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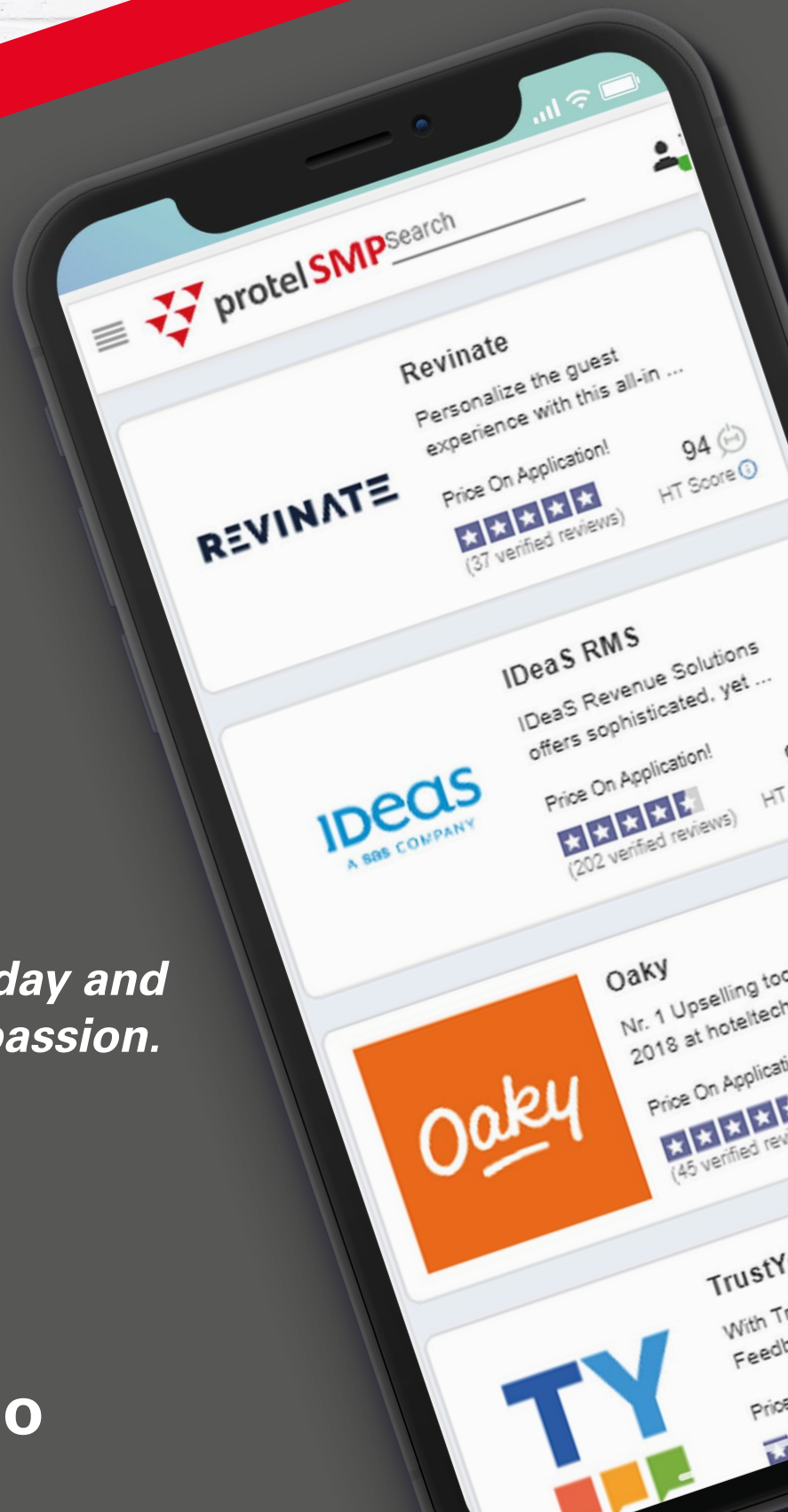
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WELCOME

Dear readers,

Welcome to *The Hotel Yearbook 2020 – Technology*. This is our sixth annual special edition on this constantly evolving theme, and we're very proud to present another wide-ranging collection of articles looking at technological change from so many different perspectives.

Sitting in the Guest Editor's chair this year and helping us put this edition together was Prof. Ian Millar of the Ecole hôtelière de Lausanne. Thanks to his understanding of the trends happening in the technology landscape, Ian assembled a group of authors from around the world to address what's going on – and offer advice for successfully navigating the currents and cross-currents. Thank you, Ian, for the excellent results!

Contributing to this edition then were some thirty opinion leaders, executives and academics working in the technology arena – surely one of the most dynamic parts of the hotel industry today, and most challenging to keep up with! As with all the content we publish in *The Hotel Yearbook*, most of these articles are not only insightful, but of practical value as well. We'd like to thank this group of widely experienced and globally respected authors for their outstanding editorial contributions.

The Hotel Yearbook – Technology also owes a debt of thanks to HFTP (Hospitality Financial and Technology Professionals), our long-standing publication partner, for the valuable guidance they give us, year in and year out. We sincerely appreciate the help and generosity of Frank Wolfe, CEO, and we look forward to working with him, and his always helpful team at HFTP, on future editions.

For now, we wish you a thought-provoking read!

Yours,




Henri Roelings | Publisher

PS. If you are interested in contributing to the 2021 edition, please contact us!



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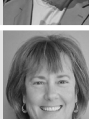

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A word from Frank Wolfe

CEO / HFTP

There is a lot that leads to a smart business decision. Even if the answer comes to you quickly, the knowledge that backs up that decision draws from your experiences, conversations and information you accumulate in your professional environment. This foundation is what HFTP and the Hotel Yearbook seek to build on for professionals in the hospitality technology industry.

Annually the publication asks experienced professionals to relay their perspectives on how they navigate prominent issues in the hotel industry. And within a fast-moving, but crucial sector as technology, there is nothing more effective for understanding how to implement and resolve the latest solutions than to learn from direct and recent experiences.

HFTP is pleased to once again have supported the Hotel Yearbook: Technology in this brand new issue. This informative resource fits within the multiple offerings provided by HFTP to keep the industry connected and informed. Together with HFTP educational programs – webinars and conferences, research publications, online communities, and networking opportunities; HFTP continues to provide industry leaders the necessary knowledge to make smart business decisions that lead to successful outcomes.

Congratulations to Hotel Yearbook for the publication of this newest issue.



A word from Ian Millar

our Guest Editor-in-Chief

Dear readers,

The past 12 months in technology have been extremely interesting. From the Cambridge analytica scandal, to GDPR starting to take effect with some of the larger companies already being fined, as well as the rollout of 5G being marred by Huawei and its link to the Chinese government. But this also shows our dependency on technology and also the impact that data can have in our daily lives.

So where I feel the hospitality industry is really starting to wake up is the power of data. More data companies are moving into hospitality and we are seeing more hospitality companies waking up to the fact that our industry can take more informed decision by using data. One of my favorite expressions is “Data does not care about your feelings”. And I have even seen just before the publication of this edition one hotel company with an open position for an internship in data science. This will be a position that we will see more of in the coming years. The buzzwords of Big Data and machine learning have been exactly that, buzz. The fact that our industry is taking data more seriously is a good thing.

However, it will take time. Although more and more hospitality companies are moving systems to the cloud, and we are seeing a new generation of systems that truly embrace open API and shared data structure – which is a good thing – there is still a huge amount of on-property legacy systems that will hinder this move toward becoming a data-driven industry.

But as you will see in this edition, there are some industry experts who are driving this change and it is a wakeup call for us: by embracing new technologies and including data into our business decisions, we can be more efficient, reduce costs, increase revenue, and ultimately this will allow us to give better customer service.

In a more sci-fi kind of world, people are still talking about robots killing jobs in hospitality (this will never happen, by the way), and drones becoming the norm for delivery (no, they won't). But one technology I feel will have a huge impact is voice recognition. As the technology becomes better, it will also start to prevail due to hotel employees. Voice is a staple part of the lives of gen Z, this new workforce that will soon be moving into our industry.

I hope you enjoy reading about these topics and more in this edition!

The Universal Hospitality Booking Engine: reality or pipe dream?

by **Nick Price** 

Nick Price, CIO at CitizenM, envisages a future where hotels can unbundle the packages of products and services they presently sell and allow each element to be booked individually via a universal booking engine. We're not there yet, but for the Hotel Yearbook he explains what would be required to make this a reality. "Heads up, all developers," he says: "Our industry needs you."

In my 2015 Hotel Yearbook article (Cloud 3.0), I discussed the basis for moving a hotel company to the Public Cloud, and in the same article, briefly introduced the concept of Service Bus Architecture and the benefits to be found when using service bus to integrate cloud and hotel systems. The article concludes that cloud 3.0 - where primary business applications are running in the public cloud - is real, and that cloud services such as service bus offer further benefits to the hotelier enabling effective integrations amongst applications regardless of where they run - cloud or hotel.

In the 2017 Hotel Yearbook, I followed on with another article (Not your father's service bus) where I examined the opportunity to deconstruct and reduce dependency on the PMS-centric systems architecture that we have lived with for the last 25 years, by replacing it one application at a time with a modern, distributed micro-services architecture built on Service Bus. In need of better terminology, I called the end result Hotel-OS, believing then as I do now, that an operating systems metaphor is a good one via which to communicate the power of a service-oriented architecture to decompose monolithic applications such as PMS into modern, separately maintained and deployed components hosted in the cloud and using a service bus to enable and moderate inter-service communication amongst components.

My 2018 Hotel Yearbook article (Not your father's ERP), held the knife to the jugular of PMS-centricity by suggesting that a modern take on ERP systems, and specifically, affordable ERP systems delivered as Software as a Service [SaaS] focussed on the mid-size company, can provide a very effective single-source solution to a broad landscape of hospitality back-office needs when coupled with service bus integration to hospitality

front office applications operating outside of the ERP suite. The resulting systems architecture allows the hotelier to focus scarce software development budgets on primary selling and customer service functions to support the digital customer journey, while being satisfied that an effective back office solution, minimizing costly manual processes, has been realized through implementation of a pre-integrated ERP suite.

This year, I will discuss those primary selling and customer-service functions by examining two subjects: The need for a "Universal Hospitality Booking Engine", and a suggested development method to enable shared customer experiences across the growing number of customer digital touch points.

The "Universal Hospitality Booking Engine"

Have you ever wondered why packages exist (packages are product bundles - nearly always a room plus some other non-room inventory item such as breakfast), and whether our modern, increasingly digital customers really want to purchase our products in this way? To a customer this is like walking into a grocery store and only being able to purchase ready-made combination baskets containing products selected by the shopkeeper: ham, plus milk, plus eggs, or dish washing liquid, a floor mop, and toothpaste.

A safe assumption is that packages came about out of necessity, due to the inability of inventory distribution and sales systems to offer effective (or any) product combination choices through sales channels. As a result, our industry has suffered from an inability to create a basket of goods shaped to individual customer need, and this has over time become *normal*.



evident and attractive, but with today's systems, a solution seems unattainable. Or is it?

With the traditional PMS-centric systems architectures of the past, yes, a solution will most likely remain out of reach, but with the more modern hospitality service-oriented architecture discussed in previous articles, a solution is indeed possible, although with full disclosure I have been looking for a truly universal hospitality booking engine for some time and have yet to find one so it probably does not exist as a purchasable product today. But just because I haven't found one to this point, does not imply that a Universal Hospitality Booking Engine cannot exist. Today's modern technology allows it. So now, with the support of our modern hospitality service-oriented architecture, the Hotel-OS, it's time to try something very different. Heads up all developers: our industry needs you. Please pay attention.

What are the features of a *Universal Hospitality Booking Engine*?

- First, the Universal Hospitality Booking Engine [UBE] (depicted in Figure 1), must be Channel agnostic (Web, mobile, messaging, voice), meaning that it must work similarly across all channels to market (in this example for simplicity, I am purposely limiting the discussion to own-brand channels). Hoteliers, I can hear you thinking - "I have a web site, and I'm considering a mobile app, but what are Messaging and Voice?" These are just additional near-future channels in direct line of sight. Twenty years ago, almost no one had web, and there was no mobile. Today, both are expected, and the more adventurous are considering additional methods through which to reach their customers. Think of messaging as programmable iMessage, WhatsApp or Facebook Messenger, Apple's Business Chat is a recent example. Voice is delivered through services such as Alexa and Siri and no doubt others in the future. Neither messaging nor voice are mainstream channels to customer today, but there is no reason in the future why either couldn't be.
- Second, the UBE must be agnostic to the specific inventories being sold (guest rooms, F&B, spa, fitness, small meetings, limo etc.). No doubt there will be some initial limitations, as truly agnostic behaviour will be difficult to program and deliver. However, a UBE that can cope with the primary booking flows across the principal hospitality inventories surely is possible: Basic Room booking plus Restaurant reservation and Spa. This combination alone would be a great start.
- And lastly it must be a UBE with two faces - one direct to customer for self-service booking, and the other for use by the Reservations department to book on behalf of the customer should the customer choose to reserve by phone or email. Consider this: If our customers have a difficult time trying to book our products in combination, imagine the pain that we inflict daily on our employees as they shuffle between the reservation screens of different applications.
↓

And it is indeed odd, when you stop to think about it for just a moment, that while a PMS is often used as a revenue recognition and accounts receivables system for all hotel inventories, it is quite unable to actually sell anything else other than a naked room night.

Without the artificial notion of packages though, the hotelier's life would become very difficult. Imagine a hotel with a few hundred rooms, four or five restaurants, conference and banqueting space, a spa, fitness club, parking garage, and now imagine how with today's technology you could offer a single basket / single payment shopping experience across all these inventories: A room for the duration of the stay; a table booked for a breakfast meeting, four hours in a meeting room for a sales pitch, dinner with an important client; health club membership for the duration of the stay; a spa appointment; and a bottle of champagne with flowers because a wife/girlfriend/partner is flying in for the weekend. Impossible today? Yes, but it shouldn't be. There is nothing at all unreasonable in the hotelier's desire to sell these products in this combination or in any other.

These systems limitations, our industry *normal*, have been accepted in the past, to be crudely worked around through packaging, but today, for the digitally experienced consumer – the Amazon shopper – packaging just seems clumsy, confusing and antiquated. No retailer could survive selling his product in such a limited way, and it's doubtful to me that hoteliers can continue offering only such limited assortments to the increasingly aware customer for much longer either. And consider this: Basket shopping, fine-tuned to each individual customer's need, is equally unavailable today to the OTA. The opportunity therefore for own-channel differentiation is both

UNIVERSAL BOOKING ENGINE

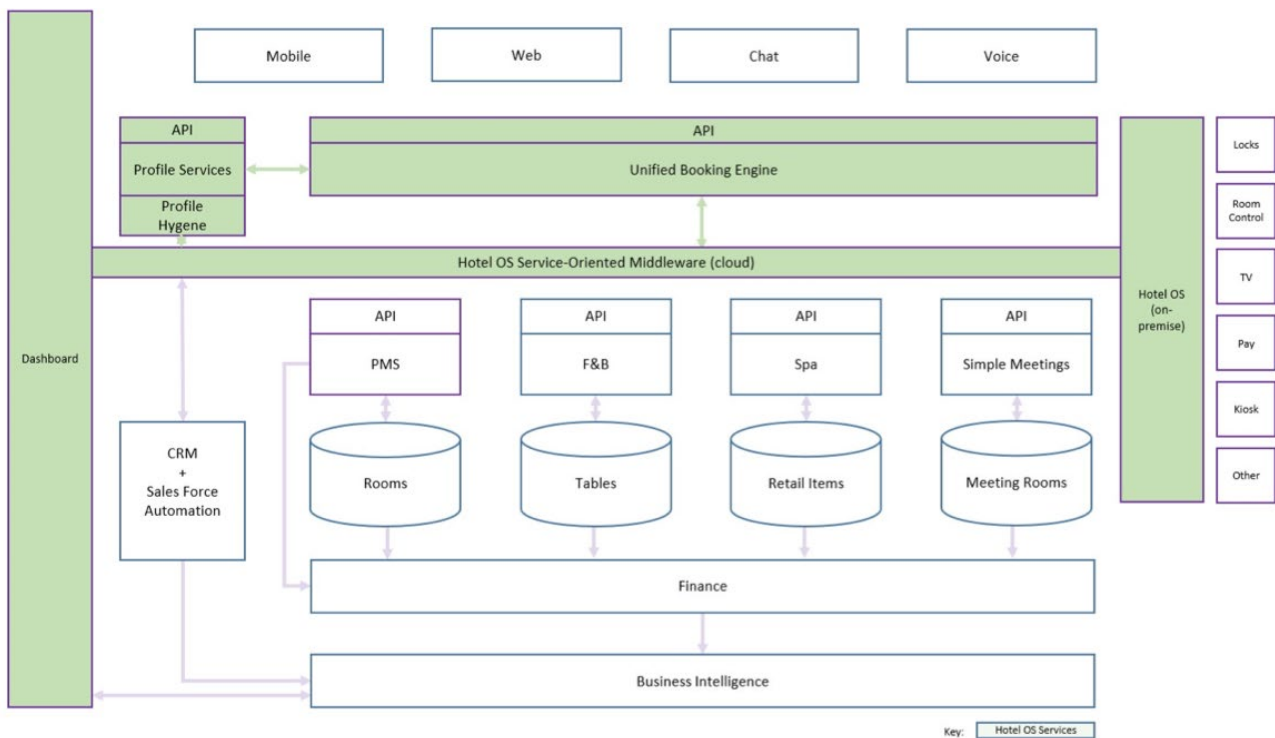


Figure 1: Universal Hospitality Booking Engine

Development method for shared customer experiences across customer digital touch points

Today's digital customer journey may start with a reservation on the web, which can be modified on mobile, then transition into check-in before arrival on mobile, and finally arrive at a hotel kiosk for key assignment. The resulting customer journey becomes a shared experience across multiple digital touch points that is extremely difficult to deliver effectively when each of the participating systems, in this case web, mobile app, and kiosk, is separately developed by different independent product owner developers. This is very much the typical norm of our industry, and will clearly become more of a problem as we add additional touch points.

Our most common touch points spanning the customer journey today are: web, mobile app, kiosk, in-room tablet, and TV, but this number will surely increase if Smart Watches, Messaging [i-Message, WhatsApp etc.], and voice [Alexa/Siri] become viable channels through which to reach the hospitality customer.

An issue for hoteliers, and one that is specific to our industry is the sheer number of customer touch points across our protracted customer journey: six today if we count both Android and iOS mobile app development separately, which we should. Contrast this with just three touch points (web, iOS, Android) for Retail, and you begin to see the problem. The hospitality customer journey is both longer and deeper than those of adjacent industries, and while this is a benefit - the opportunity for deeper customer engagement, it also presents a considerable problem. Two problems in fact:

Problem 1: How is the hotelier to ensure a consistent customer experience if each touch point is delivered through separately contracted products where intellectual property and pace of development is controlled by each product owner?

Problem 2: If the hotelier decides that the only way to achieve the desired consistency of experience is to develop unique software across all touch points - a common practice in other industries, how can the hotelier realistically finance the scale of the required development? Here I'm talking about full five-year life cycle cost of ownership and maintenance of product: deployment, maintenance update, security, documentation etc. All this typically adds up to a final cost being a very unpleasant multiple of the initial cost of development.

This leads me to think (or hope) that there must be a better way to the end goal, something that falls between these two very undesirable extremes. The harsh reality though is that there is no immediately available silver bullet solution to this problem. Certainly, using abstract Hotel-OS services (reservation, check-in etc) rather than coding these functions in the method and specific development language of each touch-point platform is directionally correct, and can reduce development effort considerably, but this alone doesn't address the core problem: each of these touch points is constructed from a different technical stack, and each therefore has its own proprietary development environment, an approach which minimizes potential for code reuse across other devices/platforms.

Now clearly the required functionality of web, mobile app, kiosk etc. is implicitly different, and it would be incorrect to imply that even if it was possible to write code once, that this code could be shared in its entirety across each touch point minimizing duplication to zero. Such a nirvana is not only impossible, it

is equally impractical. But the concept of code reuse across touch points does merit consideration. The function of hotel check-in for example is essentially the same series of steps regardless of whether it happens on a mobile or a kiosk. Reservation is equally similar between web and mobile.

Fortunately, the hospitality industry is not the only industry impacted by the frustrating duplication of development efforts across today's technically incompatible customer touch points, and this shared frustration has resulted in various efforts to allow reuse of code and/or minimize cost of development per platform. None of these today represent the total solution that our industry (or any industry) needs, but nevertheless, a hotel owner, manager, or chain CIO should be aware of, and track, these efforts before committing to an expensive multi-year code development project across some combination of these technically incompatible platforms. The principal cross-platform efforts underway today are: Microsoft Xamarin, Ionic Framework (open source), React Native backed by Facebook, Adobe PhoneGap, and a new entrant from Google called Flutter. In addition to these, there are many more cross-platform toolkits or frameworks available or in development from smaller companies. This is a young, fast-developing, space that has expanded exponentially over the last three or four years, who's sheer existence expresses a consensus that there is a viable and more affordable future alternative to today's channel/device/OS specific native development. For our industry this is indeed a good thing.

So where to start if you are considering customer-focused (and probably mobile) development today?

Recognize that the customer digital journey transitions across multiple technically separate touch points and try to minimize the disparity of experience across them by placing user interface and experience design in a single responsibility, one capable of designing effective future processes, but also capable of documenting and communicating the future vision. see figure 2: Common Framework development

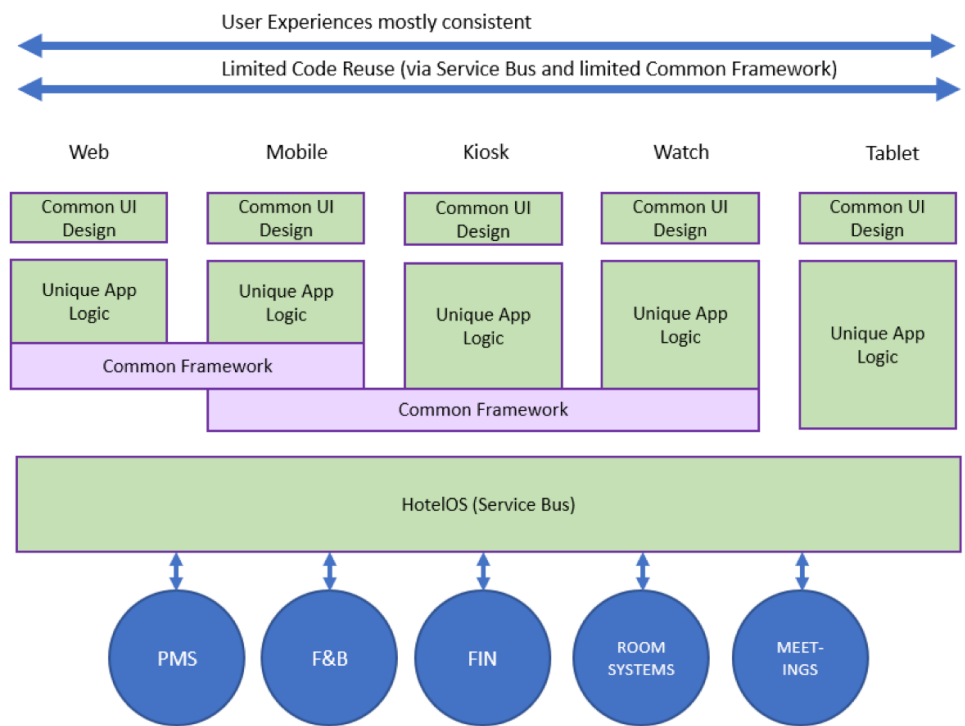


Figure 2: Common Framework development

Think strategically about how the digital customer journey is owned today. The more people and departments involved, the less likely that anyone really feels ownership for the end to end customer experience.

