AI in Travel: Redefining How We Explore This World

In the world of travel, artificial intelligence (AI) is rapidly emerging as a key driver of innovation and efficiency. In fact, over half of U.S. adults who traveled by air in the past year used AI in some aspect of their travel planning.[1] From optimizing flight searches to personalizing entire itineraries, AI is not only enhancing the traveler experience but also enabling companies to provide better service to customers.

But with enormous potential come significant challenges — accuracy, customization and integration are just a few of the hurdles that can't be ignored. For travel providers, the task is clear: Address these pain points and seize the opportunity to innovate, or risk being left behind.
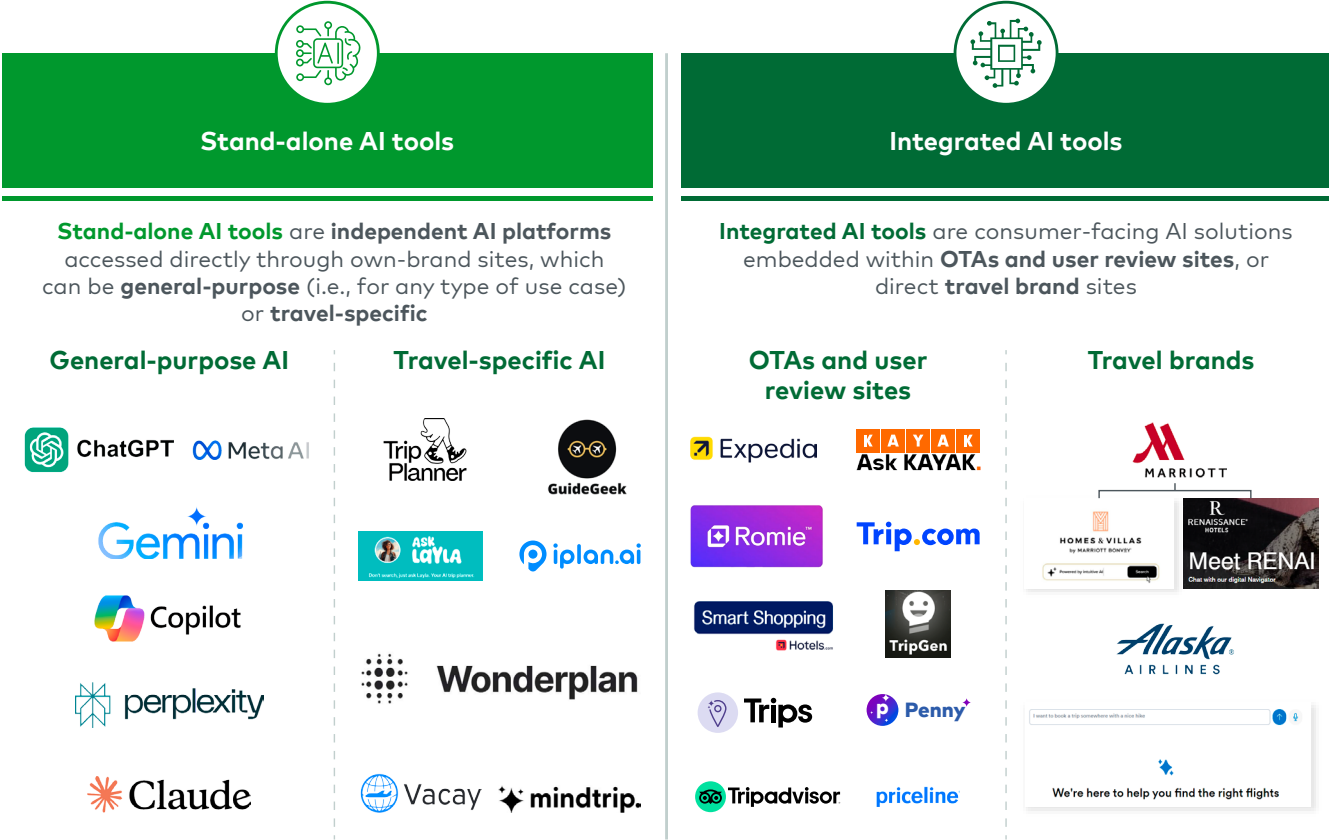
Exploring travel AI's early impact

AI has moved from the periphery to the forefront of travel research and planning, marking a significant shift in how travelers interact with information and make decisions. What began as a novel tool for tech-savvy travelers has rapidly become an essential component of the travel experience.

