I European Conference on Sustainable Mobility at Universities

Universitat Autònoma de Barcelona

UAB
Universitat Autònoma
de Barcelona

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Speaker:
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Topic:
App&Town: towards a sustainable and accessible mobility

UNIVERSITAT **AUTÒNOMA** DE BARCELONA

U-MOB>

life

- MASS Factory is a Technology-based company of the UAB.

- Founded in 2012 to bring to market solutions to improve mobility of people when using public transport.

- From the beginning, our goal has been to reach **all users**, independently of their functional capabilities.

- What does anybody need, in order to travel using public transport?

    - **Information**: maps, time-tables, routes,…

    - **Guidance**: step by step instructions.

    - **Accessibility**: special devices or information to help all kind of users.

- What is disability? We tend to think that it means:

  - People with wheelchair

  - Blind or visual impairment

  - Deaf or auditory impairment

  - Cognitive or Intellectual disability

- But, what about…

…contextual disability?

…temporary disability?

- We need accessibility in mobility, but, what is it?

  To apply Universal Accessibility principles into everything in the environment to allow mobility in the same conditions to everyone (convenience, security, comfort, autonomy and easiness)

- We tend to think that it means:

  - Ramps

  - Braille

  - Audio descriptions

- But we also need technology to enhance the mobility of people:

  - Apps

  - Web pages

  - Devices

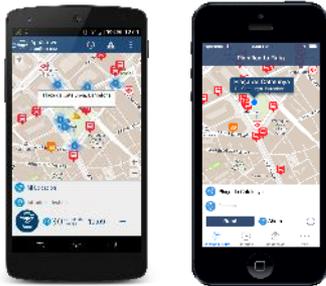- MASS Factory provides **technology** solutions for the **mobility** of **all users**

The conference is in the Framework of the European Project about sustainable Mobility: U-MOB LIFE.

LIFE project number LIFE15 GIC/ES/000056 This Project is funded by the European Union. It reflects only the author's view and the agency is not responsible for any use that may be made of the information it contains.

App&Town Going with You

App for mobile devices to guide users in the city. Provides:

- Maps, information, timetables, nearby stops, arrival time...

- Route calculation from A to B, with detailed information.

- On route guidance.

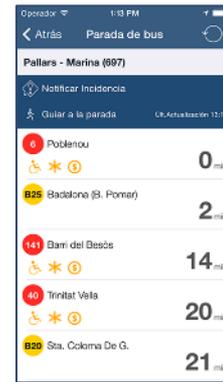- Accessibility options to adapt the route.

APP&TOWN
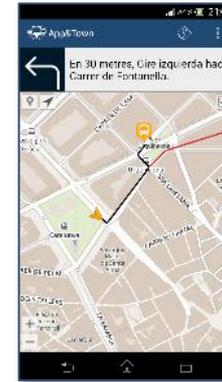Going with you

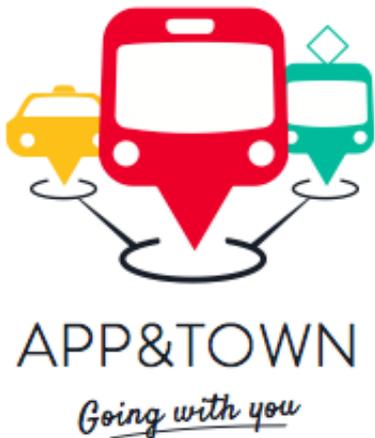Route planner   Time tables   Nearby stops   Arrival time   Guidance   Accessibility options

App&Town Going with You

It adapts to each user, with Universal Design:

- Designed for blind users when using *VoiceOver* or *TalkBack*.

- Visual information and vibration on every alert.

- Route calculation taking into account accessibility.

Allows **anyone** to use **public transport** in a safer, easier and comfortable way.

Freely available on the market

App&Town Compagnon

- Designed to guide cognitive impaired people to use public transport instead of special transport.

- A Control Centre monitors the user and resolves incidents.

Control Centre
Monitor and Incident resolution
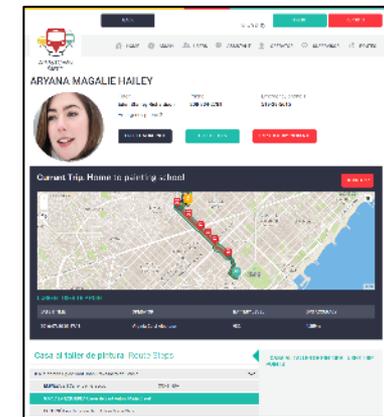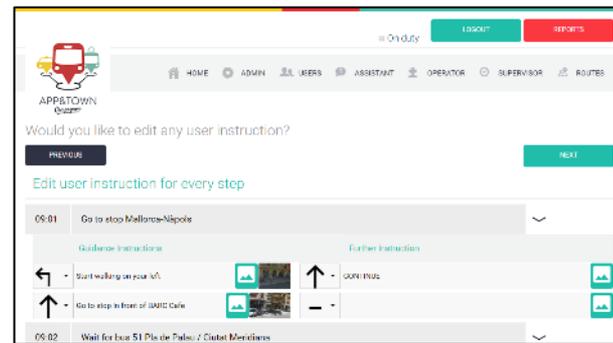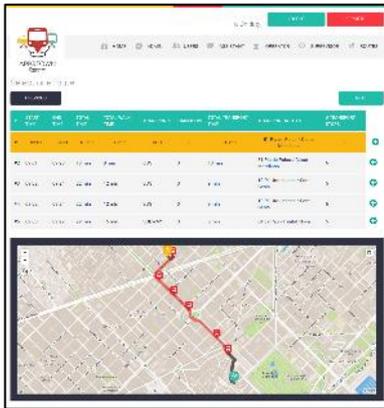
Final user
Guiding & Monitor
Mobile App

Parents and tutors
Monitor
WebApp Responsive

App&Town Compagnon

The Control Centre does:

- **Creation of routes**: routes are tailored for each user, with detailed instructions with text, arrows, voice and pictures.

