

Tampere summer design project

2023 July–August



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Estimated duration of the presentation is: **45 min.**

The Team

Trust-M employees (in front):

Amir Pakpour (“supervisor”)

Rūta Šerpytė (“organizer”)

Summer Designers (in back):

Tim Sowa (“philosopher”)

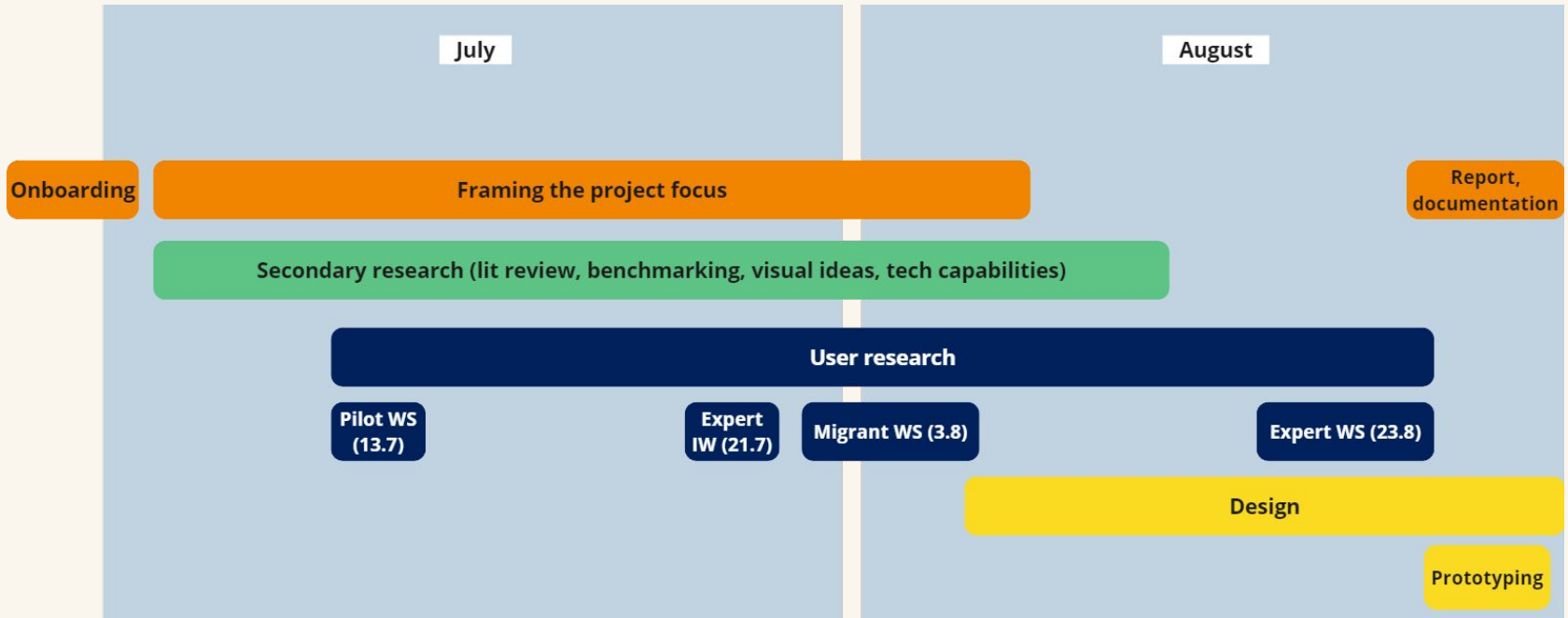
Sofia Kasari (“visualizer”)

Ville Minkkinen (“jack of all trades”)

Anfang Liu (“tech wizard”)

