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Master's Degree Program in
Data-Driven Marketing

GAI applications to Tourism and Travel

A user-perspective on trip planning and decision-making

Gabriel Inácio Pais

Master Thesis

presented as partial requirement for obtaining a Master's Degree in Data-Driven Marketing

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Instituto Superior de Estatística e Gestão de Informação
Universidade Nova de Lisboa

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by

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Master Thesis presented as partial requirement for obtaining the Master's degree in Data-Driven Marketing, with a specialization in Digital Marketing & Analytics

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STATEMENT OF INTEGRITY

I hereby declare having conducted this academic work with integrity. I confirm that I have not used plagiarism, any form of undue use of information or falsification of results along the process leading to its elaboration. I further declare that I have fully acknowledged the Rules of Conduct and Code of Honor from the NOVA Information Management School.

[Lisbon, Portugal, 16/06/2025]

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ABSTRACT

Generative Artificial Intelligence (GAI) tools have emerged as transformative technologies with significant potential to revolutionize tourism and travel experiences, yet their application in travel planning remains underexplored in current literature. Therefore, this study follows a systematic approach to understand travellers' needs, challenges and preferences in trip planning through a review of current literature and industry best practices to develop a practical framework aimed at providing guidance on how GAI can assist travellers throughout various stages of their trips and how to optimally utilize these tools. The research follows a design science research (DSR) methodology, incorporating a systematic literature review (SLR) following PRISMA guidelines to study the current state of GAI applications in tourism and human interaction with these technologies. From this, a framework is developed that assists users across the entire travel cycle and provides a set of prompt recommendations and strategies for optimizing ChatGPT's utilization in travel-related decisions. The framework is validated through a set of qualitative semi-structured interviews with participants from diverse backgrounds. The analysis of the interviews and the uses of the framework in hypothetical scenarios demonstrates significant benefits of GAI application in tourism and identifies key limitations that establish foundations for future research into developing better frameworks and deepening the understanding of strategies for improved travel experiences. The goal of this research is to provide travellers with a systematic approach to utilize GAI tools throughout their journeys, contributing to both practical tourism applications and theoretical understanding of human-AI interaction in travel contexts. Therefore, this study aims to help travellers optimize their trip planning and experiences and advance scientific knowledge in the intersection of GAI and tourism. The findings provide important implications for travellers seeking to enhance their planning processes, tourism practitioners exploring AI integration, and researchers advancing GAI's diverse applications.

KEYWORDS

GAI; ChatGPT; Travel Planning; AI assistant; Travel Assistant; Process Planning

Sustainable Development Goals (SDG):



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LIST OF ABBREVIATIONS AND ACRONYMS

AI	Artificial Intelligence
API	Application Programming Interface
COT	Chain-of-Thought
DSR	Design Science Research
GAI	Generative Artificial Intelligence
LLM	Large Language Models
NLP	Natural Language Processing
OTA	Online Travel Agencies
POI	Points of Interest
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analysis
RAG	Retrieval-Augmented Generation
SC	Self-Consistency
SDG	Sustainable Development Goals
SLR	Systematic Literature Review
STT	Smart Tourism Technologies
TTDP	Tourist-Trip Design Problem
UNWTO	United Nations World Tourism Organization
UN	United Nations

1. INTRODUCTION

1.1 CONTEXT AND PROBLEM IDENTIFICATION

Generative Artificial Intelligence (GAI) has increasingly integrated into daily life, primarily in education, writing, and programming (Stening & University, 2023). However, its potential extends to underexplored areas, such as enhancing travel planning by offering personalized recommendations and optimized choices based on user preferences, travel history, and social media content, while also generating value for businesses (Dogru et al., 2023). AI-driven systems are already prevalent in tourism, with Travel 2.0 platforms like TripAdvisor, Airbnb, and Expedia sharing information freely and paving the way for more advanced systems ((J., S., Popesku Zlatanov, 2019)). This study proposes to explore the potential of GAI tools, such as ChatGPT, when used for travel planning, and provide valuable insights into public perceptions and attitudes toward their application in this domain.

Without realizing it, people already use GAI in travel planning, as hotel and tourism businesses employ it to enhance marketing communication by creating personalized social media content based on guest preferences and past behaviour, GAI also enables the design of tailored itineraries, accommodation options, and activities using customer data. Furthermore, it can assist during both the pre-trip and trip stages by offering navigation routes aligned with interests and providing on-trip support (Dogru et al., 2023). However, such integration may lead to a loss of autonomy and reduced human interaction, arguably diminishing the tourism experience ((Grundner & Neuhofer, 2021)), and there is always the possibility of GAI offering misleading and false information, potentially causing the tourist to be endangered or suffering significant inconveniences (Dogru et al., 2023). Moreover, tourists may possess insufficient technical proficiency to effectively interact with ChatGPT; as ChatGPT does not ask clarifying questions (as a travel agent would do), tourists may not be able to fully seize the benefits of personalization (Carvalho & Ivanov, 2023). This poses the need to explore how GAI systems can be used more consciously and securely, allowing users to maintain control over their decisions while benefiting from the convenience and comfort GAI offers.

This research aims to focus on the benefits of applying GAI to tourism planning, but there are still some negative aspects when it comes to AI in tourism that are pertinent to this study, including users missing out on non-individualized information, information overload, difficulty in appreciating services that do not offer near-perfect personalization, and the exclusion of general offers or destinations not accounted for by AI (Grundner & Neuhofer, 2021). Additionally, there is a potential reduction in human interaction, which may lead to social deficits and isolation, such as the loss of opportunities to ask for directions in unfamiliar places, as well as an increased dependency on AI (Grundner & Neuhofer, 2021). Thus, it is crucial to examine the downsides of using GAI in tourism planning and their impact on people's opinions.

ChatGPT is a GAI system that stands out among the other existing large language models (LLMs) due to its excellent performance on natural language understanding and generation

and user-friendly interface to individual users, all the while offering free access ((Chen, S., Zhang, K. Li, X., Ye, H., Lin, K. J., & Law, R., 2023)). For this reason, ChatGPT will serve as the central focus of the research.

Considering this, the study seeks to address two main questions: “What are the benefits of applying GAI to the travel planning and decision-making process?” and “How do individuals perceive this issue, and would they be willing to consciously use GAI when planning their travels?”.

1.2 OBJECTIVES

The goal of this research is to study what are the travellers’ needs, common challenges and preferences when planning trips, their trust and familiarity with GAI and how it can best be used to help with the decision-making process of planning a trip.

To achieve the main goal, the following intermediate objectives were defined:

- Explore the main sectors of tourism and travel, and understand what Large Language Models are and their applications;
- Make a comprehensive review on ChatGPT’s applications to travel planning and then elaborate recommendations for optimizing utilization;
- Build real-world scenarios and apply the recommendations;
- Interview participants and review their contributions.

1.3 STUDY OUTCOMES AND CONTRIBUTIONS

Since the usage of Internet for travel planning is an adaptive behavior in response to the ever-changing technological environment (Xiang et al., 2015), this study will help in that regard by contributing to the increase of traveler’s awareness to the possibilities of using ChatGPT.

ChatGPT can provide personalized itineraries, reducing the stress of planning by making it more accessible and efficient. It promotes sustainable and responsible travelling as well as providing a bridge for better cultural understanding. By communicating needs, preferences and requirements to ChatGPT, the trip planning will be much simplified. (Carvalho & Ivanov, 2023)

This research will give insights into how AI can help with human decision-making, as well as provide factors that may contribute into more satisfaction and trust in AI systems. By studying human-AI interactions in tourism we can also get more information to assist in improving AI models in other domains. Knowing how GAI influences tourism demand also supports tourism economy and the development of new business strategies.

Instead of doing research manually (searching by yourself the many places to stay, things to do, restaurants, etc...), using ChatGPT will likely guarantee smoother “communication” and information gathering. It’s more versatile, convenient, flexible, capable, friendly, fun and human-like than the usual search for information. From an economic perspective, ChatGPT is a valuable tool when combined with human expertise (Carvalho & Ivanov, 2023).

2. LITERATURE REVIEW

A thorough review of literature on tourism and LLMs is essential to contextualize the evolving role of artificial intelligence in the travel and tourism industry. The rapid advancements in AI, particularly in the form of LLMs such as ChatGPT, have opened new avenues for businesses and how travelers experience their journeys. Therefore, this chapter overviews the current situation on the tourism sector and large language models architecture.

2.1 TOURISM

2.1.1 TOURISM OVERVIEW

In the last few years, tourism has experienced significant shifts, marked by a rapid recovery from the COVID-19 pandemic, a rising emphasis on sustainable practices, an increased reliance on technology and new trends such as the growth of digital nomad visas worldwide. The pandemic caused a major downturn in global travel, prompting many destinations to re-evaluate their tourism strategies with a focus on health safety, digital transformation, and sustainable practices. As borders reopened, travellers initially prioritized domestic and regional travel, often exploring rural or nature-focused destinations, which led to a boom in rural and sustainable tourism. (The Biggest Travel Trends for 2024, 2024)

Additionally, technology has reshaped the tourism industry, with AI-driven tools, contactless services, and mobile apps becoming integral to travel planning and booking. These innovations have made travel more accessible and personalized while supporting health and safety measures. As a result, the tourism landscape today is more diverse, resilient, and attuned to the values of sustainability and technological advancement than ever before (Chen, S., Zhang, K. Li, X., Ye, H., Lin, K. J., & Law, R., 2023).

2.1.2 MAIN SECTORS IN TOURISM

The United Nations World Tourism Organization (UNWTO) recognizes various major sectors in tourism that align with both traditional categories and emerging trends in response to global needs and priorities. Looking into them we can understand the different needs of the tourists and the sectors of information that AI must address.

In recent years, sustainable tourism has gained significant notoriety worldwide. It is an approach to travel and tourism that seeks to minimize negative environmental, social, and economic impacts while maximizing benefits to local communities and preserving natural and cultural resources for future generations. Sustainable tourism emphasizes responsible travel practices that protect the natural environment, support local economies, and foster respect for local cultures and traditions. It includes initiatives to protect biodiversity, reduce plastic

use, and preserve cultural heritage. It's the sector with the most interest in developing, with organizations like UNWTO advocating for industry standards that align with the UN's Sustainable Development Goals (SDGs) (UN Tourism | Bringing the World Closer, sem data). Following a similar point of view, rural and gastronomy tourism emphasizes the necessity of sustainable tourism practices. UN Tourism understands rural tourism as "a type of tourism activity in which the visitor's experience is related to a wide range of products generally linked to nature-based activities, agriculture, rural lifestyle / culture, angling and sightseeing". Rural tourism activities take place in non-urban (rural) areas with characteristics such as low population density, landscape and land-use dominated by agriculture and forestry and traditional social structure and lifestyle. Gastronomy tourism follows a similar path, connecting travellers to local cultures through food, supporting rural economies. (UN Tourism | Bringing the World Closer, sem data). Similarly, adventure tourism, often involving activities that carry a sense of risk, taking place in natural settings and relying on specialized equipment, has grown post-COVID as travellers seek outdoor experiences, aided by better internet connectivity and real-time information (Deb et al., 2023).

On another hand, urban tourism thrives in cities, offering diverse cultural, architectural, and business experiences, with sports tourism attracting travellers to sporting events, either as spectators or participants (UN Tourism | Bringing the World Closer, sem data). Health and wellness tourism has grown as travellers increasingly seek well-being-focused experiences, including spa retreats, wellness therapies, and medical treatments (Lee & Kim, 2023). Meanwhile, as remote work opportunities expand, digital nomad tourism is reshaping travel, with travellers exploring destinations for extended stays (Gupta et al., 2024).

2.1.3 TOURISM AND TRAVEL PLANNING

Smart tourism technologies (STTs) have become the common term to describe the connection between using different technologies for travel, through channels such as websites of traditional destinations or agencies, personal blogs, review sites and social networks (Huang et al., 2017).

The difficulty of creating personalized tourist trips, known as the Tourist Trip Design Problem (TTDP), is a real challenge. Planning a tourist trip can be very complex due to the many planning conditions and product options available, from beach trips, cultural visits, religious journeys, nature experiences, to other activities (Ruiz-Meza & Montoya-Torres, 2022). TTDP aims to plan tourist routes so people can visit different points of interest (POIs) without going over budget. This means planning an itinerary that considers POI opening and closing times, available transportation, budget, distances and travel times between POIs, how much people value POIs, and individual tourist preferences, among other things (Ruiz-Meza & Montoya-Torres, 2022). (McKercher, 2016) groups tourism products into five main areas: business, pleasure, human endeavour, personal quests, and nature.

Trip planning is a complex activity affected by many things, which can be grouped into personal features such as age, education, income, experience, personality, involvement and travel features like purpose of the trip, number of people travelling, duration of the trip, distance and means of transportation (Zhu et al., 2012)

2.1.4 TOOLS AND APPLICATIONS

Advances in information technology continue to drive innovative practices and transform their implementation across industries. In the domain of tourism information services, GAI tools like ChatGPT, with their ability to process vast amounts of data, analyse patterns, and provide intelligent insights, are transforming the tourism industry by revolutionizing marketing strategies and enhancing customer service, creating a more adaptive, responsive, and customer-focused approach. (Alyasiri et al., 2024).

In the hospitality sector, Online Travel Agencies (OTAs) have gradually replaced traditional intermediaries by leveraging network effects to benefit both sides of the market. On the supply side, transactional efficiency allows lodging establishments to increase their visibility and reach previously inaccessible markets, while on the demand side, travellers have easier access to a detailed list of solutions immediately comparable among them (Mantovani et al., 2024). OTAs like Booking.com and Airbnb use similar machine learning algorithms to provide personalized recommendations to users based on search history and preferences (Ali et al., 2023).

Social media is also an essential tool for accessing various sources of tourist information, as travellers can read and share travel experiences through their social media channels (Chung & Koo, 2015). On the same hand, mobile apps are interesting for digital enterprises not only to provide support to tourists while traveling but also enabling marketplaces (Ammirato et al., 2021).

Recently, a generative AI travel assistant called Layla AI was developed by Beautiful Destinations (Beautiful Destinations, sem data) to simplify and personalize the trip planning experience. When compared to other tools, Layla AI offers a big advantage in enhancing the user experience thanks to its user-friendly interface in the shape of a mobile app or just a regular AI chatbot accessible in the web, helping users explore destinations and itineraries as well as making direct bookings through a conversational interface (AI Trip Planner Roam Around Becomes Layla, sem data).

2.1.5 CHALLENGES AND OPPORTUNITIES

The ongoing evolution and development of digital services have been transformative for the tourism industry, necessitating continuous adaptation for both industry stakeholders and

consumers. To remain competitive and ensure an enriched travel experience, it is essential to systematically identify areas within tourism that present opportunities for innovation and improvement, as well as to assess and integrate the most effective technological tools currently available. Emerging artificial intelligence tools, such as ChatGPT, although still in their early stages, hold substantial potential to influence the hospitality and tourism sectors (Gursoy et al., 2023a). Consequently, it is important to conduct empirical research into the optimal application of these tools and to assess tourists' acceptance and perceptions, in order to leverage their benefits effectively and align future technological advancements with user expectations and industry needs.

2.2 LARGE LANGUAGE MODELS

2.2.1 GAI AND LLM OVERVIEW

Large language models (LLMs) are cutting-edge artificial intelligence systems that can process and generate text to an approximate human-level, with coherent communication and enabled to perform multiple tasks (Naveed et al., 2024). When integrated into the travel planning processes, LLMs can provide tailored suggestions without the need to manually search for every detail online, as they can assist in aggregating and synthesizing this information (Ren et al., 2024).

2.2.2 MODELS AND ARCHITECTURES

LLMs primarily utilize transformer architecture, which has the ability to efficiently process and generate text, revolutionizing the field of natural language processing (NLP). Due to the application of the attention and the connection blocks, some different variants arise to the transformer architectures used in LLMS, the Encoder Decoder, Causal Decoder, Prefix Decoder and Mixture-of-Experts.

The LLM models are the foundation of the AI models, they are trained on massive datasets to understand and generate human language, needing many steps and components to function: Tokenization, Encoding Positions, Attention, Activation Functions, Layer Normalization, Distributed LLM Training, Libraries, Data Preprocessing, Architectures, Pre-Training Objectives, Scaling Laws and Adaptation Stages (Pre-Training, Fine-Tuning and Prompting/Utilization) (Naveed et al., 2024). They're the underlying technology that processes information and generates text.

Currently there are a lot of different models in constant development, quickly evolving from one stage to another. Some of the most famous models were built for general purposes, such as GPT-3, GPT-4 and DALL.E from OpenAI; LLaMa from Meta; PaLM from Google and Grok-1.5 from XAI. Others were built with specific datasets and purposes in mind like CodeGen,

Galactica, Dialog or BloombergGPT for coding, scientific knowledge, dialog and finance, respectively (Naveed et al., 2024).

2.2.3 Tools

In this context, tools are the applications or systems that leverage LLMs to perform specific tasks. They are built on top of LLM models, often incorporating additional functionalities and specialized knowledge. These tools range from basic chatbots to advanced AI-powered writing assistants, with chatbots such as ChatGPT (OpenAI), Copilot (Microsoft), Gemini (Google DeepMind), Claude (Anthropic), Perplexity (Perplexity AI) and HuggingChat (Hugging Face), playing a particularly useful role in travel decision-making (Ilieva et al., 2024).

Their key contributions to the tourism industry include conversational assistance, multimodality, multilingual support, cost-effectiveness and scalability, integration with other systems and data analytics and insights (Ilieva et al., 2024).

2.3 PROMPT ENGINEERING

Prompt engineering consists on carefully developing input prompts to influence the model's behaviour and produce more desirable outcomes (Londhe et al., 2024). When asked directly to ChatGPT what it understands of prompt engineering, it answers as "the practice of designing and refining prompts to optimize the output of AI models".

Despite their successes, LLMs may generate inaccurate or misleading information, a phenomenon called "hallucinations". To minimize this occurrence, researchers have proposed several prompt engineering techniques and frameworks (Erickson et al., 2025).

Chain-of-Thought (CoT) is an example of a prompting technique aimed at eliciting a multi-step reasonable behaviour in LLMs that expands the set of tasks that large language models can perform successfully, understating that standard prompting only provides a baseline on the capabilities of large language models (Wei et al., 2022). Another example of a prompting strategy is Self-consistency (SC), that aims at improving CoT prompting by applying multiple different paths of reasoning, instead of the greedy one, to find the most consistent answer. SC boosts CoT prompting performance, however, it requires a higher computation cost (Wang et al., 2023). In a different scope, Retrieval-Augmented Generation (RAG) is a more advanced technique that assists GAI in producing higher quality outputs, with more accurate and reliable information, by retrieving specific and relevant data from other sources to provide additional external knowledge. (Fan et al., 2024)

OpenAI Platform, ChatGPT developer, advises on six prompt engineering strategies to improve results, as well as different tactics to apply for each of them. The first one is to write clear

instructions as models cannot guess what the user wants. Including details in the query, asking the model to adopt a persona, specifying the number of steps required for determined tasks or providing examples are tactics that can help the AI to have a clear understanding of what is requested. Another good strategy to help prevent the model from inventing answers is to provide a reference, especially on esoteric topics. Breaking down complex tasks into simpler subtasks can reduce errors, and using intent classification to identify the most relevant instructions for a user query is good prompt engineering practice. An additional useful strategy is to give the model time to think and ask for a chain of thought before a response can help the model reason more reliably. Instructing the model to find its own solution before drawing a conclusion and using inner monologue or a sequence of questions can mitigate this process. External tools can also be used to help the model generate more informed and up-to-date responses. Finally, they recommend testing changes systematically since, in some cases, a modification to a prompt can achieve a better performance on a few isolated examples but lead to worse overall performance (*OpenAI Platform*, n.d.).

Figure 2.1 is a template created by Ben Hylak that represents the anatomy of an effective o1 prompt and it was reposted on the social platform X by Greg Brockman, president of OpenAI,

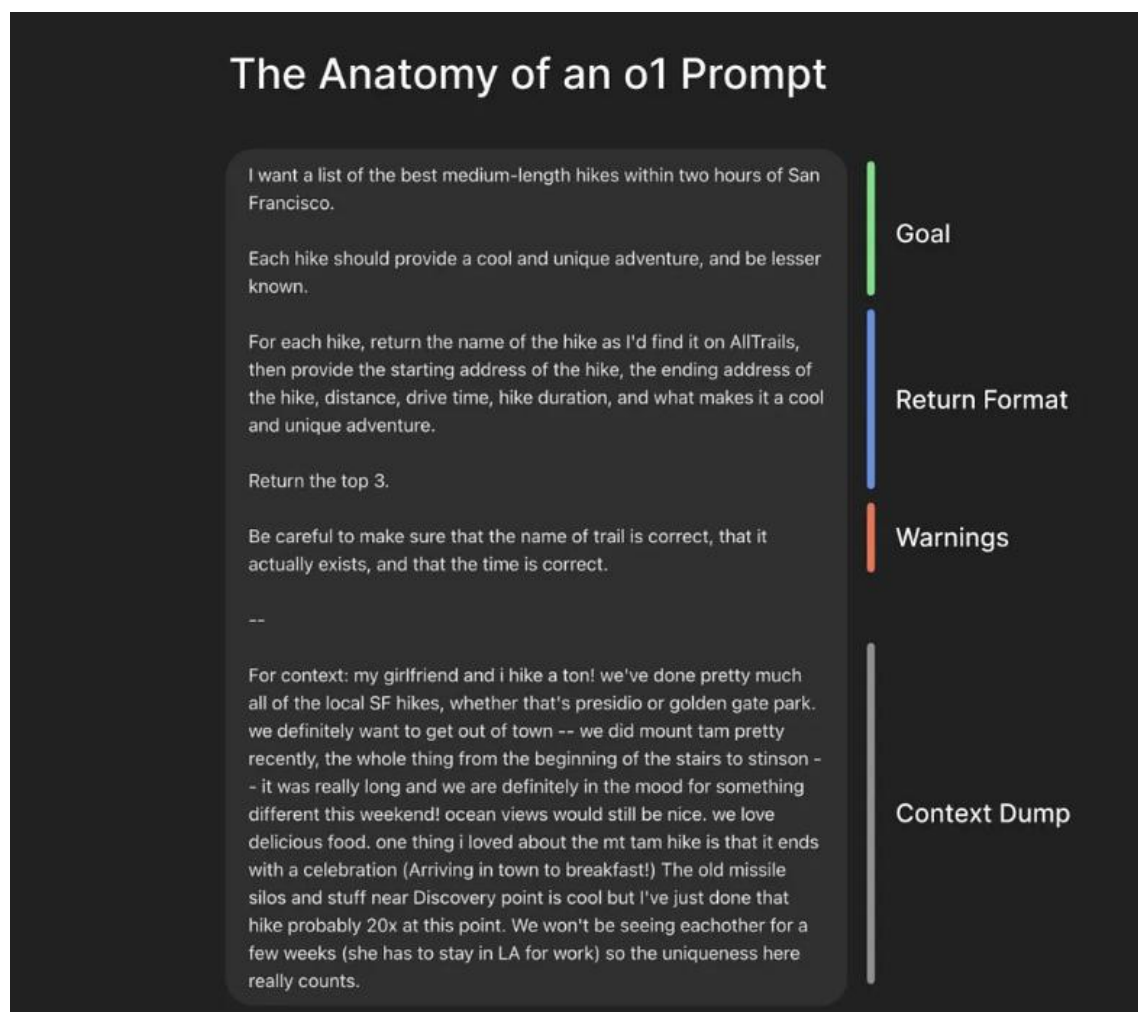


Figure 2.1 - The anatomy of an effective o1 prompt (McNulty, 2025)

It follows a structured four-pillar approach designed to maximize the reasoning capabilities of OpenAI's advanced models, aiming to demonstrate how effective prompting goes beyond simple requests to include clear and comprehensive context, specific instructions and detailed output formatting; which aligns with the structured approach that ensures clear, precise, and optimized responses from AI models.

Depending on how the prompts are used, GAI models like ChatGPT, produce different results, so it is important to understand that supplying more information, limiting the scope of the answer, and making the intent clearer, will likely help the model to provide a more satisfactory answer (T. Kim, 2023).

2.3.1 PROMPT ENGINEERING FOR TOURISM

This section contains a study of prompt engineering applied for tourism and travel, using the strategies highlighted in the previous section and applying them in ChatGPT. For that, a basis scenario was created, and prompt engineering strategies were employed for different situations of tourism planning. The basis scenario for this case is as following: Student “A” is graduating university and wants to travel in Europe between July and September. Figure 2.2 showcases the different answers after giving a generic prompt or a prompt with more context.

What is a good place to visit in Europe?

That depends on what you're looking for! Here are some top picks based on different interests:

- **History & Culture:** Rome, Italy – The Colosseum, Vatican City, and ancient ruins make it a must-visit.
- **Romance & Architecture:** Paris, France – Iconic landmarks like the Eiffel Tower, Louvre, and charming streets.
- **Scenic Beauty & Nature:** Swiss Alps, Switzerland – Breathtaking mountains, skiing, and hiking trails.
- **Food & Wine:** San Sebastián, Spain – A paradise for food lovers with world-famous tapas and Michelin-star restaurants.
- **Beaches & Relaxation:** Amalfi Coast, Italy – Stunning coastal views, charming towns, and clear blue waters.
- **Vibrant Nightlife & Modern Culture:** Berlin, Germany – A mix of history, cool clubs, and artsy vibes.
- **Fairytale Vibes:** Prague, Czech Republic – Medieval architecture, castles, and charming old-town streets.

I am a student graduating university soon and I want to travel in Europe between July and September, inclusive. What is a good place to visit?

That sounds like an amazing post-graduation trip! Since you have three months to travel around Europe, you have a lot of flexibility. Here are some great destinations, depending on what you're looking for:

For a Classic European Experience

- **Italy** – Rome, Florence, Venice, and the Amalfi Coast offer history, art, and stunning coastal views.
- **France** – Paris for culture, the French Riviera for beaches, and Bordeaux for wine.
- **Spain** – Barcelona for Gaudi's architecture, Madrid for museums, and Seville for flamenco.

