analysis indicates a decrease in information and telecommunication expenses in the United States between 2016 and 2018.

*By Laura Resco*

#### **50 Technology In Hotels: Invest Where it Counts**

This new study mines thousands of online reviews to provide hoteliers with data-driven strategies to maximize payoff on IT spending.

*By Agnes DeFranco, Ed.D., CHAE, CHE, CHIA, CAHTA and Minwoo Lee, Ph.D., MBA, CHE, CHIA*

#### **52 Labor Pains: Managing the Cost of Human Capital in the Hotel Industry**

A new study sheds light on the uphill battle between hoteliers and rising labor costs.

*By Agnes DeFranco, Ed.D., CHAE, CHE, CHIA, CAHTA and Arlene Ramirez, MBA, CHAE, CHE, CHIA, CAHTA*

#### **54 How Well Do You Know Your AV?**

Test your AV literacy to see what areas you need to brush up on, then fill in the blanks with the HFTP Research Center's new Hospitality AV Dictionary.

*By Bianca Lopez*

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# HITEC<sup>®</sup> MINNEAPOLIS

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# Captivating Industry Leaders Showcase the Best of Hospitality Technology



**Eliza Selig**  
Director of Communications  
Hospitality Financial and  
Technology Professionals

**I**t is my honor to introduce this year's HITEC Bytes Special Report, a publication HFTP has produced since 2011. Each year it is an interesting project to work on, as we observe the evolving industry trends, highlighting what is still on top and which have shifted off the list. Or how a trend progresses year-after-year — personalization via data management to name one.

You will also find a special section highlighting female technology leaders in the hospitality industry (*page 16*). This is the second time for HFTP to produce this feature, with the first in 2014 (*find the 2014 profiles on PineappleSearch.com*). The impetus to revisit and profile a new group of women is the inaugural *Women in Hospitality Technology Luncheon* on June 17, co-located with HITEC Minneapolis. When planning for the event began, we felt a companion publication was warranted. Fortunately we had no trouble finding a new and diverse group of female technology professionals to highlight — 17 participated in fact. I would like to thank these women who took the time to respond to questions and partake in the process. Each woman had a unique story to tell, and I found an interesting tidbit or reflection in every article. I hope you enjoy learning about these captivating industry leaders.

In addition, I had the wonderful opportunity to interview the four women who will speak at the *Women in Hospitality Technology Luncheon* in a panel discussion. Read "The Spark that Lit the Fire," to learn how these technology leaders navigated their careers and discuss the challenges they face in the hospitality technology industry (*page 12*).

Continuing with the theme of influential leaders, a congratulations goes to this year's HFTP International Hospitality Technology Hall of Fame inductee Sudharshan Chary, co-founder and president of Datavision Technologies. Sudharshan is profiled and interviewed in this report, read how he helped drive the evolution of business intelligence for hospitality.

Thank you to the experts who contributed articles in this publication. There is a variety of valuable information to mull over, with updates on connectivity, data management and regulations, technology and labor costs, and more. It is the authors' big-picture point-of-views that provide relevant and valuable editorial content year-after-year. I look forward to continuing to publish their insights in the years to come; and for this year, enjoy learning about the leaders and technology that drive our industry.

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Eliza Selig (eliza.selig@hftp.org) is the director of communications for HFTP. She has been with the association since 1999.

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# 2019 HFTP International Hospitality Technology Hall of Fame

## Sudharshan Chary

Co-founder and president of Datavision Technologies, Sudharshan has helped drive the evolution of business intelligence for hospitality.



Innovative developments and applications in technology have propelled the hospitality industry forward, the result of hard work and creative thinking by a few people who had the vision to see what technology could mean to the future of the hospitality industry. In recognition of these visionaries and their impact on the hospitality industry, HFTP established the International Hospitality Technology Hall of Fame in 1989.

The Hall of Fame is HFTP's highest level of recognition in the area of technology. Since 1989, 45 individuals have received this award as a reflection of their contributions to the hospitality industry. Hall of Fame members have been selected by their peers as representing the best in innovation and application and as leaders in their profession.

### 2019 Inductee Sudharshan Chary

Sudharshan Chary has influenced the evolution of business intelligence in the global hospitality industry for over two decades. But, what truly sets Sudharshan apart in the field of technology is his ability to seamlessly integrate employment with enjoyment, and business with friendship.

"I am deeply honored to be recognized for my contributions to the hospitality industry," says Sudharshan. "To be part of a select group that includes some of the biggest names in hospitality is very rewarding and quite humbling."

As co-founders of Datavision Technologies, Inc., Sudharshan and his partner Sherry Marek have spent their careers solving a problem they noted early on, at a time when hotels still struggled with basic reporting.

They recognized the need to automate data collection, and thus the Datavision Business Intelligence system was created.

Sudharshan is that rare kind of individual who can convert his technical knowledge into a language that users across the organization can understand, because he recognizes that technology is only useful if the users know how to effectively use it.

Most importantly, Sudharshan has the ability to form genuine, long-lasting friendships with his customers, vendors and colleagues. Whether throwing cigar parties or climbing mountains with friends, he enjoys life to the fullest. This highlights his personality as someone who is passionate about both life and people — which defines hospitality at its core. Here's a conversation with Sudharshan about the genesis of his career and professional achievements.

### Honor the 2019 Inductee at HITEC Minneapolis

Tuesday, June 18 • General Session • 8:30 a.m.



**When did you first know you wanted to be in the hospitality industry?**

My first job out of college was with InterContinental Hotels' corporate IT office working on their global reservations system in Stamford, Connecticut under John Cahill (*an inductee to the Hall of Fame*). Initially, I did not understand much about hotels since I was working on the back-end systems. But then I met Sherry Marek, who was director of front office systems in the same office. She and I had many conversations over coffee on how hotels work and I was fascinated with hospitality.

One of the challenges she repeatedly mentioned was the hotels' inability to streamline reporting and data analysis. She provided the concept of what a hospitality business intelligence (BI) system should do, and I brought it to life with my software engineering background. When we started Datavision together in 1996, HITEC did not have a cate-

gory for 'business intelligence' and we had to request HFTP to add it in. Sherry and I ended up getting married and had three kids — but that's another story, titled, "Pie Charts and Champagne, Successfully Combining Romance and Business Intelligence."

**What have been some of your biggest goals throughout your career?**

Sherry and I have always wanted to make information the great equalizer. Having the correct data on hand puts anyone in a position to make the right decisions. We have tons of data available today, along with the computing power to properly harness it. The goal of business intelligence is quite simple — to turn raw data into actionable information. It does no good to a department manager to get a report at the end of the month showing they were over budget last month. It is far better to deliver a daily labor report that shows a projection of where they

will finish the month and allow them to actively improve the bottom line in advance. Very early on, Sherry and I realized that information is power. Getting the right information into the right hands at the right time is critical to proper decision making.

**What has helped contribute to your professional success along the way?**

I love going to conferences and hanging out with friends who also happen to be business colleagues. I hate the word networking. I don't network. I go out with my customers to eat and drink. We go to basketball and hockey games. I throw cigar parties. I climb mountains with them. Somewhere in there, we try to fit in some shop talk (as little as possible). I have found that you don't need to work too hard at being successful. Be passionate, show integrity, create something that people want and most importantly, be a nice person and success usually follows. ✨

**Industry Perspective**

In support of Sudharshan's nomination, industry colleagues submitted letters writing why they considered Sudharshan deserving of induction into the Hall of Fame. Here are some select quotes.

"In every capacity and over the course of our friendship, I witnessed Sudharshan's dedication to our industry, relentless support of his customers, and an unwavering commitment to integrity and ethical behavior. I also witnessed his extraordinary generosity, kindness and sense of humor, which make Sudharshan one of the most endearing executives I have come to know over the course of my 39-year career in hospitality."

**Lawrence Hall** • CEO • Pure Wellness

"His authentic personality, integrity, passion for people, and relentless drive to improve knowledge and people's lives define hospitality at its core."

**William Visser** • General Manager  
Grand Lisboa Macau

"Sudharshan founded, and continues to lead, a successful technology company focused on the hospitality industry. What makes this noteworthy is that 23 years ago Sudharshan could see the potential of combining data from various hotel systems and business intelligence tools to improve hotel operations well before this became an accepted practice. And because BI tools did not exist for hospitality, Sudharshan built the models and the technology to support and demonstrate his vision."

**Bob Bennett** • Co-founder and COO • Kalibri Labs

# Hall of Fame Inductee Gallery



**2018**  
Tammy Farley



**2018**  
Jing Zhu



**2017**  
Greg Dawes



**2017**  
Monika Nerger



**2016**  
Michael Levie, CHTP



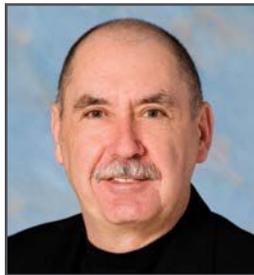
**2016**  
Prakash Shukla



**2015**  
Scot Campbell, CHTP



**2015**  
Michael Schubach, CHAE, CHTP



**2014**  
Barry Shuler



**2013**  
Harbans Singh



**2012**  
Douglas Rice



**2011**  
Frank Wolfe, CAE



**2010**  
Nick Price



**2009**  
Cindy Estis Green



**2009**  
A.L. (Tom) Giannoupolos



**2008**  
Fraser Hickox



**2007**  
John Springer-Miller



**2006**  
John D. Burns, CHA, ISHC



**2006**  
Jon Inge, CHTP, ISHC



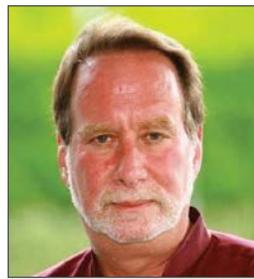
**2005**  
David Burroughs



**2005**  
W. Thomas Castleberry



**2004**  
Ted Horner



**2003**  
Richard Siegel



**2002**  
Eric B. Orkin



**2001**  
John Davis, III



**2000**  
Robert S. Bennett



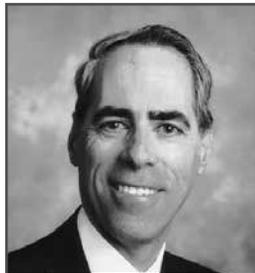
**1999**  
Scott Heintzeman



**1998**  
Dave Berkus



**1998**  
Jules Sieburgh, CHTP



**1997**  
Richard Brooks, CHA



**1997**  
Michael Kasavana, Ph.D., CHTP



**1996**  
William Oates



**1995**  
George Zugmier



**1994**  
Penelope Sellers



**1994**  
James Yoakum



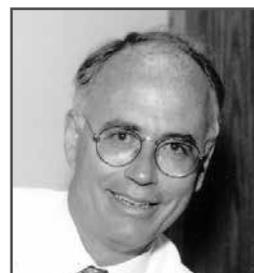
**1993**  
John Cahill, CHA, CHTP



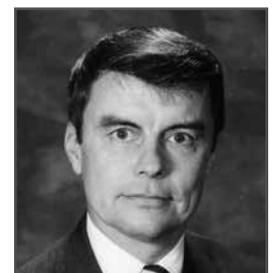
**1992**  
Richard Moore, CDP



**1991**  
Jack Morgan



**1990**  
Robert Horgan



**1990**  
Richard Nauman



**1990**  
Sal Spano, CHA, CHAE



**1989**  
Larry Chervenak, CHAE



**1989**  
Carrol Lund



**1989**  
Raymond Schultz



# The Spark that Lit the Fire

As they prepare to serve as distinguished panelists at the **Women in Hospitality Technology Luncheon**, four industry leaders reflect on how they got here.

By Eliza Selig



**A**s the blur of technology’s evolution revolves before our eyes, how do hospitality industry leaders keep their strategy on point? The answer is to continually be open to learning. “We all know that tech is moving at an exponential pace, and it is important to develop skills both broadly and deeply,” says Monika Nerger.

Monika is one of four women hospitality technology leaders who will discuss their professional experiences and industry outlook on a panel at the inaugural *Women in Hospitality Technology Luncheon*. The event is presented by HFTP and the HFTP Foundation and will be held at HITEC Minneapolis on June 17.

While it may seem like a novelty to present a women-only technology panel in a field predominantly populated by men (*although this is presently changing — just read the impressive profiles of the women in the following special feature on female industry leaders*), reading through these women’s professional history and accomplishments reveals a depth of knowledge that is valuable to learn from. Each are experienced hospitality industry executives who came to the industry with a natural affinity for the technical side of the business. Before their presentation, the women gave insights about their careers, the direction of the industry and recall the steps they took to reach professional success. The following conversation was held with Donna Hale; Kristin Gassick, CHTP; Monika Nerger and Kris Singleton.

## Origin Stories

Every tale always verses the audience on the protagonist’s origin story. This is especially interesting to follow with this group, as they have moved up through the ranks of an industry that wasn’t especially inviting to their gender when they first embarked on their career paths. For each, it was not by accident that they found themselves in an on-the-job technology project. Rather they realized their interest and skill in technology early on and set their sights in that direction.

Eliza Selig (eliza.selig@hftp.org) is the director of communications for HFTP. She has been with the association since 1999.



Donna explains, “Technology became my passion in the 11th grade, when my typing teacher started talking about mainframes and COBOL. I was so fascinated and enthusiastic about learning more about this field that I continued to get more education for myself.”

Monika was pulled in by the flash of new technology in the early stages of her hospitality career. “I was working in hotel marketing as the first PCs were being developed for business use. I think the one I worked on cost \$20,000, had 1 MB of RAM, a 1.2-megabyte floppy disk drive and a 40 MB hard drive. It was rocking! I was hooked and decided I wanted to be part of the tech team.”

For Kris, when she was given a problem to solve with code, she realized how easily she could configure a solution with this new tool. “I always thought I would be a commercial artist and photographer until late in my senior year in high school, when I was first introduced to a computer. A professor from Kansas City came down with a few Commodores and started teaching BASIC. After the first three-hour class, I had written a program to help explain how to handle the aperture settings of a camera. The professor asked how long I had been programming, and I said three hours.”

Kristin’s path did come by on-the-job happenstance, but her educational background was a precursor for her technical career. “After majoring in criminal justice and minoring in computer science, followed by seven years in restaurant operations as a fine dining server, I was tapped by the controller at our Sedona property to assist in implementing a resort-wide soft-

“ Technology became my passion in the 11th grade, when my typing teacher started talking about mainframes and COBOL. I was so fascinated and enthusiastic about learning more about this field that I continued to get more education for myself.”

*Donna Hale*

ware solution that led to my move into the technology field. Although, I wasn’t involved in the selection process, I was quick to embrace the novel platform and took great pride in accomplishing the goal of realizing a single guest itinerary nearly 20 years ago.”

### Change is a Challenge

For every accomplishment of success there is a challenge to overcome. And as technology has migrated to an all-encompassing position in business and social activities over the past five decades, its changing scope was identified as the top challenge for the technology practitioners. “From user adoption to overall organizational adoption, it has been difficult to go along with the reinvention of the wheel,” explains Donna. “You also have to convince everyone that it is okay to embrace the future and revel in what it will bring to the organization.”

## Meet the Panelists

### Donna Hale

vCIO  
5P Consulting

Donna has decades of hands-on leadership experience in IT infrastructure, compliance and risk management.



### Kristin Gassick, CHTP

Corporate IT Director  
Enchantment Group

Kristin has helped deploy complex technology initiatives for several world-class hotels, resorts and spas within the boutique luxury market.



### Monika Nerger

CIO  
Mandarin Oriental

An inductee to the HFTP International Hospitality Technology Hall of Fame, Monika has a record of guiding organizations to deliver brand-defining technology and business solutions.



### Kris Singleton

CIO/Senior IT Executive  
International Cruise & Excursions Inc.

Kris has held key leadership roles in world-class private and public companies in the retail/consumer product goods and hospitality and gaming industries.



“ I think we find solutions to some of the most complex challenges through collaboration. I work with some of the best IT professionals in the industry. They are often the ones that come up with the solution, and it’s my role to get creative about how we pay for it.”

*Monika Nerger*



Not only is it hard to accommodate for the constant change, but also accept the costs that go with it. Kris mentions that “continuously evolving the technology position also presents the challenge of seeing the value to stay current — it is imperative to demonstrate the costs now vs. increased costs of multiple updates over time.”

But change is critical to maintain competitiveness, explains Kristin. “Whether it be an operational efficiency or a means to better understand the guest in order to create a memorable experience, it is imperative that we garner a sense of ownership and champion changes to operational processes to support these tech initiatives.”

