Does Artificial Intelligence Mean the End of the Road for Travel Advisors?

Over the next 15 years, mobile connectivity, artificial intelligence (AI), virtual reality and low-cost delivery technology will fundamentally change shopping experiences.

In L.E.K. Consulting's *Executive Insights*, The Future of Retail: Get Ready for the Revolution, we highlighted how AI, in particular, will affect the way consumers purchase more complex products and services such as travel.

In this paper we have collaborated with Steve Byrne, Chief Executive of independent travel group Travel Counsellors, to consider how AI could enhance the role of human travel advisors, improving the quality and depth of advice they provide and the experiences of their customers. We focus on the leisure travel industry, but the lessons apply more widely within retail, as well as in business services and industrial distribution sectors where an expert advisor assists customers with a purchase.

Expect rapid developments in AI

AI is seen by many as the latest technology frontier, enabling computers to make decisions through interpreting data, text, speech and images. AI comprises five cognitive technology advances that have been enabled by increasing computing power, parallel processing and access to data (see Figure 1).

Combining these advances allows AI to develop human-like capabilities. These include holding verbal or text conversations with humans, extracting and structuring information from a variety of

sources, and personalizing communication by understanding a request or user in a wider context.

The past five years have seen rapid advances in AI so that in some areas it can now match human capabilities. For example, image

Figure 1
Key AI technologies and underlying enablers

AI technologies		Description
	Machine Learning (ML)	• Allows a machine to learn a function or improve its performance • Instead of hard-coded rules, ML systems derive patterns and rules from data
	Natural Language Processing (NPL)	• Enables machines to communicate with humans via human (natural) languages • Full NLP requires a machine to have a semantic and contextual understanding of language
	Speech recognition	• Enables machines to recognize human speech and extract the information
	Computer vision	• Enables machines to automatically extract, analyze and understand context-relevant information from visual data
	Robotics	• Machines capable of perceiving, actuating and executing tasks in a physical space • Robotic systems will often include the other technologies listed

Source: Reports and trade press on relevant technologies

Does Artificial Intelligence Mean the End of the Road For Travel Advisers? was written by **Geoff Parkin** and **Dominic Miles**, Partners, and **Philip Meier**, a Principal at L.E.K. Consulting, in collaboration with **Steve Byrne**, Chief Executive of Travel Counsellors. Geoff, Dominic and Philip are based in London.

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Figure 2
Resource and investment by big tech and leading travel players