The introduction of ChatGPT in late 2022 marked an inflection point, followed by the rapid rise of other general-purpose AI platforms like Meta AI and Google Gemini (see Figure 1). These tools have seamlessly integrated into the travel planning process, offering enhanced, automated research capabilities that streamline everything from flight comparisons to travel inspiration. Most current users (approximately 60%) utilized travel AI for the first time within the past year,[2] a testament to the significant growth in adoption. As these users gain confidence in AI's accuracy and quality, they're increasingly turning to these platforms for their travel needs.

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Figure 1

Stand-alone vs. integrated AI tools

Stand-alone AI tools

Stand-alone AI tools are **independent AI platforms** accessed directly through own-brand sites, which can be **general-purpose** (i.e., for any type of use case) or **travel-specific**

General-purpose AI

ChatGPT   Meta AI

Gemini

Copilot

perplexity

Claude

Travel-specific AI

Trip Planner

GuideGeek

ASK LAYLA

iplan.ai

Wonderplan

Vacay   mindtrip.

Integrated AI tools

Integrated AI tools are consumer-facing AI solutions embedded within **OTAs and user review sites**, or direct **travel brand** sites

OTAs and user review sites

Expedia

KAYAK Ask KAYAK.

Romie™

Trip.com

Smart Shopping Hotels.com

TripGen

Trips

Penny

Tripadvisor

priceline

Travel brands

MARRIOTT

HOMES & VILLAS by MARRIOTT BONVOY

RENAISSANCE HOTELS
Meet RENAI
Chat with our digital Navigator

Alaska AIRLINES

We're here to help you find the right flights

Note: AI=artificial intelligence; OTAs=online travel agencies
Source: L.E.K. research and analysis

Additionally, travel-specific AI tools such as Trip Planner AI and GuideGeek have emerged, offering more tailored solutions that cater directly to travelers' needs. These platforms allow users to efficiently plan entire trips, including accommodations, activities and even personalized recommendations based on detailed user preferences.
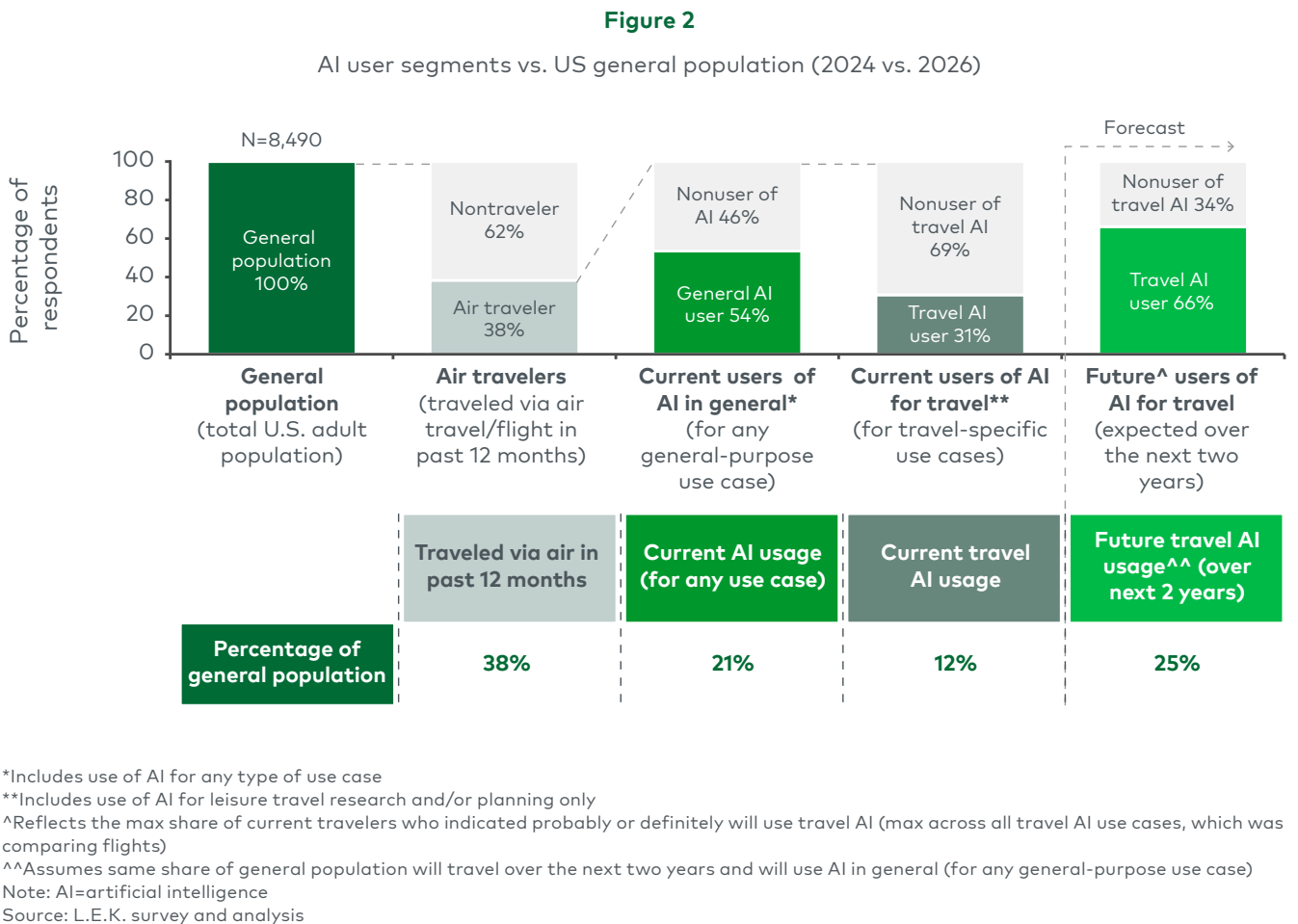
Online travel agencies and travel brands are increasingly incorporating AI tools into their websites and mobile apps. Early movers like Trip.com[3] and Expedia[4] led the charge by integrating AI-driven tools directly into their customer-facing platforms, setting a precedent for the industry. Marriott[5] has followed this trend, deploying an AI concierge that delivers personalized recommendations and facilitates booking services through their app, thereby elevating customer engagement and simplifying the planning process. Leading U.S. carriers have also embraced AI, using it to optimize flight paths, reduce fuel consumption and even