Beyond keeping up with the pace of technology, the women were specific about several issues and technologies that are on their watch list. “There’s so much in technology that will probably never reach an end,” says Donna. “I see digital transformation, IoT, and security maintenance related to GDPR updates and compliance as all ongoing for quite some time, because it’s changing as we speak.”

Other challenges on a continual to-do list, Kris adds, are “delivering business intelligence, data governance and developing ROI for technology transformation.”

Addressing challenges is not the responsibility of one though, “I think we find solutions to some of the most complex challenges through collaboration,” says Monika. “I work with some of the best IT professionals in the industry. They are often the ones that come up with the solu-

tion, and it’s my role to get creative about how we pay for it.”

Developing and retaining the team to make it all happen is particularly difficult in hospitality. Monika continues, “I believe that one of the challenges in technology within the hospitality industry is retaining and attracting great talent. With the demands for IT high in virtually all businesses, there are many job choices, some which may be more lucrative. I think that we need to create better work/life balance for IT positions. This is an issue for everyone, but often limits women from working in tech due to expectations of availability and long hours, while balancing life commitments. Of course, that’s true for men as well.”

### The "Wow" Factor for a Techie

There is no question that technology is a complex, detailed discipline to program and integrate; but when the design comes together and the systems are in place, the end results are electrifying. For those whose work life is making it happen, what elements give them a charge? “Technology in itself is my fave,” Donna says. “However, if I had to choose I would say infrastructure design and assessments.

I totally geek out when I’m in design mode, as to how I know the infrastructure should be.

“Some think that the cloud is here to stay, which I will agree, but that doesn’t mean that everything on-premises will dissolve. The cloud doesn’t work for everyone and not everything belongs in the cloud. In order to know what’s staying and what’s going, everyone will need to take a deep, hard look into their infrastructure with a true research and development process.”

“From a ‘trend’ perspective, at the heart of technology lies innovation,” says Monika. “While it seems like a broad and obvious answer, I think most of us love the changing nature of technology. You are constantly in an environment of learning new things and exploring ways that tech can better serve our guests and grow our businesses. This is a driving and motivating force that keeps my job fresh and interesting.”

An often repeated hook that keeps professionals in hospitality is delivering “hospitality,” and developing the technology to provide a personal experience for guests is a common end goal. Kristin says, “To this day, I am driven by the desire to maintain a single, meaningful understanding of each guest and enjoy leveraging data to gain insight into what’s working and what’s not for our business. Data driven business intelligence is my passion.”

Kris feels similarly and identifies one of her favorites as “customer experience management, which goes beyond just CRM to managing the customer journey.”

“ To this day, I am driven by the desire to maintain a single, meaningful understanding of each guest and enjoy leveraging data to gain insight into what’s working and what’s not for our business. Data driven business intelligence is my passion.”

*Kristin Gassick*



Kris also notes that there are no flash-in-the pan technologies “All technologies contribute to further evolution, even if they fail.” Monika adds, “I think about the passion that goes into building and trying something new, and sometimes the adoption of those technologies just doesn’t take off, or there is a new and improved product that disrupts it. Or maybe they are just too early for the market. The NeXT computer comes to mind.”

**Always Be Open to Learn**

So how do these accomplished women keep up in an industry on a constant spin cycle?

Monika says, “I think the best way to solve the challenging problems of our industry is through ‘human AI’ — that is connecting people and technology with each other to accelerate understanding, find new ways of doing things and support rapid change. HFTP, HTNG, CHTA and numerous industry associations around the world are doing just that.”

“The only way to keep current is to network and it helps to commit to learning something new about our industry every day,” says Kristin. “There is a wealth of hospitality-specific publications out there that showcase new technologies and keep us apprised of who’s who and what’s what.”

“For me, I’m registered with just about any and every technology event around,” mentions Donna. “I join webinars, attend local and out of the area technology summits. I read, oh boy do I read, more technology books to see what’s going on, what’s changing and how to stay current.”

“I like to use the CliffsNotes version of reading the hordes of new developments information,” says Kris. “I like Blinkist Minute ... summarizes books in minutes.”

**Problem Solving Skills are Key**

Keeping current is only one piece to maintaining a strategic hospi-

**“ Trust is achieved through character and competence. Character is about being true to your core values and doing what you say you will do. Delivering results proves competence and ability. You cannot become a person of influence without trust.”**

*Kris Singleton*

tality IT department. Each company has its own unique characteristics to manage and implementing an IT strategy that fits calls on a key skill for IT professionals: problem solving. “When it comes to problem solving, I always start with identifying the issue,” explains Donna. “You need to understand what each and everyone’s interest is and figure out what the best options are. Also, document, document, document. Try to agree on a plan for monitoring and evaluating, and develop a contingency plan, because the current plan may work for now, but what if it doesn’t later?”

Kris’s recommendation is, “First stay calm. Then define the problem: what is broken and what is the impact, brainstorm the quickest way to get back in business (whatever the situation may be), then determine the cause and how to detect and prevent it from reoccurring.”

In addition, Kristin suggests, “I have found that attending user groups and aligning with other properties that use the same technologies is a way of working smarter, not harder, and is also a good way to vet a solution before you commit.”

**Be Your Own Champion**

An accomplished professional career begins with understanding your best qualities and putting those forward to navigate your work and interactions. Our interviewees have experienced multi-faceted careers that have put them in a breadth of situa-

tions, and along the way they have figured out how to get through and be in a position they are proud of.

First, take a breather says Monika. “Technology is complex, it fails (at seemingly the worst moments) and there are going to be times that it feels overwhelming. The cyberattack we experienced in 2015 was one of those times. You need to remember to live your life and stay true to your values in between those all-nighters and stressful ‘tech’ moments.”

Know what you are capable of says Donna. “Never give up and always keep a strong level of confidence in what you’re doing. The best piece of advice I’d give my younger self would be to not become discouraged by negative words. You got this and can do it!”

Don’t be afraid to ask for compensation that is equal to your value. Monika says, “you only have one chance to negotiate. When you are interviewing for a new opportunity, be prepared to present your worth to your prospective employer. Of course we should be grateful for opportunities, doors that open, a step up in a career path, but you shouldn’t be afraid to ask for pay that equals your market value.”

And last, always stay true to yourself. Kris says, “Trust is achieved through character and competence. Character is about being true to your core values and doing what you say you will do. Delivering results proves competence and ability. You cannot become a person of influence without trust.” ✨

# Women of Hospitality Technology

Profiles of the industry's notable and  
influential female IT executives



Margaret Ady



Juli Barter



Gabriela Bratkovichs



Anita Chan



Robin Deyo



Tammy Farley



Sarah Fults

Two factors stand out when you characterize the female professionals working in hospitality technology. One is their passion for hospitality and second, their affinity for the technical. From there their paths diverge. What follows is a perspective of the leading women who are shaping the industry. They encompass a diverse range of specialties: heading companies that offer innovative solutions, overseeing hotel organizations' IT strategies, educating and informing on the latest tech trends. All are working to leverage technology to propel the industry forward. Read on to learn of the paths these women have taken to fill the influential positions they hold today.

*This is the second Women of Hospitality Technology feature.  
Read the first, published in 2014, on [PineappleSearch.com](http://PineappleSearch.com).*



**Jennifer Green**



**Dayna Kully**



**Kelly MacPherson**



**Shannon McCallum**



**Keryn McNamara**



**Tammy Peter**



**Geneva Rinehart**



**Iris Steinmetz**



**Suzy Treece**



**Heide Werthamer**



# Margaret Ady

Building the next generation of property management systems

Co-founder and CMO • apaleo  
Munich, Germany



**M**argaret Ady is here to help. She is currently working on developing the unified theory of hotel technology — or at least trying to champion the next generation of property management system (PMS), which makes it possible.

"For too long, hoteliers have worked with PMS that can't connect to the dozens of other systems that they are working with," says Margaret. "New PMS that can connect to any and all tools that the hotel wants to use will completely change the hotel business. And, as long as that connection piece (*read: API-first platform with open, well-documented and easy to work with APIs*) is there, it doesn't matter what kind of new technology comes down the pipeline — the hotel will be able to use it immediately."

Margaret is like a hospitality superhero from an alternate career-path planet. After graduating from the University of Southern California (studying economics and psychology) she became a research analyst for television media companies, first for Fox Entertainment Group, then Walt Disney. While there she used technology to analyze habits and trends of television viewers — even developing her own proprietary technology to automate reporting, saving her team time to use on for more critical tasks. After rising to the level of manager in the research departments of Disney and OWN, Margaret decided she could help more businesses with

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*"Planning is great and all, but very rarely do things go exactly according to your plans. So rather than spend all your time and effort planning your next steps, your company strategy, your team's next moves, etc., jump in and start doing! Then evaluate, optimize and refine as you go."*

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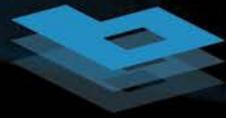
her marketing research expertise as a consultant. This is where the paths crossed for her career and hospitality technology. "I was introduced to a hospitality tech company, which eventually offered me a job. It was only after I took the job that I began to realize how complex and nuanced the hospitality tech industry actually is."

Becoming vice president of marketing for TrustYou, Margaret became acquainted with the challenges hotels face in managing the multiple technology fronts in which they need to interface. "There are so many different systems that must work together for a hotel's business to run smoothly. Because of this, hotels are extremely reluctant to change core systems, even if they are completely outdated... New tech providers like apaleo are finally jumping in

to make change painless, presenting a seismic shift in how hotels approach their tech strategy. Helping hotels move towards a tech-friendly future is great fun."

Getting people to the point where they understand the need for platform upgrades is Margaret's superpower. Where once she persuaded the decision makers at giant media companies to upgrade their technology, she is now convincing hotel clients for apaleo. "The right technology can cut costs, improve operations, lead to clearer business strategies, make the lives of hotel staff easier and improve the guest experience."

Her power as a knowledgeable, authoritative voice was not as strong for Margaret early in her career. As a woman, she found it hard to be heard. And even though she is now looked to as an expert, she sees that today women still have to fight harder to prove themselves. Margaret realizes that it is going to take more than a strong will to change attitudes and level the playing field. Rather, the industry needs more women to join the field and move into leadership positions. Understanding this, Margaret has taken this idea outside of the workplace. She mentors girls and teens, tutoring them in math and science; perhaps ushering in a new generation of leaders. ✨



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# Juli Barter

Providing integrated hospitality credit card processing solutions

Director of Client Relations • POST Integrations, Inc.  
Pompano Beach, Florida USA



It wasn't always in the cards for Juli Barter. Sure, she now is director of client relations for POST Integrations, which provides comprehensive, integrated credit card processing solutions exclusively to the hospitality industry. But how she arrived to this point was by happenstance.

A job out of college landed her at a Cadillac dealership in Dundee, Illinois, about an hour northwest of Chicago. There, she worked in finance, after studying business administration. Seven years in, Barter was almost convinced that the automobile industry would be where she would park her career.

But in 1991, a former boss asked Barter if she would be interested in a controller position at a country club where he was the treasurer. She accepted, and the hospitality industry has been coursing through her veins ever since. Once established in her new role, Barter instantly felt that the hospitality industry had been part of her DNA all along — she had just brought it to the surface.

For the next 19 years, Barter held financial positions at various country clubs, eventually becoming CFO at St. Andrews Country Club in Boca Raton, Florida. In her role, she had oversight over the club's IT department and says it was then that she began to gravitate toward the technology side.

For the entirety of her career, Barter worked on property. That changed in 2010, when she joined POST Integrations — her first taste of working on the supplier side of the hospitality business. It's a job she has embraced, where her responsibilities are many and varied, in a segment of

“Once you are in the hospitality industry you know right away if it is a good fit or not. I fell in love with the industry, as it feels part of my DNA.”

the industry that has drawn recent scrutiny in light of security breaches that have impacted some of the largest hotel companies in the world. One of her responsibilities is providing education to clients on topics ranging from fraud and loss prevention to understanding data security.

It's a role she relishes and for a company she values and admires, not only for its successes, but for its composition. Men have had a majority of the top jobs in the hospitality industry, and it's been even more prevalent

in the technology sector. Early in her career as a club finance professional, Barter recalls dealing with a male-dominated board of directors, who were slow to include her into their circle. She stayed motivated, and now confidently says that, “Once they realized my knowledge and capability, they were more accepting.”

At POST, both the president/CEO and COO are women. The former, Mary Gerdts, was a mentor to Barter early in her career before joining POST, offering sage advice and guidance. She once told Barter that technical skill can be learned, but to succeed in the hospitality industry you have to combine that knowledge with relationship building and outstanding customer service.

Barter practices that every day, working with clients and technology providers to assist in resolving any and all system challenges.

In an industry where customer privacy and protection are paramount, managing credit card processes can be an anxious, stressful job. To cope, Barter takes hot yoga classes and tries to spend more time on the water with her husband, at their home in Pompano Beach, Fla. Because in order to provide top technology care and service, sometimes you have to unplug. ✨

# Gabriela Bratkovics

Maximizing the benefits of technology by giving employees world-class training

Co-founder and CFO • ENG Infotech Corp.  
Fairfield, New Jersey USA



Gabriela Bratkovics was drawn to the technology field in college, where she minored in computer science at the same time she was studying for a masters in finance. And later, after attending her first HITEC, she realized how different and creative the industry is, and knew hospitality was the field for her. “My favorite part is definitely the people and traveling to conferences around the world, which gives me the opportunity to understand other cultures and true hospitality,” Gabriela says.

As the co-founder and CFO of ENG Infotech, she has combined both her specialties in a business that provides world class training that enhances technology performance. Through cost studies, she determines the best placement of technical resources and optimal direction of the business.

Early in her career, a challenge to Gabriela was that she felt she did not have enough time to comprehensively learn all the different applications available and retain all the related knowledge. Now she sees her biggest challenge is employee training, which she believes enhances employee engagement and brand loyalty. “An employee that is trained properly understands how to maximize the guest experience and in return it creates job satisfaction,” Gabriela says.

She also sees a challenge in being a woman in a male-dominated industry. When she first entered the hospitality field, she felt women were not expected to understand different technologies. But that is changing. Now she sees men paying attention to women in the field because they bring a different perspective.

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“My biggest challenge now is most companies don’t realize that training enhances employee engagement and brand loyalty. An employee that is trained properly understands how to maximize the guest experience, and in return it creates job satisfaction.”

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Gabriela recalls an experience in her career that improved her ability to define a solution and make the right decision. She was working on a project to refresh a client’s sales and catering software, and was faced with a lack of ambivalence from the client team. She met with the senior vice president and told him that if he didn’t sign off on the project that day, the deadline would not be met. She did this by presenting facts and defining a

clear solution to meet their goals. The client was able to make the decision at that moment, enabling the project to move forward.

Gabriela credits teamwork as a key ingredient to achieving success on a project. She provides an example of when she worked with a team on a PMS training project. Due to lack of participation from the hotel staff, the first installation went poorly. This created a cascading effect for the properties that were lined up for training. By leveraging the critical thinking of her team, an idea emerged: create a champion from the hotel staff for each site going forward. The champion would prepare the site for installation and explain the “why” behind the new PMS and the benefits it would bring.

As she looks to future technology developments, Gabriela is most interested in the expansion of technology capabilities within the hotel loyalty platform to create a personalized guest experience.

In her personal life, Gabriela is passionate about keeping honeybees in the ecosystem, and owns four beehives. She also has a black belt in Tae-Kwon-Do which instills determination. “Don’t be scared to fail,” Gabriela says. “Every failure is a lesson.” ✨



# Anita Chan

Forging innovative alliances between Chinese and Western travel markets

CEO • Compass Edge Ltd  
Hong Kong



**B**eing on the leading edge of digital trends requires expertise and lots of enthusiasm for “what comes next.” Both of those traits are what have pushed Anita Chan to the top of digital marketing in the hospitality industry. At Compass Edge, she is bridging the West with China digitally with GO CHINA — providing independent hotels with strategies to capture the growing Chinese outbound tourist market.

Recognizing opportunities is the key to her success. Her father had hopes of Anita becoming an investment banker, but the summer between high school and university she took a customer relations job at a hotel and discovered that hospitality was her calling. “As a person who loves to travel and explore the world, it was a logical choice to develop my career in this industry.” She learned the ropes of marketing at the head offices of Four Seasons Hotels. When an opportunity arose to join a digital department at Delta Hotels & Resorts as manager in global distribution marketing, she jumped on it. “I am from the generation when the World Wide Web got its start, with excitement centering around websites, digital solutions, etc. I always like to learn the newest and latest.”