	Engineers (2016)	R&D spend (2016)	Cash (2016)
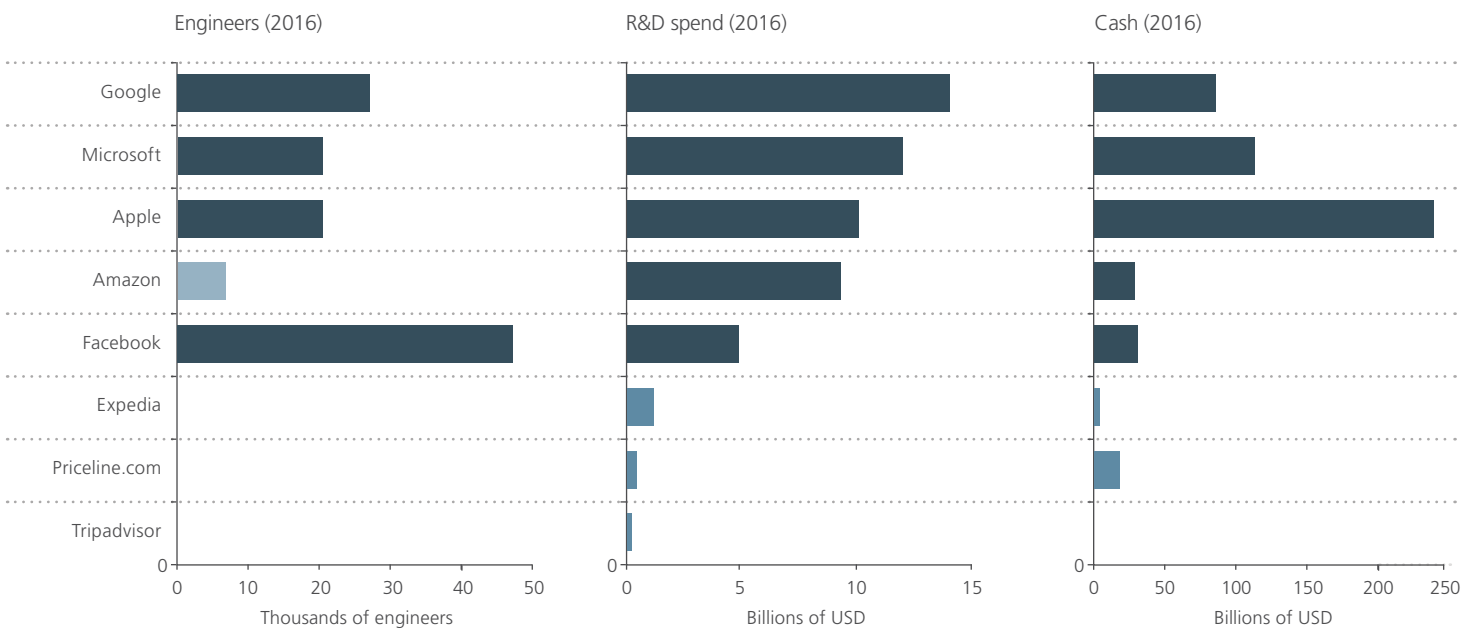
Source: Company websites; annual reports

recognition error rates have reduced from about 30% in 2010 to 5% in 2015, which is equivalent to a typical human. Speech recognition error rates have fallen to 5.9%, which is equal to a human professional transcription service.

Patent applications and M&A activity related to AI expertise and technology have doubled over the period as companies have developed and acquired IP, and consumers' awareness of AI has risen sharply, with a six-fold increase in the number of Google News searches for the term.

This rapid rate of progress is likely to continue, given the relentless advances in the underpinning technologies and the ambitions and investments of the five big tech companies (Google, Microsoft, Apple, Amazon and Facebook) in their product and service offerings. Indeed, big tech is backed by extensive engineering talent, data and cash, and the leading travel groups are dwarfed in comparison — the combined R&D spend for Expedia and Priceline, for example, is just $1.6 billion (see Figure 2).

In the future, AI will likely comprise thousands of specific capabilities (similar to Amazon Echo Skills) rather than mimick a human entirely. Applications will often augment, simplify and accelerate human activities, while sometimes taking over administrative tasks traditionally performed by people.

AI in leisure travel

AI in the travel sector has been deployed by a small but growing set of pathfinder companies, focusing mostly on automating

customer interactions and on personalization. Nevertheless, over the next decade we expect AI to become increasingly important, allowing leisure travel specialists to offer more personalized experiences, provide greater inspiration, enhance consumer decision-making, simplify booking and provide on-demand support for consumers while they are traveling (see Figure 3).

These developments are likely to emerge as a stream of improvements with no single pivotal moment. Developers will continue their approach of agile delivery, releasing minimum viable products (MVP) that allow AI to evolve in the same way that technology has progressively enhanced the consumer experience over the past 10-15 years.

The most advanced area for AI adoption in travel is likely to be trip research and planning. As data collection continues to increase exponentially, and as data transfer speeds and visualization technologies such as augmented and virtual reality improve, home shopping will become an increasingly immersive and positive experience for consumers.

How will big tech leverage AI?

It is not only the established travel groups that are taking advantage of the AI advances within the travel sector. Big tech companies are developing a suite of travel planning tools, such as Google Destinations, Trips and Flights.