Ask probing questions of the IT department. Are they aware of the technical challenges associated with multiplatform development? Are they aware of the key players? Are they tracking key milestone developments of the principal products? Do they have an accurate grasp on typical software development costs and timelines?

Lastly be brave, and don't be afraid to try something new. Assume that all future development will have to be in some way multi-platform (or as previously stated, development will become unaffordable), and plan some small-scale pilot tests using one or two of the chosen development frameworks. See See figure 2: Common Framework development

■

***Nick Price** is the founder of NetSys Technology, a technology consulting company focusing on the hospitality and travel sectors. As part of his current portfolio of hospitality industry responsibilities, Nick holds the post of CIO at citizenM (www.citizenM.com), a happening Amsterdam NL based Hotel Company with global aspirations. He has worked with citizenM since early 2013 and is responsible for a large and growing set of digital technologies, including traditional IT. Prior to starting NetSys, Nick worked as CIO for global luxury hotel brand Mandarin Oriental over twelve years, where he was fortunate enough to participate in a significant global expansion of the company from its base in Hong Kong. In addition to his CIO role at citizenM, Nick holds strategic IT and advisory board positions at several hotel and hospitality technology companies. He is an inductee in the HFTP (Hospitality Financial and Technology Professionals) Hall of Fame, and a co-founder and past-president of HTNG (Hotel Technology Next Generation). In late 2016, Nick was elected to the Board of Hospitality Financial & Technology Professionals (HFTP).*

Technology and brand building: Four smart practices for hotels

by *Richard Swain*  & *Chekita S. Dev* 

As hotels and hotel brands look to compete in an increasingly congested brandscape, the rush to adopt new digital technologies to stand apart from the competition has resulted in many rushing headlong into adopting technology, sometimes with negative consequences. Richard Swain of Huge and Prof. Chekita S. Dev of Cornell University explain.

One of us recently concluded a stay at a well-known “cutting edge” hotel in Bogotá, Colombia. After spending ten minutes figuring out how to turn on the multi-panel hidden lights system, another fifteen minutes was spent trying to work out how to operate a set of blinds that looked as if they had been designed for the Tesla Model 3. After solving these micro-mysteries, a tablet screensaver offered hourly status updates for items sent to the laundry. Unsurprisingly, the promise of knowing the exact whereabouts of dirty underwear failed to compensate for the 25 minutes spent trying to customize the in-room environment. Ultimately, what was intended as a demonstration of innovative technological prowess culminated in an unimpressive brand experience. Sadly, this will not be the last misguided application of technology that travelers will experience in a hotel this year.

In the race to boost brand value, brands that will rise to the top will be the ones who integrate hi-tech in ways that are intuitive and mostly invisible—or minimally disruptive—to the overall experience and effectively complement the human or hi-touch side of hospitality.

Here are four smart practices that hotel brands should focus on to positively differentiate themselves against their competitive set in this era of digital maturation.

Educate the guest

New technology necessitates new behaviors. It’s not surprising therefore, that a certain level of education may be required to ensure effective diffusion and successful adoption. When Amazon introduced the world to the Echo they did so with the simple example instruction of “Hey Alexa, play Spotify”. Today, Amazon has 10,000 employees dedicated to improving the Echo technology using artificial intelligence. Apple on the other hand dazzled us with the promise of asking Siri to do anything, resulting in many of us asking her for nothing. Apple recently reconstituted the Siri team to play catch with Amazon by betting big on artificial intelligence. When chat functionality

is integrated well into hotels, it’s based around examples of simple requests, such as asking to pick up a gift or make a reservation, explained through contextual communication such as room key sleeve or room service tent card. Ultimately, it’s by demonstrating simple, basic, real-life applications that guests will become comfortable adopting behaviors required for availing of these new technologies.

Create guest-eye-view innovations

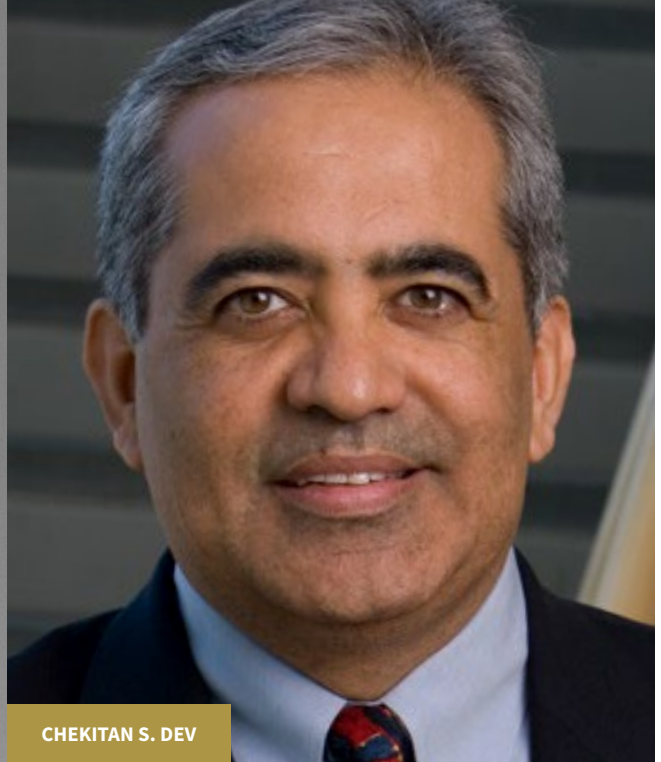
More than ever we’re seeing brands stretch beyond their specific narrowly-defined categories to create unique and value-adding experiences for users. In defining themselves around the mission of making flying fun and a personality that is clever, provocative and friendly, Virgin invested in pioneering software for in-seat chat and a custom ordering system for their planes. Hotel brands that define themselves beyond their square footage will find it easier to imagine how best to integrate new technology in order to positively disrupt their existing product and service mix. For example, a hotel that personifies itself through intrigue and wonder naturally lends itself to producing short-form content around unsolved mysteries. The better defined your brand idea and personality the better the filter for decision making about “on brand” and “off brand” initiatives.

Develop creative partnerships

For years, brands have been diligently building out their owned digital properties, mostly using an inside-out model. Now we’re in an era where brands must meet users where they are, so we need to move to an outside-in approach. Whether it be facilitating the order of a pizza through Slack, the purchase of a t-shirt on Pinterest, or the request for a rideshare through an airline app, users are rapidly getting used to on-demand commerce through their immediate platform of choice. With the rise in importance of local search and growing expectations around the immediacy of booking, hotel brands have to figure out new ways to “show up” in environments such voice search, boutique aggregators and live influencer accounts. This requires empowering branding teams with more autonomy



RICHARD SWAIN



CHEKITAN S. DEV

than ever before, relinquishing control of previously stringent brand standards in order to facilitate original experiences and partnerships. Ideally, brands will expand the responsibility of brand ambassadorship from just the brand team to all customer contact employees, a scary task for most brand teams! A YouTube video of a Disney custodial employee using a broom and waste water to draw Mickey Mouse for a young park guest earned 112,000 views, not a bad result for a brand ambassador! Ask yourself this, if you trust your customer contact employees to serve your guests in person, why not let them serve your guests via a digital interface? In the future, successful guest engagement will be dependent on the level of creativity and ingenuity of the brand team (broadly defined) charged with strengthening the brand.

Integrate brand experiences

When managing a brand today, it's almost impossible to imagine all the permutations of how, where and when it may need to show up. Just as the internet disrupted the way in which brand identity systems needed to be created and managed to optimize for new digital environments, the same

thing is now happening within the physical space. Rather than designing just for private suites or booking screens, hotel brands must now begin designing for all surfaces simultaneously. Brands should be less concerned with only their logo or nomenclature system and more by the core design principles that drive decisions across the whole ecosystem, from visual elements such as color to olfactory, gustatory, audio nuomonics and ownable haptic feedback. In the new brand world, brand guidelines have evolved from static pdfs and communication guidelines to a brand experience designed to stimulate all five senses using dynamic real-time software evolving over time in response to changing market dynamics and user expectations.

By using these four smart practices, hotels and hotel companies can become better at using technology to enhance their brands by offering novel, proprietary, high value, and integrated experiences to attract, delight and retain their guests.



***Richard Swain** heads up the global branding discipline at Huga, working with Google, McDonald's, and a few ambitious startups. He oversees a team of strategists and designers in creating and re-imagining brands with a specific focus on creating experience-led strategies and developing rich, multi-sensory brand systems. Throughout his career, Richard has had the privilege of developing brand strategies for world-leading organizations in the US, Europe, Australia, and South-East Asia, including FedEx, News Corp, Pernod Ricard, and Sony. He is a regular speaker at industry conferences, panel debates and has appeared on national culture shows in Australia and the United States.*

***Chekitan S. Dev** is a professor of marketing at Cornell University's School of Hotel Administration in the SC Johnson College of Business. An internationally recognized teacher who has received multiple awards for teaching excellence, Professor Dev is recognized as the leading expert on hospitality marketing and branding. He has published his work in some of the highest quality peer-reviewed journals including the Journal of Marketing and Journal of Marketing Research, Harvard Business Review, MIT Sloan Management Review, and Cornell Hospitality Quarterly, and is the author of Hospitality Branding (Cornell University Press). An active consultant, expert witness, keynote speaker, and workshop leader, Professor Dev has served corporate, government, education, advisory, legal, and private equity organizations in over 40 countries. In 2010 he was selected as one of the "Top 25 Most Extraordinary Minds in Hospitality, Travel and Tourism Sales and Marketing" by Hospitality Sales and Marketing Association International.*

Buying hospitality technology in the future

by *Pete Simpson* 

Buying hotel technology today is too hard, says protel's Pete Simpson. The sales cycle today is a long, tortuous path for the average hotelier. Even when hoteliers know what technology they want to deploy in their hotels and already have a firm commitment from their management teams, it still takes many months to source, buy, deploy and finally have the software operational.

The external part of the process usually involves discussions with the new technology vendor, their sales department, their orders department, and their project management team. Then similar discussions ensue with the PMS distributor and their various departments, even including the PMS company HQ themselves. When all lights are finally green, the home-straight is a series of last-minute tunings with the installation teams responsible for overseeing the deployment and delivering the product.

The negotiation: Today we have complicated bureaucratic, labor-intensive processes to navigate, buffeting the hotelier between their chosen software vendor, PMS vendor, and the PMS distributor. Collectively, all parties have to provide the interface/integration to the software.

The licenses: In most cases, the software vendor requires the use of additional licenses, plus more licenses on top from the PMS vendor. The service package from the tech vendor also has to be negotiated, and the same again from the PMS vendor/distributor.

The services: Often there is an elastic, uncertain number of service days for installation and configuration - understandable in some circumstances - but a noticeable lack of transparent communication does not build as much trust in the new partnership as it otherwise should.

The deployment & configuration: Hoteliers experience scheduling delays in a long deployment process, which is mostly followed by an equally long - and often not so smooth -





configuration process. All of this adds significant cost and time to hotel technology integration products.

Consequently, at the point of purchase, even when this actual point in time can be clearly defined, there is no transparency concerning what the total price for this integration is!

Will the hotel take delivery of cutting-edge technology, or is it a pig-in-a-poke (that turns out to be a cat in a sack)?

Vendor lock-in vs. freedom of choice

Vendor installations today are, in general, over-engineered and complicated. Minimal effort has been made to automate these installation or configuration processes.

Why should they?

Spoiler alert: The cash cow for many vendors is the ongoing services, configuration and consulting that goes with the product. So why make it intuitive and straightforward and cut that tasty profit?

Left unchallenged by end-user hoteliers, this built-in complexity ensures that technology vendors continue to make it almost impossible to automate and simplify the installation process.

The Result: Vendor Lock-In.

Too many, unnecessary service days and one-time fees plus the vendor creating dependency for configuration and consulting, makes it complicated and expensive for hoteliers to exit their contracts when newer, better tech is available on the market.

Welcome, classic “Vendor Lock-in,” whereby the hotel eventually has a product they no longer want, and although better tech is readily available on the market, the hotel has no easy way to replace it.

Our industry does not need this. What we need is for vendors to embrace the idea of hoteliers having real freedom of choice.

Let’s take a look outside of hospitality.

A glance outside of hospitality confirms what is happening in the rest of the tech world. App stores are by far the regular way to source and buy technology, with a try-before-you-buy mindset dominating delivery, and enabling sales.

These “freemium” products gain user trust transparently by demonstrating their real value, in many cases way before a purchase has been made. Add to that the ease of installation: instead of costly on-site installer-teams, we now have online real-time helpers, wizards, and scripts to guide and assist with setup and learning-curve/onboarding. Plus, to further minimize risk for the buyer, should the product fail to live up to the marketing hype, it’s simple to uninstall, no harm done (other than to the vendor’s bottom line).

Choosing technology

Choosing the right hotel technology was never just about taking the sales folks word for it. Hoteliers are getting smarter and now ask all the right questions, with and without invaluable guidance from specialized consultants. However, where can hoteliers get an accurate market overview of which vendors are relevant - and from these - which are to be trusted?

Plus, once a shortlist of potential suppliers has been compiled, hoteliers want to see references and referrals to be sure they are not unicorn-chasing. Should they blindly pay external consultants to rack up billable hours copying and pasting RFI’s, and then do it all again for the RFP second-round? Alternatively, could there be a more open approach?

I believe that hoteliers have already had their technical expectations well and truly set by everyday interaction with computers and smartphones over the past decade. The act of choosing technology has been evolving rapidly but stays hidden in plain sight. These “new generation” hoteliers turn more and more to specialist review sites and those app stores with demonstrable communities, trust, and niche-knowledge.



Hospitality app stores are an excellent resource for listing all vendors that are compatible with a specific PMS technology, and niche review sites such as HotelTechReport.com are the perfect place for side-stepping the vendor's sales and marketing messaging, to see what current users think of the product and service they have paid up for.

So What is the Solution?

Reducing the cost and complexity of hospitality software is squarely the responsibility of hospitality technology vendors. These vendors need to step up and demonstrate responsibility by better designing their software for this more collaborative yet complex market. Software ultimately needs to intelligently self-install and configure on the fly.

There have been some early attempts at #hoteltech app stores that showcase the software choices. A step in the right direction, but only the first rung on the ladder. Others have tried with one-way data extraction tools that can offer the hotel back its own data, presented in colorful dashboards.

The solution that the market is waiting for is for app stores to include click-to-install options. Automated installation of hotel apps needs to become the norm, not the exception.

I see an end-to-end, application lifecycle management that is fully automated and includes integration vendor registration, auto-provisioning of test environments, integration certification, automatic and instant availability of certified apps within the app store, with auto-installation processes implemented and

waiting for the hotelier customer base. Let's call this "click-to-install" and let's have that button accessible right within the PMS! Last but not least, secure integration to vendor back-office systems enables end-to-end customer support and automated billing, all from the one point of contact.

Will Vendors Save Themselves?

As vendors wanting to thrive and lead the way in this new, open age, we must not only concentrate on reducing all sales blockers (such as service days) by automating the provisioning and installation, but we also need to change our business and commercial models and finally align these with the app store concept of selling at scale. Simple contracts that provide the vendors and their distribution network with a commission for sales generated via the app store are a must. The processes for future sales automation also need to be clearly and collaboratively defined.

It is down to all of us as vendors to reduce the cost and complexity of hospitality software at the point of purchase while allowing market innovation to thrive within the ecosystem that we have built together.

From my privileged position, I can see that much of this "future vision" is already finding traction within the market. The bad old days of Emperor Nero and the Vendor Lock-in are nearly over, and I salute the new generation of hoteliers and technologists who are rampaging through the city, fanning these hungry flames.

■

About protel

protel is the hotel PMS and platform pioneer with over 14,000 hotel customers in 90+ countries. protel's new enterprise hospitality platform - consisting of an enterprise service bus called protel.I/O and a multi-hotel solution called protel CENTRAL - is a breakthrough for the industry. It's the only technology that allows hotels with multiple integrations to aggregate all specialist technology behavior to a central level, thus creating a secure, vendor-neutral, open infrastructure to store, access, integrate and use their data from any guest touchpoint in real time. As a result, hotel CEO's, CIO's and CMO's can take control of their technology infrastructure and create best of breed ecosystems that deliver best-in-class guest experiences. protel's global headquarters were established 25 years ago in Dortmund, Germany and U.S. headquarters are in Atlanta, Georgia. .

www.protel.net

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MAY 15 **Phocuswright Europe 2019**
May 15 - 16, 2019 - Amsterdam - The Netherlands

MAY 20 **HEDNA 2019 Global Distribution Conference: Madrid**
May 20 - 22, 2019 - Madrid, Spain

MAY 20 **DuettoX 2019**
May 20 - 21, 2019 - Alexandria - VA, United States

MAY 27 **Skift Forum Asia**
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JUN 18 **HSMIAI Revenue Optimization Conference (ROC) 2019**
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June 18, 2019 - Minneapolis - MN, United States

AUGUST

AUG 5 **HTNG Insight Summit North America**
August 5 - 7, 2019 - Park City - United States

SEPTEMBER

SEP 16 **HTNG 2019 Asia-Pacific Conference**
September 16 - 18, 2019 - Bangkok, Thailand

SEP 25 **Skift Global Forum**
September 25 - 26, 2019 - New York - NY, United States

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OCT 23 **Direct Booking Summit: Americas**
October 23 - 24, 2019 - Miami - FL, United States

NOVEMBER

NOV 4 **World Travel Market London (WTM) 2019**
November 4 - 6, 2019 - London, United Kingdom

NOV 12 **HITEC Dubai 2019**
November 12 - 13, 2019 - Dubai, United Arab Emirates



NOV 18 **HTNG 2019 European Conference**
November 18 - 20, 2019 - Monaco-Ville, Monaco

NOV 19 **The Phocuswright Conference**
November 19 - 21, 2019 - Hollywood - FL, United States

2020

JANUARY

JAN 27 **HEDNA 2020 Global Distribution Conference**
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JAN 27 **2020 Global Distribution**
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MAR 4 **ITB Berlin 2020**
March 4 - 8, 2020 - Berlin, Germany

JUN 15 **HITEC SAN ANTONIO**
June 15-18, 2020 - San Antonio, Texas USA



What is a data platform and how does it work in hospitality?

by *Carson Booth* 

With massive amounts of data now available to hotels, it's safe to say that all future technologies will rely on data and integrations. The importance of data is evident, writes SnapShot's Carson Booth, but it's essentially worthless unless it is properly stored, intelligently connected, and made accessible. Without the technology to bring data together, data becomes unmanageable and data silos are unavoidable. The decentralized nature of the hotel and restaurant business and the lack of integrations between channels across the industry have made the need for an independent system to collect and connect all hotel data inevitable. Enter the data platform.

How data platforms work in hospitality: Hotel data

Data is a critical tool to a hotel's operations and is broken down into big data, small data, un/structured data. Since hotels use various systems, including PMS, POS systems, guest reputation platforms, OTAs, forecast and budgeting tools, and so on, there is an enormous amount of data being produced and received daily. Add to that hotel groups and chains who have similar data per property and sometimes use the same or different systems based on location or because they were historically set up that way. All this data needs to be accessible in a uniform manner to be used.

Individual connections

Building individual connections to each system for each property is arguably the fastest way to collect data. It also involves the most maintenance since systems change and connections drop and require constant work to keep functioning. Individual connections collect data in real-time, without moving or copying any data, known as a virtual database. Instead of storing the actual data, a virtual database stores the data definitions and the location of the data. When information is needed, it sends queries to the locations to then build the database structures.

Data lakes

Data lakes can be seen as a centralized copy of the data where all the raw data is copied in a central cloud-based location and can be accessed. While an improvement from virtual database since all the data is centralized, it still requires converting the data before it can be used.

Data lakes move un/structured data from various systems into one - a single place where data is stored until needed and is then later prepared for use and creating customized analytics but with the help of data scientists.

Data platforms

A data platform is a standardized method of collecting the data wherein the data is harmonized when it enters the platform to be reused with standard definitions across multiple properties, data sources and more.

It goes one step beyond by moving the data and then indexing it into the new system. A major benefit of hotel data platforms is that when a hotelier wants to pull any customized data, thanks to the open APIs and data harmonization, this can be done efficiently through standard requests. If a hotel company wants to add review data to their data platform, this is integrated in an industry specific manner and relevant to the rest of the data. Other hospitality enterprises can then benefit and request that their data is also added. Thus, a network effect is created,



About SnapShot

Founded in 2012 with the vision to build hospitality's premier data platform independent of any brand or software provider, SnapShot is now one of the largest hospitality data processors in the world, managing transactional data of over 6,000 independent and branded hotels worldwide, with over 45 different connected PMS systems, and growing. With the release of the Hospitality Data Platform, SnapShot enters its third phase, which brings forward its founding vision: a secure data platform, visualization capabilities, and marketplace.

www.snapshot.travel

whereby the entire industry working with different systems can integrate multiple sources of data and have a standardized output.

Data platforms take collecting and moving data one step further in the data journey. While data lakes store raw data and virtual databases send queries to data silos to collect data, data platforms collect, store, and harmonize data. Harmonization can be a bit tricky as different systems use different names and structures, and the different formats must be processed into one cohesive group. For instance, in one system, rooms may be named "RoomType" versus "RoomCategory" in another, but through harmonization, it can be understood as the same. Hotels can hire freelancers to manually map data between systems by changing names and definitions, or simply use a hospitality data platform to automatically harmonize the data into one system.

Harmonized data could easily be turned into actionable insights through data analysis and opens opportunities for more advanced BI visualization and analytics dashboards. We are not just talking about simply owning your data, but understanding it as well.

In summary

In hospitality, data platforms have become a necessity alongside PMS, Channel Managers and other core systems. Deploying integrations across multiple systems is expensive and time consuming, on top of the security issues and standards to be maintained and added, especially as connection specifications change creating the need for frequent rebuilding.

By moving beyond the integrations "era" and towards data platforms that can serve the entire hospitality industry, independent of brand or technology providers, frees up time and resources to focus on using the data and improving performance.



A school becomes a lab

by *Winnaretta Zina Singer* 

Founded 125 years ago, the Ecole hôtelière de Lausanne (EHL) is both the pioneer and the world-leading hospitality and leisure management school. Winnaretta Zina Singer takes us on a tour of the school's visionary new Innovation Village.



New technology and trends are revolutionizing the world we live in at an exponentially high pace: Big Data, AI, autonomous vehicles, facial expression recognition, Blockchain, gaming, robotics, IoT... and multitudes of apps on smartphones.

