

Figure 1: Vaycanner interface

Improving Google Flights: Vaycanner

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Problem


With the popularity of Google being the first place many go to when looking to plan a trip, Google created [Google Flights](#) in 2011 to help airline companies and travel agencies share their flight information with potential travelers. These potential travelers were specifically ones who use the internet to help guide them while planning a trip.


While Google Flights is a popular website for travelers, there are issues in the system. This led to the birth of Vaycanner. Vaycanner is a travel comparison website that aims to be accessible to those with colorblindness and the elderly. Vaycanner also includes popular features from multiple other flight comparison websites combined into this one platform.


≡ vaycanner


\$ Currency 🌐 Language Sign in

Flights










Where From?


↔

Where To?

Depart

Return

 Wed, May 12

 Thurs, May 13

☒ Round Trip ☐ One-Way

≡ Filters

▼

Functionality

Now that we know the problems that Vaycanner has improved from Google Flights in terms of making the experience accessible and convenient for the user. We would like to know how Vaycanner has improved from Google Flights, by starting with the first page which is now the input and results page. With Vaycanner functionality in the system. Enables the system to address stakeholders problems who are the user, more specifically travelers who range in all age groups.

Vaycanner uses [ITA Software Matrix 3.0](#) which was established by Google for this purpose. The program that is used is to showcase the newest enhancements to Vaycanner technology, it showcases cost per mile, geo search (city, airport, and other systems relating to the search engine), lowest fares and comparison flights. It enables a stress free and simple planning for users intending to travel or want to travel.

The screenshot shows the top section of the Vaycanner website. At the top, there is a navigation bar with the Vaycanner logo, a currency selector (\$), a language selector (Language), and a sign-in link (Sign in). Below this is a large white box titled "Flights". Inside this box, there are four icons representing different travel options: a plane (selected), a car, a hotel, and a package. Below the icons are two input fields for "Where From?" and "Where To?". To the right of these fields are two date pickers for "Depart" (Wed, May 12) and "Return" (Thurs, May 13). Below the date pickers are two checkboxes for "Round Trip" (checked) and "One-Way". To the right of these checkboxes is a "Filters" button with a dropdown arrow.

This screenshot shows the same Vaycanner Flights search interface as the previous one, but with an additional section below the search form. The search form is identical, with the "Flights" title, icons, input fields, date pickers, and checkboxes. Below the search form is a new section titled "Best Flight Options" with an information icon (i) to its right. The rest of the page content is not visible in this screenshot.

Figure 2: Vaycanner interface + results page

- ❑ The **front interface** (figure 1) this is will be the the input of location and destination of flight, dates for your flight (going and back), the option of roundtrip, one-way and, # of people. And the type of flight ticket: Economy, first class, etc.. In order to better filter your selected flight, to be accessible.
- ❑ **Flight tracker**, which gives you the ability to get an email notification for low fares for that specific city and airline. Vaycanner kept this feature from Google Flights for reducing the stress of trying to find the fare that fits in the user's budget.

The screenshot shows the Vaycanner website's flight search interface. At the top, there's a navigation bar with the Vaycanner logo, a currency selector (\$), a language selector (Language), and a sign-in link. Below this is a large white box titled "Flights". Inside this box, there are four icons representing different travel options: a plane (selected), a car, a hotel, and a star. Below the icons are input fields for "Where From?" and "Where To?". To the right of these are fields for "Depart" (Wed, May 12) and "Return" (Thurs, May 13). Below the "Where From?" field, there are checkboxes for "Round Trip" (checked) and "One-Way". To the right of these is a "Filters" button with a dropdown arrow.

- ❑ **One page input and output** (figure 2). Google Flights had two pages for input and the output. But Vaycanner kept all of the input and output onto one page in order to reduce the reduction of getting transferred from one page to another. And moving back to the results page in order to make a quick change to the flight information.

Google Flights system was a non-profit organization, which didn't allow users to purchase flights. Vaycanner allows users to purchase flight tickets off the website, making it a for-profit organization fixing the problem of having to be transferred to a separate information system to purchase the flight ticket. The users are able to get both flight information and flight tickets right on Vaycanner.

