

Objective 1: Identify current tourism and DMO utilization of AI

Objective 2: Identify current AI implementation that could be applied to DMOs

Objective 3: Analyze how these examples could help promote or incorporate sustainability practices.

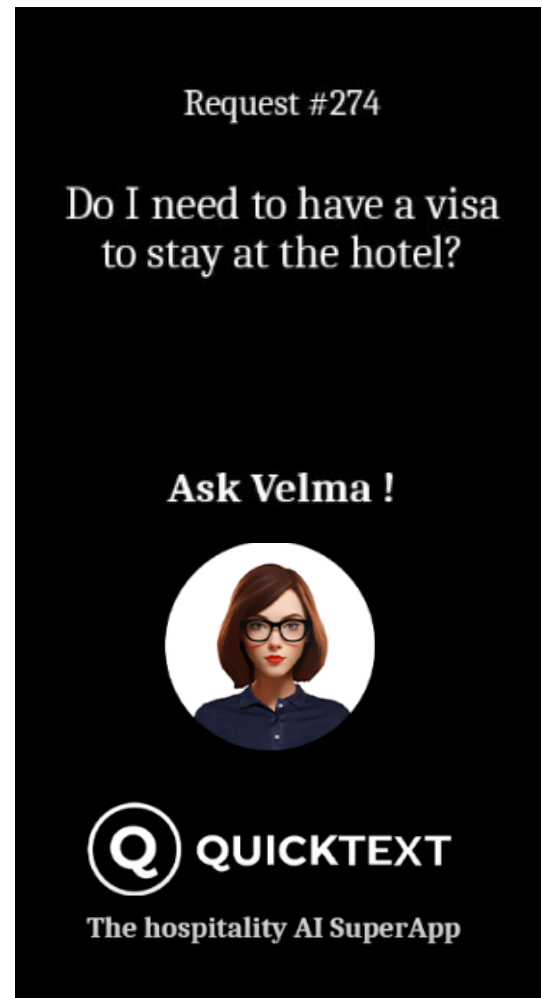
Background

AI is a common part of daily lives, from the FaceID used on phones, to search algorithms on popular browsers, and the increasingly prevalent usage of ChatGPT. This scope can also be narrowed down to the tourism industry, with the technology being implemented in airports and railways in the transportation sector, and chatbots and customer service robotics in the hospitality sector. Eric Phillips, Senior Vice President and Chief Digital Officer at Delta Air Lines shares their usage of AI on the "commercial side from a pricing and revenue management perspective" mainly focused on customer demand forecasters (Skift, 2023). The International Union of Railways reports that AI is being used to target KPIs, as well as assist with business activities, such as railway undertakings, infrastructure management, passenger experience, and support functions (UIC, 2024). The hospitality industry has seen an increase in AI chatbots, VELMA being one example used internationally by hotels in Italy, France, Germany, Ireland, and the USA. It can be concluded from these examples that AI technology has a number of benefits, especially in the tourism industry, which has newly led to its implementation in Destination Management Organizations (DMOs).

AI is a fairly new technology for many organizations, which includes DMOs. The technology is being tested both internally and externally in many different cases, most being on a smaller scale. In an interview with Janette Roush, she expressed how the New York City Tourism + Conventions uses AI to speed up monotonous tasks or simply to test its capabilities for discussion on future utilization (J. Roush, Personal Communication, April 24, 2024). She believes this technology is the future of the travel industry, and she isn't the only one. Amadeus surveyed over 1,253 travel technology decision-makers, and they found that "91% of travel companies surveyed expect 'moderate to aggressive' increases in technology investment in their organizations in 2024" (Amadeus, 2024).

Impacts

- External: Chatbots have become an easy resource that visitors and locals can reach out to with questions. This gives staff more time to devote to other tasks.
- Internal: Providing a tool for staff to increase efficiency by automating monotonous tasks and assisting with idea generation.