Anita continued her path through the technology side of the hospitality industry with VIP International (later named VANTIS), then the second largest reservation service provider worldwide. She rose from director of marketing to vice president, while also earning an MBA from the Ivey Business School at the University of Western Ontario. She set up the Hong Kong operations for VANTIS and grew their Asia Pacific memberships

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“The challenge to capturing the Chinese digital market is for Western businesses to recognize and accept that the Chinese ecosystem is different, and a different strategy is needed to be successful in China.”

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from two hotels to over 150 properties in more than 10 countries. As the demand for entry in the Asian hospitality market grew, the need for adept and agile operators turned into multiple opportunities for Anita. First serving as vice president to manage the Open World Ltd’s offices in Singapore, Shanghai and Colombo, Sri Lanka and eventually managing their global sales and marketing team, she then became North Asia regional director for Orbitz Worldwide — and after that, vice president of development, Asia Pacific for Small Luxury Hotels of the World.

Now at Compass Edge, she has transformed the company from a CRS reseller to a business that provides online and marketing distribution services

and a China-ready strategy for independent hotels. “Looking back, I think one good decision I made was to look at what was up and coming at the time, look at the company’s capabilities and transform the team so that we all are China experts.”

Most recently, Anita co-founded the LN Global Alliance, the first Chinese-centric loyalty program that joins three public Chinese companies with Compass Edge to form an organization with 46+ million loyalty members. She asked, “How can independent hotels from the West get into a cost-effective loyalty program with a ready pool of Chinese travelers?... For those who know China, this is almost impossible to get done.” And so in 2018, she formed the Alliance.

All these efforts have paid off, as Compass Edge has just received the CTW Silver Award in Product Innovation at ITB China. An honor awarded by a jury of Chinese tourism experts and considered as the most important award for the international, Chinese outbound tourism market.

As one who is constantly looking to see technology as a means to capture a market, Anita is most excited about the development of big data and AI’s ability to customize travelers’ experiences as “the most interesting technology developments for Chinese travelers in the near future.” ✨

# Robin Deyo

Digital groundbreaker whose secret to success is listening closely all around to fuel the next evolution

Co-founder and Enterprise Business Officer • Cendyn  
Boca Raton, Florida USA



**R**obin Deyo is not unlike many whose livelihood comes from the hospitality industry. She caught the itch early on. Robin, with her husband Charles, founded Cendyn, a technology company focused on driving sales and marketing performance for hotels, more than 20 years ago. Arriving at that point was inevitable for Robin, who at a young age decided that the hospitality industry would be her calling.

She got the bug on a family trip to Hilton Head, South Carolina, over dinner at the Hyatt Regency. Something at the hotel struck her, and a light went off: This would be a great place to work, she thought.

Literally. After graduating from Appalachian State University, Robin took a job as a front desk clerk and was later promoted to sales manager at the Hyatt Regency Hilton Head — that dinner having an indelible impact.

Further sales positions ensued before she and her husband founded Cendyn at a propitious time in human history. Though the Internet's roots stretch back to the 1980s, it wasn't until the mid-'90s that people started to recognize its enduring impact on how business could be done. Robin and her husband had the vision to see how it would influence the way business gets done in hotels.

With thousands of clients today, the Deyos' foresight has paid off. Cendyn offers a suite of products — all focused on generating revenue for hotels and engagement with customers.

Seeing an opportunity in the space was prescient, but along the way, Robin notes her tribulations coming up the sales ranks in what she alludes

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*“Listen. Listen to your best customers, listen to your less frequent users, listen to your product development teams and listen to your gut. Each will provide the rocket fuel for the next evolution.”*

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to as a “boys club” era. The industry is less patriarchal today and, as a technology company, Cendyn is embracing women in the space. Its blog, for instance, ran a series called “Women Who Code” that profiled some of the numerous women who write code for the company.

Being a woman is less an obstacle in the hospitality industry today; instead, challenges come in the form of embracing the current wave of technology and integrating these into their products. And according to Rob-

in, artificial intelligence is the next wave of technology in the hospitality space to crest. AI, she says, has unlimited potential to change the way hotels and hotel companies interact with guests, but like any true hospitality professional, Robin understands that hotels will always be a people business. The challenge will be how to harness the technology to improve the guest experience, while maintaining the human component. It's something Cendyn is hard at work unlocking.

As a hospitality professional going on 30-plus years, Robin has soaked in advice and passed off her own. While living in a digital age, for instance, Robin still goes analog for meetings with clients or prospective ones, carrying a notepad to log key points and follow-up items. It's a tactic provided by one of her early mentors. Her own piece of advice for running an IT company in a field that is constantly evolving: “Listen. Listen to your best customers, listen to your less frequent users, listen to your product development teams and listen to your gut. Each will provide the rocket fuel for the next evolution.”

For a digital dynamo, it's an old-school mentality that shows that hospitality technology is still, in fact, a people business. ✨



# Tammy Farley

A champion of profit-optimizing analytics with compassion at her core

Co-founder • The Rainmaker Group  
HFTP Hospitality Technology Hall of Fame Inductee  
Alpharetta, Georgia USA



**W**hen Tammy Farley looks back on her path to success it's not like she had it all mapped out, "I just somehow ended up here!" But step by step, her natural entrepreneurial instincts never let her take a wrong turn and even if she couldn't always see the road she was on, there were signs along the way.

Straight out of the University of Michigan, Tammy was marketing technology. "I was an outside salesperson selling business telephone systems." She carried a ginormous suitcase with two demo telephones to display, "Two so that you could demonstrate the intercom feature!" A strong foreshadowing of her future success in pioneering technology that brings professionals together. "My background is sales and marketing, 25 years selling technology, but without a doubt my favorite part is the wonderful people that serve the industry."

Tammy's analytic instincts, combined with her passion for building professional relationships around solving problems is what has made her and her company, the Rainmaker Group, industry leaders in profit optimizing analytic technology. "So many times I'm working closely with teams of folks to be sure things are on the right track. Anytime I hear about significant issues with a customer, I pull the appropriate people together to make sure we do all we can to resolve the issue and keep the customer satisfied."

To do that Tammy is constantly reaching out, speaking to customers and bringing experts to the table. The ever-changing technological landscape presents the kinds of challenges Tammy's skill set is designed to resolve. "The thing that matters most to us is data security and disaster

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*"Do what you love. We spend so much of our life working, if you don't love it, it's not worth it — it's not about the money, it's about the passion."*

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recovery preparedness. We've been certified through a SOC compliance process and have implemented those procedures in the hospitality business." But more than that, Tammy is thinking past the current standard and is always strategizing about the next level. "To me, it's not necessarily about new technology developments per se, I think it's more about who emerges as the clear leaders in hotel technology."

"I think the fast pace at which things are changing, it can be really easy to get caught up in the latest tech only to find it is totally irrelevant to our

business," she states. Tammy's industry analysis is comprehensive, displaying a grasp that goes deeper than the latest technology headlines. "We are constantly challenged by customers and prospects, and have to be candid about why we choose to pursue the things we do and why we don't pursue others, and at the end of the day our track record speaks for itself."

Tammy's success in a male-dominated business environment has placed her in an outlier position, "I realize in some ways we have come so far, and in other ways we have made such little progress. I was on the planning committee for a conference and we were trying to find a female, C-level executive in hospitality as a speaker. How small the list is. But many women work in the industry, so we have to make sure they get the same opportunities at the top as their male counterparts."

Her professional achievement and dedication reflect Tammy's commitment to solving problems. Her devotion to family and her steadfast charity work has only galvanized her personal belief, "Do what you love! We spend so much of our life working, if you don't love it, it's not worth it. It's not about the money, it's about the passion. ✨"

# Sarah Fults

Hotel distribution and technology executive

Vice President, Distribution • MGM Resorts International  
Las Vegas, Nevada USA



**A**t her home in Las Vegas, a city of fortune or forlorn, depending on your luck, Sarah Fults keeps a peculiar memento as a reminder that success has more to do with perseverance than luck: it is a check that bounced years ago.

Fults is currently the vice president of distribution at gaming monolith MGM Resorts International, but her background is more bootstrap, having worked at several startups in a career that has included stops at Loews Hotels and Choice Hotels.

It was at one of those early startups where one of her paychecks did not have the cash to back it — something jarring if you have to make a car payment, but also transformational, Sarah admits. It was a reminder of the grind it takes to run a fledgling company and the responsibility that comes with that. The bounced check, a result not of neglect, but circumstance, also serves as a reminder of leadership: the owner, figuratively, sold the shirt off his back that day to ensure Sarah received her pay.

Sarah's paychecks do not bounce today, in part because part of her job is to reduce operational expenses by lowering the cost of customer acquisition. From managing an OTA and GDS strategy to implementing central reservations systems, Sarah has been on the forefront of the hospitality industry's byzantine distribution game, where profit margins are won or lost on the turn of a percentage point.

Her first taste of the hospitality industry came while working in reservations at Gardiner's Resort on Camelback in Scottsdale, Arizona. It was also there that Sarah found her career calling. Serendipitously, the resort was in

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*"You see a lot of right and wrong and good and bad in your career, but staying humble and doing the right thing every day is a choice that is yours to live by."*

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the midst of installing a new property management system and Sarah was asked to test the system and locate any bugs. The company that supplied the PMS, Anasazi, later purchased by Pegasus Solutions, found Sarah's feedback indispensable and offered her a job in quality assurance, which she accepted.

As back then, Sarah still finds integration her greatest challenge, making new technology jibe with the old. And while she is excited at the prospects of new tech, including AI and voice, Sarah shows most excitement over the "smart

hotel," where rooms, for instance, will conform to guests' tastes. As an avid traveler herself, Sarah relishes the future of personalization and the way it will transform and propel the customer experience.

Driving hospitality distribution onward is part of Sarah's current work. When she isn't busy building strategies to optimize revenue at MGM, Sarah helps guide and shape the distribution conversation as president of the Hotel Electronic Distribution Network Association (HEDNA). She has been in her current role at the not-for-profit organization since 2016, having sat on its board of directors prior. HEDNA's mission is to simplify hospitality distribution to drive the business of hospitality forward.

The field of hospitality technology has historically been male-dominated; that is changing, but Sarah, a 24-year industry veteran, has never let it affect her. She did that by being assertive in order to be heard, but not so assertive as to sound offensive. Today, her biggest protestation is pay inequality, a persistent issue across industries which she finds inexplicable in this day and age.

Her advice for women just starting in hospitality: Be confident, learn from everyone, believe in yourself and know that you deserve to have a seat at the table. ✨



# Jennifer Green

Hotel technology professional who evaluates, deploys and manages guest-centric technology

Product Director • Hyatt Hotels  
Chicago, Illinois USA



**J**ennifer Green fell into hospitality by accident. She had a long finance-focused career working for a Fortune 50 financial services company, when she was brought in to develop an operations solution using technology with little background knowledge. She had to learn it from the ground up. Shifting industries, an opportunity came up with hotel technology at Hyatt and she jumped at the chance to do something completely different, but with a well-respected and renowned brand.

Her favorite part is the tactile nature of the business. "I used to work on projects and strategic initiatives that you could never see, feel or touch," Jennifer says. "Now I can visit hotels the world over and see the work and energy spent every day come to life for our guests."

Early in her career, she was challenged by a lack of knowledge of solutions we take for granted today, such as cloud hosting, big data, IoT and network communications. Now she feels the biggest challenge is not the technology itself, but how to articulate why you are doing something and the value it provides.

"I like to challenge the prevailing thought patterns and avoiding decisions being made based on a survey of one (e.g., just because one person thinks or experiences something, doesn't make it true for all)," Jennifer says. "My favorite question to ask is 'why?'"

Jennifer's position with Hyatt involves the deployment of guest internet access. She is fascinated by how networking is developing and evolving. "I think HotSpot 2.0 and the promise of 5G are really important to watch," Jen-

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"What I discovered I really liked [about technology], though, was this was a discipline that not only taught you how to solve problems, but how to approach problem solving."

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nifer says. "People are asking how we help them be more secure in a connected world and how we can service them more seamlessly and in real time."

In working with teams, Jennifer believes one of her core competencies is to hear what isn't being said. She realizes every team has individuals who may have competing goals and different philosophies and wants to get those issues and concerns out in the open. "I like to take on the role of arbitrator in those cases," Jennifer says. "When you can have someone outside the emotion recalibrate the conversation and put concerns out there

in different words, you can often get past a lot of the objections."

Jennifer never felt that being a woman in a male-dominated industry has held her back. In fact, she believes it can be an advantage. "Being the only woman in a room has given me a voice I may not have had otherwise," Jennifer says. "Your voice carries a weight of authority that can't be challenged since your life experiences are not known or shared by the others sitting with you."

One such woman who has helped Jennifer develop her networking skills is Dayna Kully of 5thGenWireless. She has valued watching Dayna in meetings and how she networks with others. "I have never been particularly good or comfortable with networking," Jennifer says. "She took me under her wing, advocated for me and introduced me to people that I needed to know."

When she considers best practices for working in a constantly evolving field, she recommends reading from many different sources and surrounding yourself with people from whom you can learn. "Don't be afraid to say 'I don't know,'" Jennifer says. "Remembering that it's okay to admit when you can't answer a question, leaves you open to what is really possible and to hearing other perspectives. We always need to allow ourselves to be challenged." ✨

# Dayna L. Kully

Master relationship builder bridges the gap between hoteliers and nextgen technologies

Co-founder • 5thGenWireless  
Paradise Valley, Arizona USA



**D**ayna Kully, co-founder of 5thGenWireless LLC, became passionate about the hospitality industry fresh out of college when she began calling on Fairmont Hotels in San Francisco. Thirty-eight years later, she appreciates the invaluable and rewarding relationships she has developed, “it’s like having a large, extended family.”

She started her career as an account executive with PacBell in San Francisco selling network circuits and services like HoBIS. She soon moved into the hospitality industry sector and never left. Dayna recalls that technology was more simple and straightforward then. “The biggest challenge was trying to figure out where hospitality technology was headed because innovation occurred so painfully slow,” Dayna says.

Now the rapid pace of technology innovation has become a new challenge. Dayna spends much of her time keeping up with the constantly changing standards in all aspects of wireless — Wi-Fi, cellular, etc.

“Because we are a future-looking consultancy, we must keep up with these standards and try to predict the impact, value and risk for hoteliers three to five years down the road,” Dayna says.

When it comes to emerging technologies, Dayna sees HotSpot2.0, CBRS, 5G and Edge computing as having the biggest impact. “They are going to revolutionize how hotel brands and their properties engage with guests, staff and visitors, and how they personalize and differentiate the guest experience and improve operations,” Dayna says.

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“It is so important to have a mentor, particularly someone you do not report to, so you can get a fresh perspective and be honest about your feelings.”

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Dayna recalls one of the most challenging experiences in her career was when she was a new global account manager leading a team to support Hilton Hotels Corporation’s telecom needs. She had moved from the Bay Area to Los Angeles for the position to find her only customer would never do business with the company again. He gave her a list of 13 critical issues, one being The Waldorf Astoria in New York, which had several challenges with the PBX her company had installed, another was

the hold music was connected to the audio of an adult channel. Dayna promised the customer she wouldn’t return until she resolved all 13 issues.

“It took three months and every team member to resolve these issues. I kept my promise — we shipped a new refrigerator-sized cabinet (at no charge) and fixed the audio connection (resolved this first),” Dayna says. “We earned 100 percent of their business over the next year and retained it for years.”

While being a female in a predominantly male industry can have its challenges, Dayna feels she’s been treated with respect by her customers, associates and the industry at large. She feels strongly about mentoring women inside and outside the industry. “It’s so important to have a mentor, particularly someone you don’t report to, so you can get a fresh perspective and be honest about your feelings,” Dayna says.

In her “spare” time, Dayna rescues pugs, enjoys exercising (so she can eat great food) and travels the world scuba diving and getting exposure to other cultures. “I’m also passionate about coaching young people, helping them find their short- and long-term paths in life.” ✨



# Kelly MacPherson

Leader that supports teams to drive value creation through technology

CIO • Restaurant Brands International  
Toronto, Ontario Canada



**K**elly MacPherson grew up in the hospitality industry. She worked in her parent's restaurant and bar in a small Minnesota town and fell in love with the industry's dynamism and its ability to positively impact a guest's day "whether with a smile, a welcoming experience or driving sales through marketing various initiatives (of course it was low tech at that time including flyers and punch cards)," MacPherson says.

