Report

All Great Journeys Start With A Map

Exploring the intersection of Generative AI and map-based interfaces in transforming the future of travel planning.
Introduction

In recent months, we have witnessed the rise of Generative AI and Large Language Models (LLMs), transforming industries across the spectrum.

Among them, the travel industry is uniquely positioned to benefit from these technological advancements. In fact, a plethora of travel-tech startups leveraging the power of Generative AI, mostly ChatGPT to be specific, have entered the market, offering AI-powered ways to search for travel. Some of these ventures include Roam Around, iplan.ai, AMBL, GuideGeek, and many more which we will present in this report.

Also, major OTAs like Expedia have already integrated ChatGPT directly into their own apps to enable conversational travel planning.

However, despite the incredible potential, the current interface of ChatGPT has yet to fully showcase Generative AI’s capacity to disrupt travel search and booking.

In the following analysis, we aim to explore the reasons behind this limitation and propose an innovative solution that will unlock the true potential of Generative AI in the context of travel.

We argue that the key to unlocking this potential lies in the integration of Generative AI with map-based interfaces, such as Google Maps, or entirely new map-based applications.

By combining the intuitive and familiar nature of maps with the deep understanding and conversational capabilities of Generative AI applications like ChatGPT, we can create a more efficient, personalized, and engaging travel booking experience.

This forward-thinking thesis is not new to us. In fact, during an interview at the PhocusWire Studio at Phocuswright Europe 2022, we already underscored the necessity for more innovative travel solutions to be built atop Google Maps. We voiced the critical observation that planning travel and exploring sights and destinations inevitably involve a frustrating and constant back-and-forth switching between Google Maps and various content sites. This issue remains unresolved and extends to the integration of ChatGPT and Google Maps.

We imagine a future where Google Maps is enhanced by conversational AI capabilities. A Large Language Model trained on an extensive database of location, navigation, reviews, and user intent data. This could enable a threaded, context-aware conversation with the app, visually overlaid on Google Maps. Such an integration could make searching for restaurants, hotels, attractions, and more, much more personalized and relevant, based on our historical interactions already recorded in Google Maps.

Our conviction in the potential of maps, especially Google Maps, as the foundation of a transformative AI-powered travel experience, extends beyond merely enhancing our interactions with the app. We firmly believe that this combination has the capacity to truly revolutionize the entire travel planning process, from the initial spark of inspiration to itinerary creation and, crucially, real-time exploration.
The Unresolved Challenge: Personalizing Travel Experiences

Before jumping into what Generative AI has to offer to upgrade travel search and planning, let’s take a look at the current state of travel inspiration.

In the pursuit of memorable travel experiences, we often find ourselves overwhelmed by the sheer amount of information and options available.

Most of us face two central dilemmas.
Firstly, the constraint of limited vacation time versus a plethora of possible things to see and do.

Secondly, the desire to make each vacation memorable, unique, and reflective of our personal tastes and preferences.

Currently, our journey often begins with a Google search, something like “Top things to do in Rio.” If we’re lucky, we dodge the flood of generic top 10 tourist landmarks and stumble onto a more curated list from platforms like CultureTrip. But even then, these lists often fail to resonate on a personal level.

The thing is, “memorable” is an intensely personal and subjective concept.

For Anna, standing next to the iconic Christ statue in Rio might be the highlight of her trip. Ben, on the other hand, might cherish the discovery of a local underground skatepark far more.

The same location can offer vastly different experiences, and capturing this diversity in a meaningful way is a challenge that’s yet to be fully conquered.

In addition, the “unknown unknowns”— things we don’t know that we don’t know—become glaringly apparent when we venture into a new location. These gaps in our knowledge make it hard to plan and ensure we’re truly making the most of our travel experience.

With the current travel tools and resources available, travel planning often becomes more of a chore than a pleasure. They still lack the personal touch, the understanding of our individual preferences, and most importantly, the ability to adapt to our evolving moods and whims. Consequently, we’re left with a status quo that’s anything but inspiring.

Outsourcing Travel Planning: A Costly Compromise

One way to overcome the challenge of personalized travel planning is to entrust our travel itinerary to professionals—numerous agencies and tour operators are more than willing to take on this task. However, this approach introduces its own set of challenges.

Firstly, there is the question of trust. Can these operators truly understand and cater to our unique needs and preferences? This is a significant obstacle, as the essence of personalized travel lies in its ability to reflect our individual tastes and desires.