Customers are well informed, proactive and successful services are increasingly personalized, global and instant.

Within that context, traditional sectors such as hospitality need to gear up to not only keep up with these new trends but ideally to take control of their own disruption. Why not be proactive in the creation of the next Airbnb?

EHL is once again playing a pioneering role by creating the “EHL Innovation Village”: an open community that strives to inspire and drive innovation in the hospitality and food sectors. It is a physical and virtual place that builds on some existing EHL foundations:

- 3000 students: 120 nationalities, business and customer centric skilled Millennials, citizens of the world.
- A powerful network of 25,000+ alumni with key roles in corporations around the world
- International consultants active in over 60 countries
- EHL researchers and experts

To which we are adding new inspiring bricks:

- A start-up incubator, accelerator and a coworking space open to promising start-ups, whether EHL spin-offs or not, that are relevant to the EHL Innovation Village vision and ecosystem.
- An innovation fund to allocate grants to early stage projects and support start-ups at seed or growth stage
- A Foodlab to conduct applied research related to food and test the concrete outcome of more fundamental research in an F&B environment – an environment that also enables start-ups to test new products and professionals to have access to continuing education.
- An innovation hotel to test new technology in rooms, proof of concepts...



- Many inspiring events to nourish and stir the community
- The village stretches over 4,000 m2 in a historical hamlet a stone's throw away from the Ecole hôtelière de Lausanne. Four charismatic buildings (a military compound, a post office, a stable and roundabout and an auberge) will be at the heart of a massive renovation project that will give us the infrastructure to foster this ambitious project.

The Ecole hôtelière de Lausanne is perceived internationally as an ambassador of Swiss excellence in hospitality worldwide. On the food front, EHL's gastronomic training restaurant, Le Berceau des Sens, was already rated 16/20 by Gault & Millau in October 2018 and has just been awarded a Michelin star in February 2019.

Without forgetting who we are, the great challenge is now to disrupt ourselves by creating a new culture within the EHL Group. The Innovation Village needs to be open beyond the EHL community in order to address big challenges for the future of our industry and welcome key players that will contribute to this thriving ecosystem. There is a fine chemistry to be found related to topics, people and goals in order to create a virtuous circle in which the ecosystem can self-nourish.

- Start-ups and entrepreneurial projects gain from having their work environment set in the heart of the food and hospitality incubator of the best related university worldwide, with access to EHL coaching, network and visibility. They can

receive financial support from the EHL innovation fund or other investors and have access to large partnering groups for testing or in some cases acquisition.

- Large groups benefit from the agility of start-ups, student projects, inspiration and vision through research, food and hotel testing facilities, international expertise of our consulting group and being partners of EHL.
- Researchers have a unique space to conduct food and hospitality related projects with academic or industrial partners. Their publications can also be valorized within an innovation driven community.
- Students can develop their entrepreneurial projects at the incubator, find internships within the start-ups present or large groups partnering.

The village was launched a few months ago and we are already:

- hosting 7 promising start-ups
- benefiting from the precious support of 4 large groups
- managing a financial support program for start-ups that are up and running
- conducting projects within the Foodlab

This is an entrepreneurial initiative within a classical structure that has been thriving for over a century. So instead of saying, "Do what I say, not what I do", we can actually tell similar companies, "Hey, we've also been down that road", and hopefully guide and inspire them more efficiently. ■

***Winnaretta Zina Singer** is the Head of the Innovation Pole at the Ecole Hôtelière de Lausanne (EHL). British and Iranian, she was born in France and raised in England and Monaco. After obtaining a Baccalaureate in Economics in 1992, she moves to Switzerland to study at the Ecole hôtelière de Lausanne, then HEC Lausanne. The first ten years of her career were focused on innovative medical services for travelers, alternatively for start-ups and large international groups. She enhanced her key account and management skills by developing markets in Switzerland, England, Israel, West Africa and central and South America. In 2011, while expecting her second son, she completed her education with a Strategic Marketing in Action program at IMD then joined the Ecole Polytechnique Fédérale de Lausanne (EPFL) to develop Key Account Management, first at the Transportation Center then as Vice Presidency for Innovation, working closely with research and the industry for the next 6 years managing and optimizing partnerships with large enterprises based at the EPFL Innovation Park. In early 2018 she backed up the management of the EPFL FoodCenter, and since mid-2018 she has returned to EHL to define the vision, set-up and growth of the EHL Innovation Village.*

The truth about technology adoption in the hotel industry

by **Alan E. Young** 

Change is good – and often needed – but as Puzzle Partner’s Alan E. Young asks: Is it always welcomed? As we witness the gradual (or in some cases, rapid) evolution of new technology, we also witness the adoption process which follows suit. In some cases, new tech is widely celebrated, and in others, it may fall flat or be left behind.



When it comes to emerging technology, it’s the innovators who decide what is built, and the hotel brands who decide what is purchased and what is imperative to operational efficiency – but it’s the guests who ultimately decide what is ‘on-trend’ and worth adopting. The hospitality industry, specifically, has established an exciting momentum over the last few years regarding the gradual introduction of new technology and guest-facing solutions. This includes, but is not limited to, in-room voice technology, augmented reality, texting concierge services, artificial intelligence, keyless entry and so much more. However, the on-going implementation and success of these innovative platforms will rely predominantly on guests’ desire for that solution, and their willingness to adopt that corresponding technology.

Ultimately, it’s the guests who will mandate the current (and future) hospitality trends, which brings us to the question – what do guests really want right now? What are their concerns and hesitations when facing new tech, if any? Are there common barriers to the adoption of new solutions? What trends are currently taking over in wide-spread popularity?

We’re getting smarter

Smart technology is taking over. Just a decade ago, smart hotel rooms and AI-powered concierge or butlers, the Internet of Things (IoT), voice-activated assistants or even virtual travel companions may have seemed like far-fetched concepts. And yet, the rapid evolution and implementation of ‘smart’ technology across seemingly every guest touchpoint has become a reality for modern hoteliers. Studies show that 84% of Millennials rely on voice assistants to make their lives easier for things such as keeping track of their daily schedule and responsibilities. Not only that, but it’s

predicted that by 2020, 50% of all web searches will be conducted by voice. Further, experts anticipate that 85% of customer interactions will be managed without a human by 2020.

A perfect example of this technology at work? Caesars Entertainment properties in Las Vegas are using mobile concierge technology (Ivy™) to offer a 24-hour, virtual concierge experience to their guests. In fact, Caesars is the first major gaming company in Las Vegas to offer a widespread guest text messaging program with built-in artificial intelligence. Upon check-in, those guests whom opt-in are encouraged to text Ivy with any questions or requests they may have throughout their stay. Ivy can book dining, entertainment and spa experiences and facilitate housekeeping and maintenance requests. Ivy also surveys guests during their stay, which allows for quick recovery of unhappy guests in real time.

While this represents an exciting shift, it doesn't come without its unique set of consumer-facing challenges. On the one hand, much of the appeal of smart technology can be attributed to the ease of use which it provides – these solutions are in place to create a more frictionless, convenient and personalized experience. However, these solutions also rely on the collection of user-specific data to function and curate that trademark personalized, relevant experience – and while that outcome is perceived as desirable to modern consumers/guests, it also seemingly makes them nervous. In fact, research shows that 60% of global consumers are worried about a breach on their connected devices and 62% found privacy a principal IoT concern.

So, how can technology vendors and hoteliers remedy these concerns to make way for wide-spread adoption? To proactively address these concerns, smart technology vendors are rethinking security strategies and paying close mind to data-privacy policies in place, to ensure guest information is always prioritized and protected. This has been demonstrated through enhanced security protocols built directly into the product and made visible to users, as well as enhanced authentication methods employed across various platforms.

If It doesn't work, it doesn't work...

A great deal of any hotel's technology budget will likely be dedicated to front-line solutions that help increase staff efficiency and streamline operational tasks. This technology includes new-age CRS and PMS systems, self-service kiosks, mobile apps (for check-in, keyless entry) and more; many of which now boast a robust list of features and capabilities that are sure to appeal to the modern hoteliers and travelers. With the demand for enhanced personalization and a frictionless experience reaching fever pitch, the inclusion of mobile-friendly technology that enhances user convenience is non-negotiable. In fact, recent studies show that as many as 68% of hotel guests want to avoid the front desk by utilizing their smartphones to check-in.

However, the barrier to implementation in the case of operational technology is rather simple – if it isn't user-friendly, and if it doesn't perform in the way that it was advertised, it won't be easily adopted by hotel staff.

The change to (or addition of) a new technology vendor is admittedly often a costly and time-consuming experience. Not only should vendors look to establish on-going partnerships with those hotels who purchase from them, but they must ensure their solution has withstood strong beta testing. Further, those solutions which offer easy training protocols, open integration, and cloud-based security and flexibility are far more likely to be adopted by the hospitality masses. After all, it doesn't matter if a solution sounds or looks great if it can't be executed with ease.

Enhancing travel with VR and AR

Virtual reality (VR) and augmented reality (AR) have become something of a buzzword across our industry – a hot topic shared by industry and tech leaders at seemingly every conference, tradeshow and within thought leadership articles. To clarify, augmented reality is a synthetic, computer simulated reality or recreation of a real-time environment where a user can interact with the replicated real environments, while virtual reality is an entirely immersive experience.

AR can be used to enhance the travel experience in various ways, including (but not limited to) translating local verbiage or language, showing directions and routes to travelers, providing detailed information or updates on behalf of the hotel, enhance a guests' hotel room by making it 'interactive', and so much more. In the case of VR, hotels can utilize this technology to offer 'virtual travel experiences' using 360-degree videos viewed with VR glasses. VR can even be implemented within the booking process, offering a virtual platform in which customers can look for flights, compare prices and book hotel rooms and excursions through a virtual reality headset.

While this technology hasn't been fully explored (yet) – meaning we have yet to observe how readily guests adapt to it on a larger scale, it appears to be a promising trend. In fact, recent studies reveal that 77% of US-based consumers are interested in purchasing virtual reality (VR) equipment.

Hospitality technology has been notoriously slow to emerge and implement, but we have no doubt that this new-found industry momentum is sure to continue on pace with guest demands. With the right testing, security practices and features in place, we can expect to see a continued rise in exciting, new-age technology solutions ready to continuously transform modern travel.

■

Alan E. Young is the co-founder and President of Puzzle Partner, the leading agency specializing in hospitality and travel technology marketing. Previously, Alan has held executive level positions with start-up companies such as Newtrade Technologies, (acquired by Expedia), Hotel Booking Solutions (acquired by IBS Software) and TrustYou. Alan is past Chair of The Board of Directors of The OpenTravel Alliance and has been very involved with other industry associations, most notably AHLA, HEDNA, and HTNG. With over two decades of experience in the travel and hospitality technology world, Alan specializes in helping innovative companies achieve winning performance and dramatic growth.

Moving beyond a day: Enabling innovation and revenue

by **Chris Anderson** 

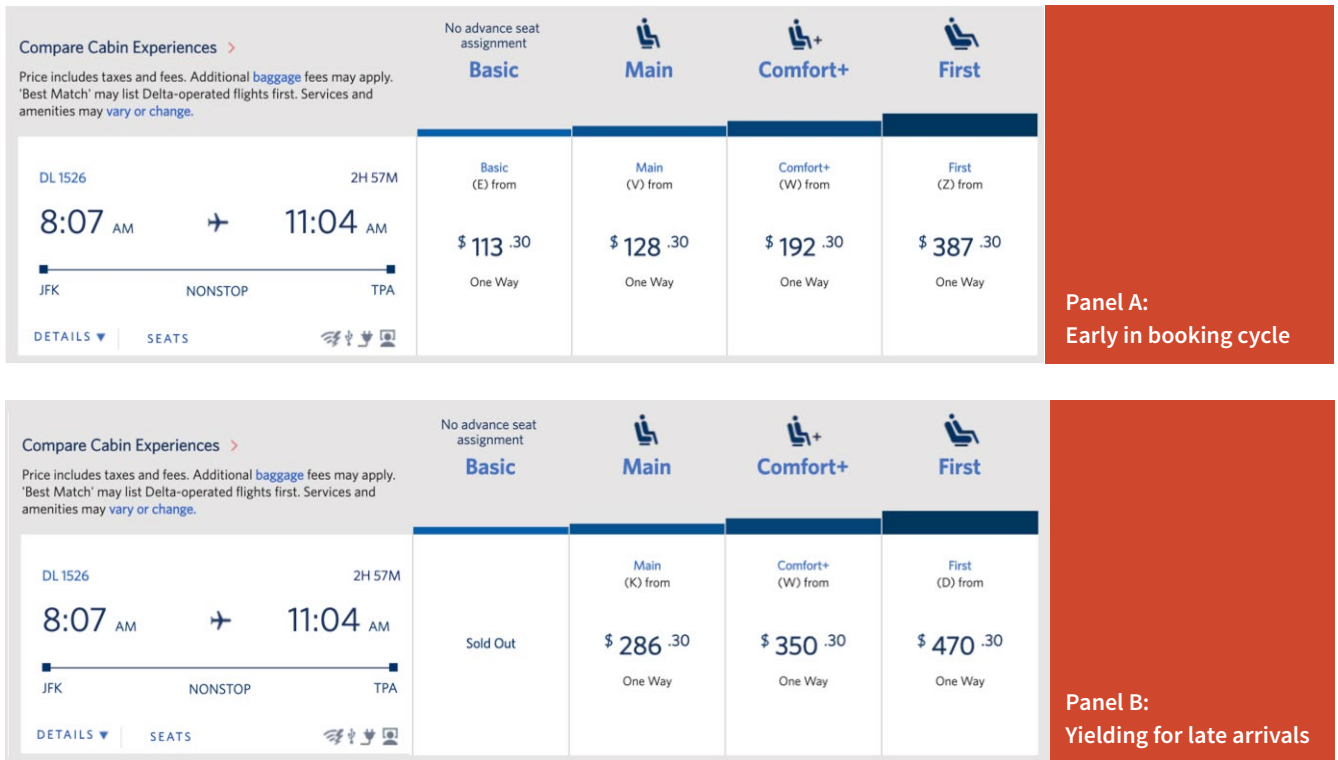
Is it time for hotels to stop thinking of a “day” as the main unit on offer? Changing the temporal unit to something less than a day would allow hotels to fully capitalize on variable pricing, argues Cornell’s Chris Anderson.

Can you recall booking a ticket on a major airline without selecting your seat upon reservation? We of course have exceptions like Southwest Airlines that don’t have assigned seating, but for most major airlines seat selection upon reservation is common and under many circumstances a major revenue driver. The practice of revenue management (RM) hinges upon a firm’s ability to create segmentation of inventory – segmentation across attributes (to create variable prices) and segmentation over time (to create dynamic prices).

Figure 1 shows a set of typical variable and dynamic prices enabled by seat selection. Panel A illustrates a set of variable prices – some of the variability is created by cabin type (First, Comfort+ and Main), and then further variability is created with attributes/fences (seat selection) to create a lower valued Basic product. Panel B then shows dynamic pricing in action as the prices in Panel A are increased as the reservation date approaches the departure date.

Not only is the airline able to segment customers by time (increase prices as we get closer to departure) but also yield the Basic product, closing out inventory to this lowest willingness-to-pay (WTP) product class (avoiding dilution) as inventory becomes sparse and higher WTP consumers enter the market.





Panel A:
Early in booking cycle

Panel B:
Yielding for late arrivals

Figure 1: Seat selection and price dispersion

So, without seat selection the airline would lose a critical lever that allow it to reach customers with lower WTP while *simultaneously* selling to customers with higher WTP at higher prices – essentially the core of RM!

If we reflect on hotel RM, many firms do practice variable pricing enabled RM through pricing of different room types (suite versus standard room, etc...), the addition of fences (fully prepaid non-refundable, stay-pattern controls, etc...), selling mechanism (opaque selling, packages, etc...), along with dynamic pricing (increasing these variable prices as the book date gets closer to stay date). But more often than not many of these attempts at creating price dispersion are ineffective - as differential room types simply become a way to reward loyalty through free upgrades or auto-cancel rebook platforms (e.g. Tingo and TripBam) reduce ability to segment via restrictions and time.

What is the state of seat (room) selection at hotels?

So, we are slowly getting there. Hilton was the first major brand to allow consumers to do room selection at check-in (but not reservation), similarly many technology providers enable seamless connectively of CRs and PMs. For example, Sabre’s new property management system, Property Hub PMS (v4),

uses a common data feed with its reservation platform, Sabre CR – so like Hilton, it should allow a seamless/connected view of inventory at point of reservation. So, the current status of hotel technology would appear on par with our airline counterparts...? The problem though is hotel room selection has two units of measure – room and time whereas airlines just have one (the seat). In current systems the unit of analysis for time is a day and this is the central problem limiting innovation. For hotels to fully capitalize on variable pricing they need to change the temporal unit of measure in CR and PM systems – moving to hours (or finer), breaking a stay down to arrival and departure room/day/hour.

With hotel transactions specified as room/day/hour units an entire new set of (RM) opportunities are created. Hotels can proactively sell unique check-in/check-out times (across all rooms, not just providing a few customers with late check-out on an ad hoc basis). Hotels could proactively capitalize on rooms with unique views and bedding layouts – they could move beyond standardized vanilla rooms and start to offer the variety that consumers crave in alternative inventory platforms (e.g. HomeAway and AirBnB).

↓

Just imagine the incentives created for customers to book direct versus at OTAs – at the intermediary you can sell standardized inventory (with standardized check-in/out times) to the value focused traveler but direct with a seamless CR/PM (RM/CRM) view, unique room level photos, and full arrival/departure flexibility you no longer need to use price to incentivize the direct booker and can start to capture consumer surplus with higher prices for value added features and flexibility.

With variable check-in/out times, hotels could actually run occupancy in excess of 100% as they capitalize on business travelers with short stay durations. Today, for many hotels, non-standardized check-in/out times are an operational nightmare as they are not supported by technology and may require additional staff to make sure rooms are ready and customers are not disappointed. Fully flexible (technology supported) check-in/out reservations, with guests having prespecified check-in/out times are the exact opposite as hotels could more accurately schedule room attendants, front desk, etc... dramatically reducing labor costs as labor becomes better utilized.

Innovation, cost savings, and ADR increases are just around the corner, we just need a little vendor help!

■

Chris K Anderson is a Professor at Cornell University's School of Hotel Administration within the SC Johnson College of Business. He is Director of Cornell's Center for Hospitality Research. His main research focus is on data analytics and its application to service pricing. He actively works with companies, across numerous industry types, in the application and development of analytics – having worked with a variety of online travel agencies, hotels, airlines, rental car and tour companies. Anderson is a recognized expert in the area of hotel pricing, often acting as an expert witness in legal cases involving online travel. Chris is on the Americas Board and the Revenue Management Advisory Board at HSMIA (Hospitality Sales and Marketing International), a non-profit organization focused on improving hospitality sales and marketing practices worldwide. He teaches executives and presents at industry conference around the world on the practice of distribution, pricing and revenue management, as well as teaching Hotel Revenue Management and Advanced Revenue Management and Pricing in the school's executive education program, in addition to custom programs designed for individual firms. He is also author of eCornell's Data Analytics certification program as well as other certificates in Revenue Management.



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Revenue science and the future of hotel revenue management

by **Ravi Mehrotra** 

The evolution of revenue management and success for the next generation of hotel managers are intertwined, not to say inextricably linked, writes Dr. Ravi Mehrotra, founder and president of IDeaS. Based on more than thirty years of experience in the space, he offers observations on how that is so—and where the future may lead.

Where we are today

Revenue management as a discipline in travel was founded by American Airlines with its yield management system in the 1970s.¹ The evolution of hotel revenue management has been much slower—and fraught with fits and starts.

In the beginning, and to an extent even today at many hotels, revenue management meant little more than opening and closing availability and rates. This was fine as a static system in a pre-digital age, and acceptable when the only competition for hotel bookings were...other hotels.

With the advent of online travel agencies, the picture rapidly became more complex. Suddenly there were players in the market who could adjust rates in real time. And increasingly, they could establish customer interaction in the booking path that threatened the very viability of hotel-guest relationships.

This dynamic has only grown more intense.

The core problem is that the legacy systems the industry was built on have not been able to deal with the massive amount of data that must be transported between a property management system or central reservation system and a revenue management system.

In a digital age, that data is the key—and it is growing exponentially.

Old interface technology creates bottlenecks, and traditional property management systems are not able to manage rates and pricing efficiently. The channels still work on the premise of “tell me where you are going and when, and I’ll give you a long list of room types to choose from” as opposed to “tell me the experience you seek.”

All of this will change as legacy systems are replaced with the next generation of interconnected platforms.

Because I have worked for years pioneering models for parallel computing and algorithms for distributed processing, based on data science and artificial intelligence, I have had the opportunity to see the industry from a different perspective. Early on, I became extremely interested in exploiting the power of data science to help organizations make better business decisions. And I believe this model must be applied to the hotel industry.

In fact, data science can be used to improve our problem-solving abilities by helping us explore new ideas and acquire greater knowledge to propel decision-making and, therefore, pricing. And from a certain perspective, that’s what a hotel is—a massive amount of data, which includes room type, length of stay, occupancy and rate trends and much, much more.



About IDEaS

With more than one million rooms priced daily on its advanced systems, IDEaS Revenue Solutions leads the industry with the latest revenue management software solutions and advisory services. Powered by SAS® and more than 25 years of experience, IDEaS proudly supports more than 7,000 clients in 94 countries and is relentless about providing hoteliers more insightful ways to manage the data behind hotel pricing. IDEaS empowers its clients to build and maintain revenue management cultures—from single entities to world-renowned estates—by focusing on a simple promise: Driving Better Revenue. IDEaS has the knowledge, expertise and maturity to build upon proven revenue management principles with next-generation analytics for more user-friendly, insightful and profitable revenue opportunities—not just for rooms, but across the entire hotel enterprise.

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Complex decision-making

Coming from outside the hotel industry originally, I wondered why so many companies rely on guesstimates and gut feelings to make important business decisions. In today's data-driven world, complex decisions in any business encompass far too many variables for the human mind to comprehend and analyze.

With the advent of the digital marketplace, it has become clear that the amount of available data and the ability to process it with machines will continue to grow exponentially, whereas human brain processing capacity remains limited.

I have always been passionate about applying mathematical and scientific reasoning, as well as quantitative data analysis and optimization. This in turn supports complex decision-making in businesses, while removing ambiguity and improving speed and accuracy. Pricing power for hotels follows, as does the ability to forecast better, make quicker, more intelligent revenue decisions—and achieve higher RevPAR.

Sometimes, however, data lies, and big data alone does not tell the full story. Some of the worst business decisions in history were data driven. Big data delivers the numbers, but it is relevant, unconstrained data that delivers true meaning. Any system or tool that forecasts occupancy or optimizes rates

for the future based on historical data from previous years will come up short.

Constrained data does not allow hotels to go beyond the past to see the bigger picture of market opportunity to provide insight regarding true unconstrained demand potential. Unconstrained demand is a term in revenue management to mean the total demand you have for a specific date with no constraints, such as number of rooms in the hotel or the price needed to profit.

Where we go from here

The future is always unknowable. But it's clear the pace of change will continue to outstrip legacy technologies.