A question that has concerned the industry for some time is whether Google and other Big tech players will connect consumer-

Figure 3
Summary of current use cases across the human-machine continuum

		Man alone	Assist	Enhance	Automate	
Inspiration	Information distillation			Today		Zumata uses travel specific natural language search program
	Option recommendation			Today		Wayblazer provides bespoke destination recommendations
Planning & booking	Price optimization				Today	Hopper uses Machine Learning to predict when flight prices will rise and fall
	Visa assistance		Today			Visabot guides applicants through the visa process
Trip support	Concierge services		Today			Connie chatbot informs Hilton guests on local attractions
	Disruption management		Today			Lola chatbot / human agents provide pre and on-trip support

Source: L.E.K. analysis

facing propositions with a booking engine to create their own full service travel solutions. We think not, since there are compelling reasons for Big tech to avoid providing consumer services in the travel fulfilment market. These include comparatively low margins, onerous country-specific regulation and licensing, and the need to hire customer service staff.

It is more likely that Big tech will continue to innovate with AI at the research and inspiration stage of trip planning and extend their existing B2B proposition to include AI to travel partners on a software-as-a-service basis, rather than compete with their customers by selling holidays directly to consumers.

How will OTAs benefit?

Online travel agents (OTAs) typically focus on selling either trip components (flights or hotels) or packaged vacations. These less complex, often lower-value purchases require relatively simple product curation and uncomplicated purchasing decisions, and the involvement of a human travel agent is moderate or non-existent.

Advancements in AI should enable OTAs to:

- Improve the customer experience of their services
- Further reduce the labor cost involved in supporting the customer service and administration behind the web front-end
- Progressively extend the reach of trip types that are suited to automated selling
- Improve technology-based upsell and on-sell of ancillaries
- Capture the imagination of the next generation of customers

(e.g., millennials), who are much more comfortable with and savvy about technology than the older generations.

How secure is the human expert advisory sale?

Research suggests customers still want human involvement throughout the process of planning, booking and experiencing the trip, especially when purchasing more complex and higher value trips. Among the many reasons for this are:

- They enjoy interacting with people to capture ideas for exciting new destinations
- They trust the one-to-one advice provided by the human expert that the trip is right for them
- They may not trust machines, or themselves, to plan and optimize their itinerary
- They want to talk to a human in stressful and emotional situations (such as cancelled flights)
- They find process-driven interactions frustrating, especially if they are time-poor.

By getting to know the customer more deeply, expert human travel advisors are able to develop insight into each customer's needs, habits, wants and preferences. This insight enables humans to beat machines particularly when curating more complex trips, as well as providing guidance, reassurance and care that machines cannot match.

This care and attention, displayed by travel brands with a personal recommendation and trusted advisor service at their heart, will

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continue to create customer satisfaction. However, trust in human travel advisors cannot be taken for granted. In order to forge relationships that lead to multiple bookings and loyalty, advisors need to have multiple and consistent one-on-one interactions with customers. Advisors must show interest and care beyond the initial booking — for example, through providing future trip inspiration and displaying the soft touches that only a human being can provide e.g. empathy, care and interest in the customer beyond any 'hard data' that may have been captured through the booking process.

The building of an emotional, one-on-one personal relationship between the trusted advisor and the customer, combined with the agent's situational / expert knowledge, is the reason we believe those expert human travel advisors can look forward to a positive future, but one wherein the advisors must have access to the technology and workflow platforms that enables them to compete with OTAs and other customer-facing booking channels.

Indeed, we believe that AI will enhance the personal relationship between human travel advisors and their customers, creating benefits for both advisors and their customers. Using AI, advisors will be able to improve the services they offer, while the "human touch" will remain critical to the overall proposition.