Secondly, there’s the issue of cost. With every individualized component added to our itinerary, the price inevitably skyrockets. This makes personalized travel planning via agencies a luxury that not everyone can afford. As such, it isn’t a viable solution for everyone, and the need for a tool that offers personalized, accessible travel planning remains.

The reason we are not seeing more innovation in the realm of personalized travel planning is that it is a complex problem to tackle, requiring sophisticated and costly technology solutions. Furthermore, high-end automated apps or content generators often struggle due to low usage rates and a lack of willingness to pay for their services.

Moreover, most companies in this space either focus on the itinerary-building aspect or the curated content aspect, but rarely both. This segmented approach, coupled with the struggle to find sustainable monetization strategies, often leads to the eventual downfall of these ventures. Some of you might remember the case of Berlin-based Mapify, which was fire-sold to Home-togo in mid-2021.
Limitations of Current ChatGPT-Powered Travel Tools

The rise of ChatGPT and other Generative AI-powered travel planning tools has undoubtedly sparked innovation within the travel industry. This is a great first sign!

However, the current landscape of these tools reveals three significant shortcomings.

They hinder the potential to truly AI-revolutionize the travel planning experience (thus far).
1. Generic Travel Recommendations

Today’s AI-driven travel planning tools often provide users with generic travel recommendations, which are strikingly similar across various platforms. This homogenization of search results does little to serve the unique needs and desires of travelers, such as Anna and Ben, who have varied travel styles and preferences despite visiting the same destination.

As of today, most ChatGPT travel tools result in a one-size-fits-all approach, doing little to make travel experiences truly memorable and personalized.

To break away from this commoditization, the travel industry must reconsider its current approach. One solution could lie in startups or major OTAs training Large Language Models on proprietary and exclusive content. Such a move could lead to more differentiated offerings, allowing companies to understand and cater to the unique “travel DNA” of each traveler.

2. Real-Time Information: Missing in Action

Another crucial aspect of travel planning, especially when already “on the road,” is the availability of real-time information. However, this is a glaring omission in most current ChatGPT applications. As travel is dynamic by nature, the lack of real-time updates on events, traffic, weather conditions, or even spontaneous local happenings limits the practicality of these tools.

For instance, knowing the current queue length at the Louvre or an impromptu concert in a nearby park can significantly enhance a traveler’s experience. By not incorporating such dynamic, real-time data, today’s AI-powered tools offer an incomplete, and outdated, travel planning solution.

3. Conversational Travel Search: A Misfit?

Travel planning is an inherently complex process, involving several factors such as budget constraints, location preferences, and travel type.

The current text-based chatbot interfaces often rely on conversational prompts to gauge these parameters, which may not be the most efficient way to gather this information. Travelers may find it more convenient to select these factors through filters and checkboxes rather than engaging in a text-based conversation.

Consequently we need to confront two key questions:

→ Is conversational travel search in its current form the right interface for capturing the intricacies of travel planning?

→ Or could we be overlooking a more efficient, intuitive, and user-friendly alternative?
The state of current ChatGPT-powered travel planning tools
Current weaknesses and potential solutions

- Generic output
- No real-time information
- Lots of typing

- Exclusive content
- Location-based data
- Different interface

Sources: Lufthansa Innovation Hub Analysis, TNMT.com
The Crucial Role of the Right Interface for Tech Adoption

The success of new technology is intrinsically tied to the interface through which it is delivered.

An interface that aligns perfectly with the intended use case can propel a technology to new heights, while a mismatch can hamper its adoption and hinder its potential.

To illustrate this point, let us examine two examples that showcase the importance of the right interface in technology adoption.
ChatGPT: Perfectly Aligned With Copy Editing and Marketing

ChatGPT has proven to be a game-changer in the copy editing and marketing spheres, largely because its interface aligns seamlessly with these functions.

As marketers and copywriters create content using text-based tools like Microsoft Word or Notion, the conversational interface provided by ChatGPT fits perfectly into their workflow. It serves as a valuable companion in a separate browser tab, helping to generate ideas, enhance language, and streamline the writing process.

This synergy between the use case and the interface has allowed ChatGPT to make a significant impact in these fields.

Smart-Home Audio Assistants: A Misaligned Interface

In contrast, smart-home audio assistants like Google Home have struggled to gain widespread adoption, despite their impressive conversational capabilities (even though not on the same level as ChatGPT). A primary reason for its lack of adoption is the mismatch between the interface and the context in which it is used.