For Nature and Adventure

- **Switzerland** – Hike in the Alps, visit Interlaken and Lauterbrunnen.
- **Norway** – Explore fjords, go hiking in Lofoten, or visit Bergen.
- **Scotland** – Road trip through the Highlands and see castles.

For Beaches and Relaxation

- **Greece** – Visit Santorini, Mykonos, or Crete for island life and beaches.
- **Portugal** – Algarve for beaches, Lisbon for culture.
- **Croatia** – Dubrovnik and Hvar for beaches and old towns.

For Budget-Friendly and Hidden Gems

- **Eastern Europe** – Prague, Budapest, and Krakow offer history and nightlife at lower costs.
- **The Balkans** – Montenegro, Bosnia & Herzegovina, and Albania have stunning scenery and are affordable.
- **Georgia (Tbilisi, Kazbegi)** – Not in the EU, but super cheap with incredible mountains and food.

For Festivals & Events (July-September)

- **Pamplona, Spain (July)** – Running of the Bulls.
- **Edinburgh, Scotland (August)** – Fringe Festival, the world's largest arts festival.
- **Munich, Germany (September)** – Oktoberfest starts mid-September.

Figure 2.2 - Example of outputs from prompts with different complexities

Considering the answers given, it is possible to see that the prompt given does not provide enough information, and the answer might be too generalized and lack clarity. To improve the results, it is important to add more details to the prompt and push ChatGPT further.

The additional information can range from personal details like age, gender, preferences, tastes, interests, to other factors such as weather, cultural events, prices, language, health concerns, transportation systems and beyond. Chatbots might not be equipped to provide recommendations with some of these details (T. Kim, 2023), but by giving the correct prompt, a LLM can adapt to the situation.

The user might not always know what more details can help the model provide a better answer, or in other cases, such as budget planning, transportation planning, local events, potential health concerns, the user might need to prompt the AI for those details before deciding on their trip and destination.

Considering the resulting answers to the prompts, there are key recommendations when using ChatGPT for help with travel planning. If the user is sure about some details and preferences beforehand, it is a good practice to introduce them from the beginning of the chat to avoid the AI from making assumptions and to help it funnel the recommendations in the direction of the user's preferences.

2.4 RELATED WORK

To make a comprehensive literature review on the use of ChatGPT to travel planning and ensure that all aspects of this research are accurate and transparent, the systematic literature review was conducted following the guidelines of the PRISMA methodology.

2.4.1 PRISMA PROTOCOL

The PRISMA Statement (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) originated from a revision of the QUOROM Statement, a guidance developed in 1996, with the purpose of addressing the advances in the science of systematic reviews and the desire to encompass both systematic reviews and meta-analysis (Moher et al., 2009).

In addition to the PRISMA 2020 Statement -a recently published update to the original PRISMA guidelines-, several extensions are currently in development to address specific needs and contexts in systematic review reporting. Designed to serve as a road map for authors, the PRISMA protocol helps ensure that systematic reviews clearly describe what was done, what was found, and, in the case of a review protocol, what is planned, by providing an evidence-based, minimum set of recommendations for a more comprehensive reporting of the systematic review (Sarkis-Onofre et al., 2021).

The PRISMA 2020 statement advises on a checklist of 27 Items that should be included when reporting a systematic review and a template of a diagram flow with three distinct phases: Identification, Screening, and Included (PRISMA 2020 Statement, sem data).

The Identification phase is the reporting of the number of records initially identified through the relevant databases following a defined search strategy. Following that, the Screening phase reports the number of duplicated records that were removed as well as reports removed by automation tools, and how many were excluded after screening titles and abstracts. The main texts' of the articles that were not excluded are assessed for eligibility, resulting in the final number of articles to be included in the review, which is reported in the Included phase (Page et al., 2021).

2.4.2 PRISMA EXECUTION

This section includes the detailed systematic review of this study following the PRISMA guidelines.

The literature review conducted on sections 2.1 and 2.2 contributed to the development of a theoretical background from which selected keywords were extracted to create a search string that could be used to find the most relevant scientific papers for this research (Table 2.2). From the study of those papers, the goal is to achieve a comprehensive understanding of the state of the art regarding the utilization of GAI for travel planning purposes. Table 2.1 proposes the questions to be answered from this SLR.

Table 2.1 - Systematic Review Research Questions

SLRQ1	What is the current status of research of using GAI to travel planning?
SLRQ2	What are the advantages and disadvantages of applying GAI techniques in travel planning?
SLRQ3	What kind of GAI techniques are currently useful in travel planning?

Table 2.2 presents the set of keywords extracted from the literature review, which represent both the Travel Planning and GAI domains.

Table 2.2 – Systematic Review Keywords

Travel Planning	Generative Artificial Intelligence
Sustainable Tourism	Artificial Intelligence
Urban Tourism	Deep Learning
Sport Tourism	Machine learning
Adventure	Artificial Neural Networks
Rural	LLM
Work	CHATGPT
Decision-making	

Integrating the defined keywords, the search string created was: (**“Travel Planning” OR “Tourism”**) AND (**“Sustainable” OR “ Urban” OR “Sport” OR “Adventure” OR “Rural” OR “Work” OR “Decision-making”**) AND (**“Generative Artificial intelligence” OR “GAI”**) AND (**“Machine Learning” OR “Deep Learning” OR “Artificial Neural Network” OR “ChatGPT” OR “LLM”**). Using this search string, the search was conducted in January 2025 through Scopus and Web of Science, represented in Table 2.3, which are two of the most reputable and widely used academic databases. These platforms were selected for their high-quality journals, multidisciplinary scope, and advanced search functionalities, which ensure a reliable literature review.

Table 2.3 - Systematic Review’s Resource Databases

Resource Database	Resource URL
Scopus	https://www.scopus.com/home.uri
Web of Science	https://www.webofknowledge.com/

The articles on the website found through the search string were studied based on the inclusion and exclusion list of criteria represented in table 2.4.

Table 2.4 - Systematic Review inclusion and exclusion criteria

Inclusion Criteria	Exclusion Criteria
1) Any scientific article showing evidence of GAI utilization in Travel Planning	1) Papers with titles outside the scope of this work
	2) Papers focusing on Travel Planning but without focusing on GAI techniques utilization, or the reverse, papers focusing on GAI techniques but not the applications to travel planning
2) Scientific articles studying travelers' perceptions towards GAI utilization for Travel Planning	3) Papers focusing on users' perception towards AI or GAI, but not in the scope of using it for travel planning
3) Studies that contribute to the understanding of the use of GAI in travel planning, addressing benefits, challenges, trends and future research directions	4) Articles that do not present relevant analysis, with scenarios or methodologies that are not suitable for answering the research questions
4) Paper must be a peer reviewed conference or journal paper written in English	5) Articles not in English and duplicate papers
5) Paper is published between 2020 and 2025	6) Articles published before 2020
	7) Non-academic or non-scientific papers (e.g., websites, magazines reports, newspapers, consulting articles, books, citations)

As of February 4th, 2025, there were 1426 articles (1407 from scopus, 19 from web of science) total after inserting the search string in each of the three resource databases. This consists of the identification phase of the PRISMA workflow.

Moving on to the screening phase, inclusion/exclusion criteria were applied using scopus and web of science automation tools, limiting the year range from 2020 to 2025, only documents

in English and the document type to articles or reviews, there were 335 articles to be removed, diminishing the number of papers to 1091. 1357-1019. After this, the documents were exported to csv and using python, where more criteria was applied, such as the removal of duplicates between the articles from the different databases, finishing this section of the screening phase with a total of 1025 articles.

Following to the next section, where reports were accessed for eligibility, the titles and abstracts of the 1025 articles were further analysed to identify and exclude the articles that were not relevant to the study, particularly articles that did not include research on AI and GAI tools and their applications to tourism, travel planning or decision-making, resulting in a total of 148 articles.

From those articles, the main text was assessed to figure out the articles to be included in the study. Again following an inclusion and exclusion criteria: papers that focused on Travel Planning but not on GAI techniques utilization, and the reverse, papers focusing on GAI techniques but not the applications to travel planning; papers focused on users' perception towards AI or GAI, but not in the scope of using it for travel planning; or articles that did not present relevant analysis, with scenarios or methodologies not suitable for answering the research questions; 123 articles were excluded, resulting in a total of 24 articles to be included for review. The representation of this whole process is illustrated in the following workflow.

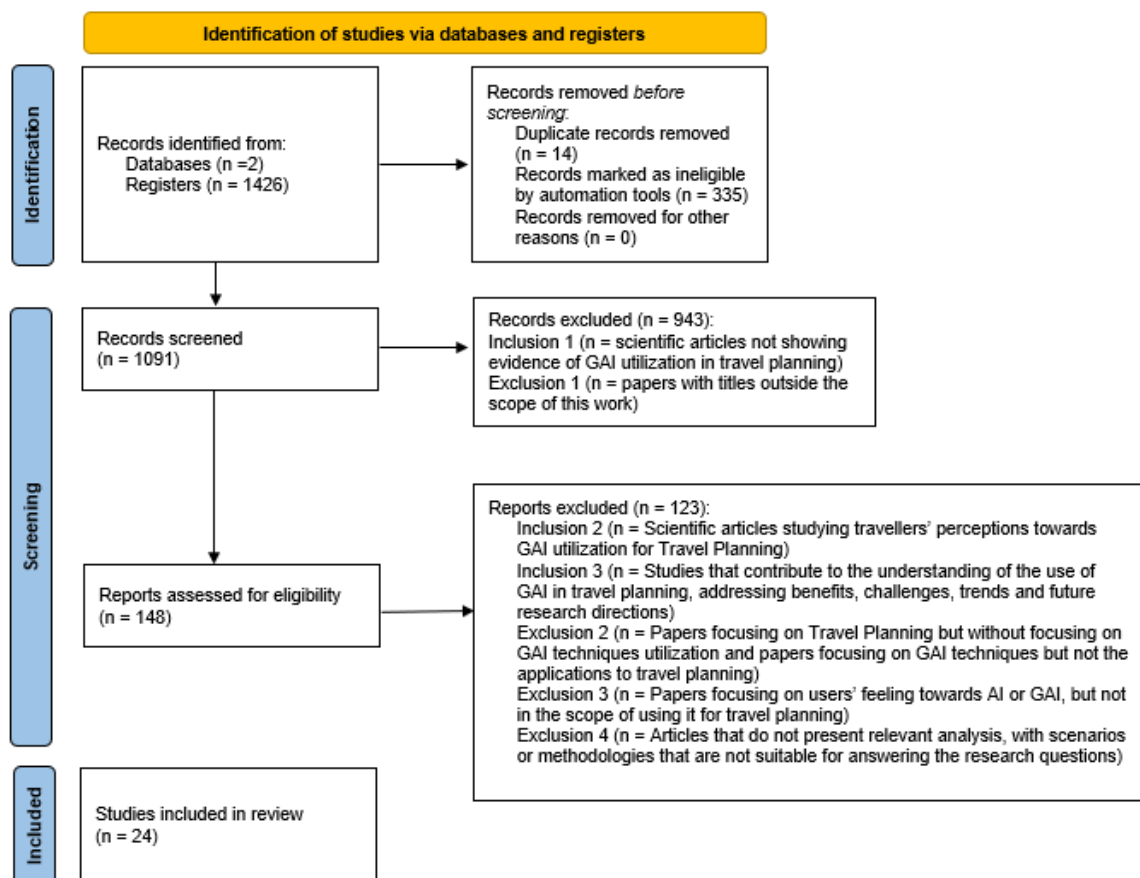


Figure 2.3 – PRISMA Execution

In total, this research resulted in a group of 24 journal articles that are listed in the table below, along with a brief description of their contributions, conclusions and future work suggestions. These articles were included in the review because they passed through the inclusion/exclusion criteria and therefore were the most relevant in understanding the answers to the three research questions.

Table 2.5 – PRISMA’s articles included in review

Authors	Article	Contribution	Publication Type
(Alyasiri et al., 2024)	A Survey on the Potential of Artificial Intelligence Tools in Tourism Information Services	Applications of AI tools, particularly ChatGPT, on tourism. Study on the current status of research in ChatGPT for tourism.	Journal Article
(Altinay et al., 2025)	“Keep your friends close, but your enemies closer:” ChatGPT in tourism and hospitality	Application scenarios for ChatGPT: customer service agent (recommendation system). Challenges: fake or inaccurate information or references, legal and ethical concerns, social isolation, lack of competency (requires users to have the required competences to make full use of it) and human replacement.	Journal Article
(Hsu et al., 2024)	A fine-tuned tourism-specific generative AI concept	Advocates the need for a tourism specific LLM. Same contributions as article before, but some added challenges, “Westernized worldview” from the LLMs, limitations in domain knowledge acquired through training data, and since it analyses and generates insights from user-generated reviews and feedback, users may attempt to influence query results. Tourism specific LLM.	Journal Article
(Jin & Han, 2025)	A Phenomenological Study on the Experience of Searching for Tourism Information Following the Emergence of ChatGPT: Focused on the Uncanny Valley Theory	Study on the experience of using ChatGPT to search for Tourism Information. In-depth interviews with focus on tourists who used ChatGPT for tourism information. Contributes with conclusions and practical implications of the application of ChatGPT to tourism.	Journal Article
(Rather, 2024)	AI-powered ChatGPT in the hospitality and tourism industry: benefits, challenges, theoretical framework, propositions and future research directions	Benefits of ChatGPT for travel planning. Research directions for the implementation of ChatGPT within the tourism and hospitality industry.	Journal Article
(Ren et al., 2024)	Are Large Language Models Ready for Travel Planning?	Study on the possibilities of gender/ethnic bias from LLMs and its effect on travel planning. Contributes with research on the uses of LLMs for travel planning and some challenges.	Journal Article
(Wong et al., 2023)	Autonomous travel decision-making: An early glimpse into ChatGPT and generative AI	Contributes with research on GAI applications to the tourism industry and travel planning. Has answers to current status of research and	Journal Article

Authors	Article	Contribution	Publication Type
		how GAI techniques are being used to travel decision making. Proposes the framework to enhance pre-trip, en-route and post-trip stages of tourists decision-making using GAI assistance.	
(Ali et al., 2023)	Antecedents and consequences of travelers' trust towards personalized travel recommendations offered by ChatGPT	Consumers may experience unease, perceive risks and need time to rely on the credibility and efficacy of ChatGPT. From the study many respondents felt unsure, however the findings indicate that ChatGPT's recommendations relevance, credibility, usefulness and intelligence positively influence perceived trust, which positively influences behavioral intention. Services need to provide transparency on how their GAI works and provides recommendations.	Journal Article
(Stergiou & Nella, 2024)	ChatGPT and Tourist Decision-Making: An Accessibility–Diagnostics Theory Perspective	AI technologies in tourism used for predictive analysis, customer service automation and personalized marketing. Chatbots are essential tools, and ChatGPT is emerging as a leading solution, with leading tourism companies like Expedia, Kayak and Quad Labs, having integrated ChatGPT plugins to offer tailored information. In the context of travel planning, ChatGPT offers real-time data-driven insights based on tourists preferences and constraints, can analyze past travel behavior and current trends to make optimal suggestions, it spans from pre-travel to post-travel reflections. ChatGPT helps by tailoring and enhancing accessibility from travelers to tourism information, who don't need to go through the time-consuming and confusing process of searching for various online sources. "ChatGPT customises its recommendations to suit various tourism contexts, reflecting its adaptability in prioritising different decision-making criteria based on the user's specific needs."..." extract and interpret themes directly from the data while also applying theoretical insights to deepen our understanding."	Journal Article
(Carvalho & Ivanov, 2023)	ChatGPT for tourism: applications, benefits and risks	Contributes with current research status, advantages and disadvantages on ChatGPT for tourism. Sometimes tourists may interact with LLMs not because they want it but because the companies did not provide them with another choice (llm based chatbot). In the pretrip stage tourists can obtain	Journal Article

Authors	Article	Contribution	Publication Type
		personalized information, suggestions of tourism products in the destination and personalized itineraries; during the trip can provide help with social media posts or advice/changes in the itinerary; and after the trip to help draft reviews. Travel planning can be simplified through verbally communicating needs, preferences and requirements.	
(Fakfare et al., 2025)	Customer word-of-mouth for generative AI: Innovation and adoption in hospitality and tourism	Contributes with a lot of review on current research status: ChatGPT benefits, trust and ethical usage of private and public databases, studies focus on trends, challenges, and future research directions. The study results support the hypothesis that when individuals perceive the importance of ChatGPT for trip planning, they may be inclined to explore more and adopt it, becoming more likely to recommend to others as well. Advances the understanding of leveraging ChatGPT for travel decision-making. This study highlights an important limitation of current research, by only examining ChatGPT, limits the understanding of perception towards other AI.	Journal Article
(Sökmen et al., 2024)	Determinants of the Usage of ChatGPT in the Tourism and Hospitality Industry: A Model Proposal from the Technology Acceptance Perspective	Confirms it's a very current issue, with articles on the subject expected to increase from 2023 forwards. Usage of ChatGPT in the tourism and hospitality industry is classified into themes, with some usages relevant for travel planning: quality of experience (tourist experiences, guidance/directions capacity), satisfaction (perceived value), interactions (user/tourist oriented), ethics, credibility (reliability and privacy issues) and design features (user-friendly, personalized elements). Prominent findings are that ChatGPT can improve quality of experience and satisfaction, and that ethical principals and credibility are areas for improvement.	Journal Article
(Kim et al., 2024)	Effect of ChatGPT's Answering Style on Users' Acceptance in a Trip Planning Context	Research on using ChatGPT to travel planning, focused on user-interaction with the information given. Suggest that conversational tone doesn't inherently increase users' adoption of ChatGPT, but the informativeness of the response does. Including explanations of destination recommendations increases acceptance.	Journal Article

Authors	Article	Contribution	Publication Type
(Ilieva et al., 2024)	Effects of Generative AI in Tourism Industry	Contributes with research on GAI plus its uses and techniques to tourism. Addresses current frameworks for tourism services based on GAI. Proposes a framework for applying GAI assisted business processes in tourism industry.	Journal Article
(Seyfi et al., 2025)	Understanding tourist barriers and personality influences in embracing generative AI for travel planning and decision-making	Contributes with literature review into current status of research. Explores tourists adoption of GAI technologies for travel planning and decision-making, based on innovation resistance and personality traits. Considers that previous experience with GAI boosts tourists to trust and engage with it (trust performing a significant effect on intention to use) and that the big five personality traits (Openness, Conscientiousness, Extroversion, Agreeableness, and Neuroticism) influence tourists' resistance to adopting AI-powered travel recommendations. Highlights a big gap in research on how personality traits affect adoption or rejection of GAI during trip planning.	Journal Article
(Gursoy et al., 2023)	ChatGPT and the hospitality and tourism industry: an overview of current trends and future research directions	Contributes with listing the benefits and opportunities of GPT to the tourism industry: elaborate and consistent responses through natural language processing, accurate and up-to-date customized information, multi-platform compatibility, interoperability with other travel-related services, taking user feedback into account, connectivity to social media and metaverse networks. Research into the challenges as well: deployment costs, real-time data management and updates, privacy concerns, emotional programming issues, digital estrangement and replacement of labor. Introduces the use of GPT through pre-travel, during travel and post-travel stages. Suggests research on the role of GPT in the travel-decision making process.	Journal Article
(Arora et al., 2024)	Tapping generative AI capabilities: a study to examine continued intention to use ChatGPT in the travel planning	Contributes to the understanding of the acceptance and use of generative AI in travel planning, by analyzing the influence of UTAUT2 and PCI theories to the Flow state, and the flow impact on intention to continued use of ChatGPT. It concludes that performance expectation, ease of use, facilitating conditions, hedonic motivation, relative advantage, trialability, and	Journal Article

Authors	Article	Contribution	Publication Type
		demonstration of results are the main factors influencing the user's flow state, which in turn affects the intention of continued use of ChatGPT in travel planning, with external influence also playing a moderating role.	
(Xu et al., 2024)	Tourist acceptance of ChatGPT in travel services: the mediating role of parasocial interaction	Contributes with a detailed and practice-oriented model on the adoption of ChatGPT in the tourism context, highlighting both the rational and emotional aspects that lead tourists to use this technology. Suggests that social influence is a key external stimulus that positively affects the tourists' perceived trust and expertise in the travel information provided by ChatGPT but does not directly determine their intention to use it for travel services. Indicates that perceived value is the most influential determinant of adoption of ChatGPT for travel-related purposes and highlights the significance of parasocial phenomena in shaping users' acceptance and use of ChatGPT.	Journal Article
(Fouad et al., 2024)	Generative AI insights in tourism and hospitality: A comprehensive review and strategic research roadmap	Presents a bibliometric analysis and a SLR, with the assistance of PRISMA, on the application of GAI in the tourism and hospitality industries. Discusses several contributions to the use of GAI in travel planning and highlights that the balance between technology and human touch is essential for a satisfying and high-quality travel experience.	Journal Article
(Topsakal, 2024)	How Familiarity, Ease of Use, Usefulness, and Trust Influence the Acceptance of Generative Artificial Intelligence (AI)-Assisted Travel Planning	Studies the factors that influence the use of GAI-assisted travel planning, namely familiarity with Gen AI, perceived ease of use, perceived usefulness and perceived trust. It demonstrates that familiarity with GAI is a key factor in the acceptance of this technology for travel planning and it influences both perceived ease of use, usefulness and trust. Perceived usefulness and trust are determinants of intention to use, while ease of use does not have a direct effect, suggesting that other factors may be more important in the adoption of GAI for travel planning. Age may influence how perceived usefulness affects usage intention, but gender does not appear to be a relevant moderating factor in this context.	Journal Article

Authors	Article	Contribution	Publication Type
(Christensen et al., 2024)	Understanding the role and impact of Generative Artificial Intelligence (AI) hallucination within consumers' tourism decision-making processes	Contributes to the knowledge on the adoption of GAI technologies in travel planning, focusing on specific contextual elements of the Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB). The results reveal that, despite the risk of hallucination, consumers still chose incorrect ChatGPT itineraries over correct itineraries provided by other sources. It appears that awareness about AI hallucination potential does not correlate with ability to identify when it happens, highlighting the need for further research and measures to ensure the accuracy of AI-generated information. Also, one of the most commonly mentioned reasons listed by the respondents for selecting the ChatGPT itinerary was the belief that ChatGPT does a better job of providing more interesting, custom-tailored recommendations	Journal Article
(Duong et al., 2024)	Using generative artificial intelligence (ChatGPT) for travel purposes: parasocial interaction and tourists' continuance intention	Explores the contributions and impact of using ChatGPT in travel planning and the factors that drive tourists to continue to use ChatGPT for their travels, mainly the importance of parasocial interaction and user satisfaction in increasing the intention to continue using it.	Journal Article
(Pham et al., 2024)	What drives tourists' continuance intention to use ChatGPT for travel services? A stimulus-organism-response perspective	Contributes to the literature by applying the SOR model to explain the adoption of ChatGPT for travel services by tourists. Demonstrates that trust and attitude impact tourists' satisfaction which affects their intention to continue to use. Trust in ChatGPT is positively affected by perceived warmth, communication speed and perceived competence, but communication speed doesn't affect attitude. Technology anxiety affects negatively satisfaction and continuance use intention.	Journal Article
(Aribas & Daglarli, 2024)	Transforming Personalized Travel Recommendations: Integrating Generative AI with Personality Models	Contributes by integrating GAI models with personality models to improve relevance and user satisfaction. GAI techniques like the RAG framework integrated with personality models like MBTI and BF generated more diverse, relevant, and user-satisfying travel recommendations. Concludes that GAI's ability to create content that is contextually aware and adaptive to user input is significantly amplified when it incorporates	Journal Article

Authors	Article	Contribution	Publication Type
		personality traits, marking a significant advancement over traditional LLM fine-tuning methods.	

2.4.2 PRISMA RESULT ANALYSIS

After thoroughly following the PRISMA methodology and analysing the articles included in Table 2.5, the main contributions of each work were retrieved to help find the answers to the research questions setup beforehand.

SLRQ 1 - What is the current status of research of using GAI to travel planning?

While much research has focused on the operational advantages of GAI, there has been limited exploration of the challenges and reluctance travellers face when integrating these technologies into their decision-making processes. To enhance user adoption, it is crucial for services to provide transparency regarding how GAI functions and generates recommendations (Ali et al., 2023). However, some awareness and interest exist in the possibilities of using GAI for traveling, as noted in a recent survey by Longwoods International which inferred that about 33% of American travellers are open to using ChatGPT for trip planning (Seyfi et al., 2025).

Despite prior studies emphasizing the need for further investigation, empirical research on how tourists perceive, trust, and ultimately decide to adopt GAI-powered recommendations remains underdeveloped (Ali et al., 2023; Seyfi et al., 2025). Previous experience with GAI increases travellers' trust and willingness to engage with it, as trust significantly influences the intention to use such technology (Ali et al., 2023; Seyfi et al., 2025). Additionally, personality traits can correlate to resistance in adopting these technologies, with the Big Five traits – openness, conscientiousness, extraversion, agreeableness and neuroticism – shaping travellers' responses, with the interesting notion that individuals high in neuroticism are more inclined to adopt AI generated travel recommendations (Seyfi et al., 2025). Research also considers that familiarity with GAI is a key factor in its acceptance for travel planning, while also influencing perceived ease of use, usefulness and reliability (Topsakal, 2024).

Regarding research on the adoption of GAI for travel planning, studies suggest that when individuals perceive the importance of ChatGPT for trip planning, they may be inclined to explore more and adopt it, becoming more likely to recommend to others as well (Fakfare et al., 2025). Conversational tone does not inherently increase users' adoption of ChatGPT, but the informativeness of the response does. Moreover, including explanations of destination recommendations increases acceptance (J. Kim et al., 2024). Importance of parasocial

interaction and user satisfaction in increasing the intention to continue using it (Duong et al., 2024).

SLRQ2 - What are the advantages and disadvantages of applying GAI techniques in travel planning?