Now leading tech initiatives at Restaurant Brands International, MacPherson started her technology journey right after college by working as an operations manager at Planet Hollywood. One of her first tasks was to work with the point of sale (POS) team and since she loved data and numbers, she found she had a knack for system installations. Through her work, she realized technology needed to be more relatable and less intimidating — and to drive real change, the industry had to bridge the gap and translate more effectively between technology and operations.

"Acting as part translator and part installer, I built trust-based relationships with all of my colleagues because I offered solutions and had a maniacal, unrelenting passion for delivering excellence and doing whatever it took to get the job done," MacPherson says.

Early in her career, she was tasked with opening a restaurant in Maui and installing the POS system. She had little training and no real IT experience at the time, so she read every manual and performed a practice run in her hotel room. The system began to fail soon after the restaurant's opening and

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"Acting as part translator and part installer, I built trust-based relationships with all of my colleagues because I offered solutions and had a maniacal, unrelenting passion for delivering excellence and doing whatever it took to get the job done."

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she spent days working with her vendor to fix the problem. "I learned then the importance of grit and determination, and it is with that same dedication that I have approached each challenge throughout my career."

She sees the importance of learning new technologies that will focus on guest behaviors and deliver a customized experience. She works to upgrade her company's legacy technology to meet the needs of their

guests, breaking down the barriers and traditional ways of problem solving to deliver what guests are demanding. "Our industry is fully driven by data, and that means we need to excel at one-to-one marketing, CRM and machine learning, all with the goal of delivering a distinctive guest experience," MacPherson says.

Sometimes the only woman in a meeting room, MacPherson has found it difficult to break in. She feels there is a misperception that women in technology roles are too opinionated or can come off too strong. "But the environment is improving," MacPherson says. "So many opportunities have opened up for women in the field, and more are considering technology than ever before."

MacPherson credits her success to her team — a diverse set of individuals from all over the world. She invests in talent and makes sure they are constantly learning. She is intent on keeping the work interesting and engaging, including using AI to allow the team to focus on strategic change. "I am also a firm believer that our vendors are part of the extended team, and that we need to work together to deliver exceptional results for our business partners and our guests." ✨

# Shannon McCallum

Hotel operator with a focus on service delivery and innovation

Vice President, Hotel Operations  
ARIA Resort & Casino and Vdara Hotel & Spa  
Las Vegas, Nevada USA



**S**hannon McCallum started working in hotels during her summer breaks from high school. She remembers at age 16 working a dinner with dignitaries as her first thrilling experience in the field. Thirty years later, she still loves what she does. “I know how rare it is to find a dynamic career that doesn’t feel like work,” McCallum says.

Shannon entered the technology field in 2010 when she joined MGM Resorts at ARIA Resort & Casino. The largest green hotel at the time, the property featured 4,004 guest rooms, over 18 million square feet of function space and was chock-full of brand-new technology. She spent a great deal of time researching technology that would provide the best guest experience.

Her focus is the guest arrival experience, since “guests do not like to wait in line — ever!” Regardless of a property’s size, ensuring a seamless arrival can be a challenge, and for many years technology had not addressed this hot button. Shannon is happy to see new solutions allowing guests to select their preferred method of arrival, whether it is through a pre-arrival invitation to do online check-in, use a mobile application or in-person. “As a company, we have spent much effort to integrate technology into our guest arrival experience to provide options for our guests,” Shannon says. “Our digital key, one of the features available on our MGM Resorts app, is a great example of that.”

Shannon believes that it is critical for hotels to build close partnerships with internal IT partners and outside vendors who support the hardware

“Over the years, I have learned that it is important to ask questions and educate myself as much as possible on whatever the subject matter is, so I can have a voice at the table and feel comfortable contributing.”

and software in use. Equally important is having an understanding of the end of life of current technology and creating a plan of transition for future upgrades and replacement of equipment.

“Over the years, I have learned that it is important to ask questions and educate myself as much as possible on whatever the subject matter is, so I can have a voice at the table and feel comfortable contributing,” Shannon says. “I have built strong relationships with technology partners to continue my growth as this realm is ever-changing.”

Shannon stresses the importance of teamwork to achieve success on a project. Developing a path towards mobile check-in was a goal for her company. To be able to develop, pilot and roll out this initiative across multiple properties was an enormous task. “The key to success was working closely with company IT professionals, the vendor partners and the hotel operators prior to, during and after the installation to ensure all items were addressed,” she says.

Shannon appreciates the ever-evolving education technology brings even after it’s installed. The remote controls in her guest rooms went through a few updates before they found a process that allowed for optimum battery life and was more convenient for their guests. “Technology as a whole is not perfect and it can take a few trial runs before it is a success,” Shannon says.

She points to her mentor, Paul Berry, as a contributor to her own success. “He stressed that the sharing of our opinions is critical to the success of our business,” Shannon says. “Each person has a unique voice and perspective to share and we cannot be successful unless we understand all potential sides or outcomes to a situation.” ✨



# Keryn McNamara

Technology leader driving strategic innovations with a passion for executing projects flawlessly

Vice President, Hotel Technology • Omni Hotels & Resorts  
Dallas, Texas USA



From her earliest days in hospitality, Keryn McNamara knew that the customer experience was always the top priority. Now at Omni Hotels & Resorts, Keryn leads the hotel technology team for the North American luxury brand, and does so always with the guest in mind. “My favorite part of what we do is the 'surprise and delight' element. Having that service-industry background at a young age ignited the passion I have for providing outstanding service to our guests and associates.”

Keryn’s long career at Omni Hotels & Resorts started on the operations side. After graduating with a bachelor’s degree in hospitality administration/management from Indiana University of Pennsylvania, she rose through the ranks. Demonstrating her value as director of revenue management in the Pittsburgh area, she was promoted to manager of corporate operations and moved to Omni’s corporate office in Dallas, where she eventually became the senior manager of corporate operations. A turning point of her career came in January 2012 when she moved from operations to IT, taking the role of senior manager of hotel technology. “An opportunity presented itself for me to be on the 'people-side' of technology after a mentor of mine recognized my ability to speak both languages, and we were able to bridge that gap between service and technology.”

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“What I learn from other departments and associates when implementing any new system or technology, I bring back to our team to help them better understand how the back-end relates to the user experience. This helps bring it back to the service side of technology.”

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While it was a welcome change, the transition did not come without its challenges. “I don’t come from a technology background, so my early challenge when I first entered the field was catching up. I had to truly immerse myself in this industry and language to get up to speed.”

Keryn’s expertise and leadership were put to the test in 2013 when Omni Hotels & Resorts acquired a number of resorts at once and needed to

integrate and convert their technology over to Omni’s. “Through this process, we learned about our systems and procedure efficiencies, but it also opened our thinking about adopting and implementing technology that these resorts were already using. I’m most proud of the fact that our small team worked hand-in-hand to accomplish this transition in such a short amount of time while still providing excellent support to the 30+ properties we had at the time.” Keryn turned this challenge into a major accomplishment, and this achievement, along with several other successful projects, led to promotions to director, and finally vice president of hotel technology.

“As a leader and enterprise-wide collaborator, it’s important to look at issues as opportunities and that’s what’s so exciting about hospitality technology today. I have the opportunity to work hand-in-hand with my general managers every day to move technology forward and enhance the overall guest experience.”

Ever-evolving hospitality technology is essential to operations. With a thoughtful strategy dedicated to the guest experience, Keryn continues to lead her team, and the Omni brand, in the push for the innovations of tomorrow. ✨

# Tammy Peter

Seasoned hospitality executive focused on revenue optimization and distribution excellence

EVP Global Distribution and Revenue Management  
Wyndham Hotels & Resorts, Inc.  
Parsippany, New Jersey USA



**A**lignment is critical. For Tammy Peter the most important principle, the essential guiding inspiration is knowing that when the whole system is hung just right, it is a beautiful thing. “It is critical to work closely with a business to understand the strategies of the organization and how we can enable them through technology. Technology isn’t the driver, it is what enables the business to achieve its goals — so alignment is critical.” And Tammy has the career-proven wisdom to know what works.

After the University of Michigan, a one-time summer job got the ball rolling, “I fell into the industry by accident when I took a job as a reservation agent for Embassy Suites. It was supposed to be an interim position I took on while I figured out what I wanted to do long-term. But, I ended up loving the industry and never leaving.” With her nascent career passion as a guide, Tammy’s experience deepened, “but regardless of job title, I truly love the feeling of providing true hospitality. At the end of the day, we are all striving to provide an excellent experience for our bookers, customers and guests.”

“I started in the hospitality industry at a time when computerized bookings were new and central reservation systems were evolving.” Tammy’s broad expertise has been building in tandem with an industry transformed by the shockwaves of technology and the integration of the internet into our daily lives. “It challenged the way we priced our ho-tels. And of course, images and descriptive content became much more important than when it was just shared over the phone or in print — now

“It is critical to work closely with a business to understand the strategies of the organization and how we can enable them through technology. Technology isn’t the driver, it is what enables the business to achieve its goals — so alignment is critical.”

consumers could see first-hand what to expect. Changing expectations meant we had to change the way we did business. We needed to be aware, learn as much as we could and understand the business impacts to make the best decisions about how to use these new technologies.”

In the mix of this industry-wide transformation, Tammy found support in the professionals around her. “I have been lucky to have some strong mentors throughout my career, both men and women. I would encourage everyone to ask for advice, listen and bring value where they can.” Tammy hopes that her place as a success in the male-saturated world of technology will inspire

up-and-comers just starting their careers. “It’s amazing how important being useful can be. I have also profited from some excellent women’s leadership programs where I became more conscious of using assertive language, being confident in a male-dominated environment and speaking up because each person’s unique insights are important to create the best solution.”

In her drive to create solutions and optimize every opportunity with the perfect array of technology, Tammy knows first-hand that it is all about effective teamwork. “I think leadership and teamwork go hand-in-hand... you can’t have one without the other. For example, if there is a bad system migration, I bring a team together to examine every nuance, every detail. While remapping and rebuilding an entire system would be a personal challenge I would rise up to, a solution is only possible with the help of key leaders coming together to make some tough decisions as a unified team.”

Looking forward Tammy sees exciting things in the shifting landscape. “There is a great opportunity with voice commands, which could be a great way to book somewhere a consumer has already shopped. When everything is considered aligned just right, what a great way to share the beauty of a hotel!” ✨



# Geneva Rinehart

A writer/editor who brings hospitality industry innovations to readers around the world

SVP | Managing Editor • *Hospitality Upgrade Magazine*  
Roswell, Georgia USA



In the hospitality industry, there are those who make it run and those who report the race. For just shy of a quarter century now, Geneva Rinehart at *Hospitality Upgrade* magazine has made it her business to track the trends, speak to the influencers and produce content related to the always changing world of hotel technology.

*Hospitality Upgrade's* roots stretch back to 1992. Then, founder and publisher Rich Siegel launched *Hospitality & Automation*, a small newsletter following the hotel technology space. An iteration thereafter led to the official launch of *Hospitality Upgrade* in 2000 — one of the only publications to exclusively cover hotel technology.

In the mid-'90s, technology was still an inchoate segment of the hotel industry. While you could access a guest room with an electronic key card, it wasn't until around 1995 that you could book a room online. Things were not where they are today. Still, Siegel saw a business opportunity, and Rinehart became his first hire.

She was the ideal fit for the job. She not only grasped technology, but also knew how to write about it in a way that was understandable and even enjoyable to read. She credits a counselor at Penn State for helping her hone that particular skill. After her freshman year, he recommended that in addition to taking more science and math classes, she mix in some writing and communications courses. As he saw it, the publishing world needed people who could smoothly convey abstruse subject matter.

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"I love our industry use of 'jargon' and the fact that there's always some 'buzz' about something. The industry is never boring and it's constantly evolving."

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Rinehart has done it with aplomb in a space — publishing — that is high on stress and low on patience. Media runs on deadlines and coffee, it's part of the everyday experience. One rather fraught anecdote illustrates this, as Rinehart retells. One Friday, she and her team were working into the evening and just about to lay an issue to bed. They decided to go out for a late dinner, then come back to the office Saturday morning to put on the last touches. The next morning, they arrived to flashing lights and a mass of police: about 30 minutes earlier, someone had broken into their office and absconded with their computers — along with the entire issue.

Proving that nothing, not even theft, would thwart a deadline, a marathon session began of piecing the issue back together from a trail of paper printouts. Friends and family brought in their personal computers so they could key in every word. They met their deadline.

Rinehart learned three things that day: hard work prevails, surround yourself with great people and, always backup your work!

When she first started in publishing, it was it was at a major turning point. The rise of the internet allowed *Hospitality Upgrade* to be one of the first industry publications with a website covering hotel technology. Publishing continues to evolve, and the need for more content, faster content and personalized content keeps her and the *Upgrade* team busy.

The technology they report on has also come far since her first days at the magazine. Today, she is most fascinated with aspects such as mobile technology and AI, and the fact that she can literally conduct about 90 percent of her job from a smartphone.

But if she had to pick just one favorite technology, it would be robotics. And not for the reason you might think, like to clean a room or check in a guest. No, to stand in and do all her public speaking gigs, she admits. ✨

# Iris Steinmetz

Product and integrations specialist  
with a keen eye for big data

VP, Product and Partnerships • SnapShot  
Berlin, Germany



**B**ig data is one of those cryptic terms, often bandied about from one hospitality conference to the next, and no more discernible at the end. Maybe that's why they call it *big*.

But one woman is working to clear up the confusion as an executive at SnapShot, a data processing platform that helps the hospitality industry "collect, harmonize and analyze data." In other words, get its arms around big data to the point where it can be used to bring value to the business and to the customer.

Steinmetz has been working in the hospitality industry going on 20 years now, and has done so both working in a hotel and providing technology solutions to them. Having two perspectives, she says, is what helps her succeed.

It's also what helped her career evolve. For example, while general manager at a hotel in the United Kingdom, she led the switch out of the property management system. This led to a technical product manager position with Micros-Fidelio, one of the first companies to offer two-way PMS interfaces, as well as connectivity to the GDS and web-booking engines.

It was at that hotel, The Revere in the Channel Islands, that she encountered one of her first role models and mentors, who had a big impact on Steinmetz's career. Paul Doran, the hotel's owner, was a real visionary in many areas technology related. At the time (late-'90s), smartphones did not exist and bar code readers were only used in shops. Doran devised a tool to scan bar codes assigned to the different types of wine in the

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"Don't take no for an answer! Dare to take on a challenge, which might seem too large at the time, but you will grow with the demands on you."

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cellar, and once the bar code reader was linked up to a cradle to match the required numbers, the order would be automatically sent by fax each Sunday evening to the wine dealer. Talk about connectivity!

That term connectivity, and integration, have a heavy hold on Steinmetz: she embraces them because they are her biggest challenges. When Steinmetz started in the hotel business, there was close to no integration. Larger hotel chains were beginning to connect their proprietary CRS to their PMS, but the majority of systems were not connected. It's amazing

what can happen in two decades, however. Today, even smaller, independent hotels are fully integrated, yet the playing field is still stacked in favor of those with scale.

Like other data wonks, Steinmetz is excited over the applications of AI and machine learning, particularly with regard to how data is processed today — which is to say there is so much data that much of it is lost or perishable.

"We are seeing more and more systems using some form of machine learning, being it chat bots, revenue management systems, etc. ... many vendors and even hotel chains have interesting projects planned, so I am looking forward to the benefit it can bring to our industry."

As a woman, Steinmetz's career path has not been too cluttered by gender politics. For example, she notes that in the early days of the Micros-Fidelio EAME region, 90 percent of the product managers were female, which showed hiring based on qualification. Still, she says there is room for improvement. At one industry conference, she was the only female among 21 speakers.

Beyond work, Steinmetz is quite the pioneer. With friends' help, she built her own house. Her tool shed, she says, would make some men cry with envy. ✨



# Suzy Treece

Global hospitality digital transformation and practice leader

Head of Global Hospitality • Aruba  
Gainesville, Georgia USA



**S**uzy Treece began her professional technology career, while living in Silicon Valley. Early in her career, she joined a computer time-share company working closely with government agencies and the space program. Moving from computer operations to systems programming, she honed her technical skills before moving into consultative selling. She began calling on hotels as a telecom consultant and realized this was the industry for her. “It is a passionate, fun loving and service-oriented industry,” Suzy says. “I enjoy the people, the diversity of brands and level of service.”

When she started in computer operations and systems programming, the field was dominated by men. She worked twice as hard to prove herself. “In hindsight, it built great perseverance and character and made me who I am today,” Suzy says.

Now she feels the culture has changed and women are being embraced for technology roles. Sometimes women have a unique perspective that is increasingly being valued, particularly in the hospitality space.