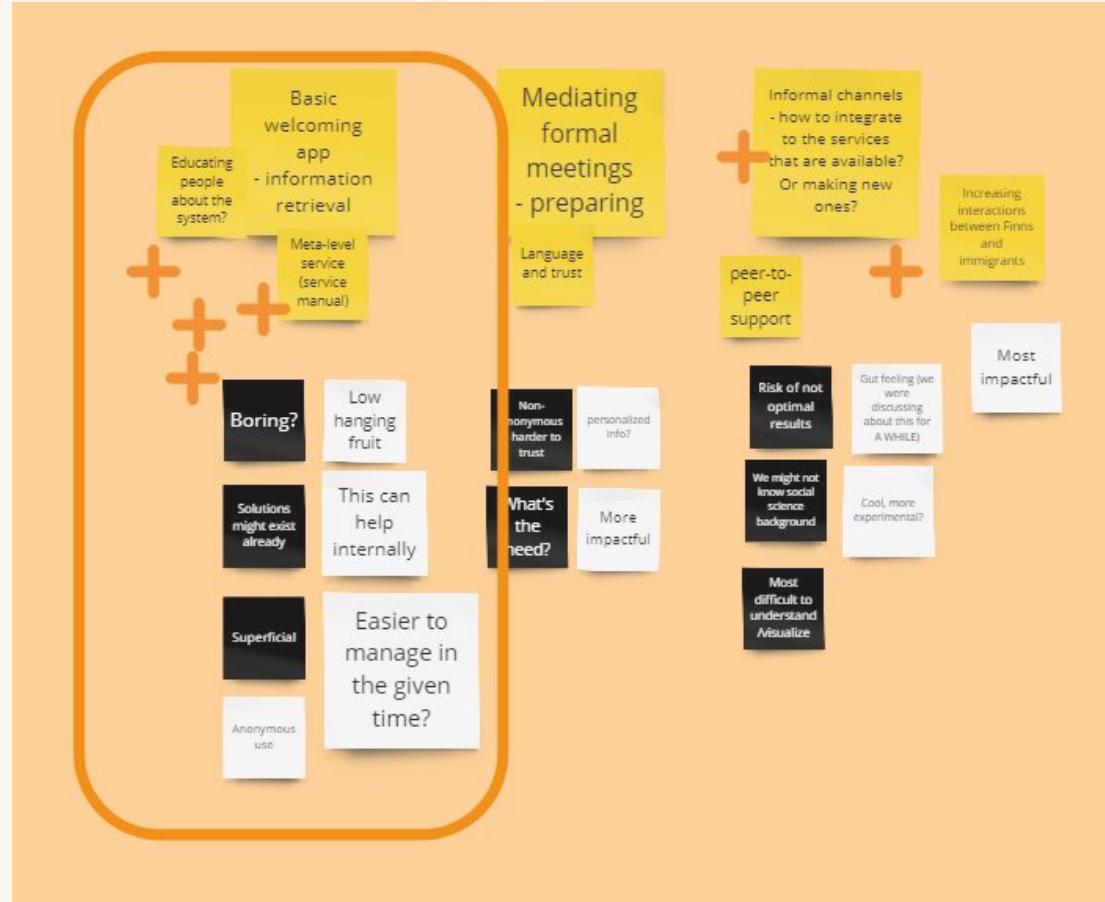


Timeline/process



Framing

- Create information retrieval tool for both immigrants and for internal use, leveraging conversational AI with good ecosystem map visualization
- Create prototypes to test with new students
- In addition we had personal research projects / focus points



Secondary research



Part 2/5

Secondary research

1

Technical capabilities of prototyping tools

2

GPT-based recruitment chatbot research

3

Ecosystem mapping (exploratory, information visualization)

4

Systematic literature review

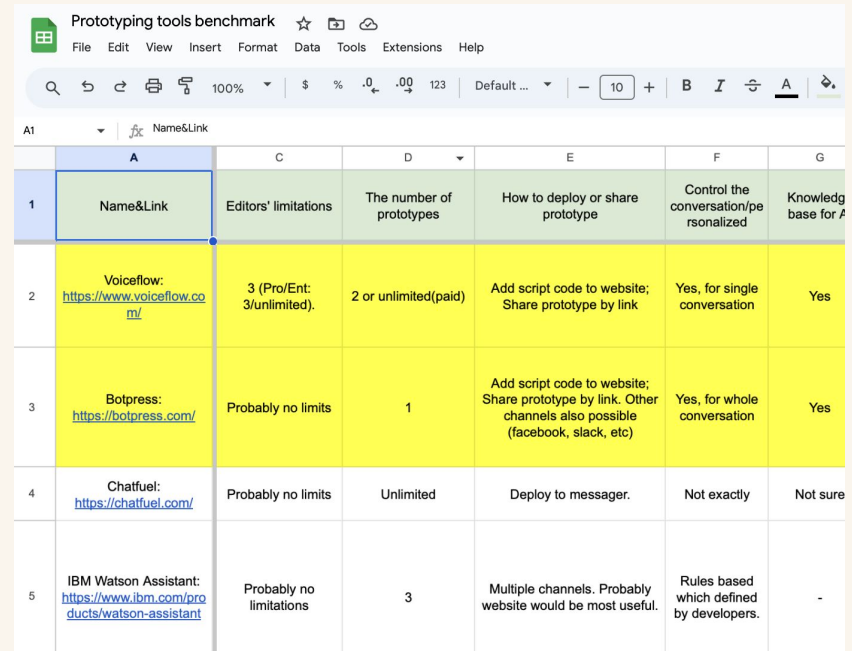
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Knowledge sharing with Aalto University researchers