For example, businesses have come to rely upon autonomous software agents, computer programs that act for a user or other programs. These agents have the potential to exchange information, goods and services, with other software agents representing consumers, producers and intermediaries.

Such software agents help in all facets of electronic commerce based on up-to-date, real-time information, enabling consumers to be better informed about products and prices. Likewise, software agents enable producers to be better informed about and more responsive to their customers' needs.



How will hotels stay ahead of the trend? I believe human agents and software agents must work together.

Data scientists must create an architecture to enable software agents to work with human agents to provide the deep knowledge of the domain that may not be captured by software agents alone. Imagine the efficiencies and forecasting capabilities that will result in such an environment.

Indeed, hotels and resorts have used revenue management and price optimization for several decades to sell rooms to the right people at the right time for the right price. But it must be done better—with the aid of all the data science at our disposal.

Today, we are seeing a shift in the industry from the practice of pricing products in isolation. This in turn has driven the need to be able to dynamically price and distribute key linked or independent products for the wider market, or specific guest micro-segments, while maximizing profitability of all priceable products.

To determine the full benefits of dynamic pricing, the prices must be adjusted in real time, possibly after each transaction, using sophisticated techniques derived from a combination of sound mathematical models, predictive analytics and game theory.

This is a complex process.

Revenue Science and the Human Touch

Because we know human brain processing capacity is limited, in the future it will take a team of software agents that rely on AI with big-data and machine-learning techniques to address this complexity and bring hotels out ahead. To the extent possible, the process must be automated, so machines do the work they do best—gathering, parsing and analyzing data—under the supervision of capable revenue managers.

When this happens, we will have achieved the true potential of revenue science, taking the principles of revenue management to the next level by combining sophisticated mathematics and deep industry knowledge with automated decision empowerment.

It's important to remember this does not do away with the need for human agents. There will always be a need for human interaction from those with expertise and intelligence to account for various external factors, particularly those factors which the system might not be aware of but would affect the decision-making process.

For example, hotels may find it interesting to consider automated pricing agents such as shop bots and price scrapers. This technology can reset the selling price at optimal intervals based on supply and demand, with the objective of maximizing long-run average profit per unit over time.

Machine learning can also be used by seller agents to learn directly the probability of winning from say a database of bid transactions with known outcomes.

Humans will also be more readily adaptable as circumstances or objectives of the problem to be solved evolve and change, helping the software agents continue to deliver the optimal solutions.

Change Is Inevitable

Ultimately, it all comes down to data—and the quality of the data we can gather from today's complex systems. The faster hoteliers adapt, the more they will be able to drive revenue-enhancing decisions across their internal department silos and create real business-impacting changes to their revenue picture.

The building blocks are in place, and it appears many hoteliers are embracing the principles of revenue science. There are quite a few areas ripe for disruption. In my opinion, there are two main areas we will see a major category shift in the next five years.

First, I believe automation in day-to-day revenue management will become standard, resulting in a higher-order shift of the revenue manager and leader's roles. This is especially true when we deal with inevitable market upturns, and most importantly, downturns. The sheer number and complexity of the daily decisions a revenue leader must make will exceed their capacity, driving them to rely on intelligent automation to ensure they remain competitive in a fast-paced market.

Second, the principles of revenue science will serve as the basis for more and more decision-making across the guest journey. It can provide the hub, if not the major driver, among hotel marketing, distribution and sales systems. I believe we will see players in complementary areas start to link themselves together to drive a more direct connection to revenue, while delivering the right price to the right person at the right time.

The future of hotel revenue management is the intersection between automation applied wisely by revenue managers and the broader principles of revenue science.

■



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Give us a platform we can build on

by **Lyle Worthington** 

Too many software developers in this industry are focused on building a product, writes Lyle Worthington. They still view the interfaces to it, and data inside, as part of their product. Instead, their products should be platforms as well – ones that anyone can build on.



***Lyle Worthington**, CHTP is a hospitality technology executive, advisor, mentor, and world-renowned technology consultant with over 23 years of diverse technology experience ranging from software developer to CIO. He is a CIO advisor to multiple global hospitality brands, the CIO of The Student Hotel based in Amsterdam, and Past Global President of HFTP. He has served on and chaired several boards, committees, and councils specific to the hospitality industry, and has been an active voice for technology in hospitality for over 13 years. He regularly speaks at global technology and hospitality industry events and has written numerous articles for hospitality technology printed and digital publications.*

Integrations should be viewed by software developers as a way to add value. It is a way for companies to make additional money, extend the functionality of their product, and provide a better overall environment for their customers. Unfortunately, it is still too difficult to build things on top of much of the largest and most critical hospitality software. Interfaces exist, but many are built on requirements from a decade ago with limited datasets. Systems still require their own copy of data and have varying data models and internal processes that manipulate it, with no exposed APIs that allow 3rd parties to initiate those internal processes. This makes keeping data in sync and extending applications with products that also have either a subset or superset of that same data very difficult. We are still plagued by long and painful certifications, missing APIs, slow responses, extreme costs – we are trapped in a legacy interfacing world.

Too many software developers in this industry are focused on building a product – an application, or set of applications. They still view the interfaces to it, and data inside, as part of their product. These applications, however, as robust and advanced as they may be, are built based on a finite set of business requirements; they can never be as flexible and future proof as the modern digital-focused companies need. These software companies will always be chasing new functionality and putting out new features, but perhaps not fast enough, nor in the way your current and future customers need. This old model ties hoteliers into limited software, failing to give them the option to extend it in all the ways that they really need.

I'm not asking you to minimize or devalue your product, because your product is an important part of the equation. I'm asking you to make your product also a platform that anyone can build on. Look at Facebook, Salesforce, Apple, and Google for example – they all sell products that are (one could argue)



very important, but with them also comes a platform you can use to extend their products, build on top of them, or integrate parts of them within your own product. This decision weaves their products even deeper into their customer's lives, making them much stickier and thus, more future-proof and much more valuable. I know people who considered deleting their Facebook account, but stopped because of how many other applications rely on Facebook to authenticate.

Now, of course the question arises - How do you make your product a multi-faceted, evolving platform that can be expanded and built upon?

- You should have a developer portal with your APIs properly documented and a test environment that people can try out.
- Even if you spent a long time working on your own internal modules, it still might not work properly for everyone. If you allow others to build their own on top of your product, there's a better chance they will stay a customer. Try to stop everyone from using better tools for their business, and you'll lose customers. You shouldn't care that not every module you sell is perfect for everyone, you should care that you've extended the life of your product by letting customers build more on top of it.
- It shouldn't matter to you where the data comes from and goes, or who your customer views as the system of record for particular data objects. Give access to all of the data in your product to your customers. Everyone will use it a little differently - and this is a good thing for your product!
- Enough with the onerous interface certifications. It is my data in your system, so if I build something using your APIs and screw up my data that's on me and me alone. On the

opposite side of the spectrum, if I buy a 3rd party product and they screw up my data - that is on them. If you properly authenticate and log the API requests, and your customers (and third parties) agree to accept responsibility for their own actions, you have done your part.

- If I HAVE to certify then fine, but let me certify my middleware product's "Update Profile" API to your software one time, and then build whatever services on top of that certification that I need, or connect any other system that consumes that API that I choose. If the end resulting Update Profile message is correct, it shouldn't matter what happens behind the scenes, so let my middleware enrich and enhance messages flowing between all systems as I see fit.
- If you're worried about losing interface revenue, then consider adjusting your interfacing business model to charge for API access and for blocks of calls instead of for specific interfaces and support.

Lastly, this is also a call to all the hoteliers out there. Stop being afraid to build and invest in new companies and new ideas. Stop accepting limitations in software that force you to adapt your processes that hurt your productivity and negatively impact customer (internal and external) happiness. You should be pushing all of your vendors to embrace new models for integration instead of tolerating limited P2P interfaces and all the headache that comes from them. Consider a middleware architecture, and look into how you can enhance business flows and data exchange with microservices. Be a builder, demand a platform you can build on, and extend it with the best of breed solutions that work best for you.

Cutting back on wait times: How hotels can save months of time with the right PMS

by **Uli Pillau** 

Apaleo's Uli Pillau walks us through the criteria and benefits of choosing a PMS wisely.

Someone recently told me that humans spend approximately six months of their lives waiting in line for things. Six full months. Those stats might double for hoteliers, if you consider the long wait times for getting a PMS live and the ridiculous queue for interface installations.

If you're one of the many hotels or chains out there that is trying to get a new PMS up and running, but you are told from the vendor that the lead time will take two, three, or more months for an installation date, plus extra time (and cost!) for interfaces, plus a queue for training dates, then it might be time to drop that vendor. Instead, consider a next-generation vendor that can offer the following:

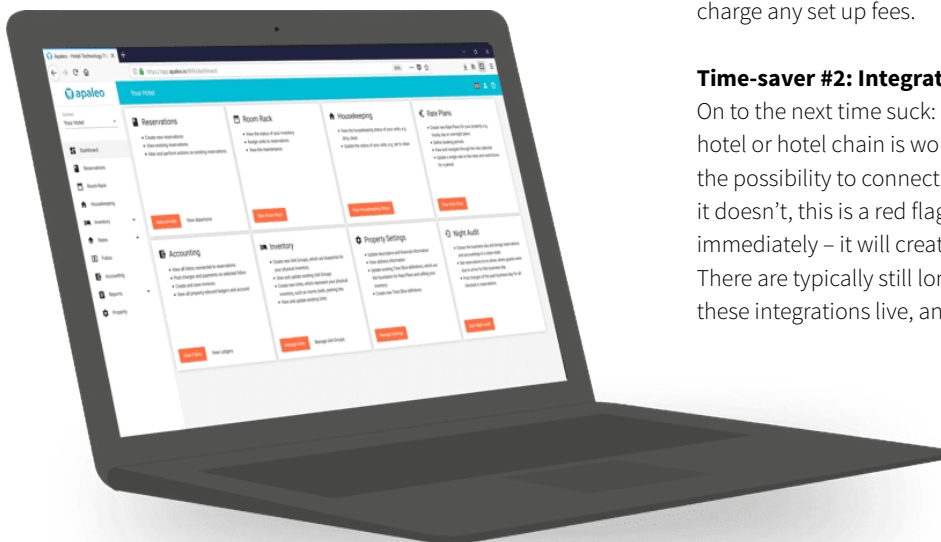
Time-saver #1: Installation

Long wait times for installation and go live are a thing of the past. A couple of days is a reasonable time to get your hotel live and running. Depending on your hotel's set up, this time could be reduced to a couple of hours or even minutes. Or, if your hotel feels so inclined, your vendor should allow you to take your hotel like yourself! This is not a thing of the future – you can test it yourself with apaleo.

Part of the reason that the next generation PMSs can reduce installation times so drastically is because the entire activation can be done remotely and with minimal effort. Which brings me to another important benefit that comes as a byproduct of reducing time and complexity to get a system live: there is no longer a need for setup fees, which can cost a hotel thousands of euro. Savvy hoteliers should seek out vendors which do not charge any set up fees.

Time-saver #2: Integrations

On to the next time suck: integrations. Let's assume your hotel or hotel chain is working with a vendor that does have the possibility to connect your favorite systems to its PMS (if it doesn't, this is a red flag, and your hotel should reconsider immediately – it will create tons of problems in the future). There are typically still long wait times associated with getting these integrations live, and they also come at a high cost.





About Apaleo

Hotels need the right technology and systems to manage all the complexities of their business. At the core of these systems is the property management system (PMS), which manages hotel inventory and reservations, rates, accounting, invoicing and payments, and more. Then there are all the additional systems like CRM, CRS, upselling, review monitoring, distribution and channel management, forecasting, business intelligence reporting, and so forth. Hoteliers rely on all these tools yet struggle because many of them don't integrate.

apaleo's PMS platform connects all these systems quickly and seamlessly. As the first PMS which is purely based on a fully open 2-way API, hotels can grant applications access to all the information stored in apaleo, as well as allow them to write back data to the PMS. apaleo's public API allows hoteliers to innovate without major risks, integration hassles, long wait times and hidden fees. Developers and software vendors can easily connect to apaleo, and hotels can even develop their own, custom apps with ease. Applications are housed in the apaleo Store, opening the possibilities for hotels to connect to pre-integrated, innovative apps - guest facing or staff facing - with one click. .

www.apaleo.com

One hotelier that I spoke to recently had been waiting for nine months on a key integration, and there was still no timeline in sight. When your entire system depends on having these integrations live, this kind of a wait time is unacceptable.

What's the solution? Find a PMS vendor that connects with ease and doesn't charge integrations fees. apaleo, for example, comes with a pre-connected store where hoteliers can simply click to connect systems – no wait times, no extra fees. And, if a system isn't there yet, the connection can be built with minimal effort. This is only possible when the PMS is built on an open platform with a public API.

Time-saver #3: Training

Once your hotel can go live with a new PMS and all the integrations, you often face another period of waiting and hidden costs. This one comes in the form of training. Because the PMS is complicated to use, hotels often must schedule days for training and support. Coordinating this can take weeks or sometimes months, and it comes at a cost, in terms of fees, travel expenses, and man-hours wasted. Reduce this time and eliminate the cost with a PMS that is simple to use and can offer training and support remotely and through guides, exercises, and webinars.

Time-saver #4: Automation

While we're at it with all the time saving, let's talk about what happens when your entire system is live and running. There are a lot of repetitive tasks that your staff perform manually, day in and day out. Things like check in/out, manually entering payment details, night audits, etc. These things cost your staff (and in some cases, your guests) time, and they are prone to

human error. So, find a vendor that allows your hotel or hotel chain to automate these tasks. It will save time, make staff more satisfied, improve your guest experience, and keep more money in your hotel's pocket.

Bonus round

The next generation of PMSs, like apaleo, offer much more than just time savings. Costs are drastically reduced, with no need to pay set up fees, integration fees, or consultants to help with set up and training. Because integrations pains are removed, hoteliers also get the freedom to test new systems or tools without any risk, allowing for more custom, innovative combinations of technology at the hotel as well as systems that better support the digital guest journey.

We all spend enough of our lifetime waiting. Let's remove wait times (and unnecessary fees!) wherever we can, particularly in business where waiting can cost money. Find a PMS vendor that isn't going to make you wait.

■



The direction of hotel technology beyond the convergence of CRS and PMS

by **George Roukas** 

Your future hotel technology will have more in common with your smart phone than with the hotel technology systems you're familiar with today, writes Hudson Crossing's George Roukas. The ongoing evolution from platforms to entire ecosystems means that you'll not only get the basic benefits of converged systems (lower latency, no synchronization errors, better security, etc.), but you'll also get completely new capabilities. He outlines them here.

Much has been written recently about the convergence of central reservation systems and property management systems. There are two reasons for all the writing: first, because it represents such an improvement in how hotels process their bookings and manage stays, and second because we've been waiting for 25 years for these converged systems to appear. Now that it looks like they're finally going to happen, we have to ask: "what's next?"

We'll try to make the case that your future hotel technology will have more in common with your smart phone than with the hotel technology systems you're familiar with today. Hotel technology will evolve from applications to platforms to ecosystems, and the changes will be profound and exciting.

Why so fast?

You might ask why, after 25 years of waiting, do we have to jump right into the question of what happens next. Can't we let things settle in a bit? Well the answer is no, primarily because the same technologies that are enabling us to get those converged CRS/PMS systems will continue to push us forward like never before. This time around, the future is coming fast whether we're ready or not, and it's creating a unique, new playing field where past leaders can be pushed aside to make room for new entrants.

The recent history of cloud computing explains a lot

The technology that's enabling all this disruption is cloud computing, and it lets software vendors do some pretty amazing things. To get a feel for how it facilitates converged systems and platforms, have a look at figure 1. This application stack represents all of the things an application developer would have had to worry about building back in the early 90s. By the end of the 90s, hosting companies offered to provide a commoditized version of the green layers at the bottom of the stack: tell us what hardware you need and we'll deploy and host it. Developers were quick to adopt these services because prices were reasonable, and they allowed them to deploy more people to the rest of the application.

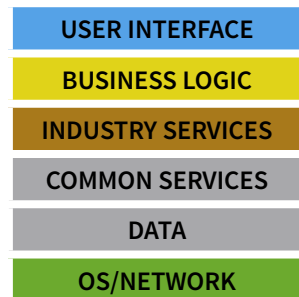


Figure 1:
An old school application stack

In 2006, Amazon Web Services appeared, and it offered a commoditized version of both the green and the gray layers, where the latter include things like database storage, computing power, and memory services. This made application developers giddy because it meant that, in deploying the cloud, AWS would take care of things that live in the gray layers like availability, scalability, and performance that had long been real sore spots for developers. Offered at a reasonable cost, this



On the right, we have a converged, cloud-based system where there is only one set of shared rates, availability, inventory, profiles, and all of the other common components between CRS and PMS. This is a big deal, because if these common components can be shared between CRS and PMS, then they can also be shared with RMS, CRM, and other hotel systems. There is only one set of data structures (like bookings, folios, and profiles) and one set of common services to create and manage them. Remember that if you build this shared repository in a cloud environment using all the same services and data structures, then the cloud takes care of scaling, performance, and availability no matter how many applications you pull together.

What do we mean by “hotel technology platform” or “ecosystem”?

When we refer to a hotel technology platform, we mean an industrial-strength set of converged applications that all use the same core services and data structures. These platforms can be extended to many different types of applications, but they all share the same core services and data.

Platforms offer lots of advantages over full stack applications, but the magic really happens when the platform vendor opens their platform up to allow other vendor’s applications to operate on it. That’s what we refer to as an ecosystem, and it offers a huge leap above even the platform model.

Let’s stop and think about why this is a big deal. From the developer’s perspective, if you’re working on a platform, then that platform is providing everything in the lower 5 layers from figure 1, and you only have to focus on the top two layers which, not coincidentally, are the layers that provide the most value to customers. This is where you design all the differentiating features and benefits your application will

allowed developers to save even more time they could devote to the higher value layers at the upper end of the stack—and it allowed for new ways to design applications that made convergence easier. To see why, let’s take a look at a few more diagrams.

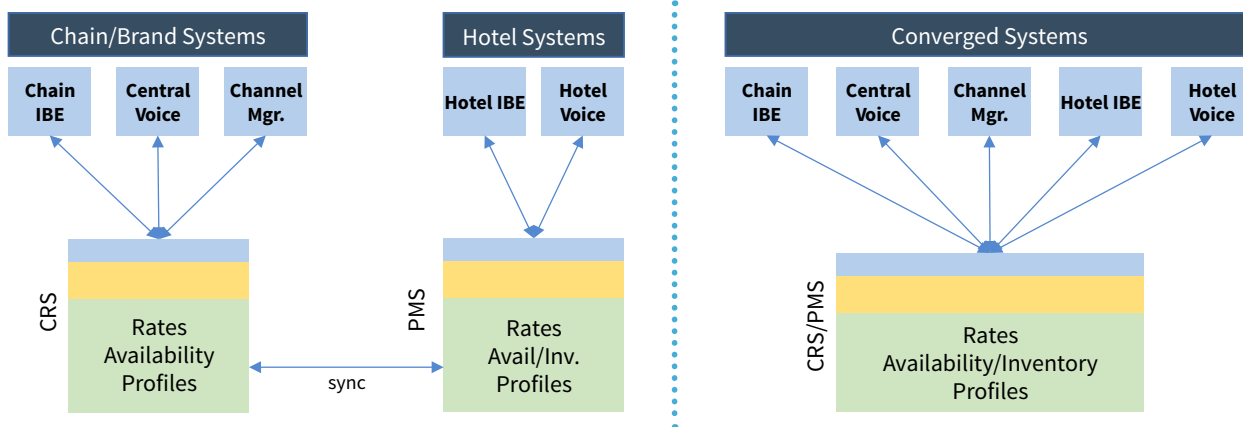


Figure 2: Traditional systems (left) vs. converged

In figure 2, we can see the mess we typically have to deal with today when independent systems like PMS and CRS have to exchange information. Note that there is a synchronization routine that (theoretically) ensures the two systems agree and each system has all of its own data. Sometimes it works.

provide your customers and the user interface to make them visible. If you previously had to staff up for those bottom layers, you’ll now have those resources to work on more valuable things for your customers. Conversely, if you decide to cling to the full stack development model and your competitors are on a platform, they’re going to pass you by with new features and capabilities like you were standing still. For developers, this is definitely the way to go.



What are the benefits?

For hotels, the story is even better. Not only do you get all the basic benefits of converged systems like lower latency, no synchronization errors, and better security—you'll get new capabilities you haven't had before. Here are a few that can happen on a multi-vendor platform, or ecosystem:

- **A real A/B testing method of comparing two systems of the same type**

Let's say your current internet booking engine doesn't convert well in a certain geographical region and you want to test another vendor's IBE in that region. If both IBEs are in your ecosystem, you can just provision the new one to operate in your problem region and they can both run at the same time, sharing the same data, so you can actually compare results. If you've ever suspected that your current vendor is selling more sizzle than steak, now you can compare apples to apples and find out.

- **Sharing data between systems without laborious interfacing**

Since these applications are using the same data and accessing it through the same set of services, there is no need to interface, or pay insane amounts to vendors to certify the interface, or keep you waiting 6 months until they have someone available to test your interface. (Had to get that one off my chest!)

- **Migration nightmares are essentially a thing of the past**

Remember those days when you wanted to switch from one application to another, but the thought of migrating a few hundred hotels from one system to another left you with cold sweats at 3 a.m.? There's no migration for the common data structures because they're already there in the core. Sleep tight.

- **Platform providers have an incentive to provide the very best industry services**

If you're going to run a platform or ecosystem, your focus is no longer on the applications, it's on the core services. That means all those common services like managing rates, availability, shopping, booking, etc. are going to have to be top notch or the better application vendors will go to another platform that will make the investments.

- **You'll get the ecosystem "mega-enhancements"**

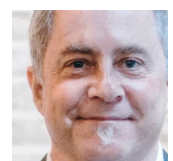
A good example of this is attribute based shopping, or ABS. We've seen really aggressive development of ABS among vendors and a parallel interest in hotel companies in the 18 months since we produced our [white paper](#) on it. We've also seen how difficult it has been for vendors to iterate with their designs to get it right—ABS is hard, and some parts of it will be very hard, with companies spending tens of millions of dollars to build it correctly.

The companies that have had the most progress are the ones with the deep pockets and determined management. ABS represents a capability that hotels will want to exploit and many non-platform vendors will find difficult to build, or they will build low-power versions as a marketing checklist item. Either way, we expect to see features like ABS as part of the draw to align with a top-tier ecosystem that already has it ready to use.

We could go on, but we're reaching the word limit on this article and we hope you've gotten the drift. Platforms will provide application developers and their customers with great benefits, and those that extend their platforms to other vendors to create ecosystems will drive even more value for their customers and earn the loyalty of the hotels that use them..

■

[George Roukas](#) is a senior executive with in-depth experience in product management, technology and competitive strategy. Prior to co-founding Hudson Crossing in 2007, George was formerly Group Vice President of Product Management for Travelport, where he led the strategy, development and management for all products facing Galileo's North American agency partners. Prior to Travelport, George held the role of Vice President of Product Management and Strategy for Cendant Travel Distribution Services' Supplier Services group. Prior to that, he worked through PhoCusWright as a consultant to several well-known travel companies, primarily in the area of web site usability for e-commerce. George holds a Bachelor's Degree in Mathematics from Montclair University and an MBA from New York University Stern School of Business. He is based outside Atlanta, Georgia.



