



Appendix

Onderdeel van de studie 'Online beïnvloeden van het reisgedrag'

Losse bijlage

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Januari 2023

Kennisinstituut voor Mobiliteitsbeleid | KiM

Appendix

Het Kennisinstituut voor Mobiliteitsbeleid (KiM) maakt analyses van mobiliteit die doorwerken in het beleid. Als zelfstandig instituut binnen het ministerie van Infrastructuur en Waterstaat (IenW) maakt het KiM strategische verkenningen en beleidsanalyses.

De inhoud van de publicaties van het KiM behoeft niet het standpunt van de minister en de staatssecretaris van IenW weer te geven.

Dit document betreft een bijlage bij de studie naar het online beïnvloeden van het reisgedrag. De samenvatting van deze studie is te vinden in de brochure 'Online beïnvloeden van het reisgedrag', daarnaast is het achtergrondrapport te downloaden vanaf de [website](#) van het KiM.

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Introduction

In this appendix we provide details about the analysis of the 32 apps, as introduced in chapter 2 of the main report. The apps are listed in the table of content, table 2.1 in main report and displayed below.

For each app we report on five aspects. Aspect 1 is the general information of the apps, including app versions, downloads and rating score and date of the analysis. Aspect 2 deals with an general insight of each app based on the functionalities, visual appearance and the information it carries. We classify the app information into three levels based on the information accessibility for the users, see the definition below. Aspect 3 is about the persuasive techniques that each app uses, based on our checklist, as presented in chapter 2 (table 2.2 in main report) and the three accessibility levels. Further, our interpretation of the goal of each app is summarized based on the features of the app and techniques that are used in each app. We don't know to what extent the developer implemented the techniques on purpose. We simple present snapshot with possible goals of the apps. Last, aspect 4 and 5 are data about the permissions that apps required and the third-party tracking activities in the app (see also Chapter 2 in main report).

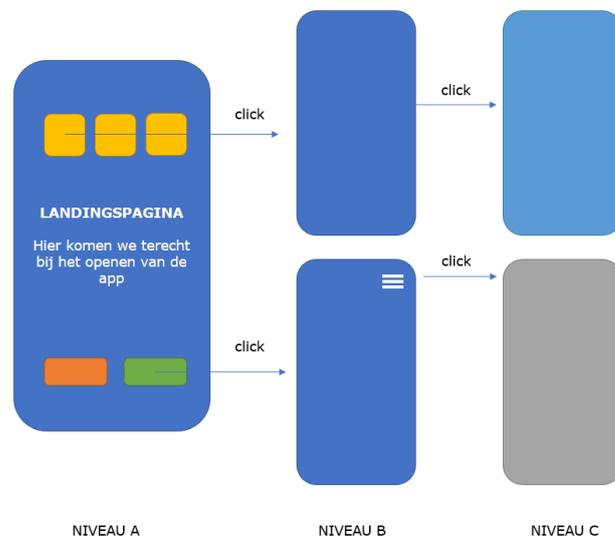


Some information is easier to be seen in a app/website than other information. For example, information in the homepage can be more directly reached by users than the information that users have to click/scroll. We assume that the easier reached information impact users more than indirect information. Therefore, we classify information into three levels based on the accessibility.

- Level A: information in the homepage.
- Level B: information need one to two click to reach.

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- Level C: information need more than three times clicks to reach.



Ommetje

- 500 thousand + downloads in google play. 4.2 rating (n=4,422)
- Version 4.0.2
- Analysis date: 16-05-2022

Features of this app

It tries to help users to make walking a fun and a daily habit. Users can walk alone or join teams with friends, family and colleagues. By walking, users can earn points, medals, and badges and get tips about brain facts.

At level A the homepage, the app starts and stops a walk with one click. Users can start to record an ommetje by hand with a click. By walking, users can start to earn XP points, and the Ommetje levels can level up every 2 weeks. This creates competition. Users can also earn various medals if they accomplish certain Ommetje challenges. Both XP point and medals are only virtual and do not represent any monetary value. The app does not provide routes or a planner.

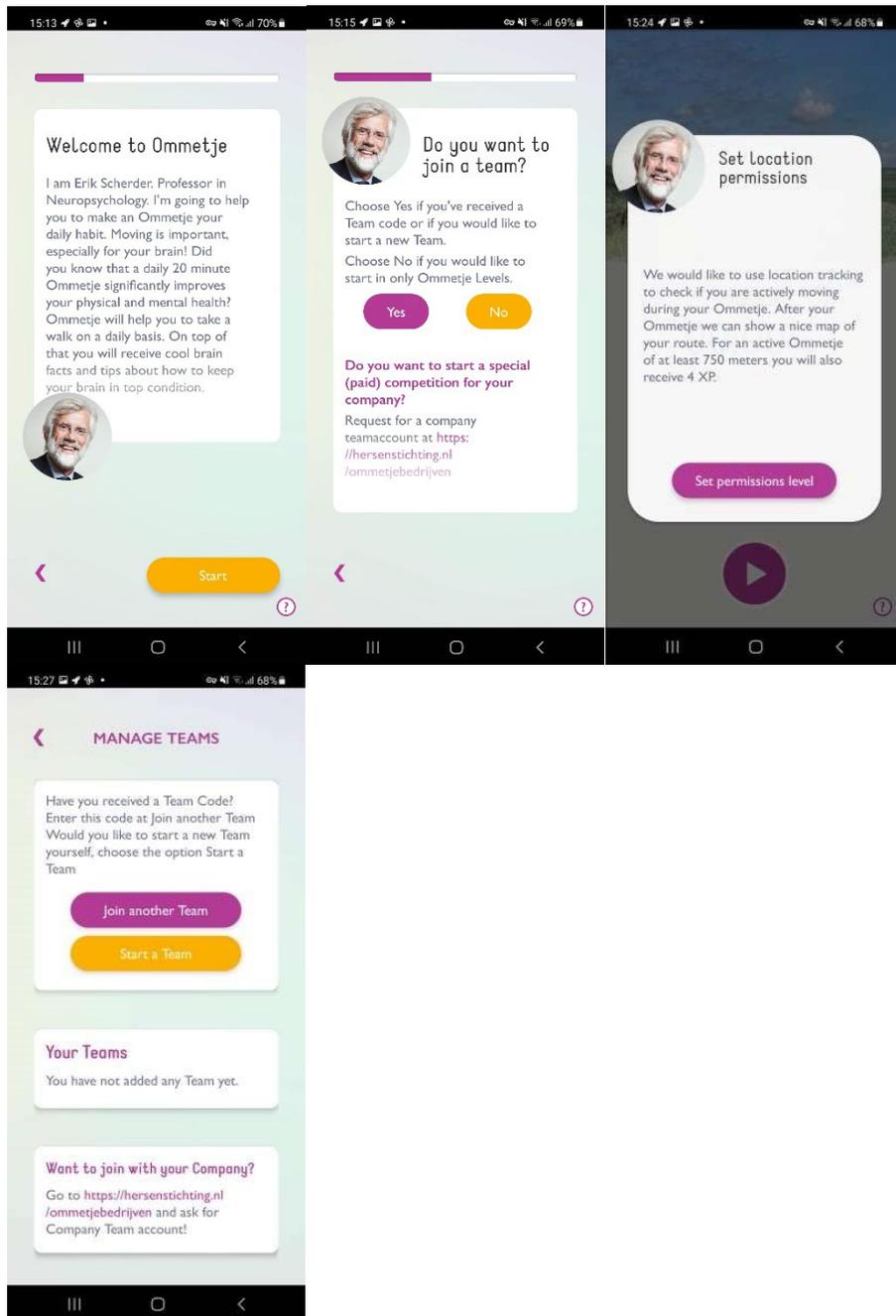
At level B, users can set up their own team to compete with others. And to view their own statistics and accomplishments.

On multiple locations it is clear that the app is offered for free by an NGO – de hersenstichting. This branding might improve trust in the app as it is not a commercial party. Likewise, the familiarity of the NGO is improved which might boost donations.

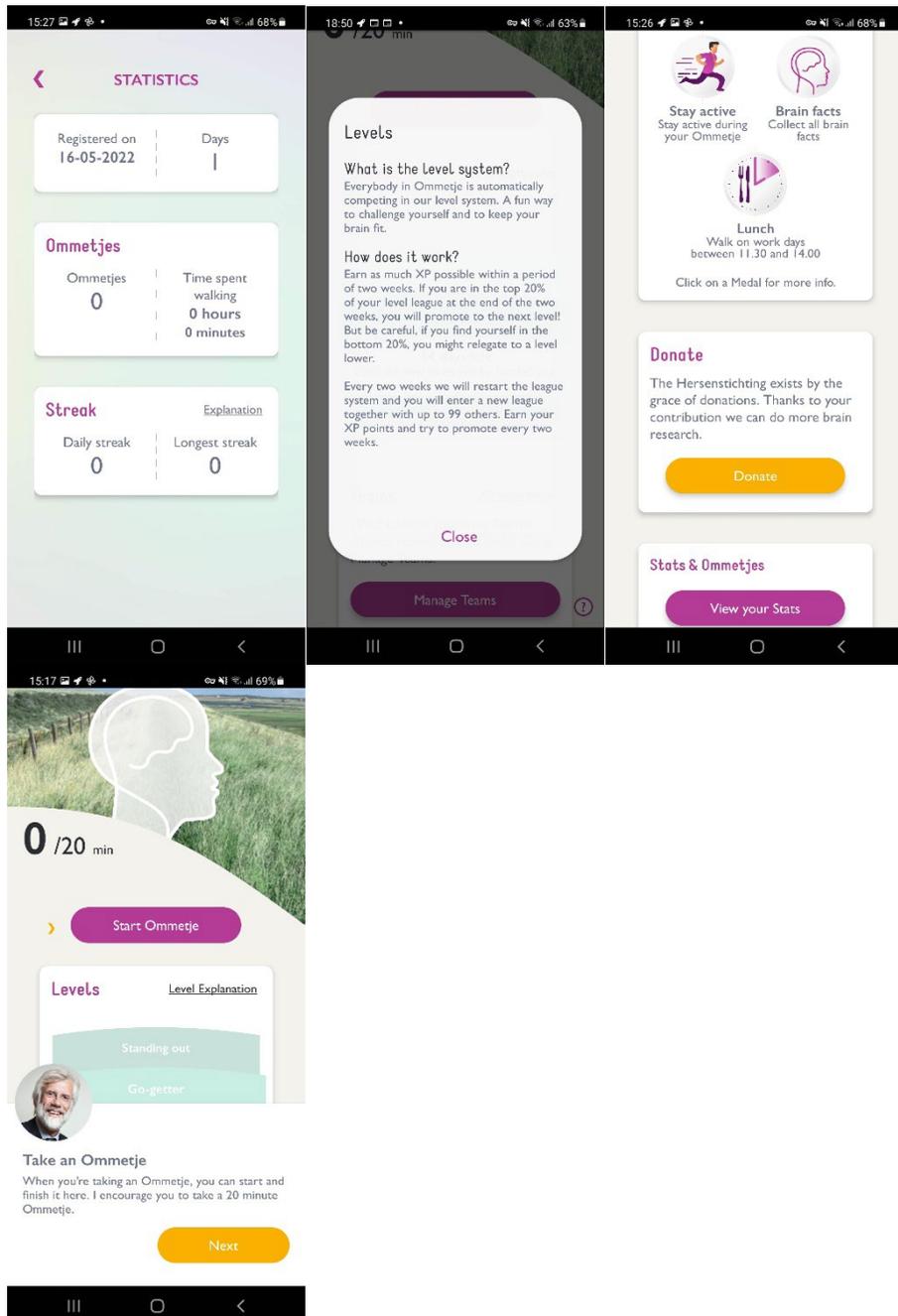
Persuasive techniques

- Tailoring: provide tailored guiding
 - Level A: Suggestion for the length of an Ommetje.
 - Level B: Tips and brain facts about how to keep the brain in the top condition.
- Feedback
 - Level B: Personal Ommetje statistics – self monitoring
- Celebrity branding and authority design
 - Level A: Erik Scherder, the famous neuropsychology professor.
 - Level A: Scientific information in the app
- Gamification
 - Level A: Earn points and show position on the leaderboard.
 - Level A: Unlock levels by keeping using the app.
 - Level A: Earn medals by accomplishing challenges
- Repeated push messages
 - Level B: A message pops up if the walk is shorter than 10 mins.
 - Level B: Tips and brain facts about how to keep the brain in the top condition often pop up.
- Default effect that is forced to comply
 - Level A: To use the app, users have to log in or make an account.
- Social influence
 - Level B: Team challenges, competition with colleagues.
 - Level B: Competition with users at the national level.
 - Level C: Users can share the campaign with friends.
- Emotional appeals
 - Level A: Healthy appeal, to emphasize that Ommetje is good for the brain and physical health.
 - Level C: Fear of relegation. Users that are in the bottom 20% of a league may get relegated to a level lower.

Appendix



Appendix



Goal

We think the app focuses to help people to develop brain health with the help of the authority design, which involves professor Erik Scherder. Gamification and social influence are used to encourage users to keep using the app.

Tracking

- Cloud Audit Logs
- Facebook Analytics
- Facebook Login
- Facebook Share
- Google CrashLytics

Appendix

- Google Firebase Analytics
- Google Play Install Referrer

Permissions

- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Receive data from the internet
- Estimated network-based location
- Reading Google Service Configuration
- View network connections
- Precise GPS and network based location
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

Strava

- 50 million + downloads in google play. 4.5 rating (n=754,703)
- Version: Varies with device
- Analysis date: 25-05-2022

Features of this app

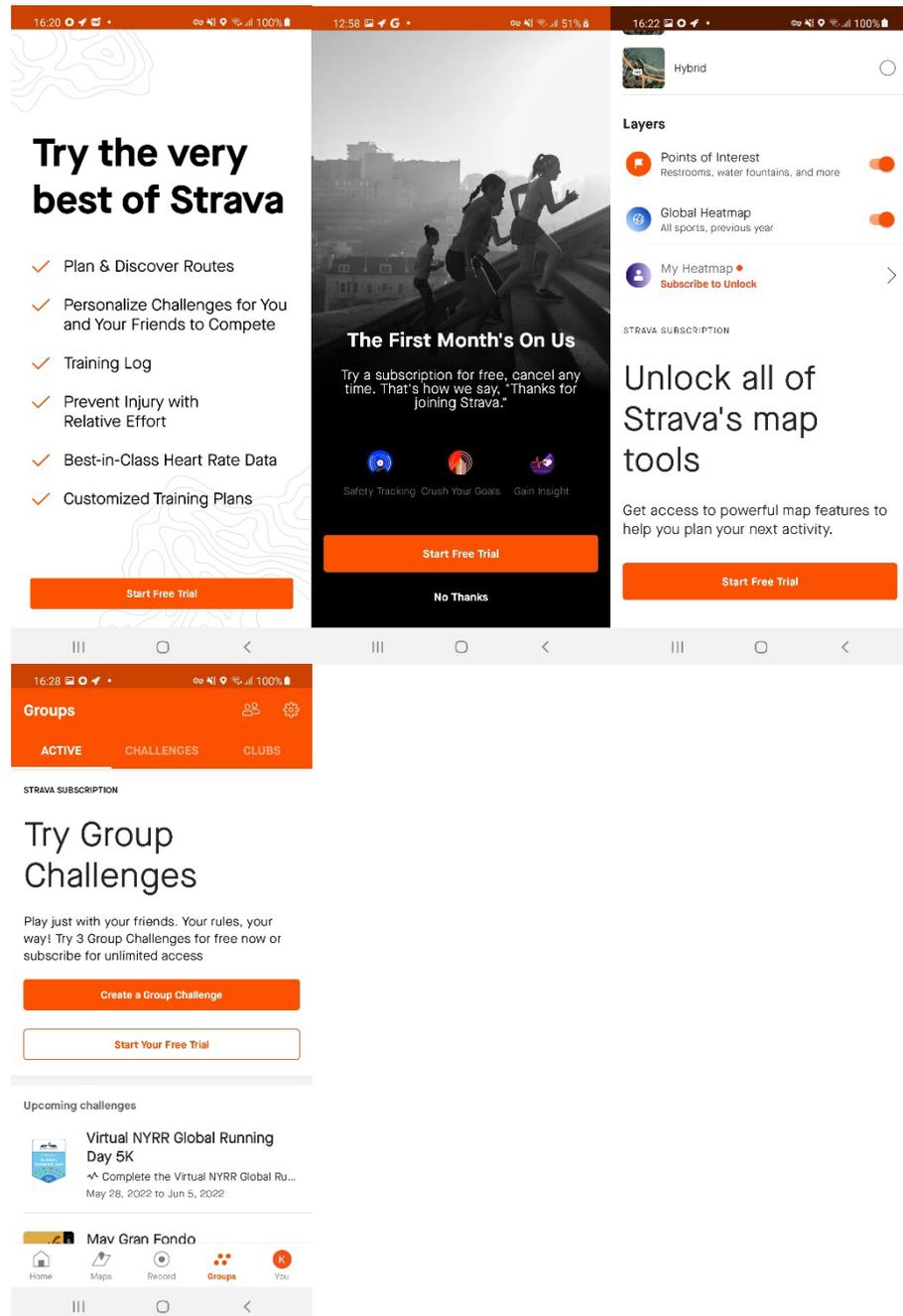
The Strava app tracks user's running and cycling with GPS, with a primary focus on active modes of transport. Users can join challenges, share photos from their activities, and follow friends. Strava can track the stats of each activity, and afterwards, dive deep into the activity data from users. The app also has a strong community focus. Users can discover places other users like to race or visit and leave comments on each other's activities. All kinds of groups form clubs on Strava to organize activities and build communities (friends, teams, brands, gear shops and more). Users can also share locations in real-time with others.

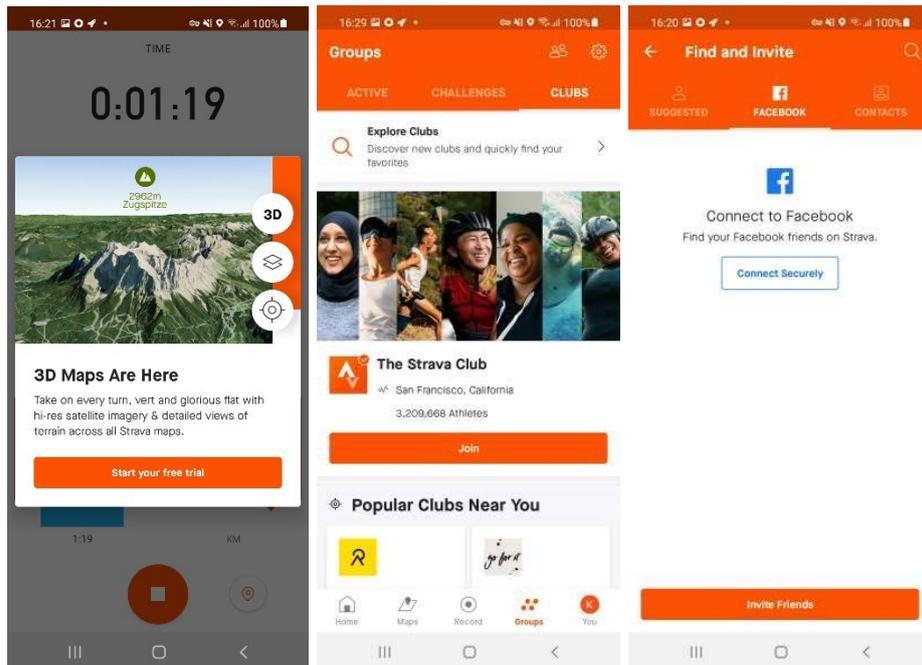
At level A the homepage, the app gathers some main functions on the home page. From where users can get started to record an activity, connect to a GPS watch, see activities from friends, or check clubs they have joined.

At level B, users can record activities or discover routes created by others or by Strava. Users can also visit the Strava communities, where users can join clubs, take on challenges, support each other.

Persuasive techniques

- Tailoring: provide tailored information/ Guiding/ Tunneling/ Suggestion
Level A: Local and worldwide tailored outdoor experiences from other users
Level A/B: Navigation and maps designed just for outdoor activities
Level A: It can connect with other apps.
- Free giving
Level A/B/C: Free trial for one month
- Repeated messages
Level A: The app pops up window with subscription information during using, that guides users to pay for premium functions.
- Default effect that is forced to comply
Level A: Users have to sign in with an email or Facebook account.
- Feedback
Level B: Activity statistics and saved tours
- Social influence
Level A/B/C: Follow other users, create tours that can be marked or saved by others, and comment function.
- Gamification
Level A/B/C: There are globe and club-level challenges everywhere.





Goal

Based on the techniques that the app uses and the features, we think the app aims to build a community based running and cycling platform. Users can discover places other users like to ride or visit. Everyone can share tours (called 'adventures') in the app. Note the app also has sponsored partners who can also share tours. It seems that sponsored partners have a priority with respect to the tours shown. The app tries to promote subscriptions everywhere in the app. The app guides users to log in with an email account or Facebook account. The app encourages users to share tours and contribute to the community by using social challenges and gamification.