For instance, when users attempted to leverage Google Home for internet searches, they quickly realized that using a computer was more efficient and convenient for in-depth research and comparisons. As a result, audio assistants only found their niche in more casual, playful interactions at home, such as entertaining children or aiding in simple trivia games.

However, in a different context, such as inside a car, voice assistants have proven to be more effective. With hands occupied by the steering wheel and a focus on straightforward commands, the voice-based interface becomes a valuable tool for tasks like entering a destination into a navigation system.

The key takeaway from these examples is that the right interface, matched with the appropriate context, is critical for the success of any new technology.

With this understanding, we must now turn our attention back to the central question of our analysis: what is the right interface for travel planning?
Since the dawn of human history, maps have been at the heart of travel and exploration.

They have served as indispensable tools for navigating the unknown, charting new territories, and understanding our world. By examining some of the most significant maps from different eras, we can appreciate the deep connection between maps and our intrinsic desire to explore.

These examples demonstrate the enduring importance of maps in human history, as they have guided our journeys, helped us understand the world, and fueled our curiosity.

With this rich history in mind, it becomes clear why maps have the potential to serve as the ideal interface for the travel planning process.

### Human exploration has always been based on maps

#### Illustrative

**AD 150**
First map to use positions of latitude and longitude

**1529**
The first ever scientific world map

**1154**
Medieval world map based on traveler and merchant accounts

**2005**
Google Maps
The Evolution of Maps in Modern Travel Planning

In the digital age, maps have continued to play a central role in travel planning, search, and exploration.

The transition from analog to digital maps has unlocked new possibilities and further solidified the position of maps as the underlying platform for travelers.

Two well-known examples showcase how maps have been integrated into modern travel tools, offering an intuitive and efficient way to plan trips and explore destinations.
Elevating Travel with Google Maps' Immersive View

Google Maps has become an essential tool for travelers worldwide, transforming the way we navigate and explore new cities. With its user-friendly interface, detailed information, and first real-time updates, Google Maps has replaced traditional paper maps and guidebooks as the go-to resource for tourists.

The platform offers features like street view, turn-by-turn navigation, and the ability to search for nearby attractions, restaurants, and hotels, streamlining the process of discovering and experiencing new destinations.

Recently, Google Maps has taken another leap forward by introducing “Immersive View.” This feature uses AI to fuse billions of Street View and aerial images to create a detailed 3D model of the world. Google then adds various layers to this model, allowing users to quickly inspect landmarks in different weather conditions and check traffic. Immersive View can take you down to street level, and even into restaurants — check out this video.

In essence, Google has built the foundation for an “everything simulator” within its platform.

Google’s Immersive View is using AI for a digital model of the world

Google screenshots

Sources: Lufthansa Innovation Hub Analysis, TNMT.com, Google
Beyond Google: The Emerging Landscape of Map-Based Travel Startups

While Google remains a dominant player in the map-based technology space, it is not the only entity leveraging the power of maps for travel and exploration.

A burgeoning group of tech startups is innovating within this space, creating unique map-based applications that enhance travel planning and exploration. Although not necessarily integrating Generative AI (yet), these startups are pioneering fresh and creative product features that offer compelling alternatives to established platforms. Welco.me, for instance, is a platform that combines elements of Google Maps and TikTok to utilize AI in real-time travel planning, based on user preferences, friend tips, and location data.

Blueplanit.co, on the other hand, offers a map-based travel planning tool with the unique feature of a Google Sheets add-on for streamlined organization.

Tripscout takes a media-centric approach, integrating articles and videos from top publishers and local influencers for each destination into its map-based interface. Travelers can save information and create personalized itineraries and maps, complete with local tips from recent travelers.

Urbaniser is another creative solution, enabling users to create personal city collections for places to visit, and organize them into managed categories. It also allows users to recommend whole collections, specific categories, or special places to friends and family.

A growing group of travel startups is building map-based travel apps

Selected startups

<table>
<thead>
<tr>
<th>Logo</th>
<th>Name</th>
<th>Description</th>
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<tr>
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Sources: Lufthansa Innovation Hub Analysis, TNMT.com
Wanderlog offers a comprehensive trip planning tool designed to build, organize, and map your itineraries in a free travel app, touted to be especially useful for road trips. It simplifies travel planning by eliminating the need to switch between different apps, tabs, and tools.

Other noteworthy platforms include Maps.me, which positions itself as the number one offline travel app, among many others.

