

Treating Guests as Segments of One

By Amitava “Chats” Chatterjee and Siva Kantamneni

A solid events-driven architecture with context and location aware technology supported by data infrastructure creates a strong foundation to take advantage of tech innovations.



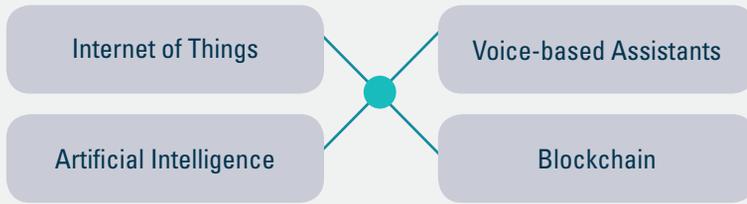
Mobile devices have changed how we communicate and work. Never has the transformation been more profound than the current smartphone explosion, which is causing massive cultural, communication and behavioral shifts. Smartphones virtually vaporized alarm clocks, watches, calendars, maps and boarding passes, to name a few. In 2018, global smartphone penetration reached 85 percent and is expected to continue to rise to 90 percent by 2023. In five short years, nearly everyone on the planet who has the means will own a smartphone. The global societal impact is just beginning to be felt.

Consumers are making quantum leaps in uses and adoption with each new device release. Older generations are mirroring younger generations with their technology engagement, blurring demographic patterns and market segmentation. Usage shifts and the growing daily dependence upon smartphones are shaping consumer behaviors and their expectations of interactions with others. Most importantly, guests are benchmarking their technology experiences and feature sets from other industries and constantly expecting travel and hospitality players to meet and exceed the ever-rising bar.

Speed, ease of use and relevance are three of the greatest themes driving guest expectations as they

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move through an always-on and connected world. Their homes and cars respond to their very presence and preferences. Virtual voice assistants provide immediate information and concierge services. Many guests have come to expect voice-driven, fast access to their entertainment choices from their personal media subscriptions. Families, friends and coworkers have embraced real-time communications, many of which are driven by social media. All of these are typically powered by the ever-expanding capabilities of a smartphone.

Reaching and exceeding guest expectations has always been a high bar, made higher still with constant technological innovations that the hospitality industry doesn't always catch up to right away. Disruption is coming from non-traditional hospitality players, e.g. OTAs and other market entrants. Some online travel agencies are investing upwards of \$1B annually in their technical development. The number of traveler touchpoints and potential pain-points has caught Silicon Valley's interest. Over the past two years, travel startups raised a cumulative \$30B in funding — almost totaling the amount raised over the past 10 years. Purveyors of the sharing economy are just the front edge of the tidal shifts ahead for travel and hospitality.

A Strong Data Foundation

The good news is that technology is coming of age and converging in

ways never previously thought possible and this industry has never been riper for disruption. The keys to harnessing this are rapid access to data-driven analytics enabled by a robust events-driven architecture, thereby enabling a whole new world for hospitality providers to anticipate guests' needs and desires and delight them with meaningful experiences. This typically requires hospitality companies to establish a north star and enable delivery through strong technological and data governance. A perfect first step for any organization wishing to capitalize on the opportunity is to harness their existing data, create a 360-degree view of their guests and set up a solid data and events-driven architecture to manage new data streams and analytics. Many organizations that haven't built this strong data foundation have found it difficult, if not impossible, to introduce technological innovations geared at enhancing guest experiences and sustaining marketplace differentiation.

A solid events-driven architecture with context and location aware technology supported by data infrastructure can create a strong foundation to take advantage of technological innovations such as Internet of Things (IoT). This buzzworthy technology has grown up fast and is ready for primetime use for any travel and hospitality organization. Key questions to ask when beginning to think about IoT are:

- What guest behaviors would you like to understand better?

- Where are your operational bottlenecks and how fast can you address service delivery and maintenance issues?
- Where do you feel you could better surprise and delight your guests?