QuickText's VELMA

External

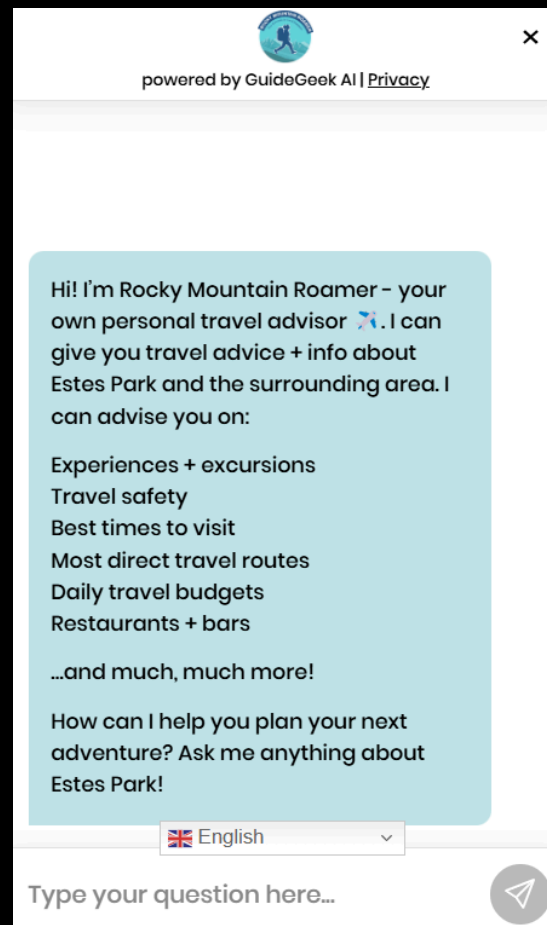
One application of AI in destination marketing and management is to engage with external audiences - namely visitors and locals. The increased prevalence of chatbots to assist with customer queries has not missed the tourism industry, including DMOs. Two DMOs provide examples of how AI has been utilized to assist visitors, Choose Chicago and Visit Estes Park.

The Bean is Choose Chicago's chatbot that will "answer questions from visitors, suggest new places and events, and serves as an online ambassador to Chicago" which users can access through Choose Chicago's online communication channels (Choose Chicago). This bot's personality and design are based on the structure, titled "The Bean", by artist Anish Kapoor which for many residents and visitors represents an iconic element of the city of Chicago. In addition to embodying an iconic element of this destination, *The Bean* is also unique because of its personality, which was created by students at Northwestern University (BotsCrew, 2022). Through this design, the chatbot is more personable and even has a few stories and jokes to tell. At launch, *The Bean* could cover 63 topics and understand 900 unique phrases, assisting with finding attractions related to topics such as sports, recreation, festivals, theater, and music (BotsCrew, 2022). It also uses location data of the user's device to be able to find experiences close to the user. In the five months after launch, 22,2434 talked to *The Bean* with a 74.7% satisfaction rate (BotsCrew, 2022). This means that many tourists and locals received adequate answers to their queries while Choose Chicago staff was able to handle other activities. *The Bean* also provides an opportunity for Choose Chicago to promote specific events for partners, providing another promotional channel that creates value for partners working with Choose Chicago. For example, during the winter and fall months, *The Bean* is able to promote more holiday events.

Visit Estes Park has developed the AI-supported chatbot *Rocky Mountain Roamer*, which can provide users with suggestions for accommodations, restaurants, parks, and attractions, as well as traveler safety information (e.g., highway status, wildfire information). The AI is powered through GuideGeek (a website/app for AI travel assistants) and Happy Places (an AI model built by Intentful) but is tapped into ChatGPT as well with the user data stored safely in Visit Estes' Parks system. VEP used GuideGeek because it is recognized as a top platform in the travel AI space, is noted for its reliable responses, and is used widely across 61 different countries (Visitestepark.com, 2019). GuideGeek allows Visit Estes Park staff to monitor conversations and teach the AI more about the destination based on user conversations. Additionally, it provides the option for staff to make direct contributions to the conversation if necessary - for example, if AI provides inaccurate information staff members provide a clarifying response. VEP launched this technology slowly, first pilot testing it with a small group of users, then rolling it out to social media, and eventually a paid media launch. Users can now access *Rocky Mountain Roamer* on the DMO website, Facebook, Instagram, and WhatsApp.



