

## Airia - Your Travel Buddy For The Perfect Stay

A Conversational AI Search Assistant, helping users find their perfect stay through natural, intuitive conversations. Airia takes in user descriptions and translates them into precise, tailored property recommendations making property discovery seamless and personalized on Airbnb.

|                     |                                                       |
|---------------------|-------------------------------------------------------|
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| Spec Status:        | Draft / Peer Review / Mentor Review / <b>Complete</b> |
| Last Updated:       | April 29th, 2025                                      |
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## Summary

Airia is Airbnb's conversational AI assistant designed to enhance the user experience through smart, intuitive, and interactive search capabilities. Airia enables users to discover relevant listings and properties on Airbnb through natural conversation. It supports location-accurate listing discovery by integrating a smart map with POI pinning capabilities, provides relative distance estimation insights to user-defined POIs, and suggests listings in proximity clusters, all without exposing the host's exact location and keeping security top of mind.

## Overview

### Motivation

The current search experience on Airbnb is frustrating for users due to the extensive number of listings and the complexity of filter-based navigation. Many users struggle to translate their ideal stay into specific search criteria, often adjusting filters multiple times or abandoning their search altogether. As a result, users experience frustration, delayed booking decisions, and potential drop-off from the platform which is a loss of conversions to competing platforms.

## Problem statement

How might we improve relevant listing discovery and enhance the search experience to ensure Airbnb users find their perfect stay in a more efficient and intuitive manner?

## Goals & Non-Goals

### Goals

- ☒ Show relevant and available listings to users during their search.
- ☒ Make it easier for guests to find their desired stay based on personal preference factors.
- ☒ Help users find listings near specific POIs (e.g., offices, landmarks, grocery stores).
- ☒ Have robust search capabilities to accommodate different types of users.
- ☒ Enhance booking confidence and decision speed.
- ☒ Increase booking rates through efficient search and drive revenue.
- ☒ Maintain strict protection of host location privacy.

### Non-Goals

- ☒ Showing the precise address of listings.
- ☒ Replacing the core Airbnb map view.
- ☒ Guaranteeing precise distance or commute time.
- ☒ Redesigning the search user flow or revamping filter(s).

## Personas and User Stories

| Persona                       | User Story                                                                                                                                                    |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High-Flying Business Traveler | As a business traveler, I want to find listings close to my work destinations, so that I can save time and feel secure during my stay.                        |
| Airbnb Host                   | As a host, I want to attract the right guests without exposing my exact address, so I can maintain my privacy and increase my bookings.                       |
| Airbnb Platform Admin         | As a platform admin, I want to enforce privacy protocols on listing locations, so that we uphold user trust and regulatory compliance.                        |
| Airbnb Product Analyst        | As a product analyst, I want to track conversion data from AI-assisted bookings, so that I can report on the impact of the feature on revenue and engagement. |

## Customers and Business Impact

### Customer Impact

For Airbnb users, Airia will significantly save them the time it takes to book a place to stay when travelling. It will make the experience of finding a travel stay super exciting, enjoyable, and the best part of their travel planning that they look forward to. They will no longer have to switch between different platforms to either check for relative distance, assess proximity to POIs, or compare listings based on price/vibe, Airia provides a single place and all-in-one solution to meet varying user needs through natural conversation and intelligent prompting. To a great extent, this solution eliminates decision fatigue and will increase user confidence and satisfaction in the stays that they end up booking on Airbnb.

### Business Impact

For Airbnb, this solution will lead to

- ☒ An increase in conversion rates for high value user segments and improved user engagement for those that occasionally use the platform for their travel needs.
- ☒ A reduction in user churn from business travelers switching to hotel platforms for an expected level of service and convenience.
- ☒ A reinforcement and strengthening of Airbnb's position as the "go-to trusted platform" in the business travel and solo travel segments in the global travel industry.
- ☒ An overall increase in customer satisfaction which drives revenue.