Tracking

- Branch
- Bugsnag
- Facebook Analytics
- Facebook Login
- Facebook Share
- Google AdMob
- Google Play Install Referrer
- Mapbox
- Snowplow

Permissions

- Use accounts on the device
- Find accounts on the device
- Pick up active apps
- Open Bluetooth settings
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Receive data from the internet
- Estimated network-based location
- Reading Google Service Configuration
- Read your contacts
- Link with Bluetooth devices
- Body sensors such as heart rate monitors
- Change network connection

Appendix

- View network connections
- Precise GPS and network based location
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- Wearable sensors activity data
- View WiFi connections

Komoot: cycling & hiking maps

- 10 million + downloads in google play. 4.27 rating (n=238,637)
- Version 2022.10.4
- Analysis date: 18-03-2022

Features of this app

The Komoot app is a navigation and route planning app that enables users to create and follow routes based on sport type and ability. Komoot can tell the distance, elevation profile, road surface, fitness level required, difficulty and estimated time is needed to complete the route. The app has a strong community focus. Users can discover places other users like to ride or visit ('Highlights' in Komoot parlance) and integrate these into the ride or use routes other people have planned too.

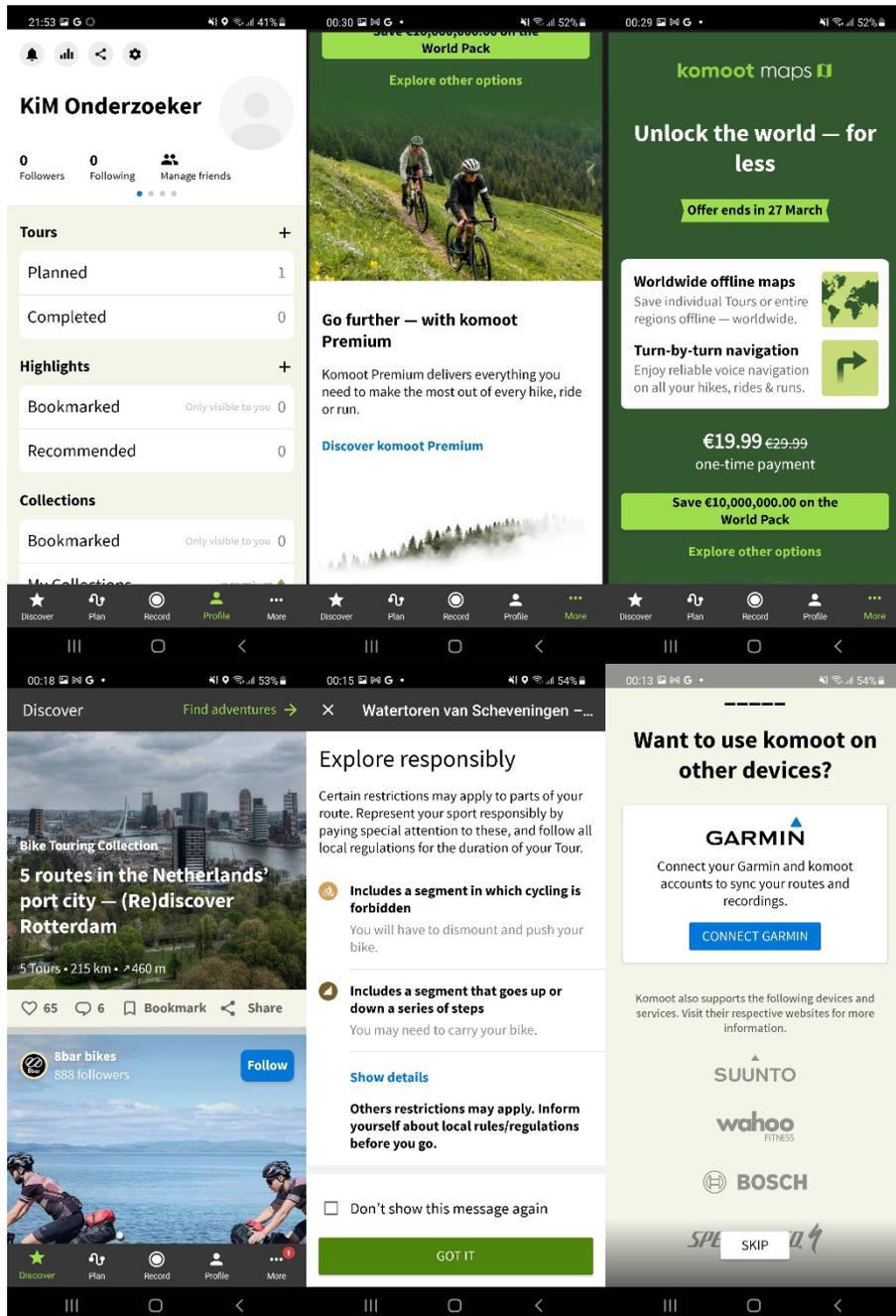
At level A the homepage, the app provides discovering routes functions. Users can directly find a route for certain activities (running, cycling, hiking, etc.) and choose a route created by others in the Komoot community.

At level B, users can check the details of others' routes (duration, photos, elevation, comments) and start navigation, or plan their own route in detail (stops, fitness level, route type, etc.). Users can also start recording a trip by Komoot, with in-app reporting route issues function and create highlights function. Users can share real-time location and other extra insights of the tours with a premium subscription. Moreover, users can check profile information at level B. Tour statistics and saved tours are shown here, also users can follow other people here.

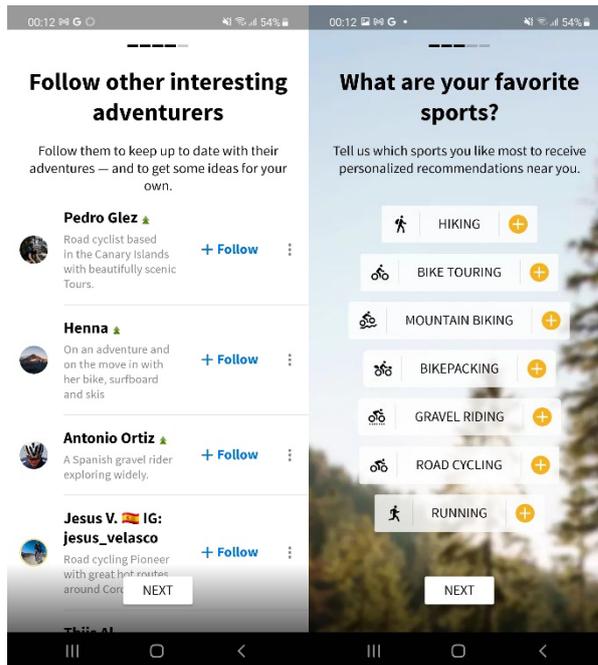
Level C is about detailed steps to set up tours or start tours.

Persuasive techniques

- Tailoring: provide tailored information/ Guiding/ Tunneling/ Suggestion
Level A: Local and worldwide tailored outdoor experiences from other users
Level A: Tour for specific chosen sport-type
Level A/B: Navigation and maps designed just for outdoor activities
Level A: Suggested adventures for users
Level A: Connect with other apps.
Level A: Tours by sponsored partners
- Discount and limited supply
Level A/B: Discount for unlocking the world map with limited time
- First choice effect
Level A: Sponsored partners tours are often shown in the first place
- Default effect that is forced to comply
Level A: Have to sign in with an email or Facebook account
Level A: Only one choice, to allow Komoot to access GPS
- Feedback
Level B: Profile statistics and saved tours
- Social influence
Level A/B/C: Follow other users, create tours that can be marked or saved by others, comment function. In this way, users can become a pioneer in Komoot community to gain influence and attention
- Gamification
Level A/B/C: Every time when users contribute to the community, they will collect and earn points. The more points they earn, the closer they get to becoming an Expert or Pioneer



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Goal

The app has a strong community focus. The app also has sponsored partners who can also share tours. It seems that sponsored partners have a priority. In detail, the app guides users to log in with an email account or Facebook account. The app focuses to create specific navigation and maps for outdoor different types of sports and tries to get profit from the maps. Only local map is free. Users have to pay to use non-local maps. The app encourages users to share tours and contribute to the community. It tries to tell users that the community is built up by real people with a passion for showcasing their favourite outdoor spots, and there is no paid editors, photographers or pro athletes.

Tracking

- Adjust
- Cloud Audit Logs
- Facebook Analytics
- Facebook Login
- Facebook Share
- Google AdMob
- Google Analytics
- Google CrashLytics
- Google Firebase Analytics
- Google Play Install Referrer
- Instabug
- Mapbox

Permissions

- Pick up active apps
- Record audio
- Open Bluetooth settings
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Receive data from the internet
- Estimated network-based location
- Change your audio settings

Appendix

- Read your contacts
- Link with Bluetooth devices
- View network connections
- Precise GPS and network based location
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

Enschede fietst

- 10 thousand + downloads in google play. 2.5 rating (n=131)
- Version 3.2.1
- Analysis date: 16-05-2022

Features of this app

It encourages local users to cycle for fun and to promote cycling in the region of Enschede. The app can automatically record travel patterns and detect travel modes, using Mobidot software. With the Enschede Fietst app users get points for every bicycle ride and more points can be earned if users join cycling challenges. Users can exchange these points for, for example, a cup of coffee or a discount at their favourite store.

At level A the homepage, the app shows the home page with historical trips, points that earn by cycling and joining cycling challenges, and the process of current challenges and the available cycling challenges.

At level B, users can check the detailed information of each challenge and check detailed trip statistics.

At level C, users can use the earned points to redeem gifts in online stores or get discounts in local stores.

Persuasive techniques

- Tailoring: provide tailored information
Level A: Cycling activity suggestions and cycling challenges
- Feedback
Level B: Trip histories, with summary statistics (per trip)
- Economic incentives
Level A: The earned points can be used to redeem gifts in online stores or get discounts in local stores.
- Default effect that is forced to comply
Level A: To use the app, users have to log in or make an account.
- Gamification
Level A: Earn points by cycling and joining cycling challenges. Explore new routes.
- Social influence
Level B: Team challenges, competition with colleagues or friends.

Appendix



Goal

Based on the features of this app and the techniques that it uses, we think the app aims to promote cycling and to make cycling a fun activity, by using self-monitoring and gamification techniques.

Tracking

- Facebook Analytics
- Facebook Login
- Facebook Share
- Google Firebase Analytics
- Google Play Install Referrer
- Splunk MINT

Permissions

- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Receive data from the internet
- Estimated network-based location
- View network connections
- Precise GPS and network based location
- Send sticky broadcast
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

Fietserbond Routeplanner

- 10 thousand + downloads in google play. 3.2 rating (n=147)
- Version 5.2.0
- Analysis date: 25-02-2022

Features of this app

The app aims to help to plan cycling routes and give suggestions on cycling tours. The app can be used to plan, but also to navigates during the trip. All main information can be reached at level A which is the homepage, no further level B or C information, except for the menu with settings. The planner and ride assistant are the main functionalities.

When planning a route from A to B cyclist have the option to select various route types, like shortest route, car-free, recreative cycle network route or nature route. The total distance results from the algorithm behind the route type. Tours, with same point of departure and arrival, also have the option to select route type. Moreover, an approximated total distance for the tour can be selected. Tours are clearly inspired by recreational cycling. By default an average cycling speed of 18 km per hour is assumed, although this can be changed.

Cyclist can adapt the app to their own profile and preferences. Profile includes options like average speed, a long of wide bicycle / tricycle. Point of interest, like stations, ferries or places to stay can be turned off or on. In addition also warnings with respect to barriers can be turned on or off.

The app is partly a community driven product, that the fietsersbond offers cycling routes. This community figure is hardly emphasised in the app itself. In contrast to other apps like Waze and Strava, in which local volunteers provide detailed information to form the routes and activities. Moreover, the app is financed by the NGO fietsersbond, with donations.

Persuasive techniques

Rarely any persuasive techniques. But the app have a mass suggestion

- Mass suggestion
Level A: suggested cycling routes



Goal

The app focuses on provide cycling routes and get people cycling, by providing detailed information and route preferences especially for cyclists.

Tracking

- Mapbox

Permissions

- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Receive data from the internet
- Estimated network-based location
- Reading Google Service Configuration
- Change your audio settings
- View network connections
- Precise GPS and network based location
- Adjust system settings
- Read telephone status and identity
- Manage vibration
- Full network access
- Prevent the device from switching to sleep mode
- Show about other apps
- View WiFi connections

Arriva app

- 100 thousand + downloads in google play. No rating information.
- Version 1.10.12
- Analysis date: 18-02-2022

Features of this app

Arriva app at level A the homepage, provides BTM departure and arrival service by using personal travel information. The train options for the trip are listed by departure time, not by transfer or travel time. Waiting time, duration of the trip and transfers are shown to support the BTM options.

If users are interested in a certain BTM trip, users can access the second level information. At level B, crowd expectation information, cost, transfer, access to Blablacar are provided.

At level C, the location of BTM station, details about Blablacar and more app other functions are provided.

Persuasive techniques

- Suggestion
 - Level B: Information about blablacar
 - Level B: Crowd expectation information
- Economic incentives, discount
 - Level A: Buy tickets with 10% off-peak discount rate
- Feedback and Self-monitoring
 - Level A: Trip history



Goal

We infer the app aims to provide travel information from all PT providers, not only just from Arriva, but also by using 9292. It also guides travellers with crowd expectation information. The app seems to also try to promote blablacar, but with limited visibility.

Tracking

Appendix

- AltBeacon
- Google AdMob
- Google CrashLytics
- Google Firebase Analytics
- Google Tag Manager

Permissions

- Read agenda, appointments and confidential information
- Add or change agenda appointments and send emails to guests without the owners' knowledge
- Open Bluetooth settings
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- Estimated network-based location
- Link with Bluetooth devices
- Arrange near field communication
- View network connections
- Precise GPS and network based location
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- Connecting and breaking WiFi
- View WiFi connections

HTM app

- 100 thousand + downloads in google play. No rating information.
- Version 4.7.0
- Analysis date: 18-02-2022

Features of this app

HTM app is a local public transport app for Den Haag. With the HTM app users can quickly see when the tram or bus leaves, which route they can take, what time they arrive and whether there are detours or disruptions.

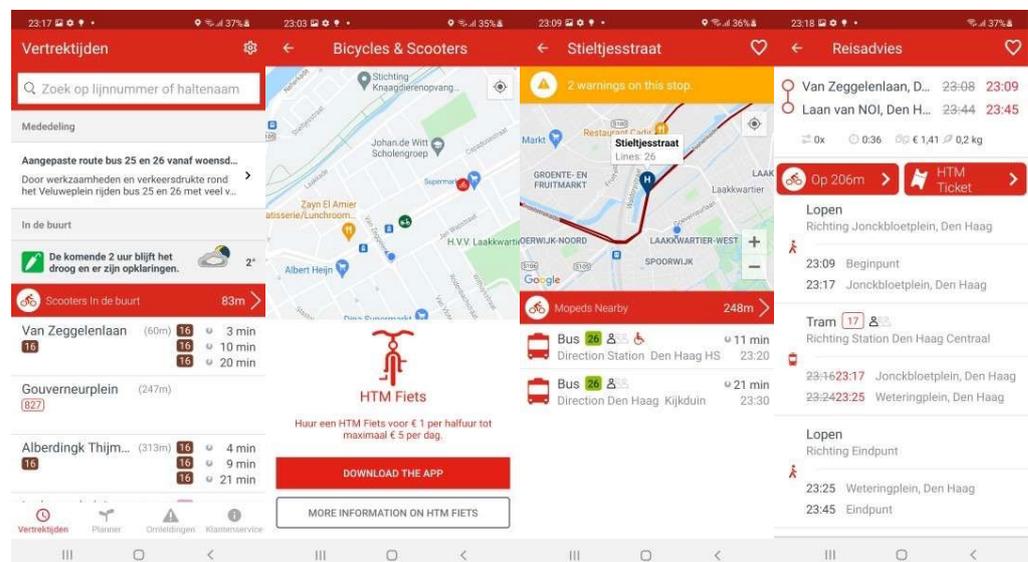
At level A the homepage, it provides tram and bus schedules in the nearby station, with weather and disturbance information. Another important information is the shared bike in the nearby area. The trip planner in HTM app is not shown on the home page. It belongs to the first level and is easy to access. The BTM options for the trip are chronologically listed by departure time. The trip crowd expectation, transfer, ticket price are listed together with departure time. The price is listed at level A the homepage instead of the second level. It can be explained that different lines and transfers may cause relatively big price differences.

At level B, tram and bus crowd expectation information is provided.

At level C, detailed trip plans and trip CO₂ emissions are provided.

Persuasive techniques

- Tailoring: provide tailored information, guiding and suggestion
 - Level A: Provide tram and bus schedule in nearby stations
 - Level A: Provide nearby HTM fiets, baqme, felyx information
 - Level B: BTM crowd expectation information
 - Level B: Travel information with map
 - Level A: Weather
- Repeated push messages
 - Level A: Disturbance information
- Emotions
 - Level C: Leave shape icon to show CO₂ emission



Goal

Based on the techniques and features of the app, we conclude that the main focus of the app is to provide tram and bus schedules in nearby stations, and also to promote bike and scooter use. Routes adjustment, disruption and weather are the focused points. The app also helps users to make trip plans, with all BTM information from all providers, but with detailed local transports information. Local tram and bus crowd expectation information is the minor focused point. The app also tries to promote sustainable travel behaviour and door to door trips, but with limited visibility.

Tracking

- Google AdMob
- Google Analytics
- Google CrashLytics
- Google Firebase Analytics
- Google Tag Manager

Permissions

- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Receive data from the internet
- Estimated network-based location
- View network connections
- Precise GPS and network based location
- Manage vibration
- Full network access
- Prevent the device from switching to sleep mode

9292 reisinformatie

- 5 million + downloads in google play. 4.08 rating (n=23,260)
- Version 2.10.0
- Analysis date: 08-03-2022

Features of this app

9292 reisinformatie collects, processes and provides travel information for public transport in the Netherlands. At level A the homepage, the app provides a trip planner and the schedules of saved trips.

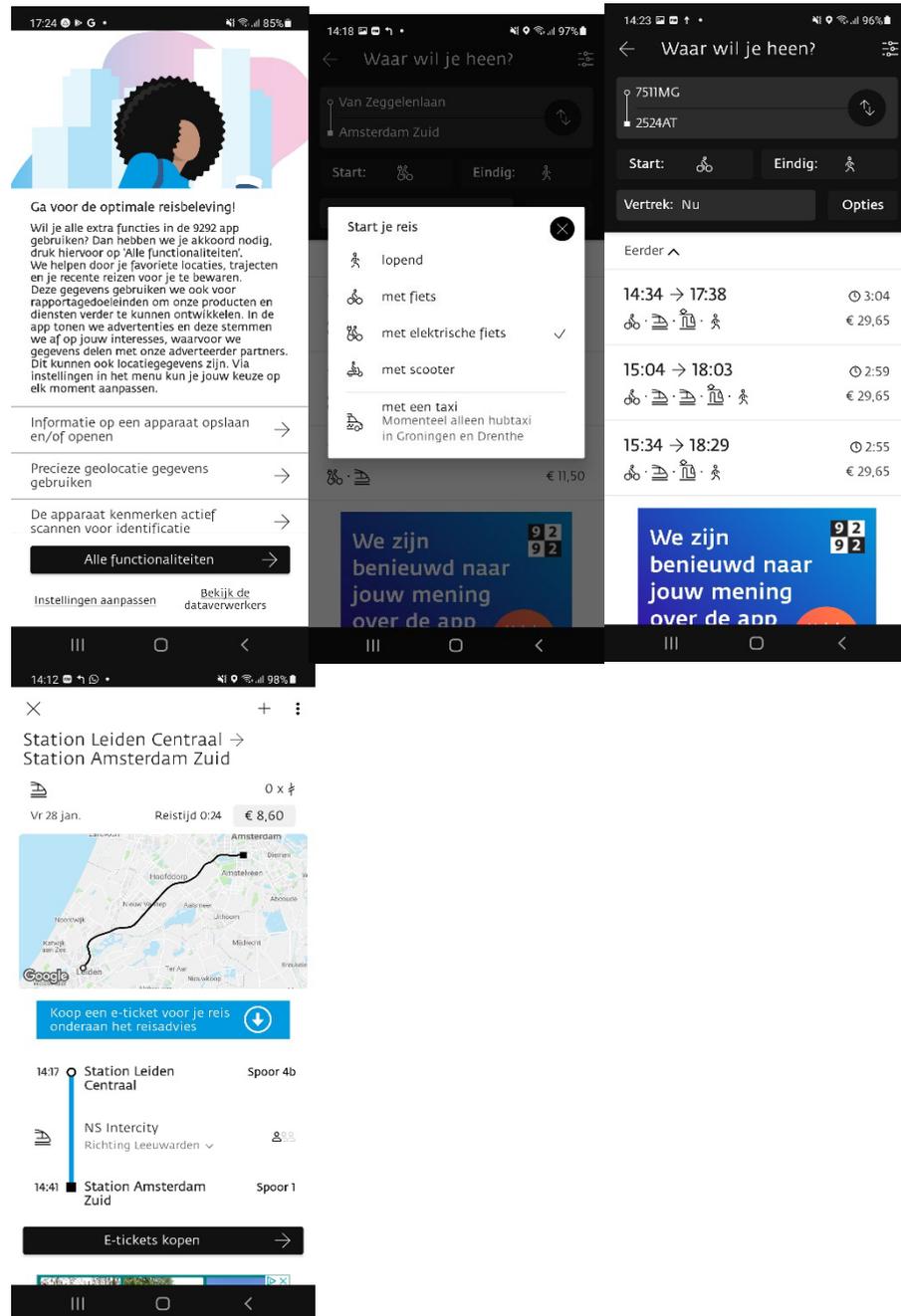
At level B, travellers can start to plan trips to find suitable public transport (train, bus, tram, subway and ferry). Access and egress modes can be set up, which makes it stand out from other public transport plan apps. Trip plan results are shown in the order of departure time with the duration and price information of each option. Users can also check disturbances and station schedules.