The flourishing of these startups underscores the immense potential and versatility of map-based applications in redefining the future of travel planning and exploration.

OTAs Harnessing the Power of Map-Based Interfaces

Another testament to the significance of maps in modern travel planning is the integration of map-based features into the platforms of major Online Travel Agencies. Websites like Expedia, Booking.com, and Airbnb all enable users to search for accommodations, tours, and activities using map interfaces.

OTAs have long incorporated maps for travel search and booking

Expedia screenshots

Sources: Lufthansa Innovation Hub Analysis, TNMT.com, Expedia
This visual approach allows travelers to view the locations of various options in relation to each other, enabling them to make informed decisions based on proximity to attractions, public transport, and other points of interest.

The widespread adoption of digital maps and their incorporation into leading travel platforms underscores the importance of maps as a foundation for travel planning and exploration.

In fact, it proves that the travel industry has already identified the most powerful interface for travel planning and search.

**Mastering the Last Mile: The Hyperlocal Power of Modern Maps**

As technology has advanced, maps have gradually and almost imperceptibly become an integral part of our lives, serving a multitude of diverse use cases. We rely on them for navigation, traffic updates, discovering restaurants or shops, saving our favorite places, and even planning trips, including finding hotels and landmarks or assessing the busiest areas.

This seamless integration into our daily routines, practically unnoticeable yet ever-present, is the hallmark of an ideally designed interface.

And it is this unobtrusive utility that makes maps a compelling platform for the next generation of travel planning tools.

This utility is particularly potent in the realm of travel, where maps tackle the so-called "last mile problem." Once the broad strokes of a trip, such as the destination, are decided, the real challenge begins. Determining where to go, what to see, and how long to spend in each location often requires arduous research and planning, typically involving countless hours on Google Search.

However, maps can reduce this process to a simple, hyperlocal level, allowing travelers to focus on their immediate surroundings and immediate needs. This accessibility is empowering, putting the control back into the hands of the traveler, enabling them to flexibly respond to their desires in the moment. As we move towards a more on-demand, service-focused world, this ability to adapt on the fly becomes the standard, not the exception.

But, there is a key piece of the puzzle that needs to be incorporated to fully harness the power of maps in overcoming the "last mile problem"—real-time events and information. Without this, the map remains a static tool, lacking the dynamic, up-to-date context that can truly personalize and enhance the travel experience.

That’s where the integration of live events and hyperlocal information becomes crucial, leading us to the next chapter in the evolution of maps.

**Bridging the Gap: Incorporating Real-Time and Hyperlocal Information**

Today, Google Maps and similar platforms do mostly not include real-time events, impromptu concerts, best scenic routes for running or walking, or any other local and tacit knowledge that residents may have. This gap is a major shortcoming, but also an exciting opportunity for improvement.

Much like Google Maps’ "Busy Times" feature, real-time information can be incorporated, transforming the platform into a living, breathing reflection of the city’s pulse. This integration could be achieved through better collaboration with services like Eventbrite for events, MeetUps for local gatherings, Strava for sports route planning, and more.

But instead of integrating maps into these applications, why not flip the script and integrate these services into Google Maps? This approach would centralize the information, making it easily accessible and enhancing the user’s experience, and turn Google Maps into the ultimate Super App of the West.

With these insights in mind, let’s transition into the final chapter, where we will envision how these integrations and advancements could shape the future of travel planning.
Imagine the future is often as simple as observing the sparks of innovation already igniting today’s market. When it comes to the integration of Generative AI with map-based interfaces in travel planning, there are already pioneering examples to consider. One such tool is Textomap, an innovative platform that seamlessly blends the power of AI with the intuitiveness of maps.

Textomap enables users to transform text sources and ChatGPT prompts into insightful, interactive geographical maps. It eliminates the need for spreadsheets or complex tools—words alone are sufficient to generate rich and detailed maps. Users can easily convert their travel plans, ideas, and interests into a visual representation, thereby offering a more intuitive and immersive experience.

However, while intriguing, platforms like Textomap don’t entirely address the need for proprietary and personalized content, which is essential for the future of AI-powered travel tools. So far, we are still waiting for map-based tools to leverage truly unique underlying language sets, like crowd-sourced neighborhood labels, as Hoodmaps does for Berlin.

Current ChatGPT models lack a deep understanding of the unique preferences and needs of individual users. They essentially require the user to share personalized information in their
prompts. But what if this hurdle could be eliminated? This brings us to the untapped potential of maps when combined with Generative AI.