1. Technological capabilities

- Exploring **possibilities of different tools** that could be used to **build conversational AI prototype**.
- Making **comparison table** out of 12 different prototyping tools including relevant information how usable it would be in this project.

[Link to Prototyping tools benchmark](#)



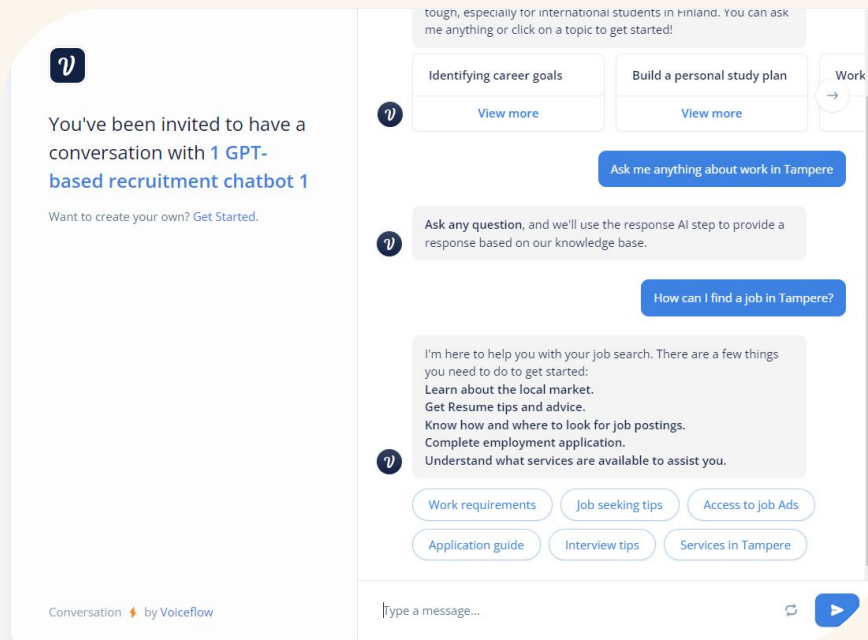
	A	C	D	E	F	G
1	Name&Link	Editors' limitations	The number of prototypes	How to deploy or share prototype	Control the conversation/personalized	Knowledge base for ?
2	Voiceflow: https://www.voiceflow.com/	3 (Pro/Ent: 3/unlimited).	2 or unlimited(paid)	Add script code to website; Share prototype by link	Yes, for single conversation	Yes
3	Botpress: https://botpress.com/	Probably no limits	1	Add script code to website; Share prototype by link. Other channels also possible (facebook, slack, etc)	Yes, for whole conversation	Yes
4	Chatfuel: https://chatfuel.com/	Probably no limits	Unlimited	Deploy to messenger.	Not exactly	Not sure
5	IBM Watson Assistant: https://www.ibm.com/products/watson-assistant	Probably no limitations	3	Multiple channels. Probably website would be most useful.	Rules based which defined by developers.	-