At level C, detailed information about the selected PT will be shown, including the expected crowd information of the PT, transfer time, route in the map, etc. Travellers can buy the tickets via the app with a service fee, which consists a fixed and a variable part.

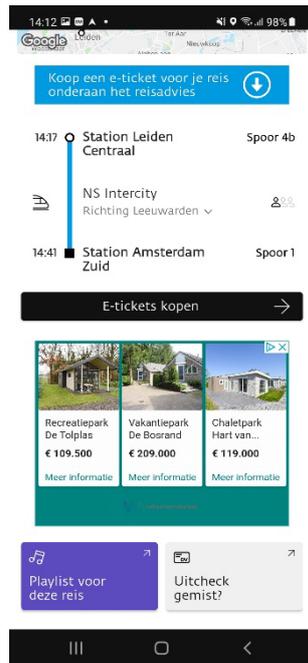
Persuasive techniques

- Tailoring: provide tailored information and suggestion
Level A/B/C: Profile related or transport related advertising (profile based advertising is our app use experience, no evidence supports)
Level A: Real-time schedules for saved trips
Level B: Available different access and egress transport modes. The access and egress modes are shown in the trip options
Level C: Crowd expectation of a certain PT trip
- Feedback and Self-monitoring
Level A: It provides searching historical data
- Default effect
Level A: Before using the app, the app leads users to accept all the functions
Level B: Access and egress modes are walking in default

Appendix



Appendix



Goal

Based on the features of the app, we see the app aims to collect, process and provide travel information for public transport in the Netherlands. It may earn profit by participating public transport companies. The app is covered with advertising and the advertising occurs in the way of searching results, which indicate that advertising is a main source of income.

Tracking

- AppNexus
- Flurry
- Google AdMob
- Google CrashLytics
- Google Firebase Analytics
- Huawei Mobile Services HMS Core
- IAB Open Measurement

Permissions

- Open Bluetooth settings
- Read the content of your USB storage
- Receive data from the internet
- Estimated network-based location
- Read your contacts
- Link with Bluetooth devices
- Arrange near field communication
- View network connections
- Precise GPS and network based location
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

NS app

- 5 million + downloads in google play. 3.60 rating (n=21,111)
- Version 6.24.1
- Analysis date: 18-02-2022

Features of this app

NS App at level A the homepage, provides train departure and arrival service by taking advantage of using personal travel information. Disturbance information is also the first level information. All these aims to help users to plan a trip. The train options for the trip are listed by departure time, not by transfer or travel time. Duration of the trip, transfer, and especially the crowd expectation is shown to support the train options.

Only if users are interested in a certain train trip, then users can access the level B information. At level B, trip cost, weather and ov-fiets, station service of the destination station are provided.

At level C, details about ov-fiets (location and opening time), details about each train and other detailed information are provided.

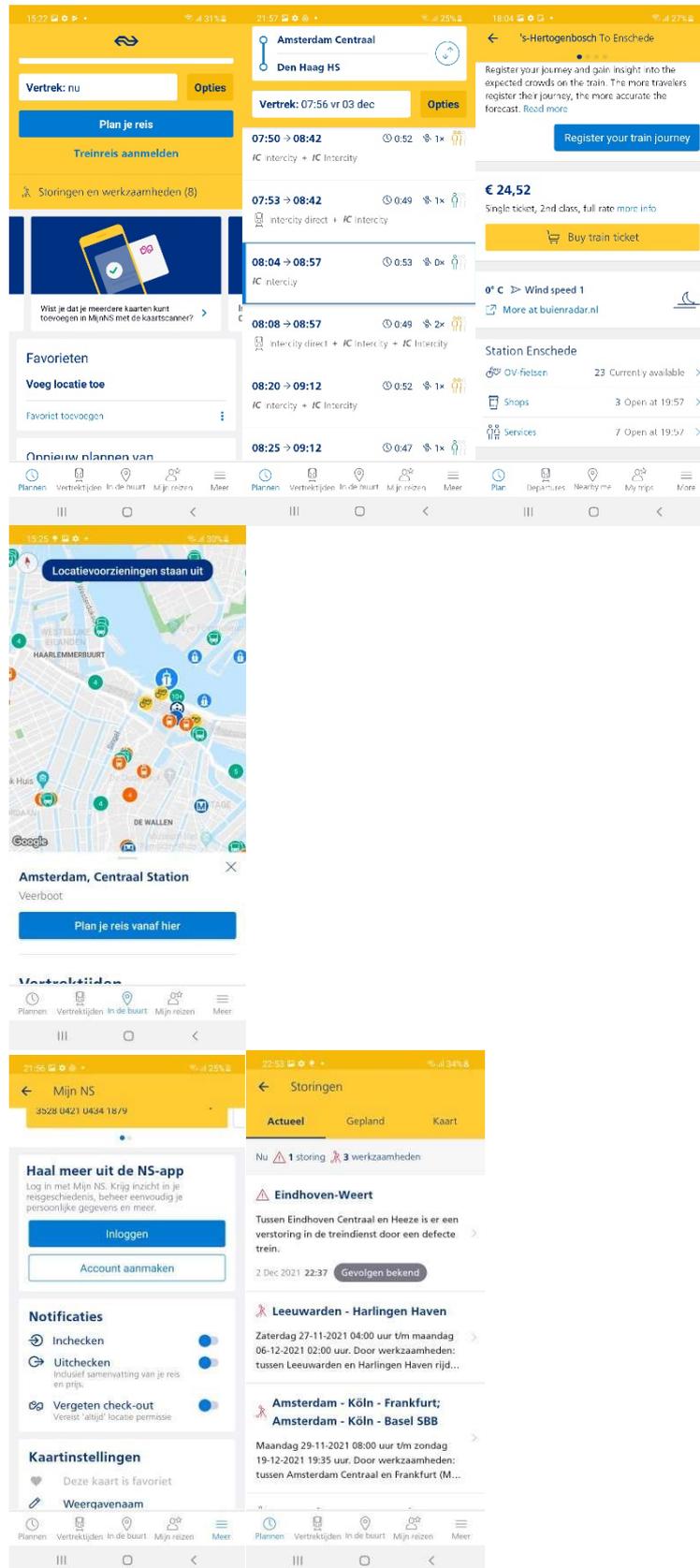
Persuasive techniques

- Tailoring: provide tailored information, guiding and suggestion
 - Level A: Information about the favourite station and personal ov card information
 - Level A: Tips and tricks for travellers
 - Level B/C: Ov-fiets, station service and other ov information
 - Level A: Crowd expectation information
 - Level B: Weather
- Feedback and Self-monitoring
 - Level A: If users login NS account, the app provides the trip history
- Repeated push messages
 - Level A: Disturbance information and notification about check in/out
- Primacy effect
 - Level B: Ov-fiets is in the first place under station service
- Default effect
 - By default prices for second class are shown.
- Emotions
 - Level A: Crowd expectation information with colour design.

Goal

The app in general tries to provide all the information about travelling by train, including facilities and services in the station, therefore to help users to plan a trip. To report train disturbance, crowd expectation information and to notify check-in/out are important focus points. The ov-fiets is shown in the first place, which indication that it tries to promote ov-fiets use. The crowd expectation information with colour design implies the app try to nudge travellers away from peak hours travelling.

Appendix



Tracking

Appendix

- Google AdMob
- Google CrashLytics
- Google Firebase Analytics

Permissions

- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- Estimated network-based location
- Reading Google Service Configuration
- Arrange near field communication
- View network connections
- Precise GPS and network based location
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- Connecting and breaking WiFi
- View WiFi connections

FlixBus: Book Cheap Bus Tickets

- 10 million + downloads in google play. 4.7 rating (n=239,000)
- Version 6.34.0 updated 03-06-2022
- Analysis date: 13-06-2022

Features of this app

Users can book and check all long-distance buses from Flixbus via this app, with direct or indirect service. If users use this app to book a bus, the bus ticket will be shown in the app, then the app also can navigate the users to the bus stop and send bus delays, stop changes and other important information on the trip to users.

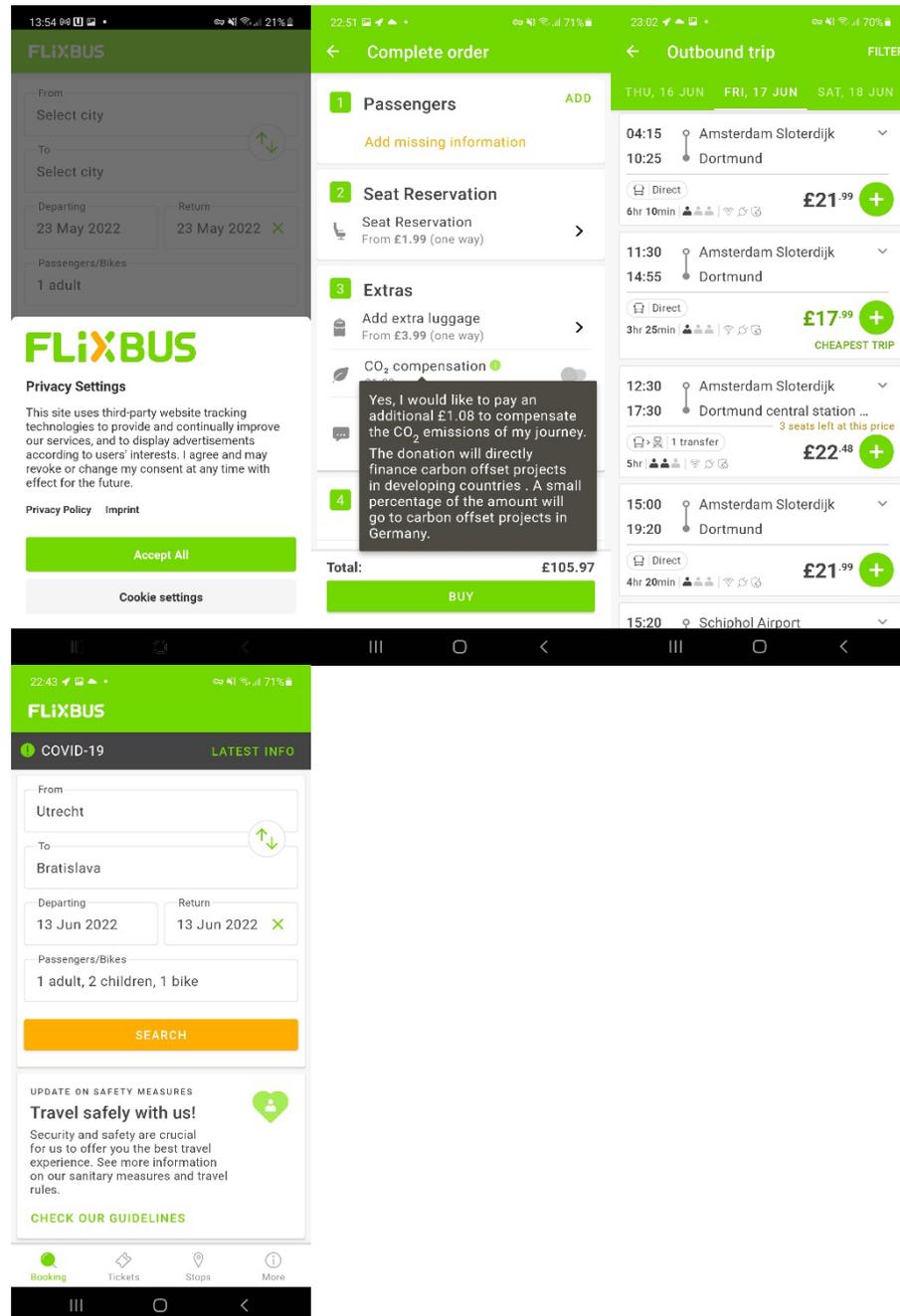
At level A the homepage, the app directly provides bus searching and booking function, currently with Covid-19 travel information, and exploring Flixbus connections and prices function.

At level B, users can book and pay for the bus.

Persuasive techniques

- Economic incentive
Level A: Limited supply: limited seats left at a certain price.
Prices shown are minimum prices. Once luggage, CO₂ compensation, seat reservation and other features are added another price appears. This relates to choice process and commitment and consistency techniques.
- Emotional appeals
Level B: Users can pay CO₂ emission compensation as a donation for carbon offset projects. The fluorine green colour might also be related to a 'green' feeling.
- Default effect that is forced to comply
Level A: Users have to accept all cookies.

Appendix



Goal

Based on the features of the app, we conclude that the app aims to provide detailed information about FlixBus offerings and to search, book and pay for bus tickets from FlixBus. From the techniques that it uses, we see it tries to use economic incentive to promote certain FlixBus lines.

Tracking

Appendix

- Adjust
- Google AdMob
- Google CrashLytics
- Google Firebase Analytics
- Google Play Install Referrer
- Salesforce Marketing Cloud
- Snowplow

Permissions

- Read agenda, appointments and confidential information
- Add or change agenda appointments and send emails to guests without the owners' knowledge
- Take photos and videos
- Receive data from the internet
- Estimated network-based location
- View network connections
- Precise GPS and network based location
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode

Check e-scooter sharing

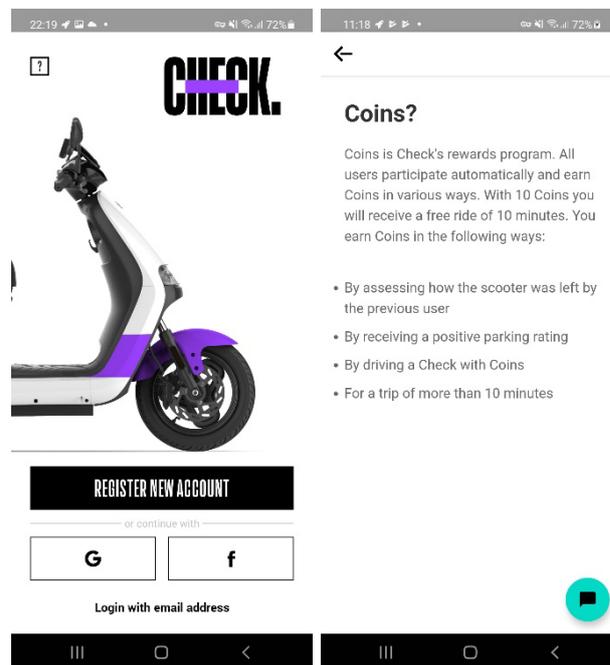
- 100 thousand+ downloads in google play. 4.1 rating (n=910)
- Version 1.15.3 updated 08-06-2022
- Analysis date: 13-06-2022

Features of this app

Check offers shared electric scooters on a pay-as-you-go basis. Users can use the Check app to locate, reserve and activate the nearest scooter.

Persuasive techniques

- Economic incentives
Level A: Reward program by receiving a positive parking rating, for a trip of more than 10 mins etc.
- Default effect that is forced to comply
Level A: Users have to log in or create an account to continue using the app.
Level A: Users have to link the app with a bank account or other payment accounts.
Level A: Users have to provide their addresses.
Level A: Users have to provide a driver's license.



Goal

A interface for use of shared, electric mopeds with emphasis on good parking.

Tracking

- AppsFlyer
- AWS Amplify
- AWS Kinesis
- Google CrashLytics
- Google Firebase Analytics
- Google Play Install Referrer

Permissions

- Pick up active apps
- Record audio
- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- Estimated network-based location
- Arrange near field communication
- Change network connection
- View network connections
- Precise GPS and network based location
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

Felyx e-scooter sharing

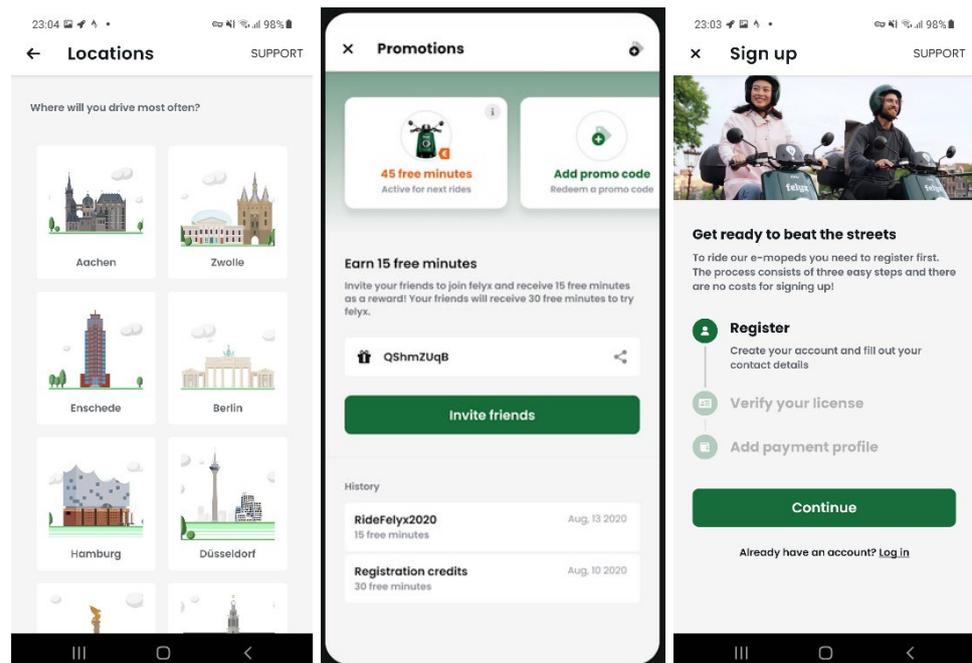
- 100 thousand+ downloads in google play. 2.7 rating (n=2,360)
- Version 1.6.0 updated 17-05-2022
- Analysis date: 31-05-2022

Features of this app

Felyx offers shared electric scooters on a pay-as-you-go basis, for €0.30 per minute. Users can use the Felyx app to locate, reserve and activate the nearest scooter.

Persuasive techniques

- Provide tailored information
 - Level A: Pictures and information of each scooter
- Economic incentives
 - Level A: Discount and free giving. Create an account and get 15 minutes for free.
 - Level B: Promote Felyx in your social network and earn free minutes.
- Default effect that is forced to comply
 - Level A: Users have to log in with their phone number and email address
 - Level A: Users have to update a photo of their face and scan the identity document.
- Emotional appeals
 - Level C: A sense of belonging: by adding a drawing of landmark buildings of each city.



Goal

The features show that the app aim to build a interface for use of shared, electric mopeds with emphasis on good parking.

Tracking

Appendix

- Adjust
- Google AdMob
- Google CrashLytics
- Google Firebase Analytics
- LeanPlum
- Segment

Permissions

- Record audio
- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- Estimated network-based location
- Arrange near field communication
- Change network connection
- View network connections
- Precise GPS and network based location
- Manage vibration
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

Greenwheels - Carsharing

- 100 thousand+ downloads in google play. 3.2 rating (n=189,000)
- Version: 4.21.0
- Analysis date: 30-05-2022

Features of this app

The Greenwheels uses the geolocation of users to find a Greenwheels car close by. Users can book, open and close the car via the app.

At level A the homepage, users have to log in or create an account. Then users can check nearby cars on the map.

Persuasive techniques

- Economic incentives
Level A/C: Discount, Greenwheels provides discount code now and then.
- Repeated message
Level A: The login button shows up now and then in the app.
- Default effect
Level A: The app assumes users are looking for a car in their current location instantly.
- Default effect that is forced to comply
Level A: Users have to log in with their phone number and their home location.
Level A: Users have to link to their ov-chip card or pay deposits to use the app.

Goal

The features show that the app aims to create a interface for use of shared cars from Greenwheels.