Maps are a goldmine of data. Moving behavior, GPS data, dwell time matched to store locations can provide rich insights about a person and their conscious or subconscious preferences. Imagine if we could build on top of Maps, using it as a platform, a super-app, to solve the problem of itinerary planning. This could be an app so intuitive and seamlessly integrated into our lives that we barely register how much we are using it.

This brings us back to the original thesis of this report: the potential of Google Maps as the perfect platform for integrating Generative AI.

Google Maps, for many of us, has an extensive history of our travel activity.

| This proprietary content, if harnessed appropriately, could unlock a more personalized, intuitive, and transformative travel planning experience. |

**Ten potential features that AI-powered Google Maps could offer**

Illustrative

01/Personalized Route Filtering
02/Intelligent Venue Recommendation
03/‘Feeling Lucky‘ Button
04/Convenient Map Sharing
05/Integrated Event Discovery
06/Celebrity Inspired Itineraries
07/Cultural Tourist Packages
08/Customized Wellbeing Journeys
09/Fitness-Focused Exploration
10/Accessible Travel Planning

Sources: Lufthansa Innovation Hub Analysis, TNMT.com
With these ideas in mind, let’s explore ten potential features that AI-powered Google Maps could offer:

01 **Personalized Route Filtering:** Google Maps, aware of your common routes and travel patterns, could leverage AI to suggest personalized paths. Looking for a scenic route for your morning run in a new city? Or a stroller-friendly path in your hometown? AI could help.

02 **Intelligent Venue Recommendations:** Google Maps has data on your past visits and duration spent at different venues. By synthesizing this data, AI could identify the types of cafes or restaurants you prefer, ensuring that suggestions in new cities align with your established preferences.

03 **“Feeling Lucky” Button:** Utilizing AI, Google Maps could offer a “Feeling Lucky” feature, suggesting a local hidden gem based on your location and previous likes. This could add an element of surprise and spontaneity to your explorations.

04 **Convenient Map Sharing:** Google Maps could make sharing your favorite locations with friends as easy as clicking a button. You could create and share personalized maps of your favorite spots, making social interaction as easy and engaging as sharing a playlist.

05 **Integrated Event Discovery:** Why navigate multiple platforms to discover local events? AI-powered Google Maps could display nearby concerts, exhibitions, and festivals right on your map, based on your past event attendance and interests.

06 **Celebrity-Inspired Itineraries:** Have you ever wondered what it’s like to spend a day as Hugh Grant in Notting Hill? AI-powered Google Maps could create theme-based itineraries, allowing you to explore a city through the eyes of your favorite celebrity. Following their footsteps, you could visit their favorite haunts and experience the city from a unique perspective.

07 **Cultural Tourist Packages:** For tourists seeking culturally specific experiences, AI-powered Google Maps could create perfect itineraries. For Chinese tourists in Paris, for example, the platform could recommend must-see places, best shopping destinations, including Louis Vuitton boutiques, and even pre-purchase attraction tickets like a Disneyland entry pass with a single click.

08 **Customized Wellbeing Journeys:** By analyzing your past travel habits, such as using public transportation, walking, or cycling, AI-powered Google Maps could recommend eco-friendly routes tailored to your preferences. It could suggest nearby public transport options, bike-sharing stations, or walking paths that align with your previous choices, ensuring that your travel remains environmentally responsible.

09 **Fitness-Focused Exploration:** Google Maps could use your location history to identify patterns in your workout routines and preferences. Based on this data, AI-powered Maps could suggest new running or cycling routes that match your fitness level and interests. It could also take into account your favorite scenic spots or parks, creating a workout experience that combines exploration and exercise.

10 **Accessible Travel Planning:** If you have previously searched for or visited venues with accessibility features, AI-powered Google Maps could utilize this history to prioritize accessible routes and facilities. This would enable the app to recommend paths that avoid stairs, steep slopes, or rough surfaces, making travel easier for users with mobility issues or those traveling with strollers.

All these AI-powered enhancements could make Google Maps an incredibly personalized tool, not just for navigation, but for a broad spectrum of travel experiences. By leveraging personal data and preferences, such features could revolutionize the way we explore and interact with the world around us.

In summary, the fusion of Google Maps’ extensive personal travel history with Generative AI could create a powerful tool for personalized, intuitive travel planning and exploration.

The future of travel could very well be a map that doesn’t just show us the way but knows the way we want to go.
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