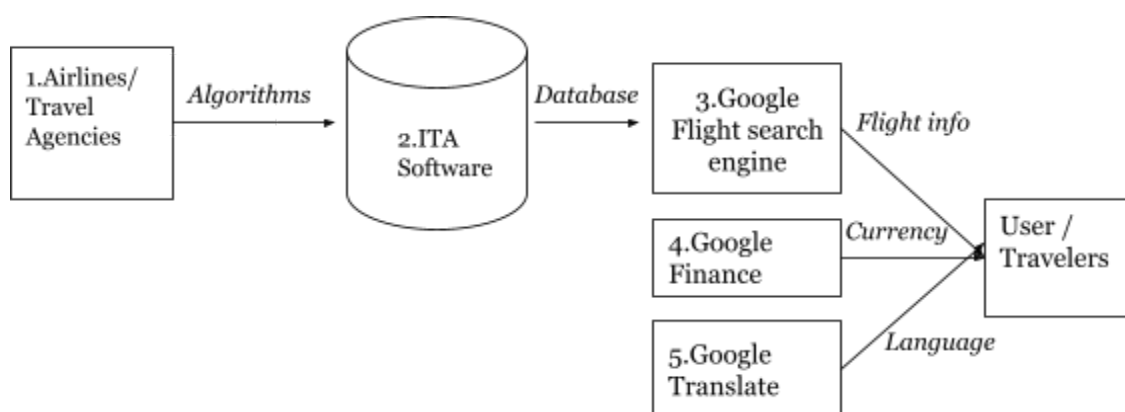


Figure 5. The flow of data from airlines or travel agencies to travelers.

The screenshot shows the Vaycanner website interface. At the top, there is a navigation bar with the Vaycanner logo, a currency selector (\$), a language selector (Language), and a sign-in link (Sign in). The main content area is titled "Flights" and features four icons representing different travel options: a plane (Flights), a car (Car Rental), a bed (Hotels), and a suitcase (Vacation Packages). Below these icons are search input fields. The "Where From?" field is on the left, followed by a double-headed arrow, and the "Where To?" field is on the right. To the right of these fields are date selectors for "Depart" (Wed, May 12) and "Return" (Thurs, May 13). Below the "Where From?" field, there are checkboxes for "Round Trip" (checked) and "One-Way". To the right of these checkboxes is a "Filters" button with a dropdown arrow.

Architecture

Figure 5 demonstrates the architecture of the Vaycanner information system. The architecture includes the key stakeholders:

- ❑ **Travelers**, who get information from Vaycanner to plan their next destination.
- ❑ **1. Airlines** who use Vaycanner, collaborate to get users the best fares. Airlines get the information to the ITA Software through an algorithm.
 - ❑ **Algorithm** is the foundation of Vaycanner, it's the connotation between the airline's information and the ITA software. To provide the user with the flight information, algorithms are needed to transfer the information to the flight, and then to the user.

The two front end websites are backed by databases and algorithms:

- ❑ **2. ITA software compiles** the flight information from the partnered airlines and features it on Vaycanner. Vaycanner is basically an encyclopedia for travelers.
 - ❑ It stores all of the information provided and structures it into the Vaycanner website. With easy access to the flight information and details.
- ❑ **IP Address**, which is not shown in diagram but the ITA software uses user location to automatically insert into current location, to reduce typing. IP address is embedded with creating the Vaycanner website, it's an option that can be changed in users' browsers.

- ❑ **5. Language option** allows users to change the language of the website, to fit their preferences. The language is functioned by the Google Translate information system, in order to be accessible for all users.
- ❑ **4. Currency option** allows users to see the price of flights based on their preferred country. The currency option is functioned by the Google Finance information system, in order to be more accessible for the user, giving them a stress free planning process.

After the ITA software collected all of the information from the airlines, the data will be compiles to establish the front end of the website:

- ❑ **3. The Vaycanner search page**, which is compiled by ITA software through a database. This feature allows the user to change flight hours, days and other preferences based on travelers' opinions.

A couple of important features to keep in mind with the architecture of Vaycanner:

- ❑ Vaycanner uses many features to provide conveniences to the user, to make its stress-free websites to plan a trip. A couple of these features are the **accordion** which is a screenshot of the best flights based on the user search results, this is a way to reduce strolling through the many flights provided by the ITA software system.
- ❑ Compared to other flight websites, Vaycanner is different in making it convenient and easy to use when planning a stressful trip at the last moment to a place. The architecture of the site is strictly for that purpose.

The image shows the top section of the Vaycanner website. At the top left is the Vaycanner logo. To the right are links for Currency, Language, and Sign in. Below this is a white search box with the title "Flights". Inside the box, there are four icons: an airplane, a car, a hotel, and a star. Below the icons are two input fields for "Where From?" and "Where To?". To the right of these are two date pickers for "Depart" (Wed, May 12) and "Return" (Thurs, May 13). Below the input fields are two checkboxes: "Round Trip" (checked) and "One-Way". To the right of these is a "Filters" button with a dropdown arrow.

Policies

A policy that applies to Vaycanner as a whole is the [California Consumer Act \(CCPA\)](#). This states that California consumers have the right to know about what information is being collected and how the company is using it. Users also have the right to delete personal information, not have data being collected, and not be discriminated against for using their rights (*California*) This affects the way that the application functions because if a person chooses to not share certain information the results may be affected.