The answers to these questions provide the roadmap for how and where to gather more data and how you can begin to enable IoT in your organization. For example, a large resort struggling to shorten room service delivery times could begin by adding RFID tags to their room service trolleys and trays coupled with sensors installed in key locations around the property. The beacons would immediately start sending streams of data which could be analyzed to uncover operational slow-down areas. Equipped with this new information, the resort could then target hot zones to improve service delivery. This could quickly extend to more sensors on tray covers to show time lag between food preparation and guest consumption. From there, the resort could use this same approach to house-keeping or maintenance. This is just one example of IoT in action and underscores the importance of a strong technology foundation.

Automated Analytics

It is easy to imagine how your data set can quickly explode in size, which is where cognitive computing or automation comes into play. With more data flooding into enterprises from a variety of data sources, it is becoming essential to set up automated systems to analyze and digest this information and provide operationally actionable real-time analytics.

Returning to the resort example, imagine that the IoT-based system has been coupled with

room service, housekeeping and maintenance. The flow of data is nonstop and much too large for any one human or team to try to analyze. If the resort did wait for human analysis, the guest would be long gone. This is where automated systems and smart trend models shine with their ability to interpret data and send messages to the appropriate operational touchpoints and escalation contacts as appropriate (e.g. one of the resort elevators breaks down, and automated messages are sent by an always-on and alert sensor, requesting repair service while sending guest service delivery re-routing instructions).

This accumulation of data is where things get exciting. What happens when you are able to aggregate this treasure trove of information, mine it for actionable insights and have the system learn with each interaction? This is the stuff of Artificial Intelligence (AI). AI is likely the future of personalization and can be a boon to travel and hospitality companies. In an industry built on servicing guests, the ability to understand and anticipate needs and constantly improve service may be the difference in building loyalty and capturing greater wallet share.

AI builds further upon that data foundation. It is the hungriest of all technologies and demands a constant and ever-growing stream of new data points. With automated/cognitive systems built-in, it begins to recommend proactive action. A travel website can get smarter on what content to serve up based on users' clicks. A hotel company can pull the appropriate loyalty levers important to different guest demographics and make it easier to market to segments of one. A cruise line could optimize

its procurement practices based on a thorough understanding of each cruise passenger's dietary preferences. The possibilities are only limited by the amount of money available to invest and the commensurate ROI.

Voice-based Assistants

Many hotel and resort chains have started implementing voice-based assistants, which can enhance the guest experience and also improve operational efficiencies. Guests can order room service and control in-room environment settings through voice commands. Integration with booking engines, loyalty program management, hotel concierge systems and room service systems are a few trending areas in this space.

Where Blockchain Fits In

Blockchain, an incorruptible digital ledger simplifying accrual and redemption tracking, while dramatically improving security, is another technology that is likely to change the hospitality landscape. Recent headlines have largely revolved around how it is revolutionizing financial services. However, there are multiple use cases with applicability to travel and hospitality, such as loyalty programs, one of the greatest currencies in travel. Ever since a major airline launched the first loyalty program back in 1981, consumers have been influenced by loyalty rewards. Blockchain-based loyalty platforms also facilitate partnership opportunities. Imagine guests walking through your hotels, availing of services offered by your food and beverage outlets and gift shops, using their loyalty points to pay for their purchases leveraging blockchain. They could also earn points through these same purchases. Transaction and

account updates can happen securely, and in real-time. Blockchain can provide a true path for travel and hospitality loyalty programs to create more value and flexibility in their loyalty currency. The speed of transactions also allows companies to get these points off their balance sheets, which is a very positive benefit.

Convergence=Innovation

Convergence of these technologies can lead to additional innovation and provide future disruption opportunities. Many tech companies are doubling down on investment and research, so close attention should be paid to these advancements and their potential applicability to our industry. Fully capitalizing on these opportunities while factoring in external (market, environmental) forces, will likely require enterprises to create flexible and connected, yet secure ecosystems, without which the expected pace of innovation adoption may suffer.

The industry also needs to be mindful of some additional aspects beyond data privacy, security and regulatory requirements such as GDPR, including scalability and rapid global deployment capabilities. Since the industry, by its very nature, has globally distributed operations employing, in many cases, loosely enforced and/or mandated and in some cases, non-standardized technologies. As they think about exerting their influence outside the four walls of a hotel, being able to easily and seamlessly connect with dining, entertainment and leisure reservations systems will likely require open standards for information sharing. The future is ripe with possibility to keep our guests feeling like a segment of one as they are at the center of it all. ✨