predict maintenance needs, demonstrating how AI's impact extends beyond customer service to operational efficiency. Expedia and Kayak have also capitalized on AI innovation by integrating ChatGPT as a plug-in to enhance their user experience, showing how AI is becoming an integral part of mainstream travel services.

Increasing adoption and finding untapped potential in travel AI

Despite the advantages AI offers, adoption within the travel sector remains nascent. While general-purpose AI tools like ChatGPT and Meta AI dominate the market — with nearly 80% of U.S. leisure travelers familiar with these platforms — awareness and usage of travel-specific AI platforms like Trip Planner AI remain significantly lower, with only about 30% of travelers familiar with them.

Further illustrating this point, a June 2024 L.E.K. Consulting survey of U.S. leisure travelers who had used AI for trip planning in the past year found that only one-third had used generative AI specifically for travel research and planning. However, this figure is expected to more than double in the next two years (see Figure 2).

Figure 2

AI user segments vs. US general population (2024 vs. 2026)

	Traveled via air in past 12 months	Current AI usage (for any use case)	Current travel AI usage	Future travel AI usage^^ (over next 2 years)
Percentage of general population	**38%**	**21%**	**12%**	**25%**

*Includes use of AI for any type of use case
**Includes use of AI for leisure travel research and/or planning only
^Reflects the max share of current travelers who indicated probably or definitely will use travel AI (max across all travel AI use cases, which was comparing flights)
^^Assumes same share of general population will travel over the next two years and will use AI in general (for any general-purpose use case)
Note: AI=artificial intelligence
Source: L.E.K. survey and analysis

To fully leverage AI's potential, future functionalities should focus on cost-saving tools, consolidated booking platforms and real-time location-based recommendations. These enhancements align with consumer demands for simplified, streamlined travel planning and booking processes. Moreover, itinerary creation and dining suggestions are emerging as significant growth areas for AI in travel.