## Solutions

### Alternative solutions

| Alternative                                               | Why It's Not Ideal                                                                                      |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Exposing full listing address                             | This solution violates host privacy and Airbnb's trust principles                                       |
| Allowing users to filter by vague neighborhood zones only | This solution offers imprecision and fails to solve the pain point of proximity-driven decision making. |

|                                 |                                                                                                                                                                                       |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Relying only on static map view | The current integrated map does not give users the freedom and flexibility to interact with it in a way that is relevant to them. They have to switch between Airbnb and Google maps. |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Proposed Solution

### **Airia, Your Travel Buddy for the Perfect Stay!**

Majority of Airbnb users including business travellers need accommodation in specific areas when travelling for various personal reasons and preferences such as near client offices, event venues, coworking spaces, or POIs. Currently, Airbnb by design, obfuscates exact listing addresses for host security and safety which makes it difficult for users to confidently assess proximity to locations important to them during their search. Airia aims to bridge that gap.

**Airia** will become the user's personal travel assistant for proximity-aware travel planning. It focuses on enhancing the search experience through natural language on an AI-powered chat interface that users can easily have conversations with on what they are looking for in a place, the vibes of the location, and specific areas they'd like to be in or visit during their travel.

Airia will complement the existing search features and be integrated thoughtfully on Airbnb's website and mobile apps for user's to adopt. It will serve as a travel buddy that is super excited to give relevant listing recommendations that allow users to achieve their travel goals.

This feature will:

- ☒ Prompt users to share POIs like "My conference is at XYZ Convention Center in Paris, France" or "I want to explore the Green Gardens in Singapore" or "I'm going to be in Toronto and want to stay downtown so I can be close to all my concerts and events".
- ☒ Ask users about their personal preference with factors like price, cleanliness, safety, and proximity in a natural way that feels like a conversation and shares the sentiment of the user.
- ☒ Use AI to cluster listings within a safe proximity range and display it visually to the user.
- ☒ Display estimated walking or driving distance to the pinned POI e.g., "This stay is approx. 12-min walk from your target location"
- ☒ Summarize listings with relevant location context like ("Located near multiple restaurants and approximately 2 blocks from the concert stadium" or "If you stay here, you'll have access to major transit lines and highways connecting you to primary attractions of the city")

- ☒ Deliver the experience via Airia's user-friendly chat UI and an embedded smart map card.

#### Feature Privacy Controls

- ☒ Host location or address is never revealed whether on the map or chat UI
- ☒ Relative distance is based on obfuscated centroid approximations.
- ☒ POI pins are user-generated or Airia-recommended, not host-linked.

## Requirements

The below requirements use the MoSCoW method of prioritization; from greatest to least importance: *Must Have*, *Should Have*, *Could Have*, *Won't Have*

| Functional Requirements |                                                                                            |             |
|-------------------------|--------------------------------------------------------------------------------------------|-------------|
| #                       | Requirement                                                                                | Importance  |
| 0                       | Airia prompts users for POI information (conversational search).                           | Must Have   |
| 1                       | Integrate conversational map module within Airia.                                          | Must Have   |
| 2                       | Distance estimation algorithm (walking/driving) without disclosing exact addresses.        | Must Have   |
| 3                       | Airia UI displays relative distances and location confidence level.                        | Should Have |
| 4                       | Clustered listing recommendations based on POI.                                            | Should Have |
| 5                       | Smart ranking algorithm to rank recommended listings based on different preference factors | Could Have  |
| 6                       | Visual search assistance (image search) through Airia by uploading images.                 | Could Have  |
| 7                       | Personalized filters based on user previous travels                                        | Won't Have  |
| Technical Requirements  |                                                                                            |             |
| 8                       | Integration with Google Maps or OpenStreetMap APIs for                                     | Should Have |

|                                   |                                                                                             |             |
|-----------------------------------|---------------------------------------------------------------------------------------------|-------------|
|                                   | distance calculations.                                                                      |             |
| 9                                 | Access to Airbnb map data with host obfuscation controls.                                   | Must Have   |
| 10                                | NLP model to extract and interpret user-input POIs.                                         | Should Have |
| Privacy and Security Requirements |                                                                                             |             |
| 11                                | Ensure location estimates use approximate coordinates.                                      | Must Have   |
| 12                                | Comply with General Data Protection Regulation (GDPR) and Airbnb's trust & safety policies. | Must Have   |

## FAQs

### **Q: How will Airia be introduced to users?**

A: Airia will pop up as a chat-based assistant on the home page and during onboarding, offering help with finding the right location and property match based on the user's input.