Tracking

- Adjust
- Facebook Analytics
- Facebook Login
- Google AdMob
- Google CrashLytics
- Google Firebase Analytics
- Google Play Install Referrer
- Instabug
- Salesforce Marketing Cloud

Permissions

- Record audio
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- Estimated network-based location
- Change your audio settings
- Arrange near field communication
- View network connections
- Precise GPS and network based location
- Manage vibration
- Full network access

Appendix

- Prevent the device from switching to sleep mode
- View WiFi connections

MyWheels

- 50 thousand+ downloads in google play. No rating information.
- Version 5.11.0, updated on 31-05-2022
- Analysis date: 31-05-2022

Features of this app

MyWheels app offers uses the geolocation of users to find a MyWheels car close by. Users can book, open and close the car via the app. Users can further check the detailed information about the car and the rental price of the car via the app.

At level A the homepage, users can check nearby cars on the map and set up the rental pick-up and return time. The price of the selected car and the brand, the distance the car can drive without charging or getting gasoline also show in the app. Cars flagged by different colours indicating the direct availability of the car. By default the current availability is shown.

At level B, users can check the detailed information about the car and book it, but users have to log in or create an account in order to book the car, which makes sense as a drivers license is needed.

Persuasive techniques

- Economic incentives
Level A/C: Discount, it provides discount code now and then.
- Provide tailored information
Level A: Pictures and information of each car.
Level B: In certain area, there are local guides to help users to solve car related problems.
- Emotional appeals
Level A: Sustainable appeal, to emphasize that MyWheels helps to reduce car ownership, with colours and pictures, clear distinction between fossil and electric cars.
- Repeated message
Level A: Login button shows up now and then in the app.
If geolocation is disabled, users are shown a black screen and are prompted to use 'Google's location service' in order to get the best results, which suggests that with the geolocation the results are suboptimal.
- Default effect
Level A: The app assumes users are looking for a car in their current location instantly.
- Default effect that is forced to comply
Level A: Users have to log in with their phone number and email address.

Appendix



Goal

A interface for use of shared cars. The availability of cars are shown by default in the moment of using the app. So it seems that it focus on instant renting.

Tracking

- Adjust
- Facebook Analytics
- Facebook Login
- Facebook Share
- Google AdMob
- Google Analytics
- Google CrashLytics
- Google Firebase Analytics
- Google Play Install Referrer
- Google Tag Manager
- Mapbox

Permissions

- Read agenda, appointments and confidential information
- Add or change agenda appointments and send emails to guests without the owners' knowledge
- Open Bluetooth settings
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- Estimated network-based location
- Link with Bluetooth devices
- Check the license from Google Play
- View network connections
- Precise GPS and network based location
- Full network access
- Prevent the device from switching to sleep mode

Appendix

- View WiFi connections

Uber

- 500 million + downloads in google play. 3.9 rating (n=9,703,583)
- Version Varies with device
- Analysis date: 25-05-2022

Please note that we only focussed on the ride options from Uber and neglected 'food' (aka Uber eats)

Features of this app

Uber links passengers with taxi drivers. Users can use the Uber app to request a ride as passenger, by providing current location and destination. When a nearby driver accepts the request, the app displays an estimated time of arrival for the driver heading to the pickup location.

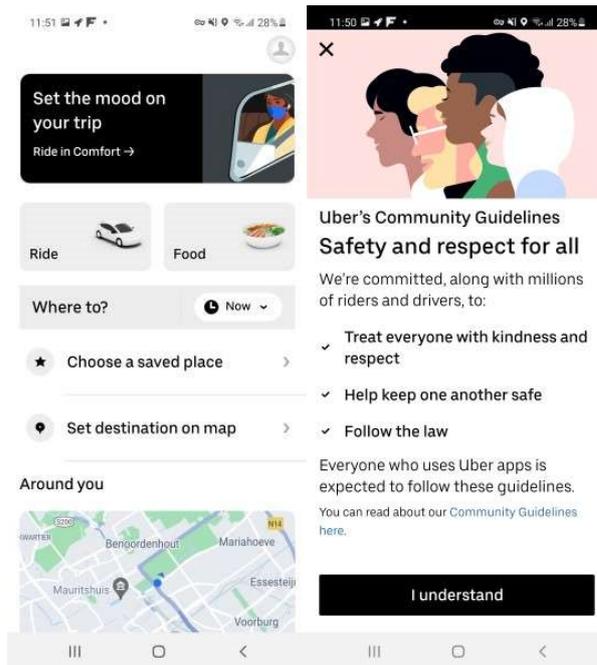
At level A the homepage, users can set a destination on the map. Then the available driver will show up. At the same time, the price and the driver's location are provided.

At level B, users can confirm the arrangements and wait for pick up.

Persuasive techniques

- Tailoring: provide tailored information
Level A: Uber eats. It can navigate users to the uber eats app.
Level A: Ads at the top of the app front page. The ads are probably based on personal historical searching data or just provided by the app.
- Default effect that is forced to comply
Level A: To use the app, users have to log in or make an account and provide a phone number.
- Economic incentives
Level C: Discount. 20% off for UberX or to provide promotion codes now and then.
- First choice
Level B: On the top list the app shows three representative rides from different categories.

Appendix



Goal

Based on the features of Uber app, we conclude that it is a platform that provides connections between drivers and riders. Riders can use the Uber app to request a ride.

Uber eats, a platform where delivers can connect with eaters and restaurants, is promoted in the app.

Tracking

- Cloud Audit Logs
- Facebook Flipper
- Google AdMob
- Google CrashLytics
- Google Firebase Analytics
- Uber Analytics

Permissions

- Use accounts on the device
- Find accounts on the device
- Add or delete accounts
- Read agenda, appointments and confidential information
- Record audio
- Open Bluetooth settings
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- Estimated network-based location
- Reading Google Service Configuration
- Change your audio settings
- Read your contacts
- Read your own contact
- Read your text messages SMS or MMS
- Link with Bluetooth devices
- Change network connection
- View network connections

Appendix

- Precise GPS and network based location
- Send SMS messages
- Receive text messages SMS
- Call phone numbers directly
- Read telephone status and identity
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- Show about other apps
- Connecting and breaking WiFi
- View WiFi connections

Amaze Mobility

- 1000 + downloads in google play. No rating information.
- Version 1.3.1 updated 09-06-2022
- Analysis date: 16-06-2022

Features of this app

It offers shared scooters, shared bikes, shared cars and all the public transport near users. Users can use and pay with Amaze Mobility. Not all shared mobility options are in the app, but a range of selected companies.

At level A the homepage, the app shows users all available transport options near them. A trip planner is absent.

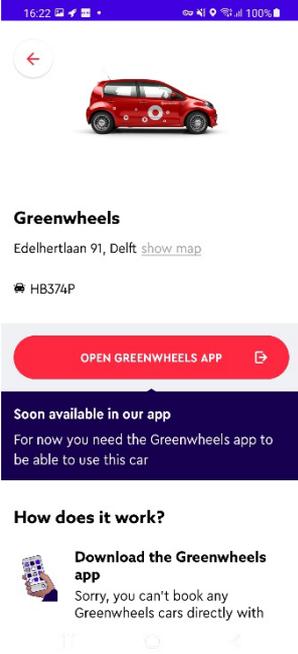
At level B, users can see detailed information about each available transport. For PT, the schedules of nearby stations are provided, with walking distance to reach the stations. However, there is no trip planner for PT. For shared scooters and shared cars, the brands of the nearby shared scooters and cars, the walking distance to the shared scooters and cars and the battery of the shared scooters and cars are provided. For shared bikes, the opening time, the distance and the price are provided. Except for available transport options, the app provides trip historical data. Moreover, the app provides a mobility budget service which is a business-to-business service. Employers can contact the developer via the app.

At level C, users can start to rent an available transport option. However, not all transport options can be arranged within the app. Some transport options, especially PT and shared bikes and scooters can be directly reserved and paid for by the app, the other options need to be booked via the third-party apps.

Persuasive techniques

- Tailoring: provide tailored guiding
Level B: Selected transport options are provided with user instruction information
- Default effect that is forced to comply
Level C: To rent via the app, users have to log in or make an account

Appendix

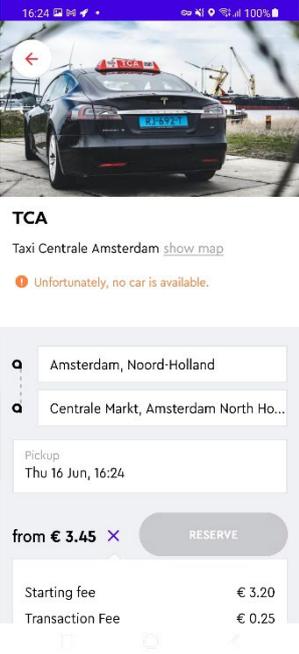


Greenwheels
Edelhertlaan 91, Delft [show map](#)
HB374P

OPEN GREENWHEELS APP

Soon available in our app
For now you need the Greenwheels app to be able to use this car

How does it work?
Download the Greenwheels app
Sorry, you can't book any Greenwheels cars directly with



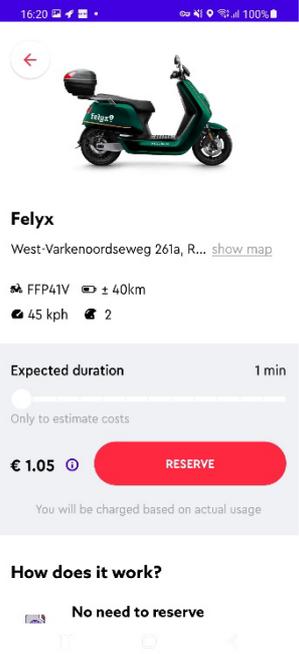
TCA
Taxi Centrale Amsterdam [show map](#)
Unfortunately, no car is available.

Amsterdam, Noord-Holland
Centrale Markt, Amsterdam North Ho...

Pickup
Thu 16 Jun, 16:24

from € 3.45 **RESERVE**

Starting fee € 3.20
Transaction Fee € 0.25

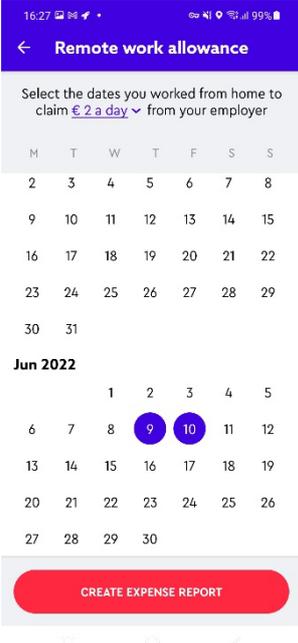


Felyx
West-Varkenoordseweg 261a, R... [show map](#)
FFP41V ± 40km
45 kph 2

Expected duration 1 min
Only to estimate costs

€ 1.05 **RESERVE**
You will be charged based on actual usage

How does it work?
No need to reserve



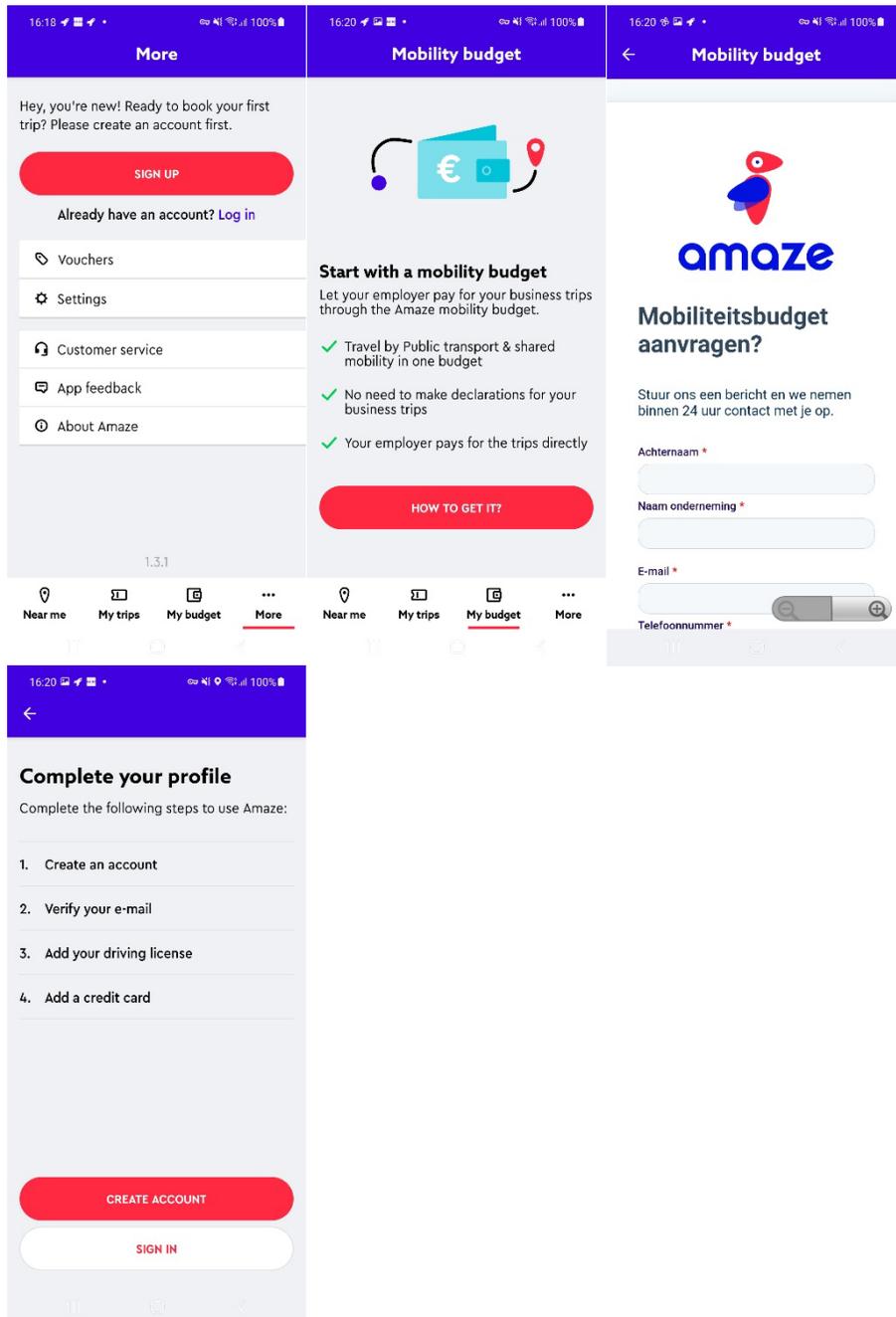
Remote work allowance

Select the dates you worked from home to claim € 2 a day from your employer

M	T	W	T	F	S	S
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					
Jun 2022						
	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

CREATE EXPENSE REPORT

Appendix



Goal

Based on the features of the app we see the app focuses on providing urban mobility near users in one overview, including shared scooters, shared bikes, shared cars and all the public transport. Users can use and pay with Amaze Mobility. Users can also pay with a mobility budget from their employer, which seems like a business to business service.

Tracking

- Google AdMob
- Google CrashLytics
- Google Firebase Analytics
- Google Play Install Referrer
- LeanPlum

- Mapbox
- Segment

Permissions

- Change secure system settings
- Open Bluetooth settings
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos
- Estimated network-based location
- Link with Bluetooth devices
- Arrange near field communication
- Change network connection
- View network connections
- Precise GPS and network based location
- Adjust system settings
- Read telephone status and identity
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- Connecting and breaking WiFi
- View WiFi connections

Gaiyo app

- 10,000, + downloads in google play. No rating information.
- Version 1.66.2
- Analysis date: 21-03-2022

Features of this app

The Gaiyo app helps users plan, book and pay for transport using one app. Transport options are shared cars, shared scooters, shared bikes, taxis and public transport. Moreover, the app provides parking information and traffic information (e.g. travel time, delays).

At level A the homepage, the app provides nearby transport and also nearby stations, parking and traffic information.

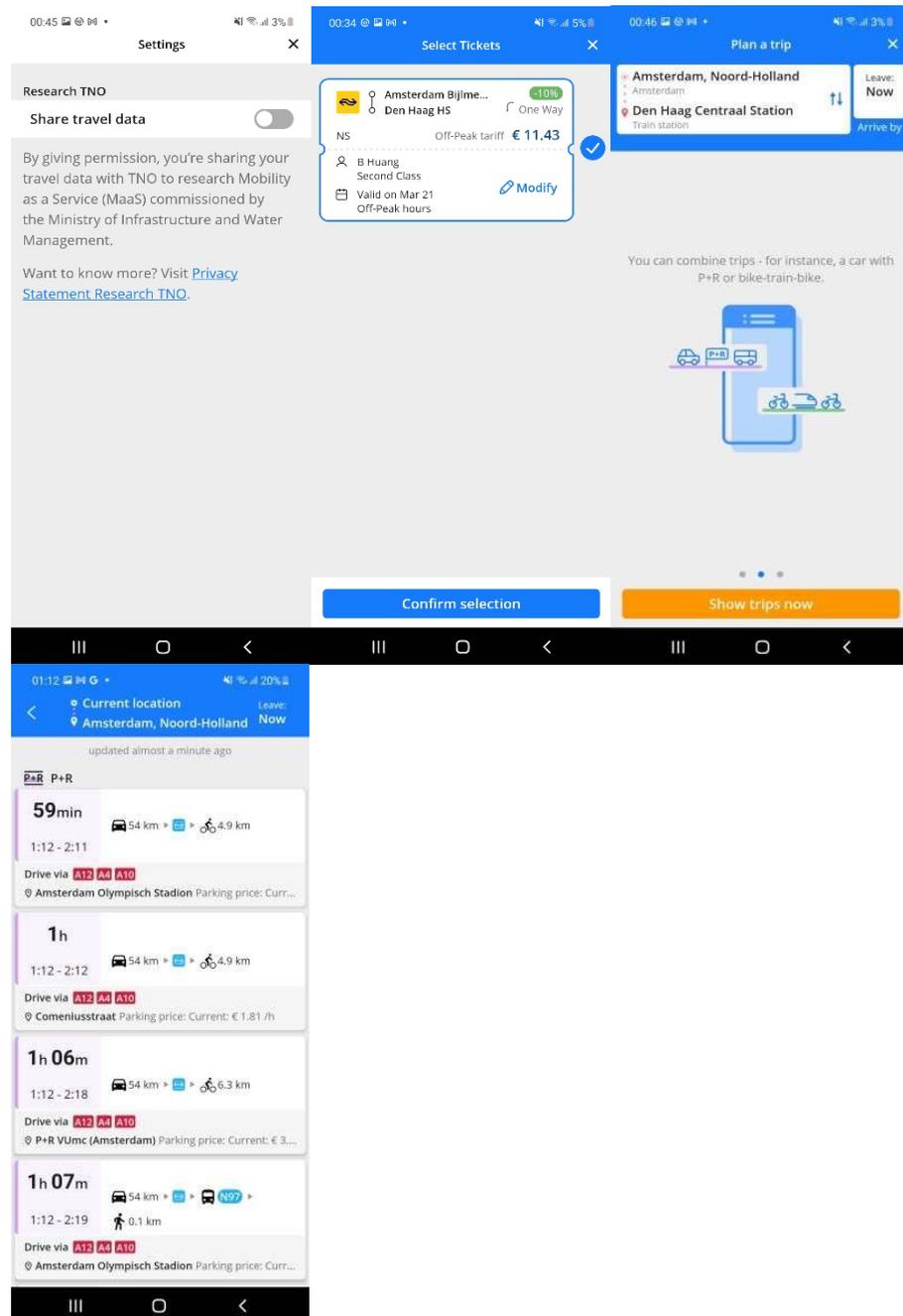
At level B, users can plan a trip. Multiple transport possibilities will be shown. Users can set up the order of transport modes.

At level C, it's about further booking and payment details. Gaiyo uses a unique wallet, a virtual place where money is reserved to pay for trips booked with Gaiyo. Money can be transferred to the Gaiyo wallet using ideal or credit card.

Persuasive techniques

- Tailoring: provide tailored information
 - Level A: See all the transport around you, including shared cars, shared scooters, shared bikes, taxis and public transport
 - Level A: Nearby stations, parking information and traffic information
 - Level B: Combined trips
 - Level B: Different access and egress options for public transport
- Discount
 - Level C: Train tickets 10% for off-peak.

Appendix



Goal

The Gaiyo provides access to transport, it can help users plan, book and pay for transport using one app. There is a strong focus on multimodal and intermodal travel options, but also cheap parking. It has access to TNO research which indicates it is involved in MaaS research.