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Why associations matter

by **Michael Blake**  & **David Sjolander** 

Ever wonder what all the hotel industry associations out there do? Michael Blake of HTNG and David Sjolander of OpenTravel Alliance walk us through the maze of acronyms and explain why they are an indispensable part of the industry landscape: they're in it for the long-haul, and their continued success depends on serving the needs of their members

Did you know that there are more than 70,000 trade and professional associations in the United States alone? That doesn't even touch on the rest of the world. There is seemingly an association for everything; the Association for Dressings and Sauces, the Association for Gravestone Studies...How about the Association for Renaissance Martial Arts? There's even an Association for Associations.

Associations operate somewhat under the radar unless you are part of the staff, board of directors, or another leadership committee. Then you realize the importance they play in society and business. Our industry is also rife with associations, and with many "Hs" in their acronyms, it is easy to confuse them.

These organizations get mixed up all the time, even by engaged members, but each association has a slightly different mission and purpose they bring to the industry.

With life spans of 16 and 20 years respectively, HTNG (Hospitality Technology Next Generation) and OpenTravel Alliance (the associations that the authors represent) are the two organizations that have developed software interoperability standards for the travel ecosystem. The primary difference is that OpenTravel Alliance does only this, but across all travel verticals, including hotel, air, rail, car rental, ground transportation, etc. HTNG mainly focus on the hospitality sector but is more broadly involved in all aspects of technology.

In the hotel distribution area, HTNG and OpenTravel have always worked very closely together, and HTNG distribution standards use OpenTravel standards as a framework. HTNG messages even include "OTA" in the message names, which refer to the OpenTravel Alliance and not Online Travel Agents.

As a next step in this close relationship, the HTNG staff began managing the OpenTravel Alliance in late 2018, with David Sjolander acting as Executive Director of OpenTravel along with his duties as COO of HTNG.

Three other closely-aligned associations are HFTP (Hospitality Financial and Technology Professionals), HEDNA (Hotel Electronic Distribution Network Association), and HSMIA (Hospitality Sales and Marketing Association International), all of which are older than HTNG and OpenTravel. (Notice all the "Hs"?)

Each association was formed to solve a problem or fill a gap in terms of education and professional development, the creation of standards, or to solve overall industry problems. The common elements of all of these associations are to provide a place for networking, learning from peers, developing relationships, and, in the end, improving the industry. Have you ever noticed that people rarely leave our industry until they retire? Once they are in it, they tend to stay in it because it is a great industry and because of the social networks they have formed. Associations can't take all the credit for this, but they are certainly a major factor.

If you don't feel engaged in the industry, join one or more associations and get involved. Joining alone, though, won't accomplish anything; you must volunteer for committees and working groups, attend conferences, and even serve on a leadership council. Through association volunteering, you can also develop your leadership skills and visibility in the industry.



MICHAEL BLAKE



DAVID SJOLANDER

So, what does the future hold for our cadre of industry associations? While each of our missions is different, there are overlaps in what we do. The big identifier here is that we each produce conferences...too many conferences. Even though we are non-profits, we do in a way compete for member dues, volunteer time, and conference attendance and sponsorship. We all need to survive and prosper, but also recognize that we have a higher purpose to our industry. In the future, you will see more collaboration on conferences, including having fewer, higher quality events. You will also see more collaboration in workgroups and projects such as the Open Payments Alliance (OPA) Standards workgroup that was announced jointly by HEDNA, HTNG, and OpenTravel.

To improve collaboration and reduce overlap, HFTP and HTNG have taken the lead in reestablishing the Hospitality Technology Strategic Initiatives Council (HTSIC), which is a group of nine industry association leaders who meet periodically to sync up on activities and strategies. After a five-year absence, this group will begin actively meeting and working together in 2019.

Eventually, you may see mergers between associations if they can continue to serve their mission and their members. Unlike for-profit companies, we don't have owners with a profit motive, hostile takeovers, or shareholders that look at quarterly results. We are in it for the long-haul, and our continued success will depend on serving the needs of our members.



***Michael Blake** is the CEO of HTNG. He previously served as the CIO of Commune Hotels & Resorts, encompassing Joie de Vivre, Thompson, Tommie and Alila Hotels. He provided strategic leadership and sound perspective to contribute to the management and evolution of Commune's global IT functions. Michael was previously the CIO for Hyatt and set the global technology direction for their global footprint. Michael has over 20 years of experience in finance and technology in various roles with First Data, Kaiser Permanente, Sears and United Airlines. Michael holds a Bachelor of Science in Accounting from the University of Utah, received his MBA in Finance and Economics from the University of Chicago Booth School of Business and also his MS in Information Technology from Northwestern University. He also maintains several credentials and licenses: CAE, CPA, CMA, CISA and CITP. Michael served as a member of HTNG's Board of Governors since 2009 and held the Treasurer position for many of those years.*

***David Sjolander** is Executive Director of the OpenTravel Alliance. As Chief Operating Officer, he is responsible for driving the operational execution of HTNG's mission. David is a lifelong hotelier with deep background in hotel technology, distribution and operations. He has held senior executive positions with several industry suppliers, such as Pegasus, TravelClick and Fidelio, as well as leading hotel chains Carlson Hospitality and Hyatt. David holds a bachelors degree in Hotel and Restaurant Management from the University of Denver and an MBA from Golden Gate University in San Francisco. He also serves on the Executive Advisory Board of the Fritz Knoebel School Of Hospitality Management at the University of Denver.*

The future of the CRS

by **Gautam Lulla** 

We're seeing a dramatic shift in the hotel distribution landscape right now. For the last decade, writes Travel Tripper's Gautam Lulla, there's been a boom in the number of new hospitality technology providers entering the market. These companies introduced fresh ideas and products into a tech landscape that had long been stagnant. We've now reached a point of maturity, and the industry is moving toward a "platformization model."

Through mergers and other strategic consolidations (including the recent one between Travel Tripper and Pegasus), solution providers are upgrading their technology, expanding their product suite, and offering hotels interconnected solutions rather than individual niche products. Tech companies are finding that the most efficient way to help hotels conquer problems inherent in the legacy "tech stack" is providing a single source for connection and interconnection, rather than points of entry provided via disparate solutions.

Hotels have often been slow to adopt new technologies, so this exciting shift will benefit the industry. But in the race to create the overarching platform, many big companies use their size and strength to shackle hotels to outdated solutions (such as charging exorbitant integration fees), rather than bringing new ideas and products to market.

This must change.

Traditionally, CRS solutions were evaluated primarily based on their ability to connect with a variety of third-party distributors, starting with GDS and travel management companies, and later OTAs and metasearch channels. Direct channel applications, such as the booking engine, have long been neglected.

With third-party distributors taking heavier commissions each year, hotels have realized the importance of strong direct channel business as part of a profitable revenue strategy. However, most CRS providers haven't kept up with the times, leaving hotels with a lack of tools that would help maximize direct bookings.

The role of CRS in direct channel e-commerce

For many CRS companies, the "direct distribution" application is the booking engine. Period. Rate plans and availability from the CRS are distributed to the booking engine in the same way they're sent to third-party distributors.

The problem is, the booking engine isn't where guests start their booking journey—it's where it ends. This is where hotels miss opportunities to use the CRS to optimize for direct bookings. Before the merger at Travel Tripper, this was the question that drove our development process for years: How can we use the CRS to help hotels 'be direct'?

Most hotels invest separately in a website and simply link the website to the booking engine. The platforms serve separate functions: the website sells the features of the hotel, while the booking engine sells prices and offers. But the guest only sees it as one website, and they want features and pricing upfront. So pricing should be immediately available on the website, without having to enter dates into the booking engine.

To prove their website has the best price, many hotels use third-party price-checking tools to compare their rates against the OTAs. But when this technology is embedded within the CRS, not only can the platform check if it has the best price, it can beat the best price by creating a bookable rate match offer, essentially automating a hotel's standard best rate guarantee.

In addition, real-time data no longer has to be confined to websites and booking engines. This data can now be used to power digital marketing tools like Real-Time Ads for Google search, Facebook Dynamic Ads for Travel and metasearch direct connects, allowing hotels to reach guests more effectively throughout their booking journey.



By rethinking the role of CRS in direct distribution, the industry can re-open the conversation on innovation in hotel e-commerce and marketing, including the development of effective platforms and tools.

Using the CRS to break down data silos

E-commerce isn't the only place where the CRS can innovate. In enterprise applications, the CRS can and should serve as a foundational platform for combining traditional data silos and integrating them to create a 360-view of the customer. During a recent project for a leading casino hotel, we built a call center application on top of our CRS that integrated their PMS, revenue management system, loyalty program, and CRM into one dashboard view.

Previously, the call center agents had to cross-check multiple applications and dashboards to access the right rate plans for their call-in guests. But now, they can do it all from one streamlined view, collectively saving the center thousands of hours in call time each year and delivering an enhanced guest experience.

As hotels increasingly adopt new technologies to power different parts of the business, one of today's biggest challenges is to bring these data silos together. The tech providers that lead the way will be those that promote open access to APIs and provide the flexibility to integrate different solutions, or build entirely new applications. With the CRS serving as the core of every hotel's revenue and distribution strategy, there's plenty of potential in this space to build the platform of the future. We are glad to be part of the conversation to lead the industry forward!

■



About Travel Tripper

Travel Tripper is a hotel tech provider and strategic digital partner helping hotels worldwide to optimize their direct booking channel and maximize overall revenue. Known in the industry for its constant innovation and exceptional expertise, Travel Tripper provides a comprehensive suite of solutions that empowers hotels from search to stay, including CRS and booking engine, website design and development, and e-commerce and digital marketing management.

www.traveltripper.com




About Pegasus

Pegasus is a leading global technology provider empowering independent hotels, hotel groups and large chains to grow their reservations businesses in a digital world. The company provides a comprehensive offering of cloud-based Software-as-a-Service (SaaS) solutions and services designed to help hoteliers connect with their guests, increase profitability and maximize productivity. Pegasus combines its highly scalable and reliable reservations platform with representation and demand services, uniquely enabling hoteliers to sell to guests worldwide across all touch points.

www.pegasus.io

Is your hotel using its website to its full potential?

by *Michael Toedt* 

The website is crucial for a hotel to market itself and a vital booking channel. Yet, most hotel websites aren't being used to their full potential, writes dailypoint's Michael Toedt. The reason for this is simple, the possibilities are unknown, or the wrong models are used.



Unlike other industries, where big international companies serve as role models, hoteliers should refrain from using the websites of the big chains as benchmarks.

If a consumer visits the website of a hotel today, then the reason is not difficult to guess. He wants to get information. He is most likely in a buying-critical phase. But what happens on the website when the visitor leaves the website without booking, whether only chain or individual hotel, whether luxury or budget? Generally, nothing! If at all, remarketing campaigns with banner advertising try to bring the visitor back to the page. However, nearly 25% of consumers now use ad blockers which prevent advertisements from displaying in their browser, so those advertisements aren't always seen. And, often, these advertisements will still run even if the guest has booked, which drains budget and resources.

The situation is different when you visit the websites of online travel agents or shopping providers. Every effort is made to identify specific details about the visitor, which can be used to fill in a complete marketing profile of that person. With this data, the website can be tailored to that user's preferences, booking patterns, and more. Concise advertising messages are then used to promote registration, offer relevant discounts, and retarget the user with exactly the information that he or she seeks out. This personalization significantly increases the likelihood of booking.

The cost to create and develop a good hotel website can quickly add up to tens of thousands of euro, even for an individual hotel company. Then, the hotel must promote itself, which



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dailypoint™ is a leading #abovePMS solution. With dailypoint™ hotels can graft raw data into an asset, meaning a deep knowledge of each single customer. The patented data cleansing processes in dailypoint™ are the key to combining all important data sources like PMS, e-mail newsletter, hotel website, feedback system, WIFI and many more. dailypoint™ utilizes AI (artificial intelligence) and most modern machine learning algorithms to learn constantly more about the guests. The solution consists of 16 applications (apps) to provide a one-stop experience. Instead of running multiple un-connected systems, dailypoint™ users have everything in one solution. dailypoint™ is headquartered in Munich, Germany and has representations in Singapore, Malaysia, Vietnam, China, Taiwan, Hong Kong, Australia, India, UK, USA and Dubai.

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quickly devours an additional 1,000 to 2,000 Euros a month. And, consider that the lifetime of a hotel website is roughly three years, then these costs repeat themselves all over again. One should therefore think that the hotel industry also tries to exploit all the potential, especially since direct sales are being propagated everywhere as a central sales target.

So how does a hotel identify a visitor on its website? First, there is the IP address of the device, which can show where your users are coming from. But that isn't enough. Logging in to the site can help to identify the person. Cookies can then be set to connect the guest's details to the IP address to complete a fuller guest profile. This is what makes OTAs so good at targeting their users.

By identifying the person, their profile can be enriched with surfing behavior. This means that the visitor can be assigned a given attribute, for example, the visitor has looked at rooms but did not book. The hotel could then support the visitor in their booking journey by email marketing, offering a booking discount, upgrades, and more. Depending on the visitor's browser settings, the website can identify that user for several months and react accordingly. This is all simple to do with a proper website setup, coupled with a strong CRM and booking engine like dailypoint's.


Following a booking path isn't enough. The hotel can further enrich the guest profile and create more tailored communication by tracking the visitor's interest. For example, if the potential guest visits the spa page several times, this should be added to the CRM and used to customize offers

automatically (eg. in newsletters sent from dailypoint). The hotel can take it a step further by customizing certain content in the website for the user based on his or her interest. Even pictures can be edited (eg. use the family picture with playing children for a guest that travels with family, but not for a couple looking for a romantic getaway). Necessary for this is a central platform like dailypoint, in which all data flows in, and is connected between the hotel's PMS, website, email platform, and more. The term for this is called Central Data Management (CDM), which is simply a data hub or a next-generation CRM.

The connection between website and CDM takes place via interfaces. Unlike many think, the connection is usually no problem, so long as the provider offers a public interface (API). This is usually published on the website and any experienced website programmer can hereby independently and thus inexpensively integrate the data.

Sales success in the age of digitization is not a question of budget, but rather a knowledge of the opportunities offered. If the hotel industry does not want to lose further ground, hotel managers should take an example from the online travel agents and learn from them. Then, take steps to personalize and get to know their guests. More bookings are sure to follow.

How hardware-agnostic POS systems can solve the end-of-life issues once and for all

by **Nikkie Randhawa-Singh** 

Thinking about upgrading your current POS system? Before you do, consider the golden rules outlined here by Shiji's Nikkie Randhawa-Singh.

From Point-of-Sales to Point-of-Services

At its core, a Point of Sale system (POS system) is simply a system used by companies to process and record transactions and by customers to pay for goods or services. At a closer look, the definition of POS is inadequate to say the least, as these platforms do much more than just processing transactions. That's why, in recent years, Point of Sales has been referred to as RMS (Retail Management Systems) or Point of Services, names that better fit the suite of tools that modern systems offer.

Some history on POS systems

These suites are the natural evolution of the old Electronic Cash Registers (ECR), a technology that is been around for decades. Already in the early '70s, IBM launched the 3650 and 3660 systems, using (for the first time ever) client-server technology and P2P communication via LAN, while McDonald's was among the first restaurants to use a microprocessor-controlled ECR. The '80s marked the evolution of ECR into the GUI-systems we are familiar with today and introduced touchscreens and widget-based interfaces. With the new era, the rise of cloud computing made it possible for POS to be accessed directly with a click via a simple browser, anywhere, anytime and virtually on any device.

A vertical industry

POS systems are used by different industries, which is why POS providers tend to be extremely vertical. A hotel has different needs from a wellness center to F&B outlets. A good restaurant POS should be able to generate guest checks, send orders to the kitchen in real-time, process payments, manage inventory, stock, vendors' orders, and financials, aggregate data in reports, create programs for loyal customers and support digital

signature. Not unlike Property Management Systems (PMS) for hotels, a good POS should be the heart of any successful restaurant, helping to remove friction between departments, enhancing customer experience and, consequently, increasing profits. But, exactly like PMS, finding the right system for your needs can be a painful experience.

Investment amortization and end-of-life announcements

One of the intrinsic, though underestimated, risks of choosing the wrong POS system is technology obsolescence.

With on-premise solutions and systems that are built for specific hardware, this problem is inevitable. Due to the rapidly changing world of computer hardware, such systems will become obsolete.

As cloud-based systems made the old on-premise platforms outdated, most of the established POS vendors had to review their approaches, sometimes by taking drastic measures such as shutting a whole system down. The main problem with proprietary on-premise systems is that they tend to have a shorter life cycle when compared to hardware agnostic, cloud-


A SHIJI GROUP BRAND



based alternatives, that are virtually immortal, as they do not suffer from the limitations of the underlying technology. This unavoidable decline of technology is usually referred to as EOL (end-of-life). EOL announcements can have a dramatic impact on a company day-to-day operations (staff retraining, new system learning curve, etc.), as well as on profit: as POS systems tend to be a long-time investment, getting stuck with a system that is being withdrawn from the market means not being able to amortize it.

Why cloud-based systems are safer

A major reason cloud-based systems are a safer bet in the long run is that the essential parts (the data) are stored and managed separately from the end-user input terminal. So, when systems need a different input method, the user interface can be added while plugging the existing data to it, instead of creating a whole new system and paying for expensive data migration, or worse, losing the historical data.

Conclusions

If you are thinking about upgrading your current POS, or you are facing the difficult situation of being left with a dismissed system, make sure to have all the information in order to make

the right choice and do not forget the three golden rules: be agnostic, be in the cloud and be open:

1 Be agnostic

Always prefer agnostic solutions: you should be able to work with any hardware supplier and not be limited by the underlying infrastructures of a POS;

2 Move to the cloud

Always choose cloud-based solutions over on-premise ones. Possibly, cloud-native. You should not be worried about EOL.

3 Be open

Opt for POS systems that offer public APIs for easy, inexpensive third-party software integrations. You should be able to connect whatever solution you may need down the road.

4 Partner wisely

Look for a partner that serves their clients like hotels and restaurants serve guests. The best technology systems still need service and when there's a problem, you need to know you can rely on qualified experts. .



About InfrasyS

InfrasyS is a point of sale system with over 20 years of experience in the hotel and restaurant space. Part of the Shiji Group, InfrasyS has innovated into one of the premier cloud-based point of sale systems for hotel chains. with over 5500 hotel installations worldwide.

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2020 “Do’s” and “Don’ts” of hotel technology



by **Terence Ronson** 

For the Hotel Yearbook, Pertlink’s Terence Ronson shares another of his comprehensive and highly readable lists of tech-related Do’s and Don’t’s for the hotel industry – an annual must-read.

DO	DON'T
1. Work with your system providers so that they produce eForms and not printed reports - especially Registration cards and Folios	1. Use Walkie Talkies in public areas without firstly issuing staff with discreet ear pieces
2. Make sure excess power and data cables (especially behind TV’s, POS terminals and FO equipment) are neatly tied, or cut to the right length. If that is not possible - cover them somehow	2. Consider PTT (Push To Talk) alternate services/apps that can run on Smartphones i.e. Zello
3. Have a simple but easy to read digital clock in the bathroom	3. Deploy connectivity aux or connectivity panels without having in-room cable kits to include up-to-date connectors such as used on all iPhones/Tablets etc.
4. Encourage staff to bring laptops and other portable devices to meetings and use them for note taking and not use paper pads. This helps them multi-task and at the same time, be paperless	4. Put a bedside clock that makes a ticking sound
5. Have easily accessible power sockets with USB sockets in all areas including Meeting rooms, since more and more people bring tech with them and need power	5. Charge for local phone calls unless you really have to
6. Have your Concierge know where the closest Apple Service Center is and also other popular brands like IBM, DELL, Lenovo, Microsoft, Asus, Samsung, Xiaomi and Blackberry	6. Make it difficult to use a mouse on the Guest Room desk by using one with a glass surface - put a mouse mat in the drawer
7. Have a person or system to constantly monitor social media networking sites for mentions about your hotel and respond appropriately and in a timely manner – make responses sound like they are from humans, and not scripted	7. Automatically perform dynamic currency conversion on credit card transactions – be sure to have the customer approve the payment currency first
8. Have competent front line staff on-property who can deal with Guest tech queries - make sure they have the requisite troubleshooting, social and interpersonal skills as well	8. Charge exorbitant rates for printing a couple of A4 sheets in the business center or scanning 1-page
9. Realise that when you buy technology - you also need support agreements - and this often doubles the Tech cost over 4-5 years. To understand the true impact cost, work out a 5-year TCO plan before committing	9. Put a chair at the desk which is difficult to pull out, heavy, or is uncomfortable to sit in - even if it looks nice...
10. Put a notice on your HSIA sign-up screen that your government may block access to certain websites and internet services if they apply to you. Have your IT Team know how to workaround this if the Guest asks – such as a VPN	10. Just limit guests to connect two or three items to the Wi-Fi in the Guest room - often guests carry many more devices, especially if a couple are staying and with kids. Optimal quantity is 10 devices per room
11. Check your TV channel line-up and reception from time to time - make sure it’s nice and clear and the sound is in sync with the picture and channel list	11. Clutter the desk or bedside table with collaterals and printed materials - make them digital and multi-lingual - e.g. in Chinese, Japanese, Arabic and Russian
	12. Just believe that by putting loads of technology into your hotel that the guest experience will be enhanced or that the guest will appreciate it - the stuff needs to be to easy use and beneficial
	14. Place a TV extension speaker in the bathroom unless it has a volume control and the sound quality is good
	15. Just rely on the technology to operate your business - it will fail and at the worst possible time.
	16. Change any configuration on a guest’s computer unless they ABSOLUTELY agree and you have a written record of the changes made

DO

12. Make sure the electronic door lock on the guest room door closes quickly, without slamming, when the door shuts
13. Check the speed, noise and effectiveness of the air-con fan coil in the guest room
14. Print your IM addresses on your Business card like a Skype ID, Whatsapp, WeChat, QQ, LINE, Viber, Telegram and Signal – even better, use QR codes that can be easily scanned
15. Put an internet browsing station in the Staff Canteen for Staff to check email, and fill out forms or requests during their breaks
16. Encourage your Guests to also perform a virtual Check-in to Facebook or Instagram when they physically Check-in to your establishment
17. Encourage your Guests to post photos of their food on Facebook, Snapchat and Instagram – and consider printing your name on the flatware so it's captured in the photo – that's great free advertising - providing the food looks good
18. Get your technology vendors to update you twice a year on their internal product roadmap – maybe under a NDA
19. Add CCTV cameras inside your Data Center - one that is directed to the server racks and the other, to the entrance door
20. Use electronic locks with audit trails on your Computer Server racks – not metal keys
21. Remember that guest's trust their mobile phones to wake them up - more than they do your wake-up call service or the alarm clock next to the bed
22. Perform regular and complete system and data backups and store them off-site
23. If you have RJP's (Remote Jack Packs) in your rooms - consider placing a 'dock extender' cable into the cable pack that you provide so that a Guest can connect an iPad or other device to that dock
24. Have staff who do in-room check-in, offer to help guests connect their devices to the Wi-Fi as well as make them a Nespresso if you have such a machine in the room
25. Allow guest's to tailor make their fruit basket if you plan to give them one - not everyone likes green apples, oranges and pears - some just want bananas or berries. Same goes for turndown amenity - not everyone wants or can eat chocolates or sweet items. Do use local seasonal fruits where available
26. Have a shelf in the toilet cubicle where guest's can safely rest their mobile phone/Tablet and maybe a book
27. Work in your own Guest Room from time to time and see how comfortable and practical it is - especially the height of the chair in relation to the desk, the location of the TV, the speed of the internet and bathroom lighting for doing make up
28. Use a bio-metric reader or PIN pad for staff entrance/ egress that is linked to the Time and Attendance/Payroll System
29. Make sure the light inside the wardrobe does switch off when the door is closed
30. Make sure your room safe is bolted down to a floor or wall and cannot be easily removed