There are several benefits and challenges to be explored with the application of GAI techniques in travel planning. With the benefits should be considered GAI's ability to produce elaborate and consistent responses through natural language processing, accurate and up-to-date customized information, multi-platform compatibility, interoperability with other travel-related services, taking user feedback into account, connectivity to social media and metaverse networks (Gursoy et al., 2023b).

Compared to previous chatbots and service robots, ChatGPT facilitates more human-like, context-adaptive and fluent dialogues. As a result, consumers may prioritize ChatGPT for travel information retrieval, planning and translation over the perceived usefulness of physical service robots or the ease of use of traditional chatbots (Xu et al., 2024). Integrating personality models with GAI techniques can generate more diverse, relevant and user-satisfying travel recommendations (Aribas & Daglarli, 2024).

On the other hand, some challenges involve the deployment costs, real-time data management and updates, privacy concerns, emotional programming issues, digital estrangement and replacement of labour (Gursoy et al., 2023b). There is also the risk of AI hallucination, when GAI software systems generate fabricated or false information, and awareness of it does not correlate with the ability to identify when it happens. Despite this, research identifies that consumers still choose incorrect ChatGPT routes over correct routes provided by other sources (Christensen et al., 2024).

SLRQ3 - What kind of GAI techniques are currently useful in travel planning?

Applications of GAI in tourism include predictive analytics, customer service automation and personalized marketing, with major travel companies such as Expedia and Kayak integrating it, and particularly ChatGPT, to offer personalized information (Stergiou & Nella, 2024). GAI models also enable personalized travel recommendations, tailored itineraries, destination suggestions, and customized activity plans catered to individual preferences that can be enabled in all stages of travel: pre-trip, during travel and post trip stages (Gursoy et al., 2023; Wong et al., 2023). In the pre-trip stage tourists can obtain personalized information, suggestions of tourism products in the destination and personalized itineraries, during the trip can provide help with social media posts or advice/changes in the itinerary and after the trip can help draft reviews.

It can easily connect and interlope different platforms and travel related services (Gursoy et al., 2023b) and the ability to verbally communicate needs, preferences and requirements simplifies and improves the travel planning process (Carvalho & Ivanov, 2023).

3. METHODOLOGY

The methodology approach used when conducting this study was based on the Design Science Research paradigm, with the focus of developing and validating prescriptive knowledge in the context of this study, the applications of GAI for travel planning.

3.1 DESIGN SCIENCE RESEARCH

Design Science Research (DSR) constitutes a problem-solving paradigm focused on enhancing knowledge through the development of innovative artifacts. Specifically, DSR tries to improve technology and scientific knowledge bases by constructing new solutions to address problems and improve the contextual environment of their instantiation (vom Brocke et al., 2020). This methodology follows the Peffers' approach on conducting design science research (Peffers et al., 2007), since it is the more applicable for use in research that requires an evaluation of the artifact after it was developed (Delpont et al., 2024). After designing this study's artifact, which consists of a set of recommendations on the optimal usage of ChatGPT for travel-related situations and that follow a diagram representing a whole travel-planning process, a demonstration of its utilization in different scenarios will be conducted. Finally, an evaluation needs to be undertaken to validate the artifact before it can be publicly communicated in scholarly and professional publications.

The DSR methodology aims to create an innovative artifact that contributes to practical application and theoretical knowledge of real-world problems. It involves a process with several steps to be addressed throughout the research. Figure 4.1 represents the DSR framework used as guideline for the methodology approach conducted in this study.

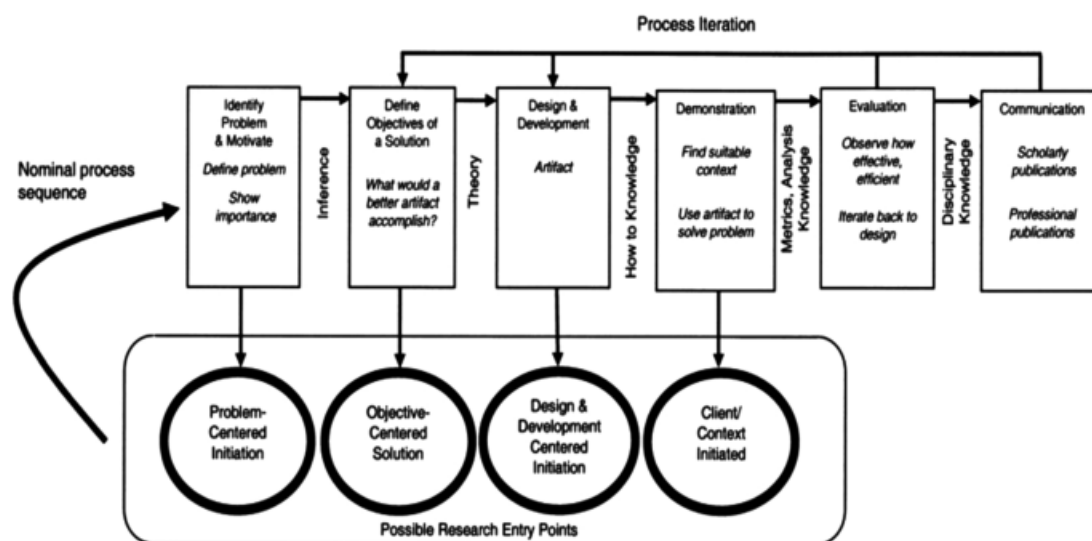


Figure 3.1 – Peffers' approach to Design Science Research Methodology

The first step in Peffers' methodology is problem identification and motivation, where the problem being addressed is clearly identified and a justification of the value of a solution is provided. It is useful to break down the concept of the problem since the artifact will be developed based on the problem definition. Justifying the value of a solution motivates the pursuit of said solution and acceptance of the results and it also helps to understand the reasoning behind the researcher's perception of the problem (Peffers et al., 2007).

Identifying the problem does not directly translate into the objectives for the artifact. Therefore, after the problem is identified the next step is to define the objectives for a solution. The objectives can be quantitative, such as terms in which a desirable solution would be better than current ones, or qualitative, such as a description of how a new artifact is expected to support a solution (Peffers et al., 2007). This step involves a literature review where knowledge of the state of problems and current solutions are studied to help developing a solution and the goals of that solution.

The third step is the actual design and development of the solution, where the artifact is created after determining its desired functionality and architecture. Next, step four incurs into a demonstration of the artifact in a suitable context. It involves its use in experimentation, simulation, case study, proof, or other appropriate activity in solving one or more instances of the problem (Peffers et al., 2007).

The next step is an evaluation of the artifact's effectiveness and efficiency, comparing the objectives of a solution to actual observed results from the use of the artifact in the demonstration. Using appropriate metrics and analysis techniques to find out the results, the artifact and its design are then reiterated to be refined for a better performance and effectiveness (Peffers et al., 2007).

To conclude, the last step is called communication. It consists of communicating the research findings and importance, as well as the developed artifact and its effectiveness through academic and professional publications (Peffers et al., 2007).

3.2 RESEARCH IMPLEMENTATION

The research approach will involve developing a detailed scenario for the application of ChatGPT in travel planning, considering both its potential benefits and limitations. Following the DSR framework from imageX1 as guidelines into this study's methodological approach, the first step to implement was the clear identification of the problem and context, which is the lack of research into the potential of applying GAI to the travel decision-making process. In this case, the problem was an opportunity for improvement rather than an issue, highlighting the importance of having more empirical research on the topic and the potential value of utilizing GAI tools such as ChatGPT for travel-planning.

With the problem being well defined, the research followed into an understanding of the concrete objectives the solution would accomplish. This initial phase will involve an exploration of the various applications of LLMs in the tourism industry, mainly their application to tourism and travel planning, followed by a comprehensive literature review focusing on the use of ChatGPT to travel planning. The main objective, however, is the introduction of strategies that improve the experience of trip and travel planning through the potential of ChatGPT and an understanding of its benefits and limitations.

This leads to the artifact itself; a set of prompt recommendations and strategies that assist the user in obtaining a better outcome when using ChatGPT for travel-related decisions.

With the insights gained from the literature, a few scenarios will be constructed to simulate ChatGPT's role in assisting users with travel-related decisions. Those scenarios will be used in the demonstration phase to conduct experimentations of the artifact in real-world context. Four interviews will then be administrated to gather the perceptions of individuals with different backgrounds regarding ChatGPT's use in this context and the utility of the artifact developed. The evaluation phase will consist of analysing the resulting data to derive meaningful conclusions about public's perception on the effectiveness and limitations of the artifact and the usage of ChatGPT for travel planning.

Finally, the last phase of the research approach will entail communicating the study and results to the public and a publication of the article through the relevant channels.

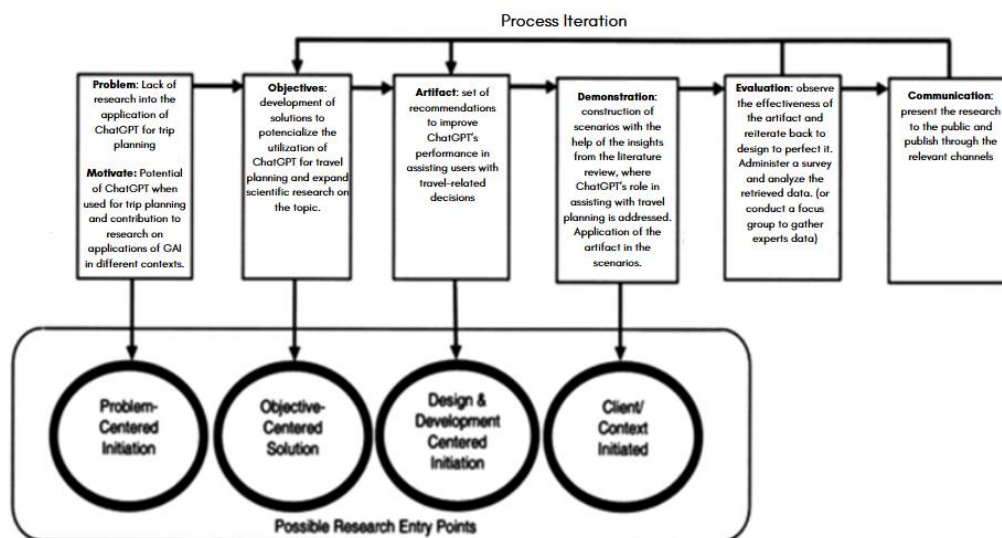


Figure 3.2 –DSR methodology framework in the context of the study

4. EMPIRICAL STUDY – USE OF CHATGPT IN TRAVEL PLANNING

The empirical study of this research involves the analysis of assumptions retrieved from the investigation in the previous sections with the focus of developing a framework that assists users in utilizing ChatGPT for travel planning. The travel planning framework is the artifact of this research and its development is represented in chapter 4.2. The framework application was later studied in real-world scenarios and evaluated through qualitative semi-structured interviews.

4.1 ASSUMPTIONS

The SLR conducted in section 2.4 provided context regarding existing applications of GAI in travel planning and decision-making processes. While this analysis revealed that the field remains relatively understudied and requires further empirical investigation, several assumptions emerged from the published literature that create a basis for the understanding of GAI's potential in travel planning contexts.

- **A1:** GAI demonstrates significant capabilities for customizing activities across all phases of the travel experience. During the pre-trip stage, these systems can generate personalized destination recommendations and construct custom itineraries based on individual traveller profiles and preferences. Throughout the travel experience itself, GAI applications provide real-time advice, suggest itinerary modifications based on changing circumstances, and assist travellers in creating engaging social media content. In the post-trip phase, these technologies continue to add value by facilitating the creation of travel reviews and supporting ongoing social media engagement related to the travel experience.
- **A2:** GAI fundamentally transforms the travel planning process by enabling natural language communication between users and planning systems. This conversational capability allows travellers to articulate their needs, preferences, and requirements using everyday language, while receiving detailed and contextually appropriate responses that would traditionally require another human's intervention.
- **A3:** GAI models enable compatibility across multiple platforms and travel-related services. They can interlope between various booking platforms, social media networks, and even metaverse environments, while maintaining the ability to provide accurate, updated, and personalized information that incorporates user feedback and preferences.
- **A4:** ChatGPT's characteristics, including the ability to provide detailed explanations for destination recommendations, informative response structures, and human-like conversational flow, increase user acceptance and adoption rates for GAI based travel planning applications.
- **A5:** Combining the insights from prompt engineering research and the systematic literature review indicate that response quality and user satisfaction can be

substantially improved through strategic information provision and query structuring. By supplying complete contextual information, clearly defining response parameters, and articulating specific user intentions, travellers can elicit more sophisticated reasoning from LLMs, thereby expanding the range and quality of tasks these systems can effectively perform while simultaneously reducing the likelihood of AI hallucinations that could compromise planning accuracy.

4.2 THE USE OF CHATGPT IN TRAVEL PLANNING

Following the DSR framework described in the research methodology, this paper introduces an artifact that outlines the implementation of ChatGPT in travel planning and covers the different needs and optimizations of its application. The artifact consists of a process involving three main stages of a trip, the Pre-Trip, On-Trip and Post-Trip planning, covering important elements like a trip's foundation setup and the itinerary, and the ways in which GAI can assist at each stage.

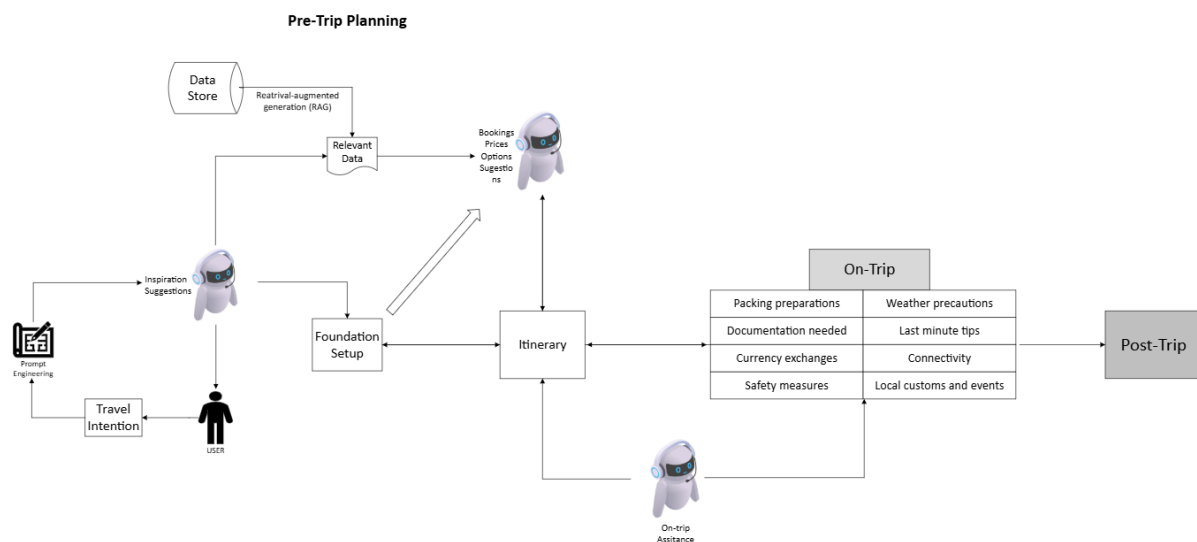


Figure 4. 1 – Travel planning process overview

The flowchart represented in the figure above illustrates the pre-trip, on-trip and post-trip sequence along with a description and the relationships between the main situations where GAI can assist in each stage. These situations are the focus of the framework - they are points retrieved through the literature review where GAI can have a positive impact in travel planning.

Each stage is fractured into the pieces that support each other, following a chain-of-thought process to induce ChatGPT into returning pertinent information based on the preferences inferred at each stage. The schema represents the three stages of the trip in a timeline that

matches how they usually occur in a real-world context, first the pre-trip, then on-trip and finally the post-trip. However, in the context of using GAI's assistance, that sequence does not need to be followed, the process is flexible and cyclical, meaning that the user can start his planning at whatever stage they require and move back and forward to any stage of their preference. All parts of the plan are interconnected and interdependent, so it is also a good practice to re-access former steps if there was new information discovered in later phases. The timeline illustrated in the sequence is meant to function as a guideline for the user and not as a rule.

The first instance in the process is the pre-planning stage, which is represented in Figure x5. This stage involves the definition of the travel intention (can be the goal and purpose of the trip, the objectives to achieve, the reason for travelling), the setup of the trip's foundation (finding accommodation, transportation and destination, as well as deciding on the dates, all based on a budget) and the building of an itinerary. ChatGPT can generate information from the prompts given by the user, it can help with the travel intention by offering suggestions and inspiration, and on both the foundation setup and itinerary can help with bookings, comparing prices, giving recommendations and offering more details on points of interest. RAG can enable the information generated by the AI to be more accurate and reliable, by feeding ChatGPT with data from external sources like websites, social media pages or booking platforms. Defining the travel intention is a good place to start because the AI will generate output that is more relevant since it is based on that information. If the user is not sure of the travel intention or is just looking for some inspiration, the cycle works the other way around, with the user taking information and suggestions from the AI until reaching a satisfactory decision. Figure 4.2 represents the pre-trip planning diagram.

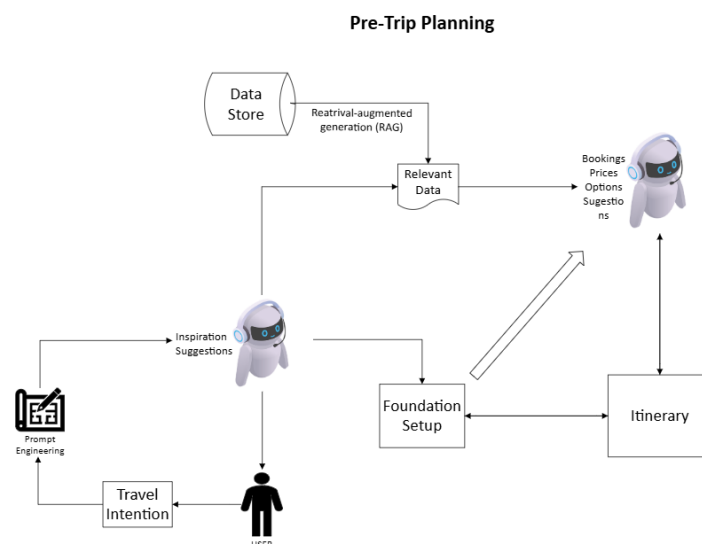


Figure 4.2 – Pre-trip planning stage

This is also the stage when the foundation of the trip is defined, even in situations where there is a very limited amount of planning intended, it is always necessary to setup a foundation.

This foundation consists of decisions such as the dates of the trip, the destination, transportation, and accommodation, which are all considered according to the budget available. Usually, travellers check each option and platform by themselves, in a careful and deliberate process to find the prices and options available that suit their preferences. It is at this point that ChatGPT can highly increase the efficiency and comfortability of the process, generating information and creating suggestions on the possibilities available, with a higher chance of retrieving more suitable prices, flights, dates, among others and finding opportunities that otherwise might have been overlooked. Using thoughtful prompt engineering, GAI is a powerful tool that helps set up better foundations for people's travels more easily.

RAG methods should be applied at every stage of the process to validate the information and reliability of the output by cross-referencing ChatGPT's generated suggestions with updated and related external sources. RAG can be especially effective in the case of the foundation, where the data needs to be accurate since prices and availability are being explored. For example, when evaluating transportation options, real-time data from airline APIs or train schedules can be integrated into the retrieval step, ensuring that the AI has access to the latest availability and pricing. For accommodation as well, by cross-checking information from trusted booking platforms like Booking.com and Airbnb or directly from hotel websites.

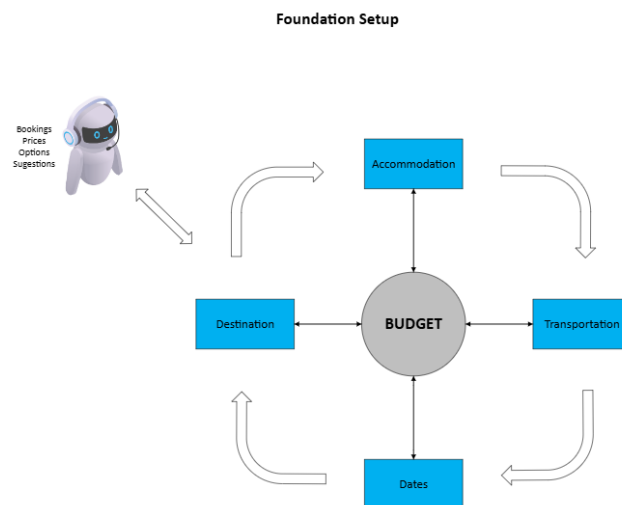


Figure 4.3 – Foundation setup

The itinerary planning can be involved both before the trip and during the trip, in often cases there is a pre-determined itinerary that is changed as the trip develops and different variables affect the execution of the planned activities. GAI has the ability to generate complete itineraries personalized with the preferences and interests inferred by users' prompts, while also enabling flexibility to update the itinerary during the trip.

One of the key components of itinerary planning is identifying points of interest (POI) to visit during the trip, which may include landmarks, restaurants, museums, local events and activities, landmarks, natural attractions, among other possibilities. Powered by RAG methods, ChatGPT can generate recommendations on POI fitting them with the users' profiles, budgets and time constraints. After they are selected, GAI further assists in building an optimized itinerary that can include schedules for the activities, allocating appropriate time for each stop or suggesting the best visiting times based on expected crowd levels or weather forecasts, while optimally ordering every step based on transportation available and recommended transit routes. More importantly, the itineraries are not fixed documents but dynamic plans that evolve alongside the trip. During the trip, when situations such as delays, cancellations or even spontaneous decisions occur, ChatGPT can rapidly recalculate the schedule and suggest suitable alternatives, re-adapting the itinerary to the circumstances.

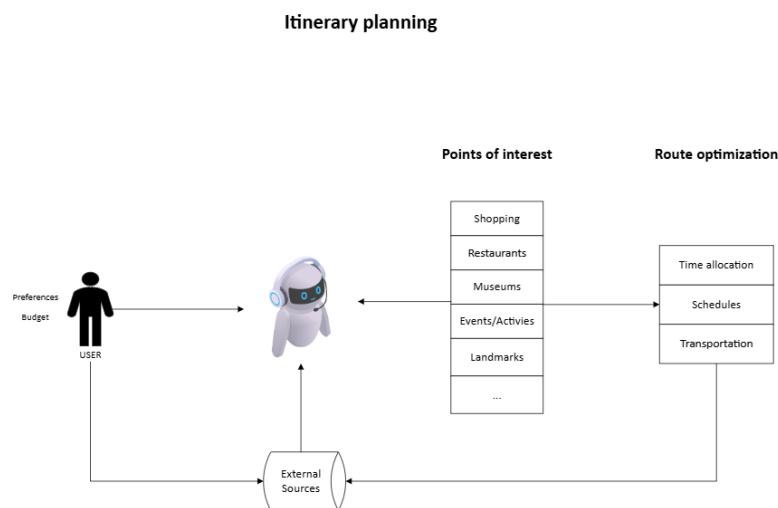


Figure 4.4 – Itinerary planning

During the on-trip stage there are practical needs that must be addressed by the travellers, which are often overlooked or underestimated. These needs involve more than logistics and can impact the comfort, safety, and overall enjoyment of the trip. They include making last-minute packing adjustments in response to changing weather or unexpected activities, keeping track of travel documentation such as visas, insurance, or digital boarding passes, and even managing foreign currency exchanges. Travelers should also stay informed about safety protocols, local customs and etiquette, and regional events or holidays, which can impact the trip.

In many cases, travellers may not be fully aware of the available options or necessary precautions, and this is where GAI can offer personalized guidance to fill those gaps and enrich the journey at any time needed.

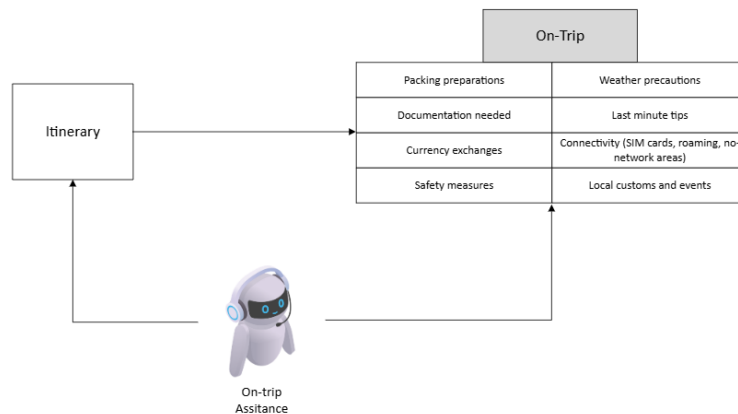


Figure 4.5 – On-trip stage

Finally, the post-trip stage does not have an involvement in travelling as big as the other stages, but it is still a point where GAI can generate useful information and provide valuable support, being able to transform post-travel activities into meaningful and engaging touchpoints.

Travelers often wish to document their experiences through photos, blogs, or social media posts, but may struggle with finding the right words or organizing their content effectively. GAI can help generate captions, compile highlight moments, or even draft engaging blog posts that reflect the travellers' trip. In addition, it can support the review and feedback process for accommodations, restaurants, tours, or attractions, which is valuable to create better experiences for both fellow travellers and the services providers.

The post-trip phase can also serve as a foundation for subsequent travel planning, as ChatGPT retains personal information and context from the latest journey, enabling an easy transition into future trip development.

4.3 SCENARIOS

The previous section contains a detailed description of the tourism planning process purposed in this study, however, the real-time situations where it will be necessary are usually not so simple or linear. This chapter will cover four scenarios with different real-world situations where the process can be useful, along with guidelines and prompt suggestions to demonstrate how users can interact with the system effectively, maximizing the benefits of GAI-supported tourism planning across a variety of contexts.

Each scenario will follow a logical sequence through prompts asked to ChatGPT, where variables such as dates, destinations, prices and others will have to be selected to develop the process further so, for the process of this chapter, they will be chosen from the outputs given by ChatGPT. The prompts used and excerpts of typical answers to them are illustrated through the scenario discussion and in the appendix are registered the prompts and complete answers retrieved from ChatGPT.

