Skift Data and AI Summit 2024:

10 Takeaways for the Next Wave of
Travel Innovation

Presented by:

Skift + publicis
sapient

Introduction

At the Skift Data and AI Summit in New York City in June 2024, leaders from every corner of travel took the stage to solve some of the industry's most pressing — and most exciting — technology questions.

Over the past 18 months, the hype around AI has spread like wildfire. But beyond all that bluster, hide powerful use cases that promise to benefit travelers, bolster travel partnerships, and drive revenue for travel brands.

Attendees at this year's summit put practical travel AI use applications under a microscope, discussed effective strategies for driving AI implementation and utilization, and investigated examples of true innovation in the space.

In this Executive Focus Report, Skift partnered with Publicis Sapient to compile key insights, highlight memorable moments, and offer tangible takeaways from industry leaders in both travel and artificial intelligence.

Topics Covered In This Report:

- ▶ How can travel and tourism organizations use data to make better decisions?

- ▶ What challenges do legacy brands face when it comes to AI utilization?

- ▶ How can we use AI to revolutionize the travel search experience?

- ▶ How should travel brands think about AI as they embark on new implementations?

- ▶ How can travel brands grow beyond all the AI hype and buzzwords?

- ▶ What tools are travel leaders developing with data and AI today?

- ▶ Which AI travel applications are practical right now, and which remain out of reach?

- ▶ How can specific travel sectors — such as DMOs, hotels, and airlines — best leverage AI?

- ▶ What does it take to develop a comprehensive data strategy in the travel industry?

Speakers Highlighted In This Report:

- ▶ Joe Naaman, Managing Director, Skift Advisory

- ▶ Drew Pinto, Executive Vice President and Chief Revenue and Technology Officer, Marriott International

- ▶ Ed Vanga, Vice President of Product Management for AI, Publicis Sapient

- ▶ Nitin Sood, VP Digital Innovation & HVMB Product, Marriott

- ▶ Vivek Bhogaraju, Advisory Partner, Data & AI, Skift Advisory

- ▶ Gilad Berenstein, Founder, Brook Bay Capital

- ▶ Shane O'Flaherty, Global Director, Travel, Transportation, and Hospitality, Microsoft

- ▶ Matthias Keller, Chief Scientist & SVP, Technology, Kayak

- ▶ Andrei Papancea, CEO and Chief Product Officer, NLX

- ▶ Meaghan Ferrigno, Senior Vice President, Chief Financial Officer, and Chief Data and Analytics Officer, Destination Canada

- ▶ Jason Birnbaum, Chief Information Officer, United Airlines

- ▶ Rajesh Naidu, Senior Vice President, Chief Architect, Expedia Group

- ▶ Gaurav Bhatnagar, Co-Founder and Joint Managing Director, TBO.com

- ▶ Ankush Nijhawan, Co-Founder and Joint Managing Director, TBO.com

A Message From Publicis Sapient

A challenging marketplace combined with soaring consumer expectations means brands in this space — the travel space — have been facing significant challenges.

Which is why the rise of generative AI has come at a good time. This rapid advancement means, at the very least, basic implementation will soon become the industry minimum.

And in truth, the companies destined to succeed are the companies that choose to go beyond traditional approaches to business transformation and technology modernization. Instead, they incorporate generative AI into their underlying business models and existing workflows across the entire enterprise.

In the travel industry, we are seeing generative AI being leveraged in three core areas: improving customer experience, aiding in the modernization of legacy systems and accelerating the evolution of content supply chain and marketing automation.

Generative AI is a real opportunity to drive growth more effectively. It's already helping with the work we're doing to start making simple, basic consumer experiences easier, more effective and more efficient for both businesses and customers. Add a layer of seamlessness and efficiency to online experiences, and watch as you propel guests and employees to their end goals faster. That, in turn, develops more loyalty — and more revenue. Take, for example, our work in collaboration with Homes & Villas by Marriott Bonvoy.

Together, we've created a transformative generative AI-powered search product designed to match travelers with the perfect home and destination based on a natural language search. Put simply, they tell us what kind of vacation they want in their own words. Travelers are then presented with a curated list of properties from the 150,000 available vacation rentals on the Homes & Villas by Marriott Bonvoy platform. This project showcases the opportunities generative AI can create for travel businesses like yours (and ours), not just in the future, but today.