The Department of Transportation (DOT) requires that airlines always display the entire amount a customer will pay for a ticket. This includes all additional taxes and fees (. This is a rule that Vaycanner has to follow as well as the partners of Google who's information the ITA uses. Vaycanner is responsible for excluding any optional services but has added a filter for users to opt in for certain services. These services could be things like Wi-Fi, luggage fees, etc. This affects the price the user will ultimately pay as well as the information the ITA receives and what results the search function will display.

The [Federal Trade Commission Act](#) (FTC) protects consumers from misleading disclaimers that are advertised on for-profit companies. The law profits any false information and all information must tell the truth, and should be substantiated. The information must be clear to the consumers, the web designers as well as the advertising agencies are in charge of reviewing the information before making it public to the consumers. This will affect how Vaycanner includes advertisements.

The screenshot shows the Vaycanner website's flight search interface. At the top, there's a navigation bar with the Vaycanner logo, a currency selector (\$), a language selector (Language), and a sign-in link. Below this is a large white box with the title 'Flights'. Inside this box, there are four icons: an airplane, a car, a bed, and a star. Below the icons are four input fields: 'Where From?' with a location pin icon, 'Where To?' with a location pin icon, 'Depart' with a calendar icon and the date 'Wed, May 12', and 'Return' with a calendar icon and the date 'Thurs, May 13'. There are also two checkboxes: 'Round Trip' (checked) and 'One-Way' (unchecked). At the bottom right of the search form is a 'Filters' dropdown menu.

Benefits

Vaycanner has many benefits when it comes to searching for flights. Some of the key benefits includes:

- ❑ **Compared to other travel websites searching for the best flights in terms of easy to find information to hard to find information.**

Vaycanner stands right next to **easy** to find information. For travelers and users who are busy, but want to find the best affordable flight with information. In the ability of the user, who already knows what day, time and airline they want to fly, the system has the ability to do it fast and simple.

- ❑ **Vaycanner combats Google's monopolization.** Many people have been concerned about the power we give Google by using their many products. Google has had the tendency to buy companies which decreases the competition in the market, they even were at a point where they bought a company weekly (Lynn, Barry & Stoller, Matt). Vaycanner brings competition to the market and gives Google less power.

- ❑ **Vaycanner has no pop ups** or overwhelming amount of words on the interface, which allows users to have a relaxing experience searching for their flight and planning their travels. Vaycanner provides more information in a simple format and structure, aiming towards a variety of users and travelers. This is especially important to keep the interface clean and accessible.

- ❑ **Price Information is as close to final as it can be.** Due to the policy in place that states that optional flight features like carry-on, wi-fi, etc., are

≡ vaycanner \$ Currency 🌐 Language Sign in

Flights

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Depart

Return

☒ Round Trip ☐ One-Way

automatically opted out, the search option is giving people the price without the options they may want. Vaycanner combats this by allowing users to consent to opting-in to certain features. For example, if someone wants to see the price it would be with carry-on, they choose it on the filter and are shown the price including the carry-on fee.

- ❑ **Great for trip planning as a whole.** There are competitive websites that include many more features than google. These websites will include bundles that include their flight, hotel, and even activities or airport shuttles. This makes it difficult for the user to plan their trip quickly.

These benefits derive from a couple of things: Google’s ability to engineer fast, simple structure of websites. And Google’s ability to achieve more in terms of reaching out to a variety of audiences through their reputation and benefits that are listed.

Harms

Although Vaycanner has benefits, it also has its downsides.

- ❑ **Vaycanner is a for-profit organization.** Airlines need to pay for references or to be featured on Vaycanner’s airline list. They do this to gain more information for the large wide audience they are attracting.
- ❑ **All Flight information isn’t shown.** There are many travel agencies and airlines that we can obtain flight information from, yet google only has 300 partners. This can be a downside because not all companies are being taken into account. For example, if someone wants to go on vacation they want to see all

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possibilities for flights in one area. There could be a company Google is not partnered with who has a cheaper rate which the traveler will not be able to see.

- ❑ **Vaycanner is a new website which can cause distrust.** Because Vaycanner would be so new to the market, there may be hesitance for the public. A user may see other travel websites that have been around longer and choose those over Vaycanner. This is harmful to the company and the trust that the consumers have to feel the need to gain.
- ❑ **The ITA software is powered by Google.** If a user is wanting to focus on the problem of fighting Google's monopolization, they are still using a software owned by Google. This can be harmful because of the power that Google has. There are also rumors that Google wants to make the ITA software strictly for Google Flights.
- ❑ **Less need for travel agencies.** This is a harm because travel agents will be losing their jobs. If more people are turning to the internet to plan their trips, there will be a lower demand for the job. This can lead to less job opportunities for travel agents.

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vaycanner

\$ Currency

🌐 Language

Sign in

Flights

✈️

🚗

🛏️

🏠

📍 Where From?

↔️

📍 Where To?

Depart

Return

📅 Wed, May 12

📅 Thurs, May 13

☒ Round Trip
 ☐ One-Way

☰ Filters

▼

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