2. GPT-based recruitment chatbot research*

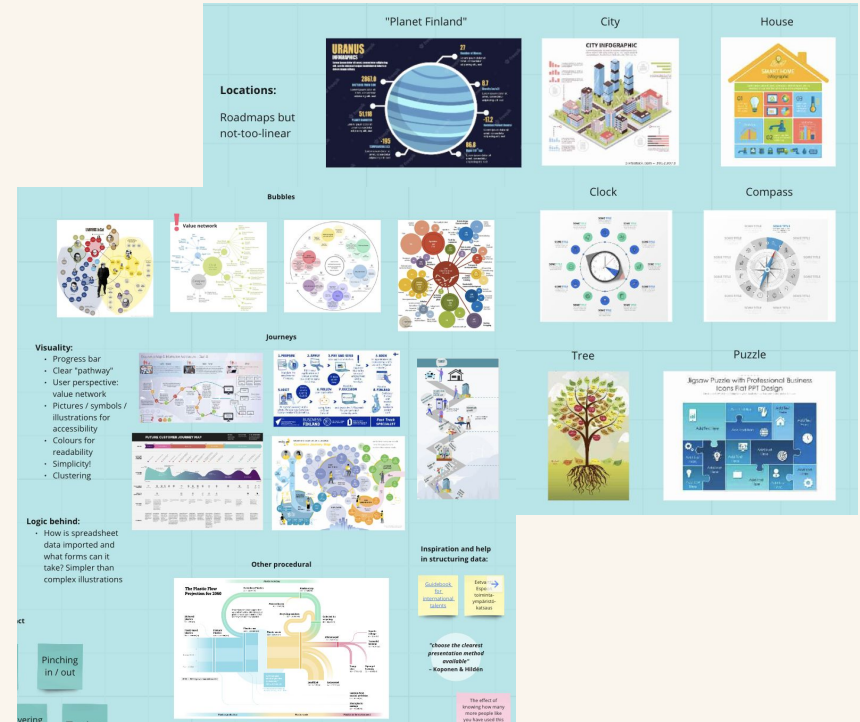
- Pre-study websites related to recruitment in Tampere for the **knowledge base**.
- Design the **structure** of conversation AI.
- **Prototyping** GPT-based chatbot by Voiceflow.

*As a part of Anfang's thesis work













3. Ecosystem mapping

- Exploring how **information can be exported** from Miro to Excel with label and relationship data.
- Looking into possible ways of **visualising complex systems** and creating a concept that is comprehensible (metaphor).



4. Systematic literature review

- Collected **high quality academic papers** in Zotero and annotated them in Notion.
- **Found an existing literature review** with topic “A Decade of International Migration Research in HCI: Overview, Challenges, Ethics, Impact, and Future Directions”.

Otsake	
▶	 Information behavior and ICT use of Latina immigrants to
▶	 BUSINESS AND TECHNOLOGY USER MANUAL
▶	 Public libraries: A meeting place for immigrant women?
▶	 Migration and community in an age of digital connectivity:
▶	 Memory through Design: Supporting Cultural Identity for I
▶	 Be Our Guest: Intercultural Heritage Exchange through Aug
▶	 Personal experiences of digital public services access and i
▶	 The “Had Mores”: Exploring korean immigrants’ informatic
▶	 Towards better information services: A framework for imm
▶	 Involving British–Chinese Immigrants in Participatory Actio

5. Knowledge sharing with Aalto University researchers

- Had a research visit to align interests.
- Participated in a pilot experiment run by Lucy.
- Co-facilitated an experiment in Hello Espoo with Lucy.
- Participated in NEWSROOM 2053 speculative design workshop run by Bhuvana and helped to plan a follow-up workshop.



Establishing connections

- Connection with International House Tampere and City of Tampere IT services
- Collaboration with HIWE research project