Scenario 1: *In the first scenario, the user seeks travel recommendations without a predetermined destination, where the decision-making process is guided by a specific interest or theme (historic, romantic, gastronomy) and other personal preferences.*

Breaking down scenario 1 through the planning process, the first step is to identify the basic purpose of the trip and main goal. In cases such as this, where the destination or trip plan is not yet clearly defined, the user can prompt the system to receive inspiration and suggestions to articulate a travel vision. GAI can then filter options based on inferred or stated preferences, offering personalized destination recommendations, ideal travel periods, or even sampled itineraries, eventually leading to a concrete plan.

A good initial prompt in this situation should give ChatGPT an understanding of the user's motivations, preferences and constraints. Prompt 1 exemplifies how one such prompt could be done, structuring it based on the information studied through the research.

Prompt 1: *“Goal: I am looking to travel on my next holidays, but I don’t know where to go, so I need you to generate recommendations and suggestions of places to visit.*

Return Format: Generate 6 different destinations and list the main points of interest, pros and cons of visiting and typical food to try. Also compare the estimated average total cost for the full trip in euros in each of them.

Warnings: The trip should last more than 10 days and in maximum 17 days, including the home departure and return days. I want to visit some place new, so exclude Portugal, Spain, France, Italy and the US.

Context dump: I’m departing from Lisbon, Portugal, travelling solo and I enjoy doing hikes in the nature, eating different types of food, visit museums and learn about new cultures. Also, I would prefer places that are culturally rich, but not too crowded. I didn’t take the days off yet so the trip can be at any date but in maximum for a period of 17 days. “

Prompt 1 is just a basic example of how the first prompt structure can be, it initiates the dialogue with the AI and introduces the key aspects of the trip, but each user decides what are his main preferences and what information wants to give ChatGPT. It doesn't have to be written like this, it can be in regular speech format, this format is just to make it easier to understand the structure.

There are more parameters that can be added in as context or warnings, but adding too much information is not always optimal since it can lead to overfitting, for example suggestions that are not considered due to a small detail that could not be a big deal to the user. Other parameters that can be interesting to consider include the preferred climate or season, the budget range, flight duration, accommodation style, cultural interest, transportation comfort, digital connectivity, among many others, any parameter can be relevant depending on how important the user considers it.

Typical Response: *“(…)*

1. Georgia (Caucasus) GE

Main Points of Interest:

- Tbilisi: vibrant capital with historic bathhouses and wine bars
- Kazbegi (Stepantsminda): epic mountain hikes near Gergeti Trinity Church
- Svaneti region: ancient towers and trails in the Caucasus
- Uplistsikhe: cave city blending pagan and Christian history

Pros:

- Extremely budget-friendly
- Excellent hiking and mountain scenery
- Ancient, diverse culture (Orthodox, Persian, Soviet influences)
- Friendly locals and safe for solo travelers

Cons:

- Infrastructure can be rough in remote areas
- Not everyone speaks English

Food to Try:

- **Khinkali** (dumplings)
- **Khachapuri** (cheese bread)
- **Lobio** (bean stew)
- Natural wines from traditional qvevri

Estimated Cost: €1,250 (including flights, mid-range accommodation, food, and internal travel)

(...)”

Discussion: The output resulted in 6 different countries as was requested in the format, with a list of the required attribute. However, for the purposes of the scenario, it is not enough information for the user to choose a destination from. To correct that, the user can just ask again until satisfied on a destination. As in this case the user just wants more information, the prompt should be simple to avoid overfitting, allowing the AI to interpret what information to return.

Prompt 2: *“Can you provide more information about each destination.”*

Typical Response: *“(...)”*

2. Japan JP

Highlights & Hiking

- Nakasendo Trail: 330 mi (530 km) hike connecting historical posts like Tsumago and Magome. A rich cultural path blending rural beauty and heritage ([vogue.com](https://www.vogue.com)).
- Kumano Kodo: Sacred forest pilgrimage routes south of Kyoto, less crowded, spiritually significant.

Culture & Museums

- Kyoto has Fushimi Inari Shrine, Kinkaku-ji, and the Ryoan-ji zen garden.
- Tokyo offers world-class institutions like the Edo-Tokyo Museum, teamLab Borderless, and smaller art spaces.

Solo Travel Experience

- Exceptionally safe and traveler-friendly.
- Efficient rail network; try the Japan Rail Pass.
- Mixed experiences: Tokyo can feel crowded; Nakasendo and Kumano are serene.

Timing

- Hiking seasons: spring (late Mar–May) and autumn (Sep–Nov) are most comfortable.

(...)”

Discussion: Combining information from both answers enables the user to make a more informed choice. It is possible to note also that in the end of the output ChatGPT suggests further topics it can assist with. In case the user is not following the planning process suggested in this paper, this feature can help with further prompting and for the user to know what more information that might be important can be asked.

Looking into the flow of the process planning, the next step is to create a foundation setup. This means defining the destination, the dates and the budget, as well as booking the transportation tickets and the accommodations. For the purposes of the scenario, it is considered that the user liked the information provided from prompts 1 and 2 and chose Japan as a destination.

From there, the user can start setting a foundation for the trip, which is represented in the process as an interdependent stage where each element directly affects the others and where the budget represents a key role, being directly correlated to the several elements. At the start of this scenario, no foundational element was pre-defined but now, after prompt 1, the user has a destination in mind, so the following prompts should focus on the remaining elements.

Prompt 3: *“My preferred destination is Japan. I want to start planning the foundational elements of the trip, like the dates and flights. I want to understand what the costs of flights and accommodations are in different times of the year so I can understand better what is my budget.”*

Typical Response: *“(…)*

Total Estimated Costs for 14-Day Trip

Season	Flight (€)	Avg. Hotel / Night (€)	Accommodation (€)	Total Total Flight + Hotel (€)
Late May– June	700	80	1 120	1 820
Sept–Oct	750	85	1 190	1 940
Peak (Cherry)	1 000	120	1 680	2 680

These estimates assume mid-range business hotels (~10 000 ¥/night). Capsule or hostel stays reduce hotel cost by up to ~40%.

(…)”

Discussion: If the user has any preference on websites or companies, it is a good practice to refer them in the prompt so ChatGPT can generate information with that in context. Also, the generated information might not always be updated, so specifically mentioning the websites can help with that, but ChatGPT also has a feature in “Tools” called “Search the web” which fetches real-time data within the chat interface.

With this second prompt ChatGPT generated the price ranges for flights and accommodations at different times of the year, along with some planning tips and the reasons for the price changes. This helps the user decide on a date for the trip and to have a better understanding of the budget for the trip. The next prompt involves mentioning the chosen dates and requesting assistance in booking the plane tickets.

Prompt 4: *“I would like to travel to Japan on Autumn, preferably in October or November. Can you find the best combinations of price and flight duration for the two-way trip in that period. Make sure the prices are updated and assist me through the process of booking the tickets.”*

Typical Response: *“(…)”*

Comparison Table

Option	Price (€)	Stops	Avg Time	Travel Pros	Cons
Finnair	~605	1	~20 h	Cheapest, routing	efficient Layovers and availability vary
TAP via CPH	894	1	20–28 h	Fixed itinerary, reasonable time	Long layover (~13 h)
Etihad AUH	via ~760	1	15–23 h	One stop, decent duration	Slightly pricier
Qatar DOH	via ~800	2	38–49 h	Great service	Very long total travel time

(...)”

Discussion: This prompt is still missing the exact dates, so ChatGPT cannot retrieve the actual flights available, only offer suggestions. Upon deciding on a specific date, the user can add it to the prompt, enabling ChatGPT to search for real-time flights available and assist in the booking process. In this scenario, the user is satisfied with the suggestions and will use the information independently to filter on the websites for the most suitable flights. Once found, it is a key information to add in the prompts. After the flights are selected, this becomes essential information to include in subsequent prompts. For the purposes of this scenario, it will be assumed that the user has chosen to book tickets for travel from November 10th to November 25th.

The only element left in the foundation setup is the accommodation, however, it is important to acknowledge strategies regarding accommodation are different among travellers. While some people opt to secure all lodging arrangements in advance for the sake of convenience and predictability, others may deliberately choose to book accommodations only until after the trip has started. In the context of the present scenario, the user prefers to address the accommodations as the itinerary is being figured out, or progressively through the development of the journey. This leaves the planning process with the ensuing stage, the itinerary planning.

Prompt 5: “Generate three different itineraries for my trip. Make sure they cover all the days, considering I will be arriving in Tokyo Haneda on the 11th of November at lunch time and the departure will be November 24th from the same airport at 11 am. Make sure the itinerary englobes some of the main attractions of Japan, considers the weather forecast at the time and includes a few less known spots and activities. I want to travel on a low budget and would prefer not to spend more than around 1500 euros on the whole trip, excluding the flights.”

Typical Response: “(...)”

Here are **three 14-day autumn itineraries** for your Japan trip (Nov 11–24), arriving Haneda at lunch and departing from the same airport at 11 am. Designed for a **low budget (~€1,500 excl. flights)** and blending classic sights with hidden gems. All plans assume **budget accommodations, JR Pass**, local transit, and modest daily spending.

Itinerary A — Tokyo → Kyoto → Hiroshima → Tokyo

Date	Place	Morning	Afternoon	Evening
11 (Mon)	Tokyo	Arrive HND at 12:00 → Check into hostel near Asakusa	Explore Asakusa Senso-ji Temple	& Stroll along the Sumida River, visit local izakayas
12	Tokyo	Imperial Palace grounds & East Gardens	Ueno Museum district (Tokyo National Museum)	Ameya-yokocho market, street food
13	Tokyo	Day-trip to Mt. Takao (1 h train)	Hike to Biwa-toge; enjoy fall foliage	Back to Tokyo & visit Golden Gai, Shinjuku

(...)”

Discussion: Prompt 5 initiates the transition towards the creation of an itinerary, presenting three possible travel itineraries, each accompanied by a budget estimation. At this stage, the process becomes dependent on the individual’s preferences and decision-making style. Some users may find one of the proposed itineraries satisfactory and proceed accordingly, while others may wish to explore further alternatives or even just play with the GAI abilities to know more about the destination.

ChatGPT supports this flexibility because it can generate feasible modifications to the initial plans, suggest alternative destinations or activities, discover hidden gems or niche attractions. Throughout this process, the system retains contextual information, ensuring that the entire itinerary remains accessible and adaptable as needed.

The itinerary stage serves as a bridge between pre-trip planning and on-trip execution. It is initially shaped during the pre-trip phase but continues to evolve as the journey unfolds, accommodating real-time adjustments and updates based on the traveller’s experiences and needs. Once the itinerary has been created, it can serve as a foundation for further optimization. ChatGPT can assist in refining travel routes, recommending ideal time allocations for each attraction, verifying opening hours, and coordinating schedules. This results in a more efficient and seamless travel experience, reducing uncertainty and enabling the traveller to focus on enjoying the trip rather than managing logistics.

At this stage of the process, the pre-trip planning phase is considered complete, and the next step for the user is to embark on the journey. While the itinerary remains a central reference, ChatGPT can continue to provide valuable support during the trip and even in the post-trip phase, however, the first scenario’s primary focus in specific has been on the pre-trip planning. The following scenarios explore different stages of the travel experience, some shifting the context to on-trip and post-trip phases and examining the process from different perspectives.

Scenario 2: *In the second scenario, the user is travelling due to a specific purpose and not as a vacation – for example attending a business meeting, academic or sports event, family gathering, health reasons, etc - and requires assistance with organizing the surrounding aspects of the trip. The focus is on easing the overall travel experience by suggesting recommendations based on the users’ needs, while facilitating and simplifying the whole planning process.*

The second scenario requires a different approach to the planning, now, instead of looking at ChatGPT mainly as a source of inspiration, the focus will be on using it to facilitate the planning of a trip that is already programmed. To create a hypothetical situation of this scenario, the user is from Paris and is meeting with a client in Munich, the flights have already been reserved and accommodation as well. He will stay in the city for 4 days from October 10 to 14 and has meetings on the 11th and 12th, however, outside those instances, he is free to enjoy the city and wants to plan things to do and see without using too much energy. To illustrate the utility of ChatGPT in the post-trip, the user must write a report with a review of the whole experience and will make use of it for that purpose.

The beginning of the process follows the same logic as scenario 1, but in this case, instead of a prompt to request suggestions and inspiration, the first prompt will focus more heavily on the constraints and context of the trip.

Prompt 1: *“Goal: Generate an itinerary for me to explore Munich when I have free time during the trip.*

Warnings: I am fully occupied on the 11th and 12th and I have a business meeting at lunch time on the 13th. Other than that, I will probably be tired from work, so I don’t want to do activities that require too much energy.

Context: I will be traveling to Munich from October 10th to the 14th for work. My flights and accommodation are already booked. I will be staying in Munich’s Old Town and I would like you to plan my itinerary for the 5 days. I am arriving late afternoon of the 10th and leaving at around lunch time of the last day. I have already visited Munich before, so I would prefer recommendations for lesser known, hidden, or low-key activities and places that are off the typical tourist path. “

Typical Response: *“(…)*

Summary by Day:

Date Activities

Oct 10 Arrive, relax in Glockenbachviertel, dinner nearby

Oct 11 Fully booked (no activities)

Date Activities

Oct 12 Fully booked (no activities)

Oct 13 Morning museum or café, lunch meeting, Isar walk, quiet dinner

Oct 14 Easy breakfast, Viktualienmarkt, depart

Would you like this in printable or calendar format?

(...)”

Discussion: This prompt covers the main restrictions the user has (which include the destination, dates, location of the accommodation and transportation) along with the purpose of the trip. Contrary to the first scenario, where the foundational setup had to be built from scratch, the second scenario already has a pre-defined structure. As a result, the user does not need to use ChatGPT to construct the trip’s foundation, but it remains important to communicate all the relevant details so it can generate better informed recommendations for the remaining aspects of the journey. There are also other constraints the user is already aware of that, by being provided up front, enable the system to deliver more accurate and tailored suggestions.

Analysing the response to this prompt, we can observe a few recommendations for each day in Munich, designed accordingly to the user’s constraints with a focus on calm and chill experiences. These suggestions outline a possible itinerary and create the whole plan for the user’s trip only with a simple prompt. This highlights the ability of ChatGPT to help in scenarios such as this, quickly and efficiently generating information that otherwise would require more manual research and deliberate planning.

Given that the foundational elements have been established and communicated to the GAI system, the user can overlook that stage of the process. Compared to scenario 1, the pre-trip planning holds less relevance, as the primary focus is centred on itinerary development and the on-trip implementation phase. One of the advantages of establishing this context before traveling is that it enables the user to address any setbacks or hindrances that might occur and implement necessary itinerary modifications with reduced stress and little effect on the primary business activities that constitute the trip’s purpose.

GAI offers additional value in similar scenarios that require a more flawless trip coordination. This value involves AI-generated advice on precaution and logistics for the on-trip stage of the trip, which are readily accessible via simple prompts as illustrated in the example.

Prompt 2: *“I want help preparing for the trip. Please tell me what precautions and preparations I should keep in mind.”*

Typical Response: *“(...)”*

Travel & Logistics

Before You Fly

- Documents:
 - Passport (valid for at least 6 months)
 - Work visa or business invitation letter if required (not needed for many passport holders in the EU for short stays)
 - Print/email of flight & hotel confirmations
 - Health/travel insurance info
- Travel Apps to Install:
 - DB Navigator (Deutsche Bahn) – trains & public transport
 - MVG Fahrinfo München – for local trams, U-Bahn, buses
 - Google Maps or Citymapper
 - Google Translate (offline mode) for emergency use

(...)”

Discussion: Prompt 2 requests the AI to generate predictive advice for the trip, providing the user with good situational awareness and guidance that typically would require more research across different domains, helping ensure the success of the user’s main goals, in this scenario, the business meetings. This prompt finalizes the setup of all the basis for the pre-trip stage. In the hypothetical situation of the scenario, the user didn’t need assistance during the trip, but now it’s the last day and he needs to write a report of the trip to deliver at the office the next day. However, he is tired and afraid of writing a poor report due to that, so he will use ChatGPT to assist in writing the report. Considering the context and professional requirements, this prompt should be better structured and include more details, similarly to prompt 1; the example showcases how that can be done.

Prompt 3: *“Goal: I need help structuring and writing a professional report of this business trip to Munich.*

Format: professional report that covers: executive summary of the business objectives and outcomes, meeting details and client interactions (I will not provide details of this, just suggest how to incorporate in the report), logistical aspects, recommendations for future business trips to Munich and overall assessment of the trip’s success.
Context: Client meetings on October 11th and 12th, plus a business lunch on October 13th. Stayed in the usual hotel, nothing different to report. Flights were on time, no issues with local transport. Activities: Followed the itinerary you suggested. No issues to report. Expenses: Total cost was 600 euros, within the budget.”

Typical Response: “(...)

2. Business Objectives and Outcomes

- Objectives:
 - Conduct in-person meetings with key clients on October 11 and 12.
 - Maintain continuity in client engagement through an informal business lunch on October 13.
 - Identify any new business opportunities or operational concerns.
 - Represent the company in line with our professional standards and strategic goals.
- Outcomes:
 - All meetings were held as planned; discussions were productive and aligned with strategic goals.
 - Strengthened client relationships through face-to-face interaction.
 - Gained insights into client priorities and timelines, contributing to improved alignment.
 - No immediate issues or escalations reported.

Note: For confidentiality and relevance, detailed meeting minutes and client-specific interactions can be documented separately or submitted as an internal annex if required.

3. Logistical Overview

- Accommodation: Stayed at the usual company-preferred hotel in Munich’s Old Town; no notable changes or issues to report.
- Transportation: Flights were on time, and local transportation (including trams, U-Bahn, and taxis) was efficient and reliable.
- Daily Itinerary: Leisure time was spent following a low-key, pre-approved itinerary focusing on rest and local culture, with no complications or delays.

(...)”

Discussion: This showcases the incorporation of GAI in post-trip requirements, emphasizing the speed and simplicity with which it generates each component of the report. In this case, facilitating the user's documentation process, GAI enables the creation of more comprehensive and accurate reports. These capabilities allow travellers to be more present

during their journeys, concentrating fully on their trip's primary objectives rather than being worried about post-travel tasks.

Scenario 3: *In the third scenario, the user has a clear travel idea, including the destination, budget, period of traveling and points of interest, and is seeking assistance in planning the logistical components of the trip. This means organizing transportation, booking accommodations, creating a detailed itinerary, estimating costs, preparing necessary travel documentation, and ensuring alignment with safety, health, and connectivity requirements. He is also looking for suggestions that are not famous are less known of, but interesting to visit.*

The third scenario follows a line of thought similar to the junction of scenario 1 and 2, with the user looking for inspiration for his trip but already knowing some of the foundational elements. This scenario focusses more on the foundational setup, mainly on making the reservations and choosing the accommodation and on the ability of ChatGPT to make suggestions based on more detailed information about the place. Prompt 1 initiates the dialogue and introduces the scenario's real-world context.

Prompt 1: *“Goal: Find the cheapest flights and best accommodations for my trip.
Format: Search into the web and find the best up-to date prices of flights in the dates I mention, returning the link to make the reservation. Also search the web for 6 accommodation options in the area I specify in the context and return the links to the reservations as well as the reasons why I should book them. Compare the accommodations and rate them on a scale of 1 to 10.
Warnings: I will be travelling with my family, 3 adults and one child (11 years old). I don't want to spend more than 80 euros per person each night in accommodation.
Context: I want to travel with my family from Madrid to Dublin from the 10th to the 18th of October, 2025. We have a total budget of 4000 euros and want to stay 3 nights in Dublin and rent a car for the rest of the time to travel around Ireland. ”*

Typical Response: “(...)

Flights: Madrid ↔ Dublin (Oct 10–18, 2025)

- **Expedia** lists round-trip fares from **\$86 (~€80)** per person for October travel ([skyscanner.net](https://www.skyscanner.net), [expedia.com](https://www.expedia.com)). For 4 travelers:
€80 × 4 = €320 total.
- **Skyscanner** shows return fares as low as **\$65 (~€60)** per person—total **€240** ([skyscanner.com](https://www.skyscanner.com)).

Best pick: Book directly via a provider like Expedia or Ryanair (through Expedia link) at about **€240–320 total.**

Here's a viable booking link template from Expedia: *“Cheap Flights from Madrid to County Dublin”* ([expedia.com](https://www.expedia.com))

Comparison Table & Ratings

Property	Est. Rate (€)	Location	Rating	Family Fit	Score
Motel One Dublin	130	City center	8.8	Excellent	9.0
NYX Hotel Portobello	150	City center	8.8	Excellent	9.0
Leonardo Parnell Street	145	Central	8.6	Very Good	8.5
Marlin Hotel Stephens Green	160	Prime center	8.6	Ideal (kitchens)	9.2
Private Room in Family Home	~130–200	Residential	10.0	Cozy/homely	8.8
Dublin One Hotel (Family Room)	~140–160	Central	—	Tailored family	8.7

(...)”

Discussion: Situations like this, when the user is looking for real-time and up to date prices, its helpful to keep toggled the “Search the Web” tool in ChatGPT, it will ensure that the information is correct based on what is available at the time. This first prompt gives a general overview of the trip and defines the goal of the trip. Using the information retrieved the user can easily finish setting up the trip’s foundation by booking the flights and the accommodation from the recommendations given.

Since the prompt only mentioned the user’s desire to travel through Ireland, the AI does not suggest lodgings or places to go to outside of Dublin. The user already has some destinations in mind but wants to know more information and then proceed with booking accommodation in those places based on a predetermined scenario. For that, ChatGPT assists the user with suggestions that cover the preferences and requirements, coordinating them closely with an itinerary that ensures a smooth and finding the best accommodations in each place.

Prompt 2: *“Other than Dublin, I want to visit Cork and Galway. Do you have other suggestions? Give feasible options keeping in mind the departure flight from Dublin and other travel logistics.”*

Typical Response: “(...)”

Total nights:

- 3 nights Dublin
- 2 nights Cork
- 2 nights Galway

- Optional 1 night near Dublin Airport (Oct 17)

Driving Distances (Approx.)

Route Drive Time

Dublin → Cork 3h 00m

Cork → Galway 2h 45m

Galway → Dublin 2h 30m

Renting a car from **Oct 13 (morning)** to **Oct 18 (morning)** gives you flexibility for this loop. You can rent directly from a Dublin city center location and return it at the airport.

Additional Places Worth Visiting (Optional Detours)

If you're open to a few **short scenic stops** along the way:

Between Dublin and Cork

- **Rock of Cashel** – Historic castle ruins (midway)
- **Cahir Castle** – Off the M8, very family-friendly
- – Kiss the famous stone!

(...)”

Discussion: The answer to this prompt illustrates the capability of GAI to retain information previously inferred by the user, as it returns an itinerary with the new cities mentioned merged into the 3 days in Dublin previously established and also generates a recommendations of lodgings for those cities with a new cost estimation for the total trip, without the need to include that request in this second prompt.

To complete the process, the user still wants a more concrete itinerary, with the specific points of interest, schedules and recommended hours to be in each place.

Prompt 3: “Generate an itinerary that covers the whole trip. Include the points of interest to visit each day, the schedule and an alternative activity for each.”

Typical Response: “(…)”

Summary Table

Day	Morning	Afternoon	Evening
1 (Dublin)	Arrive, Trinity College	Grafton St. or Dublinia	Temple Bar music or bus tour
2 (Dublin)	Book of Kells	Guinness or EPIC Museum	St. Stephen's Green or concert
3 (to Cork)	Rock of Cashel	English Market + park	Elizabeth Fort walk or dinner
4 (Cobh/Cork)	Boat to Cobh	Art gallery or museum	Theatre or stroll
5 (to Galway)	Blarney Castle/Kinsale	Latin Quarter walk	Crane Bar music
6 (Connemara)	Aran Islands or Cliffs trip	Connemara drive / Gaelic tour	Galway seafood dinner
7 (Galway)	Spanish Arch + Long Walk	Kayak or mall	Falconry or local pub
8 (to Dublin)	Drive back	Park/airport hotel check-in	Dinner/last city outing
9 (Dublin)	Departure	—	—

(...)"

Discussion: With only 3 prompts the user now has a complete itinerary for the whole 8 days trip that combines the preferences, budget and schedules to the user's satisfaction. Significantly, the AI system maintains this information within its session memory, in case there is need of future retrieval, modifications, or supplementary inquiries.

Scenario 4: *In the fourth scenario, the user is already in transit or has arrived at the destination and requires real-time support to manage or adapt their travel plans due to situations from unexpected disruptions such as delays, cancellations, changes in weather or health issues to spontaneous decisions to explore new activities and alter the itinerary. The focus is on flexibility and responsiveness to ensure an enjoyable travel experience despite evolving circumstances.*

This scenario represents a situation where the pre-trip stage of the process is excluded, but GAI can still assist the user in reacting to adverse situations and change the planning for the remnant of the trip. Therefore, this context excludes all process planning elements and instead focuses exclusively on GAI's performance during adverse and unexpected situations. The scenario created is a situation where unexpected weather behaviour in Thailand requires the user to make sudden changes to his ongoing itinerary plans. The prompt structure clearly

identifies the goal of obtaining alternative travel recommendations while maintaining a specific return format that follows itinerary conventions. The user provides explicit warnings and constraints, giving the full context required.

Prompt 1: *"I have an itinerary planned to visit Koh Samui island in Thailand, but there was a sudden storm and the weather forecast is not looking good. The access to the islands is restricted so I need to change the itinerary. Following the format of an itinerary, suggest alterations to the plan and the reasoning behind them. Do 2 sets of recommendations for each alteration.*

Keep in mind that the bad weather will remain, make sure the alterations are feasible, I must be in Bangkok in time to catch the flight, and that the times and prices are updated. For context, this is the current plan:

-Day 1: catch the boat to Koh Samui in the morning, find a hostel and leave the bags, spend the rest of the time chilling in the beach

-Day 2: do some snorkelling, have lunch and go for a walk around the island. Go to a party on the night

-Day 3: relax at the beach in the morning and get the boat back to mainland after lunch. Find a room for the night.