Her move to hospitality technology has been a 25-year career journey touching down in multiple sectors along the way. Before joining Aruba, she led the global hospitality practice and solution portfolio at SAP, including hotels, cruises, entertainment, travel and restaurants. Previously, she led the hospitality practice at Cisco. Suzy also spent 11 combined years at IHG in multiple roles, including senior vice president of global technology operations and later as a senior consultant with a focus on the next generation reservation system. In addition, Suzy has also consulted with Mandarin Oriental and has worked in leadership roles for two major application companies.

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“Collaboration and team work are key. Maintain integrity and always treat others with respect.”

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Suzy places strong emphasis on collaboration and teamwork. She recalls a time in her career when she was promoted to turn around data center operations when employee morale was very low. To turn things around, Suzy focused on listening to employees, emphasized personal and professional development, and welcomed open communication. “We held people accountable and tightened the belt on wasteful spending,” she says. “With this, we were able to improve employee satisfaction by six

percent, taking the team scores to the highest in IT. We also reduced turnover and improved the bottom line and worker efficiency.” Suzy also instituted a diversity program to create more awareness and a fair work culture.

Suzy also puts great value on mentorship and attributes success during a challenging time to her own mentor. An entire division of her company’s data was corrupted, and the only backup was seven days old. She was able to solve the issue using her mentor’s coaching on the disciplines and process of problem resolution. “He always said, ‘Write down every step you take, whether it fails or succeeds, and once you have a resolution, follow the exact same process in the production system,’” Suzy says. “I was able to do that day what a dozen senior programmers could not.”

She feels integrity and treating others with respect are key attributes to running an IT department. With a fondness for transparency, she encourages others to be direct. “Don’t be afraid to ask questions,” Suzy says.

Suzy’s early education included nursing and emergency medicine, later developing a passion for holistic medicine. Suzy enjoys gardening in her spare time, and lives in the foothills of Georgia, with her husband and three sons. ✨

# Heide Werthamer

Technology provider for the hotel industry –  
from hotel openings to ongoing support

Chief Operations Officer • Edge Communications  
Plano, Texas USA



**W**hen it comes to the hospitality technology industry, Heide Werthamer understands that without hospitality, it is just tech. “If the customer experience is the number one priority, everything else falls into place eventually.”

Heide is a founding member of Edge Communications, a telecommunications and network solutions provider for hospitality clients, and the key to providing the best technology to Heide’s clients comes from her experience as a hospitality professional herself. That experience starts with a New York legend. “In my 20s, I took a job in New York with Ian Schrager with no experience in hospitality. It did not take long to realize that hospitality was in my blood.” As the assistant to the development group for Morgans Hotel Group (Ian Schrager Hotels), Heide oversaw the day-to-day operations of all development activities for a company that was redefining the guest experience in hospitality. “Working with Ian Schrager and Michael Overington at Morgans Hotel Group taught me that anything is possible, if you have the drive to get it done. ‘No’ was not an option at MHG... instead it was, ‘how can we, together, get the seemingly impossible accomplished?’”

That “must-do” mentality served Heide well when she blazed a new trail into tech as the vice president of operations for Visual Radio, LLC, an Internet incubator company in the nascent days of the world wide web. Managing a staff of 60, as well as overseeing production and implementation of all online business systems required a confident hand at the helm,

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“In an ever-changing environment, you need to expect the unexpected and be able to adjust quickly. Having a passion for solving problems is a must. If the customer experience is the number one priority, everything else falls into place eventually.”

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especially in a brand new, male-dominant field. “Very early on, I realized that being a female leader has its advantages. Women communicate differently; we negotiate softly but effectively and we are able to get the job done. We must not think of how to emulate a male leader; we need to know how to be an innovative female leader.”

Her experience with MHG, working to develop the ultimate guest experience led her in 2002 to purchase and operate the boutique hotel Casa Morada with two Schrager alumni and becoming general manager of the property. Both her hospitality and tech background were crucial to making Casa Morada the Trip Advisor number one place to stay for Islamorada, Florida and gaining notice with features in many of the world’s top travel publications. Heide recalls, “For 13 years, my favorite part of the day was exceeding guest expectations.”

Exceeding expectations is still what Heide aims to achieve at Edge Communications, where she is helping hotels discover and implement technology in order to provide that “better than home” experience for their guests and staff. “Right now I am looking carefully at voice activation in rooms, because I think it is here to stay and we need to further investigate how it enhances the guest experience.”

Ironically, the hard work she and her clients put in to achieve a connected guest experience would be for naught when Heide is the guest. An avid traveler herself, when she is on personal time, she seeks destinations with limited or no Wi-Fi so that she can truly disconnect. ✨

# In Today's "Smart" World, People Don't Just *Want* to be Connected, They *Expect* It

By Ken Torres

Smart technologies like location-based services, digital signage, tailored Wi-Fi landing pages, and custom hotel and venue applications amplify the guest experience.



**H**ospitality professionals are fully aware that guests come to their hotels equipped with multiple devices, multimedia-rich apps and robust software. All of this requires high capacity connectivity with lightning-fast connections, and hoteliers feel the pressure to meet expectations by increasing bandwidth. At the same time, hoteliers are searching for ways to better leverage technology to inform decisions and increase revenue potential, while differentiating their brand. Help is on the way.

Enter the "smart city" concept. Smart cities were often discussed in the abstract but are now beginning to come to fruition and implementation as cities around the globe look for ways to provide constituents more value. Now there is an urgency for cities to equip themselves with infrastructure and analytics that can make this all possible. Hoteliers can learn from the same smart city book to better upgrade their current state of technology for a more integrated and holistic future state.

Many municipalities are developing initiatives to enhance public service delivery to their citizens. They are using digital solutions like low-power sensors, wireless grid networks and application-based communications to improve overall quality of life.

Ken Torres is a member of the Hospitality Network team, an affiliate of Cox Business. With 20 years of marketing experience in the telecom industry, Ken is using his experience for digital and social media marketing for hospitality and large venues.

According to a 2018 McKinsey & Co. report, smart city initiatives offer significant potential benefits to urban areas, including saving lives, preventing crime, reducing disease burdens, saving commute time and reducing waste, while also helping to boost social connectedness.

### Las Vegas 2025

The Innovate Vegas initiative, for example, will make Las Vegas a recognized smart city by 2025. The city is currently testing a variety of IoT innovations which will eventually deliver everything from real-time analytics to intelligent transportation systems. Today's top innovators are getting involved in the movement as well, as 5G networks continue to inch closer to the horizon and Elon Musk's Boring Company recently announced plans to build a Las Vegas Hyperloop tunnel for conventioners. Hoteliers can leverage these initiatives and should consider how a hotel app might integrate with real-time analytics on a city's platform, or how AI could incorporate all the city's data to enable an app to know when and how to engage with guests during impactful moments during their stay? For example, integrating a hotel's platform with a city's analytics could allow a hotel to send a guest personalized transportation options to their hotel based on the current traffic patterns, a guest's preferences and other factors.

### Keeping Fans Connected

Just as hoteliers may leverage learnings from smart city initiatives, so too can the sports and entertainment venues learn from hoteliers.

Fans or sports enthusiasts who frequent stadiums and arenas regard connectivity as an essential part of their experience. Modern

" ... Integrating a hotel's platform with a city's analytics could allow a hotel to send a guest personalized transportation options to their hotel based on the current traffic patterns, a guest's preferences and other factors."

sports fans now expect their mobile devices to work within a large site the same way it does in their homes, their offices and their hotels. Fast, reliable connectivity in arenas and stadiums not only provides a better fan experience, but also enables fan engagement in meaningful ways like Wi-Fi landing pages, apps and social media engagement. This helps large venues personalize and monetize the fan experience, just as hoteliers do.

### Beyond Las Vegas

Outside of Sin City, Cox Business maintains partnerships with 37 arenas and venues across the United States, including the Dunkin' Donuts Center in Providence, Rhode Island, as the arena's premier partner. Cox also serves as the official technology communications provider of the BOK Center in Tulsa, Oklahoma, and brings advanced network technology to the 19,199-seat downtown arena, ensuring an improved Wi-Fi experience and ultra-fast speeds for guests throughout the venue.

These fast speeds unleash a multitude of benefits for the visitor experience. Enabling secure and fast social media sharing of the spectator experience is the most direct and efficient customer testimonial there is, good or bad. Fast and well-designed networks can be the cornerstone of new

revenue streams not previously considered. For instance, can fans order food from their seats via their arena app? As fans walk up to the arena's team store, can they be incented to spend a bit more money with push notifications enabled by location-based advertising?

Hoteliers have been using technology to personalize the guest experience for many years, from push notifications to geo-targeted advertising and wayfinding. A similar trend is currently taking place in the sports industry in regard to the fan experience. As retail districts, stadiums and convention centers renovate their facilities they are looking for new ways to incorporate technology to provide more fan engagement for higher attendance and lasting revenue.

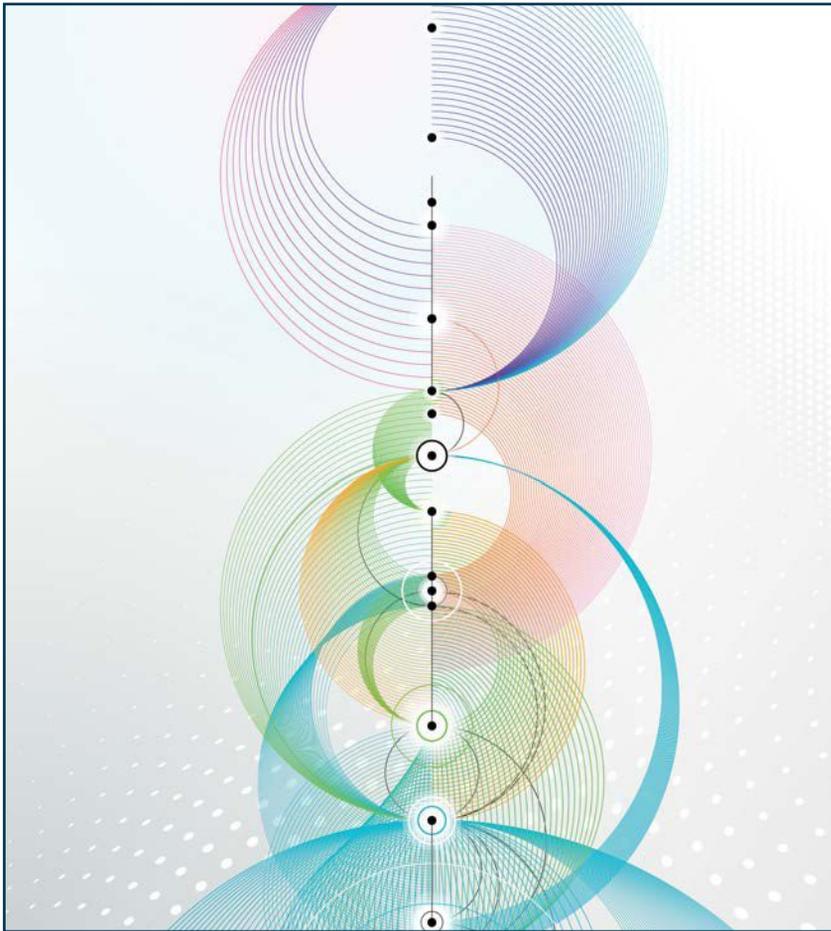
Beyond traditional connectivity, smart technologies like location-based services, digital signage, tailored Wi-Fi landing pages, and custom hotel and venue applications can turn a family's weekend getaway from an everyday experience into a vast and seamless experience that they will want to share with their friends and families.

In the age of the smart city, it's essential for venues of all sizes to understand how to leverage technology to drive better value to guests — from Las Vegas to Rhode Island. After all, it's what guests expect. ✨

# The Evolution of Data Use: Moving From Silos to Interconnected Wisdom

By Carson Booth, CHTP

A well-designed data strategy and a data-centric board room have emerged as key components in achieving superior guest experiences in modern hotels.



**T**he hospitality industry has traditionally placed a low value on technology and data, but this is beginning to change. With PMS and POS systems, guest reputation platforms, OTAs, forecast and budgeting tools, and so on, there is so much data being produced and received daily that it's safe to say that data and data integrations lie at the center of hotel operational excellence today. While the importance of data is evident, it's essentially worthless unless it is properly stored, intelligently connected and made accessible for business decisions. There are four phases of data that can convert basic data to information to knowledge to wisdom. A data strategy by design and a data-centric board room have emerged as key differentiators in driving superior guest experiences in the hotel.

## Phase Zero: Basic Data Usage

Hotels generate data from tens of thousands of data points daily, coming from different internal and external sources (operations, financial, reviews, etc.), but without integrations between the various systems, data usage remains in its most simple form — basic KPI reporting, Excel and hours of manual work. Data aggregation and co-mingling of data cannot occur, and data silos remain the norm.

Carson Booth, CHTP (contact@snapshot.travel) is CEO of SnapShot, a Shiji Group Brand based in Berlin, Germany. Carson is a director on the HFTP Global Board and a frequent speaker at HFTP events, including HITEC Europe.



Data is foundational in understanding a hotel's business. Without the ability to interpret and use the data, no insights or explanation as to why certain KPI numbers and performance trends happened can be ascertained. In order to understand the data, its relationships and dependencies better, basic integration is a required minimum before reaching the next phase of data usage and value.

### Phase One: Individual Connections

Hotels leveraging basic data usually conduct simple reporting by relying on their PMS system and manually combining with other data using a variety of tools. These manual processes take time, are error-prone and still cannot produce instant report aggregation across multiple data sources. By integrating the PMS and other source systems, hotels can begin to understand their operations better.

More advanced hotel operators acknowledge the need of data integrations and to store all data in one single repository as the start of solving most of hotels' data problems and challenges faced during this phase.

### Phase Two: Data Lakes

This next phase of data value is where relationships between data start being made. This opportunity initially starts by moving a copy of the data in its original format into a single repository — a data lake. An operation can have more than one data lake and can store both structured and unstructured data from various systems into a single or limited few repositories until the data is needed. Data lakes represent a maturing step that hotels can take toward a proactive data strategy by design, and to provide a more advanced view of their operation. These organizations have made higher investments in technology and place a greater value on data.

Data lakes open many opportunities for building KPI dashboards and tools for tracking revenue, website traffic, rate variations, POS analytics and more. Predictive analytics and advanced business intelligence solutions become the next level of a data-centric board room.

Some organizations extend the value of their data through the employment of data scientists and begin to co-mingle structured and unstructured data as a means to further mature the discrete data elements to information and eventually to knowledge.

### Phase Three: Data Hub

An even more advanced form of data integrations, analytics and storage can be driven by the employment of data hubs. A data hub is a single repository where data from multiple sources (internal, external, structured and unstructured) is harmonized. Data hubs include a data transformation process with standard definitions and relationships, and add other value to the data such as de-duplication, quality, and standardized query and API services.

Harmonizing the data delivers significant benefits to analyzing combined data from these multiple sources. For example, a hotel could combine data from its PMS and POS systems to pinpoint which market segments have the most influence on F&B outlet revenue, which can then lead to procurement, menu and staffing decisions.

For example, data hub technology has been employed at airport hotels where weather information and flight data has been used to solicit travelers of cancelled flights and drive incremental revenue.

### Phase Four: Graph Technology

There is another level of data sophistication that employs graph technology. The large tech suppliers like Amazon, Facebook and Google, employ graph technology

which lies at the heart of their business. Graph technology essentially codifies and stores the relationships between data within the data structure allowing for very fast retrieval. These technologies are not widely deployed within the hospitality industry, but are the next generation that are a threat and opportunity for the industry.

### Data Strategy

When data is collected, stored and analyzed, predictive analytics is a natural next phase data hubs will evolve into since the foundation is already present.