Tracking

- Branch
- Facebook Login
- Facebook Places
- Facebook Share

- Google AdMob
- Google Firebase Analytics
- Mapbox
- Sentry

Permissions

- Pick up active apps
- Download files without notification
- Open Bluetooth settings
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- Estimated network-based location
- Read your contacts
- Link with Bluetooth devices
- Check the license from Google Play
- Arrange near field communication
- View network connections
- Precise GPS and network based location
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

Tranzer app

- 50 thousand + downloads in google play. 2.40 rating (n=314)
- Version 3.11.7
- Analysis date: 25-02-2022

Features of this app

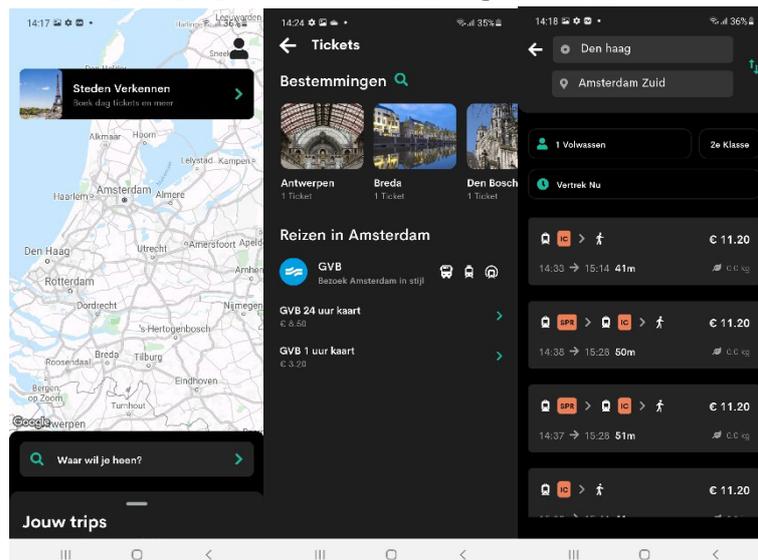
At level A the homepage, Tranzer provides destination BTM tickets information. The shown tickets are general tickets for a day or certain time period instead of for each trip. It also provides a trip plan service.

At level B, detailed local BTM information is provided and detailed trip price, transfer and trip CO₂ emission are shown.

At level C, users can access ticket payment.

Persuasive techniques

- Tailoring: provide tailored information
Level A: Leading users to choose the destination city, with professional pictures of the city.
Overlay on map with option to explore cities.
- Feedback and Self-monitoring
Level A: Trip historical data.
- Authority design
Level A: Local public transport company logo and info.
- Emotional appeals
Level B: Leave icon to show CO₂ emission.



Goal

The app provides public transport information with selected providers, focus on city-based travel information. Due to the extra service cost to pay tickets, it may not be useful for in-country travelling. It integrate PT information and may earn profit by users paying through the app.

Tracking

- Bugsnag
- Cloud Audit Logs
- Google AdMob

- Google Firebase Analytics
- Google Play Install Referrer

Permissions

- Download files without notification
- Open Bluetooth settings
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- Estimated network-based location
- Link with Bluetooth devices
- Arrange near field communication
- View network connections
- Precise GPS and network based location
- Read telephone status and identity
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- Show about other apps
- View WiFi connections

KLM

- 1 million+ downloads in google play. 3.49 rating (n=13,191)
- Version 12.7.3
- Analysis date: 08-03-2022

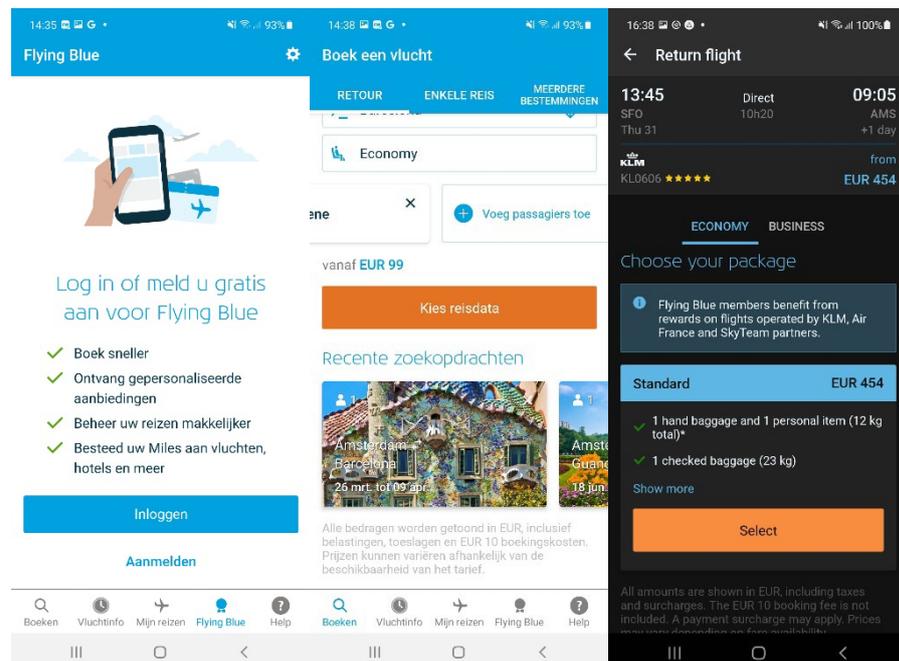
Features of this app

The KLM app has functions for searching and booking a flight and for checking in online. At level A the homepage, travellers are requested to log in to their flying blue account or log in with their ticket (in more recent versions of the app this is no longer present). When users have logged in, then the request is not there anymore. Travellers can use the app to open their boarding pass offline to scan at the gate. KLM uses the app to update travellers on the latest relevant flight information.

At level B, flying related questions are listed to help travellers. Further steps for booking a ticket are available.

Persuasive techniques

- Tailoring: provide tailored information
 - Level A: Information about personal flying blue information
 - Level A: Tailored starting point setting based on county of residence
- Feedback
 - Level A: It provides searching historical data
- Default effect
 - Level A: Login or join flying blue is always shown in the first place. But after logging in, the booking page will be shown in the first place.
 - Level B: Round trip with economy class for a single adult are default settings in planner



Goal

It helps travellers to book a flight and to check-in online. It also Keeps travellers up-to-date with respect to their coming flight.

Tracking

- Ad4Screen
- Google AdMob
- Google Analytics
- Google CrashLytics
- Google Firebase Analytics
- Google Tag Manager
- Urbanairship

Permissions

- Create accounts and set passwords
- Find accounts on the device
- Add or delete accounts
- Read agenda, appointments and confidential information
- Add or change agenda appointments and send emails to guests without the owners' knowledge
- Open Bluetooth settings
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- Estimated network-based location
- Reading Google Service Configuration
- Link with Bluetooth devices
- Arrange near field communication
- View network connections
- Precise GPS and network based location
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- Connecting and breaking WiFi
- View WiFi connections

easyJet: Travel App

- 10 million + downloads in google play. 4.18 rating (n=178,746)
- Version 2.61.1
- Analysis date: 18-03-2022

Features of this app

The easyJet app offers users to search, book and manage flights with EasyJet airlines, providing check-in and Mobile boarding pass services. Moreover, the app provides users with the planning holiday service. Users can get instant access to information about their package holiday, including hotels and accommodation, local guides, tours and activities, airport transfers and other important information.

At level A the homepage, the app puts a lot of information on the home page, so that users can easily reach all the information they want. The app home page looks more like a webpage, including scrolling information, onboard information, holiday and travel information, at airport information, most popular destinations, about easyJet, etc.

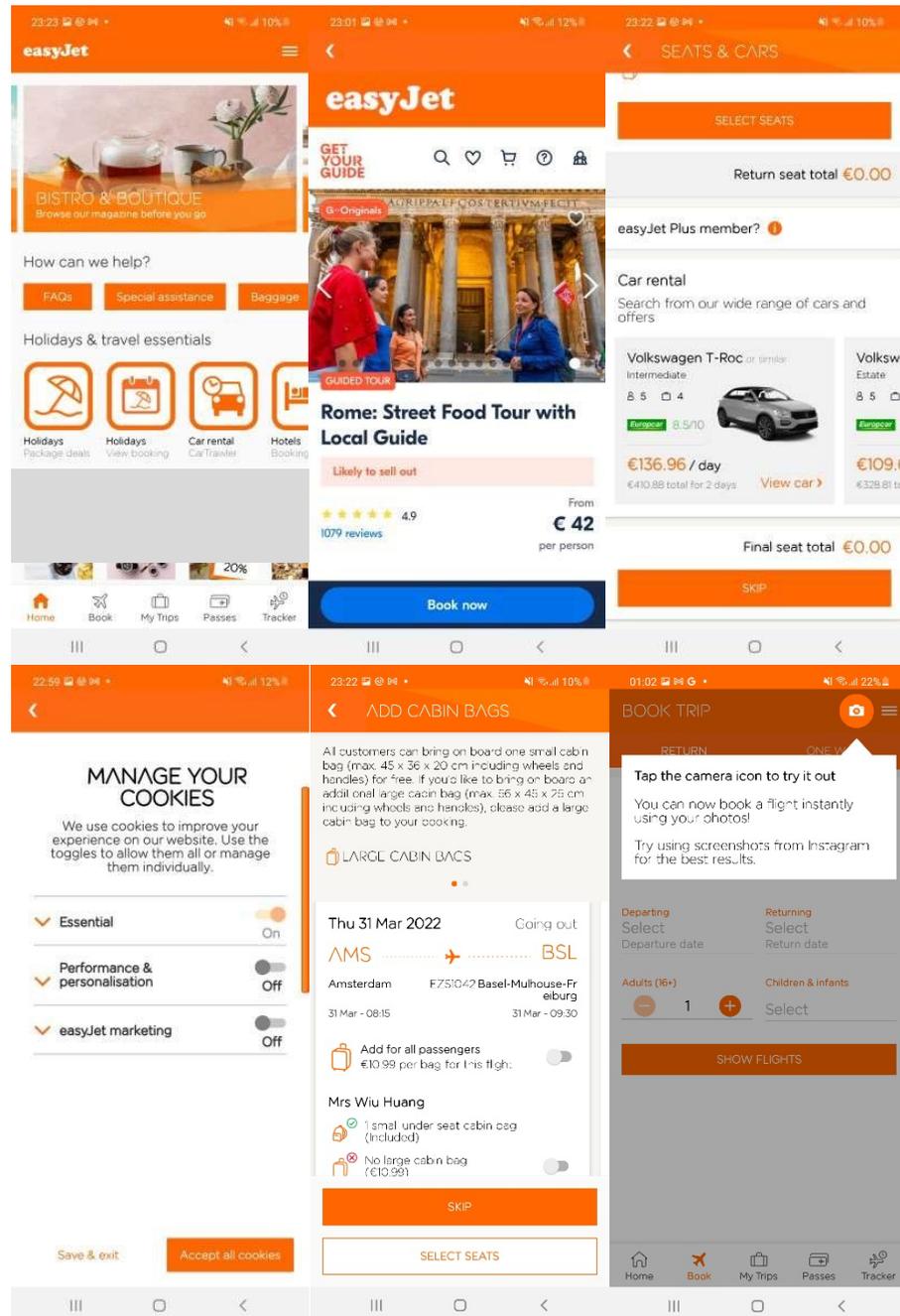
At level B, users can search and book flights. Or users can manage their bookings or add Mobile boarding passes.

At level C, it's about searching results and further booking details.

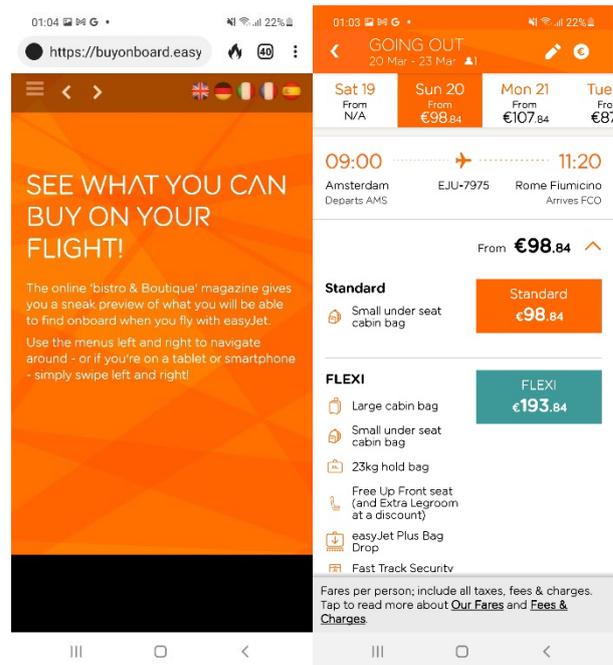
Persuasive techniques

- Tailoring: provide tailored information and suggestion
 - Level A: Destination-related information, including hotels & accommodation, local guides, tours and activities, airport transfers and other important information.
 - Level A: Onboard information (things to buy onboard).
 - Level A: EasyJet related information, like company news.
 - Level A: Popular destinations.
 - Level C: Car rental information during booking
 - Level B: Visual search, based on photos.
- Free products, pre-giving or refund
 - Level C: EasyJet plus benefit is also shown as a pop-up. Users are pushed towards their loyalty program.
 - Level A/C: Refund if travellers also book tours or activities in destination when they purchase flight tickets. Bundle discount.
- Default function:
 - Level B/C: when asking for data permission, to accept all cookies button is always more obviously to click.
- Social influence
 - Level A: 'Popular' destinations.

Appendix



Appendix



Goal

Based on the features we conclude that the app aims to offer users to search, book and manage flights with EasyJet airlines, with other functions such as a mobile boarding pass and online check-in. It has integrated a new 'Look&Book' app feature that allows easyJet customers to upload an image to the app and book their holiday. And it has voice recognition technology for customers to search for flights. These indicate that to use innovation mobile technology to improve the travel experience could be a primary focus for the airline. Besides, the app also provides destination-related services, like hotel booking, tour and activity booking and car rental and promotes on-the-flight / in-the-air shopping. The personal data can be a main focus because the app often asks permission for cookies or users data usage.

Tracking

- Flurry
- Google AdMob
- Google Analytics
- Google CrashLytics
- Google Firebase Analytics
- Google Tag Manager
- Inmobi
- Jumio
- Snowplow

Permissions

- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- View network connections
- Precise GPS and network based location
- Read telephone status and identity
- Perform at start-up
- Full network access

Appendix

- Prevent the device from switching to sleep mode
- View WiFi connections

ANWB Onderweg & Wegenwacht

- 1 million + downloads in google play. 3.82 rating (n=19,327)
- Version 4.12.2
- Analysis date: 08-03-2022

Features of this app

The ANWB Onderweg app gives information on the road, such as current traffic information, route planners, traffic jam reports, cheaper (or free) mobile parking, search for charging stations or filling stations within the Netherlands, including current fuel prices and report a breakdown online. ANWB App at level A the homepage, ask users to log in ANWB account. If users log in, then "Verkeer" page will be the first accessible page, where users can plan their routes. Traffic jams, speed cameras, personal routes and traffic jam alters will be shown. Although ANWB is the general 'wielrijdersbond' the whole focus of the app is focused on motorized vehicles, especially passenger cars, services for non-motorized wheels are absent.

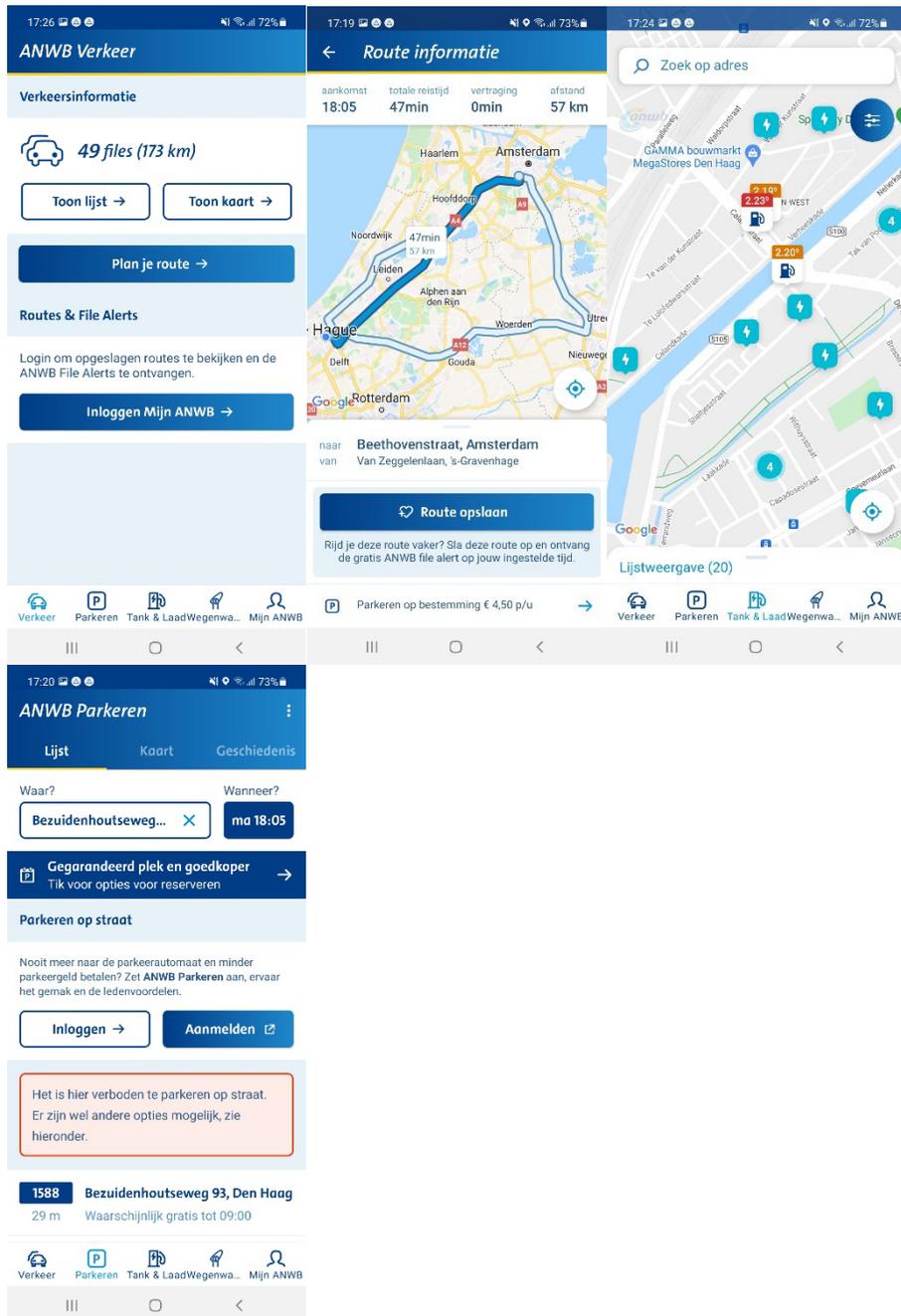
At level B, users can reach parking advice, gas station and charging stations information. users can also report a breakdown of roadside assistance.

Level C is about all detailed information of all services. For example, the rates for each parking space and free parking spaces

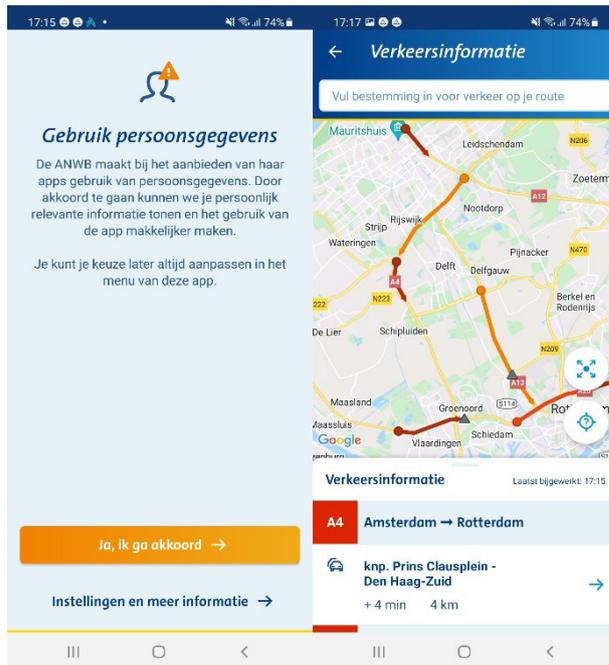
Persuasive techniques

- Tailoring: provide tailored information
Level A: Real-time alters for saved trip
Level A: It provides information about traffic jams, parking, gas stations, charging stations and breakdown of roadside assistances.
- Feedback
Level B: It provides searching historical data (previous routes)
- Economic incentives:
A guaranteed parking spot with a lower prices is advertised
- Default effect
Level A: Before using the app, the app leads users to agree with personal data usage.
Level A: The page asking users to log in ANWB account always appears first.
- First option
Level B: Reserved garage parking locations are listed in the first place.
- Repeated push messages,
Level A/B/C: Login message pops up during the use when users want further steps.

Appendix



Appendix



Goal

It aims to offer traffic information, including route planner, traffic jam, parking. The app also lets users search for charging stations or gas stations, including current fuel prices. Moreover, it provides service for users reporting a breakdown online. No advertising in the app, but letting users have an ANWB account is an important focus of the app. Some techniques are used for garage parking, which implies the app tries to promote garage parking.