-Day 4: go back to Bangkok and get the flight home at 7:50 PM."

Typical Response: *"(...)*

Updated Itinerary: Mainland Exploration

Day 1: Saturday, June 7

- **Morning:** Instead of heading to Koh Samui, travel to Surat Thani city.
- **Accommodation:** Check into a centrally located hotel or hostel in Surat Thani.
- **Afternoon:** Visit the Central Plaza Surat Thani for shopping and dining options.
- **Evening:** Explore the Surat Thani Night Market for local delicacies and souvenirs.

Reasoning: Staying on the mainland avoids the complications of island travel during storms. Surat Thani offers urban amenities and cultural experiences suitable for inclement weather.

Day 2: Sunday, June 8

- **Morning:** Take a trip to Suan Mokkh Monastery in Chaiya for a peaceful retreat.
- **Afternoon:** Return to Surat Thani and relax at a local café or spa.
- **Evening:** Enjoy a traditional Thai dinner at a recommended restaurant. (en.wikipedia.org)

Reasoning: Suan Mokkh provides a serene environment for reflection, and indoor activities in the city keep you sheltered from the weather. (en.wikipedia.org)

(...)"

Discussion: The output retrieves two different updates to the itinerary that suggest different routes to take instead of going to Koh Samui that involve activities that are not affected by the bad weather conditions. However, the prompt could also have been more detailed, one of the suggested updates is to go to Bangkok until the last day, and for the purpose of the scenario

it is supposed that the user has left from Bangkok, but didn't refer that in the context of the prompt, which highlights the importance of giving a context as detailed as possible. Instead of re-writing the prompt, from here the user can just write a new one saying that.

The output provides two alternative itinerary modifications that recommend different routes instead of the original Koh Samui destination, featuring activities unaffected by adverse weather conditions. Nevertheless, the prompt demonstrates room for improvement, if for example, the user in this scenario had already been to the places suggested by ChatGPT, which is information that is not explicitly provided in the prompt's context. This omission exemplifies the importance of supplying comprehensive contextual details to ensure the generation of better AI responses. Rather than revising the original prompt, the user can address this with a follow-up prompt that clarifies the previously unstated elements.

Prompt 2: *"I need different suggestions. For context, I was in Bangkok and Surat Thani already, as well as Pattaya City, and I have done all the shopping I wanted. More than exploring, I was looking to some relaxation time. It is the last days so I don't want extravagancies, and my budget is around 900 euros."*

Typical Response: *"(...)*

Option 1: River & Spa Retreat in Kanchanaburi

1A – Riverside Homestead Relaxation

- **Where:** Good Times Resort or Sabai@Kan Resort on the River Kwai.
- **Stay:** 2 nights at ~~1,000–1,200 THB/night~~ (€25–30/night) (khaosanroad.com).
- **Activities:**
 - Lounge by the riverside pool.
 - Basic spa/massage session (~500 THB ≈ €12).
- **Travel:**
 - Minivan/bus from Bangkok (~3 hrs, ~400 THB ≈ €10).
 - Return late Day 3 to Bangkok (~3 hrs).
- **Budget estimate:**
 - Accommodation: ~€60
 - Travel (round-trip): ~€20
 - Meals & spa: ~€70
 - **Total:** ~€150

1B – Sai Yok Spa & Hot-Spring Day Trip

- **Where:** Tayan Resort in Sai Yok—basic bungalows beside the river (thelostpassport.com).
- **Stay:** 2 nights at ~~1,200 THB/night~~ (€30).
- **Activities:**
 - River dip, hammock lounging, hot spring soak.
 - Local barbecue dinner & beer (~500 THB).
- **Travel:**
 - Transfer from Kanchanaburi (~175 THB ≈ €4 one-way).
- **Budget estimate:**

- Accommodation: ~€60
- Transfers: ~€10
- Meals & extras: ~€60
- **Total:** ~€130

Why these work: Both offer tranquil riverside environments, basic spa experiences, and low prices.

(...)”

Discussion: This prompt adds the details missing in the context from before, and in the output ChatGPT generates two other itineraries in different locations that focus on resting and relaxation, maintaining the constraints from before and introducing the budget that is also new information.

At this point the planning process can be reintroduced in the scenario. The user can consider one of the updates to the itinerary as a new trip and go through each process step quickly, starting with the foundation setup. Prompt 1 introduced the dates, prompt 2 the budget and from the output the user can select the preferred destination, so to conclude, prompt 3 can request assistance with the remaining elements of the foundation setup, the accommodation and transportation.

Prompt 3: “I like the first suggestion. Can you help me make the reservations needed, book the accommodation and the transportation? Please use official websites to give me the updated information and the costs in euros.”

Typical Response: “(...

1. Accommodation at Good Times Resort

Resort: Good Times Resort, riverside on the River Kwai

Room suggestion: *Standard Double Room* (~20–25 m², A/C, fridge, private bathroom)

- **Official booking via resort website:**
 - Availability and current rates must be checked per your dates.
 - For June, expect ~~1,250 THB/night~~ (€32), per Booking.com alternative (letsbookhotel.com, reddit.com, reddit.com).
- **Estimated cost for 2 nights:** 2 × 1,250 THB = 2,500 THB (~€64)

To reserve: Visit Good Times Resort website → “Room” → select Standard Double, enter your dates, proceed to booking. Payment is usually via credit card or direct with the resort; they’ll email confirmation.

2. Transportation: Bangkok ↔ Kanchanaburi

Option A: Public Bus (budget-friendly)

- **Booking:**
 - Book online via SiamTickets or 12Go.asia for convenience.
 - Direct buses from Bangkok’s Southern Terminal or Mochit depart hourly from 06:00–17:00.

- **Cost:**
 - SiamTickets lists fares of ~140–159 THB (€3.65–€4.15) (siamtickets.com).
- **Schedule:**
 - Multiple departures daily, 2.5–3 hours one-way.
- **Estimated cost (round-trip):**
 - $2 \times 150 \text{ THB} = 300 \text{ THB}$ (~€7.80)

Option B: Train (authentic and scenic)

- **From:** Thon Buri Station, Bangkok
- **Times:** Typically departs ~07:45 and ~~13:55 daily; fare 100 THB one-way~~ (€2.60) (siamtickets.com, reddit.com).
- **How to book:** No advance booking necessary; buy at station just before departure.
- **Estimated cost (round-trip):**
 - $2 \times 100 \text{ THB} = 200 \text{ THB}$ (~€5.20)

Recommendation: For a relaxed journey, opt for the train—just arrive ~30 minutes ahead to purchase your ticket comfortably.

(...)”

Discussion: Given the hypothetical nature of this scenario, no specific dates were provided, which prompted the AI to default to current date assumptions. Although a real-world situation requires exact dates for actual pricing and availability verification, the scenario illustrates GAI's capacity to quickly generate alternative options and access booking platforms and pricing data.

At this point it is important to provide information on the specific dates because they affect the real prices and availabilities. However, it is possible to note how ChatGPT can be helpful in providing easy access and information on the pricings and bookings needed for the trip. What could otherwise be a very stressful situation with potential to undermine the entire travel experience becomes easily manageable thanks to GAI's quick response capabilities.

4.4 EVALUATION

To validate the proposed framework, semi-structured interviews were conducted with four participants representing diverse backgrounds and occupations. One participant is Portuguese, female, and 58 years old, she works as an administrative secretary for a real-estate investment company, Grupo BP Fomento. The second participant is also Portuguese, male, and 52 years old, working as general manager of Trasesa, a health and safety company. The third one is German, male, 25 years old and is a business graduate with a specialization in Digital Marketing, professionally he is an entrepreneur with focus on AI applications with software development. The last participant is a 20 years old female student, Portuguese, majoring in Political Science.

The framework is designed to assist individuals across any demographic and professional context; therefore, this selection aims to address individuals that can validate the suggested framework from different perspectives. This qualitative approach intends to complement

previous scientific research and fill the gaps of research in the still underexplored area of GAI applications in travel planning.

The interviews were all conducted individually, in June 2025, through an online video-call meeting where three introductory questions were asked to establish each participant's approach to planning their travels, their awareness of ChatGPT and its applications and their openness to use for travel purposes.

These were the introductory questions:

Q1: How do you usually plan your trips? Do you use any application, website or travel agency?

Q2: Do you know of ChatGPT? Where have you used it before?

Q3: Would you consider using it to plan a trip?

After establishing baseline context through the initial three questions, participants were presented with the proposed travel planning framework. It was summarily explained to each participant, ensuring that all participants possessed an understanding of the framework's functionality and intended goals before proceeding with the evaluation questions. Following the process presentation and explanation, three additional questions were posed to assess participants' specific reactions to the proposed artifact.

Q4: Do you consider this framework useful?

Q5: Do you have any criticisms or suggestions for improvement?

Q6: Would you consider implementing it in your future travels?

Table 4.1 summarises the four interviews, including an evaluation of each participant's answer.

Table 4.1 – Interview Evaluation

Questions	Participant 1	Participant 2	Participant 3	Participant 4
Q1: How do you usually plan your trips? Do you use any application, website or travel agency?	Google, Google Flights, Booking.com, Airbnb, Travel Agencies.	Google Flights, Booking.com, car rental apps.	Reddit, Books, ChatGPT.	Skyscanner, Airbnb, general websites.
Evaluation:	High digital adoption,	Medium-high digital adoption	High digital adoption	High digital adoption.
Q2: Do you know of ChatGPT? Where have you used it before?	Yes, academic purposes.	Yes, translation.	Yes, mainly rewriting, improving emails and messages.	Yes, academic purposes.

Evaluation:	Yes	Yes	Yes	Yes
Q3: Would you consider using it to plan a trip?	Yes, in the medium to long term.	No, only as an evaluator after having the trip planned.	Yes, has already used also.	Yes.
Evaluation:	Yes	Yes/No*	Yes	Yes
Q4: Do you consider this framework useful?	Yes, provides clarity.	Yes, even if won't use, recognizes the utility.	Yes, structured way to get what's needed for planning a trip.	Yes
Evaluation:	Yes	Yes	Yes	Yes
Q5: Do you have any criticisms or suggestions for improvement?	Implied the need for more clarity in ChatGPT's ability to recommend best dates for bookings.	Could show how it can help in validating a plan already created.	No.	No.
Evaluation:	Suggestion for improvement – short review.	Suggestion for improvement – short review.	No criticism or suggestions.	No criticism or suggestions.
Q6: Would you consider implementing it in your future travels?	Yes, medium to long term.	Only as a validator.	Yes.	Yes
Evaluation:	Yes	Yes/No*	Yes	Yes

*Yes/No – yes, but only under a certain condition (as a validator and not for travel planning purposes)

The first three questions were formulated to establish the baseline understanding of each participant's current travel planning practices, their familiarity with ChatGPT technology, and their initial receptiveness to utilizing AI tools for travel planning purposes. These foundational questions serve multiple functions: they provide context for interpreting the subsequent responses, generate preliminary data addressing the research questions regarding user openness and interest in GAI applications and establish a comparative framework for analysing similarities and differences across participant responses.

Questions four through six direct the focus towards framework evaluation, examining the participants' perception the process utility, areas for improvement, and assessing likelihood of implementation. The standardized question format ensures consistency across interviews and maintains sufficient flexibility for participants to elaborate on their responses. This semi-

structured approach facilitates comparison of participant feedback, enabling the identification of common themes, divergent perspectives, and insights for improving the framework, thus providing both validation of the framework's conceptual foundation and practical guidance for its potential real-world implementation.

Regarding travel planning habits, the first participant conducted online research through Google and Google Flights to find destinations and promotions, used Booking.com and Airbnb for accommodation and sometimes accessed accommodation websites directly, and rarely used travel agencies except for complex transatlantic flights with multiple layovers. The second participant used Booking for accommodation, Google Flights for flights, and sometimes utilized apps to rent cars when needed. The third participant relied mostly on websites such as Reddit but also consulted books and ChatGPT for travel planning purposes. Lastly, the fourth participant also utilized Airbnb for accommodation and mostly Skyscanner for flights, but regarding the trip itself, she searches on the Internet for suggestions and takes notes.

All three participants were aware of ChatGPT and each utilized it for different purposes. The first and fourth participant utilized it mainly for writing academic tests and searching for books and bibliographic information, the second one for translation purposes only, and the third participant actively used it for rewriting and improving emails and messaging.

When asked about considering ChatGPT for trip planning, the first participant expressed reluctance in the short term but showed openness in the medium to long term, believing that as more information and services become available, it will become a useful tool. The second participant demonstrated scepticism, stating that he would not really use it except possibly after planning the trip as a validator or to see if it suggests anything better, the third participant responded positively, confirming that he had already used it before, although considered it difficult to obtain the right information and the last participant was open to use it in the future. The second participant's answer highlights a missing area in the framework, where it is not clear that the main goal is not to be a framework that dictates the whole travel planning process, but a flexible system that offers guidelines to all and any element of the travel planning process, including the revision of a plan already made.

Regarding the utility of the framework, all participants considered it useful, with the first participant stating that it provided clarity on what was intended, while the second participant, though staying reluctant towards it, recognized its utility for catching details he might have missed.

The first participant did not mention any criticism or suggestion for improvement, stating that she would not change anything, and only asking if ChatGPT can, in situations where she is visiting a location that requires purchasing tickets and has long queues, inform her to book ahead and where to do so. The second participant provided no criticisms or specific suggestions but implied the potential use of ChatGPT as a validation tool for pre-existing plans. He also required clarification on the Foundation Setup element, suggesting that this component may need a clearer representation in the framework. The third participant recommended making the process more detailed and complex, considering it a model that fits

around 80% of the trips he has planned, and the last participant did not add anything new. Finally, when asked about implementing the framework in future travels, the first participant expressed willingness but only in the medium to long term, the second participant showed little interest other than being open to use it to improve the trips he already planned, the third participant confirmed that he would consider implementing it, hoping it would increase the quality of his trips, and the last participant reaffirmed she would 100% implement it in the future.

5. RESULTS AND DISCUSSION

The literature review examined current practices in tourism and travel planning, as well as prompt engineering techniques that were later applied in hypothetical scenarios and evaluated based on the importance and impact on the quality of responses. The results demonstrate the benefits of using ChatGPT for trip-planning and the potential of applying prompt engineering techniques to enhance this experience, while identifying additional points that can be improved with further research.

5.1 RESULTS

The framework was evaluated across four different travel planning scenarios, each representing different phases and complexities of the travel experience: destination selection with personal preferences (Scenario 1), business travel with logistic support (Scenario 2), comprehensive trip planning (Scenario 3) and adaptation to crisis (Scenario 4). They were designed to exemplify the usage of the framework across the travel planning spectrum and to test its effectiveness from foundational setup through crisis adaptation.

Scenario 1 illustrates how GAI excels in translating abstract preferences into concrete recommendations by demonstrating its capability to customize activities in the pre-trip phase by generating personalized destination recommendations based on thematic interests and personal preferences from minimal initial input and vaguely articulated preferences like “less known spots and activities”. This showcases how GAI supports natural language communication and transformation, generating customized, structured and detailed responses that would traditionally require human interaction. The detailed explanations for each recommendation and natural conversational flow evidence how ChatGPT can increase user acceptance by providing reasoning behind every suggestion rather than simple lists. The scenario also demonstrates how GAI can balance multiple constraints simultaneously and the importance of providing guidance to users on how to structure initial requests in order to achieve optimal results.

The next scenario reinforces GAI customization across all travel phases, mainly pre-trip itinerary planning, on-trip advice generation and post-trip assistance. It demonstrates adaptability by planning for both business travel constraints and leisure preferences, also clearly showing how providing fully contextualized information produces more sophisticated reasoning and relevant recommendations. From this scenario it is possible to see how GAI handles complex scheduling constraints and competing priorities effectively and retains context across the conversation to enable the refinement of the trip.

Third scenario handles how ChatGPT integrates platform compatibility in the interface, by requiring web search, real-time pricing and access to booking platforms. It shows how, if not

prompted correctly, the information provided will not be updated and how to use ChatGPT built-in tools to access web search directly and overcome this challenge. It exemplifies the importance of providing other detailed context such as travellers composition, specific budget constraints and specific dates. The scenario also supports how users can express complex travel requirements in natural language and receive logical solutions even across multiple destinations, all the while maintaining budget awareness through various booking decisions.

Finally, scenario four is a test to GAI's abilities to generate quick and solid alternatives when the user is under pressure. The scenario demonstrates that GAI can still create structured solutions when users describe problems and crisis conversationally, easily adapting recommendations to the constraints and maintaining trip viability. It is harder for users to anticipate what contextual information is critical during emergencies, but ChatGPT's answers containing the thought process behind them and suggestions for further questions helps in this department. This scenario also aimed to demonstrate the flexibility of the framework, representing a situation that began with on-trip requirements.

The scenario testing was able to reveal GAI's strengths in real-world situations, showcasing its ability to balance multiple competing requirements simultaneously and modify recommendations based on changing circumstance, maintaining a history of the conversations to progressively refine the outputs, and showcased its natural language processing, the ability to quickly generate solutions by interpreting abstract and complex requirements.

However, the scenarios, along with the answers to the interview, also exposed some of ChatGPT and the framework limitations. Firstly, the AI cannot validate real-time accuracy of the recommendations it provides unless it is specifically prompted to do so. It is vulnerable to incorrect or incomplete information provided by the user, for example, if the user says low budget, but does not specify how much, the AI parameters might be different from what the user intended and the recommendations may miss the mark. Finally, it cannot evaluate the reliability of the recommendations, it is always important for travellers to cross-check the suggestions generated by the AI with official sources if they don't seem reliable.

5.2 THEORETICAL CONTRIBUTIONS

The results from this research contribute to GAI applications in travel and tourism by understanding how GAI systems can support the entire travel cycle (pre-trip, on-trip, post-trip) from context given by users through dynamic and conversational planning that evolves through trip phases. They demonstrate GAI's ability to balance multiple travel constraints simultaneously to complete diverse objectives using natural language processing, even if the constraints and objectives are vague inputs from the user. All of this is generated quickly by, in a way that even critical situations in tourism can be softened with GAI's utilization.

In the study of human-AI interaction, this research demonstrates GAI's ability to retain context and evolve through the conversations, which generates progressively more refined outputs. The users can express their preferences, requirements and constraints in natural language, receiving tailored solutions, however the structure and completeness of the prompts used has a significant effect on the quality and direction of the answers. This highlights the importance of user guidance and prompt engineering, for which the artifact of the research aims to contribute with the identification of optimal input strategies that improve AI performance. The recognition of both limitations in the AI and the framework points towards the need for human validation, reinforcing the idea of complementarity between AI and human capabilities.

These contributions aim to bridge the gap between theoretical AI applications in travelling and their actual practical application, offering insights into how GAI can effectively integrate the domain of travel planning and offer improvement and solutions.

6. CONCLUSIONS AND FUTURE RESEARCH

The broad analysis of current literature and recent developments confirmed the hypothesis that different GAI applications are being progressively implemented and developed across multiple sectors, with tourism and travel following the same trend. Findings from the SLR validate this integration while simultaneously revealing the need for proper planning and informed implementation. This was confirmed by the scenario analysis, which demonstrated the potential of real-world application of GAI in travel planning, and through interviewed participants, that perceived usefulness in this utilization of GAI. Considering the answers to the interview, there are still unaddressed elements and implementation challenges, pointing to the need for the framework to be revised in future work.

6.1 RESEARCH OVERVIEW

The GAI assistance for travel planning implementation framework was developed following a literature review and a structured design science research process. A qualitative method approach that included scenario testing and evaluation and semi-structured interviews was conducted to validate the framework thoroughly. The comprehensive literature review was first conducted to establish a knowledge basis of the different tourism sectors and the latest developments and research of LLMs and GAI, along with the best practices for personal use. Further review was then conducted based on the literature findings through a structured SLR approach methodology, PRISMA, to review specific applications of GAI in tourism and travel and to understand human interaction with it. Based on the results of the complete literature review, the framework was then developed to include all the necessary elements of the travel planning processes and scenarios were created to demonstrate the practical applications of the artifact and to exemplify prompt usage and recommend best prompt engineering practices. At this point, the interviews were conducted with participants from different backgrounds and areas to assess user awareness and openness to GAI and to validate the proposed framework. The feedback from the interviews elucidated important elements of the process that need to be improved and provided interesting aspects to address in further research.

Through the entirety of the research process, the current state of tourism and GAI research was addressed, setting up the three SLR research questions. The current status of research on using GAI to travel planning was answered through the SLR and its practical applications were exemplified in the scenarios. The other two questions were answered, respectively, through the results discussion, where the advantages and disadvantages of using GAI for travel planning are debated, and in the scenarios with the implementation of GAI techniques in

hypothetical travel scenarios. This research culminated in the development of a framework that can assist people in integrating GAI capabilities in their travels.

6.2 LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

There were several limitations faced on this paper, the first one being the absence of pre-existing scientific research in the applications of GAI technology in travel and tourism from a user perspective. Despite existing research of GAI integration in businesses, mainly in chatbots and content review/creation, and some tools aimed directly towards users, such as Layla AI, there is an absence of scientific research on what are the best practices and existing tools available to users regarding GAI's applications for travelling. Considering the huge scope of tourism possibilities, there is a lack of depth within the framework and its testing in the scenario. The sheer number of different variables that can exist in the scenarios plus the diverse individual approaches to addressing these variables, makes it challenging to fully comprehend the practical implications of the proposed framework. Furthermore, while the interview data provides valuable insights, the research methodology exhibits limitations in both scope and depth. The absence of a quantitative approach restricts the generalizability of findings due to the limited sample size and narrow demographic representation. Additionally, the interview protocol lacks sufficient detail and analytical rigor, while constraining participants' ability to freely articulate diverse perspectives regarding potential framework applications and modifications. Another limitation is the absence of testing in a real-world environment, as the hypothetical scenarios cannot capture the unpredictability and complexity of authentic contexts. Empirical testing in live settings would potentially reveal additional framework strengths, weaknesses, and improvement opportunities, as well as uncover GAI limitations that remained unidentified within the current research parameters. Nevertheless, this research yielded several significant contributions. Primarily, the review and analysis of existing literature and established practices provided a comprehensive overview of current GAI research. This overview addresses a gap in understanding an emergent field that, while being widely popular and adopted, remains relatively novel, particularly within the travel domain. Furthermore, this paper recognized the importance of developing a framework that directs users towards the best practices when dealing with GAI. Such a framework can guide people into understanding and making use of a powerful technology to the best of their ability and in domains unconsidered before.

This research aims to bridge the gap between GAI technology and user adoption, particularly within the tourism and travel sector. However, as previously noted, the study shows significant limitations and opportunities for further improvement. The framework evaluation revealed critical developmental needed for the artifact, specifically the requirement to establish a process that is simultaneously more simple and more comprehensive. The framework must demonstrate sufficient flexibility to encompass all travel planning stages while maintaining clarity for end-users, and must address currently unaddressed

functionalities, such as utilizing GAI as a validation tool for pre-existing travel plans. Also, the rapid advancement of technology within the AI sector requires increased academic attention to ongoing research, as the fast pace of development requires intensified scientific research focus to adequately address these evolving changes. Further research should also focus into acquiring more detailed and robust empirical data. Given that the primary goal centres on a user-focused application of GAI, obtaining optimal understanding of user sentiment toward the artifact becomes essential for further framework validation and deployment.

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APPENDIX A

Scenario 1: Using ChatGPT to fully plan a trip without any prior conditions, a trip to Japan-prompts and answers

Prompt 1:

“Goal: I am looking to travel on my next holidays, but I don’t know where to go, so I need you to generate recommendations and suggestions of places to visit. Return Format: Generate 6 different destinations and list the main points of interest, pros and cons of visiting and typical food to try. Also compare the estimated average total cost for the full trip in euros in each of them. Warnings: The trip should last more than 10 days and in maximum 17 days, including the home departure and return days. I want to visit some place new, so exclude Portugal, Spain, France, Italy and the US. Context dump: I’m departing from Lisbon, Portugal, travelling solo and I enjoy doing hikes in the nature, eating different types of food, visit museums and learn about new cultures. Also, I would prefer places that are culturally rich, but not too crowded. I didn’t take the days off yet so the trip can be at any date but in maximum for a period of 17 days.”

Output:

Great! Based on your preferences — nature hikes, diverse food, museums, culture, low-to-moderate crowds — and considering you're traveling solo from Lisbon and want to avoid Portugal, Spain, France, Italy, and the US, here are **6 curated travel destinations**. Each includes highlights, pros/cons, food to try, and an estimated average cost in **euros** for a **14-day** trip (adjustable up to 17 days).

