

Literature Review

One of the innovative algorithms in our project is the recommender algorithm for travelers, which aims to provide personalized recommendations to tourists.

The algorithm is based on three main methods:

Collaborative Filtering (CF), which provides recommendations based on similarity between users or items.

Content-Based Filtering (CB), which uses the characteristics of attractions and personal preferences.

Demographic Filtering (DF), which focuses on characteristics such as age and location.

The combination of these methods allows leveraging the advantages of each and solving recommendation challenges, particularly for new users without previous history in the system [1].

Additionally, the implementation of advanced big data and artificial intelligence (AI) techniques enhances the tourism industry by personalizing recommendations and improving user satisfaction.

The system is based on real-time analysis of parameters such as location, budget, interests, user feedback, and additional external factors like weather and nearby events.

The system's outputs include accurate personalization, enriching the user experience with focused recommendations and tools for quick and intelligent decision-making.

In conclusion, the combination of the algorithm with big data technologies creates more personalized and high-quality experiences, focusing on the changing needs of users and improving the quality of products and services [2].

[1] Kbaier, M. E. B. H., Masri, H., & Krichen, S. (2017, October). A personalized hybrid tourism recommender system. In 2017 IEEE/ACS 14th International Conference on Computer Systems and Applications (AICCSA) (pp. 244-250). Ieee.

[2] Hu, H., & Li, C. (2023). Smart tourism products and services design based on user experience under the background of big data. *Soft Computing*, 27(17), 12711-12724.

Competitor Analysis

1. GAFFL (Get a friend for life)

Is an app that serves as a social network to connect travelers planning to visit the same destinations around the world.

The app allows users to select hobbies and travel preferences, create new trips with a destination, flexible dates, and write a brief description of the trip plan, including an option to use an AI button for automatic writing.

Additionally, it enables connections with other travelers based on shared location or interests and includes a chat feature for messaging between users.

However, unlike our app, GAFFL does not display real-time user locations, and it lacks the ability to share live reports from the field, such as crowds or route changes. Moreover, it does not have a weather forecast interface, so it cannot alert users to changing conditions or adjust the route accordingly.

2. Google Maps

Is an app by Google that provides navigation, location exploration, and transportation in a digital and convenient way.

It is considered one of the most popular platforms in the world for navigation and maps.

It offers real-time routes for cars, walking, biking, and public transportation, including alerts about traffic delays, obstacles, and roadwork.

Additionally, users can search for places such as restaurants, gas stations, and shops, view reviews, plan future routes, and share locations with others.

Our app, compared to Google Maps, offers a much more community, personalized, and tourism-focused experience in Israel.

While Google Maps provides general and global information, our app focuses on promoting local tourism with live updates, personalized adjustments, and community sharing among travelers.

Additionally, while Google Maps shows weather in certain areas, our app provides a direct weather interface that integrates with hiking routes and attractions, offering accurate recommendations based on weather conditions, significantly enhancing the travel experience.

3. Travello

Is an app where users can upload posts that include pictures, descriptions, and locations to share their travel experiences.

Users can join community groups based on the country they plan to visit – these groups function as group chats for all members who join.

Users can view the profiles of other app users who are near their location and discover the areas they have traveled to.

Another feature of the app is the option to purchase attractions.

Our app is unique in its combination of dynamic and static features, allowing users not only to share their experiences but also to receive real-time updates about routes, real-time user locations, and content tailored to the weather conditions in the area.

While Travello focuses on sharing experiences through photos and posts, our uniqueness lies in the ability to connect travelers in real time – sharing experiences, reporting on crowd levels and trail conditions, weather alerts, and the option to see and connect with other travelers nearby interactively.

4. AllTrails

Is a popular platform for hiking, running, and biking lovers, focusing on recommending nature trails worldwide.

The app displays trails with user ratings, length, difficulty, and terrain conditions, and allows users to search for trails by geographic location, download maps for offline use, and share experiences with the community.

However, most features in the app are paid, such as advanced tracking of the trail, finding users hiking in the same area, and detailed maps, while free usage is limited to trail navigation and marking favorite trails.

Our app, in contrast to AllTrails, offers a local, personalized, and tourism-focused user experience for Israel, with full access to all features at no cost.

In addition to trail recommendations, it integrates a direct interface with the weather, which impacts real-time trail conditions and recommended attractions.

The app also provides access to information on accommodations and restaurants, allowing travelers to plan their trips optimally according to terrain conditions and their needs, while sharing experiences with the local community.

<div>Application</div> <div>Feature</div>	Google Maps	GAFFL	Travello	AllTrails
Functional	Navigation, route planning, and traffic updates	Social connections, trip creation, and chat	Photo sharing, group chats, and profile connections	Trail mapping, route planning, and reviews
Price	Free	Freemium	Freemium	Freemium
User-friendly - UI	Highly intuitive	Clean and easy	Complex and not user-friendly	Limited for free users due to many premium-only features
Platforms	Android, iOS, Web	Android, iOS, Web	Android, iOS	Android, iOS, Web
Automatic backups	Yes	Yes	Yes	Yes (Pro feature)
Specification	Global navigation, real-time traffic, and location search	Trip planning with AI-powered descriptions	Community interaction and travel posts	Focus on trail routes, reviews, and GPS tracking
Database	Global location and traffic database	User-generated content	User-generated content	User-generated content and extensive trail database