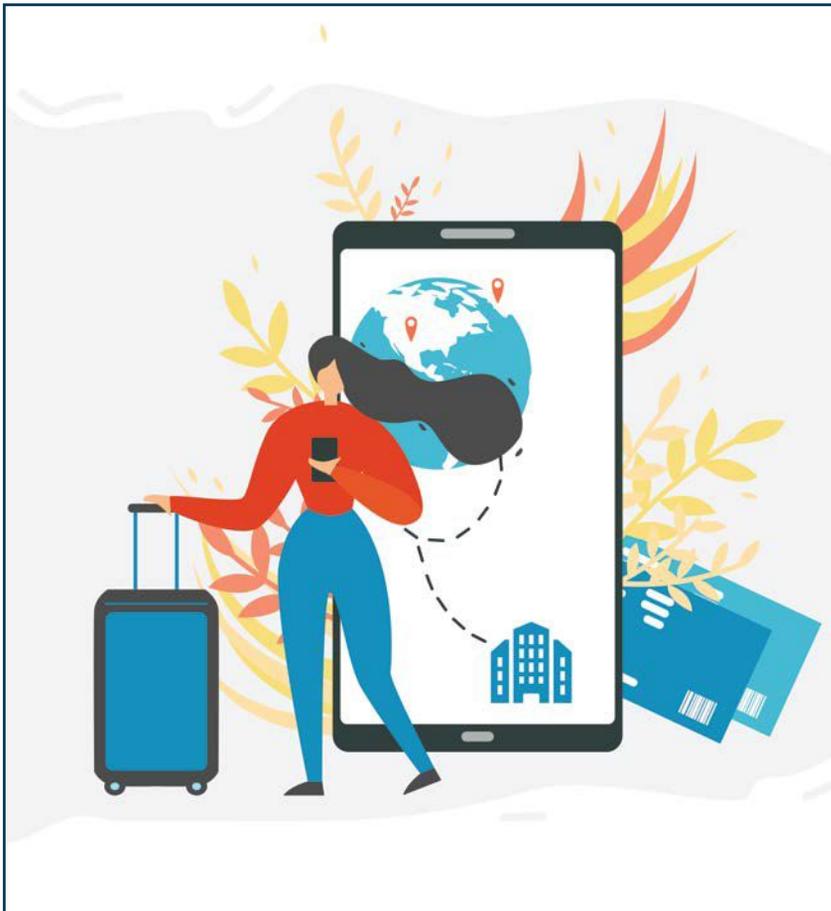
If the hospitality industry were to implement the advanced data technology used by companies like Google and Facebook, hotels would not just be able to eliminate the amount of human effort put into building data reports and manually comparing performance of various hotel operations, but also focus on making strategic decisions and conclusions, and completely own their customers.

The hospitality industry creates a perfect opportunity for machine learning and other advanced technologies to better understand the customer and their needs, and to predict their response to marketing campaigns, offers, packages and pre- and in-stay services. For this near-future scenario, the data must be collected and analyzed at all stages in the buy-stay cycle, starting at the look stage, rather than just starting at the reservation or arrival stage. The hospitality industry creates and has vast amounts of data available for analysis. Tomorrow's leaders in the industry already recognize the significant value of data and are quickly accelerating their technology maturity to not only defend against direct competitive threats, but also against the large data players, OTAs and tech titans who have data as a core business and are making moves into the travel cycle. \*

# Unleashing AI and Personalization for Hotel Bookings

By Rich Tuckwell-Skuda

AI can develop targeted, relevant sales and marketing material aimed at specific individuals or groups to create booking journeys that are individually tailored to the needs or preferences of each user.



Personalization has become an overused expression when it comes to customer experience. In today's digital age it means very different things to people across different sectors — perhaps the very nature of personalization.

In the case of the hospitality industry — an industry built upon the principle of providing great personal service to guests — it is vital the same level of personal service that is provided by well-trained staff face-to-face is replicated by a hotel's digital persona.

The initial technological overhaul of the hospitality industry, which saw many previously manual tasks automated, resulted in hotels losing the more personalized human element of the hotel booking experience. Advancing technology can now facilitate a more unique approach online, enabling hotels to collect and analyze vast amounts of guest data in order to tailor their offering. With the development of artificial intelligence (AI), digital technology has moved on to a level where guests' digital interactions can be optimized specifically for them.

By tracking and analyzing customer behavior and trends across multiple hotel properties based on geography, guest history, booking preferences, interactions on site, digital conversations and more, AI can develop targeted and relevant sales and marketing material. This

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can be aimed at specific individuals or groups and create booking journeys that are individually tailored to the needs or preferences of each user.

On a more fundamental level, hotels should make more use of cookies on their websites to record and remember each visitor's actions on their website. This is still a surprisingly underused tool for tracking what content users look at or choose to click on, so that next time they visit the website, the content can be tailored accordingly. If, for example, a website visitor clicks on your spa facilities or browses family rooms, it's likely that when they return, this feature is still going to be of interest to them.

Hotels need to make the most of these features if they are going to appeal to new customers, retain existing ones and encourage people to book directly with them, rather than reverting back to the OTAs. Today's guests are used to internet giants Google and Facebook tracking their online behavior daily, and using this information to carefully curate what ads, products, deals and news they are presented with. They almost expect all companies they deal with online to know them better than ever before.

With each brief online search presenting people with hundreds, often thousands, of options for hotels and other accommodations, people suffer 'choice fatigue' and have neither the time nor inclination to work their way through huge lists to find the best deal. What most people really want is a more limited selection, with the relevant choices presented to them, based upon their analyzed preferences and needs, as discussed in the report, "*6 Principles of Personalization for Hotel Websites*" published by Avvio in 2018.

To stand out from their competitors and reduce reliance on the OTAs, hotels need to appear better suited to each specific guest.

### Learning From Other Sectors

As technology has become the key factor in ensuring customer needs drive interactions across all industries, we are seeing a growing number of people entering the hospitality arena from other sectors to share their insight and user experience expertise from these markets.

Knowledge sharing around what true digital personalization means in hospitality is vital if hotels are to develop further and take advantage of what is out there. Hoteliers are not expected to be digital technology experts, but they can easily partner with those who are to get great and commercially tangible results.

Retail is one of the markets which we as a sector can learn from. Just look at how Amazon and Netflix have developed a deep understanding of their customers. Enough to make recommendations which are a direct reflection of our shopping and media consumption habits.

This is where personalization can be achieved. Applying this to the hotel market means that we look at guests first; rather than just present them with a one-size-fits-all website. We need to adapt our online presence to capture insight right from the first click.

For example, if you're searching a hotel's website you will be doing it for a specific purpose. It could be a weekend break as a leisure visitor; an overnight city stay on business or a golf weekend with a group. The first step to effective personalization is to find out what the purpose of the guest's visit is. That data can then be used to provide a tailored online experience which offers much more than a 'book now' button, but presents the user with options, offers and information relevant to their purpose.

As an industry we need to accept the current consumer behaviors that exist and the drivers behind them. All guests know that they can book directly with a hotel.

But they also know they can easily go to mainstream booking sites where they are offered incentives, e.g. a 10th night free, straightforward booking, no-fee cancellation terms and easy comparisons with other similar properties.

### Making Direct Worth It

Guests need to be given proper incentives to book with a hotel directly, whether through special deals or bonus services limited to direct bookings. But the key element is to choose the incentive that will be most effective for the individual booker. This is possible using the right technology which can select the most relevant offer or booking information to present to your potential guest.

Personalization must be applied throughout the sales and marketing journey from pre-booking ads, offers and incentives, to the booking system itself and later to continued marketing output and bring-back offers, whether through emails or other channels.

If hotels are using databases to mail marketing material, they must ensure the database is carefully segmented according to key descriptors such as geography, interests — i.e. food, wellness, age or family status. All these descriptors help define what deals, offers and news will be relevant for each person.

Hoteliers need to ask guests questions from the outset and collect as much relevant information as possible. This does not need to be an onerous task and a well-designed website should be able to collect this information quickly and seamlessly. The more we personalize emails and other marketing output, the more effective it will be.

Good hoteliers know that what makes guests feel really special is a truly personal service and this now applies just as much to a guest's digital interactions with a hotel as it does to their face-to-face interactions with hotel staff. \*

# Armed with Regulations, Is Personal Data Safer?

By Alvaro Hidalgo

One year after its implementation in the EU, GDPR has increased awareness of privacy rights and presented unique business opportunities for data holders.



Many things have happened since the EU Global Data Protection Regulation (GDPR) came into force last May 2018. Initially, many U.S. companies took some time to understand that they were subject to foreign regulation. In fact, apart from the large multinational companies, few organizations initially realized that the processing of personal data of EU-based data subjects automatically placed them under a foreign regulation to which they had to report.

In the hospitality industry, the effects of GDPR were widespread since many independent hotels, clubs, restaurants, etc. regularly cater to — and accept reservations, payments and collect other personal information — European-based data subjects. But that initial surprise quickly turned into frustration when the implications of GDPR were understood. In fact, to say that adapting to GDPR and implementing procedures requires a holistic approach is an understatement.

## Review of GDPR Basics

GDPR requires the review of all internal processes, including:

- To understand how and where personal is data kept (*data mapping and inventory*);
- To keep records of why data is kept (*legal basis and processing principles*);

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- To create records and legal documents (*privacy policies, data subject rights, personal data access requests, records of processing*);
- To reassess all contracts with third parties (*vendor compliance*);
- To establish compliant security and crisis management plans (*data breaches management*);
- To implement a new review procedure for any new activity (*data privacy impact assessment, privacy by design, privacy by default*); and
- To reassess and manage cross border data transfers.

Each of the above points is a project in itself, consuming internal resources and requiring the hiring of expensive consultants to achieve compliance. Therefore, it is not surprising that many companies have embarked on the path to compliance at a fairly slow pace, allocating only enough resources to be able to show an appearance of compliance.

**Surprise, More Data Breaches**

But in 2018 a series of major data breaches also happened. The top five data breaches — just the ones we know of — affected the personal data of 850 million people. Let me say it again. The top five data breaches affected the personal information of more than the combined population of the United States and the European Union. The top five were:

- Marriott: 500 million users affected;
- Facebook: 50 million users affected;
- Quora: 100 million users affected;
- Under Armour: 150 million users affected;
- Elasticsearch: 57 million users affected;
- And in early 2019, Equifax reported a breach affecting 143 million users.

The three common elements in all the breaches were as follows:

The company was not aware for a certain period of time that a breach had occurred.

Inconsistent procedures and data mapping made breaches possible.

All companies reported the breach consistently, either as prescribed by GDPR or at least inspired by GDPR.

**Shift in Data Protections**

As a result of more stringent regulation, we also saw a more detailed examination of all governments and regulators of personal data and their management by companies and governmental agencies. And what is even more important: citizens are now much more aware of how their personal data can be used by third parties, and they are certainly more aware of their rights in relation to their personal data.

From a completely different, but converging point of view, the EU GDPR also required a complete revision and overhaul of the Data Protection Authorities (DPA) who enforce the regulations. Under GDPR new procedures and systems have been implemented, which has taken some time to follow-through on. However, DPA are gaining momentum and have now the necessary staff and resources to become effective law enforcement entities. The notification by the DPAs of the Netherlands and Germany of the classification of the different types of non-compliance and the corresponding penalty scheme that would apply is a good indicator of their readiness.

Last but not least, California enacted the California Consumer Privacy Act (CCPA), a new data protection law that will take effect in 2020 to regulate companies

that "do business" in the state. Although some have said that the CCPA is the U.S. counterpart to the EU GDPR, there are significant differences between the two. These are worth investigating as you continue to manage and accommodate for developing regulations.

**Opportunity in Regulation**

Many will see all of the above as evidence of the growing over-regulation of the business landscape. This requiring private companies to undertake costly compliance exercises to end up subject to obstructive and greedy regulatory agencies. I, on the other hand, see this as an opportunity for all.

Of course, data subjects are more aware of their personal data. They know that their data is worth money. Certainly, states must establish rules to protect the wealth and welfare of citizens, and personal data play an increasingly important role in this. But the main point is that data protection rules create value in data. And by establishing the rights of both data subjects and data processors/controllers, they are opening the door to data monetization; in other words, data transactions on a much larger scale.

Just keep in mind that the real-time advertising market (the market that allows bidders to target specific ads based on users' browsing behavior and place them on websites we visit) has reached €6.6 billion in 2019 and will grow to a compound annual growth rate of 33 percent over the next five years. And this is based just on direct cookies and few(er) third party cookies. Now consider what level of trade can be achieved if we include a lot more personal data.

So the question is how to move from data collection to data monetization. GDPR and CCPA are creators of industry and wealth, not barriers, and will present opportunities for many. ✨

# Design Thinking and Futures Thinking: Scope for Application in Hospitality

By Sanjay Nadkarni, Ph.D.

Use these problem-solving techniques to spark creativity while designing new products and services



**D**esign Thinking and Futures Thinking are 'innovation buzzwords' that are gaining increasing traction across sectors as the go-to tools for problem solving and decision making. So what is the hype about these buzzwords and what is the scope of applying these frameworks in hospitality? Stanford University is credited with introducing Design Thinking as a framework for problem solving in the business world. It is as much a mind set as it is a technique for creative action in the designing of new products and services. Throughout the process which involves working in multiple teams, the focus is on end user requirements. Hence, the success of the endeavor is contingent upon correctly identifying the profile and characteristics of the end user. The gist lies in developing prototypes in short time frames, based on a variety of ideas which serve as preliminary solutions that get improved through iterative cycles within the teams and with the potential end users. Each cycle typically involves five stages:

1. **Problem definition** — what is the issue at hand that needs to be solved?
2. **Empathy process** — from whose perspective (end user) does the issue need to be addressed?

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3. **Ideation stage** — which of the proposed ideas are viable as a solution to the problem?
4. **Prototyping** — what is the best fit solution?
5. **Test** — what is the end user's assessment of the proposed solution?

### Applying Design Thinking to Services: Innovation Hub

Creating a physical prototype, which is an essential part of this framework, lends itself well to applying Design Thinking in the manufacturing of tangible products. What about the services? How is it possible to rapidly prototype a service, as the process demands? This has seemingly been an inherent conundrum in applying Design Thinking framework in its classical format to solving problems in the service sector, including hospitality. As large part of process innovation happening in hospitality is driven by technology, there is scope to deploy an improvised format of the Design Thinking process in this area.

To overcome the challenge of the prototyping element hitherto highlighted, the entire five stage process can be materialized in the form of a physical space — an innovation hub, in that sense. This approach is different from running a proof of concept (PoC) in a live test hotel environment. PoCs have a binary outcome (success or failure) with limited or no emphasis on empathy, ideation and iteration; whereas on the other hand, a dedicated Design Thinking playroom makes the innovation come alive and visible, wherein the prototype of the process or service can be actually experienced and improvised as required.

" A case in point of applying Futures Thinking in hospitality would be the objective of prolonging the shelf life of guest facing technology and design."

### Futures Thinking

Complementing Design Thinking is Futures Thinking, which is a multidisciplinary approach involving informed reflection on the changes that will happen over one or two or more decades in all spheres of human activity. The process challenges established assumptions on how the future would evolve by factoring trends, both macro and micro. It is a sort of a "wind pipe" for testing ideas and plans for their robustness and agility to gel with the trends that extrapolate into the future.

Similar to the Design Thinking approach, Future Thinking is about engaging multiple teams across the organization in this reflection exercise to develop a clear foresight which supports designing better products and services alike using the foresight tool of horizon scanning. This tool is essentially a technique for identifying the impact of emerging trends and issues at multiple levels — macro to micro. Macro trends refer to the big picture (socio-economic, political, technological); whereas micro trends are domain or subject-specific. A case in point of applying Futures Thinking in hospitality would be the objective of prolonging the shelf life of guest facing technology and design.

### Hospitality Applications

Industrial Revolution 4.0 has provided an opportunity for using De-

sign Thinking and Future Thinking frameworks to optimize productivity and guest experience. Can the service sector including hospitality also leverage these tools? What are the nuances and tweaks that need to be made for this purpose? Towards this end, efforts are being made to test the responsiveness and effectiveness of these tools in the hospitality context and the initial results are encouraging. The objective is to develop a hospitality specific framework for Design Thinking and Futures Thinking.

An experiment has been initiated through a tripartite partnership between a start-up (*Playroom, Vienna*), an academic institution (*the Emirates Academy of Hospitality Management, Dubai*) and a hotel chain (*Jabel Ali Resorts, Dubai*) in Dubai, UAE, since November 2018. This endeavor has involved setting up of a dedicated Design Thinking and Futures Thinking Innovation Hub on campus to put these processes into action with the aim of identifying specific macro and micro level challenges faced by the hotel chain and providing viable solutions to these challenges in alignment with the hotel chain's vision and mission. As this effort is still a work in progress, watch for reporting on *HFTP News* ([news.hftp.org](http://news.hftp.org)) on the progress status towards creating hospitality-specific Design Thinking and Futures Thinking paradigms. ✨



# Divvying Up the Hotel I&T Budget

Data analysis indicates a decrease in information and telecommunication expenses in the United States between 2016 and 2018.