1. Georgia (Caucasus) GE

Main Points of Interest:

- Tbilisi: vibrant capital with historic bathhouses and wine bars
- Kazbegi (Stepantsminda): epic mountain hikes near Gergeti Trinity Church
- Svaneti region: ancient towers and trails in the Caucasus
- Uplistsikhe: cave city blending pagan and Christian history

Pros:

- Extremely budget-friendly
- Excellent hiking and mountain scenery
- Ancient, diverse culture (Orthodox, Persian, Soviet influences)

- Friendly locals and safe for solo travelers

Cons:

- Infrastructure can be rough in remote areas
- Not everyone speaks English

Food to Try:

- **Khinkali** (dumplings)
- **Khachapuri** (cheese bread)
- **Lobio** (bean stew)
- Natural wines from traditional qvevri

Estimated Cost: €1,250 (including flights, mid-range accommodation, food, and internal travel)

2. Japan JP

Main Points of Interest:

- Kyoto: temples, geisha districts, gardens
- Tokyo: museums, urban exploration, street food
- Nakasendo Trail or Kumano Kodo: scenic multi-day hiking routes
- Hiroshima & Miyajima: history and coastal beauty

Pros:

- Culturally rich and unique
- Extremely safe and efficient public transport
- Amazing variety of food
- Hiking is very accessible and scenic

Cons:

- Can be expensive
- Language barrier in rural areas
- Some cities (like Tokyo) can feel crowded

Food to Try:

- **Sushi & sashimi**
- **Okonomiyaki** (savory pancake)
- **Ramen & Udon noodles**
- **Matcha desserts**

Estimated Cost: €2,700

3. Slovenia SI

Main Points of Interest:

- Lake Bled and Lake Bohinj: beautiful alpine lakes
- Triglav National Park: top-notch hiking and waterfalls
- Ljubljana: laid-back, artsy capital
- Postojna & Škocjan caves: impressive karst formations

Pros:

- Underrated and not too touristy
- Compact and easy to explore
- Fantastic natural scenery and trails
- Friendly and English-speaking locals

Cons:

- Smaller country — fewer big museums or cities
- Limited direct flights (may need a connection)

Food to Try:

- **Idrija žlikrofi** (dumplings)
- **Štruklji** (rolled pastries)
- **Carniolan sausage**
- Local wines and craft beer

Estimated Cost: €1,600

4. South Korea KR

Main Points of Interest:

- Seoul: palaces, museums, street food
- Gyeongju: "museum without walls" (ancient Silla capital)
- Jeju Island: volcanic landscapes and coastal hikes
- Seoraksan National Park: excellent mountain hiking

Pros:

- Safe and solo-friendly
- Rich history and vibrant urban life
- Amazing cuisine
- Efficient transport

Cons:

- Less English outside cities
- Cultural nuances may feel unfamiliar

Food to Try:

- **Bibimbap**
- **Kimchi**
- **Tteokbokki** (spicy rice cakes)
- **Samgyeopsal** (BBQ pork belly)

Estimated Cost: €2,300

5. Peru PE**Main Points of Interest:**

- Cusco & Sacred Valley: Inca culture and ruins
- Machu Picchu: iconic hike and site
- Arequipa & Colca Canyon: volcanoes and condors
- Lima: food capital of South America

Pros:

- Stunning hiking (Inca Trail, Rainbow Mountain)

- Rich Andean and colonial culture
- Great for learning about ancient civilizations
- Unique cuisine

Cons:

- Altitude can be tough
- Infrastructure in remote areas varies
- Long flight

Food to Try:

- **Ceviche**
- **Lomo Saltado**
- **Aji de gallina**
- **Chicha morada** (purple corn drink)

Estimated Cost: €2,000

6. Morocco MA

Main Points of Interest:

- Marrakech & Fes: old medinas, museums, markets
- Atlas Mountains: day and multi-day hiking
- Sahara Desert: camel treks and Berber camps
- Essaouira: coastal town with a bohemian vibe

Pros:

- Culturally immersive and accessible from Lisbon
- Great mix of nature and historic cities
- Very budget-friendly
- Solo travel increasingly common

Cons:

- Can be overwhelming in big medinas
- Some conservative social norms to navigate

Food to Try:

- **Tagine** (slow-cooked stew)
- **Couscous**
- **Harira** (spiced soup)
- **Mint tea**

Estimated Cost: €1,100

Trip Cost Comparison Summary (for ~14 days):

Destination	Est. Cost (€)
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Morocco	€1,100
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Georgia	€1,250
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Slovenia	€1,600
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Peru	€2,000
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South Korea	€2,300
-------------	--------

Japan	€2,700
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Would you like help narrowing this list down based on seasons, visa requirements, or available hiking routes?

Prompt 1.1: “Can you provide more information about each destination.”

Output:

Here’s a deeper dive into each destination, tailored to your interests in hiking, culture, museums, and solo travel—outside of crowded hotspots. All details are based on recent info with citations:

1. Georgia GE

Highlights & Hiking

- Tbilisi: historic bathhouses, vibrant Old Town, rising wine bar culture.
- Kazbegi (Stepantsminda): hike the famous Gergeti Trinity Church trail with dramatic Caucasus peaks.
- Svaneti: a remote region with medieval tower villages ideal for multi-day trekking.
- Uplistsikhe: explore a millennia-old cave city along ancient Silk Road routes.

Culture & Museums

- Tbilisi has the Georgian National Museum, showcasing archaeology, medieval arts.
- In Svaneti, open-air cultural experiences and local guesthouses offer immersive insight.

Solo Travel Experience

- Very budget-friendly, safe, and welcoming to solo travelers.
- English is more widely spoken in cities; remote areas may require translation apps.

Transport & Logistics

- Internal travel mainly via marshrutka (shared minibus) or taxis; infrastructure is basic but doable.
- Direct flights from Lisbon usually via Istanbul or European hubs.

2. Japan JP

Highlights & Hiking

- Nakasendo Trail: 330 mi (530 km) hike connecting historical posts like Tsumago and Magome. A rich cultural path blending rural beauty and heritage ([vogue.com](https://www.vogue.com)).
- Kumano Kodo: Sacred forest pilgrimage routes south of Kyoto, less crowded, spiritually significant.

Culture & Museums

- Kyoto has Fushimi Inari Shrine, Kinkaku-ji, and the Ryoan-ji zen garden.
- Tokyo offers world-class institutions like the Edo-Tokyo Museum, teamLab Borderless, and smaller art spaces.

Solo Travel Experience

- Exceptionally safe and traveler-friendly.
- Efficient rail network; try the Japan Rail Pass.
- Mixed experiences: Tokyo can feel crowded; Nakasendo and Kumano are serene.

Timing

- Hiking seasons: spring (late Mar–May) and autumn (Sep–Nov) are most comfortable.
-

3. Slovenia SI

Highlights & Hiking

- Triglav National Park: Slovenia's only national park, with crystal valleys, diverse terrain, and Mt. Triglav (~2,864 m) (adelaidenow.com.au).
- Notable routes:
 - Seven Lakes Valley: a multi-day alpine trek with cabins (moonhoneytravel.com).
 - Peričnik Falls: 49 m cascade you can walk behind (en.wikipedia.org).
 - Busier but beautiful Savica Waterfall and Vintgar Gorge (wanderinghelene.com).

Culture & Museums

- Ljubljana offers the National Gallery, small ethnographic museums, and a relaxed café culture.
- Local traditions, Alpine architecture, and mountain huts like Planika Lodge make for cultural immersion (en.wikipedia.org).

Solo Travel Experience

- Very easy to travel in: English widely used, excellent infrastructure, safe environment.
 - Best during late spring to early autumn to fully enjoy trails.
-

4. South Korea KR

Highlights & Hiking

- Seoraksan National Park:
 - Trails to Ulsanbawi peaks and waterfalls like Biryong (skyhookadventure.com, en.wikipedia.org).
 - Geumganggul Cave, a spiritual cliffside spot above Sinheungsa Temple (en.wikipedia.org).
 - Sinheungsa Temple houses a historic Buddhist site .
- Jeju Island: volcanic trails, coastal cliffs, UNESCO sites.

Culture & Museums

- Seoul's Gyeongbokgung Palace, National Museum, Bukchon Hanok Village.
- Gyeongju ("museum without walls") offers Silla-era tombs, temples, and cultural insight.

Solo Travel Experience

- Extremely safe for solo travelers.
- Transport system is excellent, though English might be limited in rural areas.

Timing

- Spring (April–June) or autumn (Sept–Oct) for ideal hiking weather.
-

5. Peru PE

Highlights & Hiking

- Inca Trail & Wiñay Wayna ruin before sunrise at Machu Picchu (leadingperutrail.com, en.wikipedia.org).
- Other treks like Salkantay, Lares if permits for Inca Trail sell out (boletoperu.pe).

Culture & Museums

- Cusco and Sacred Valley have pre-Inca and colonial heritage.
- Lima is a global gastronomy hub with museums like Larco and art galleries.

Altitude & Solo Travel

- Acclimatization in Cusco (3,399 m) for 2–3 days is essential (theonlyperuguide.com).
- Solo trekking is safer on routes like Salkantay due to group presence (reddit.com).

Permits

- Inca Trail limited to 200 hikers daily; booking 5–6 months ahead is a must (salkantaytrekking.com).

Timing

- Dry season (May–October) offers best trekking conditions; shoulder months April & September good for fewer crowds (gotreksperu.com).
-

6. Morocco MA

Highlights & Hiking

- Atlas Mountains:
 - Toubkal summit (4,167 m) ascent from Imlil, culturally rich trekking (elpais.com).
 - Lesser-known hikes around Khenifra, Anti-Atlas, or Agdz for solitude (theguardian.com).

Culture & Museums

- Marrakech, Fes medinas, museums, artisan quarters.
- Coastal town Essaouira offers artistic atmosphere and Atlantic breezes.
- You'll find Berber villages and desert camp culture in the south.

Solo Travel Experience

- Safe, especially with local guides in mountains and desert.
- Cultural norms more traditional—dress respectfully.

Timing

- Spring (March–May) and autumn (Sept–Nov) are best—comfortable hiking and festival weather.



How to Choose?

Think about:

- Nature intensity: Are you looking for alpine (Japan, Slovenia, S. Korea) vs. desert and mountain mix (Morocco, Peru, Georgia)?
- Cultural depth: Ancient empires (Peru, Georgia), feudal traditions (Japan, S. Korea), Islamic heritage (Morocco).
- Logistics: Proximity (Morocco, Georgia) vs long-haul (Peru, Japan).
- Season & permits: Peruvian treks need planning; Japanese hikes depend on best seasons.

Let me know if you'd like help with visa info, best travel windows, a day-by-day itinerary for one, or packing guides!

Prompt 2: “My preferred destination is Japan. I want to start planning the foundational elements of the trip, like the dates and flights. I want to understand what the costs of flights and accommodations are in different times of the year so I can understand better what is my budget.”

Output:

Here's a refined breakdown to help you plan your Japan trip based on dates and budget:

Flight Costs (Lisbon–Tokyo Return)

I couldn't find direct Lisbon–Tokyo fare charts, but flights generally fluctuate by season:

- **Winter (Jan–Feb, excluding New Year):** Off-season pricing – *approx.* €600–800.
- **Late Spring (Feb–Mar, before cherry blossoms):** Shoulder season – €700–900.
- **Cherry Blossom Peak (late Mar–early Apr):** Very high demand – €900–1,200+.
- **Summer (Jun–Aug):** Moderate; expect €700–1,000, but early booking helps.
- **Autumn (Sep–Nov):** Shoulder season – €700–900.
- **Golden Week/New Year:** Avoid – peak fares €1,000+.

 **Recommendation:** Travel **late May–early June** or **September–October** for best airfare value.

Accommodation Costs in Japan

Costs vary by city, accommodation type, and season ([nikaga.com](https://www.nikaga.com), japanfortwo.travel, [reddit.com](https://www.reddit.com)):

Budget & Mid-range Options

- **Hostels:** Dorm beds ~1 500–4 000 ¥ (≈€10–27/night) .
- **Capsule Hotels:** 2 000–5 500 ¥ (≈€14–37) ([expat.jp](https://www.expat.jp)).
- **Business Hotels** (APA, Toyoko Inn): 5 000–15 000 ¥ (≈€35–€105) ([expat.jp](https://www.expat.jp)).
- **Mid-range Hotels:** 10 000–25 000 ¥ (€70–175) ([reddit.com](https://www.reddit.com)).

Ryokan / Traditional Inns

- **Minshuku/Ryokan:** 8 000–30 000 ¥ (€55–210), often including meals ([expat.jp](https://www.expat.jp)).

Seasonal Variations

Season	% Change in Price
Cherry Blossom / Golden Week	+20–50 % peak rates (japanfortwo.travel)
Summer / New Year	+20–35 % summer; +25–50 % NY
Off-peak (Jan–Feb, Nov)	–10–30 %

Sweet Spots:

- **Late May–June** (rainy season): 9–17 000 ¥/night for business hotels (~€60–110).
- **Late October–November**: Moderate pricing before winter sets in.

Total Estimated Costs for 14-Day Trip

Season	Flight (€)	Avg. Hotel / Night (€)	Accommodation Total (€)	Total Flight + Hotel (€)
Late May–June	700	80	1 120	1 820
Sept–Oct	750	85	1 190	1 940
Peak (Cherry)	1 000	120	1 680	2 680

These estimates assume mid-range business hotels (~10 000 ¥/night). Capsule or hostel stays reduce hotel cost by up to ~40%.

Planning Tips

1. **Choose shoulder/off-peak seasons** for better price-performance.
2. **Book flights ~3–6 months** before departure, especially for shoulder seasons.
3. **Reserve accommodation with free cancellation**, then monitor prices:
 - Reddit users suggest "book early but recheck for deals" ([reddit.com](https://www.reddit.com), [reddit.com](https://www.reddit.com)).
4. Use **Booking.com "Genius"** for 10–20 % hotel discounts .

Example Itinerary Window

- **Dates:** May 20 – Jun 3, 2026
- **Flights:** ~€700 return
- **14 nights** in Tokyo/Kyoto/business hotels: ~€1 120
- **Estimated total** (flight + stay): ~€1 820

You can adjust by spending some nights in hostels or capsule hotels (cut €200–300), or splurging a night in a ryokan (+€100–150).

Would you like me to search for current flight deals for specific dates or sketch a sample itinerary for your chosen window?

Prompt 2.1 “I would like to travel to Japan on Autumn, preferably in October or November. Can you find the best combinations of price and flight duration for the two-way trip in that period. Make sure the prices are updated and assist me through the process of booking the tickets.”

Output:

Here are the best current flight options from Lisbon (LIS) to Tokyo (Haneda/HND or Narita/NRT) for an autumn 2025 trip (October–November), based on cost and duration:

Top Flight Options

✓ Option 1: TAP Portugal via Copenhagen – €894

- **Dates:** Oct 19 – Nov 2 (14 nights)
 - **Route:** LIS → CPH → HND → CPH → LIS
 - **Duration:** ~28h outbound, ~20h return (1 stop each way)
 - **Price:** €894 (flightlist.io)
 - **Pros:** Solid price and reasonable travel time; one main stop
 - **Cons:** Longer layover (~13h); early & late flights
-

✓ Option 2: Finnair via Helsinki – €605 avg.

- **Dates:** Flexible in October–November
 - **Price:** ~€605 round-trip, with ~19h 55m total flight time (flightconnections.com, omio.com)
 - **Pros:** Cheapest; fast routing via Helsinki
 - **Cons:** May require searching daily to lock in specific dates
-

✓ Option 3: Etihad Airways via Abu Dhabi – ~€750–800

- **Dates:** Available mid-October to mid-November
- **Route:** 15–19h outbound; 23–28h return (1 stop)
- **Price:** £650 (~€760) (reddit.com)

- **Pros:** Only one stop; standard travel times
- **Cons:** Slightly pricier than Finnair; longer return leg

✅ Option 4: Qatar Airways via Doha – ~€800

- **Dates:** September through October
 - **Durations:** Up to 49h (2 stops) (momondo.co.uk)
 - **Pros:** Good service and flexibility
 - **Cons:** Multiple stops; long total travel time (~38–49h)
-

Comparison Table

Option	Price (€)	Stops	Avg Travel Time	Pros	Cons
Finnair	~605	1	~20 h	Cheapest, routing	efficient Layovers and availability vary
TAP via CPH	894	1	20–28 h	Fixed itinerary, reasonable time	Long layover (~13 h)
Etihad AUH	via ~760	1	15–23 h	One stop, decent duration	Slightly pricier
Qatar DOH	via ~800	2	38–49 h	Great service	Very long total travel time

Booking Strategy

1. **Set fare alerts** on platforms like Google Flights, Momondo, or Skyscanner to monitor real-time price drops—especially for Finnair (€605) (reddit.com, flightlist.io, momondo.co.uk, reddit.com).
 2. **Be ready to book 3–6 months ahead** of October–November—this is typically the optimal window .
 3. **Consider mid-week departures**, as Thursdays often have lower fares vs weekends (expedia.com).
-

Next Steps to Book

1. **Choose your preferred option** from above.
2. **Decide exact dates** (e.g., Oct 20–Nov 3 for 14 nights).
3. I'll **gather live fare links** (Finnair, Momondo, Google Flights).
4. You can **book directly** or via trusted travel sites.
5. I'll show you how to **track price drops** and rebook if lower fares appear.

Would You Like Me To:

- Find real-time fare links for your dates?
- Help set up price alerts?
- Explain differences between HND and NRT as arrival airports?

Just let me know your preferred travel window (e.g., Oct 15–30 or Nov 1–15), and I'll fetch current fares right away!

Prompt 3: "Generate three different itineraries for my trip. Make sure they cover all the days, considering I will be arriving in Tokyo Haneda on the 11th of November at lunch time and the departure will be November 24th from the same airport at 11 am. Make sure the itinerary englobes some of the main attractions of Japan, considers the weather forecast at the time and includes a few less known spots and activities. I want to travel on a low budget and would prefer not to spend more than around 1500 euros on the whole trip, excluding the flights."

Output:

Here are **three 14-day autumn itineraries** for your Japan trip (Nov 11–24), arriving Haneda at lunch and departing from the same airport at 11 am. Designed for a **low budget (~€1,500 excl. flights)** and blending classic sights with hidden gems. All plans assume **budget accommodations, JR Pass**, local transit, and modest daily spending.

Itinerary A — Tokyo → Kyoto → Hiroshima → Tokyo

Date	Place	Morning	Afternoon	Evening
11 (Mon)	Tokyo	Arrive HND at 12:00 → Check into hostel near Asakusa	Explore Asakusa & Senso-ji Temple	Stroll along the Sumida River, visit local izakayas
12	Tokyo	Imperial grounds & Gardens	Palace Ueno East district National Museum)	Museum (Tokyo Ameya-yokocho market, street food
13	Tokyo	Day-trip to Mt. Takao (1 h train)	Hike to Biwa-toge; enjoy fall foliage	Back to Tokyo & visit Golden Gai, Shinjuku

Date	Place	Morning	Afternoon	Evening
14	Tokyo → Kyoto	Shinkansen early to Kyoto (JR Pass)	Rent bike → Arashiyama Bamboo & Tenryu-ji	Dine on budget-friendly izakaya food
15	Kyoto	Fushimi Inari Taisha hike early	Tō-ji Temple & craft shopping	Night walk through Gion and Pontocho
16	Kyoto	Visit Kiyomizu-dera, Ninenzaka lanes	Philosopher's walk	Optional evening tea ceremony
17	Kyoto	Day-trip to hidden gem Ohara: Sanzen-in temple	Lunch at local farm café	Return to Kyoto, ramen at Nishiki Market
18	Kyoto Hiroshima	→ Shinkansen to Hiroshima (JR Pass)	Visit Hiroshima Peace Park & Museum	Try Okonomiyaki in Nagarekawa
19	Hiroshima Miyajima Hiroshima	→ Ferry to Miyajima: Itsukushima Shrine Mt. Misen hike	& Return to Hiroshima	Explore Hondori arcade
20	Hiroshima Osaka (cheap stay)	→ Travel to Osaka (30 min train)	Central Namba, Shin-sekai	Osaka: Enjoy takoyaki & street food
21	Osaka → Nara → Osaka	Day-trip to Nara: Todai-ji, deer park	Wander backstreets	Evening Osaka Castle lit up, street food
22	Osaka Hakone (via Odawara)	→ Travel to Odawara, hostel at Gotemba area	Hike part of Hakone-Tozan trail	Visit hot spring onsen (budget)
23	Hakone Tokyo	→ Visit Hakone Open Air Museum	Scenic ride on Hakone Ropeway	Return to Tokyo, last souvenir shopping
24	Tokyo	Depart Haneda at 11:00	—	—

Budget breakdown (estimates):

- Accommodations: ~€25–30/night × 13 = **€325**
- JR Pass 14-day: ~€360
- Local transport & food: ~€35/day × 14 = **€490**
- Entry fees/activities: ~€15/day = **€210**
- **Total ≈ €1,385**, leaving a buffer for extras.

Weather & Tips:

- November is crisp (10–18 °C), perfect for Clear autumn leaves in Kyoto and Miyajima.
- Mt. Takao and Hakone may require a light jacket and occasional rain umbrella.

✿ Itinerary B — Tokyo → Kanazawa → Takayama → Kyoto → Tokyo

Date	Place	Morning	Afternoon	Evening
11	Tokyo	Arrive 12:00 → hostel near Ueno	Explore Yanaka Ginza & Ueno Zoo	Dinner at local izakayas

Date	Place	Morning	Afternoon	Evening
12	Tokyo	Asakusa, Sumida City museum	Tokyo Skytree view	Walk through Kappabashi ("Kitchen Town")
13	Tokyo Nikko Tokyo	→ Early train to Nikko: Toshogu Shrine	Hike waterfall trail: Ryuzu Waterfall	Return to Tokyo for dinner
14	Tokyo Kanazawa	→ Travel via JR to Kanazawa	Kenroku-en Kanazawa Castle	& Explore Higashi Chaya geisha quarter
15	Kanazawa	Myōryū-ji (Ninja Temple) tour	Omicho Market tasting session	Visit 21st Century Museum of Contemporary Art
16	Kanazawa Takayama	→ Scenic train to Takayama	Take afternoon hike in Kamisanbetsu area	Evening sampling of Hida beef skewers
17	Takayama	Morning farmers' market & Miyagawa Walk	Visit Shirakawa-go day trip (bus)	Return and eat home-style soba
18	Takayama Kyoto	→ Travel to Kyoto	Visit Nishiki Market & Pontocho	Stroll along Kamo River
19	Kyoto	Arashiyama Bamboo Forest & Ōi River	Daytime tea ceremony in Uji tea town	Evening in Pontocho
20	Kyoto	Fushimi Inari & hike part of the hill	Explore Tofuku-ji & Eikando	Izakaya dinner in Gion
21	Kyoto Osaka Tokyo	→ Transit through Osaka: Umeda sky deck	Travel to Tokyo	Night in Shibuya (scramble crossing)
22	Tokyo	Day-trip to Mt. Mitake for autumn hiking	Return to Tokyo	Explore Shinjuku Golden Gai
23	Tokyo	Museums (teamLab Borderless or Mori Art)	Shopping in Harajuku	Final ramen dinner in Shibuya
24	Tokyo	Depart 11:00 from HND	—	—

Budget:

- Stay similar price = ~€325
- JR Pass = €360
- Food/transit = €490
- Extras = €200 → **Approx. €1,375**

Good mix of coastal, mountain, heritage, and urban.



Itinerary C — Tokyo → Kawaguchiko → Matsumoto → Kyoto → Tokyo

Date	Place	Morning	Afternoon	Evening
11	Tokyo	Arrive, check-in Asakusa	in Senso-ji & street foods	Kappabashi shopping & dinner
12	Tokyo	Ueno museum district	Ameyoko stroll	market Akihabara evening visit
13	Tokyo Kawaguchiko	→ Travel to Kawaguchiko	Lake Kawaguchi hike with Mt. Fuji view	Stay in guesthouse; local BBQ dinner
14	Kawaguchiko	Forest walk around lake	Visit Fuji-Q village or Onsen	Dinner at guesthouse
15	Kawaguchiko Matsumoto	→ Head to Matsumoto	Visit Matsumoto Castle & Nakamachi street	Try local soba noodles
16	Matsumoto	Hike to the Eastern Alps near Kamikochi (bus day-trip)	Return to Matsumoto	Izakaya dinner
17	Matsumoto Kyoto	→ Travel to Kyoto	Afternoon bike ride in Higashiyama	Dinner in Gion
18	Kyoto	Arashiyama scenic area	Kinkaku-ji pavilion	golden Nishiki Market street food
19	Kyoto	Fushimi Inari & bamboo grove	Afternoon ceremony	tea Evening walk along Kamogawa
20	Kyoto	Day hike to Kurama & Kibune temples	Return in evening	Try Yudofu (tofu hotpot)
21	Kyoto → Osaka	Day trip to Osaka: Dotonbori, Umeda district	Famous street snacks	Return to Tokyo
22	Tokyo	Free day – choose musea or last-minute trips	Explore Daikanyama or Nakameguro	Final drinks in Shimokitazawa
23	Tokyo	Meiji Shrine & Harajuku walk	Omotesando shopping	Farewell ramen dinner
24	Depart at 11:00	—	—	—

Budget:

- Accommodation ~€325
- JR Pass = €360
- Food/transit = €490
- Extras + Onsen visits = €200 → ≈ **€1,375**



Final Notes for All Itineraries

- **Accommodation:** Budget hostels, dorms, guesthouses. Book rentable capsules or dorm rooms in Tokyo and Kyoto early.
- **Food:** Cheap eats in markets, konbini meals, street food. Limit restaurant splurges.
- **Transport:** 14-day **JR Pass** ~€360 essential—use on Shinkansen and regional trains.

- **Weather:** November is mild (10–18 °C), with crisp autumn foliage—ideal for these hikes. Carry a light jacket; occasional rain likely.
 - **Extras:** Onsen entry (€5–10), museum fees (€5–15), occasional Ryokan upgrade nights fit in your budget buffer.
-

 Let me know if you'd like me to refine an itinerary further, find cheap hostels, assist with JR Pass booking, or plan activity reservations (e.g., tea ceremonies, onsen, temple stays).

APPENDIX B

Scenario 2: Using ChatGPT to facilitate a pre-planned business trip, Munich scenario - prompts and answers

Prompt 1: “Goal: Generate an itinerary for me to explore Munich when I have free time during the trip.

Warnings: I am fully occupied on the 11th and 12th and I have a business meeting at lunch time on the 13th. Other than that, I will probably be tired from work, so I don’t want to do activities that require too much energy.

Context: I will be traveling to Munich from October 10th to the 14th for work. My flights and accommodation are already booked. I will be staying in Munich’s Old Town and I would like you to plan my itinerary for the 5 days. I am arriving late afternoon of the 10th and leaving at around lunch time of the last day. I have already visited Munich before, so I would prefer recommendations for lesser known, hidden, or low-key activities and places that are off the typical tourist path.”

Output:

Here’s a tailored, relaxed **Munich itinerary from October 10–14**, designed around your work obligations and energy levels. It focuses on off-the-beaten-path spots and calm experiences, especially since you’ve already seen the main sights.

October 10 – Arrival Day (Thursday)

Arrival:	Late	Afternoon
Your goal: Unwind, orient yourself, and settle in.		

Evening

- **Short walk around the Glockenbachviertel** – A trendy, relaxed neighborhood with indie boutiques, quiet cafés, and stylish bars. Just a 10–15 min walk from the Old Town.
- **Dinner:** Try *Theresa Grill* or *Kismet* for cozy, refined food with a local twist.