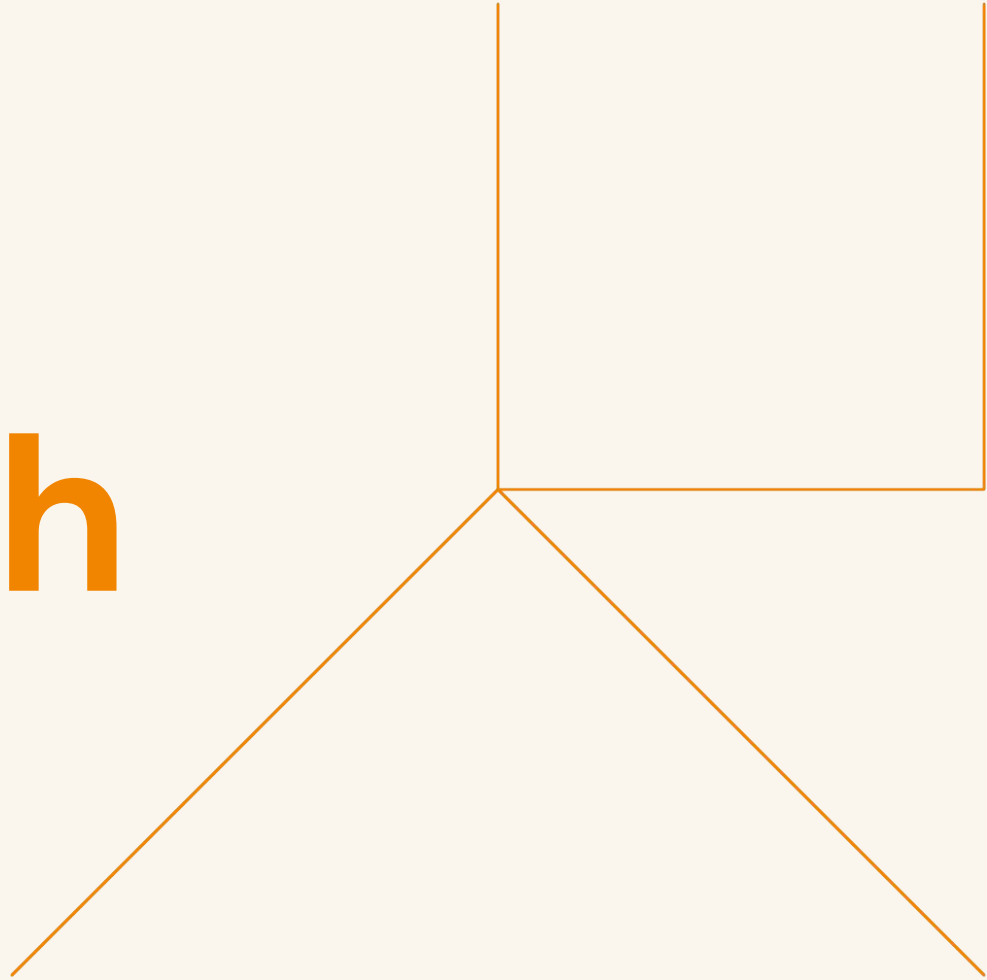
HIWE Tampere Ecosystem map:

<https://www.hiwe.fi/tampere-ecosystem/>



User research

Part 3/5



User research

1

Pilot workshop
with summer
exchange
students at
Aalto University

2

Workshop/
interview with
International
House Tampere
main contact

3

Workshop with
immigrants

4

Workshop with
experts from
International
House
Tampere

1. Pilot workshop at Aalto

Ruta & Sofia

Duration: 30 min

Participants:

4 exchange students
working at a summer
internship programme



Purpose: test how emotional mapping exercises work in practise.

Activities: list services and tell experiences on cards, decide labels for X–Y axes, evaluate services by placing cards on axes.

Key takeaways: More time is required for sharing emotional experiences, writing can be laborious, measuring is not precise, emotional aspect can be combined with structure-oriented activities.

Expert interview

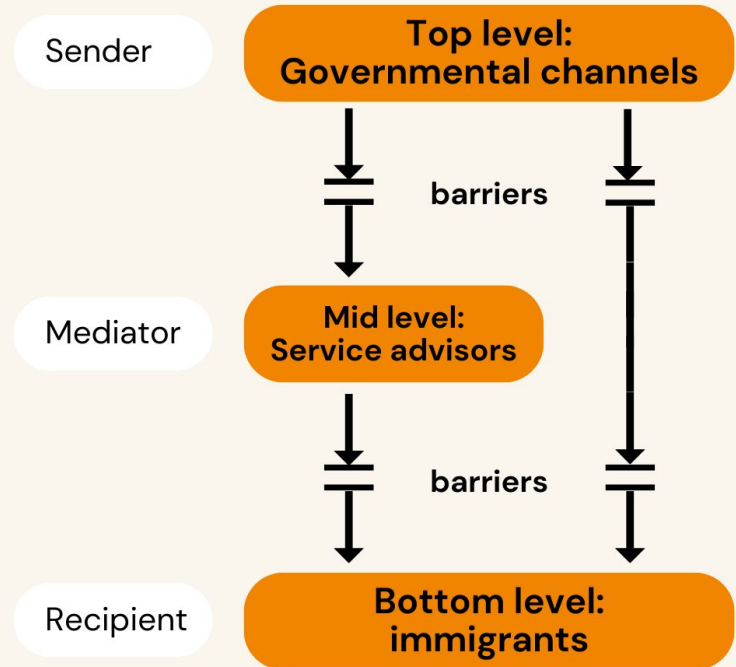
- Interviewed IT project manager from the City of Tampere.
- Main goal was to get a starting point for ecosystem map and a deeper understanding of migrant services in Tampere.
- Started to organize workshop with immigrants through International House Tampere.