Further, we are working across a range of businesses across industries, leveraging generative AI to materially accelerate the modernization of legacy technology and systems, particularly mainframe systems, dramatically reducing costs of modernization. With that in mind, we hope you find this report useful, and the insights shared help bring your own generative AI projects to fruition.

Nigel Vaz

Chief Executive Officer

Publicis Sapient

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Your Digital Transformation.
Their Cherished Memories.

We're all travelers in a digital world now, so it's vital you stay competitive. Our generative AI-focused, data-driven approach gives travel brands the tools to thrive tomorrow.

So, transform today and define your business journey, wherever you want to go.

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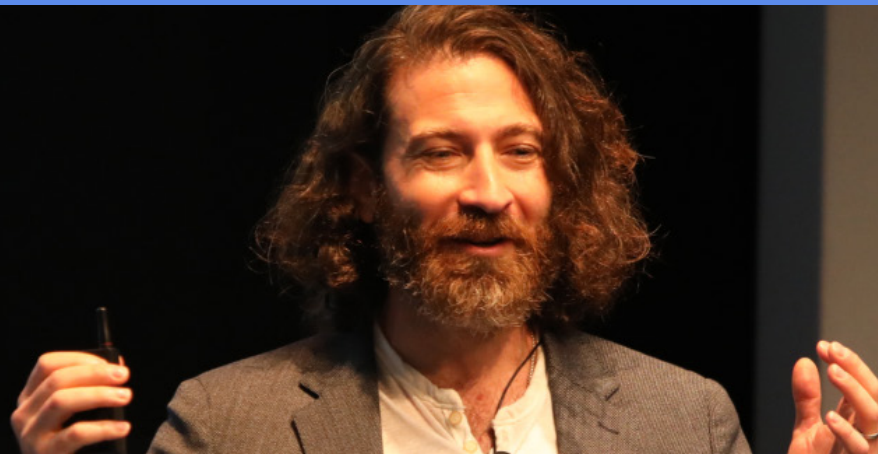
Joe Naaman

Managing Director,
Skift Advisory

8 Critical Questions About AI In Travel

Skift Advisory managing director Joe Naaman establishes a framework for engaging with this year's summit and asks key questions to guide travel and tourism brands' investigations of data and AI.

Naaman kicked off the summit by asking a core question: "How can travel and tourism organizations sift through 2.5 quintillion bytes of data to help their leaders make better decisions?" While the industry is still sorting this out, the areas where data and AI will have the strongest influence include:

- Improving experiences, products, and itineraries

- Prioritizing specific markets to optimize ROI

- Tracking the traveler's path-to-purchase

- Streamlining operations and costs

- Forecasting scenarios at scale

- Measuring outcomes with increased accuracy

As Naaman explained, as it stands today, travel companies need to "Go out there, try new things, break those things — ethically and safely — and then rebuild them for our industry."

According to Naaman, these are the most important questions travel companies should be asking in order to do so:

1. How do we determine if we're ready to implement data and AI?

2. How do we leverage data and AI to reliably drive revenue?

3. What will a unified travel experience look like using data and AI?

4. How do we make that experience more personal and conversational?

5. What tools and solutions can we use to increase our operational efficiency?

6. How does innovation impact our sustainability commitments?

7. How do we protect the personal data and private information we are dealing with?

8. What does the data and AI landscape look like five or ten years from now?

Using Technology to Drive Revenue

> Marriott executive vice president and CRO/CTO Drew Pinto explores how his team is focused on enriching and connecting their datasets to achieve the biggest tech transformation in the company's history.

Drew Pinto

Executive Vice President and Chief Revenue & Technology Officer, Marriott International

Sean O'Neill

Senior Hospitality Editor, Skift

Skift: How is this tech transformation going to make employees' lives better?

Drew Pinto: We want to think like a travel retailer. We have a lot of great products to sell — not just rooms, but experiences, restaurants and bars, golf, spas, yachts, homes and villas, you name it. As retailers, we find the right way to merchandise those products effectively, make it easy to find what you're looking for and make that all digital.

Can you tell us about attribute-based booking at Marriott?