### **Q: Who prompts first? Airia or the user?**

A: Airia can initiate the conversation when it detects indecision, prolonged browsing, or when users type open-ended queries like "I want to stay near...". Users can also trigger Airia directly.

### **Q: Will users see exact addresses?**

A: No. Users will only see estimated distances or walk times.

### **Q: Can Airia rank listings or provide comparisons based on personal factors provided by the user?**

A: Yes. Airia uses user-stated preferences like safety, proximity, amenities, and budget to rank and recommend tailored listings.

**Q: Can users search by business name or location type?**

A: Yes. Airia will use NLP to interpret POIs like “Starbucks” or “WeWork in Midtown Chicago”.

**Q: Can users upload inspo images or describe a place using “vibes”?**

A: This feature is under consideration. Future iterations may allow users to upload reference images or describe aesthetics (e.g. "boho, minimal, cozy") that Airia translates into listing suggestions.

**Q: How is host security protected?**

A: Locations are clustered and masked; no precise coordinates are shared.

**Q: Does this replace the Airbnb map view?**

A: No. This feature enhances conversational flow and complements the existing experience.

**Q: What happens after Airia recommends listings to the user?**

A: Airia will present a curated shortlist with context (distance, safety, reviews), and users can either book directly or ask follow-up questions to refine the search further.

**Q: Would Airia learn user preferences to offer personalized recommendations in the future?**

A: Yes. With user consent, Airia will remember preferences across sessions and use them to make smarter suggestions over time.

**Q: Can the users complete a booking through Airia’s chat interface?**

A: Yes. Airia will guide users through the final steps of booking directly within the chat interface, streamlining the entire experience.

**Q: How will Airia improve/increase listing discoverability?**

A: Airia helps surface relevant listings by understanding user-stated needs and dynamically filtering results based on POI proximity and contextual relevance.

**Q: How does Airia drive revenue for Airbnb?**

A: By improving search accuracy and booking confidence. Airia reduces drop-offs, shortens decision time, and increases conversion rates contributing to Airbnb’s revenue growth.

## Success Metrics - OKRs

P0 = Highest priority metric(s), P1 = Leading support metric(s)

| # | Outcome                        | Measure                                                                                                                                                                                                           | Priority  | Target     |
|---|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|
| 1 | Increase in listings discovery | Amount of new listing explored and booked within 10 - 15 days of getting added on Airbnb<br><br>Number of (new) listings booked through Airia.                                                                    | <b>P1</b> | <b>15%</b> |
| 2 | Improve proximity clarity      | The amount of time it takes users to discover and book through Airia compared to without Airia.                                                                                                                   | <b>P0</b> | <b>79%</b> |
| 3 | Increase in booking rates      | How often users book a place after discovering it through Airia's interface as a recommendation.<br><br>No. of users booking through Airia.<br><br>Total amount of revenue generated through bookings from Airia. | <b>P1</b> | <b>20%</b> |
| 4 | Increase in Airia Adoption     | How many users use Airia to search as part of their search experience<br><br>How may interact with Airia's chat interface                                                                                         | <b>P0</b> | <b>30%</b> |
| 5 | User satisfaction with Airia   | Measure satisfaction with Airia using in-app surveys and getting user feedback                                                                                                                                    | <b>P0</b> | <b>25%</b> |

## Milestones and Timelines

| Milestone                                     | Target Date | Exit Criteria |
|-----------------------------------------------|-------------|---------------|
| Finalize Airia POI feature scope              | Week 1      |               |
| Design conversational map flow                | Week 2-3    |               |
| Develop POI detection and distance logic      | Week 4-6    |               |
| Integrate map card and privacy-safe distances | Week 7-8    |               |
| Internal testing and stakeholder review       | Week 9      |               |
| Soft launch to business traveler segment      | Week 10     |               |
| Full rollout                                  | Week 12     |               |