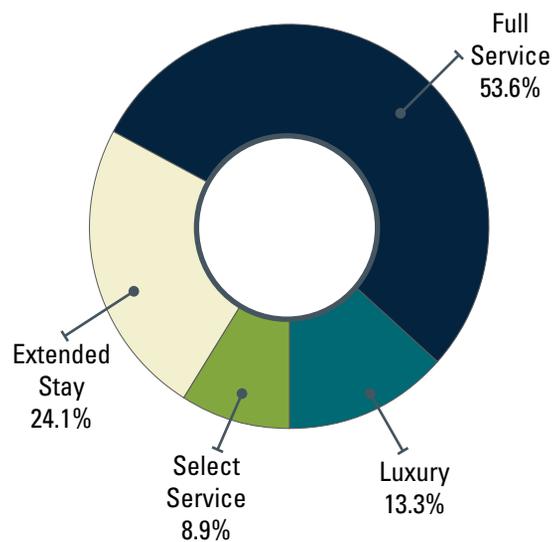
By Laura Resco



When the 11th revised edition of the *Uniform System of Accounts for the Lodging Industry (USALI)* was released in 2014, hoteliers were challenged with adding a new schedule for information and telecommunication (I&T) expenses. With an implementation date of January 1, 2015, many operators found themselves racing to meet the deadline and many missed the mark and were unable to report using the new standards in 2015. Now, four years have passed and HotStats has compiled data from hotels in the United States for the years 2016, 2017 and 2018 to track the most salient trends in this undistributed schedule. The hotels were also grouped into five different geographical regions in the United States — Midwest, Northeast, Southeast, Southwest and West — for a more detailed analysis.



## Participating Properties: by Asset Class



Laura Resco (support.americas@hotstats.com) is a sales and account coordinator at HotStats based in Houston, Texas. Laura is a recent master's graduate of the Conrad N. Hilton College of Hotel & Restaurant Management, University of Houston and recipient of the Alumni Scholastic Award.



### Three Year Analysis

I&T Total Expenses and Payroll showed a downward trend across all the analyzed years. On a per available rooms basis, it fell by 5.1 percent between 2016 and 2018, from \$4.89 to \$4.64. This decrease was even more pronounced when looking at the per occupied room data, falling in that same time period from \$6.48 to \$6, a 7.4 percent decline. From 2016 to 2018 there was 0.2 percentage point drop of I&T Expenses and Payroll as a percentage of total revenue, that went from 2 percent in 2016 to 1.8 percent in 2018.

I&T Total Expenses and Payroll showed a **downward** trend across all the analyzed years.



U.S. I&T Expenses	2016			2017			2018		
	PAR	POR	% Total Revenue	PAR	POR	% Total Revenue	PAR	POR	% Total Revenue
Labor Costs and Related Expenses	\$1.33	\$1.77	0.5%	\$1.34	\$1.73	0.5%	\$1.32	\$1.71	0.5%
Cost of Services	\$0.72	\$0.95	0.3%	\$0.62	\$0.80	0.2%	\$0.62	\$0.80	0.2%
System Expenses	\$2.21	\$2.92	0.9%	\$2.31	\$2.97	0.9%	\$2.30	\$2.97	0.9%
Other Expenses	\$0.63	\$0.84	0.3%	\$0.60	\$0.77	0.2%	\$0.40	\$0.52	0.2%
I&T Total Expenses & Payroll	\$4.89	\$6.48	2.0%	\$4.87	\$6.27	1.9%	\$4.64	\$6.00	1.8%

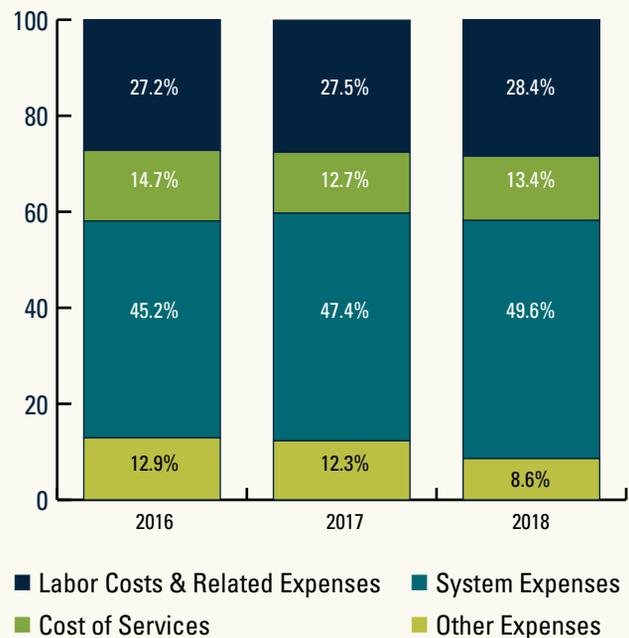
PAR = per available room • POR = per occupied room

### I&T Categories as a Percentage of Total IT Expenses

There are four major categories within the I&T Expenses schedule, namely labor costs and related expenses, cost of services, system expenses and other expenses. Of these, system expenses was consistently the highest across all years, both per available and per occupied room, and accounted for over 45 percent of I&T Total Expenses and Payroll in the sampled period. Labor costs and related expenses ranked second for all three years, growing from 27.2 percent of I&T Total Expenses and Payroll in 2016 to 28.4 percent in 2018.

While system expenses and labor costs and related expenses remained quite stable throughout the three years, with year-over-year differences ranging from \$0.01 to \$0.10 on a per available rooms basis, and from \$0.02 to \$0.05 on a per occupied rooms basis, the other two categories exhibited higher variability. Particularly, other expenses displayed the greatest decrease per available and per occupied room over the three-year period, falling by \$0.23 and \$0.32 respectively. The decreases in cost of sales were more timid, with drops of \$0.10 per available room and \$0.15 per occupied room, from 2016 to 2018.

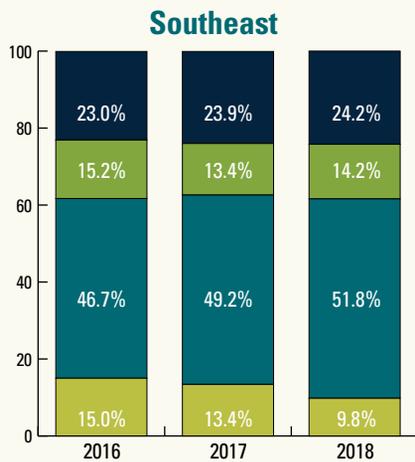
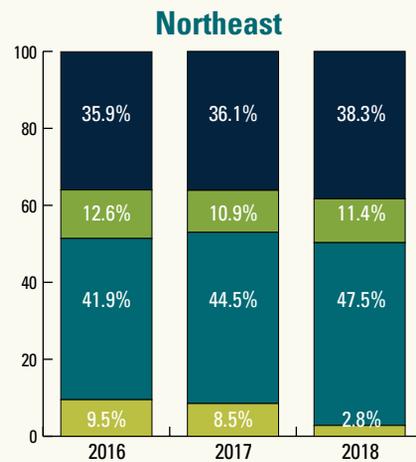
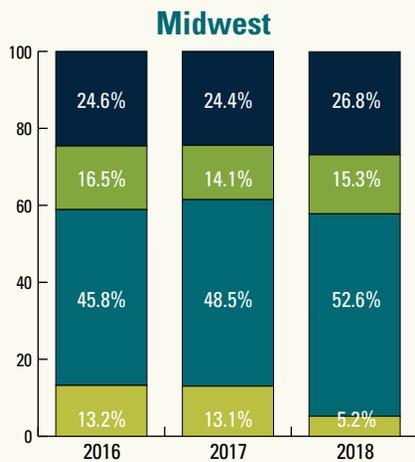
### Percentage of Total I&T Expenses



## The I&T Schedule by Region

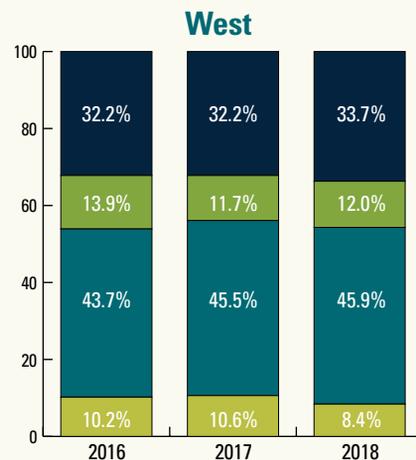
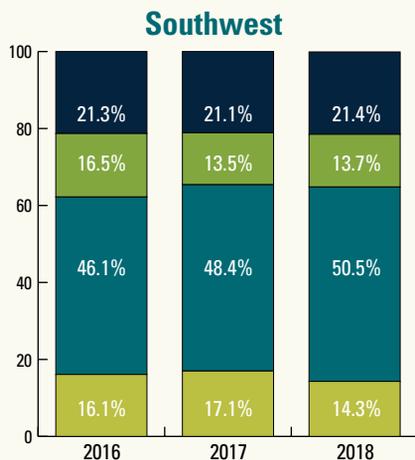
In general, I&T Total Expenses and Payroll exhibited a downward trend when looked at by region. The Northeast saw the biggest decline per available and per occupied room from 2016 to 2018, with 8.2 percent (\$0.45) and 11 percent (\$0.75) drops respectively. On the other hand, the West saw the smallest per occupied room decrease, falling by 2.4 percent (\$0.14) in 2018 compared to 2016, and it was the only region that exhibited a per available room increase in the period — an uptick of 1.3 percent (\$0.06). As a percentage of total revenue, I&T Total Expenses and Payroll lost ground in all the sampled regions, falling by 0.3 percentage points in the Northeast and Southeast, 0.2 percentage points in the Midwest and the Southwest, and 0.1 percentage points in the West.

## Percentage of Total I&T Expenses by U.S. Region



The **Northeast** saw the biggest decline PAR and POR. The **West** saw the smallest decrease POR and it was the only region that exhibited a PAR increase.

■ Labor Costs & Related Expenses   
 ■ System Expenses  
■ Cost of Services   
 ■ Other Expenses





As per the major components of the I&T schedule, system expenses remained the costliest, accounting for over 40 percent of I&T Total Expenses and Payroll across all regions and years in the sample. Moreover, it is the only category that grew consistently on a per available and per occupied room basis from 2016 to 2018 in the five analyzed regions. A ranking of the five regions according to their total I&T expenditure showed the Northeast as the number one spender per available room for 2016, 2017 and 2018, totaling \$5.46, \$5.32 and \$5.01 respectively. Also, this region exhibited the highest labor costs and related expenses per available room and the lowest other expenses per available room across all years. \*

**System expenses remained the costliest, accounting for over 40 percent of I&T Total Expenses and Payroll. The Northeast is the number one spender PAR.**

Expenses Per Available Room	Midwest			Northeast			Southeast			Southwest			West		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
Labor Costs and Related Expenses	\$0.97	\$0.95	\$0.98	\$1.96	\$1.92	\$1.92	\$1.18	\$1.21	\$1.14	\$1.06	\$1.05	\$1.03	\$1.51	\$1.54	\$1.60
Cost of Services	\$0.65	\$0.55	\$0.56	\$0.69	\$0.58	\$0.57	\$0.78	\$0.68	\$0.67	\$0.82	\$0.67	\$0.66	\$0.65	\$0.56	\$0.57
System Expenses	\$1.81	\$1.89	\$1.92	\$2.29	\$2.37	\$2.38	\$2.39	\$2.49	\$2.44	\$2.29	\$2.41	\$2.43	\$2.05	\$2.18	\$2.18
Other Expenses	\$0.52	\$0.51	\$0.19	\$0.52	\$0.45	\$0.14	\$0.77	\$0.68	\$0.46	\$0.80	\$0.85	\$0.69	\$0.48	\$0.51	\$0.40
I&T Total Expenses and Payroll	\$3.95	\$3.90	\$3.65	\$5.46	\$5.32	\$5.01	\$5.12	\$5.06	\$4.71	\$4.97	\$4.98	\$4.81	\$4.69	\$4.79	\$4.75



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# Technology In Hotels: Invest Where it Counts

By Agnes DeFranco, Ed.D., CHAE, CHE, CHIA, CAHTA  
and Minwoo Lee, Ph.D., MBA, CHE, CHIA

Want to give your guests the tech amenities they want? Put your money where your five-star reviews are. This new study mines thousands of online reviews to provide hoteliers with data-driven strategies to maximize payoff on IT spending.



Most modern enterprises in the United States have come to terms with both the benefits and the burdens associated with online review channels. Although guest satisfaction has always been a central pillar of the hospitality industry, instantaneous customer feedback has revolutionized the way hoteliers evaluate their performance in this area, and it was not long before researchers and data analysts across the hospitality industry started putting this information to use by recognizing online reviews for what they are: ultra-convenient data. This resource is an ideal opportunity to provide a fresh answer to a perennial conundrum: hotels might spend heavily on information technology, but are they giving the guests what they really want?

By using readily available data-mining and text-mining software, a study was developed to gather insight that would have otherwise taken years to accumulate through survey methods. The study used actual hotel guests' reviews from TripAdvisor of the time period of November 2001 to July 2015, with a total of 520,668 reviews of 488 hotels in New York City. New York City was selected for this study because of the number and also the variety of hotels included in the sample. Furthermore, it is also the market that has the highest rooms revenue in 2017 of over \$9.4 billion (*STR, 2018*).

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Before diving into the vast pool of data, the study delineates the types of guest-facing technologies in question by organizing them in five categories: in-room, comfort, business essentials, communication and new technologies. The “in-room” category primarily includes audiovisual amenities such as pay-per-view, streaming services, voicemail, speakers, etc. “Comfort” technologies include more physically tangible appliances such as safe deposit boxes, keycards, coffee makers and air conditioning. “Business essentials” refer to work tools like printers, broadband and wake-up calls. “Communication” mostly denotes internet connectivity features like high-speed Wi-Fi. Finally, “New Technologies” covers many of the buzz-worthy amenities that are currently propelling the industry into the future — newfangled developments such as robots, virtual reality, artificial intelligence and electric vehicle charging stations. *(For the complete list of terms, see the full report.)*

**Findings: New Tech Result in High Ratings**

After analyzing hundreds of thousands of reviews spanning the last two decades, the researchers found that there are multiple answers to their question. In short, it depends on the type and size of the hotel, as well as the demographics of its guests. The data does reinforce some things that are just good business sense: all hotels should make sure current features are in good working condition to avoid surefire one-star reviews.

In terms of the number of reviews by category, in-room technologies reign supreme when it comes to gaining high ratings, closely followed by communications technologies *(see table at right)*.

The most commonly occurring ratings across all categories are

4 and 5-stars, possibly indicating that guests are generally more satisfied than less satisfied with all guest-facing technologies. This does not mean that hotels should rest on their laurels and stop investing in this regard. On the contrary, it means that hotels need to continue to invest in new technologies to uphold the tried-and-true precedent. The highest percentage of 4 and 5-star reviews come from the “new technologies” category, indicating that investing in this area is one of the most certain ways to guarantee favorable reviews.

Some guest interests vary according to the type of hotel. For example, over half of the time that tech terms were even mentioned in reviews, they came from those written by guests staying at four-star hotels. This is a strong indicator that guests at this category of hotel pay attention to and are more likely to comment on the technologies they experience. Four-star hotels were also more widely scrutinized *(though usually favorably)* for their comfort technologies.

As mentioned, the type of guest was also a critical factor in determining rating tendencies. Guests

who traveled as couples were more likely to write reviews about comfort technologies. In fact, couples were responsible for over a third of all reviews where tech terms were mentioned. Consider how the modern couple or family tends to travel: little ones have iPads and tablets to play games and stay occupied, teenagers have smart phones, and parents have all of the above, including laptops. It follows that couples and families tend to demonstrate high engagement with guest-facing technologies during their stays. Accordingly, if hotels want to attract these demographics as their clientele, it is wise to highlight all technology amenities in advertising and pre-arrival marketing, especially stressing the comfort technologies.

While there are rarely financial shortcuts to achieving high customer satisfaction, the new study illuminates hoteliers’ best alternative: take advantage of data that is already available to develop the smartest course of action for your operation. Let us, as an industry, stay smart, embrace technology, and let technology work for the enjoyment of our guests. ✨

Read the full report with data comparisons on the HFTP News site at [news.hftp.org](http://news.hftp.org).

**Guest Technology Satisfaction Ratings**  
Below are the percentage of mentions each technology category had amongst the total reviews, distributed by review ratings.