- **Monitoring**: from start to end, when a user does a route, the Control Centre can see the location of the user, and can process incidents, such as Out of Route, user stuck, wrong bus, low battery…

App&Town Compagnon

The user has an app that does:

- **Show assigned routes**: the user has a list of predefined routes, with text and/or pictures.

- **Route guidance**: en-route information with arrows, text, pictures and/or voice, and alerting in case of incident.

- **Help button**: an always available button to call the Control Centre gives confidence to the user.

- **Monitoring**: the device is constantly sending the user location and device information to the server, and alerts it in case of incident.

App&Town Compagnon

- By moving users from the special transport into public transport, we achieve:

  - Better **integration**, **independence** and increase of **self-esteem** of the users, as they are using the same transport as everyone else.

  - More **confidence** of parents and/or tutors, as they can know where is the person.

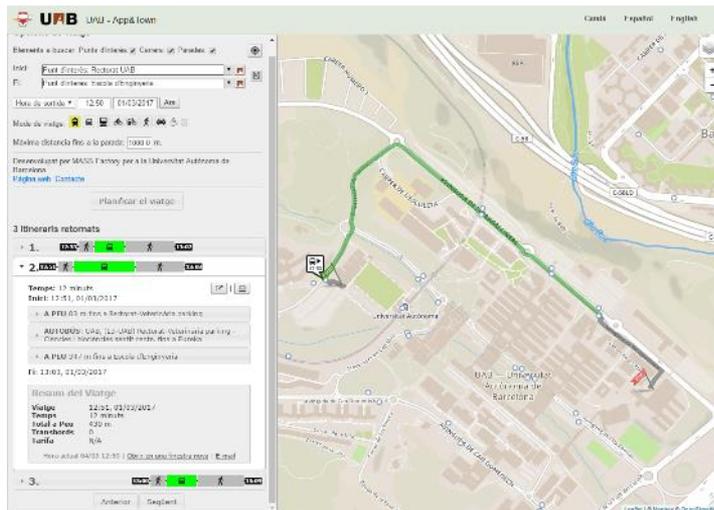 - Reduction of **costs**: from about 17$ to 2$ per travel.

App&Town UAB

Web application to provide indications to **come to** or **get out of** the UAB.

- Offers route calculation that starts or finishes in the UAB.

- Routes can be calculated using public transport, bus, train, car, walk, bike or bike+public transport. Route destination can be the nearest parking (car, bike or motorbike)
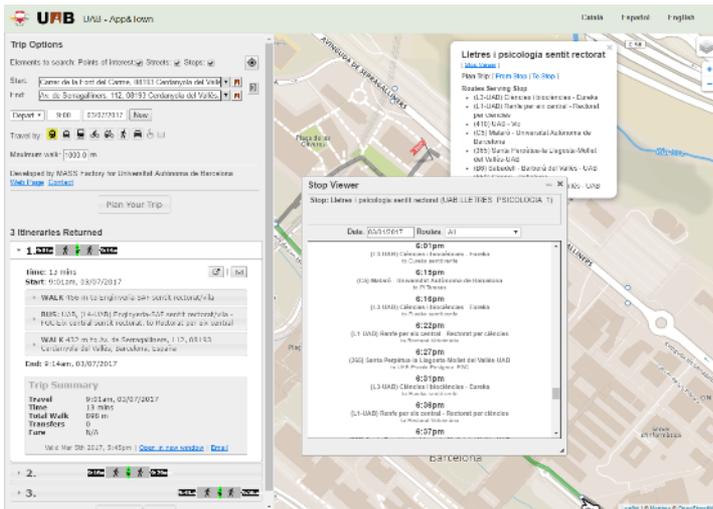

- Possibility to choose departure or arrival time.

- Has all the internal routes, bus lines, Points of Interest and internal paths of the UAB.

- Shows information of all bus stops, including time-tables.

App&Town UAB

Offers many accessibility options:

- **Accessible routes** will prioritize transit lines, stops and walking paths that has been marked as accessible.

- Guidance to the nearest **accessible parking**, and accessible path from there to the destination.

- The web page is **fully accessible** to **blind** users. In this case, all information is given by text.

- **Accessibility** must be a **core** element, not an afterthought. It has to be integrated from the beginning of the development.

- We have to design technology solutions that **empower** people to do things autonomously, safely and easily.

- Mobility has to be **seamlessly**, not something that you have to plan and execute in a difficult way.

- Only by incorporating these principles in our designs we would make mobility not only **sustainable** but also **accessible**.

APP&TOWN

THANK YOU

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