DON'T

17. *Have multiple phones in the Guest room unless you really need to. One that is cordless is usually enough*
18. *Allow iPods, phones, MP3 players or similar devices in the workplace to be connected to your computers - they may inject viruses and/or extract data*
19. *Print anything - only have electronic versions of all your collaterals*
20. *Make it complicated for guests to use your technology - they may only stay one night and have no time to learn how to use all the gadgets and may not be as tech savvy as you think they are*
21. *Overcharge for IDD calls - see if you can connect your PBX to a VOIN (Voice over Internet) service such as Skype to reduce the calling costs*
22. *Lend guest's headsets in the gym unless they have been pre-sterilized and you can prove it - best offer 1-time use sets*
23. *Allow social networking connections on workplace computers unless it's for work*
24. *Have water pipes inside your computer room or anywhere near the data center - especially a swimming pool - add a water leakage detection system under the raised floor of your data centre*
25. *Have electronic curtains/drapes unless they can be opened/closed from the bed as well as via a simple wall switch that the guest is aware of. Make sure the motor is also quiet.*
26. *Put a hairdryer in the bathroom that is underpowered - and please don't hide it – ask a Woman to validate it before selecting*
27. *Make the assumption that all Guest's will prefer to check-in via a kiosk versus the traditional front desk*
28. *Have Housekeeping staff tap on the guest room door at 8am with a card key and say "housekeeping" - have them press the door bell*
29. *Just place a kettle or coffee maker in the room without complimentary water to use with it*
30. *Simply install an off-the-shelf Voice Assistant in your rooms - make sure they are enterprise grade and secure. Open microphones are a security risk*
31. *Have any Wi-Fi dead spots - Front or Back of House to include Elevators*
32. *Just have a single cooling source for your Data Center - have a backup and test it*
33. *Have so many TV channels that it's difficult for the guest to quickly access what they really want to watch and make sure when it's re-switched on, it goes back to the last channel watched and only re-sets upon check-out*
34. *Operate a 1-button Call Center unless the staff who take the call are full trained to handle ALL queries and in various languages*
35. *Put a 4-in-1 copier/scanner/printer/fax machine in the Guest room with just 2 or 3 sheets of paper inside for the guest to print on - include at least 20 sheets and check ink levels*
36. *Use a cloud printing service to the in-room printer you are providing - some guests are bound by company confidentiality policies not to send data outside of their network and so cannot use such services, even if they are*

DO

31. Monitor the TV volume in the guest room so that it can go down very low and also not too high. Some guests like to leave the TV on all night but at a very low background volume
32. Have the TV sound mute when the phone rings
33. Have a very low nightlight in the bathroom especially around the toilet area
34. Deploy the very best cabling backbone you can – even fibre to the room. Do it now, later will be very costly and troublesome
35. Allow Guests of Residential Conferences to use the same LOGIN ID and Password that they use in the Guest room for access to the WI-FI in the Meeting Room - don't make them pay or Log-in twice
36. Encourage Guests to communicate with your Hotel through popular Social Networking sites such as Facebook, Twitter, WhatsApp, WeChat etc.
37. Have air-conditioning auto cut-off in the Guest room if the balcony doors are left open for more than five seconds
38. Make USB power points available at tables in all-day-dining and bar facilities
39. Install Room Control Units (RCU) in guest rooms interfaced to PMS to reduce your energy costs
40. Consider using Motion/Presence [PIR] detectors rather than key cards to control energy in-room
41. Check from time to time in-the-floor power sockets - the metal type which are supposed to lift up when the clip is flicked - most often they stick after a while having been covered with floor polish and dust
42. Consider having a secure place where Guests can deposit their valuables and gadgets at the poolside or beach if they want to take a dip in the pool or use the sauna – perhaps make Ziploc bags available
43. Have Wi-Fi at the poolside and beach
44. Test your [magnetic] key cards to see if they demagnetize when placed next to a mobile phone – often they do and this is a great inconvenience to the guest as well as setting up confrontation with FO staff
45. Encourage Guest contact staff to attach social media links in emails
46. Consider using QR codes on your printed materials and special e-Coupon offers
47. Put your Hotel onto Skype and WeChat and encourage that as a method of communication with Guests
48. Recycle used laser toner cartridges
49. Recycle used coffee capsules
50. Think about installing a LTE/4G mobile hotspot in the Airport Limo or shuttle bus so the Guest can use the service to/from the airport or other trips they may take
51. Have your IT team join such organisations as HFTP, HTNG and CHTP so that they keep up to date with Hotel Technology trends - you should also sponsor them as well as have them attend various Conferences and Exhibitions
52. Consider carefully all the implications of Cloud Computing to include: Loss of connection, Data Security, Data Privacy (e.g. GDPR and PCI) and Data Migration

DON'T

37. *hosted by a reputable company - just add a USB cable*
37. *Put a reading lamp at the bed which is so powerful and direct that it can burn your Guest's forehead*
38. *Adjust the temperature in the Guest room if the guest sets it at a certain level. Only reset it upon check-out*
39. *Only put a keycard reader on one side of the elevator car if you have floor call buttons on both sides. And from time to time, check they both work*
40. *Install a TV in such a way that the Guest cannot access the connectivity ports*
41. *Create an app for your Hotel just for the sake of it - and all it does is make reservations. Let it be informative about your*
42. *property and a guide to all the various services and amenities you provide. It will after all be your Shop window in the palm of someone's hand and directly reflect your brand values*
43. *Write "Data Center" or "Computer Room" on the door of such a place – you are inviting trouble. Better to write "Authorised access only"*
44. *Use illegal software – do a license audit from time to time*
45. *Make the assumption that all Guest's will prefer a mobile key to a traditional card-key*

DO

53. Look into using MDM – Mobile Device Management if such devices are connected to your network and/or supplied by you
54. Regularly check and install Service Packs, software upgrades and patches and check impact another systems - prior to installing
55. Make it easy to switch off ALL lights from the bedside
56. Sterilise the TV remote control and add a sticker “sterilised”
57. Place 1-2 bottles of the complimentary drinking water inside the minibar fridge
58. Provide international plugs/adaptors for Guests to use
59. Clearly state Power and Hz (cycles) of your electrical power sockets
60. Have power sockets that are accessible and don't require bending down to reach them
61. Consider replacing old projectors in meeting rooms with TV screens that incorporate wireless streaming functionality from device to screen
62. Explore the possibility of using Robots to help perform repetitive tasks that allow for manpower to be more effectively deployed
63. Seek the help of a 3rd party professional to perform periodic network scans to make sure various ports are locked down
64. Perform regular Business Continuity exercises that will allow the business to run, and the Guest experience minimally affected if something should go wrong - and it will one day
65. Check your Wi-Fi system from time to time and make sure no rogue networks have been set up to spoof your traffic
66. Understand that CRM also means - Customers Really Matter
67. Implement an email policy which includes a message to exercise caution before clicking on embedded links
68. Consider having “panic buttons” for Housekeeping staff
69. Encourage the use of Tablets such as Microsoft Surface PRO at the Front desk versus large computers
70. Label electrical plugs of essential equipment “DO NOT UNPLUG” or change their colour to maybe red
71. Change light bulbs to LED type to save electricity costs
72. Use pictograms on light switches to explain the function and not just words
73. Consider using a downloadable app so the guest may use their own device versus an in-room tablet with same functions
74. Train FO staff to use new tech before deploying
75. Provide tablets at casual restaurants to allow guests to self order order F&B
76. Have vendors refresh staff training and update you on new features even if it costs money - it can prevent future problems
77. Show guests where “hidden tech” may be located - don't expect them spend valuable time hunting around looking for hidden USB sockets in drawers



Terence Ronson is the expatriate British founder and Managing Director of Pertlink Ltd, a Hong Kong-based consulting firm specializing in hospitality IT. Launched in 2000, Pertlink helps hospitality-related companies establish and deliver unique IT visions and strategy. He is a member of several professional organizations such as HFTP and HTNG and is a regular speaker and organizer of Hotel TECH conferences worldwide, in addition writing a blog for hospitality-related websites, the most popular contribution being the “Do’s and Don’ts of Hospitality Technology”. His most recent blog was on the just-opened Morpheus Macau – The God of Dreams. Terence has been involved in delivering IT design and unique solutions to many high-profile and multi-award winning projects to include: Rosedale on the Park Hong Kong and Guangzhou, Langham Place Hong Kong, Hotel ICON Hong Kong, Zendai Himalayas Shanghai, PuLi Shanghai, Disneyland Shanghai, Guoman Shanghai, South Beach Singapore, and Aryaduta Hotels Indonesia. Currently, he is involved in the newly-opened Dusit D2 Hotel and Management College Manila and Ventria Residences – a luxury Senior Living facility in Hong Kong. Terence started his hospitality career over forty years ago as a chef in London before moving on to various hotel management and IT related roles in Asia and London. In 1996 on his return to Asia, where he now resides, he has focused on the effective use and development of technology in the hospitality industry.

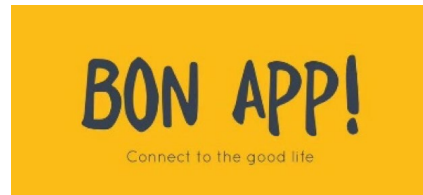


HOSPITALITY TECH STARTUPS

The hospitality industry, enormous as it is in the aggregate, remains one of the most fragmented industries in the world. Thousands of enterprises across the globe provide hospitality services of one kind or another, ranging in size from giant corporations to (literally) mom-and-pop outfits that lovingly look after guests with the most personal touch imaginable.

A fascinating new class of hospitality enterprise has arrived on the scene, however: tech startups. These ambitious young companies are springing up all over, addressing myriad different customer needs. One thing they all have in common, though, is that their dynamic founders have all spotted a gap in the market – perhaps an unserved need for information, or an efficient new way to do something that used to take much more time and effort, or an opportunity to monetize idle assets – and they are focusing their ingenuity on fulfilling this demand they've identified in a new way based on technological solutions.

On the next few pages, the Hotel Yearbook is proud to present a small selection of new startup companies operating in a variety of interesting niches, all aiming to make life easier for travelers and hoteliers around the world.



Discover great places and activities to create genuine relationships, online and offline



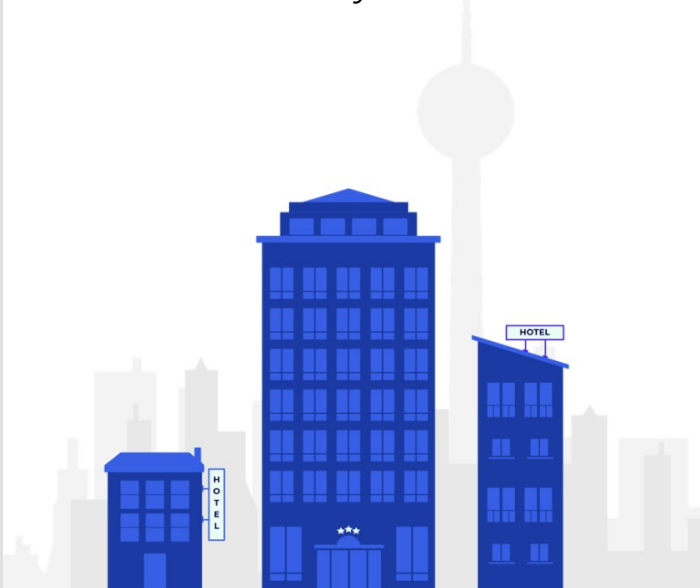
Bon App is a social dining network for international people. We help them break the ice over food, matching them with people of shared interests so they can connect and inspire – at dinner tables and beyond. As today's “super app” for international people in China, Bon App hosts 80% of China's English reviews, powered by a community of 1,050,000 global minds. People can also book restaurants, accommodations, transportation, tours & entertainment, all in one app. With an elite client base including Ctrip, Didi, Airbnb, Disney, AB InBev, Mercedes, W Hotels, Bon App has been featured in the App Store 10 times.

Company name: **Bon App**
Founded: **2013**
Founder name: **Stone Shi**
Founder email: **stone.shi@bonapp.net**

www.bonapp.net



Find the right digital solutions for your hotel



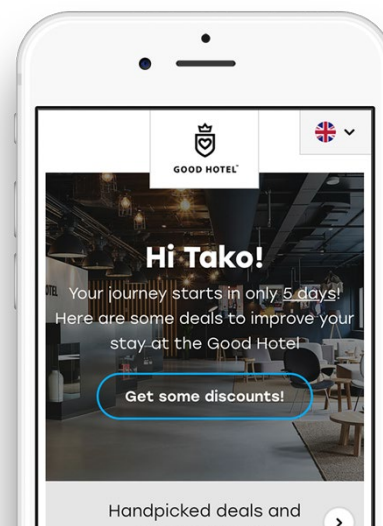
Hotelhero is the online platform for hotel software. Hotelhero centralizes the search process and simplifies the technology selection for hotels. The platform introduces transparency into the hotel-tech market and helps hoteliers to make educated and confident purchasing decisions. We display the entire hotel software market, to make the hotel software search process as simple as possible, and provide tailored software recommendations based on what similar hotels use.

Company name: **Hotelhero**
Founded: **2017**
Founder name: **Florian Montag, Thibault Gence, Julien Schmit**
Founder email: **florian@hotelhero.tech**

www.hotelhero.tech



Become a Rockstar at Upselling.



Oakly is the commission-free upselling platform which helps hotels maximize profit and enhance the guest experience. Browsing from best-selling upsell offers, hoteliers can add personalized guest-facing deals in a matter of minutes, and promote them through perfectly timed guest communication. This puts guests in control of designing their stay with upgrades, special deals and ancillary services. In short, Oakly offers upsells in a way today's travellers enjoy and appreciate. Oakly has the highest upsell conversion in the industry and is a trusted partner by ho(s)tels in 65 countries.

Company name: **Oakly**
Founded: **2013**
Founder name: **Erik Tengen, Tako Paddenburg, Lars Jonker**
Founder email: **erik@oakyapp.com, tako@oakyapp.com, lars@oakyapp.com**

www.oakyapp.com



Guest Experience
made easy



Stay is a mobile guest experience platform that enhances how guests interact with hotels during their stay, with or without a native smartphone app. Your choice.

Some of our clients are hotel chains such as Meliá, Palladium, Barceló or RIU Hotels.

We offer the best CMS in the market and, the first and only DIY guest experience tool, easy and intuitive. No assistance nor formation is needed to manage it. This allows us to offer a complete, customizable service to any hotel at a competitive pricing.

Build a solution your guests will love in just 5 minutes. That's what we call GUEST EXPERIENCE MADE EASY.

Company name: **Stay**
Founded: **2015**
Founder name: **Joan Lladó**
Founder email: **joan@stay-app.com**

www.stay-app.com



Quickly and easily earn
more per-guest.



Travlet offers a free platform to provide connections between the guest, the hotel and local businesses.

Over 90% of tourists state they would like help from their hotel in planning their trip itinerary before they arrive for a leisure trip. However, nearly all hotels wait until the guest arrives to help them.

Travlet creates a Guest Services Directory for hotels, usually sent as part of a welcome email, which helps the guest book a great trip.

We've partnered with leading attractions, restaurants, theatres, car hire, taxis, airport transfers etc so hotels can make these recommendations to guests and earn revenue

Company name: **Travlet Limited**
Founded: **2018**
Founder name: **James Harrabin**
Founder email: **james@travlet.co**

www.travlet.co



Leading AI semantic understanding ability



Zhuiyi is an AI start-up focusing on enterprise solutions. Based on natural language processing, the team utilizes cutting-edge technologies like machine learning and cognitive computing to overcome limitations in natural language understanding and to reach AI's full potential. In two years' time, Zhuiyi has built up close relationships with various industries and enterprises, such as Didi Chuxing, China Merchants Bank, and China Mobile among others.

Company name: **Shenzhen Zhuiyi Technology Co., Ltd**
Founded: **March, 2016**
Founder name: **Yue Wu**
Founder email: **joeywu@wezhuiyi.com**

www.wezhuiyi.com



Connected Intelligence Anytime Anywhere.



Founded in Cambridge UK, ZiFiSense is a fast growing IoT product and solution provider and has developed a unique low power wide area network (LPWAN) technology – ZETA – which enabled low cost, long range and ultra-low power smart city, smart community and connected lighting applications. Together with its partners, ZETA network has become the largest license-free LPWAN rollout in China and is continuing to grow. ZiFiSense also provides end-to-end property management solutions based on ZETA AIoT technology integrating sensing, networking, visualising, learning and predicting capabilities onto a single platform for superfast identification and diagnostics of variety of facility issues, aiming to save management cost and enhance residential experiences.

Company name: **ZiFiSense**
Founded: **July 1, 2013**
Founder name: **Zhuoqun Li**
Founder email: **z.li@zifisense.co.uk**

www.zifisense.co.uk

Four ways to address hotel technology initiatives in emerging markets

by **Binu Matthews** 

Emerging markets should be a top priority when looking to expand your hotel technology business, writes Binu Matthews, CEO of IDS NEXT. But successfully doing so means paying close attention to challenges unique to these economies.

Emerging markets have become something of a hot topic across the technology sector recently, especially as it relates to hospitality. With economies in Asia, Africa, and the Middle East being touted as popular destinations for the growth of new technology, countless hospitality technology vendors are considering expansion into those markets. In fact, around 80% of the world's economy is comprised of emerging markets, more than half of the world's internet users are now in Asia, and 90% of the global middle class resides within emerging markets. Further to that, emerging markets (EM) often offer access to a growing upper-class population, who may be interested in purchasing goods or services that were previously unavailable in their region. This creates an appetite for emerging technology, as global regions are keen to catch-up to widespread technology standards and build (and maintain) economic momentum. It is these markets that are actively seeking out opportunities to become more sophisticated, partnering with outside investors and establishing new infrastructure. Recent findings support this trend, with technology companies accounting for 25% of the MSCI Emerging Market index top stocks, surpassing telecommunications and energy.

However, despite the promise of rapid economic growth and high returns, successfully expanding into emerging markets can be a delicate, if not complicated, process. After all, 'with great risk, comes great reward' and EM are no exception. From political unrest to a lack of financial infrastructure, hotel technology vendors have several considerations to keep in mind when introducing their initiatives to new territory.

Establishing a support system despite barriers

Any hotel technology provider can attest that the most successful (and widely implemented) platforms and solutions are those which offer the most support. Hospitality technology vendors aren't merely making a sale to prospective hotels; they are establishing an on-going relationship/partnership. The ability to provide support services (implementation, training, etc.) despite geographical and cultural challenges, is key. After all, language barriers, time zone discrepancies, and cultural differences have been a notorious obstacle for businesses in the past.

As such, tech providers need to ensure they can provide software support in each EM's native dialogue, while also employing the use of video-conferencing, in-house translators and multi-lingual support staff, trained locals and direct offices in that EM. This becomes especially imperative in the case of hospitality, as the industry thrives on the provision of 24/7 support and access. Technology solutions providers must enter these new relationships with the understanding that EM business requires patience, and the willingness to learn about local manners and customs. Taking the time to approach these relationships with care, while ensuring resources (promotional materials, price sheets, training demonstrations) are available in the local language/s), will help to establish the trust required for a long-term business relationship.

Office or agents

To achieve optimal results abroad, companies must adapt to the needs and expectations of foreign hotels and guests. Tech providers should not only invest in several in-country trips, extensive contact and meetings/touch-points, but should also consider which holds more value: a local office, or local sales agents (or both). Do you need an office in Angola, or is it better to have a multitude of carefully



About IDS Next

Armed with industry leading technology and overwhelming TCO, IDS Next is a globally leading Hotel Technology Solutions provider and pioneer in Hotel ERP architecture. Our forte lies in providing unparalleled technology solutions for hospitality properties across categories, with offerings including integrated hotel management software, restaurant management software, mobile apps and mobile analytic solutions that have earned the trust of over 4500+ hotels in 40 countries spread across South Asia, Southeast Asia, Africa, Middle East, Sri Lanka & Maldives and Oceania. .

www.idsnext.com

selected multi-national 'agents' that can operate on behalf of your product/service and offer local support and representation? The effort invested should be worth the reward, but this consideration requires prospective vendors to perform their due diligence when vetting prospective partners in EM, considering their unique needs as well as their long-term potential.

Regional stability

As aforementioned, investors and technology providers often seek out EM for the promise of high returns and rapid economic growth. However, it's no secret that EM are plagued with political instability, civil unrest, infrastructure problems, currency volatility, and other potential risk factors. These are commonly referred to as 'country risk' and should be a driving focal point of any vendor's initial risk assessment of a prospective EM.

Not only that, but businesses should have crisis management plans in place, taking into consideration their customers/partners, employees, and key stakeholders. Moreover, while the low cost of a skilled workforce within developing countries has seemed appealing to growing international businesses over the years, we must also remember that political unrest can affect critical supply chains. It's imperative that technology vendors invest in sourcing alternative suppliers to mitigate any local, political risk.

Viable infrastructure

Cloud technology has, undoubtedly, taken over in North American markets. The speed, flexibility and enhanced security offered by cloud computing allow businesses (regardless of size) to transform and evolve their operation in exciting ways. This trend moves in tandem with the increasing demand for mobile-centric technology and more versatile operational

solutions for hotel infrastructure. In the case of EM, cloud computing boasts a great deal of influence – as businesses can potentially expand into those new areas without having to invest in local infrastructure. In a sense, the implementation of cloud technology has created a virtual workspace across the globe.

While this is an exciting concept, it's imperative to identify whether hotels in an EM have the infrastructure in place to support (and benefit from) a cloud platform, or if the system needs to reside on-property. Are those prospective hotel partnerships in EM ready (and equipped) to shift away from legacy systems and adopt new processes and virtual infrastructure, or are they still residing too many steps behind? Is the infrastructure viable enough to introduce a cloud platform or does the system need to reside on-property? Also, chains or groups that operate in the EM have unique needs. They need a combination of cloud and on-premise solutions with central solutions provided by one technology partner.

Emerging markets hold a great deal of opportunity for hotel technology companies. However, it is imperative that the providers of technology are well versed in the best practices when selling, implementing and supporting hotel technology solutions. If you're a hotelier located within an emerging market, make sure to do your homework concerning the knowledge set of your prospective hotel technology partner.