Travelers are increasingly relying on AI not just for basic trip planning but also for crafting comprehensive travel experiences, from selecting restaurants to building detailed itineraries that cater to their specific preferences. Among those who use AI to craft complete itineraries, the majority rank it as their No. 1 resource, highlighting AI's potential to transform travel planning by replacing manual research with more efficient and personalized solutions (see Figure 3).
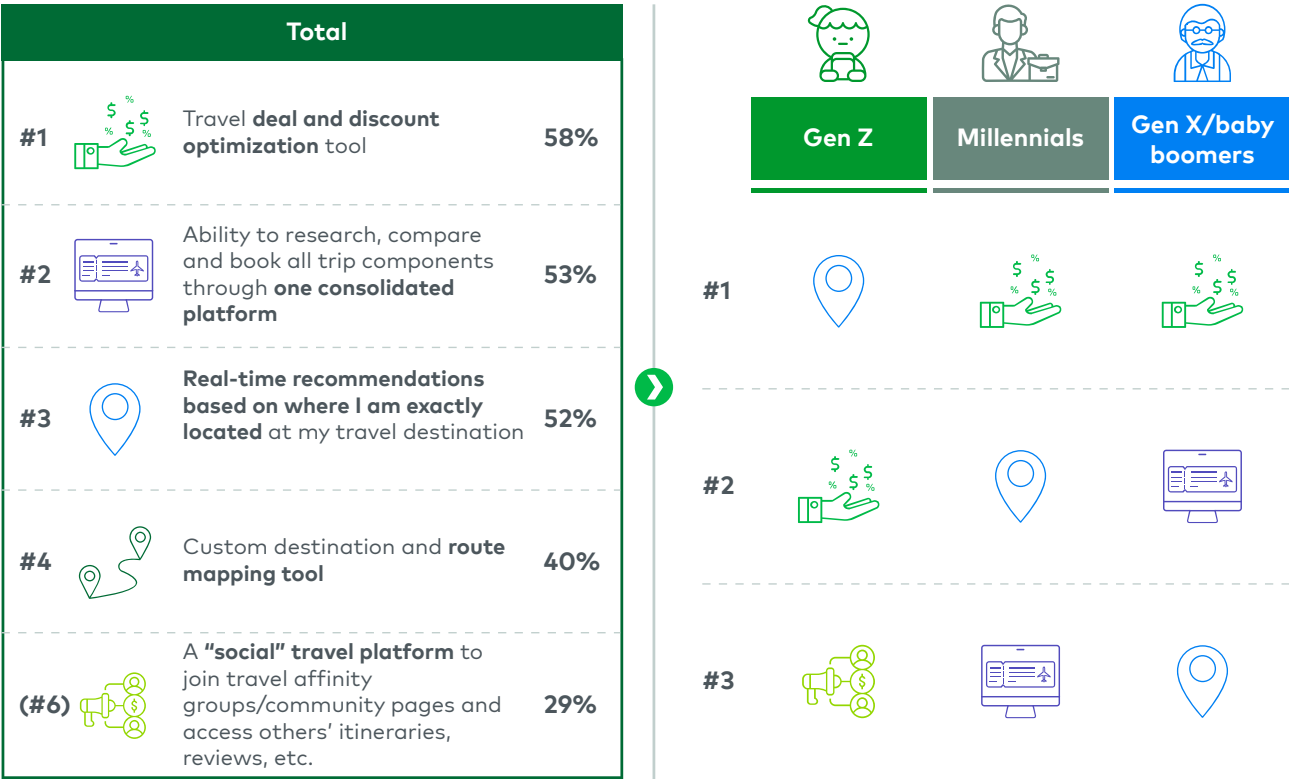
Figure 3