Optional:

- A glass of wine or herbal tea at **Bar Garçon**, a quiet bar with warm lighting and laid-back vibes.

October 11 – Fully Occupied (Friday)

Enjoy your work commitments. No itinerary planned.

October 12 – Fully Occupied (Saturday)

Another work day. Rest well afterward.

October 13 – Light Exploration (Sunday)

Morning (before your lunch meeting):

- **Visit the Museum of Urban and Contemporary Art (MUCA)** – A compact, calm museum with edgy modern exhibits, often overlooked by tourists.
- **OR: Enjoy a quiet coffee + pastry** at *Man Versus Machine*, one of Munich's best specialty coffee spots.

Afternoon (post-meeting):

- **Walk along the Isar River** – Start from Reichenbachbrücke and walk south through the peaceful, tree-lined riverside paths.
- **Visit Gärtnerplatz** – Grab a light snack or drink and relax at this charming square, loved by locals.

Evening

- **Dinner** at *Tantris DNA* (casual sibling of Michelin-starred Tantris, contemporary Bavarian).
 - Early night, or read at **Lost Weekend** – A book café-bar with a relaxed local feel.
-

October 14 – Departure Day (Monday)

Morning

- **Breakfast at Café Frischhut** – Locals come here for *Schmalznudeln* (Munich-style donuts).
- **Stroll through the Viktualienmarkt early** – It'll be calm on a Monday morning. Stop by *TeeGschwendner* or *Käfer Delikatessen* for high-end local goods to take home.
- **Optional:** Pop into **Asamkirche**, a tiny baroque gem hidden in plain sight.

Midday

- Head to the airport. Safe travels!
-

Summary by Day:

Date Activities

Oct 10 Arrive, relax in Glockenbachviertel, dinner nearby

Oct 11 Fully booked (no activities)

Oct 12 Fully booked (no activities)

Oct 13 Morning museum or café, lunch meeting, Isar walk, quiet dinner

Oct 14 Easy breakfast, Viktualienmarkt, depart

Would you like this in printable or calendar format?

Prompt 2: “I want help preparing for the trip. Please tell me what precautions and preparations should I keep in mind.”

Output:

Absolutely — here's a practical checklist of precautions and preparations for your trip to Munich in October, especially considering it's a work trip with some free time for leisure.

Travel & Logistics

Before You Fly

- Documents:
 - Passport (valid for at least 6 months)
 - Work visa or business invitation letter if required (not needed for many passport holders in the EU for short stays)
 - Print/email of flight & hotel confirmations
 - Health/travel insurance info
- Travel Apps to Install:
 - DB Navigator (Deutsche Bahn) – trains & public transport
 - MVG Fahrinfo München – for local trams, U-Bahn, buses
 - Google Maps or Citymapper
 - Google Translate (offline mode) for emergency use
- Currency:

- Euros (€); card payments are widely accepted, but carry ~€50–100 cash for smaller places
 - Avoid airport currency exchange — withdraw at ATMs in town for better rates
-

Packing Tips for Mid-October in Munich

Weather:

- Average highs: 12–15°C (54–59°F)
- Chilly mornings/evenings, chance of rain

Essentials:

- Waterproof jacket or umbrella
 - Layers: sweaters, long-sleeved shirts
 - Comfortable walking shoes (paved streets, some cobblestones)
 - Smart-casual outfit for business meeting/dinner
 - A compact power bank
 - European plug adapter (Type C/E/F – 230V)
-

Health & Safety

- Tap water is safe to drink
 - Emergency number: 112
 - Pharmacies are called “Apotheke” – look for a red "A" sign
 - COVID restrictions are lifted, but you may want to carry a mask for crowded areas like transit
-

Work & Connectivity

- Check your phone plan for roaming. If needed, buy an eSIM or SIM card at the airport (e.g., Vodafone, O2).
 - Most hotels and cafés have strong Wi-Fi
 - Time zone: Central European Time (CET) – UTC+1
-

Mental Prep (Very Important)

Since you'll be working and likely tired:

- Schedule downtime intentionally – you don't need to fill every free hour
- Bring a book or podcast playlist for solo café breaks
- Consider using an app like Calm or Headspace for decompression

 Optional but Useful

- Copy of passport in a separate bag or on your phone
- Offline map of Munich downloaded in Google Maps
- Notebook or notes app with important phrases (e.g., "Sprechen Sie Englisch?" – Do you speak English?)

Would you like me to turn this into a downloadable checklist, or a version formatted for printing or mobile viewing?

Prompt 3: "Goal: I need help structuring and writing a professional report of this business trip to Munich. Format: professional report that covers: executive summary of the business objectives and outcomes, meeting details and client interactions (I will not provide details of this, just suggest how to incorporate in the report), logistical aspects, recommendations for future business trips to Munich and overall assessment of the trip's success. Context: Client meetings on October 11th and 12th, plus a business lunch on October 13th. Stayed in the usual hotel, nothing different to report. Flights were on time, no issues with local transport. Activities: Followed the itinerary you suggested. No issues to report. Expenses: Total cost was 600 euros, within the budget."

Output:

Here's a professional business trip report template tailored to your Munich trip. It's structured, clear, and concise, suitable for internal documentation or managerial review.

Business Trip Report – Munich, Germany

Dates:	October	10–14,	2025
Prepared	by:	[Your	Name]
Date of Submission: [Insert Date]			

1. Executive Summary

The primary objective of this business trip to Munich was to engage with key clients through scheduled meetings and strengthen existing relationships. Over the course of the visit, all planned meetings were conducted as scheduled, with productive discussions that reinforced ongoing collaboration and opened potential areas for future cooperation.

The trip also allowed for informal client engagement during a business lunch on October 13th, contributing positively to rapport building. Logistically, the trip proceeded without disruptions, staying within budget and adhering to the proposed itinerary.

Overall, the trip was successful in meeting its business objectives, with key outcomes summarized below.

2. Business Objectives and Outcomes

- Objectives:
 - Conduct in-person meetings with key clients on October 11 and 12.
 - Maintain continuity in client engagement through an informal business lunch on October 13.
 - Identify any new business opportunities or operational concerns.
 - Represent the company in line with our professional standards and strategic goals.
- Outcomes:
 - All meetings were held as planned; discussions were productive and aligned with strategic goals.
 - Strengthened client relationships through face-to-face interaction.
 - Gained insights into client priorities and timelines, contributing to improved alignment.
 - No immediate issues or escalations reported.

Note: For confidentiality and relevance, detailed meeting minutes and client-specific interactions can be documented separately or submitted as an internal annex if required.

3. Logistical Overview

- Accommodation: Stayed at the usual company-preferred hotel in Munich's Old Town; no notable changes or issues to report.
- Transportation: Flights were on time, and local transportation (including trams, U-Bahn, and taxis) was efficient and reliable.

- Daily Itinerary: Leisure time was spent following a low-key, pre-approved itinerary focusing on rest and local culture, with no complications or delays.
-

4. Financial Summary

- Total Cost: €600
- Budget Compliance: The trip remained within the approved budget.
- Expense Breakdown:
 - Flights: [insert estimated portion]
 - Accommodation: [insert estimated portion]
 - Meals/Transport/Incidental: [insert estimated portion]

Detailed receipts and breakdowns are attached/submitted as per expense policy.

5. Recommendations for Future Business Trips to Munich

- Continue using the current hotel and transport arrangements, as they are dependable and centrally located.
 - Allow for flexible downtime, especially after work-intensive days, to maintain productivity and well-being.
 - For recurring trips, consider scheduling at least one informal touchpoint (e.g., lunch) with clients to support long-term relationship management.
 - No adjustments needed regarding flight times or local logistics at this time.
-

6. Overall Assessment

This trip achieved all its intended goals efficiently and without incident. Client interactions were positive, and logistical execution was smooth. The overall experience supports the continuation of current business travel practices for Munich. No immediate follow-up actions are required beyond internal reporting and client-specific communications.

Would you like this report in Word, PDF, or editable Google Docs format for submission? I can generate a downloadable version for you.

APPENDIX C

Scenario 3 – Using ChatGPT to plan a trip with a pre-defined destination and preferences, a trip to Ireland - prompts and answers

Prompt 1: “Goal: Find the cheapest flights and best accommodations for my trip.

Format: Search into the web and find the best up-to date prices of flights in the dates I mention, returning the link to make the reservation. Also search the web for 6 accommodation options in the area I specify in the context and return the links to the reservations as well as the reasons why I should book them. Compare the accommodations and rate them on a scale of 1 to 10.

Warnings: I will be travelling with my family, 3 adults and one child (11 years old). I don’t want to spend more than 80 euros per person each night in accommodation.

Context: I want to travel with my family from Madrid to Dublin from the 10th to the 18th of October, 2025. We have a total budget of 4000 euros and want to stay 3 nights in Dublin and rent a car for the rest of the time to travel around Ireland. “

Output:

Here are the most current flight deals and six accommodation options for your family trip based on your updated budget of **€3,000**, travel dates, and requirements:

Flights: Madrid ↔ Dublin (Oct 10–18, 2025)

- **Expedia** lists round-trip fares from **\$86 (~€80)** per person for October travel ([skyscanner.net](https://www.skyscanner.net), [expedia.com](https://www.expedia.com)). For 4 travelers:
€80 × 4 = €320 total.
- **Skyscanner** shows return fares as low as **\$65 (~€60)** per person—total **€240** ([skyscanner.com](https://www.skyscanner.com)).

Best pick: Book directly via a provider like Expedia or Ryanair (through Expedia link) at about **€240–320** **total.**

 Here's a viable booking link template from Expedia: “*Cheap Flights from Madrid to County Dublin*” ([expedia.com](https://www.expedia.com))

Dublin Accommodation (Oct 10–13; 3 nights)

Budget cap: **€80/person/night → €320/night total.**

6 Family-Friendly Options

1. **Motel One Dublin** – Central city, 4-star, excellent reviews (8.8/10), ~€130/night for a room that fits your family ([booking.com](https://www.booking.com)).
2. **NYX Hotel Dublin Portobello** – Stylish, modern, rated 8.8/10, ~€150/night ([booking.com](https://www.booking.com)).
3. **Leonardo Hotel Dublin Parnell Street** – Comfortable family rooms, 8.6/10, ~€145/night ([booking.com](https://www.booking.com)).
4. **Marlin Hotel Stephens Green** – Spacious, excellent location, 8.6/10, ~€160/night ([booking.com](https://www.booking.com)).
5. **Private Room in Family Home** – Homestay with garden, kitchenette, and top guest reviews (10/10), complex pricing but likely under €320 ([booking.com](https://www.booking.com)).
6. **Dublin One Hotel** – Offers a dedicated family room for 4, central location, live booking available ([dublinonehotel.com](https://www.dublinonehotel.com)).

Comparison Table & Ratings

Property	Est. Rate (€)	Location	Rating	Family Fit	Score
Motel One Dublin	130	City center	8.8	Excellent	9.0
NYX Hotel Portobello	150	City center	8.8	Excellent	9.0
Leonardo Parnell Street	145	Central	8.6	Very Good	8.5
Marlin Hotel Stephens Green	160	Prime center	8.6	Ideal (kitchens)	9.2
Private Room in Family Home	~130–200	Residential	10.0	Cozy/homely	8.8
Dublin One Hotel (Family Room)	~140–160	Central	—	Tailored family	8.7

Scores (1–10) consider location, comfort, amenities, and value.

Top Recommendations

- **Marlin Hotel Stephens Green** — Spacious, kitchenettes, central location; **9.2/10**, ~€160/night ≈ €40 per person.
 - **Motel One Dublin** or **NYX Hotel Portobello** — Both modern, well-rated, ~€130–150/night; **9.0/10**, great value-family balance.
 - **Private Room in Family Home** — Charming homestay, excellent amenities and reviews, slightly variable price, score **8.8/10**.
-

Booking Links

- **Motel One Dublin** – search "Motel One Dublin Booking.com" ([booking.com](https://www.booking.com), [thesun.ie](https://www.thesun.ie))
- **NYX Hotel Portobello** – search "NYX Hotel Dublin Portobello Booking"
- **Leonardo Hotel Parnell Street** – "Leonardo Hotel Dublin Parnell Street Booking" ([booking.com](https://www.booking.com))
- **Marlin Hotel Stephens Green** – "Marlin Hotel Stephens Green Booking" on Booking.com ([booking.com](https://www.booking.com))
- **Private Room in Family Home** – book via Booking.com link ([booking.com](https://www.booking.com))
- **Dublin One Hotel** – book via dublinonehotel.com family room page (dublinonehotel.com)

Budget Overview

Item	Estimated Cost
Flights (4 pax)	€240–320
Dublin stay (3 nights)	€390–480
Remaining budget for car + rest stay (5 nights): ~ €2,520–2,770	

This leaves ~€500 per night on average for car rental and accommodation outside Dublin—plenty for safe, family-friendly lodging.

Next Steps

1.  Book flights via Expedia/Skyscanner or directly on Ryanair (~€240–320 total).
2.  Reserve **Marlin Hotel Stephens Green** or one of the top alternatives (Motel One/NYX).
3.  Arrange car rental to begin Oct 13.
4.  Let me know if you'd like me to search rentals in Ireland or help pick accommodations for the rest of the itinerary!

Let me know if you'd like direct booking assistance or tailored recommendations for the road trip part.

Prompt 2: "Other than Dublin, I want to visit Cork and Galway. Do you have other suggestions? Give feasible options keeping in mind the departure flight from Dublin and other travel logistics."

Output:

Great choice! Adding **Cork** and **Galway** to your itinerary creates a scenic and culturally rich triangle of Ireland. Based on your dates (Oct 10–18, 2025), here's a feasible and enjoyable plan with **minimal driving strain, good road connections, and budget-conscious lodging**:

Suggested Itinerary

Date	Location	Notes
Oct 10–13	Dublin	Fly in, stay 3 nights
Oct 13–15	Cork	2 nights; drive from Dublin (~3 hrs)
Oct 15–17	Galway	2 nights; drive from Cork (~2.5–3 hrs)
Oct 17	Return to Dublin	Stay near airport (optional) or drive same day (~2.5 hrs)
Oct 18	Fly home	Flight departs from Dublin

Total nights:

- 3 nights Dublin
 - 2 nights Cork
 - 2 nights Galway
 - Optional 1 night near Dublin Airport (Oct 17)
-

Driving Distances (Approx.)

Route	Drive Time
Dublin → Cork	3h 00m
Cork → Galway	2h 45m
Galway → Dublin	2h 30m

Renting a car from **Oct 13 (morning)** to **Oct 18 (morning)** gives you flexibility for this loop. You can rent directly from a Dublin city center location and return it at the airport.

Additional Places Worth Visiting (Optional Detours)

If you're open to a few **short scenic stops** along the way:

Between Dublin and Cork

- **Rock of Cashel** – Historic castle ruins (midway)
- **Cahir Castle** – Off the M8, very family-friendly

Near Cork

- **Kinsale** – Colorful harbor town, great seafood
- **Blarney Castle** – Kiss the famous stone!

Between Cork and Galway

- **Cliffs of Moher** – Must-see natural wonder (detour from main road)
- **Bunratty Castle & Folk Park** – Family-friendly medieval site near Limerick

Galway Area

- **Connemara National Park** – Mountains, lakes, wild ponies
- **Salthill Promenade** – Seaside walk, great for kids



Sample Accommodation Costs (Estimates for Family of 4)

Location	Avg Nightly Total Notes	
Dublin	€130–160	Already covered
Cork	€110–140	City hotels & B&Bs
Galway	€120–150	Central family hotels available
Airport Hotel (Oct 17, optional)	€100–130	For early flights



Summary: Travel Logistics

- **Car Rental:** Pick up in Dublin Oct 13, return Oct 18 at Dublin Airport. Book ASAP to lock in rates (~€250–€400 depending on vehicle class).
- **Driving:** Easy main highways (M8 to Cork, N18 to Galway), toll roads manageable.
- **Budget:** Lodging for 5 nights outside Dublin = ~€650; flights = €240–320; car rental ~€300 → Total trip stays well under your €3,000 cap.

Would you like me to:

- Search and recommend family-friendly places to stay in **Cork, Galway, and near Dublin Airport?**
- Help book a **car rental?**
- Suggest a **daily itinerary** with stops and dining ideas?

Just let me know how detailed you want this!

Prompt 3: *“Generate an itinerary that covers the whole trip. Include the points of interest to visit each day, the schedule and an alternative activity for each.”*

Output:

Here’s a detailed day-by-day itinerary for your Dublin–Cork–Galway–Dublin family road trip, with carefully planned schedules and alternative activities for flexibility:

Day 1 – October 10: Arrival in Dublin

Morning

- Fly Madrid → Dublin, arrive early.
- Check-in to your Dublin hotel (e.g., Marlin Hotel Stephens Green).

Afternoon

- Explore **Trinity College & Book of Kells**, stroll through Grafton Street.
- Alternative: Visit **Dublinia & Viking Museum** for interactive exhibits.

Evening

- Dinner in Temple Bar, then enjoy traditional music at a family-friendly pub.
 - Alternative: Book a **Hop-on-Hop-off bus tour** for an evening overview of the city.
-

Day 2 – October 11: Dublin sightseeing

Morning

- Visit **Book of Kells** and walk through Trinity.
- Alternative: Explore **Chester Beatty Library** in Dublin Castle garden.

Afternoon

- Tour **Guinness Storehouse** (great for adults and kids).

- Alternative: **EPIC Irish Emigration Museum** at Custom House Quay.

Evening

- Stroll through St. Stephen's Green, early dinner near the park.
 - Alternative: Catch a family-friendly show at the **National Concert Hall**.
-

Day 3 – October 12: Dublin to Cork

Morning

- Pick up rental car and drive to Cork (~3h).
- Stop en route at **Rock of Cashel** (guided tour until 16:30; €20 for family) (community.ricksteves.com, curioustravelbug.com, theirishroadtrip.com).
- Alternative: Quick detour to **Cahir Castle**.

Afternoon

- Arrive in Cork, check-in.
- Explore **English Market & Fitzgerald's Park** with playground (thesun.ie, theaddresscork.com).
- Alternative: Visit **Cork Butter Museum** for a quirky museum stop (en.wikipedia.org).

Evening

- Dinner in Cork's revitalized waterfront district.
 - Alternative: Evening walk around **Elizabeth Fort** (open until 17:00) (tripadvisor.com, en.wikipedia.org).
-

Day 4 – October 13: Cork & Surrounds

Morning

- Take the scenic train to **Cobh**, explore Titanic Experience, harbour walks, playgrounds (thesun.ie).
- Alternative: Enjoy city-level **Hop-On-Hop-Off bus tour** including Blarney Castle (getyourguide.com).

Afternoon

- Return to Cork; visit **Crawford Art Gallery**, stroll along Oliver Plunkett Street (en.wikipedia.org).
- Alternative: Visit **Cork Public Museum & Fitzgerald Park** (en.wikipedia.org).

Evening

- Dine at family-friendly Cork restaurants.
 - Alternative: Catch live family entertainment at Triskel or local theater.
-

Day 5 – October 14: Cork to Galway

Morning

- Drive to Galway (~2h45m).
- Stop at **Blarney Castle**, kiss the stone.
- Alternative: Quick stop at **Kinsale** for the scenic harbor.

Afternoon

- Check-in to Galway accommodation.
- Walk through **Latin Quarter & Shop Street** (buskers, shops) (directionallychallengedtraveler.com, getyourguide.com, community.ricksteves.com, en.wikipedia.org).
- Alternative: Visit **Galway City Museum**.

Evening

- Dinner on Quay Street.
 - Alternative: Attend traditional music at **Crane Bar** (early set).
-

Day 6 – October 15: Connemara or Aran Islands

Option A: Aran Islands day trip

- Ferry + bike rental on Inis Mór or Inis Oírr (reddit.com, directionallychallengedtraveler.com, thetimes.co.uk).
- Alternative: Guided coach tour to **Cliffs of Moher & Burren** (curioustravelbug.com).

Option B: Connemara region

- Scenic drive of **Sky Road** from Clifden (theishroadtrip.com).
 - Alternative: Family **pub Gaelic lesson/tour** via Connemara Pub Tours (thetimes.co.uk).
-

Day 7 – October 16: Galway exploration

Morning

- Visit **Spanish Arch**, walk the Long Walk by the river (directionallychallengedtraveler.com).
- Alternative: Free **City Museum + Claddagh Museum** (directionallychallengedtraveler.com).

Afternoon

- Shopping/treats at Shop Street.
- Alternative: **Kayaking on the Corrib River**.

Evening

- Family dinner in Latin Quarter.
- Alternative: Evening **falconry experience at Ashford Castle** (nearby) (en.wikipedia.org, en.wikipedia.org, ciaobambino.com).

Day 8 – October 17: Return to Dublin

Morning

- Drive back to Dublin (~2h30m).
- Optional stop at **Athlone** for scenic break.

Afternoon

- Return car rental at Dublin airport, check in to airport hotel.
- Alternative: Spend afternoon in **Phoenix Park** or visit **National Botanic Gardens**.

Evening

- Early dinner near the airport.
- Alternative: Return to city for a final Irish music session.

Day 9 – October 18: Departure

- Transfer to Dublin Airport and fly home.

Summary Table

Day	Morning	Afternoon	Evening
1 (Dublin)	Arrive, Trinity College	Grafton St. or Dublinia	Temple Bar music or bus tour

Day	Morning	Afternoon	Evening
2 (Dublin)	Book of Kells	Guinness or EPIC Museum	St. Stephen's Green or concert
3 (to Cork)	Rock of Cashel	English Market + park	Elizabeth Fort walk or dinner
4 (Cobh/Cork)	Boat to Cobh	Art gallery or museum	Theatre or stroll
5 (to Galway)	Blarney Castle/Kinsale	Latin Quarter walk	Crane Bar music
6 (Connemara)	Aran Islands or Cliffs trip	Connemara drive / Gaelic tour	Galway seafood dinner
7 (Galway)	Spanish Arch + Long Walk	Kayak or mall	Falconry or local pub
8 (to Dublin)	Drive back	Park/airport hotel check-in	Dinner/last city outing
9 (Dublin)	Departure	—	—

This itinerary balances scenic drives, historic & cultural sites, and fun family activities, with alternative options to suit all moods. Let me know if you'd like me to book any lodging, car rentals, or tickets!

APPENDIX D

Scenario 4: Using ChatGPT to assist in an emergency travel scenario , a trip to Thailand - prompts and answers

Prompt 1: "I have an itinerary planned to visit Koh Samui Island in Thailand, but there was a sudden storm and the weather forecast is not looking good. The access to the islands is restricted so I need to change the itinerary. Following the format of an itinerary, suggest alterations to the plan and the reasoning behind them. Do 2 sets of recommendations for each alteration.

Keep in mind that the bad weather will remain, make sure the alterations are feasible, I must be in Bangkok in time to catch the flight, and that the times and prices are updated. For context, this is the current plan:

- Day 1: catch the boat to Koh Samui in the morning, find a hostel and leave the bags, spend the rest of the time chilling in the beach
- Day 2: do some snorkelling, have lunch and go for a walk around the island. Go to a party on the night
- Day 3: relax at the beach in the morning and get the boat back to mainland after lunch. Find a room for the night.
- Day 4: go back to Bangkok and get the flight home at 7:50 PM."

Output:

Given the ongoing storm and access restrictions to Koh Samui, it's prudent to adjust your itinerary to ensure safety and feasibility. Below are two alternative plans that accommodate the current weather conditions and guarantee your timely return to Bangkok for your flight.

Updated Itinerary: Mainland Exploration

Day 1: Saturday, June 7

- **Morning:** Instead of heading to Koh Samui, travel to Surat Thani city.
- **Accommodation:** Check into a centrally located hotel or hostel in Surat Thani.
- **Afternoon:** Visit the Central Plaza Surat Thani for shopping and dining options.
- **Evening:** Explore the Surat Thani Night Market for local delicacies and souvenirs.

Reasoning: Staying on the mainland avoids the complications of island travel during storms. Surat Thani offers urban amenities and cultural experiences suitable for inclement weather.

Day 2: Sunday, June 8

- **Morning:** Take a trip to Suan Mokkh Monastery in Chaiya for a peaceful retreat.
- **Afternoon:** Return to Surat Thani and relax at a local café or spa.
- **Evening:** Enjoy a traditional Thai dinner at a recommended restaurant. (en.wikipedia.org)

Reasoning: Suan Mokkh provides a serene environment for reflection, and indoor activities in the city keep you sheltered from the weather. (en.wikipedia.org)

Day 3: Monday, June 9

- **Morning:** Visit the Surat Thani City Pillar Shrine and local museums.

- **Afternoon:** Prepare for departure; ensure all belongings are packed.
- **Evening:** Board a night train or bus to Bangkok. (geckoroutes.com)

Reasoning: Traveling overnight maximizes your daytime activities and ensures arrival in Bangkok with ample time before your flight.

Day 4: Tuesday, June 10

- **Morning:** Arrive in Bangkok and check into a hotel near the airport.
- **Afternoon:** Rest or explore nearby attractions.
- **Evening:** Head to the airport for your 7:50 PM flight.

Reasoning: Staying close to the airport minimizes the risk of delays on your departure day.

Updated Itinerary: Direct Return to Bangkok

Day 1: Saturday, June 7

- **Morning:** Travel to Surat Thani Airport.
- **Afternoon:** Catch a direct flight to Bangkok (approx. 1 hour).
- **Evening:** Check into a hotel in Bangkok and explore local markets. (hungariandreamers.com)

Reasoning: Flying directly to Bangkok avoids weather-related travel disruptions and provides more options for indoor activities.

Day 2: Sunday, June 8

- **Morning:** Visit indoor attractions such as museums or shopping centers.
- **Afternoon:** Enjoy a Thai cooking class or spa treatment.
- **Evening:** Dine at a rooftop restaurant with city views.

Reasoning: Bangkok offers a plethora of indoor experiences suitable for rainy days.