Data is the foundation of attribute-based booking. If they booked it, we need to be able to deliver it. We're making sure that data flows between central reservations, property management systems, hotel operations, and revenue management. What you get should be what you bought.

What are the challenges to utilizing new technology in a legacy environment?

The biggest challenge for us has been scaling. These large language models (LLMs) are super expensive. The other challenge is change management. We're asking people to work differently, and there's a lot of resistance to change when you're used to doing things one way.

Reimagining Destination Discovery

> The tyranny of the search box, as Skift CEO Rafat Ali has referred to it, keeps travel brands trapped in the past. How can we use AI to evolve the search experience to better reflect the way travelers engage and shop today?

Ed Vanga

VP of Product Management for AI, Publicis Sapient

Nitin Sood

VP Digital Innovation & HVMB Product, Marriott

Jeremy Kressmann

Vice President, SkiftX

Building a better travel search

Nitin Sood: No matter what you want to do or how you want to travel, a traditional search box makes you boil it all down to the name of the destination. It's not representative of all the research, hard work, and heavy lifting the traveler has to do outside of that. That's what we wanted to solve for.

Asking the guest better questions

Ed Vanga: We can have a conversation with the guest one step up in the funnel. We're asking, 'What do you want to do?' instead of, 'Where do you want to go?' That gives us a whole new way to refine that experience to help the traveler down the funnel and send them on their best vacation.

Innovation within a large company

Nitin Sood: How do you disrupt a multi-billion dollar engine when the risk profile of generative AI is so high no executive will sign off? Find a pocket of your business where you can empower people to make decisions, because it takes 100 decisions a day to put something like this out.

Vikram Oberoi

Advisory Partner,
Data & AI,
Skift Advisory

Setting Up for AI Success

Skift Advisory partner Vivek Bhogaraju challenges travel brands to question how they think about and implement this wave of innovation around AI and data.

What are the right questions to ask?

As travel companies embark on AI initiatives, ask questions that frame your use case (e.g., text conversation, visual interaction, or immersive experience) and find the right models (private or open source) to deliver the desired results.

Are we looking at data correctly?

According to Business Research Insights, the value of the global AI training data market is projected to increase from $2.5 billion in 2021 to over 27 billion by 2032. The more travel brands can break down silos between subsectors and deliver domain-specific data, the better equipped the industry will be to deliver truly connected trip experiences.

What is the right AI team structure?

Data and AI are foundational horizontal capabilities that require collaboration across multiple teams and departments. AI advisors can either work as a central organization that consults with various cross-functional teams or embeds with each function.

Why is this the right time to invest in AI?

Travel's AI maturity is lower than other industries, but the opportunity for travel AI is at the top of the charts. We have an opportunity to overcome industry challenges like fragmentation and the long tail of travel by using AI to reinvent the traveler experience.

Gilad Berenstein
Founder, Brook
Bay Capital

Shane O'Flaherty
Global Director, Travel,
Transportation and
Hospitality, Microsoft

Justin Dawes
Travel Tech
Reporter, Skift

AI Beyond The Hype

AI and all its associated buzzwords are turning heads in every industry. In this discussion, Gilad Berenstein and Shane O'Flaherty discuss the best strategies for travel brands to see beyond the hype and take AI implementation seriously.

The generative AI revolution

Gilad Berenstein: The first companies that committed to a mobile app didn't win the mobile revolution. The companies who committed to a decade of testing, learning, and iterating as they used this new set of tools in mobile technology won. AI is just a tool people use to accomplish their goals. You wouldn't call it a revolution if you got a new hammer. The revolution will happen as we learn to use these tools over time.

Using data to drive revenue

Shane O'Flaherty: Many travel companies don't have a modern customer data platform, but they'll need one to stitch together all their siloed data and provide personalized offers using AI. It's shocking to me that travel companies aren't there yet because getting to know your customer better is the lowest hanging fruit to driving incremental revenue.

Employee-focused AI applications

Shane O'Flaherty: The industry will continue to fall behind unless hospitality invests more in employee-based technology. In some cases, it's a little archaic.

Gilad Berenstein: Hiring is still a massive challenge in our industry. If you're looking for business success, investing in your back of house may be more promising.