Choose Chicago's *The Bean*

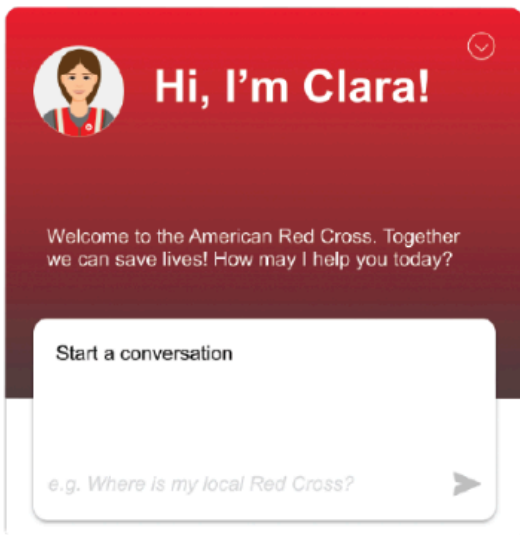


VEP's *Rocky Mountain Roamer*

Internal

Most of the current work within DMOs centered around AI is internal - focusing on how the technology can be used to make staff efforts more efficient. On a smaller scale, the technology is being utilized to speed up monotonous tasks, such as organizing meeting notes or rewriting emails. On a larger scale, AI is doing things like tracking KPIs and assisting with social media. Visit Utah utilizes their AI-powered by inPowered to test different layouts of their website to increase traffic and maximize the amount of time users stay (inPowered). InPowered works by taking the impression data from the DMO and inPowered AI engagement data to find a solution that will maximize Visit Utah's KPIs. Essentially AI works as a digital audience that predicts which layout or advertisement will be most successful to an actual audience. This implementation has led to an 80% reduction in cost per session.

Visit Estes Park uses AI, powered by HappyPlaces+, to create social media posts, articles, and itineraries. CEO of Visit Estes Park Kara Franker speaks on how easy and efficient the AI is to use, stating "You can also say, 'Okay, I want a social media plan for the next month for Instagram. The theme of the month is nature and outdoors and how to treat wildlife. We can then tell our internal version...' We need something about wildlife safety.' And it'll do it. Amazingly efficient and creative" (Seccombe, 2023). Additional uses of HappyPlaces+ include the creation of translations, content plans, local business content, image generation, and hashtags - which provide a variety of tools that DMOs can leverage for internal uses.



American Red Cross's Clara

Innovative Applications of AI Outside of DMOs

Outside of the DMO space AI innovations are shaping travelers' experiences and establishing new ways the tourism industry can harness AI. For example, Expedia has unveiled multiple different projects with AI, the latest being Romie, an AI travel assistant that helps keep the trip on track and helps users through any shortcomings (Expedia Newsroom, 2024). One of its unique features is that the AI can be invited to group chats, listen in on the trip planning, and be asked to provide advice or suggestions based on the conversations it has viewed. It can also help provide alternative routes or suggestions if the weather affects plans, or there are any delays. It can also do the typical travel AI tasks like price comparison and itinerary planning.

Clara is a disaster response chatbot made by the American Red Cross to assist users with disaster response, training services, medication questions for over 100 different drugs, and international services. The AI chatbot is also able to answer queries about blood donation. According to the American Red Cross, answering these questions before the donation helps calm donors' nerves, and allows blood donation to be better promoted. Clara supports up to 20,000 users a month. DMOs could also employ AI for disaster relief efforts. Having a system to automatically connect with hotels and visitors to send out information or organize relief efforts would be extremely beneficial, making evacuation efforts more efficient and potentially saving lives.