The future face of the hotel industry

by *Ian Millar* 

Facial recognition is the technological trend of the moment, spreading globally and into the roots of a multitude of industries. This expansion has been driven by a need for increased security and monitoring of public spaces by governments, and its success has undoubtedly highlighted its potential for global businesses. A team of six students at the Ecole hôtelière de Lausanne asks: What about in the hotel industry?

Awareness of facial recognition technology was exponentially increased by its introduction in smartphones over the last few years, making it a household feature and simultaneously contributing greatly to an increased acceptance of its use. Nevertheless, facial recognition on your iPhone or Android device represents a very limited potential of the technology and is still known by most consumers as “the thing that lets me open my phone without my thumb”.

What about the hotel industry?

But the use of the technology is growing rapidly. A \$4 billion global market size in 2018 is expected to top \$10 billion by 2025. The hotel industry does not want to be left out of this trend, and significant investments are already being made. Marriott International has partnered with Alibaba to trial facial recognition in some of its hotels in China, while Accor is testing the technology in Brazil.

The aim is simple in theory: the use of facial recognition will aid in streamlining the check-in/out process in hotels. Large hotels throughout the world are consistently struggling with managing long guest queues. An analysis of selected hotels in the Vegas Strip showed that approximately, a striking 10% of TripAdvisor reviews explicitly mention a bad experience checking-in/out due to extensive waiting periods.

In search of a solution to these issues, technological solutions including online check-ins and mobile check-in kiosks have been implemented globally. The latter has been successfully adapted by CitizenM, where guests often mention the efficiency and quality of the hotel's check-in experience in online reviews.

At this point you might ask yourself: if queue management can be tackled successfully with mobile-based solutions and without the use of facial recognition, why would hotels implement it?

What did we discover?

Our research project was completed in collaboration with Vision-Box, a tech company focusing on identity management solutions, operating primarily in airports. The purpose was to explore the added value of facial recognition over regular mobile check-in solutions within the hotel industry. This increased potential came down to two factors: security and marketing.

Security is more important now than ever. With the use of facial recognition, hotels can go a big way in avoiding identity theft and confirm passport checks with confidence. Putting in place such a technology can improve the identification of problem profiles, averting these individuals from the hotel. This invaluable asset in preventing tragedies such as the 2017 Las Vegas Shooting.

Highlighting a brand's investment in new technologies is an important aspect of many hotel companies' marketing strategy. This is an important part of the push to attract younger generations of travelers from Millennials and Generation Z. Our research showed that these two generations will constitute about 64% of the global workforce by 2020 and are the most digitally connected generations ever seen. Having the most up-to-date technologies integrated in the service-offering of your hotel brand will go a long way in attracting these newer generations.



What does this mean for hotels?

According to our study, the issue of problematic queues is mostly prevalent in large hotels, during peak hours. These hotels should be aware of these solutions, especially if it is located in a city that is open and accepting of new technologies. Our analysis is that it needs to be a part of an automated mobile solution that can solve queuing issues in order to see the maximum value. To take it one step further, facial recognition could be used successfully in access control, for facilities such as gyms and spas. Solving these bottlenecks can also decrease a hotel's negative reviews, while simultaneously increasing positive ones, directly translating into increased revenue.

Looking further into the future, we could even see an entirely wallet-free system where people could use their faces to open their rooms and pay for goods and services. The key question here revolves around the extent to which guests are comfortable using their personal biometrics in exchange for increased efficiency and an improved service offering.

Where are we headed?

Some might argue that taking away the personal touch goes against the very core of hospitality, and we agree to an extent. Looking ahead, a hybrid between facial recognition systems and human contact might be the best way for the hotel industry to integrate this technology to ensure improved efficiency and guest satisfaction. Artificial intelligence and automation are a highly debated topic in any industry right now. These solutions can definitely alleviate bottleneck issues and potentially cut costs for the hotel, but at what cost?


■

***Ian Millar** is a Senior Lecturer of hospitality technology at the Ecole hôtelière de Lausanne and is a frequent presenter at international IT conferences. He was a member of the Board of Directors of HFTP and also served as a member of the HFTP Executive Committee. Ian also serves at an advisory level to various hospitality technology companies and served as a Member of the Hotel Industry Expert Panel for the Singapore Tourism Board.*



***Carl Rosenberg, Edoardo Zuffetti, Francesco Huber, Giacomo Toscano, Tomas Nicolau, and Zilong Wei** are six recent graduates from the École Hôtelière de Lausanne. Their research project focused on exploring the potential of facial recognition solutions within the hotel industry. The study was completed in collaboration with Vision-Box, a Portuguese tech company focusing on identity management solutions in the airport industry. The team dove into how the technology can be implemented, what values it brings, and the barriers associated with it. Ultimately, the group's efforts were recognized with a nomination for the prestigious "Best Consultant's Award".*

The growth of asset management: The importance of understanding both points of view

by **Jane Pendlebury** 

Asset managers are a conduit between a hotel's owner and the company operating the hotel, writes HOSPA's Jane Pendlebury, and as such they add great value to both parties. One key to their success is the ability to carefully manage both parties' expectations.



Asset Managers, owners' representatives – call them what you will, love them or hate them – you are now more likely to come across them than ever before. They are a growing breed and the speed at which hotel ownership is changing suggests that this is a trend that will continue apace. If we turn back time far enough – then it was rare to find a hotel that wasn't owned either by a hotel group or the operator themselves. As hotel property investment increases its appeal, we are bound to see more owners with less operational hotel management knowledge. Therefore, the rise of the asset manager will accelerate.

I will endeavor to explain who asset managers tend to be, what they are for and what they do. Then I will move on to the need for understanding the hotel from all aspects including the investor/owner, the asset manager and then the operational manager and their team.

Firstly, it's important to understand that an asset manager is different than a management company. A management company will typically take complete responsibility for running the day-to-day operation, whereas the asset manager's role is to ensure the investment is reaping the financial rewards that the investor is looking for. These financial rewards sometimes have an element of urgency and immediacy, but owners and asset managers are increasingly likely to take a pragmatic, longer term view. To add to any confusion on the differences between

an asset manager and a management company, the distinction is often blurred when firms offer both hotel management and asset management.

Of course, we must not forget the needs of the guests – as without them we are all out of a job. However, for the purposes of this piece, we will take them for granted!

An asset manager is typically someone who not only understands the hotel business very well, but is also able to offer strategic advice whilst maintaining focus on the bigger financial picture. An asset manager tends to be analytical and quick to spot potential problems and areas of concern. These skills suggest they're likely to have a lot of operational experience coupled with financial acumen and therefore are often older. But this is perhaps where we may see the biggest changes in asset management. Some of the forward-thinking universities have already introduced an asset management module to their hospitality management courses, and HOSPA (The Hospitality Professionals Association) is creating an online asset management course for hospitality operators to study and complete while continuing their day job. I would be surprised if the average age of the hotel asset manager doesn't decrease significantly over the next 5 to 10 years.

A good asset manager will benefit both the owner and the operator. They will relay the owner's views, hopes and wishes to the operator in the language they understand. The reverse should also be true in that the asset manager will translate the views of the operator back to the owner in a way that the owner will appreciate. So, the asset manager can be viewed as a conduit and as such adds great value to both parties, while carefully managing both parties' expectations.

The asset manager should be a familiar face at the hotel and they should be able to quickly and efficiently analyse both the figures and the operation. Their wealth of knowledge should greatly benefit the operation and if delivered in the right way, they should be a fantastic resource for the management team.

The asset manager should then report back to the owner. The owner will expect a top level, analytical view of their investment, confident that the asset manager can share more detail on every aspect of the operation when and where necessary. The asset manager will succinctly and eloquently explain where and why further investment may be necessary within the hotel and how that investment will affect the overall value in the short, medium and long term.

If it were a perfect world, then the asset manager would have an easy job. But their role is far from easy. The owner may be looking for a quick return and may not wish to invest in any development within the hotel – be that in the property, the furniture and decoration, an IT project or even additional staff. The operator may be struggling with local or economic pressures beyond their control, and delivering poor results that are not meeting the investor's expectations. The asset manager has to manage and balance both aspects – neither of which are black and white. There are many grey areas, there will be conflicting opinions that are probably both well justified – and it is the role of the asset manager to deliver satisfaction to both.

Key to the whole growth in asset management is understanding, patience and an analytical mind – done well and an asset manager is worth their weight in gold!

■

***Jane Pendlebury** is CEO of HOSPA, the Hospitality Professionals Association. Kickstarting her career with a degree in hotel management, Jane worked with both chain and independent hotels. Thereafter, she spent many years assisting hotels with their technology decisions on Property Management, Point of Sale and Revenue Management, ending up as VP and General Manager of Agilysys in Europe. Her relationship with HOSPA was first as a sponsor and member, then after volunteering her time assisting with the annual conference HOSPACE, she was taken on to run the Membership and Events office before being promoted to CEO in early 2016.*

Getting it all together: The major challenge for hospitality

by **Mark Fancourt** 

Despite the advances in technology, the piece that continues to elude the industry, according to TRAVHOTECH's Mark Fancourt, is a single selling platform allowing inventory and pricing for all products and services to exist in a homogenous environment.

To expand, a tool that supports consolidation of room, meeting space, dining, sporting operations, lifestyle, recreation and wellness. Services such as transportation, business centers, workspace, kiosks and any other item offered in the hotel operation. Everything.

The fundamental of distribution; the further a product can be exposed, or in the case of the hospitality industry, inventory, the greater opportunity for consumption of that inventory. If hospitality understands anything it is this principle. Today's industry is built on this practice with sale of room product becoming a major business for operators and third parties supporting the ecosystem. Yet major parts of the hospitality product are metaphorically sitting on the shelf through a lack of ability to adopt these same principles across the business.

In almost 100% of the hotel operations globally no single place exists for a staff member or guest to visualize the breadth of product a hotel or resort has to offer. Products and services are siloed into departments, business units, P&L's and levels of technical enablement. In many cases inventory is not digitalized.

The digitization of room inventory is well established. Scientific processes are applied to maximization of yield within the local operation, at brand level and further into the distribution

network at differing levels of technical capability. Meeting space lags well behind room product. The sales process is convoluted with multiple barriers of entry for the customer. Inventory is housed in a secular department and only this department can offer the product to a customer.

Many hotels have a level of Food and Beverage product. Less have consolidated spaces on a digital platform internally and less still have exposed this inventory to the customer. 'Inventory' may be sitting with reception staff or the hotel operator. Lifestyle, recreation, wellness and activity inventory play a major role in revenue streams and capital investment. A resort offering a wellness experience alongside a golf course will have multiple technology solutions, which will be limited to individual departments. Sans technology, the Reservation diary.

Pricing is also vertically oriented and follows the level of technical sophistication by department. The science of revenue management is well established for rooms. Less so for other aspects of the operation. Revenue management professionals are taking active steps toward a horizontal view of the business, although the technical smarts and information consolidation seriously inhibit efforts to truly evaluate the customer.

Packages and add on items are the current tool to increase the cross selling. However, they are not linked to real time inventory



and do not allow tracking of demand and consumption in the manner of a guest room. As a result, options are limited and price optimization across a basket of products and services is not efficient.

Appreciating that consolidation of inventory to internal staff is difficult if not impossible, it becomes a greater challenge for the customer. In this environment how does a willing customer actively consume the scope of hotel product in a timely and customer-oriented manner?

Reservations takes a room reservation. Perhaps it's bundled into a package because there is no mechanism to sell other products more effectively. Alternatively, having made the room reservation the guest is transferred to the spa, and asked for their customer information again. Perhaps Golf or Tennis is involved; tuition or lessons; children's entertainment. A special dinner reservation for a family event. Transportation requirements. Back to reservations or to the Bell Captain. What about a boardroom for a meeting? The sales representative is in a meeting. I will have them contact you, Sir.

Alternatively, an ambitious room reservation department will coordinate on behalf of the guest. Subject to the merry-go-round of internal departments, systems, communications, time lapse and ultimately mistakes or necessity to reconfirm or follow

up with the guest. Hopefully the customer does not require changes!

Nothing about the process is customer oriented and as an effective sales process it is fundamentally flawed. Digitally the process is not far removed for those operators exposing more than room inventory to the customer.

Everyone is a salesperson. Our expectation is that all customer facing personnel will possess sales ability. It's unrealistic and impractical when the time pressures of operational delivery are placed upon job roles.

Compounding operational realities, we have convinced ourselves that the selling process is 'different' for each product or service. Therefore, we need to 'keep it separated'. But is this true? When we examine the range of products and services generally provided in hospitality there is more in common than not.

Dates, Space, Price, Booker. Whether a guestroom, meeting space, table, transport, golf lesson, tee time, or therapy the requirements are common. Sometimes there is a modifier, time or a skill set. However, in a technical age this information is easily presented, or not essential at the time of the initial booking. Is it necessary to assign the therapist or determine

the catering menu at the time of booking? Or can this be an operational logistics matter or a follow up item from an initial reservation?

There is an opportunity to rethink the structure of the sales process in our industry. Rather than the incohesive division of inventory across an organization, a specialized sales force focused on the real time conversion of across business inventory. It has the potential to increase advanced sales and expose inventory that is currently left until as late in the sales cycle as the onsite arrival of the guest to convert.

Underlying the sales function, an operations function that is focused on guest experience across the product and services available to the guest. Such a team can concentrate on the fulfillment and logistics of the experience as well as incremental revenue offers during the guest stay.

An across business rate and pricing tool linked to inventory would support revenue managers standardization of pricing structures. Multiple price points across products provide greater flexibility in rate setting and balancing of profit margins across the business. Direct links to real time inventory and consumption facilitate active tracking of demand and reduce complexity ensuring immediate consumption and visibility throughout the operation.

Such an approach achieves multiple objectives. Firstly, ensuring that all products and services are represented in the sales process. Secondly, is a customer-oriented approach designed to expose the full possibilities of a personalized experience on offer and convert opportunity at the first point of contact.

The technology experience needs to follow the same model. While it may not be possible to consolidate the data and functionality today, it is possible to consolidate the operational tools and people to deliver as cohesive an experience as possible, while working with technology demarcations. The customer facing tools must have the objective of providing a comprehensive product and service offering to the customer.

Consider retail industry experiences. During an in-person sales experience or on an electronic platform we can shop for a

basket of products locally or globally. If the staff are not able to locate a specific product in store, from their terminal they can look across the store, city or country to find the item and complete the sale. Websites show inventory of any product at specific locations.

While hospitality is languishing with tools that are not able to combine products and services the industry outside hotel operations is making major transitions to assemble information into a cohesive booking experience.

The Google's, Expedia's and other third-party operators are making major investment and acquisitions to consolidate more travel product inventory. Rooms, transport, dining, activities and lifestyle options will be consolidated to provide an across stay booking experience.

Why is this important? It is the single major barrier to more effective consumption of industry products and services. Without a cohesive sales enablement platform revenue growth beyond the guestroom will continue to be a challenge.

As the industry highlights the 'customer experience' it follows that tools and processes need to be aligned to deliver the experience from the beginning of the sales cycle to the post stay experience.

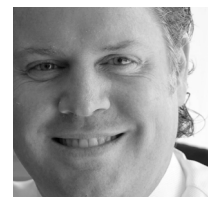
While operators and brands compete for market share and apply effort to own the customer the stumbling block will be an inability to match the booking experience. Ultimately the customer will be forced back to the marketplace in search of the products they desire, eroding marketing efforts and increasing booking cost.

In an increasingly sophisticated competitive marketplace hospitality must step forward technically to compete with this challenge. Steps have been made to combat room bookings. The next step is to look across the operation and assemble the products.

Get 'it' all together. The early bird will continue to catch a very long worm.

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***Mark Fancourt** is the co-founder of TRAVHOTTECH and TESTBED.VEGAS. He has over 30 years of experience in the hospitality industry in executive positions as a technology vendor, corporate hotelier and industry consultant. His past organizations include Fidelio, Micros, MGM Resorts, Qantas, Pan Pacific and Cenium, to name a few. Mark's industry background saw his involvement in the introduction or early adoption of multiple new to market technologies. His personal mantra is that the role of technology is to create competitive advantage for business. Mark has worked and lived in the three major regions of the world. He holds a Master of Hospitality Management from Griffith University.*



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How can hoteliers thrive in the new “Guest Experience Economy”?

by **Jos Schaap** 

Today’s hotel guests are consistently voting with their wallets to buy experiences rather than products. Get creative and offer unforgettable, exciting ways for guests to engage with your brand, says Jos Schaap, CEO and Founder of StayNTouch. Technology is a vital element of this process.



If I asked you to describe the modern hotel guest, what words come to mind? Digital? Social? Opinionated? Savvy? Informed? Further — if I were to ask you what matters most to guests, what would you answer? Personalization? Amenities? The best price? Word of mouth or online reviews? Actually, more than anything, people crave experiences. Rather than investing in luxury material items, a dominant segment of

consumers feel a greater motivation to invest in experiences, with 80% of affluent consumers choosing a luxury experience over a luxury item. Leading brands like Apple focus on creating experiences around their products that elevate them above the competition and build trust and loyalty.

So, the question becomes - how does this trend affect guest expectations?

Welcome to the “Experience Economy,” a term first coined in 1998 by B. Joseph Pine II and James H. Gilmore to describe the ways in which consumer purchasing is influenced by experiences provided by brands, rather than just the product itself. Fast forward twenty years, and the sentiment rings loud and clear. So, what exactly is the “experience economy” or more aptly named in this case, what is the “guest experience economy” and how will it drastically change the shape of the hospitality industry?

Picture this:

You’re looking to plan a trip with your family and find yourself torn between two hotel properties. The first hotel appears to be cheaper, with nice grounds, amenities and rooms. Nothing exceptional, but the reviews seem to be positive and the value seems good. The second hotel is more expensive, but a quick glance through the photo gallery tells you the property is brimming with modern architecture and noteworthy things to do. From what you can see, everything about the property screams “share-worthy.” The online booking is intuitive and a virtual assistant (an AI chatbot built into the website)

encourages you to book a reservation at the on-property restaurant, which is known for providing an exceptional local dining cuisine. The reviews from former guests are glowing, describing “one of the most memorable vacations they’ve ever had,” “attentive service and “cutting-edge technology,” and a “truly personalized experience.”

Even with the first hotel representing a better value from a cost perspective, most Millennial guests would choose the latter. In fact, over 68% of travelers are willing to pay up to 15% more for the same product or service if they are assured that they will have a better experience. Why? Because they want to experience a trip *worth writing home about... literally*. And an Expedia survey revealed that 20% of Gen Z travelers have stayed at a specific hotel or destination in order to score a positive response from followers on their own social media channels.

That brings us to our next question — how can hotels tap into this guest experience economy to deliver a truly memorable stay? Well, a lot of things, actually.

- Personalization: Leveraging guest data
- Modern technology: Mobile check-in/check-out, Smart rooms, voice-activated assistants, mobile concierges
- Share-worthy opportunities: Unique amenities, staff engagement
- A frictionless experience at every touchpoint: Self-serve check-in/out, keyless entry, mobile ordering and requests
- Experiential packages: Local activities, bundled services

With the right technology in place, hotels can offer their guests a truly coveted experience. Next generation mobile cloud-based PMS platforms are designed to centralize guest data to curate insight-driven communications, upgrades and offers while also enabling convenient self-service options and automating front desk duties, rate management, marketing, and so much more. This gives way to more empowered mobile staff who — you guessed it — are free to provide a more attentive service and engage with each guest. Further, with the adoption of mobile-centric technology, guests are able to use their smartphone in a way which delivers convenience and instant gratification (say goodbye to lobby lines and customer service delays). With the effective marriage of high-tech and high-touch service, hotels are able to stay connected with guests anytime, anywhere and on their preferred terms.

Combine this with an exceptional property and unique services, and you’ve got yourself a world-class hotel experience.

Ultimately, as a hotelier, you should consider the following questions:

- Could you be doing more to give your guests the experiences they crave?
- Have you invested in the right technology to empower the future of your hotel?
- What else can you offer your customers beyond your product or service?
- Can you fulfill a need they didn’t ask you to, or maybe even one they didn’t know they had?

In summary, today’s guests are consistently voting with their wallets to buy experiences rather than products. Get creative and offer unforgettable, exciting ways for guests to engage with your brand. To succeed in the experience economy, hotels need to create authentic, brand-relevant experiences that guests connect with and that make them feel valued. These experiences don’t need to be overwhelming, either. Small adjustments can go a long way. When you tap into your hotel’s strengths, and ensure you have the latest technology to help you and your staff develop long-term guest relationships, you foolproof your hotel to survive and better yet, thrive in the guest experience economy.

The race to own guest experience is on!



About StayNTouch

StayNTouch brilliantly connects guests to hotels. StayNTouch delivers a full Hotel PMS and PMS Mobile Overlay bring mobility to both hotel staff and guests. Via any tablet or touch device, Guest Service and Housekeeping have mobile access to PMS via a touch-optimized interface. Guests, from their smart phone, can self check-in and out, view room bill and receive upgrade promotions. StayNTouch dramatically streamlines operations and increases margins, and revolutionizes how the hotels connect and engage their guests and how guests experience their hotels. StayNTouch is a “Software as a Service” mobile hotel property management system (PMS) company focused on developing solutions that help hotels raise service levels, drive revenues, reduce costs, and ultimately change the way hotels can captivate their guests.

 www.stayntouch.com

Hotel mergers and acquisitions: Five things to look out for if you happen to be in the IT department

by **Floor Bleeker** 

M&As can be painful and expensive and require careful planning, investment and change management in order to be successful, writes Accor's Floor Bleeker. Here is his advice for thriving during the process.

A whirlwind of mergers and acquisitions (M&As) have swept through our industry recently, with no clear end in sight. Many of the big and medium-sized hotel brands have been impacted, the largest one being the Starwood - Marriott merger and the most recent one, the acquisition of Two Roads Hospitality by Hyatt. If you work in hospitality and you are not in the middle of one, chances are that you will be soon.

The objectives of a merger or acquisition are usually quite straightforward and will likely be two-fold. On the one hand, the companies concerned will try to achieve synergies: less management overhead, improved purchasing power, and systems optimization. On the other hand, they will try to leverage the brand power of the stronger partner in areas such as sales, distribution and loyalty.

M&As can be painful and expensive and require careful planning, investment and change management in order to be successful. They are particularly complicated in our industry because of our decentralized and fragmented nature, with many owners, franchisees and other stakeholders involved. Every department in the business will have its own set of challenges, with the IT department typically carrying the biggest load.

First of all, very little is likely to change in IT systems for quite some time, which means that the business needs to be able

to run as usual. You might be able to stop some projects, but the business needs you more than ever as changes are being made everywhere else. At the same time systems need to be integrated or replaced, and as you deal with data migration, different technology stacks and legacy processes, this will be a lot harder than implementing systems from scratch. Lastly, other departments need IT support when they work on their integration projects and they are all guaranteed to have an IT component in them.

Here are five points to look out for should you find yourself in an M&A affected IT department. I have developed these based on input from industry colleagues and my own experience.