Day 3: Monday, June 9

- **Morning:** Explore cultural sites like the Grand Palace or Wat Arun.
- **Afternoon:** Take a boat tour along the Chao Phraya River.
- **Evening:** Attend a traditional Thai performance or visit a night market. (reddit.com)

Reasoning: These activities provide cultural enrichment while keeping you mostly indoors or under cover.

Day 4: Tuesday, June 10

- **Morning:** Relax at the hotel or visit a nearby café.
- **Afternoon:** Pack and prepare for departure.
- **Evening:** Proceed to the airport for your 7:50 PM flight.

Reasoning: A relaxed day ensures you're well-rested and prepared for your journey home.

Transportation Options from Surat Thani to Bangkok:

- **Flight:** Approximately 1 hour; prices range from \$24 to \$75.
- **Train:** Duration of 9 to 12 hours; prices start at \$7.70.
- **Bus:** Duration of 9 to 11 hours; prices start at \$19.30. (1map.com, geckoroutes.com)

Note: Given the weather conditions, flights may be subject to delays or cancellations. It's advisable to check the latest schedules and book in advance.

These revised itineraries prioritize safety and comfort while still offering enriching experiences despite the unfavorable weather.

Prompt 2: “I need different suggestions. For context, I was in Bangkok and Surat Thani already, as well as Pattaya City, and I have done all the shopping I wanted. More than exploring, I was looking to some relaxation time. It is the last days so I don’t want extravagancies, and my budget is around 900 euros.”

Output:

Here are two refreshed, budget-friendly, relaxation-focused mini-itineraries (each with two options) to unwind in your last days, staying within ~€900. All are accessible, low-key, and ensure you’ll be back in Bangkok well before your 7:50 PM flight.

 Option 1: River & Spa Retreat in Kanchanaburi

1A – Riverside Homestead Relaxation

- **Where:** Good Times Resort or Sabai@Kan Resort on the River Kwai.
- **Stay:** 2 nights at ~~1,000–1,200 THB/night~~ (€25–30/night) (khaosanroad.com).
- **Activities:**
 - Lounge by the riverside pool.
 - Basic spa/massage session (~500 THB ≈ €12).
- **Travel:**
 - Minivan/bus from Bangkok (~3 hrs, ~400 THB ≈ €10).
 - Return late Day 3 to Bangkok (~3 hrs).
- **Budget estimate:**
 - Accommodation: ~€60
 - Travel (round-trip): ~€20
 - Meals & spa: ~€70
 - **Total:** ~€150

1B – Sai Yok Spa & Hot-Spring Day Trip

- **Where:** Tayan Resort in Sai Yok—basic bungalows beside the river (thelostpassport.com).
- **Stay:** 2 nights at ~~1,200 THB/night~~ (€30).
- **Activities:**
 - River dip, hammock lounging, hot spring soak.
 - Local barbecue dinner & beer (~500 THB).
- **Travel:**
 - Transfer from Kanchanaburi (~175 THB ≈ €4 one-way).
- **Budget estimate:**
 - Accommodation: ~€60
 - Transfers: ~€10
 - Meals & extras: ~€60
 - **Total:** ~€130

Why these work: Both offer tranquil riverside environments, basic spa experiences, and low prices.

Option 2: Nature & Wellness Near Hua Hin

2A – Kaeng Krachan National Park Camping + Hua Hin Relax

- **Where:** Ban Krang campsite in Kaeng Krachan (~£8/night ≈ €10) ([reddit.com](https://www.reddit.com), [thetimes.co.uk](https://www.thetimes.co.uk)).
- **Stay:** 1 night camping, 1 night in Hua Hin low-cost hotel (~1,200 THB/night ≈ €30).
- **Activities:**
 - Dawn wildlife viewing, forest bathing, birdwatching.
 - Relax at Hua Hin beachfront, gentle spa/massage (~600 THB ≈ €15).
- **Travel:**
 - Train from Bangkok (~3 hrs, ~200 THB ≈ €5), local transport to park (~12 € round).
 - Return to Bangkok Day 3 by train.
- **Budget estimate:**
 - Transport: ~€22
 - Stays: ~€40
 - Meals & park fees/massage: ~€50
 - **Total:** ~€112

2B – Huahin Hotel & Day Spa Package

- **Where:** Mid-range Hua Hin hotel (e.g., Comfort Resort) at ~1,500 THB/night (€35).
- **Stay:** 2 nights in Hua Hin.
- **Activities:**
 - Full-day spa package (~1,800 THB ≈ €45).
 - Beachside chilling, gentle strolls into town.
- **Travel:**
 - Round-trip bus or train (~400 THB ≈ €10 each way).
- **Budget estimate:**
 - Accommodation: ~€70
 - Travel: ~€20
 - Spa & meals: ~€70
 - **Total:** ~€160

Why these work: Perfect low-cost escapes offering both a taste of nature and wellness in Hua Hin, no need for luxury.

Summary & Total Budget

Option Est. Cost Highlights

1A	~€150	Riverside comfort, easy spa
1B	~€130	Quiet riverside, hot springs
2A	~€112	Jungle wildlife camping
2B	~€160	Comfortable Hua Hin spa stay

These all leave plenty of budget (~€740 remaining) and time to return to Bangkok comfortably.

Next Steps

- Pick which vibe appeals most: **river & spa** (Kanchanaburi) or **nature + wellness** (Hua Hin/Kaeng Krachan).
- I can help you finalize lodging, book massages or massage + meal combos, handle transport logistics—and add a suggestion for Day 4 relaxation in Bangkok before your evening flight.

Let me know which plan fits your mood and preferences!

Prompt 3: “I like the first suggestion. Can you help me make the reservations needed, book the accommodation and the transportation? Please use official websites to give me the updated information and the costs in euros.”

Output:

Here’s a detailed, actionable plan to book your **Kanchanaburi retreat** with current pricing and official sources:



1. Accommodation at Good Times Resort

Resort: Good Times Resort, riverside on the River Kwai

Room suggestion: *Standard Double Room* (~20–25 m², A/C, fridge, private bathroom)

- **Official booking via resort website:**
 - Availability and current rates must be checked per your dates.
 - For June, expect ~~1,250 THB/night~~ (€32), per Booking.com alternative (letsbookhotel.com, reddit.com, reddit.com).
- **Estimated cost for 2 nights:** 2 × 1,250 THB = 2,500 THB (~€64)

To reserve: Visit Good Times Resort website → “Room” → select Standard Double, enter your dates, proceed to booking. Payment is usually via credit card or direct with the resort; they’ll email confirmation.



2. Transportation: Bangkok ↔ Kanchanaburi

Option A: Public Bus (budget-friendly)

- **Booking:**
 - Book online via SiamTickets or 12Go.asia for convenience.
 - Direct buses from Bangkok’s Southern Terminal or Mochit depart hourly from 06:00–17:00.
- **Cost:**
 - SiamTickets lists fares of ~140–159 THB (€3.65–€4.15) (siamtickets.com).
- **Schedule:**
 - Multiple departures daily, 2.5–3 hours one-way.
- **Estimated cost (round-trip):**
 - 2 × 150 THB = 300 THB (~€7.80)

Option B: Train (authentic and scenic)

- **From:** Thon Buri Station, Bangkok

- **Times:** Typically departs ~07:45 and ~~13:55 daily; fare 100 THB one way (€2.60)~~ (siamtickets.com, reddit.com).
- **How to book:** No advance booking necessary; buy at station just before departure.
- **Estimated cost (round-trip):**
 - $2 \times 100 \text{ THB} = 200 \text{ THB}$ (~€5.20)

Recommendation: For a relaxed journey, opt for the train—just arrive ~30 minutes ahead to purchase your ticket comfortably.

3. Riverside Massage & Spa

- The resort offers on-site massage services—prices typically ~500 THB (€13) per 60 min session.
- Alternatively, local spas near the river start around ~400 THB (€10–11) — just walk in and book when you arrive.

4. Cost Summary (in EUR)

Item	Cost (2 nights / return)
Accommodation	€64
Round-trip Transport (bus)	€7.80 or train €5.20
Massage/Spa session	€13
Total	~€85

This leaves you **well under your €900 budget**, giving room for extra massages, meals, snacks, or a riverboat paddle.

5. How to Make Reservations

1. **Accommodation:**
 - Go to [Good Times Resort site] → check availability → book Standard Double room for your selected dates.
 - Keep confirmation email.
2. **Transport:**
 - **Public bus:** Book round-trip via SiamTickets or 12Go; print or keep mobile ticket.
 - **Train:** Note departure times and simply purchase at Thon Buri Station on Day 1.
3. **Massage:**
 - No reservation required; book directly upon arrival at the resort or local spa.

Next Steps

- Confirm your travel **dates**, and I'll walk through the exact booking pages with you.
- Ready to align with your schedule? Just say which date you'd like to arrive in Kanchanaburi, and I'll provide exact links and step-by-step guidance.

Let's lock this in—you're almost there!

APPENDIX E

Interview with participant 1

Transcript

15 de junho de 2025, 12:51datarde

- GP Gabriel Inacio Pais** 0:05
Right, once again good afternoon. This is now recording. I'd just like to ask if you consent to this call being recorded.
- AI Ana** 0:07
Good afternoon.
Yes, I give my consent.
- GP Gabriel Inacio Pais** 0:15
Great. May I also use your responses for the purpose of my thesis, which focuses on generative AI for travel and tourism planning?
- AI Ana** 0:27
Yes, yes, I consent.
- GP Gabriel Inacio Pais** 0:29
OK. And would it be alright if your responses were shared, even if they were eventually published?
- AI Ana** 0:38
No, no problem at all. You have my consent.
- GP Gabriel Inacio Pais** 0:42

Very good. I'll start with the questions then. First, I'd like to know how you usually plan your trips. Do you use any apps, websites, or travel agencies?

AI Ana 0:58
My trips are mainly planned by myself. I begin with an online search, usually through Google. If the trip involves flights, I check Google Flights to see if there are any promotions, and if the destinations appeal to me. For accommodation, I mostly use Booking.com or Airbnb. If I come across an interesting place to stay, I may check the accommodation's website directly. But generally, that's the process. I rarely use travel agencies. Only if it's a transatlantic trip with multiple layovers, then I might seek their support.

GP Gabriel Inacio Pais 2:16
Thanks. Slightly off-topic, but have you heard of ChatGPT?

AI Ana 2:21
Yes, I've heard of it.

GP Gabriel Inacio Pais 2:21
Have you used it before?

AI Ana 2:23
Yes, I've used it. Not for holiday or travel information, but more for help with writing academic texts and searching for books or bibliographic information.

GP Gabriel Inacio Pais 2:40
That was going to be my next question. Have you ever considered using it for trip planning?

AI Ana 2:46
Yes. Not immediately, in the short term, but I think in the medium to long term, I would.

I genuinely believe that's the direction things are going. I think there'll be more and more information and services available, and it could become a useful tool.

GP **Gabriel** **Inacio** **Pais** 3:19

OK, thank you. I'm now going to share my screen with you to show a diagram that outlines my proposed framework for using AI to plan trips. I'll ask you some questions about it shortly.

In short, the idea is to start by presenting your travel intention to ChatGPT, whether it's for leisure or business, how many days, the context of the trip, and it would then suggest anything necessary for that first stage. From there, ChatGPT would help create the foundation of the trip: choosing the destination, accommodation, transport, and especially dates, all tailored to your budget.

Then comes itinerary planning, where AI could suggest points of interest, like museums or restaurants, and optimise the route to make the most of your time.

AI **Ana** 4:51
Right.

GP **Gabriel** **Inacio** **Pais** 5:18

It's about planning everything efficiently to avoid problems and make the most of the trip. During the trip, it can also help if last-minute changes are needed. It's a simple and effective way to handle such things. And afterwards, it can help you write reviews or summaries, or anything else you feel like doing.

AI **Ana** 5:20
Right.

GP **Gabriel** **Inacio** **Pais** 5:49

Do you consider this process useful?

AI Ana 6:00
Yes, I think so.

GP Gabriel Inacio Pais 6:04
Now, would you consider using a process like this the next time you plan a trip?

AI Ana 6:15
Yes, I think it's quite interesting. I'm even thinking about a common situation: for example, I want to visit Rome and see the Vatican Museums, which likely have long queues. I imagine tickets might be time-allocated or even sold out in advance. So it would be useful if ChatGPT could let me know that it's best to book ahead and where to do so. That sort of information?

GP Gabriel Inacio Pais 7:19
Yes, exactly. It's all part of an ongoing conversation. Depending on how you ask the question, it should be able to respond and provide timely suggestions. My thesis explains mechanisms that make real-time updates and personalised advice possible.

AI Ana 7:46
Very interesting, yes.

GP Gabriel Inacio Pais 7:47
Looking at the framework, would you change anything or add to it? For example, do you normally create a full itinerary?

AI Ana 8:00
I wouldn't change anything. I think having an itinerary is very important, especially for road trips in Europe. Even for more spontaneous trips, you still need a basic plan. I usually think of it in layers: a general itinerary between cities, and then a more detailed one within each city.

GP	Gabriel	Inacio	Pais	9:29
	Thank			you.
	Through the conversation I could sort of understand, I would just like one final clarification. Would you consider using ChatGPT and this framework to help plan your trips in the future?			
AI	Ana			9:44
	Yes, absolutely.			
GP	Gabriel	Inacio	Pais	9:47
	OK.			
AI	Ana			9:47
	But once again. Not right away, but certainly in the medium to long term.			
GP	Gabriel	Inacio	Pais	9:58
	Thank you once again.			
AI	Ana			10:00
	You're			welcome.

□ **Gabriel Inacio Pais** stopped transcribing.

APPENDIX F

Interview with participant 2

Transcript

16 de junho de 2025, 05:14datarde

□ **Gabriel Inacio Pais** iniciou a transcrição

GP **Gabriel** **Inacio** **Pais** 0:03
OK, it's recording. Once again, good afternoon. This meeting is being recorded. I'd like to ask for your consent to record this session and possibly use your answers in my thesis and its eventual publication. Do you consent?

OP **Orlando** 0:29
Yes, I give my consent. Thanks for asking.

GP **Gabriel** **Inacio** **Pais** 0:32
Thank you. I'll start with a few questions. How do you usually plan your trips? Do you use any apps, websites, or travel agencies?

OP **Orlando** 0:44
I usually use Booking for accommodation and Google Flights for flights. Sometimes I use apps to book a car when I need to rent one.

GP **Gabriel** **Inacio** **Pais** 1:00
Thanks. Slightly off-topic, but have you heard and used ChatGPT?

OP **Orlando** 1:05
Not really, but perhaps at the end as a kind of validator. Say I've planned a trip myself,

I could then run it through ChatGPT to see if it suggests anything better. In that case, I'd be open to it as a means of improving or refining the plan.

GP **Gabriel** **Inacio** **Pais** 1:06
That leads to my next question: would you use it to plan a trip?

OP **Orlando** 1:25
Not really, but perhaps at the end—as a kind of validator. Say I've planned a trip myself—I could then run it through ChatGPT to see if it suggests anything better. In that case, I'd be open to it as a means of improving or refining the planned trip.

GP **Gabriel** **Inacio** **Pais** 1:27
OK. I'll now share my screen and show you a framework—a sort of roadmap for using ChatGPT to improve or enjoy the trip planning process. It begins with pre-trip planning—flights, bookings, etc.—where you input your travel intentions into the AI to build a base: destination, dates, transport, accommodation, and all within your budget. Then comes itinerary creation, real-time assistance during the trip, and post-trip suggestions. ChatGPT could help optimise routes, suggest places of interest, and generally enhance the planning experience.

And that is a very generic presentation of the process, now I would like to ask some questions. After this, do you consider this framework useful?

OP **Orlando** 3:41
Right, it gives a good overview of what's proposed. And I can see here intention. I was just trying to understand what "Foundation Setup" refers to.

GP **Gabriel** **Inacio** **Pais** 3:52
It's the basic structure: destination, accommodation, transport, and dates. That's the foundation.

OP Orlando 4:00
OK.

So for a budget? And it's not the goal of the trip, it's the logistical foundation. Got it.

GP Gabriel Inacio Pais 4:11
Exactly. Also, any suggestion or improvement point?

OP Orlando 4:16
One thought—hopefully the AI can factor in things like the weather forecast, exchange rates, and visa requirements. For instance, I once travelled to Bali and didn't realise a visa was required until it was too late. These are the sorts of things that could be flagged by a travel agent but are often overlooked when planning solo. So I wonder if those details are covered.

GP Gabriel Inacio Pais 5:30
Yes, that's one of the on-trip features. You can ask questions before or during your trip, and it'll highlight those details if they're missing. I cover this in my thesis with examples. This thesis paper cover a lot of this strategies and scenarios with examples.

OP Orlando 5:48
Excellent.

GP Gabriel Inacio Pais 5:56
It's a very dynamic process. You can go back and adjust things at any point. The goal is flexibility and interconnection.

OP Orlando 6:13
OK.

GP Gabriel Inacio Pais 6:14
Thanks for your input. But anything else?

OP Orlando 6:15
That's it.
Just wondering, does it also cover things like needing electricity adapters, or specific entry documents

GP Gabriel Inacio Pais 6:29
That depends on the user, and if you ask the right questions, ChatGPT can respond. It just needs the context. You can also ask, "Is there anything I'm missing?" and it can highlight last-minute concerns.
So giving all the context of what you need to ChatGPT, it can answer that question.

OP Orlando 7:02
OK, thank you.

GP Gabriel Inacio Pais 7:04
Just one last question: would you consider implementing this framework for your future trips?

OP Orlando 7:04
As I said, I'm always open to improving things, I've had bad surprises before. This could help catch issues I might have missed. It's another perspective on the planning process, which I think is valuable. So it's as I said, I plan the trip and then use to see if there are things I can improve.

GP Gabriel Inacio Pais 7:44
Thank you very much for your time.



Orlando

7:44

You're welcome. Best of luck, take care.

□ **Gabriel Inacio Pais** stopped transcribing

APPENDIX G

Interview with participant 3

Meeting with Gabriel Pais-20250619_110902-Meeting Transcript

June 19, 2025, 10:09AM

5m 48s

- | | | |
|-----------|---|------|
| GP | Gabriel Pais | 0:32 |
| | Hello, good morning. | |
| | How are you? | |
| CK | Clemens Kressmann | 0:35 |
| | I'm good. | |
| | Thank you. | |
| GP | Gabriel Pais | 0:37 |
| | Thank you you for joining this interview. | |
| CK | Clemens Kressmann | 0:43 |
| | Yes. | |
| GP | Gabriel Pais | 0:44 |
| | Do you consent to giving me your personal information and allowing me to record this meeting and sharing your answers in my thesis? | |
| CK | Clemens Kressmann | 0:53 |
| | Yes, of course. It's a pleasure. | |
| GP | Gabriel Pais | 0:55 |

Thank you so much.
So I'll start just by asking you a simple question.
How do you usually plan your trips?
Do you use any application travel agency websites?

CK **Clemens** **Kressmann** 1:06
So normally I use a mix of websites forms like Reddit and some books to plan my travel and a little bit ChatGPT, but mostly websites.

GP **Gabriel** **Pais** 1:17
OK, my next question would be have you ever used ChatGPT?
Now, I guess I know.
But what do you usually use it for?

CK **Clemens** **Kressmann** 1:27
Normally I use ChatGPT for rewriting and make my emails better and just for messaging.

GP **Gabriel** **Pais** 1:36
All right.
I guess you already answered, but would you consider using it for trips to plan a trip?

CK **Clemens** **Kressmann** 1:42
Yes, yeah, I would consider it.
But it's also a little bit complicated to get the right information.

GP **Gabriel** **Pais** 1:49
OK. I'm going to share with you my proposed framework which on of the ideas is to help with understanding what's the best way to find information.
Can you see the screen?



Clemens

Kressmann

2:04

Yes, I can see the screen.



Gabriel

Pais

2:05

All right, so basic overview of this is just there is many stages on a trip, usually a pre-trip stage, on trip situation and then the post-trip stage. In the pre trip I'm suggesting to first declare your travel intention so ChatGPT can have a context and from there, retrieve inspiration to assist in building a foundation setup and with foundation setup I mean this here which is getting the accommodation transportation, finding out the best dates and discovering a destination. Because you don't always know where you want to travel to, sometimes you just know you want to travel. And all of this, it's connected to a budget and ChatGPT can help you with setting up all of that. Then there is also the itinerary. The on trip precautions, or the on trip situation. Sometimes can be made before the trip. Like what will I need to use when I'm on trip or everything like that? And then the post trip situation, usually writing reviews of restaurants, UN hotels, hotels or just creating A blog post of your overall trip. And here is more a detailed version of what it can help you with the itinerary. It can suggest points of interest. It can create the optimized routes based on the points of interest you want to visit based on the schedules or the opening times transportation available on your own preferences and every information you provided, it can give you an optimization of the routes.

Do you have any questions?



Clemens

Kressmann

3:40

Yeah, that sounds like a structured way to get exactly what I want for planning a trip.



Gabriel

Pais

3:46

Yeah.
Is it helpful for you?

Nice.

CK **Clemens** **Kressmann** 3:50
Yes. Yeah, it's.
I think it's a flexible model.
So it's good structured way to. For example, when you ask ChatGPT just a question you get everything and with this method I think it's more tailored to your preferences.

GP **Gabriel** **Pais** 4:05
All right.
Would you consider starting to use this in the future to plan your trips?

CK **Clemens** **Kressmann** 4:10
Yes, I would.
I would consider it and hopefully it increase my quality with trip planning with.

GP **Gabriel** **Pais** 4:17
OK, good. And do you have any suggestions for further improvement?
Any areas that might lack some information?

CK **Clemens** **Kressmann** 4:26
So far I don't see anything.

GP **Gabriel** **Pais** 4:28
All right.

CK **Clemens** **Kressmann** 4:29
But I mean, yeah, you could always make it more complicated, more detailed. But I think this is like a good overview for getting like inspirations and of course, when someone wants to make a immersive trip, he can adjust the model. For example, for an

adventure. But I.
Think for like the generally use for everyone.
It's perfectly it's a good model for like 80% of TRIPS planned.

GP **Gabriel Pais** 4:57
All right.
Thank you so much for your answers. That's everything.
I appreciate it.

CK **Clemens Kressmann** 5:04
Yep. Thank you.

● **Gabriel Pais** stopped transcription

APPENDIX H

Interview with participant 4

Transcript

26 de junho de 2025, 10:03da manhã

- GP Gabriel** **Inacio** **Pais** 0:06
OK.
Good morning, what is being recorded is being transcribed. So good morning once again. This interview is being conducted as part of my master's thesis for Nova IMS and I wanted to ask if I have your consent to study and share the answers given throughout the interview.
- MP Margarida** 0:27
Yes, I give my consent.
- GP Gabriel** **Inacio** **Pais** 0:30
OK, thank you, so let's proceed. The first question. I would like to know how you usually plan your trips?
- MP Margarida** 0:38
I usually go to websites on the Internet that are directed towards that purpose. Do you want me to give examples?
- GP Gabriel** **Inacio** **Pais** 0:50
Yes, yes, what applications do you use?
- MP Margarida** 0:52
Normally it's Skyscanner to look at flights. Regarding accommodation, I normally use Airbnb, though I end up not booking through it, so just that site. And about the actual part of my trip, it's more about seeing what they suggest on the Internet and taking notes.

GP	Gabriel	Inacio	Pais	1:19
	OK, OK, this is a bit off topic, but have you heard of ChatGPT?			
MP	Margarida			1:24
	Yes.			
GP	Gabriel	Inacio	Pais	1:24
	And have you used it before?			
MP	Margarida			1:26
	Yes.			
GP	Gabriel	Inacio	Pais	1:28
	For what purpose?			
MP	Margarida			1:31
	I've used it for academic reasons, for research, but not specifically for travel..			
GP	Gabriel	Inacio	Pais	1:41
	OK, OK, would you consider using it to plan a trip?			
MP	Margarida			1:44
	Yes, I would consider it.			
GP	Gabriel	Inacio	Pais	1:46
	OK, very good. I'm going to share with you... So the artifact of my thesis has to do with this same use of ChatGPT to help plan a trip. I don't know if you can see the screen share.			

MP **Margarida**

2:00

I can see.

GP **Gabriel** **Inacio** **Pais**

2:02

Well, the idea comes from serving as a guide, as a help for people to be able to... There are people who really want to have guidance, to have something that allows them to assist in planning their trips and during their trips, using artificial intelligence and ChatGPT.

Here you can see that there are various stages in trips normally, and the plan encompasses the 3 main stages, which are pre-planning, on-trip, and post-trip.

In pre-planning, here is a way it can be used or the various stages of transmitting information to ChatGPT. How to transmit the trip objective, the intention? How to create a foundation... the Foundation setup is better explained down here. This Foundation setup is the introductory part of the trip, for example, booking accommodations, booking lodging, booking flight tickets, transportation, deciding dates, deciding the destination, and all this always with a budget in mind that ChatGPT can coordinate all this information.

Then we have the itinerary as well, which can sometimes be planned before or during the trip, and during the trip there are also other precautions that can be important, which again can be prepared before the trip, like things packed in the suitcase, what to bring, what the weather will be like, etc.

Finally, post-trip, which can be from reviews to evaluating how the trip went, everything that could have been improved, what was great, a bit of everything. And here we can also see in more detail how the itinerary planning works, where ChatGPT can help optimize and suggest points of interest to visit, to facilitate the entire travel period, the travel process. Any doubts, any questions?

MP **Margarida**

4:14

No, no.

GP **Gabriel** **Inacio** **Pais** 4:16
OK, do you consider this useful?

MP **Margarida** 4:20
I do consider it useful, yes.

GP **Gabriel** **Inacio** **Pais** 4:21
And do you have any criticism or suggestion for improvement?

MP **Margarida** 4:26
Honestly, I hadn't even thought of this as an option. I think maybe if I analyzed it more deeply, but it seems to me something more useful than actually going back and forth to various sites.

GP **Gabriel** **Inacio** **Pais** 4:43
OK, thank you, and would you consider using it in your future trips?.

MP **Margarida** 4:48
100%.

GP **Gabriel** **Inacio** **Pais** 4:50
OK, thank you and that's everything.

□ **Gabriel Inacio Pais** parou a transcrição

