EMERGING TECH IN TRAVEL 2017 REPORT

Preview of Sabre Labs research

Innovation update from Sabre Labs

Executive Highlights Summary

- Sabre Labs is our team that explores technology innovations that will impact travel over the next decade

- The report distills our last year of research and exploration to help travel businesses make strategic decisions for 2017 and beyond

- We provide the context necessary to understand three major technology trends we've identified as likely to have the greatest impact on the travel industry for 2017.

- Megatrends poised to impact travel in 2017; connected intelligence, conversational interfaces and digital realities

- Six technologies you need to know for 2017; augmented reality, automation, indoor location, message based interfaces, virtual reality, voice based interfaces

- The full report also provides a deeper look into two key technologies anchoring each trend

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Megatrends for 2017

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Contains more than 40 specific takeaways for **Agencies**, **Airlines**, **Hoteliers**, and **Travelers** concerning 3 megatrends:

1. **Conversational Interfaces**
   Voice and messaging and the shift to new forms of communication

2. **Digital Realities**
   How virtual and augmented realities are changing the travel landscape

3. **Connected Intelligence**
   The role of bots, robots and location beacons in travel

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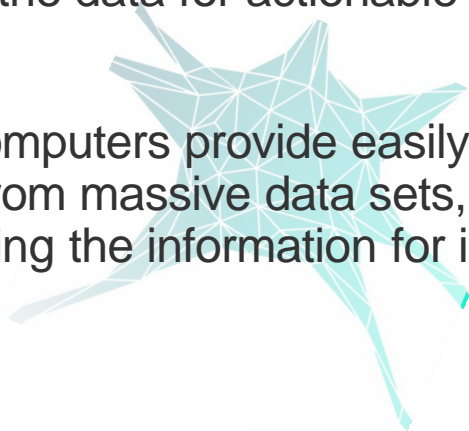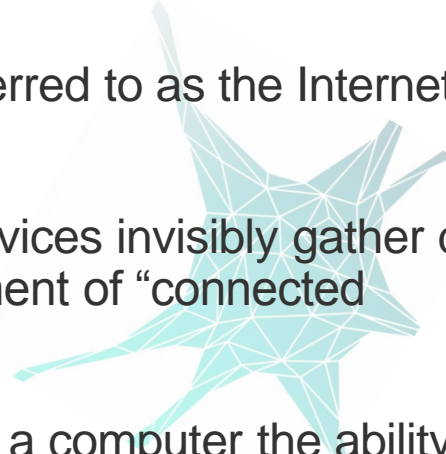
Megatrend #1 – Connected Intelligence

Our world is increasingly connected, often referred to as the Internet of Things or IoT.

In the background, connected sensors and devices invisibly gather data from every sphere of life, fueling the development of "connected intelligence."

Machine learning or artificial intelligence gives a computer the ability to program itself by using algorithms to analyze data.

Big data is continuously evolving and relies on sophisticated algorithms to analyze the data for actionable analysis including future predictions about data.

While computers provide easily digestible graphs and charts or query results from massive data sets, people are still asking the questions and interpreting the information for insights.
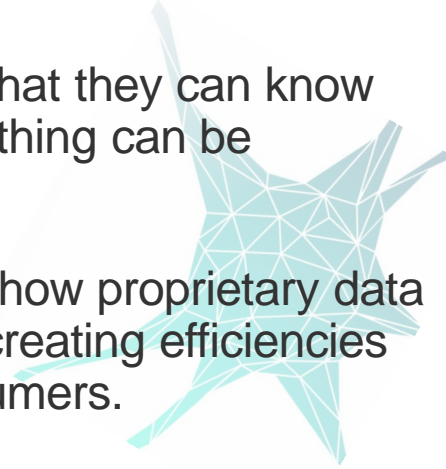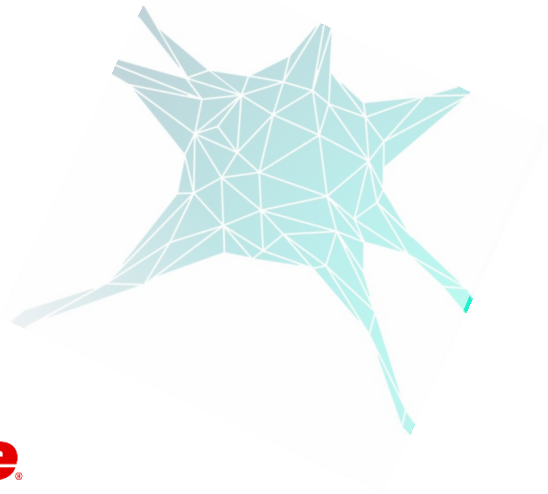
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Connected Intelligence 2017 & Beyond

For 2017, businesses need to be assessing what they can know and what they might like to know—almost anything can be measured.

And then start looking for ways to understand how proprietary data interacts with and transforms other domains, creating efficiencies for the business, for the industry and for consumers.

And because connected intelligence is inherently designed to drive continual process improvement, businesses who get an early start have the potential to quickly outstrip their peers.

Key Takeaways
Connected Intelligence

- Agents have already embraced automation in a really powerful way through algorithms that automate price monitoring, deal finding, etc. These tools help expedite the manual work of itinerary building. Next generation automation can help with even more of the ground work, taking care of a greater share of the itinerary building for routine kinds of travel, and doing a better job of filtering down to viable itinerary options to save agents time.