Don't go cheap on IT

While other departments can show quick savings by joining forces with their counter parts, IT is the opposite. Merging a sales or development team might require some training and logistics but can be done fairly quickly. In IT not so much. Especially in the beginning, the load on both IT departments will increase significantly, and this requires more resources, not less. However, if the IT integration is done well it will yield far greater returns for the business than any quick synergies could possibly bring. Integrating large legacy systems requires expertise from both sides plus specialized consultants, vendors and project managers, and this is expensive.



***Floor Bleeker** was appointed Accor Chief Information Officer MEA and Global Accor Strategic Programs in November 2018. He joined Accor from Mövenpick, where he had held the position of Chief Information Officer since 2013. With nearly two decades of multinational experience in luxury hospitality, he has held roles in Radisson SAS Hotels & Resorts, The Emirates Academy of Hospitality Management and Jumeirah Group.*

Find ways to keep the team motivated

Chances are that not all roles in the IT team will be required in the long run, with some jobs disappearing over time as projects complete. Some team members will be expected to work very hard to work themselves out of a job. It's therefore a challenge to keep everybody motivated all the time. Retention and delayed separation bonuses will help, but are not the main motivator. There is a lot of interesting work to be done and IT people usually love this as they value being part of the technology journey. So, give people this opportunity and involve them actively by creating interesting projects for everyone. The integration is likely to take a long time and plenty of opportunities will arise along the way. To see team members take up roles in the new organization is also motivating.

Go for the best platform and let go of the old

From a technology point of view, the worst-case scenario is when each company holds on to their own systems. Unless there is a compelling business reason (and there aren't many), pick one and move on. The earlier you let go of the old, the quicker synergies and other benefits will materialize. A merger or acquisition is the perfect opportunity to pick the best out of both worlds and to get investment approved to modernize outdated systems. Hybrid solutions will create more complexity, more work and less synergies.

Everybody needs to lead


Probably the hardest part of any M&A is not the technical integration, but the merging of two corporate cultures. People will need to change the way they work and interact, and this is hard in the best of times. Strong leadership at every level will make this manageable. It will take a while to rebuild trust and the key is to remove uncertainty as soon as possible. Mergers can be life impacting for those involved and while not every message will be positive, as long as the vision is clear, and communication is transparent, everybody will understand. Effective change management will make the difference.

Enjoy!

Successful technology can make or break an M&A. You are needed more than ever, and you will probably have a unique opportunity to work on projects of a large scale and with a big impact. Since things move fast you will likely see immediate results of your work, often in the bottom line, and this can be very satisfying.

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Bringing hotel security access innovation into the cloud

by **Markus Boberg** 

With new and increasingly sophisticated security threats continuing to surface within the hospitality market, the security industry has had to evolve its practices and offerings in order to meet the industry's latest challenges. As these attacks become more frequent and faster paced, writes ASSA ABLOY's Markus Boberg, hoteliers have recognized the critical value in being able to take action immediately in order to minimize or even eliminate any adverse effects.

With security incidents capable of taking place at any time, and with any one property consisting of a multitude of operations scattered throughout the premises, each vying for the attention of hotel leadership, the ability to be in the right place at the right time to deal swiftly with a threat can often be severely limited.

However, as attackers have progressed in their ability to strike more quickly, so too have the abilities of security providers in providing solutions capable of addressing such threats in a timely manner. As many hotel operations identify and implement the multiple advantages provided by cloud technology, security-based solutions are also beginning to appear that leverage similar benefits in order to maximize guest and staff safety. With an advanced cloud-based access management platform, for example, hoteliers are crucially able to access, monitor and control of all aspects their security operations from virtually anywhere that has access to an internet connection. From desktop computers to laptops, tablets and even smartphones, hoteliers equipped with such functionality are able to remotely identify a potential threat and take immediate action without having to first relocate to a specific location. This includes the ability to be alerted to any room access attempts that appear suspicious, such as multiple attempts on the same door lock. Once determined as unauthorized activity, hoteliers are then able to remotely and instantly cancel any keycard being used inappropriately. This ability can also be used to instantly cancel any keycards reported missing or stolen, eliminating any lapse



in security before an incident has time to take place. Should an emergency arise that makes a specific area of a property unsafe, cloud-based access management platforms further provide staff with the ability to remotely restrict all access to the location until deemed safe to enter once again.

With the hospitality industry also under increasing scrutiny from ongoing hacking attempts and data theft, more traditional forms of access management are beginning to demonstrate their limitations. Once a vulnerability in a pre-existing system is discovered, many hoteliers are no doubt familiar with the time-consuming and costly upgrades required in order to restore security integrity. Making matters worse is the fact that as newer threats arise or new technology becomes available that makes present solutions ineffective, hoteliers appear destined to repeat a never-ending cycle of one upgrade after another. Cloud-based access management platforms, however, are promising to break this endless cycle once and for all without ever sacrificing security capabilities. Instead, and at no additional cost to hoteliers, such solutions ensure properties are always equipped with the latest in security protocols. This is effortlessly accomplished via software updates that are created as soon as a vulnerability is discovered, and that are automatically implemented without any need for an on-site installation or any involvement by hotel personnel. As a result, hoteliers can be sure that their property is utilizing the most advanced encryption standards, and that hotel and guest-related data is always out of reach from nefarious actors.

In addition to instantaneous software updates, a cloud-based access system eliminates the need for on-site servers. This not only completely removes the need to make costly hardware purchases, but also provides hoteliers with the ability to recover value physical space that such equipment often takes up. As with software patches designed to counter new threats, routine maintenance or troubleshooting issues are also completely handled remotely, freeing a property's on-site maintenance teams to focus on other areas and further reducing operational expenses.

With the hospitality industry increasingly opting to integrate existing service and amenity solutions with each other to streamline efficiency, while also seeking to integrate new features as needs change, it becomes more and more prudent to implement cloud-based solutions that offer future-proof capabilities. With a modular cloud-based access management platform for example, hoteliers are able to effortlessly implement services such as digital key technology once determined to be a sought out service by guests. Other modules that can later be added include options to convert keycards as a form of on-site payment, such as at a hotel's bar, restaurant or gift shop. Such platforms may also facilitate the implementation of increasingly sought after new technologies, such as Bluetooth beacon functionality. A geolocation-based solution, beacon technology is likewise becoming widely adopted by hoteliers due to offering features such as employee distress abilities, asset tracking, proximity-based guest messaging/marketing possibilities and much more.

With property and guest safety needs seemingly advancing at a faster pace than ever before, hoteliers can no longer afford to adopt a wait-and-see approach when it comes to security access functionality. At a time when hotel budgets are being stretched to meet an array of property commitments and upgrade requirements, today's cloud-based systems are now emerging to provide the means to affordably ensure security operations continue to run seamlessly and effectively at all times. Critically, such platforms provide hoteliers with the flexibility they need to evolve and consistently meet future security and guest service demands with the highest industry standards always in place.

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ASSA ABLOY Global Solutions

About ASSA ABLOY Global Solutions

The ASSA ABLOY Group is the global leader in access solutions, helping billions of people experience a more open world every day. ASSA ABLOY Global Solutions is dedicated to reimagining how people move through their world. Our expertise in customer journey mapping, innovation and service design leads to the invention of new security solutions that create value for our clients and exceptional experiences for end users. Our world-leading brands VingCard and Elsafe secure millions of hotel rooms worldwide and with our integrated software solutions, including mobile access and location solutions, we help our customers enhance the hotel guest experience while improving operational efficiency. In order to provide best-in-class customer service, we offer support in more than 166 countries.

 www.assaabloyglobalsolutions.com

Disruptive innovation and the added value of technological evolution

by **Marloes Knippenberg** 

Collectively, we need to innovate and stop “playing catch-up”, says Marloes Knippenberg, CEO of Kerten Hospitality. The good news, she points out, is that there are no bottlenecks to creativity when it comes to the world of travel. Agility, innovation and a disruptive mindset are the engines for this evolution.

The marriage of hospitality and technological innovation brought forth by the evolution of consumers’ travel habits remains the name of the game for the whole industry. Today’s travelers are savvy, well-informed, connected and have a unique on-demand lifestyle prompted by innovative apps, tailored-solutions and global experiences. Be it a Generation X, or Z or a Millennial, today’s guest wants to order a customized gourmet burger and they want it delivered without any delay.

To illustrate this point, let’s view the guests’ in-room dining experiences. Until recently, it has been about online menus and ordering online a delivery to the room that have slowly been sidelined by order apps and the ghost-restaurant shared economy. Today, customizing a Frikadell burger and pre-ordering it for room service upon check-in is what our guests expect us to provide since they are accustomed to the UberEats and Deliveroo food delivery aggregators. On an app from the comfort of their room or palm, guests scroll through options of sauces, pates and a pre-set dietary requirement list, highlight food allergies and opt for ingredients recommended by their personal nutritionist. They expect the delivery to be a physical representation of the Augmented Reality version they saw on their app. Sounds futuristic and too far-fetched?

To achieve this strategic vision of tomorrow’s guest experiences we need to Think Global, Act Local and Deliver Hyper-customized services. The good news is that there are no

bottlenecks to creativity when it comes to the world of travel. Agility, innovation and a disruptive mindset are the engines for this evolution. The symbiosis between technology and hospitality creates experiences, comfort and feedback-based database of happy guests. This is how innovation helps drive loyalty, which in turn, pushes towards further disruption.

The sky is no longer the limit

Dubbed as one of the most powerful macro-trends, technology innovation will contribute at least \$1 trillion to the global GDP by the end of the year. Technology, travel and hospitality will be primary contributors to such projections. Hospitality alone accounts for 10.4% of the world’s GDP and generates over 313 million jobs, according to the World Travel & Tourism Council. Automation, robotization and artificial intelligence will add further value to human experiences and journeys.

Such is the example of mixed-use concepts that have already pioneered the adoption of “smart hospitality infrastructure” as they combine food concepts, retail, accommodation, maintenance services, smart concierges and lifestyle facilitators. Their DNA is based on the smart use of Artificial Intelligence and automation, algorithms and Big Data that send reminders about maintenance work, energy efficient use of space and even personalized greeting cards sent out to residents for special occasions, anniversaries and birthdays.



For hotel and mixed use operators with innovative mindsets the journey is about the lifestyle change, comfort and the application of technology in a hotel experience where a virtual tour becomes the reality and the expectation turns into a review post.

This is where industry verticals can replace playing catch-up and adapt to the new realities by shifting the debate from “early technology adopters” to disruptive innovators. Once this vision becomes mainstream, a hotel lobby will no longer be fraught with problems such as guest identity and the time taken to ensure speedy guest access to their room but will offer smooth keyless check-in with a 4-digit code delivered on an app to the guest.

More to the lobby of the future which happens today. Just recently at CES 2019, Google Assistant launched its “Interpreter Mode” which is already being used as part of a pilot across

a number of hotels in the US, including Caesar’s Palace Las Vegas, Hyatt Regency in San Francisco and Dream Downtown in New York City. This kind of linguistic innovation would remove borders and connect more people offline.

Lead by example! The reception-less hotels are nothing new, but iPad checking-ins and Alexa-style robots welcoming guests in multiple languages is. That is the kind of thinking I hope for the industry to display collectively: out-of-the-box and customizable to the occasion, geography and lifestyles.

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*The Chief Executive Officer of Kerten Hospitality, **Marloes Knippenberg**, has an innovative mindset that has helped span the organization’s operational and pipeline portfolio to new heights and geographies in Los Angeles, the Middle East, CEE, the Mediterranean, moving further east to get to the west. Her journey in the hospitality field started with Hilton, where Marloes held senior operational and commercial management positions for over a decade. At the helm of Kerten Hospitality, which she developed and launched with the backing of Kerten, Ireland-based investment vehicle, Marloes demonstrates the added value that mixed-use, tailored hospitality solutions and personalized approaches deliver. Inspired by the notion that technology and hospitality go hand in hand, her Disruptive Innovation vision has not only been adopted at Kerten Hospitality but she continuously pioneers it across the larger ecosystem with the aim of establishing an industry platform where technology, hospitality and sustainability coexist and evolve for the benefit of consumers, investors and businesses.*

Get into the blue ocean

by **Frank Wolfe** 

What makes your hotel stand out? The secret to success in today's complex hospitality industry lies in the answer to that question, writes HFTP CEO Frank Wolfe. Many times it seems that the only thing that distinguishes one property from another is the sign on the front of the building. What will make today's traveler choose yours when they are looking for a place to stay?

Hospitality brands are inundated with obstacles to overcome that include intense competition, shared opportunities for technological growth, and using similar strategies that do not do enough to make one property stand out from all of the others. It is time to do something completely different.

Recently I learned about an interesting new strategy for standing out at the 2019 Executive Vendor Summit in Austin, Texas USA, produced by Hospitality Upgrade in partnership with HFTP. Michael Levie, CHTP, the COO of citizenM Hotels and HFTP Global vice president, explained the concept of "Blue Ocean Shift."

So what does that mean? The current market is posited to be a "red ocean," an overcrowded and cutthroat market, where the main focus is to try to outdo the competition. The "Blue Ocean Shift" moves your company from the mindset of market competing (in the red ocean) to that of market creating (a blue ocean of new, uncontested market space).

When you stop focusing on just how to beat the competition, you allow yourself to discover new strategies and opportunities to differentiate your product and make the competition irrelevant.

***Frank Wolfe**, CAE, is a writer, speaker, and CEO of Hospitality Financial Technology Professionals, a global nonprofit association. Wolfe serves as a director on several boards, is an advisor to a hospitality investment fund and has won numerous industry awards including being inducted into the HFTP International Hospitality Technology Hall of Fame.*





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How can you begin to shift your thinking? When we do business, most of us focus on two things: content and process. These are very important. But we should also focus our creative thinking on a third component — which is context. Context, content and processes should all work together and influence each other in a cohesive balance.

The context can completely change your content and processes. During his presentation, Levie gave an example of how context can change everything. It involved looking at the following four words: car, train, boat and plane. What is the commonality between all of these things? The first word that comes to mind is “transportation.” This doesn’t really inspire much.

But shift your thinking a bit and another word that could describe them all is “leisure.” This creates a whole new context of experience. Having the right context in mind can completely change the way you market your hotel — as not just a place to stay but as an unforgettable experience.

In order to properly envision your context, you need to define who you are. If you are a hotel, to which market segment do you belong? Are you luxury, mid-market or budget — or are you a blend of two or more segments? Levie gave citizenM hotels as an example of the hybrid segment because they combine mid-market pricing and efficiency with luxury hotel touches, creating an experience of “affordable luxe.”

Next, you should define your ideal guest. Who are they, what are they like and what is most important to them? This will help you

make informed decisions on how to increase value in ways that will make the most impact on your guest experience. And when you come from a place of creating, you can start to envision a new kind of guest you had not considered before, opening you up to a whole new target market.

The most important thing is to focus on what will truly differentiate your product. For Levie, it was offering the right mix of aesthetics and assets to today’s frequent traveler who blurs the lines between business and leisure.

He encourages properties to make sure they offer the assets that matter most (a comfortable king-sized bed, a rain shower, and excellent WiFi are all very high on his list). For citizenM hotels, they made strategic decisions to create a balance that increased value without raising costs. In one example, they reduced individual room sizes while maintaining functionality and comfortability, in order to make room for exciting shared spaces — where they used vibrant colors and interesting art to leave a lasting impression on their guests.

There are many ways you can think outside of the box to bring the best value and create a personalized customer experience that they will not soon forget. You can explore the “Blue Ocean Shift” concept in depth and follow its five-step process by reading Blue Ocean Shift written by professors Chan Kim and Renée Mauborgne.

The future of global hospitality and sustainable technology

by **Diane Estner** 

Technological changes coming rapidly down the line represent a massive disruption globally, writes Danni's Diane Estner – not just in hospitality and travel, but more fundamentally in changing the way we operate and live as human beings. The hotel world will be radically affected.

The global travel industry is expected to grow annually by 4%, possibly more. Our current global population is 7.7 billion (Worldometers.info). Global travel has become ubiquitous for many. Our daily consumption of energy, food, water and other key primary resources is unprecedented. It's no secret that over the last decade, our demand for these resources has already vastly exceeded our supply. When climate change and loss of biodiversity are added in, it's clear that our future depends on our adopting a unified consciousness in protecting our earth. An immediate need for our survival is sustainability technology and innovation.

I grew up in South Florida in the 60's, a time when life was generally organic and sustainable. I've been involved in global hospitality since the early 90's. My sense of sustainability stewardship came into focus when I relocated to the Pacific Northwest in 2010. I moved into a new platinum LEED building that was designed with rain water harvesting, wind turbines, low flow plumbing, low voltage LED lighting, a green roof, and much more. I didn't understand what all the fuss was about, and I was skeptical; however, I left Oregon a changed person and a committed believer in the imperative significance of environmental stewardship and sustainability.

We've lived in a plastic world for decades, and thankfully, within the last year or so most of our global hotel brands, cruise, airline and travel operators have all committed to fully eliminating single use plastics. This helps reduce our waste, and protects our marine life and beaches, but we need to do more, and we need to do it faster.

There are a growing number of countries, like Costa Rica, that are doing it right. Costa Rica's travel economy is thriving because of their longstanding commitment to eco-tourism. Ranked at the top for attracting most visitors within the Americas, Costa Rica is one of the most ecologically sustainable countries in the world, thanks to its renowned rainforest programs and the government's dedication to preserving its forest and water systems. Costa Rica is now running 100% of its electricity through renewable means such as hydroelectric, geothermal and wind power. The country supports nearly 5% of the world's biodiversity despite its small size and even compensates landowners for protecting their trees and planting new ones. Many travelers go there for the amazing natural (protected) experience offered.

Enough about the big picture. Let's focus on some specific technologies that are changing our world to be more sustainable and enhancing our hotel /travel experience. The Internet of Things (IoT), Artificial Intelligence (AI), Blockchain, renewable energy, driverless and flying cars, Augmented/Virtual Reality (AR/VR), 3D printing, and robotics are just the tip of the iceberg for the technologies we see becoming more common in our future hotel sustainability technology.

With all the technology trends that are taking place right now, I personally see the Internet of Things (IoT) being the most disruptive because it's at the heart of all things connecting us and making everything "Smart". Smart cities, smart homes, smart buildings, smart cars, smart hotel rooms...its endless. It's about being more efficient, more sustainable, and automated, the digital transformation is well underway.



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The Internet of Things, or as it's sometimes called, the Internet of Everything, is about all the networked connections between devices, people, processes and data. By 2025, the IoT will exceed 100 billion connected devices, with sensors everywhere, essentially creating a growing eco-system of a trillion-sensors. IoT is about machine-to-machine communication; it's built on cloud computing and networks of data-gathering sensors; it's mobile, virtual, and instantaneous connection; and it's going to make everything in our lives "smart." The real value of IoT is that it is creating the connection between gathering data and leveraging it. All the information gathered by all the sensors in the world isn't worth much if we don't have an infrastructure in place to analyze it in real time (hello "Big Data Analytics").

So... in addition to having everything in our cities and supply chain sustainable, efficient and smart, our hotels and specifically the smart hotel room of the future will have everything connected. It will likely include emotion sensing capabilities, elevating the guest experience in a personalized way to the highest level possible, while also operating and managing all of our available resources in the most efficient and sustainable way.

These changes represent a massive disruption globally, not just in hospitality and travel, but more fundamentally in changing the way we operate and live as humans. Sustainability and the technologies ensuring our future are not just an option, but a necessity.



***Diane Estner** of DANNI Enterprises enjoys a global role toward in supporting industry shifts occurring in hospitality today. She is passionate in supporting industry entrepreneurs and start-ups, mobility, data analytics & machine learning, guest personalization, loyalty and our experiential immersion, WiFi, Hosted UCaaS, and Sustainability Solutions that help reduce costs and promote a consciousness of environmental stewardship. Diane thrives in finding and deploying innovative business solutions, brokering new business partnerships, delivering world-class customer service, and supporting a dynamic, evolving industry for which she truly has a passion.*



Technologies are changing the experience of the mobile generation's travelers

by **Jing Zhu** 

As a demonstration of what digital travelers' experiences could be like in the very near future, the Chinese hotel FlyZoo, an Alibaba venture, is a good start, says CHTA's Jing Zhu. This transformation is underway not only in China, but globally.

Some key facts about China's mobile generation:

1. In 2018, the total number of mobile devices in use in China was more than 1.5 billion.
2. That same year, the total transaction volume of Chinese e-commerce conducted via mobile devices was more than US\$ 25 trillion – nearly 100 times the transaction volume in the U.S.
3. Online mobile penetration is more than 70% while online mobile travelers is more than 65%.

In a snapshot, China is leading the world into a truly mobile digital era, in terms of consumers' lifestyle, ranging from shopping, ordering, service delivery and payment – and everything in just one click. Moreover, this has had a huge impact on China's economy, in particular B2C business models, affecting products, services, people, talents, skillsets, etc. In short, this technology is transforming everything here in China.

As a typical example, take Alibaba's future hotel called "FlyZoo", which has been gaining a lot of attention. Much like when Microsoft released its Surface series and Google launched Pixel products, the global Internet giant Alibaba late last year officially launched its "Hotel of the Future" – a leading technology incubator aiming to redefine the future of hospitality.

Using their smartphones, guests with an ID can scan their faces to check in before they even arrive; elevators automatically scan guests' faces to verify which floor they can access; and hotel





room doors are opened once again by facial recognition. Inside rooms, Alibaba's voice technology is able to control the room temperature, open and close curtains, adjust the lighting, order from room service, and so on.

Meanwhile, in the restaurants, robots deliver food that guests can order via the FlyZoo app, and at the bar a large robotic arm knows how to mix more than 20 different types of cocktails. Bar bills will be added automatically to the room bill.

To check out, all a guest needs to do is click one button on the app, after which the room is blocked and the bill is automatically charged through Alipay. At the same time, the guests' personal data is immediately erased from Alibaba's systems.

As Andy Wang, CEO of Flyzoo hotel, puts it: "When guests experience everything here, they say 'Wow!' It's such a different kind of hospitality."

Although there are many similar advances being made, both here in China and around the world, only Alibaba's Hotel of the Future has been able to integrate so many technologies to allow the mobile generation of guests an end-to-end, seamless travel experience.

What value could technologies bring to the mobile generation of travelers?

Despite AI, facial recognition, mobile room keys, robotics, machine learning, etc., is "high tech, low touch" the key to hospitality?

To support a seamless mobile guest service experience, it not only depends on all that fancy hardware but also on the integration and merger of the hospitality application ecosystem, robotic operations and process automation. This in turn means restructuring organizations and exploiting the skillset of the mobile generation. Digital capability is a challenge at the level of the entire organization.

As a demonstration of what digital travelers' experiences could be like, FlyZoo is just a start – an indication of how leading technologies could change hospitality in the future. The transformation is underway globally. "The future is already here; it is just not evenly distributed."

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Jing Zhu is the Founder and Chairperson of CHTA, which aims to build the industry standard and future platform by all talents in China and worldwide, yet to connect echo systems together with leading edge technologies in making travel and hospitality a much better space. Jing has been a CEO in the hospitality business for more than 10 years, receiving numerous awards such as Most Innovative industry Leader in China, and she was also recognized by HITEC/HFTP as one of most outstanding females in global hospitality technology. Jing has a telecom engineering master degree and EMBA certificate.