Tracking

- Adjust
- BlueConic
- Google AdMob
- Google CrashLytics
- Google Firebase Analytics
- Google Play Install Referrer

Permissions

- Create accounts and set passwords
- Use accounts on the device
- Add or delete accounts
- Receive data from the internet
- Estimated network-based location
- View network connections
- Precise GPS and network based location
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

Parkmobile – parkeerapp

- 5 million + downloads in google play. 3.69 rating (n=50,478)
- Version 9.17.3.55241-rc1
- Analysis date: 18-03-2022

Features of this app

The parkmobile app provides users with the capabilities to find parking, to reserve, and pay for parking without going to the meter. The customer would use the app's map to locate a garage near their destination. The app provides consistent updates on difficult chances to find a street parking spot, open garages and pricing, providing consumers with ease of use.

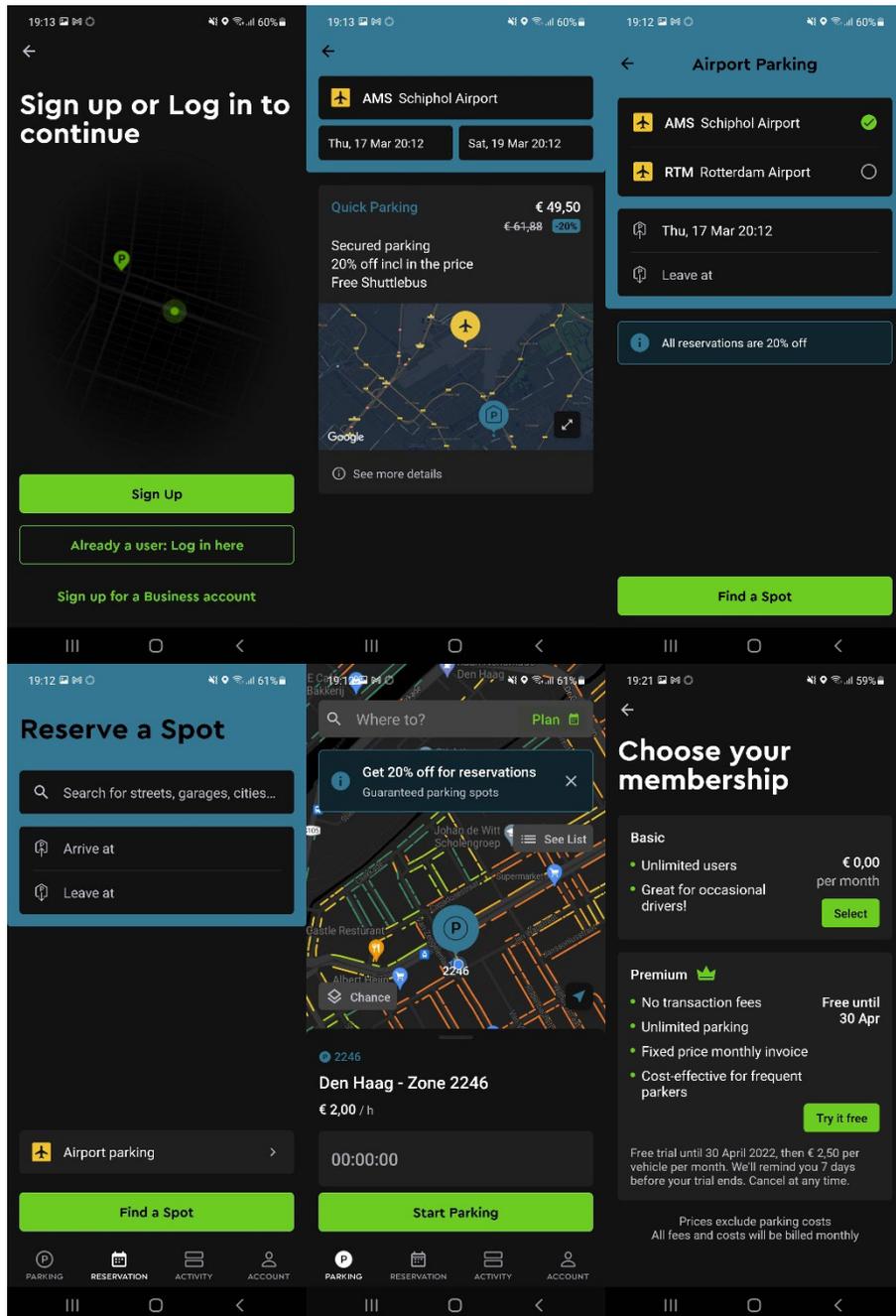
At level A the homepage, the app directly provides Find & Park function via GPS navigation. Find & Park function predicts the chance of finding a parking spot.

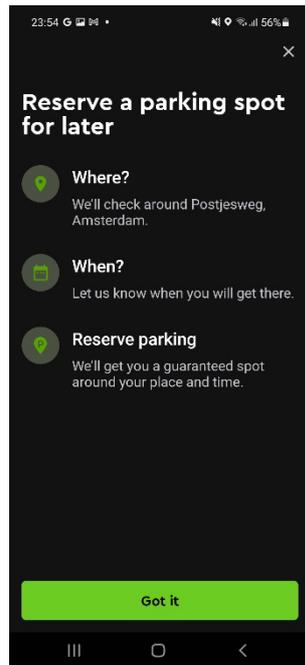
At level B, users can reserve a garage, especially promoted for airports Schiphol and Rotterdam and Eindhoven.

Level C is about parking with the app services. For example, using the app to check-in garages, adding license plates in the app and using the app to pay.

Persuasive techniques

- Discount or Pricing Trick
Level B/C: All reservations are 20% off. However, the discount price is the same if user just book directly from the parking provider. We have checked the second screenshot with the quickparking in Schiphol, it turns out that the discount price in the app is the original price from quickparking.
- Pre-giving and limited supply
Level C: Premium subscription has a free trial and is only available for a certain date.
- Tailoring: provide tailored information
Level A: Display on the map the difficult chance to find a parking spot or parking zone tariff.
- Feedback
Level B: It shows all parking histories
- Default effect or repeated messages
Level C: Sign up or login screen appears all the time if users want to use the app to park or reserve.





Goal

Users can park via the app, without going to the meter. But users have to register a Parkmobile account by linking driving licence plates and bank accounts. This implies that the app guides users to register and pay via the app. It also offers users with the predicted chance of finding a parking spot, which seem to be the core function of the app. Moreover, finding street parking or reserving a garages or airports parking via the app is possible. The app seems to provide discounts for reservations in garages or airports, however some discount price is the same as the original price directly from provider. This suggests the app nudges users to use garage parking but also uses pricing trick to mislead users . Finally, it provides a premium parking subscription. It seems that it promotes users to use parking subscriptions.

Tracking

- Adjust
- Amplitude
- Braze
- Google AdMob
- Google Analytics
- Google CrashLytics
- Google Firebase Analytics
- Google Play Install Referrer
- Google Tag Manager
- MixPanel

Permissions

Appendix

- Pick up active apps
- Read agenda, appointments and confidential information
- Add or change agenda appointments and send emails to guests without the owners' knowledge
- Open Bluetooth settings
- Allow Bluetooth coupling by app
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Receive data from the internet
- Estimated network-based location
- Reading Google Service Configuration
- Read your contacts
- Link with Bluetooth devices
- View network connections
- Precise GPS and network based location
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

Flitsmeister

- 1 million + downloads in google play. 4.13 rating (n=44,248)
- Version 10.6
- Analysis date: 18-02-2022

Features of this app

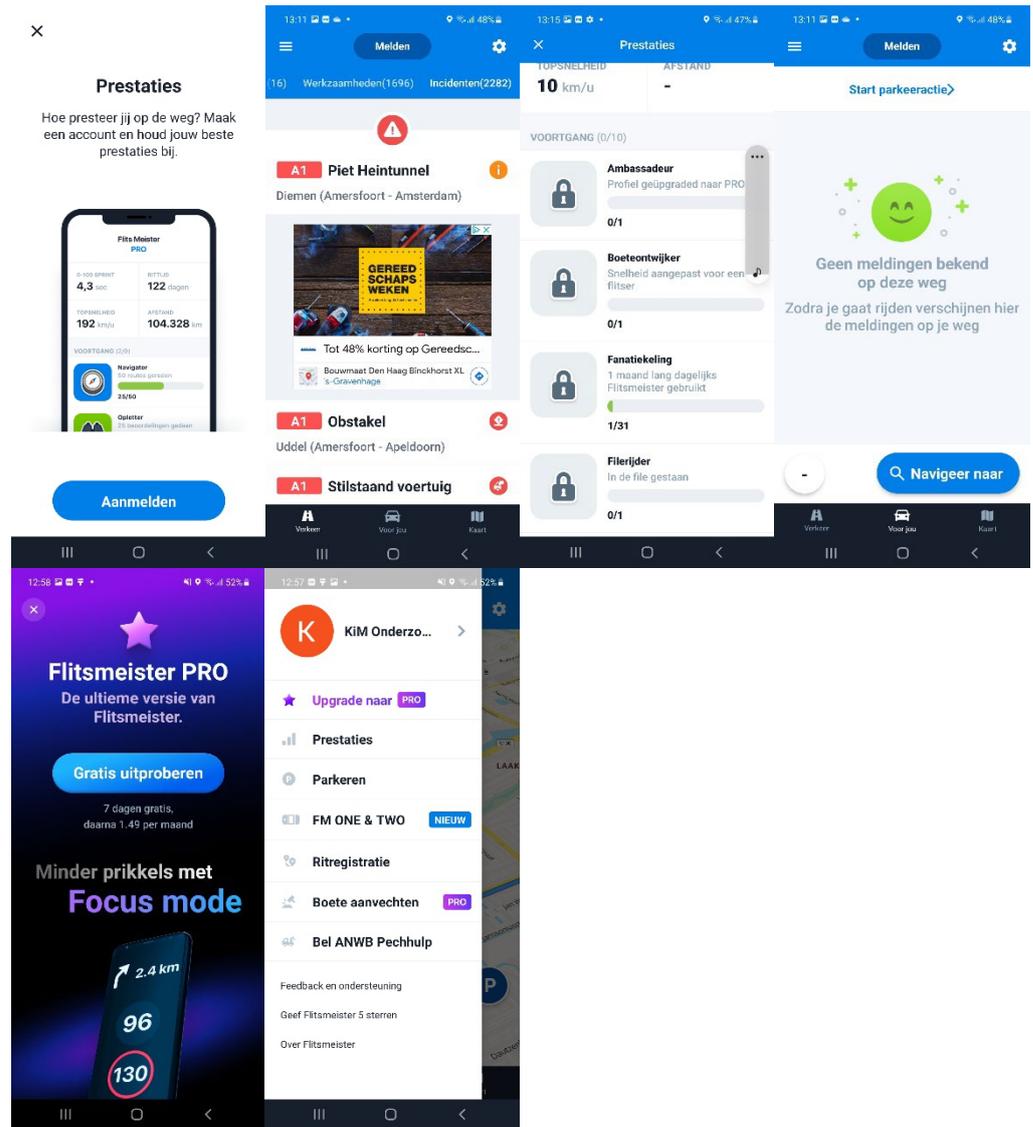
At level A the homepage Flitsmeister provides speed camera, traffic jam, constructions information for using car. Travel historical data is used to provide tailored suggestions. Another important information is the advertisement. Unlike traditional apps, the app uses cartoon/emoji designs to show traffic situations.

At level B, a detailed gamification technique is used. Parking service is also provided. Emotional and free-trying methods are used to guide users to pay for service.

Persuasive techniques

- Economic incentives.
Level B/C: The first month for free for pro service.
- Tailoring: provide tailored information
Level A: Favourite routes
Level A: Reported speed camera, traffic jam, constructions information
- Feedback
Level A: Travel historical data
- Gamification
Level B: To collect achievements to unlock icons
- Emotions
Level A: Emoji to show route complains
Level B/C: Outstanding colourful design to get pro function.

Appendix



Goal

The app offers navigation, avoiding fines, discovering traffic jams and accidents and parking services.

The gamification is an important method in the app to retain or motivate users. The app may use ads to get profit. The app also aims to use economic incentives and emotional design to guide users to pay for the advanced service.

Tracking

- Facebook Analytics
- Facebook Login
- Facebook Places
- Facebook Share
- Flurry
- Google AdMob
- Google CrashLytics
- Google Firebase Analytics
- Parse

Permissions

Appendix

- Read agenda, appointments and confidential information
- Record audio
- Open Bluetooth settings
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Receive data from the internet
- Estimated network-based location
- Reading Google Service Configuration
- Change your audio settings
- Link with Bluetooth devices
- View network connections
- Precise GPS and network based location
- Send sticky broadcast
- Read telephone status and identity
- Access to additional assignments from location provider
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- Show about other apps
- View WiFi connections

WAZE

- 100 million + downloads in google play. 4.41 rating (n=8,493,272)
- Version 4.81.3.0
- Analysis date: 08-03-2022

Features of this app

Waze is a community-driven GPS navigation app.

At level A the homepage Waze provides navigation information and user-submitted travel times and route details. Other users' real-time locations and speeds are also provided in the navigation map. Spotify app can also be directly linked with the app. Users can also easily reach recent operation records and saved places. Moreover, personal navigation preferences can be set up (preferred gas type, car type, city pass, preference of roads).

At level B, it provides destination information if it is possible (website or phone number), and the nearest parking lot. Users can add gas stations, parking lots, drive thru's (KFC and McDrive) and other food shops. Alerts and reports about the route will be shown. Settings can also be reached. The main information at level B is the turn-by-turn navigation information. In the navigation map, beyond route information, sponsored shops will appear.

At level C, nearby and cheapest gas stations, parking lots, drive thru's (KFC and McDrive) and other food shops will be shown. Users can update information for the map (accidents, traffic jams, speed, police traps and gas price, etc.). The real-time driving route can be shared with others, which can be used for pick-up service.

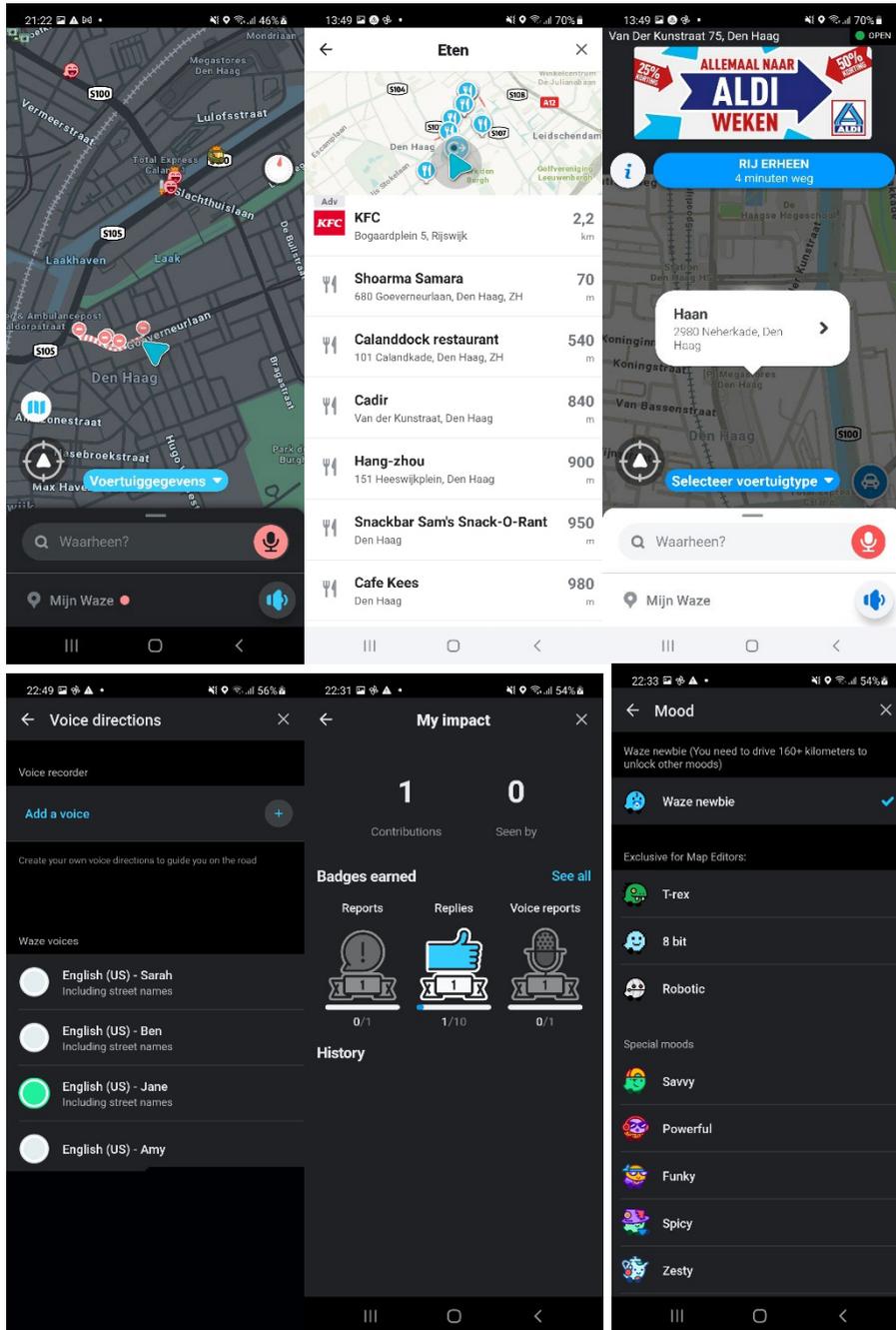
Persuasive techniques

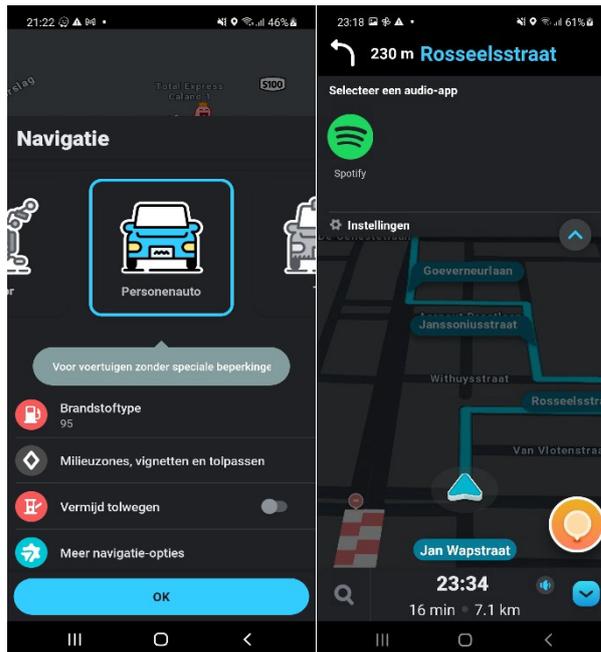
- Tailoring: provide tailored information, guiding and suggestion
 - Level A: Trip history is shown in the app.
 - Level B: Personal navigation voice. Users can choose their favourite singer or move star's voice.
 - Level B: List of price for nearby gas station, parking lots and foods.
 - Level C: Alerts and reports about the route
 - Level A: Local advertising. All ads can be shown in the map with physical locations in the neighbourhood.
- Mass suggestion
 - Level A: Easy reach music app (Spotify)
- First choice impact
 - Level B: If the user search, the sponsored trip-related gas station, parking lot and other shops are listed in the first place.
 - Level B: In the navigation map, the sponsored shops appear.
- Repeated push messages
 - Level A: Local advertising when using the app.
- Gamification:
 - Level A/B/C: The whole app is designed in a game way. All other users on the road and all information on the map are in cartoon design.
 - Level C: The scoreboard is used to motivate using the app.
 - Level C: The importance score is used to motivate update information in the map.
- Emotions
 - Level C: There are different icons to choose from as profile photos. The icons are designed specifically to show moods.
 - Level A: Other users are shown on maps as mood icons.
- Social influence
 - Level C: A community-driven app. Reported information can be shown by others, to gain influence in the app.

Appendix

Level C: Users can use the app with friends via Facebook.

Appendix





Goal

WAZE is a community-driven GPS navigation app. It provides turn-by-turn navigation information and user-submitted travel times and route details. Waze users ("Wazers") can report accidents, traffic jams, speed and police traps, and, from the online map editor, can update roads, landmarks, house numbers, etc. Based on the information collected, Waze is then in a position to provide routing and real-time traffic updates. Waze can also identify the cheapest gas station, parking lots and other shops near a user or along their route.

Waze use gamification and social influence to encourage users to report traffic or road hazards through incentives such as acquiring points for your profile. The app generates revenue from hyperlocal advertising¹. (Hyperlocal is information oriented around a well-defined community with its primary focus directed toward the concerns of the population in that community.)