Usage of travel AI, by use case
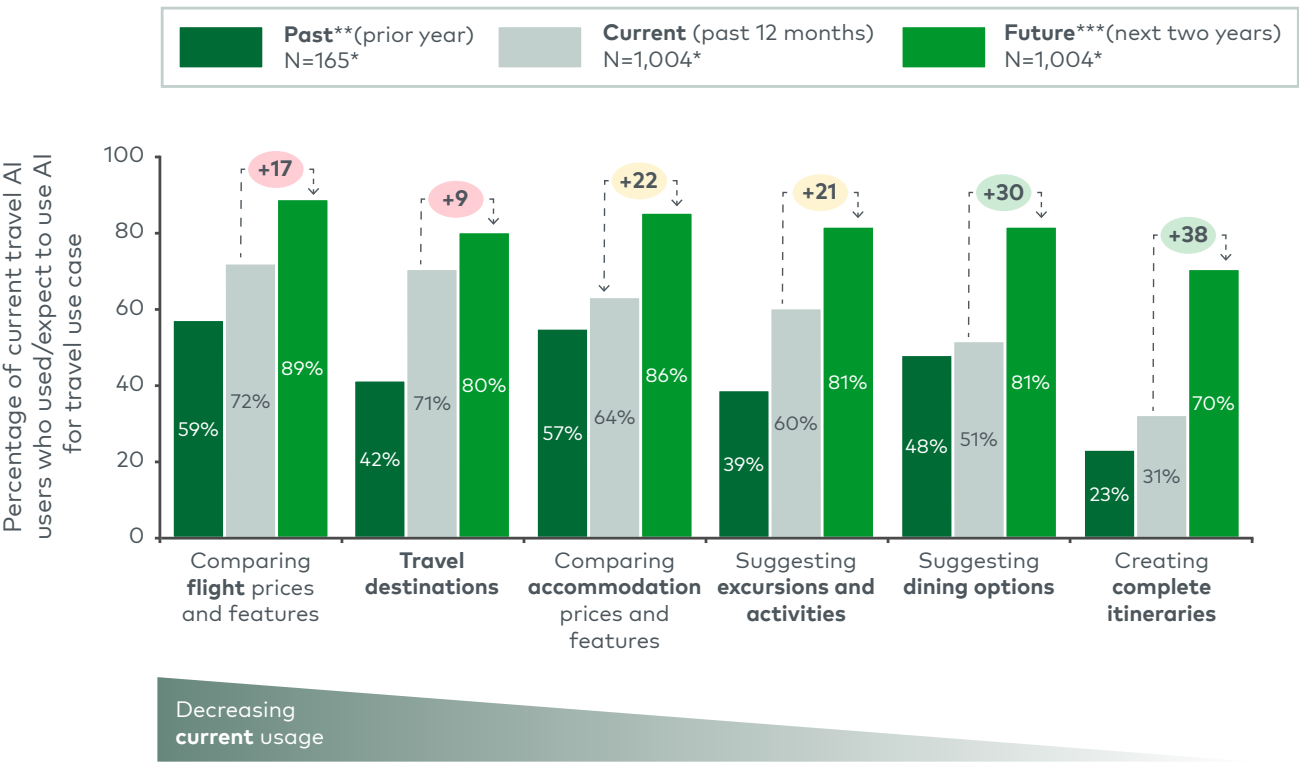
*Survey questions: How have you used AI tools while planning travel in the past 12 months? Please select all that apply; how likely are you to use AI tools for each of the following while planning travel in the next 24 months? Please select one per row
**Reflects percentage of respondents who indicated probably or definitely will use in the future (over next two years)
***Based on L.E.K. June 2023 Travel & Leisure survey (N=165 current travel AI users)
Note: AI=artificial intelligence
Source: L.E.K. Travel AI Survey (June 2024)

Early adopters of AI in travel tend to be younger (Gen Z and millennials), are predominantly male, and often possess loyalty memberships and travel credit cards. This demographic insight suggests that there is still substantial untapped potential among broader consumer segments. Although secondary developments like virtual reality previews, AI-generated packing lists and custom mapping/routing tools are also of interest, the focus should remain on enhancing the core functionalities that simplify and personalize the travel experience (see Figure 4).

Figure 4

Top future AI capabilities, by generation

Percentage of current travel AI users ranking as top three capability (N=1,004)*

Total		
#1	Travel **deal and discount optimization** tool	58%
#2	Ability to research, compare and book all trip components through **one consolidated platform**	53%
#3	**Real-time recommendations based on where I am exactly located** at my travel destination	52%
#4	Custom destination and **route mapping tool**	40%
(#6)	A **"social" travel platform** to join travel affinity groups/community pages and access others' itineraries, reviews, etc.	29%