REVIEW RATING	IN-ROOM	COMFORT	BUSINESS	COMM.	NEW
★	6.8%	5.6%	8.6%	5.9%	5.5%
★★	8.0%	8.7%	9.0%	8.0%	7.4%
★★★	15.0%	16.8%	15.1%	17.8%	16.2%
★★★★	32.4%	32.8%	30.2%	36.4%	34.7%
★★★★★	37.8%	36.1%	37.1%	31.9%	36.2%

# Labor Pains: Managing the Cost of Human Capital in the Hotel Industry

By Agnes DeFranco, Ed.D., CHAE, CHE, CHIA, CAHTA  
and Arlene Ramirez, MBA, CHAE, CHE, CHIA, CAHTA

A new study sheds light on the uphill battle between hoteliers and rising labor costs.



The third decade of the 21st century is just around the corner. Economies around us are becoming more automated every day and key players in the hospitality industry are looking at investments in technology in hopes of decreasing overall labor costs. Nevertheless, seasoned hoteliers have not lost sight of the bottom line: hospitality is still an industry of people serving people, and that costs money. As a result, labor continues to be one of the top costs for most hospitality ventures.

To investigate this trend a study was developed to take a fresh look at the hard data on rising labor costs. This summary is taken from the recently completed report of the resulting study, released by HFTP. It offers hoteliers a thorough investigation of how the industry got here, and where we might be headed.

The good news first: the United States economy has experienced significant growth over the past few years. Much like other industries, the hotel industry has been impacted by this favorable business climate. Despite the obvious benefits of high employment and a competitive economy, this overall boon is a double-edged sword, and has complicated the labor problem (*Freitag, 2018; Mioyal, 2015; Anderson, 2019*). All industries are vying for the most qualified individuals to hire and retain, creating an increase in the demand for certain types of employees without

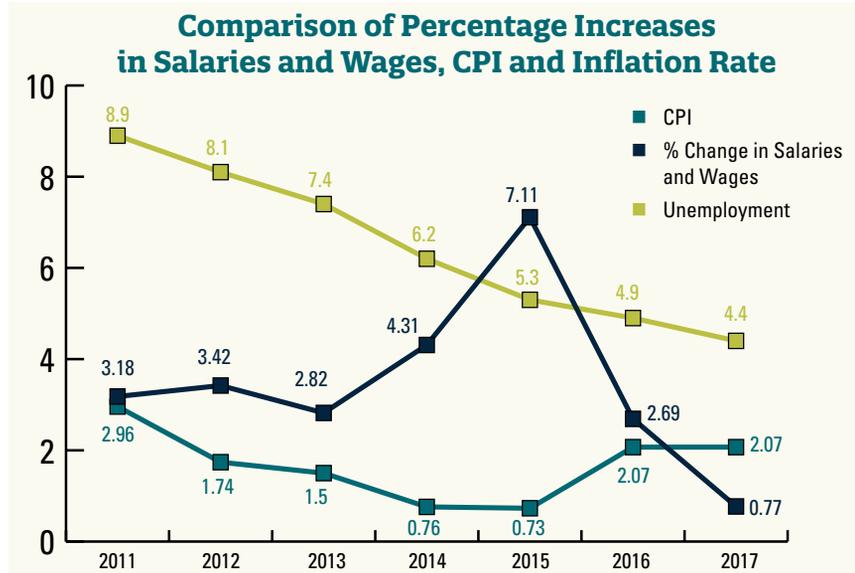
Agnes DeFranco, Ed.D., CHAE, CHE, CHIA, CAHTA is a professor and the Conrad N. Hilton Distinguished Chair at the Conrad N. Hilton College, University of Houston in Houston, Texas. Agnes is a HFTP Global past president and a recipient of the HFTP Paragon Award. Arlene Ramirez, MBA, CHAE, CHE, CHIA, CAHTA is an instructional assistant professor at the the Conrad N. Hilton College, University of Houston in Houston, Texas. Arlene is a HFTP Global past president.



a corresponding increase in supply. As a result, labor costs have continued to grow over the last few years when tracked across multiple key performance indicators (KPIs), as shown in the table below.

To put the challenge in further perspective: The most significant increase for salaries and wages stands at a whopping 7.11 percent from 2014–15. In the few years leading up to that increase, employee benefits had also been increasing at comparable rates.

The pressure intensifies when compounded by governmental regulatory changes, especially minimum wage increases. Hotel operators are caught in a perfect storm between public policy changes and market competition, and in some markets may experience significant growth in labor costs year after year despite having competent management. Many hoteliers must face a sobering fact: hotels do not always see sufficient growth in rate and occupancy to completely offset the increase in labor costs that are exacerbated by new regulations.



With the numbers in perspective, what are hoteliers to do? The rapidly changing playing field is generating creativity out of necessity: some hoteliers are even suggesting paying student loans to recruit college graduates (*Written, March, 2019*) as a good strategy to bring in more young people into hospitality careers. Now more than ever, hoteliers are on the lookout for innovative new technologies to deploy to increase labor efficiency while still accounting for guests' comfort and satisfaction.

Numbers do not lie, but they cannot always paint a full picture of the future, let alone generate creative solutions on their own. The data is in, but our research is not stopping here. For the upcoming second phase of this study, we are interviewing top-level hospitality leaders to weigh in on the predicament and steer other industry professionals towards innovative solutions. Industry leaders are here to weather the storm, and they are not afraid of a little economic competition. ✨

## Hotel Labor Costs Trends

Year	Per Available Room			Per Occupied Room			As a Percent of Sales		
	Total Salaries & Wages	Total Benefits	Total Labor Cost	Total Salaries & Wages	Total Benefits	Total Labor Cost	Total Salaries & Wages	Total Benefits	Total Labor Cost
2010	\$19.17	\$6.43	\$25.61	\$28.41	\$9.45	\$37.86	21%	6%	27%
2011	\$19.85	\$6.93	\$26.79	\$28.35	\$9.80	\$38.15	20%	6%	26%
2012	\$20.49	\$7.35	\$27.84	\$28.83	\$10.20	\$39.03	20%	6%	26%
2013	\$21.14	\$7.61	\$28.75	\$29.10	\$10.33	\$39.42	19%	6%	25%
2014	\$22.02	\$7.90	\$29.93	\$29.65	\$10.50	\$40.16	19%	6%	25%
2015	\$23.20	\$8.11	\$31.30	\$31.15	\$10.73	\$41.88	19%	6%	25%
2016	\$23.82	\$8.46	\$32.28	\$32.16	\$11.25	\$43.40	19%	6%	25%
2017	\$24.29	\$8.63	\$32.92	\$32.88	\$11.51	\$44.39	19%	6%	25%

Read the full report with data comparisons on the HFTP News site at [news.hftp.org](http://news.hftp.org).



# How Well Do You Know Your AV?

By Bianca Lopez

Good AV sense is crucial behind the scenes for productivity in hospitality spaces. Test your AV literacy to see what areas you need to brush up on, then fill in the blanks with the HFTP Research Center's new Hospitality AV Dictionary.

**A**lthough basic audiovisual (AV) technology skills are not akin to rocket science, many hoteliers find their team members struggling in this area. Having basic AV literacy does not mean understanding every element of the complicated rigging and engineering that we see at large events — there are specialized technicians for that. Rather, it pertains to the effective use and maintenance of essential, day-to-day amenities such as projectors, in-room TVs, and digital signage. It goes hand in hand with digital literacy, or the ability to effectively find and use information from sources like your computer or smartphone. If digital literacy is driving a car, then AV literacy is knowing how to look under the hood.

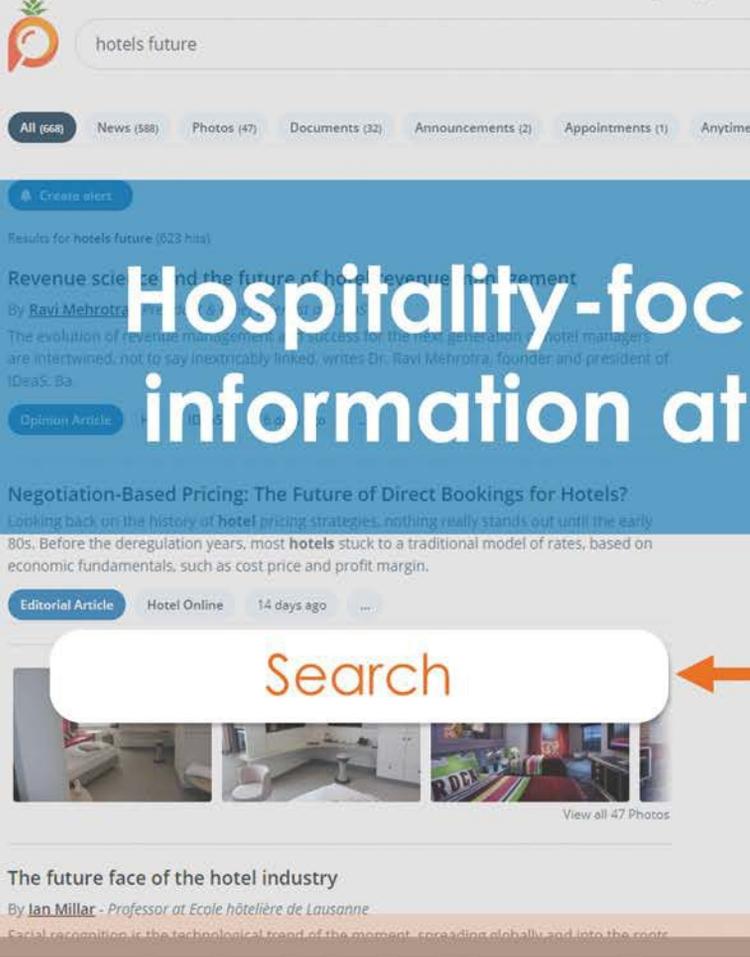
### Why AV Literacy?

Effective audiovisual technology in hospitality businesses is crucial for customer satisfaction. Data collected from online customer reviews indicates that many guests tend to be hypervigilant of the presence and quality of AV services, and while most reviews that mention AV terms are favorable, guests are also quick to notice and comment when something goes wrong. Good AV sense is also crucial behind the scenes for productivity in hospitality industry offices and headquarters.

The demand for AV literacy is clearly there, so what exactly is it



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about audiovisual technology that can leave employees feeling unprepared when something minor goes wrong, or make simple configuration tasks seem like a chore? Maybe it's not AV — it's us. Today, computer proficiency in programs such as those in the Microsoft Office Suite is a prerequisite for virtually all office jobs. In fact, many young people are already beginning to use these tools as early as elementary school. The same is not true of AV technology, except for people who study it specifically. A student giving a speech accompanied by a digital slideshow will probably be graded on the content and aesthetics of their presentation, but whether or not they know how to connect the computer to the projector by themselves is unlikely to affect their grade. There are precious few resources designed specifically to teach basic AV skills to the average hospitality professional. As a cumulative result, there are a lot of very intelligent businesspeople who do not think to tighten the screws on their VGA cable before submitting a help request in response to a blurry desktop screen (*a faux pas that I myself once committed*).

Outsourcing the important AV tasks is a reasonable solution for many businesses. Hotels with room

in the budget can partner with an AV vendor to handle both daily and event-specific support services. Alternatively, those who want to keep everything in-house may opt to hire a full-time technician. Specialized AV support technicians are behind the scenes everywhere in the hospitality industry (they have even been called the “roadies” of the event world). But even with the convenience of having these seasoned pros on board, management-level hospitality professionals who are responsible for purchasing AV kits and services, still need to have a strong understanding of the technologies in question. This is for making smart purchasing decisions, understanding price quotes and getting the most out of communication with their AV partners.

For other hotel operators and management companies, it is not always feasible to hire a full-time staff member or outside company to be on call when you and your guests need them. Many businesses in this position have to get creative and self-educate to accomplish pressing AV tasks; any one team member may find themselves helping in the purchase, configuration or operation of AV equipment at some point in their careers, no matter their official title.

AV literacy is not a hospitality industry-specific problem, it is a global one. In a 2012 academic study published by the Spanish Universidad de Huelva, researchers stated that “education on audiovisual communication remains an unexplored issue... in most areas of the world, except for countries such as Australia or Canada. The lack of a precise and agreed definition on what being competent in this field [means] is especially remarkable.”

The hospitality industry is always on the lookout for the next big tech development. It is this hunger for innovation that has caused hotels to invest more technology, and brings thousands of curious stakeholders and innovators from all over the world to HITEC every year. Regardless of whether you work on the management side, the IT department or event planning, you can benefit from honing your basic AV knowledge and skills, and likely already have the background tech knowledge to do so. Few factors can sour a vacation or business event faster than “technical difficulties,” but equipping yourself and your team members with tech-focused problem-solving skills and knowledge can help prevent these situations from arising in the first place. ✨

COMING SOON

# HOSPITALITY AV DICTIONARY

The HFTP Americas Research Center is in the process of completing a comprehensive, hospitality-focused AV guide. The resource, available to the industry, features definitions and other instructional content pertaining to common AV equipment used in a hospitality space.

AVAILABLE SUMMER 2019 AT [WWW.HFTP.ORG](http://WWW.HFTP.ORG)



# What's Your AV IQ

Test your AV literacy by taking the quiz below.

1. **DVI and VGA cables look very similar, but have one major difference:**
  - a) DVI only works for computers
  - b) VGA is digital
  - c) VGA has pins that pass video signals, and DVI does not have pins
  - d) DVI is digital
2. **OLED televisions display \_\_\_\_\_, and QLED televisions display \_\_\_\_\_.**
  - a) Deeper black tones, stronger brightness
  - b) Stronger brightness, deeper black tones
  - c) Deeper black tones AND stronger brightness, deeper black tones only
  - d) Stronger brightness only, deeper black tones AND stronger brightness
3. **Which of the following types of microphones is NOT suitable for a presentation where the speaker plans on moving around the stage?**
  - a) Lavalier
  - b) Lapel
  - c) Gooseneck
  - d) Headset
4. **Several devices are connected to a HDTV via an HDMI switcher. The screen is displaying a message that says "ERROR: NON-HDCP OUTPUT." Why is this happening?**
  - a) You are on the wrong source channel
  - b) The TV is not HDCP-compliant
  - c) One or more of the devices plugged into the switcher is not HDCP-compliant
  - d) B and C are both possible explanations
5. **"Analog" visual signals produce \_\_\_\_\_ images**
  - a) Higher quality
  - b) Lower quality
  - c) More color-saturated
  - d) Black and white
6. **A gobo is one of the most common types of \_\_\_\_\_**
  - a) Spot fixtures
  - b) Backlighting
  - c) Speakers
  - d) Microphones
7. **You have been asked to find a new projector for your business. Price is not an issue. You have narrowed your choice down to three options with different resolutions: 1280x720, 1280x800, and 1920x1080. The projector is mostly used for viewing internet content, but sometimes it is also used to display HD video material. Which is the best option?**
  - a) 1280x720
  - b) 1280x800
  - c) 1920x1080
  - d) The internet content will look the same on all three
  - e) None of these can show internet content without scaling

Answers: d, a, c, b, b, a, b

Check your answers below, then see how your A/V skills measure up:

- **If you got all seven questions right:**  
You are a seasoned AV pro.
- **If you got four to six questions right:**  
You are ahead of the curve, but can sharpen your skills by staying updated about the latest trends in AV technology.
- **If you got one to three questions right:**  
Your AV knowledge is about average.
- **If you did not answer any of the questions correctly:**  
Do not fret. HFTP's Hospitality AV Dictionary is coming soon, and can help hospitality professionals of all AV skill levels get up to speed in order to keep up with the changing needs of the hospitality industry. Stay tuned.



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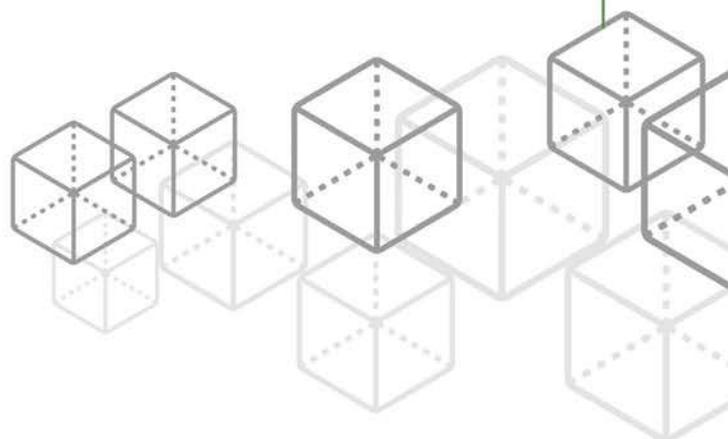
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