Google's NotebookLM runs on Google's AI Gemini 1.5 and is currently being used by 80,000 organizations globally (NotebookLM, n.d.). "Think of it as a virtual research assistant that can summarize facts, explain complex ideas, and brainstorm new connections — all based on the sources you select" (Martin & Johnson, 2023). These sources can include articles, but also personal notes that were taken in Google Docs. This AI tool has been utilized in healthcare, research, marketing, customer support, and product development. DMOs could utilize this AI tool to organize notes and online articles that would be beneficial in marketing, financial, and research efforts.

Looking Towards the Future

Even before the adoption of HappyPlaces+, Visit Estes Park team members tested with ChatGPT every week just to get used to working with AI, as well as learning its limitations (Visitestespark.com, 2019). Visit Estes Park is a ten-person team, so the adoption and understanding of this new technology wasn't immediate, but each member saw the value and potential that it could bring to the table. Kara Franker led the charge, taking an MIT course titled "Artificial Intelligence: Implications for Business Strategy" to gain understanding and bring the knowledge back to her team. Kara Franker is now one of the leaders in the area of AI usage within DMOs, among others such as Janette Roush and Adam Stoker. Since gaining expertise in these spaces, these individuals have been recognized as thought leaders in the AI space where leadership positions are increasingly demanding this skill.

Janette Roush is now BrandUSA's Senior Vice President of Innovation and Chief AI Officer. In a presentation she delivered within her first week in the position, she conveyed her desire for DMOs to collectively work together to understand AI, and to have the United States be a leader in AI integration within the DMO space (Live from Travel Week: Leadership Alignment with Generative AI, 2024). She urges people to test AI programs, stating to others "Challenge yourself to play with these tools" (Live from Travel Week: Leadership Alignment with Generative AI, 2024).

The main two suggestions that can be drawn from Roush's, as well as many others, advice towards AI integration in DMOs is to improve the education around AI and to collaborate with one another to better understand the technology. As Roush suggests, education with AI can start by simply using it, but some DMOs may consider enrolling in educational courses, as Franker did, for more in-depth learning opportunities. There are also programs like AI Opener for Destinations that can foster collaboration, which already has participants from DMOs such as the Colorado Tourism Office, New York City Tourism + Conventions, Discover Puerto Rico, and Destination DC (AI Opener for Destinations, 2020). Increased use and understanding of AI can help DMOs discover many different potential applications of the technology, including how it can advance sustainability efforts.

With these applications of AI in mind, it is proposed that AI could be further utilized for sustainability efforts. Visit Estes Park intends to do so, stating that "We want to move towards providing real-time information on weather updates, closures, and other information that is essential for those visiting our unique location" (Visitestespark.com, 2024). With the proliferation of AI-supported chatbots as a tool for visitors to discover destination features - such as hiking trails or parks - AI could be leveraged to combat over-tourism and support crowd management, by directing visitors to less visited features. Visit Estes Park is exploring this destination management strategy through its use of GuideGeek.

Such efforts could be further augmented by the implementation of technologies like IoT sensors, which track crowd data through various methods (Neoma.ai, n.d.). One approach would be to utilize an app that features location tracking, but this can also be done through badges/wristbands (similar to the Disney MagicBand) and CCTV cameras (Neoma.ai, n.d.). Not only can these technologies provide tourists with updates, but they can enhance the location's security with facial recognition software, anticipate crowd flows, and report necessary safety measures the visitors/destination may need to take. IoT technologies are already being used within airports. Amadeus highlights that select airports are using IoT sensors to monitor air pollution levels, and they see the potential for this technology to expand into affecting operational decisions and flight charges to compensate for different pollution levels (Yann Guillemain, 2024). Collectively, the combination of IoT sensors for data collection, combined with the analytic capabilities of AI means the tourism industry has the potential to observe and address patterns of both use and environmental impacts and make evidence-based decisions to reduce the negative impacts of tourism.

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