How Kayak Navigates Conversational Search

Matthias Keller
Chief Scientist & SVP,
Technology, Kayak

> Productivity and efficiency are some of the main benefits generative AI offers consumers. Kayak chief scientist & SVP Mathias Keller pulls back the curtain on the most innovative ways his team has leveraged those principles to drive business results.

Dennis Schaal
Executive/Founding
Editor, Skift

PriceCheck saves travelers time and drives conversion

Kayak's AI PriceCheck tool makes it easier for travelers to compare prices and book the lowest price possible. Travelers can share a screenshot of a flight listing from another travel website to the Kayak app, and Price-Check searches for the best available rate for that flight.

The tool simultaneously provides real value for travelers and helps Kayak convert customers at the end of a transaction they started elsewhere. As Keller explained, "PriceCheck is only economic — and possible — with the help of GenAI."

Ask Kayak combines ChatGPT with owned travel data

Instead of searching for a specific destination, travelers can discuss their travel desires — like seeing penguins — with Ask Kayak. The tool combines ChatGPT's general data with Kayak's travel-specific data, including price graphs, flight schedules, or hotel availability. So in addition to recommending flights and hotels in the Galapagos Islands, it can discuss the type of penguin the traveler will see there.

"Generative AI is a foundational technology others can use to elevate commerce experiences. GenAI is going to power commerce, but it's not going to eat commerce"; said Keller.

Andrei Papancea
CEO and Chief Product
Officer, NLX

A Practical Look at What's Possible With AI

NLX CEO and CPO Andrei Papancea takes a practical view on generative AI and the conversational era. He explores which AI use cases are within reach for brands today and which are a pipe dream not worth investigating.

The anatomy of an AI assistant

- **Channel connectors:** Touchpoints between the application and the end user

- **Conversion engines:** AI-powered speech-to-text (STT) and text-to-speech (TTS)

- **Natural language understanding:** The reasoning engine that glues apps together

- **Natural language processing:** LLMs identify user intent from any input

- **Content:** The main driver of automation

Practical applications of AI today

- **Convergence of search and shop:** Travelers will be able to start the discovery process with a narrative search, and generative AI will make recommendations. Then, they can transact right there.

- **Channel-agnostic AI:** Consumers expect to be able to interact with brands whenever and however they choose. Brands must support experiences that cross channels and modalities without losing context.

AI applications that remain out of reach

- **AI guardrails:** There is no way to guarantee the prevention of unintended or unwanted behavior. AI is imperfect, so efforts to contain it will also be imperfect.

- **Artificial generative intelligence:** Computers are good at doing complicated math very quickly, but they're nowhere near close to sentience.

- **Omni-capable AI:** An AI can only accomplish actions supported by the digital infrastructure it can integrate with and the data it is trained on.

As Papancea explained, "Practicality in AI means accepting and expecting its imperfection. Once you accept the state of the art, you can build practical applications on top of that."

The Canadian Tourism Data Collective

> A week before the summit, Destination Canada launched a national data collective that brings together relevant tourism data and insights in a unified hub. Here's how the platform helps travel brands of all kinds thrive all across the country.

Meaghan Ferrigno

Senior Vice President, Chief Financial Officer, and Chief Data and Analytics Officer, Destination Canada

Joe Naaman

Managing Director, Skift Advisory

The Canadian Tourism Data Collective includes 8.9 billion rows of data from over 175 unique sources spread across 5,100 regions of Canada. The platform serves as a hub for a range of products designed to empower smarter marketers, more successful destination developers, and more efficient tourism operators in the region.

AI is embedded throughout the data collective to support data quality, machine learning, and predictive results. Destination Canada also used AI to make the platform available in both English and French, reducing translation efforts by 98 percent and saving 500+ business days.

A week after the launch, 40 DMO partners were already using the data collective. "Seeing tangible results right off the bat shows we've lowered the bar to access," said Ferrigno. "People are making decisions at scale, which drives competitive advantage."

Use cases have included:

- Demonstrating economic impact

- Benchmarking and competition analysis

- Identifying new business opportunities

- Creating investment prospectuses

- Informing board presentations

"Tourism is more profound than heads in beds and butts in seats. That's why we built the wealth and wellbeing index to analyze tourism's economic, social, cultural, environmental, and experiential aspects. It's not about crowning a winner. It's about identifying and sharing best practices so everyone can level up," Ferrigno said.