Reframing

- Main focus remained on **information sharing** and understanding the service ecosystem, but with more holistic approach.
- We aimed to **identify barriers** for information flow from both sides.
- Utilizing the opportunity to **conduct user research** with both immigrants and service providers.

Information flow from top-down in the system



Workshop with immigrants

International House Tampere,
August 8th, 2023

10 immigrant participants
recruited through IHT



Workshop structure

1. Introduction
2. Listing services they have used, checking an InfoFinland.fi cheat sheet and making affinity maps
3. Picking 3 most memorable services and reflecting on the emotional experience on paper and in group discussions
4. Taking a look at others' maps and reflecting on highlights, similarities and differences



Main takeaways

1. Exposure to services is strongly related to the personal timelines and goals of an individual immigrant
2. Most participants engaged with services out of necessity but not for aspirational actions or personal motivation
3. Nearly all participants were unaware of existing service databases
4. Ideal solutions would focus on the transparency of timelines and making the “connections” between services more explicit

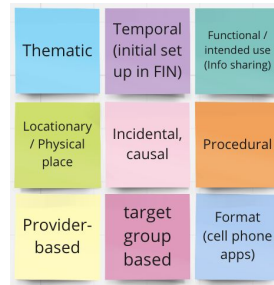


Main findings

Unexpected categories for the ecosystem maps

- ❑ Getting set up in Finland
- ❑ Mobile applications
- ❑ Electricity, cellphones, insurance etc.
- ❑ Community and groups
- ❑ Shops and restaurants
- ❑ Hobbies and leisure

9 Different approaches in categorising services



Crucial pain points in the integration journey



Flash cards – examples

When we listed different services during activities in our previous workshop, the participants were not familiar with many of them.



What kind of information portals do you recommend for immigrants, if any?

How do you try to teach immigrants to look the information themselves in future?

How do you look up the information yourself?

Immigrants described getting inadequate and/or contradicting information on...

- a) what is the criteria for getting a loan (mortgage) and
- b) which documents are required for bank appointments

...which resulted in long waiting periods, double work and frustration.



How does the banking system relate to your work with immigrants?

Can you think of any other typical instances complicating a step in the integration process that is specifically to miscommunication?

"If you don't have a Finnish person to kind of support you through the [banking] system, it's impossible."

"You get more information from people than the system"



Are there any activities where you try to help immigrants to find communities of either Finns or other immigrants?

What do you think about this kind of tacit knowledge and its implications to the success of integration?

PDF version of the cards in Google drive:

<https://drive.google.com/drive/u/1/folders/1bw7bprMoMmW2JR1TJfkWzAsZjkjTQf8>

Strategies immigrants use to approach Finnish services

Thematic

Categories are made based on **traditional themes** (e.g. Finance, Education, Culture)

Causal

Different services that are needed in **the same event** are grouped in one category (e.g. scooter accident and health system)

Procedural

Categories consist of steps in a **specific micro process**. (e.g. Setting up a new living environment)

Temporal

Categories are made based on a **time or a phase in integration** process (e.g. Setting up in Finland)

Functional

Categories are made based on the **function perceived by user** (e.g. Information sharing, Help with language)

Provider based

Categories are made by grouping services **provided by the same party** (e.g. City services)

By format

Categories are made **based on the platform** they are accessed through (e.g. Mobile apps, Websites)

By location

Categories are made based on the **location they are provided in** (e.g. International House)