Tracking

- Facebook Login
- Google AdMob
- Google CrashLytics
- Google Firebase Analytics
- Google Play Install Referrer

Permissions

- Create accounts and set passwords
- Use accounts on the device
- Find accounts on the device
- Add or delete accounts
- Read agenda, appointments and confidential information
- Record audio
- Open Bluetooth settings
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos

¹ <https://www.digitaleversnelling.be/inspiratie/digitaal-advies/hyperlokaal-adverteren-met-waze-local>

Appendix

- Receive data from the internet
- Estimated network-based location
- Change your audio settings
- Adjust your contacts
- Read your contacts
- Read your own contact
- Link with Bluetooth devices
- View network connections
- Precise GPS and network based location
- Send sticky broadcast
- Synchronization on and expand
- Read synchronization settings
- Read synchronization statistics
- Adjust system settings
- Read telephone status and identity
- Access to additional assignments from location provider
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- Show about other apps

Google maps

- 10 billion + downloads in google play. 3.89 rating (n=15258107)
- Version 11.21.2
- Analysis date: 21-03-2022

Features of this app

It offers satellite imagery, aerial photography, street maps, 360° interactive panoramic views of streets (Street View), real-time traffic conditions, and route planning for travelling by foot, car, bike, air (in beta) and public transportation. The Maps program allows users to zoom in and out and move the map to search neighbouring areas.

At level A the homepage, the google maps app provides maps where users can plan trips, search locations (restaurants, groceries, gas, etc.), or explore activities.

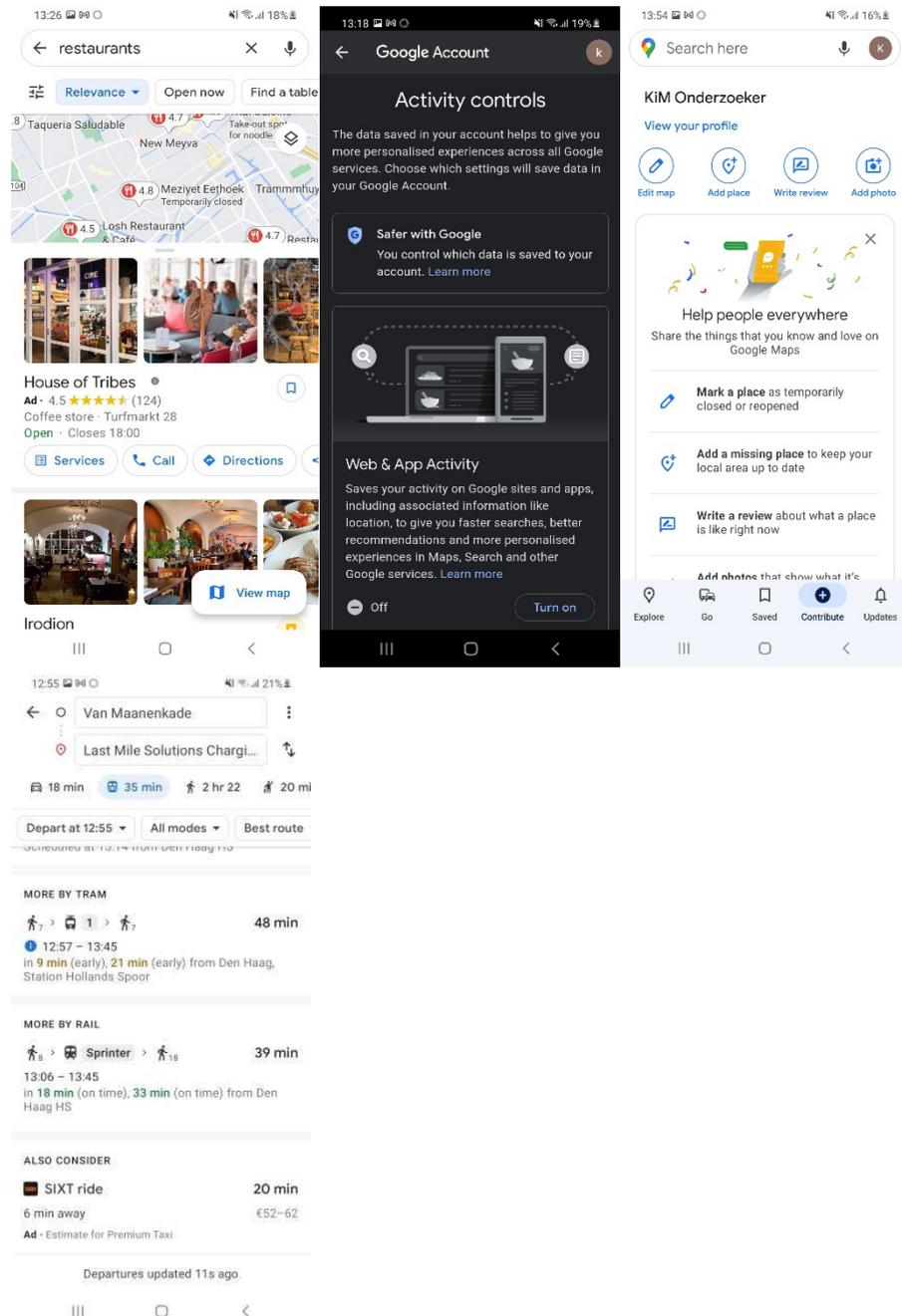
At level B users can plan a trip, see traffic conditions, Street View and explore Business listings on maps.

For trip planners, the app allows users to find available directions through driving, public transportation, walking, biking or ride service.

Persuasive techniques

- Tailoring: provide tailored information, guiding and suggestion
 - Level A: Maps with business lists and reviews
 - Level A: Detailed street maps and different layers of maps.
 - Level B: Personal recommendations in maps, such as restaurant recommendation based on our historical visiting.
 - Level A: Explore tab that lets you learn more about what's happening around you
 - Level B: real-time traffic conditions.
- First choice option
 - Level B: Sponsored restaurants or cafés are listed in the first place.
- Social influence,
 - Level B: Local guide or expert's guide and rating system.
- Gamification
 - Local Guide: Users can contribute content to Google Maps and get points if it's published. Users can collect points to increase their level and get Local Guide benefits.

Appendix



Goal

It provides map services with directions and transit, traffic conditions, street view and business listings. The services target for both private use and business use. The map provides advertising, which seems to be a big part of the revenue. Personalization seems to be a focus point, for example, personalized 'match' score for places and game design function for Local Guide.

Tracking

- Google Firebase Analytics

Permissions

- Use accounts on the device

Appendix

- Find accounts on the device
- Add or delete accounts
- Pick up active apps
- Record audio
- Download files without notification
- Open Bluetooth settings
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos
- View configured accounts
- Receive data from the internet
- Estimated network-based location
- Read conversation list
- Write a conversation list
- Google maps
- Reading Google Service Configuration
- Adjust your contacts
- Read your contacts
- Turn off your screen locking
- Link with Bluetooth devices
- Arrange near field communication
- Change network connection
- View network connections
- Measure storage space of app
- Precise GPS and network based location
- Send SMS messages
- Install shortcuts
- Send sticky broadcast
- Synchronization on and expand
- Read synchronization settings
- Call phone numbers directly
- Read telephone status and identity
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- Connecting and breaking WiFi
- View WiFi connections

PostNL

- 1 million + downloads in google play. 2.87 rating (n=32,718)
- Version 7.18.0
- Analysis date: 26-04-2022

Features of this app

It basically offers to check package function and to send package function by PostNL. Users can also create and send a photo card directly from the app.

At level A the homepage, the PostNL app lets user check the packages are on the way to them. At the same time, the app offers the making account/login option, and create and send a photo card option. These two options will never popup again if users click them.

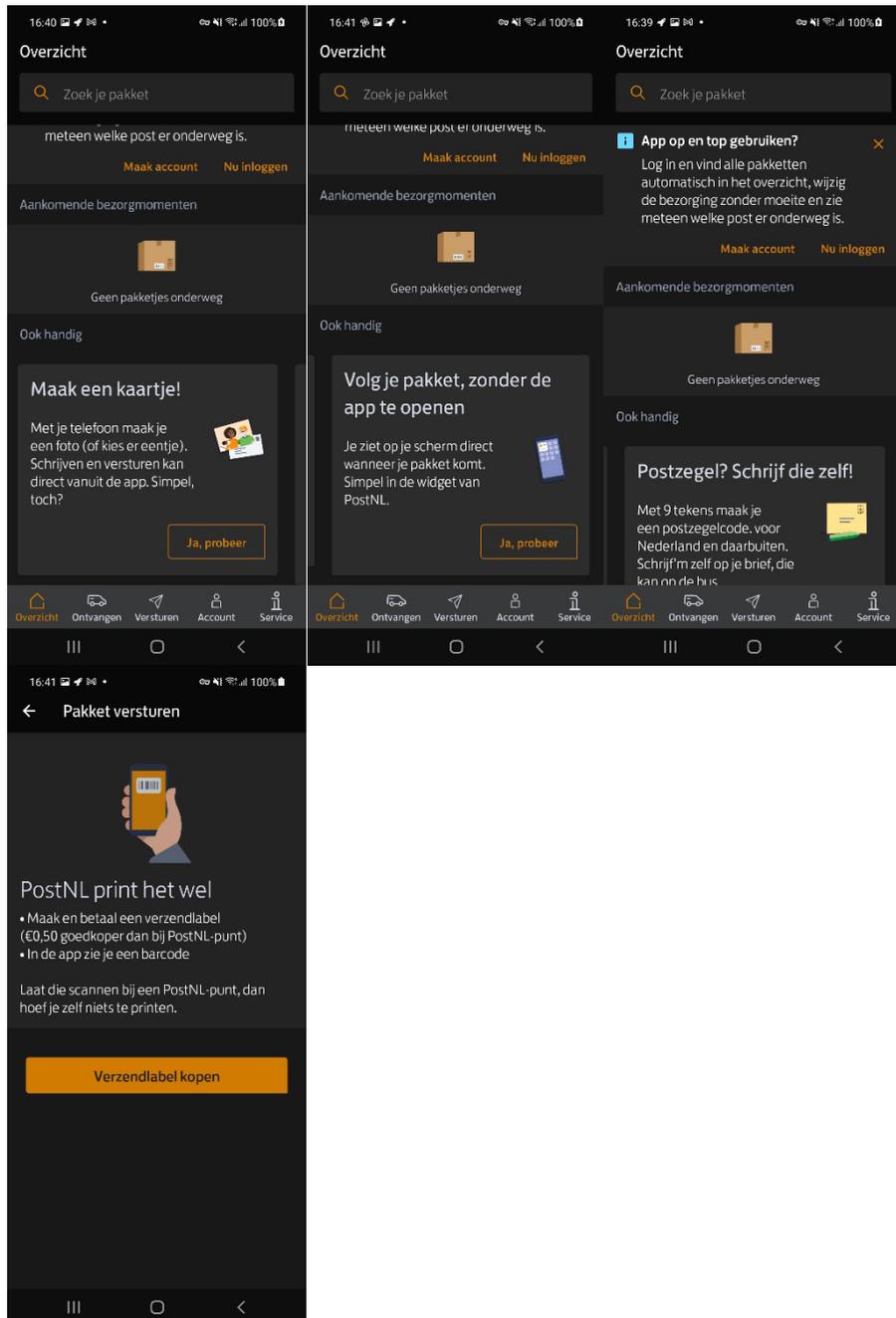
At level B users can find the price of sending a certain package and the price related. From here, users can start to print and pay for the shipping label. At level B, users can also reach to customer service information and personal account information.

At level C, the app helps users to go through the process of print a shipping label, including filling in information about senders and receivers and paying via ideal bank.

Persuasive techniques

- Repeated push messages,
Level A/B: Login message exists during the use if users don't log in.

Appendix



Goal

It provides sending and checking parcel services, with the new photo card function. Users can fill in their own address and receiver information in the app, which make the shipping label easily. Users still need to go to the PostNL point for delivery, no home pick up service. The app guides users to log in or make an account.

Tracking

- ABTasty
- Adobe Experience Cloud
- Google AdMob
- Google CrashLytics
- Google Firebase Analytics

- Google Play Install Referrer

Permissions

- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- Reading Google Service Configuration
- View network connections
- Precise GPS and network based location
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode

My DHL

- 1 million + downloads in google play. 4.3 rating (n=20,600)
- Version 4.4.8
- Analysis date: 26-04-2022

Features of this app

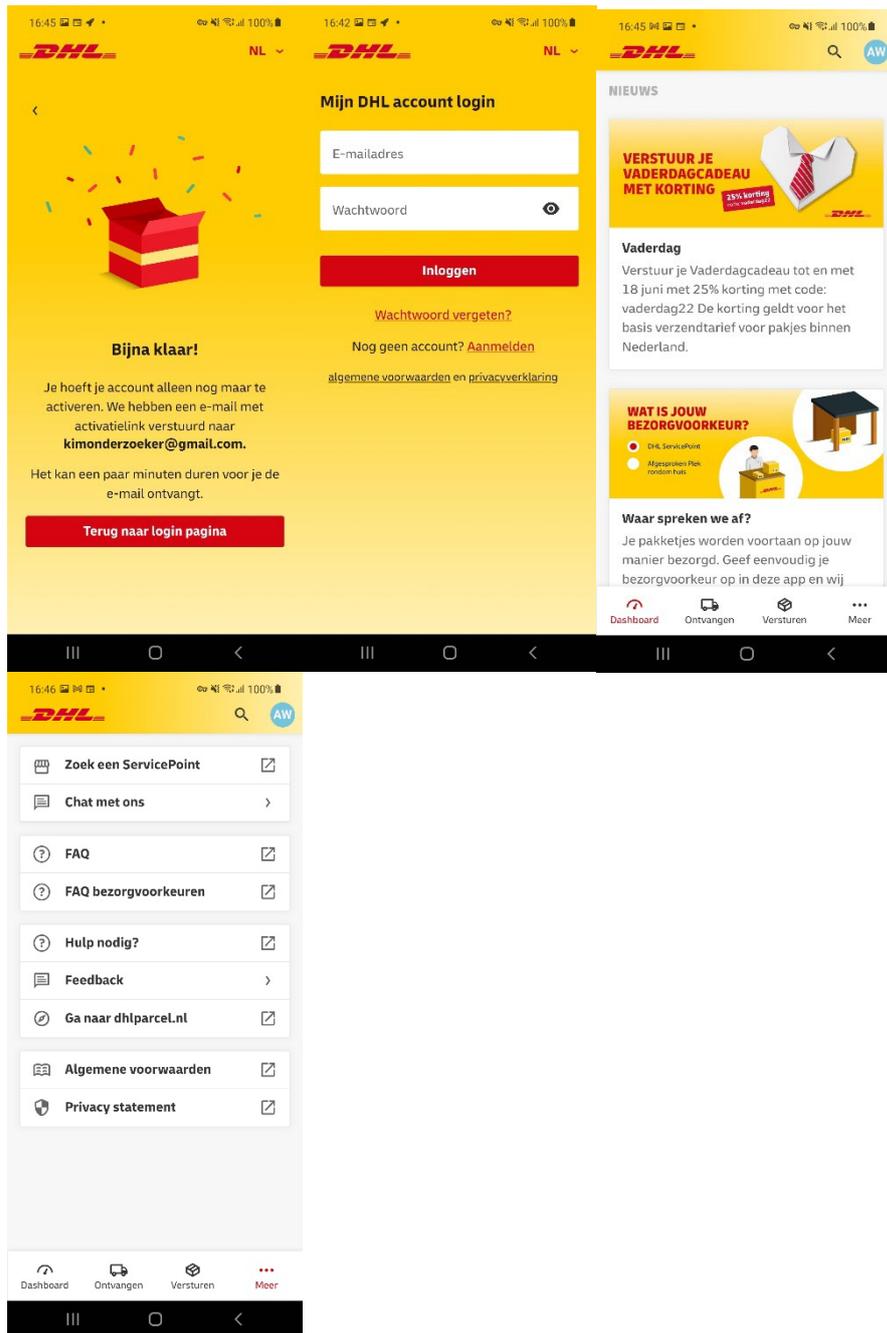
It basically offers to check package function and to send package function by DHL.

At level A the homepage, the DHL app provides news to users. Users can also check the packages, check their previous delivered parcels or start a new sending.

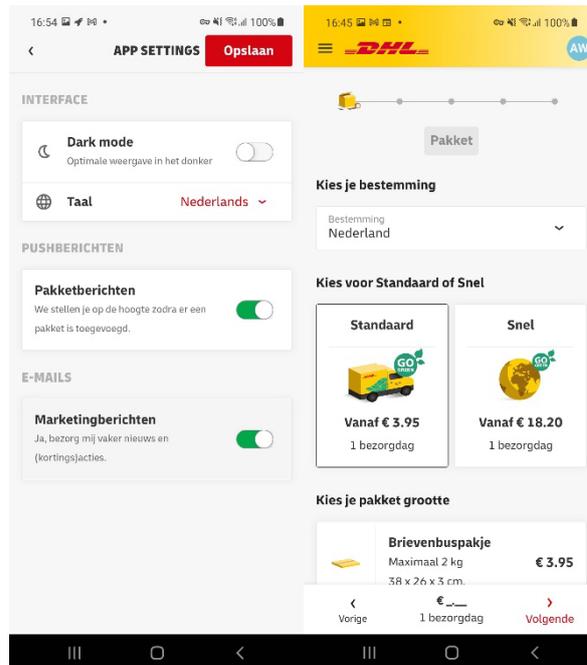
At level B users can start sending a package. Users can create the shipping label, choose a home pickup service and pay for the shipping label. At level B, users can also reach to customer service information and personal account information.

Persuasive techniques

- Default effect
Level A: Users have to log in to use the app.
- Discount and default effect
Level C: The app may provide a discount, to receive this, users have to accept receiving news.



Appendix



Goal

It provides sending and checking parcel services and focuses getting users to log in or make an account.

Tracking

- Facebook Analytics
- Facebook Login
- Facebook Places
- Facebook Share
- Google AdMob
- Google Firebase Analytics
- Google Play Install Referrer
- OneSignal
- Sentry

Permissions

- Download files without notification
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Receive data from the internet
- Check the license from Google Play
- View network connections
- Manage vibration
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

Getir : groceries in minutes

- 10 million + downloads in google play. 4.6 rating (n=721,068)
- Version 2.13.0
- Analysis date: 16-05-2022

Features of this app

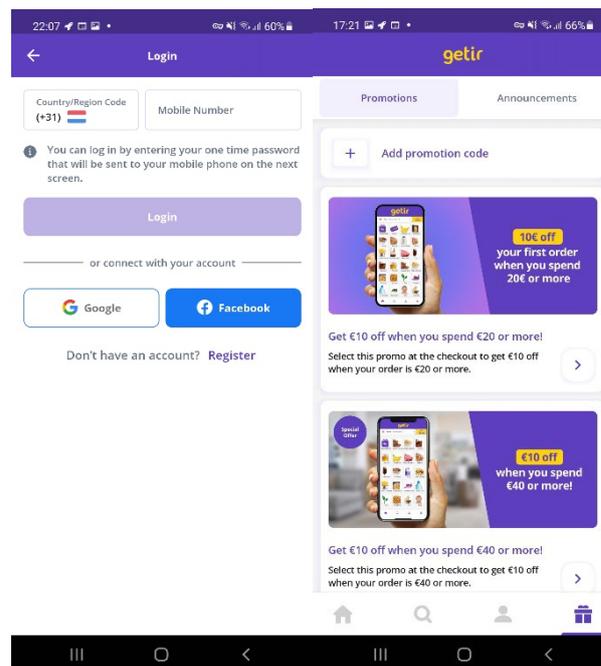
Getir is an online supermarket without physical stores and it delivers groceries within minutes.

At level A the homepage, users need to fill in the delivery location to check if the location is in the service area. If so, the app shows all online products that users can add to the basket.

At level B, users can check the basket and pay.

Persuasive techniques

- Tailoring: provide tailored information
Level A: It shows delivery time to selected location
- Default effect
Level C: To use the app, users have to log in or make an account.
- Economic incentives
Level A/C: Discount for the first order or spending more than 40 euro.
Level A/C: Free products, pre-giving. Such as buy one get one for free.
- Emotional appeals
Level A: Convenient appeal, to emphasize that it can have everything conveniently and easily delivered to your home



Goal

The features and techniques of the app show that it is an online supermarket that promises to deliver groceries within minutes.

Tracking

- AppsFlyer
- Facebook Login
- Facebook Share
- Google AdMob
- Google Analytics
- Google CrashLytics
- Google Firebase Analytics
- Google Play Install Referrer
- Google Tag Manager
- LeanPlum
- Segment

Permissions

- Record audio
- Adjust or remove the content of your USB storage
- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- Estimated network-based location
- Reading Google Service Configuration
- Change your audio settings
- Link with Bluetooth devices
- Arrange near field communication
- View network connections
- Precise GPS and network based location
- Call phone numbers directly
- Read telephone status and identity
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- Connecting and breaking WiFi
- View WiFi connections

Flink : Booschappen in minuten

- 1 million + downloads in google play. 4.5 rating (n=16,430)
- Version 2.24.0
- Analysis date: 23-05-2022

Features of this app

Flink is an online supermarket without physical stores and promises to deliver groceries within minutes.