*Survey question: What travel research, planning or booking capabilities and features would you be most interested in or most like to see offered in the future (by any type of travel tool, resource or provider)? Please rank up to three capabilities/features, in order of interest
Note: AI=artificial intelligence
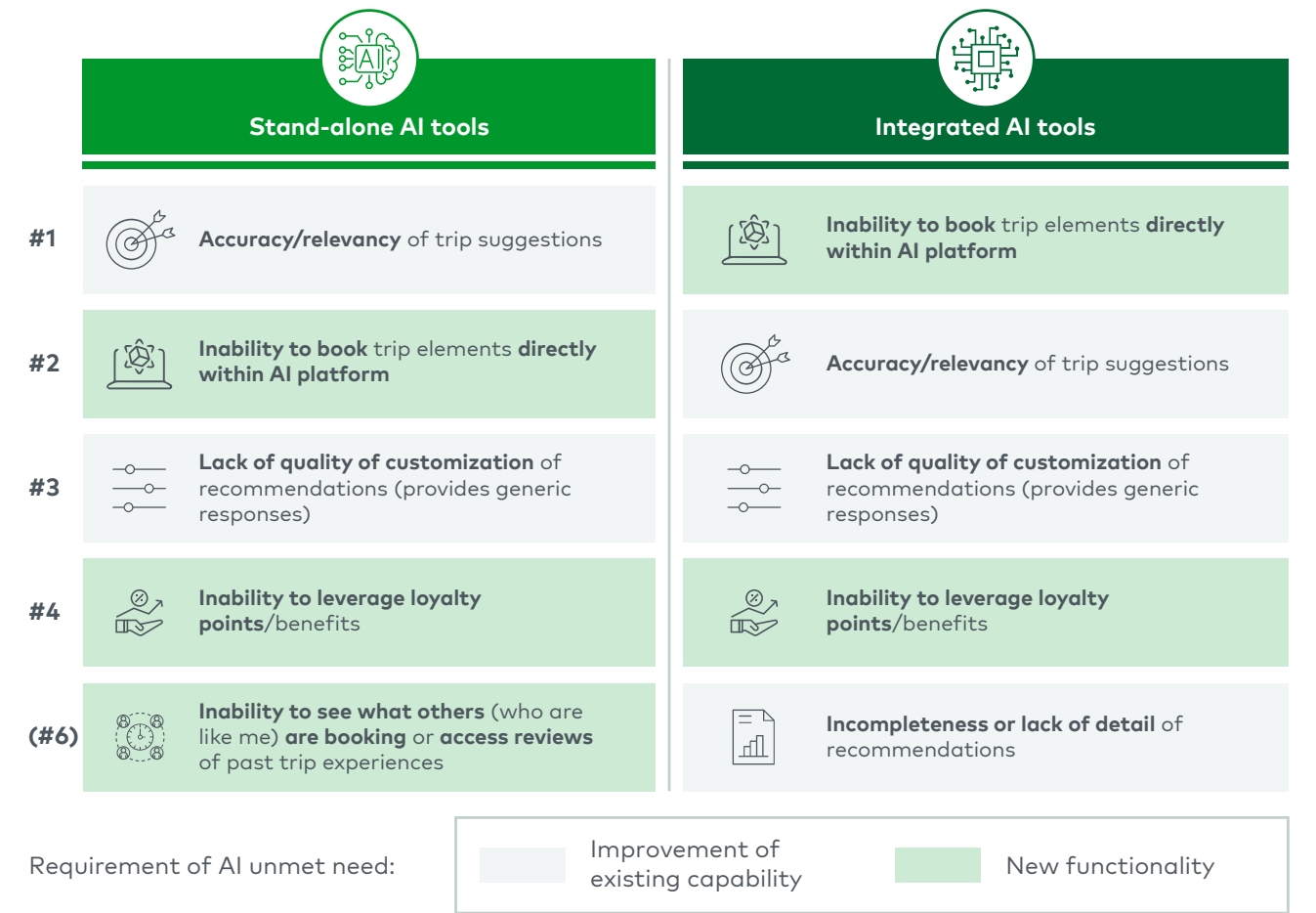Source: L.E.K. Travel AI Survey (June 2024)

Addressing travel AI's growing pains

As travel AI adoption accelerates, however, users are encountering several critical pain points that could hinder its broader acceptance. These challenges include inaccurate recommendations, limited customization options, the inability to book directly through AI platforms and difficulties in integrating loyalty points and travel rewards effectively (see Figure 5). Such issues highlight a separation between what current AI tools offer and what users expect from a seamless travel experience.

