Understanding users' needs and capabilities in a digital transport system

Digital lockers for
e-commerce in rural areas

Requirements paths

INDIMO

	OLDER PEOPLE	**MIGRANTS/ FOREIGNERS**
CAPABILITIES	• Current use of tech to communicate w/ relatives • Some use for entertainment • Often supervised used by family	• Familiar with e-commerce for products from home town • Also to exchange money/ stuff with home communities
LIMITATIONS	• Don't feel confident with tech • Don't' feel e-commerce is for them	• Not proficient speaking Italian • Women's use of tech is discouraged in traditional families
REQUIREMENTS	• Humans behind, human assistance	• Availability of language choices • School as a vehicle of adoption

ANTWERP

Inclusive traffic lights

Requirements paths

INDIMO

OLDER PEOPLE	PEOPLE WITH REDUCED VISION	PEOPLE WITH REDUCED MOBILITY

CAPABILITIES

- Tend to move nearby their home, but by all means
- Venture in public space without assistance, but resource to a guide to explore new routes
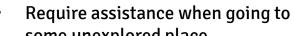
- Tend to move nearby their home. On foot or public transit.
- Venture in public space without assistance, but resource to a guide to explore new routes
- Not all use smartphone, some do.

- Tend to move nearby their home, but by all means
- Venture in public space without assistance, but resource to a guide to explore new routes

LIMITATIONS

- Feel unsafe venturing in public space
- Slow and more doubtful movement
- Bad infrastructure causes problems to them

- Require assistance when going to some unexplored place
- Need help from other on route

- Require assistance when going to some unexplored place
- Bad infrastructure causes problems to them
- Bad weather makes their mobility difficult

REQUIREMENTS

- Extend length of light according to user's needs and indicate how much time of green is left

- Traffic lights should have auditive signal
- Communicate status of lights (red/green)

- Extend length of light according to user's needs and indicate how much time of green is left
- Preferably, no action demanded from user

GALILEE

Informal ride-sharing in ethnic towns

Requirements paths

INDIMO

	ETHNICS MINORITIES	WOMEN	PEOPLE RESIDING IN PERIPHERY
CAPABILITIES	• DDS already integrated in the life of rural Arab villages. • Common use of route planners. • Diversity in the group: ride-hailing prefered for work and study.	• Thriving to gain autonomy within a community of traditional ties	• Current use of ridesharing to access education and opportunities
LIMITATIONS	• The ability of reading a digital map is a skill to be developed. • Maps do not always reflect the real geography of the village. • Need to be educated in tech concepts.	• Pressure of social mandates: cannot ride a vehicle with a stranger without family consent. • Fear of hostility, in public transport • Fear of providing address.	• Established car-dependence • Maps do not always reflect the real geography of the village.
REQUIREMENTS	• Use of colloquial variety of Arabic • Matching the digital map with real geography	• Confidence building: communication addressing Arab women (consider both characteristics)	• Matching the digital map with real geography

MADRID — Cyclelogistics platform for deliveries

Requirements paths

INDIMO

	PEOPLE WITH REDUCED VISION	PEOPLE WITH REDUCED MOBILITY	NON-CONNECTED PEOPLE
CAPABILITIES	• Level of autonomy • Enjoyment in going to store and selecting products	• Purchase of large amount of food • Do not focus on physical condition to justify choices	• Disconnection might be part of their lifestyle
LIMITATIONS	• Tend to avoid screens • Get loss in multiplicity of icons • Contrast, shapes and colors are sensitive	• Limitations of physical accessibility of the store • They prefer small stores and associate delivery with big chains	• Concerns about data privacy and security (reluctance of ubiquity) • Negative perception: association of delivery with sickness or disability
REQUIREMENTS	• Anticipation and control over graphic interface (e.g. customizable fonts…)	• Human assistance • Direct contact with rider to arrange place and conditions of delivery	• Terms and conditions in checkboxes • Include the possibility of viewing user's ratings.

MADRID

Cyclelogistics platform for deliveries

Requirements paths

INDIMO

	LOW-INCOME	COVID19-CONFINED	SOCIALLY ISOLATED
CAPABILITIES	• Use of digital technology: • communicating with relatives • entertainment	• Helping for avoiding risk exposure	• Cooking and shopping are part of their leisure activities
LIMITATIONS	• Old equipment • Limitation in data availability, and connectivity	• May see the contact with the rider and the products as an added exposure?	• Sensitivity about sharing credit card • Sensitivity about giving personal info
REQUIREMENTS	• Budget menus • Possibility of paying in cash	• Establish COVID protocol and communicate it	• Terms and conditions in checkboxes • Include the possibility of viewing user's ratings.

BERLIN

On-demand ride-sharing integrated into multimodal route planning

Requirements paths

INDIMO

	WOMEN	CAREGIVERS OF CHILDREN
CAPABILITIES	• Women use public transport more often than men • They feel confidence if a service is integrated to the public network.	• Common use of chained trips and with middle activities • Positive view of ridesharing when it has the right equipment
LIMITATIONS	• Punctuality: delayed or cancelled service might increase the unsafe feeling (depends on location and time of the day)	• Feel pressure for delaying the service because of the children • Feeling uncomfortable of disturbing other passengers
REQUIREMENTS	• Service integrated into the public transport network and tariff • Include user's ratings • Possibility of calling the rider/driver to arrange a place of pick up or clear doubts	• Include information about child seat and extra space in the vehicle • Possibility of ordering the service in advance • Possibility of calling the rider/driver to arrange a place of pick up

	NOT CONNECTED PEOPLE	**PEOPLE LIVING IN PERI-URBAN OR RURAL AREAS**
CAPABILITIES	• Comfortable with phone or web booking	• Positive image of ridesharing for going to the city centre or traveling longer distances
LIMITATIONS	• Old phones, not enough storage space in the apps	• Many digital services do not operate in these areas
REQUIREMENTS	• Alternative channels to order: WhatsApp number or phone number. • Many visual aids	• Enlarge geographical coverage

Thanks for your attention!

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