At level A the homepage, users need to fill in the delivery location to check if the location is in the service area. If so, the app shows all online products that users can add to the basket. In the homescreen suggestions for products are shown, including the special week deals.

At level B, users can check the basket and pay. Here also 'aanbevelingen' are shown for other products.

Persuasive techniques

- Tailoring: provide tailored information
Level A: It shows delivery time to selected location
- Default effect
Level C: To use the app, users have to log in or make an account and provide a phone number.
- Economic incentives
Level A/C: Discount for the first order or spending more than 40 euro.
Level A/C: Free products, pre-giving.
- Emotional appeals
Level A: Convenient appeal, to emphasize that it can have everything conveniently and easily delivered to your home.

11:27 31%
Next, let's verify your phone number
This helps us to secure your account and ensures that our rider can contact you about your order in case anything comes up.
+49 Phone number
Send verification code

11:26 31%
Create an account
To place an order, you'll need to sign up first.
First Name Last Name
Email address
Password (min. 6 characters)
By creating an account, you agree to our terms and conditions and privacy policy.
Create account
Already have an account? Login

Goal

The features and techniques of the app show that it is an online supermarket that aims to deliver groceries within minutes.

Tracking

- Braze
- Google CrashLytics
- Google Firebase Analytics
- Optimizely
- Segment

Permissions

- Ranking active apps again
- Read the content of your USB storage
- Receive data from the internet
- Estimated network-based location
- View network connections
- Precise GPS and network based location
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

Omio: Book train, bus & flight

- 10 million + downloads in google play. 4.74 rating (n=119,701)
- Version 7.98.0
- Analysis date: 08-03-2022

Features of this app

Omio is a 3rd party booking service for trains, long-distance (international) buses and plane tickets. The focus is on mode comparison, not on intermodal travel combinations. Hence, Air2Rail options are not shown. It aggregates results across all the main transport companies in Europe, so in this way, travellers don't need to look in separate systems. It highlights the cheapest option to travel, within the range of options included.

At level A the homepage, travellers can start to plan trips to find suitable public transport (trains, long-distance buses and planes). The instruction for using the app is provided by default.

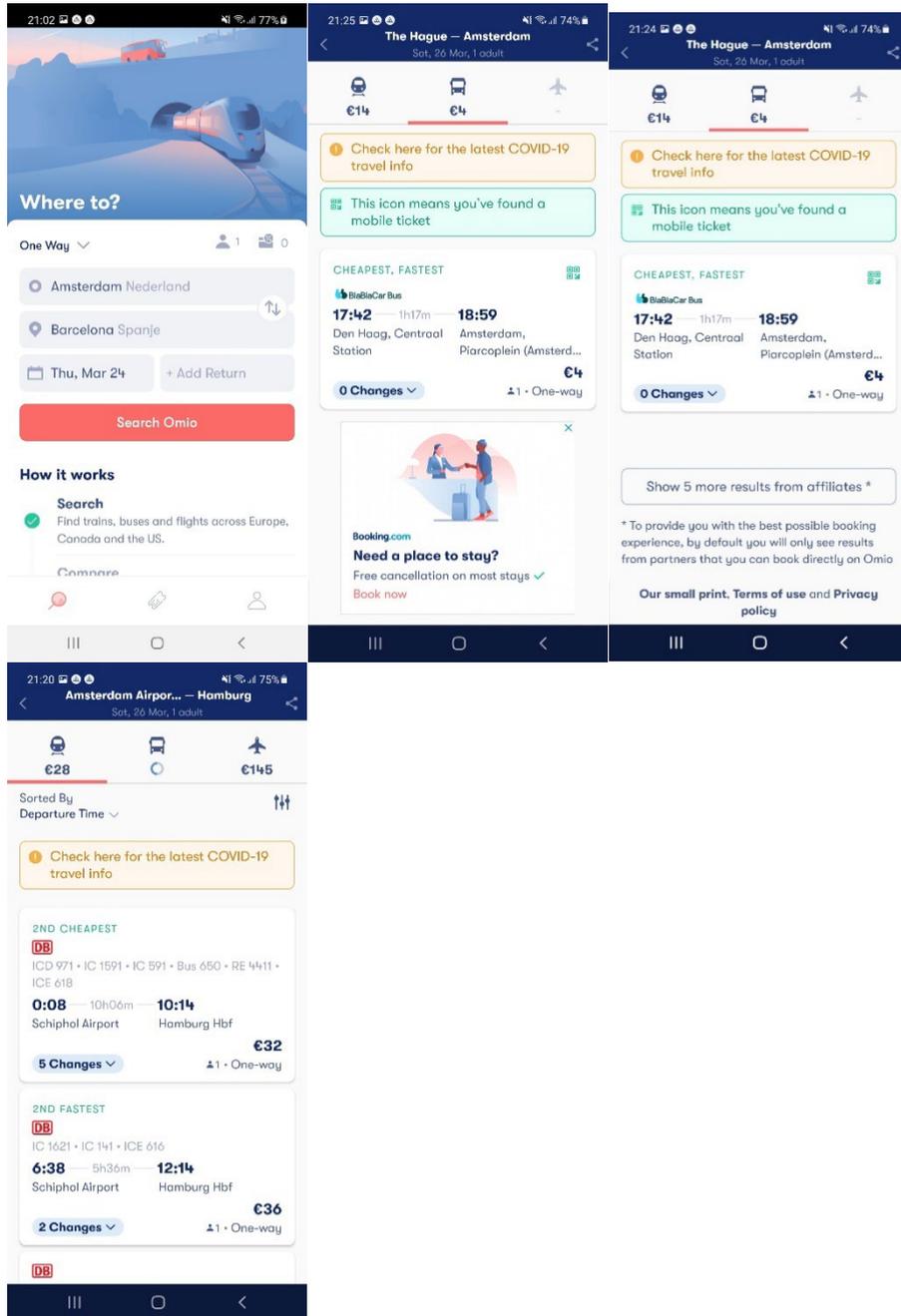
At level B, it shows the results separately by trains, long-distance buses and planes. Prices for different modes are obviously displayed for easy comparison.

At level C, detailed information about each option is shown. Users can start to book tickets.

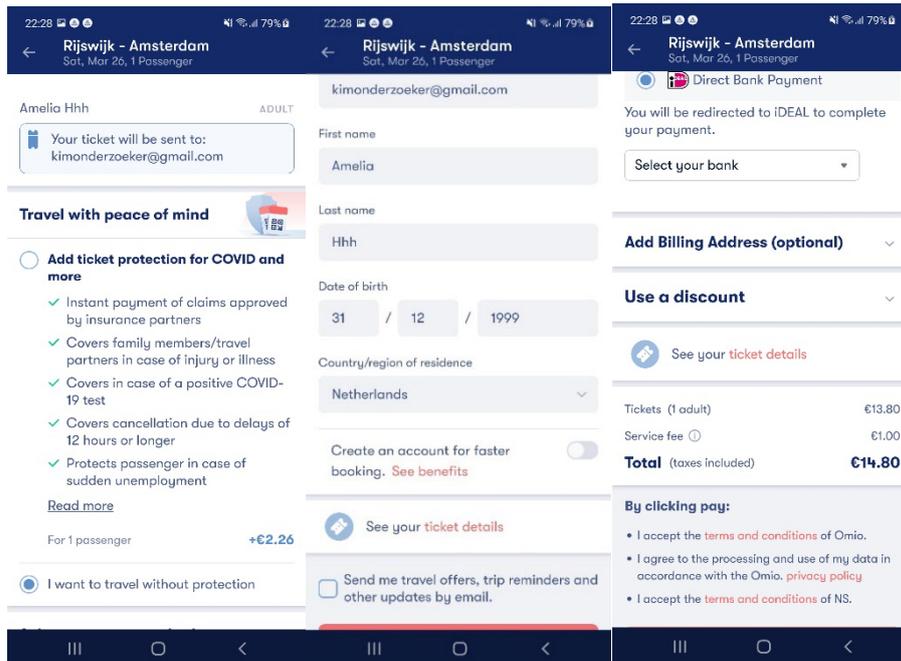
Persuasive techniques

- Tailoring: provide tailored information and suggestion
 - Level A: Providing trains, long-distance buses and plane tickets at the same time
 - Level A: Instruction for the booking
 - Level B: Advertising for partner booking.com and covid info
 - Level C: Travel protection option
 - Level C: It prefers users to make an account
- Default effect
 - Level A: By default the instruction for using the app is provided.

Appendix



Appendix



Goal

It aggregates results across all the main transport companies in Europe, so travellers don't need to book especially trains, separately in different systems. It focuses on providing the cheapest option to travel. It may get profit by charging service fees for booking tickets, by advertising, by extra service like travelling protection. The instruction for using the app is offered by default, indicating the app is attracting new users.

Tracking

- Adjust
- Branch
- Braze
- Cloud Audit Logs
- Facebook Ads
- Facebook Analytics
- Facebook Login
- Facebook Share
- Google AdMob
- Google CrashLytics
- Google Firebase Analytics
- Google Play Install Referrer
- Huawei Mobile Services HMS Core
- Instabug
- Mapbox
- Snowplow

Permissions

- Create accounts and set passwords
- Use accounts on the device
- Find accounts on the device
- Add or delete accounts
- Read the content of your USB storage
- Receive data from the internet
- Estimated network-based location

Appendix

- Reading Google Service Configuration
- Change your audio settings
- View network connections
- Precise GPS and network based location
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

KAYAK: Tickets, hotels, auto

- 10 million + downloads in google play. 4.1 rating (n=250,000)
- Version 156.0 updated 07-06-2022
- Analysis date: 13-06-2022

Features of this app

KAYAK is a travel agency and metasearch engine. KAYAK searches travel sites and finds information for travellers on flights, hotels and rental cars. Hence, tickets are flight tickets.

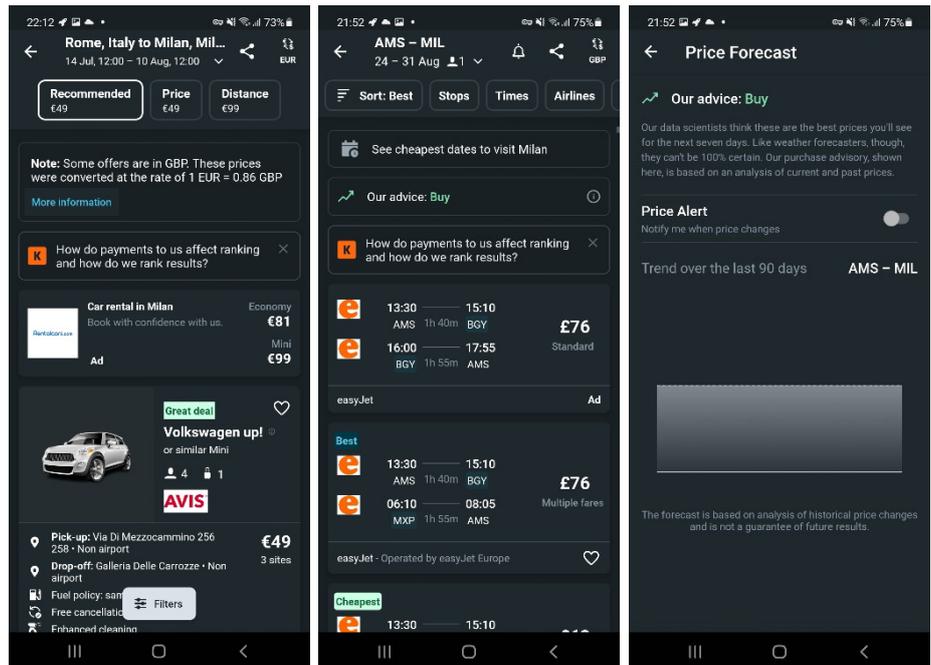
At level A the homepage, it provides access to flights, hotels and rental cars search. Journey or destination recommendations and exploring are clearly shown on the homepage.

At level B, users can fill in the origination (automatically filled in by nearby airport) and destination to search for flights, hotels and rental cars. Especially, the app provides a "see cheapest dates to visit" function.

Persuasive techniques

- Tailoring: provide tailored information and suggestion
 - Level A: Leading users to explore a city, with professional pictures of the city or other traveller's holiday experiences.
 - Level A: It used GPS location to fill in the nearby airport for users.
 - Level B: Cheapest dates option for flights.
 - Level B: Show buying advice for flights based on KAYAK data scientist's prediction
- First choice effect
 - Level B: Hotels and cars from providers with partnerships/sponsors are listed in the first place, and users will be directly linked to the providers' sites without comparison with other providers.
 - Level B: Flight from providers with partnerships are listed in the first place, different than hotels and cars, users can still buy tickets from the app.
- Default effect
 - Level A: The nearby airport is always filled in for users.
- Economic incentives
 - Level B: It use icon Cheapest option / Great deal flags to guide travellers.

Appendix



Goal

The app provides instant online comparisons for flights, as well as car rental and hotels and guides users to log in with an email account or Facebook account. The airlines or rental cars from sponsored partners are shown in the first place, which indicates that it helps partners to boost bookings. It aims to search hundreds of travel sites at once to find what travellers need for their trips. If people cannot find what they are looking for, other destinations or a different planning with the cheapest option might convince travellers to go and travel.

Tracking

- Adjust
- Facebook Login
- Facebook Share
- Google AdMob
- Google Analytics
- Google CrashLytics
- Google Firebase Analytics
- Google Play Install Referrer

Permissions

- Read the content of your USB storage
- Take photos and videos
- Receive data from the internet
- Estimated network-based location
- Reading Google Service Configuration
- View network connections
- Precise GPS and network based location
- Perform at start-up
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

Skyscanner Vluchten Hotels

- 50 million + downloads in google play. 4.71 rating (n=745,618)
- Version 7.59.1
- Analysis date: 18-03-2022

Features of this app

The Skyscanner app helps users to find flights, hotels and cars, providing instant online comparisons for millions of flights, as well as car rental and hotels.

At level A the homepage, the app provides a direct way to search for flights, hotels and car hire, currently with covid-19 travel map information.

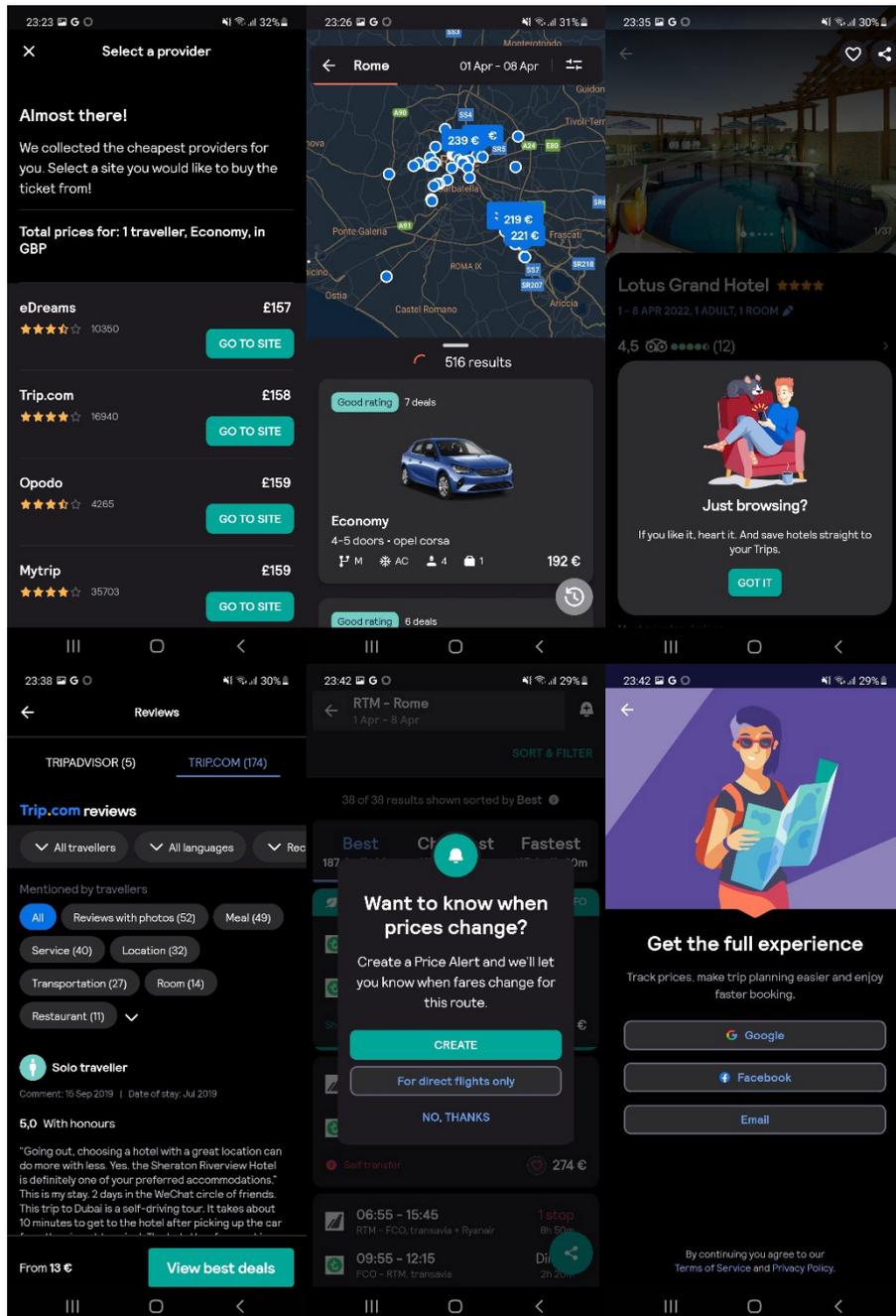
At level B and third level, users can start to find flights, hotels or cars in detailed steps. The flight planner is airport to airport based. Cities without an airport are unavailable. For instance, one cannot travel from or to Breda or Utrecht. Alternatives to flights are absent.

At level C, users can book a flight or hotel or car, but this cannot be done in the app. Users have to go to the provider site to do further steps. Hence, Skyscanner is mainly a portal or platform.

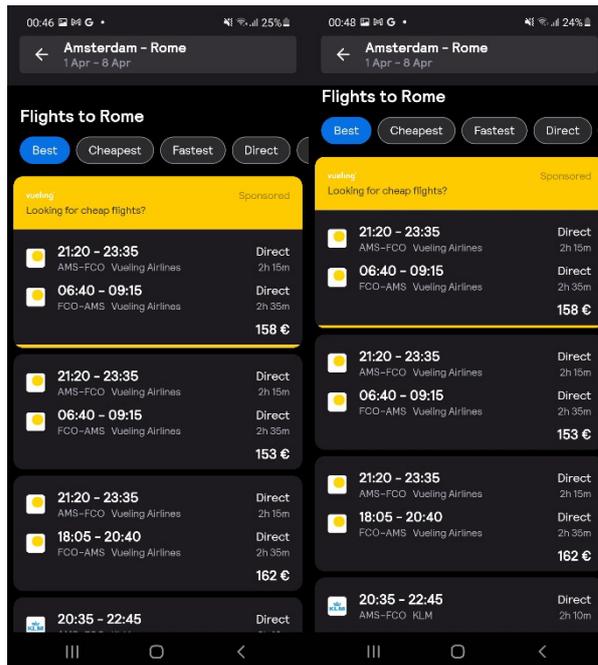
Persuasive techniques

- Tailoring: provide tailored information
Level A: Cheapest options for flights, hotels or cars.
Level B: Price change alerts service is available if users select a flight, but users have to log in with email or Facebook accounts to use this function.
Level B/C: For hotels, in addition to the price, the app also highlights the rating. TripAdvisor rating is further highlighted. This implies TripAdvisor may have a partnership with Skyscanner.
- First choice effect
Level A: Flights from providers with partnerships are listed in the first place, and users will be directly linked to the providers' sites without comparison with other providers.
Level A: Beyond sponsored flights, the cheapest and shortest trip is the first option.

Appendix



Appendix



Goal

The app provides instant online comparisons of flights, as well as car rental and hotels. The app guides users to log in with an email account or Facebook account. The airlines or rental cars from sponsored partners are shown in the first place, which indicates that it helps partners to boost bookings. It aims to empower travelling with the collaboration of various providers (affiliates). When a booking is made via some providers (deals websites, price comparison websites, etc.), the providers can gain profits.

Tracking

- AppsFlyer
- Branch
- Braze
- Google AdMob
- Google Analytics
- Google CrashLytics
- Google Firebase Analytics
- Google Play Install Referrer
- Google Tag Manager
- Mapbox
- New Relic

Permissions

- Receive data from the internet
- Estimated network-based location
- View network connections
- Precise GPS and network based location
- Full network access
- Prevent the device from switching to sleep mode
- View WiFi connections

Colofon

Dit is een uitgave van het Kennisinstituut voor Mobiliteitsbeleid (KiM),
Ministerie van Infrastructuur en Waterstaat

Januari 2023

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Projectnummer: MB2109

Vormgeving en opmaak: IenW

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