Figure 5

AI pain points

Ranked by percentage of current travel AI users selecting as No. 1 pain point*

	Stand-alone AI tools	Integrated AI tools
#1	Accuracy/relevancy of trip suggestions	Inability to book trip elements directly within AI platform
#2	Inability to book trip elements directly within AI platform	Accuracy/relevancy of trip suggestions
#3	Lack of quality of customization of recommendations (provides generic responses)	Lack of quality of customization of recommendations (provides generic responses)
#4	Inability to leverage loyalty points/benefits	Inability to leverage loyalty points/benefits
(#6)	Inability to see what others (who are like me) are booking or access reviews of past trip experiences	Incompleteness or lack of detail of recommendations

Requirement of AI unmet need: Improvement of existing capability   New functionality

*Survey question: What are the top five pain points or unmet needs with using a resource for leisure travel planning/research? Please rank up to five, in order of most challenging/most important unmet need to least
Note: AI=artificial intelligence
Source: L.E.K. Travel AI Survey (June 2024)

For travel providers, addressing these challenges is more than just troubleshooting — it's about innovating to meet the evolving demands of today's travelers. By bridging the gap between current capabilities and user expectations, companies can lead the way in defining the future of travel AI, ensuring that the technology not only meets but also exceeds the needs of the modern traveler.

Building a winning AI strategy for travel companies

To effectively leverage AI, travel companies should consider the following strategic questions:

- **How does AI fit into my customer acquisition and engagement strategy?**
  Enhance marketing efforts, personalize interactions and drive customer loyalty by analyzing and leveraging customer data.

- **Does my customer base align with AI user demographics, and which segments will benefit most from AI integration?**
  Identify key customer segments to effectively target AI-driven services.

- **Should I develop proprietary AI tools or leverage existing platforms?**
  Weigh the benefits of custom AI development against the potential of integrating established platforms like ChatGPT or Meta AI.

- **What pain points can AI address and how can improvements be measured?**
  Focus on resolving specific customer issues and track improvements through feedback and performance metrics.

- **How can AI be seamlessly integrated to ensure a smooth user experience?**
  Ensure that AI enhances the customer journey without causing disruptions, prioritizing seamless integration into existing platforms.

- **How can I differentiate my AI offerings and maintain a competitive advantage?**
  AI must go beyond automation. Success hinges on blending AI with human expertise to turn insights into personalized, actionable strategies. Focus on seamless data integration, customization and ethical AI use while ensuring customer trust through transparency.

AI alone won't differentiate you — true value comes from pairing it with talent that can continuously refine the tools and interpret data meaningfully. Invest in combining AI innovation with deep travel knowledge to deliver unique, tailored experiences that competitors can't match.

Seizing the opportunity: Where travel AI will go next

As we look ahead, the trajectory of AI in the travel industry is set to steepen, driven by innovation and changing consumer expectations. Anticipated advancements include the development of more sophisticated natural language processing capabilities, allowing AI systems to understand and respond to user queries with greater nuance and contextual awareness. This shift will enhance user interactions, making travel planning more intuitive and user-friendly.

AI is more than a buzzword in the travel industry; it's a powerful tool that's already driving meaningful change. From refining how we plan our trips to enhancing every step of the journey, AI is pushing the boundaries of what's possible in travel.

For travel providers, this isn't just about keeping pace — it's about leading the way. As AI continues to evolve, those who fully integrate its capabilities are setting the new standards for personalized, efficient and memorable travel experiences. AI can shape the future of travel, turning possibilities into realities that redefine how we explore the world.

For more information, please contact us.

Endnotes

[1] L.E.K. 2024 Travel Survey

[2] L.E.K. 2024 Travel Survey

[3] Phocuswire.com, "AI check-in: Trip.com seeks to create 'perfect trip for a better world' with TripGenie."
https://www.phocuswire.com/ai-check-in-tripcom-tripgenie

[4] Skift.com, "Expedia Releases ChatGPT-Powered AI Chatbot on Mobile App."
https://skift.com/2023/04/04/expedia-releases-chatgpt-powered-ai-chatbot-on-mobile-app/

[5] Skift.com, "Marriott Bonvoy's New AI Search Tool: 4 Tests Show How It Works — and Doesn't."
https://skift.com/2024/04/05/marriott-bonvoys-new-ai-search-tool-4-tests-show-how-it-works-and-doesnt/

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