- The increase in message based interfaces as a way of interacting with customers perpetuates the need for automation. New, preferred channels of communication can drive higher customer engagement, but that means there is more work to do. Integrating bots to work hand-in-hand with human agents can give humans the time to stay focused on high value tasks and personal relationships with high value clients.

- Robots are also beginning to offer conveniences for travelers, including delivery robots in hotels; drones with cameras that can provide hands-free documentation for parts of the trip, including adventure excursions; and autonomous luggage able to follow its owner around airports, city streets and hotels, simplifying the act of travel.

- Proximity beacons offer airlines a way to know where staff and physical resources (such as baggage carts) are at any point in time and to track how those resources are utilized throughout the day as they move through the terminals. Tracking of movement patterns may allow for improving allocation of resources and preemptively moving staff where they will be needed to help reduce bottlenecks in the travel experience.

- If guests opt-in to share their location, it allows hotels to improve the guest experience; for instance, knowing when to clean rooms without disturbing guests. It also allows hotels to track flow through the hotel, and ultimately to track conversion rates on hotel messaging for services and amenities.

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Megatrend #2 – Conversational Interfaces

From punch cards to touchscreens, interacting with digital devices has always required a learning curve to accomplish a goal — whether trying to record a TV show, set the time on a microwave, or book a flight on a smartphone.

Conversational interfaces aspire to flatten the learning curve by mimicking conversation with a human being, using voice and text to interact with digital devices, from your smartphone to your car to your coffeemaker.

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Conversational Interfaces 2017 & Beyond

In 2017, we'll see conversational interfaces become more refined, more capable, and more integrated into all aspects of interacting with digital devices and personalities.

As conversational interfaces continue to grow as a share of how users interact with devices, it will become increasingly important for businesses to be accessible through conversational interfaces, which will require evaluating what services make the most sense to increase customer interaction on different platforms.

Key Takeaways

Conversational Interfaces

- In 2017, some companies will have to decide whether to fund a mobile app or a message based interface strategy. Message based interfaces have shown immediate promise for service and support, whether human-powered, bot-powered or a combination of the two. Conversational shopping interfaces, specifically in travel, will still be considered experimental in 2017.

- Offering service and support through a preexisting messaging service may help cut down on social complaints via services like Twitter. Using preexisting services also represents an immediate natural area of adoption.

- Travelers who currently use WeChat, Facebook Messenger and other messaging services will see a large number of companies begin to use service and support capabilities on these platforms in 2017. This will give travelers quick access to service and support from travel companies without having to download a proprietary app or access a mobile website.

- Auditory dashboards built for voice interfaces like Amazon Echo offer agents a hands free way to quickly access daily updates and basic summary information about travelers. This can include details like where travelers are at a particular time, whether any travelers still need to check in, notification of weather events or safety issues, etc. Building ways for agents to use voice to access auditory dashboards with key information can allow agencies to save time and increase operational efficiency

- It's important for the industry to realize there is a growing expectation by travelers to be able to access information as conveniently as possible, wherever they are, and that will often mean making resources accessible via voice.

- For the traveler, speaking to a voice system when getting ready in the morning can provide traffic updates, flight reminders, weather reports, etc. This same spoken system should be able to follow the traveler throughout their day providing hands free on-the-go information. Itinerary management via voice will be one of the use cases we see emerging in 2017.

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Megatrend #3 – Digital Realities

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Digital Realities 2017 & Beyond

After years as a mix of science fiction, vaporware and product failures, 2016 was the year the technologies underlying digital realities finally became physical realities.

And now that the technology is finding its feet, it's showing no signs of slowing down.

Technological advances expected to both AR and VR platforms in 2017 will continue to drive consumer adoption, while giving those companies willing to take a chance on these new technologies the potential for increased operational efficiencies.

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Key Takeaways
Digital Realities

- Most of the airline use cases for augmented reality require head-up displays (HUDs). HUDs are beginning to be used for pilot training. AR allows a pilot to practice in a simulated cockpit while still being able to see their hands, helping to learn placement of controls and reinforce muscle memory.

- Smartphone-based augmented reality has already started changing the hotel landscape with location-specific digital content, like Pokemon Go. We expect more platforms encouraging the creation of digital content with real world locations. There are a wealth of opportunities for hotel chains to create branded content to drive traffic to specific properties or places within a property.

- Smartphones have helped advance AR more quickly for travelers than for other segments of the travel industry. Real time translation of signage and other text based content has been one of the most powerful tools for international travelers, and real time translation of voice is not far behind.

- Agencies should also consider targeted advertising on platforms where existing VR content is being consumed. If you specialize in tours of Iceland, you want your agency's "book here" ad to appear every time a potential traveler watches a YouTube VR video of the Northern Lights.

- Airlines are becoming more advanced in how they use VR, moving from VR as travel inspiration to VR as a way to position and sell premium products. VR can show people how luxurious and comfortable air travel can be, not just in planes, but in the private lounges and amenities that are part of an end-to-end premium experience.

- Hoteliers are increasingly creating VR photos and videos to allow potential guests to tour public spaces, amenities and private rooms. It's also a way to showcase upsell opportunities by giving people a better understanding of how a more

For more on travel tech for 2017,
check out the full report:

https://www.sabre.com/labs/emergingtech/