AI could enhance travel providers' customer offerings by:

- Supercharging the product and destination knowledge of the agent to provide a wider range of travel ideas

- Providing more rapid configuration of itinerary suggestions from AI communicated by a human, with dynamic re-planning by AI based on the flow of the conversation

- Enabling greater anticipation of customer needs based on experience from similar customers

- Making semi-automated checks on itineraries so that they are efficient and realistic given local conditions and customer preferences

- Providing real-time price comparison scanning to ensure that agents always know the best competing prices

- Ensuring that the growing number of ways in which customers interact with their travel agents (e.g., personal assistants, website, app) are consistent and personalized

- Supporting value-added dialogue led by human expert agents, while administrative tasks are automated.

In short, human specialist knowledge and customer handling skills, augmented by AI-driven knowledge and content management, will create even more successful outcomes for customers.

In addition, AI will enable human agents to drive greater financial and non-financial rewards for themselves and their organizations by:

- Generating attractive leads for new customers based on screening such sources as social media, press and so on for similarities to target customers

- Giving pricing recommendations based on prior behavior and trip type to maximize benefits for the customer and enhance lifetime value, returns and margins

- Executing actions more quickly to generate sales and build relationships

AI will also help simplify back-office administration such as:

- Linking and simplifying processes for booking, tracking and invoicing to purchase all the components of customer trips

- Automating the help desk to execute routine tasks quickly and efficiently 24/7 — these could include scheduling agent appointments, confirming trip / flight details and so on with referral when appropriate.

Conclusion

Though it may be some time before it is commonplace, AI is developing rapidly and will change the face of leisure travel:

- Big tech will enable the travel industry to build its own AI capability rather than drive disintermediation

- OTAs will provide an ever more compelling proposition for a wider set of less complex trips that are familiar to consumers and require limited advisory guidance and reassurance to secure the sale

- Specialized tour operators and travel concierge companies that provide outstanding services and support complex holiday requirements will endure because consumers will continue to value human involvement that is enhanced by AI

- Trusted advisors have an opportunity to create and build personal and brand loyalty through multiple interactions with a customer

- Most at risk from AI advances are those with either low product complexity and / or low-touch human involvement / contact in the sale and low touch contact in the on-going customer experience after the initial booking; OTAs or those that do maintain multiple interactions and build personal relationships with customers will progressively take their business away

By harnessing AI, we expect the future for expert advisory sales organizations to be an exciting one — within the travel sector and beyond. The combination of human relationships, insight into customer requirements and expertise to curate the perfect solution will endure — AI will just make it better.

What are the next steps?

Travel advisory companies can be at the forefront of deploying AI in reshaping their businesses and reinforcing customer relationships and loyalty. A number of guiding principles are essential:

1. Drive AI from the top — make it a business initiative, not an IT or analytics project

2. Engage with consumers and colleagues to understand opportunities for AI to enhance not only customer experience, care and intimacy but also the effectiveness of front-line advisors in delivering these services

3. Plan AI interventions that complement and reinforce the points of differentiation within your business proposition

4. Make an inventory of the data already being collected in your organization and build the analytics capability to exploit it

5. Facilitate access to "AI as a service", do not try to beat big tech at their game

6. Create an ecosystem of partnerships with leading AI solution developers

7. Identify low-risk, low-cost opportunities for AI trials and get started with MVP[1] testing.

[1]MVP is a product development philosophy in which a new product (e.g., app or website) is developed with just the features necessary to satisfy early adopters. The final feature set is developed iteratively only after incorporating feedback from these users.

Further reading

The Future of Retail: Get Ready for the Revolution

About the Authors:

Geoff Parkin is a Partner in L.E.K.'s London office. He has been with L.E.K. for more than 15 years and has broad experience assisting U.K. and international clients with strategy development and due diligence assignments. Prior to joining L.E.K. in 1999, Geoff worked in commercial line management roles for British Airways and American Express, based in London, Copenhagen and Amsterdam.

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Steve Byrne is the Chief Executive Officer of Travel Counsellors. He joined Travel Counsellors in 2004 as Managing Director and was appointed to his current role in 2016. Prior to this, he was Chief Executive of International Travel Connections. Steve regularly speaks at travel industry and business leader events and was recently recognised for his 'Outstanding Contribution to the Industry'.

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