Jason Birnbaum
Chief Information
Officer, United Airlines

Sarah Kopit
Editor-in-Chief, Skift

How Real-Time Data Is Improving Airlines

Climate change is exacerbating the airline industry's challenges and making daily human tasks harder. United Airlines CIO Jason Birnbaum discusses how his team has spent years making data and AI an integral part of their core business strategy.

Making better decisions at scale

"Air traffic control will call and say, 'You can only land 20 planes in the next hour instead of 60. You tell us which to land.' In the old days, that was hard to do. Humans made suboptimal decisions. The math is really complicated to do in real-time. Now we use data and AI to develop better answers and make the right choice."

AI responsibility and oversight

"Humans get things wrong all the time. Technology will, too. It's going to happen, but we can do a couple of things to prevent it. We created a responsible AI council that includes technologists, security folks, legal advisors, and customer service. They make sure everything we launch passes a level of accuracy we feel comfortable with."

Getting ahead with clean data

"A long time ago, we saw we would need to have great, clean data in one location. So, we have been investing in the United Data Hub for many years. We have so much great data: operational, customer, financial. Sometimes it's better to be lucky than good — we feel like we were born on third base, walking into generative AI with all this data ready to go."

Breaking Down Data Silos and Building AI Readiness

Rajesh Naidu
Senior Vice President,
Chief Architect,
Expedia Group

Dennis Schaal
Executive/Founding
Editor, Skift

Seven years into its company-wide tech transformation, Expedia Group has made huge progress with data and AI. The comprehensive approach links many different brands and their distinct tech ecosystems with a single powerful data strategy.

There are 21 travel brands under the Expedia Group umbrella, each acquired or established with its own tech, vendors, and strategies. When Expedia began designing its data strategy, its first step was to migrate 70 petabytes of data into a centralized data lake. Then, it future-proofed that data with appropriate architecture, access controls, cataloging procedures, tagging rules, etc.

"That all made it easier for us to build with AI and generative AI and increase the velocity of our experimentation," said Naidu. "This year, we were able to go eight times faster."

Converging all of its tools — including 10 different machine learning platforms — into a single tech stack enabled the company to create unified traveler profiles. That ensures the traveler has a consistent experience with every Expedia brand.

Expedia maintains a vendor-agnostic AI philosophy, combining ChatGPT and two in-house LLMs.

Naidu's advice for travel brands implementing AI tools for consumers: "Look at an agnostic strategy so you're not locked in, and build guardrails so you can keep conversations focused on travel."

Data quality and data governance are critical to Expedia Group's data strategy. Company-wide responsible AI principles keep everyone aligned on standards and goals, and an executive responsible AI council oversees new developments. Responsible AI and data quality working groups integrate with product and engineering teams to ensure every release meets both Expedia's internal bar and external regulatory requirements.

"Data quality has to be done every day," said Naidu. "You can't say, 'I'm done with QA — I'll come back and look at it next month, next week, or even tomorrow. It has to be a continuous learning exercise."

About Skift

Skift is the largest industry intelligence platform, providing media, insights, and marketing to key sectors in travel. Through news, research, conferences, exclusive interviews, strategic sector-focused newsletters, and more, Skift deciphers and defines the global trends that matter to the marketers, strategists, and technologists shaping the industry.

SkiftX is Skift's in-house content marketing studio, working collaboratively with partners like Accor, Dubai Tourism, AWS, Expedia, Allianz Partners, and many more to help brands solve problems, create unforgettable moments, and communicate big ideas through content, research, and event activations.

Visit skiftx.com to learn more or email skiftx@skift.com.

About Publicis Sapient

Publicis Sapient is a leading global digital consultancy that helps enterprises like Goldman Sachs, Walmart, Nissan, McDonald's, Disney and Marriott — as well as a number of other international travel brands — transform digitally and sustain competitive advantage in an increasingly digital world. The company operates through its SPEED capabilities — Strategy, Product, Experience, Engineering and Data & AI — to deliver meaningful impact by reimagining products and experiences. An agile, generative AI-focused, data-driven approach equips clients for change, putting digital at the core of how they think and what they do. Publicis Sapient is the digital business transformation hub of Publicis Groupe with 20,000 people and over 50 offices worldwide. For more information, visit: https://www.publicissapient.com.