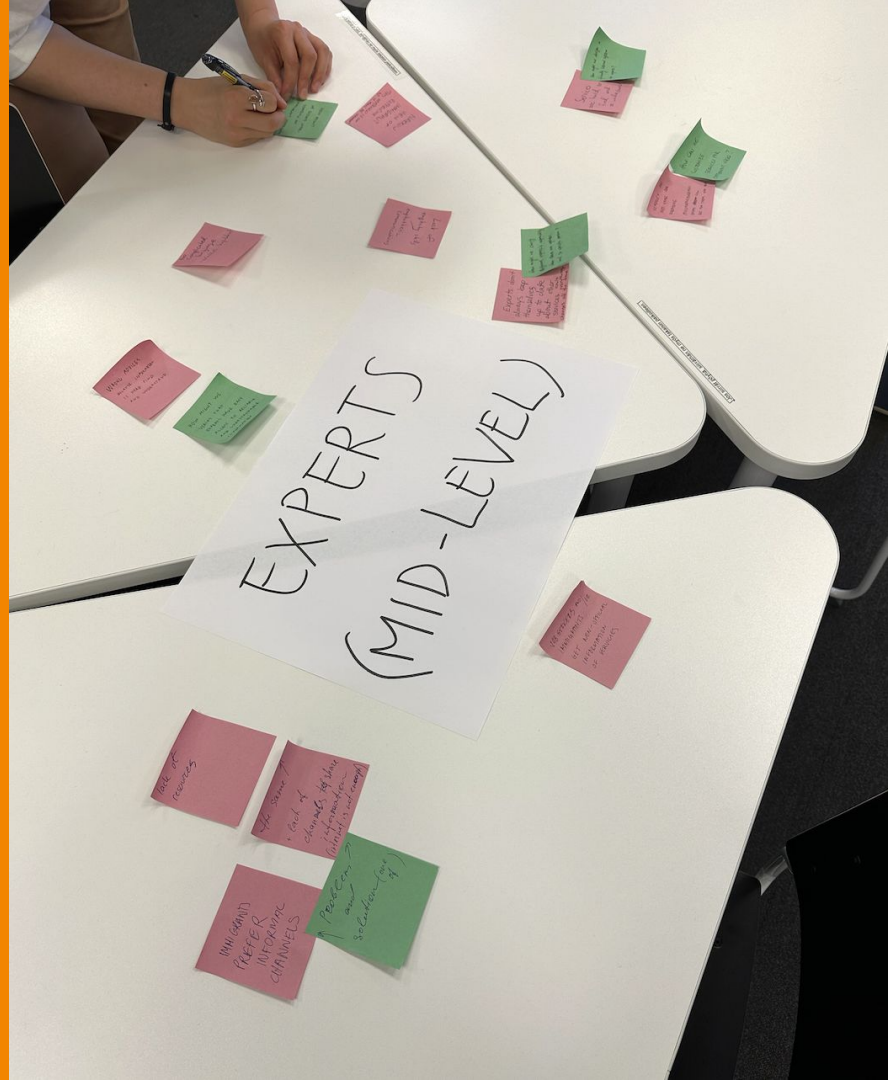
Target group based

Categories are made by grouping services **targeted for the same audience** (e.g. Immigrant services, Kids)

Workshop with experts

International House Tampere,
August 23rd, 2023

7 participants from Lobby services,
House team, Mainio and TE-services.



Workshop with experts – Structure

1. Round of introductions.
2. Discussion facilitated by flipcards that contain insights from immigrant workshop.
3. Identifying problems in a three-level structure: immigrant, expert and top level. Asking “how might we... [solve them] ?”
4. Innovating new solutions that would simultaneously tackle as many mentioned pain points as possible.

Main takeaways: first impressions



“Time will fix it”

In general, experts think that a diverse set of services already exist (Oma coach, Study&Stay, job clubs, "Work in Finland") – however, they are new and take time to be effective. IHT collects feedback actively on their operations and events and makes changes accordingly.

“This is just how it is”

Experts consider that migrants in Finland face difficulties due to unrealistic expectations and unpreparedness.

“Sorry, I didn’t quite catch that?”

According to experts, immigrants struggle to formulate specific problems when they ask for help.

“Why don’t you just do it?”

There was discussion about the possibility that the lack of confidence and proactiveness from migrants are a barrier to integration.

Main takeaways: the reality



“Even we don’t understand the system”

Information is hard to find, scattered, and the use of acronyms makes things even more confusing. Even one expert was struggling to find the right information online regarding setting up bank accounts. There is a lack of one-stop-shop in Tampere.

“My hands are tied”

Service advisors have limited authority to give genuine advice because of legal responsibility that comes with their position. They try to go around this problem: "I've heard others found this bank especially useful."

“Here, click this”

Even though service advisors utilise internal checklists, they struggle with providing information and sometimes just share web links with immigrants. However, not everyone has high digital literacy, so a lot of information is inaccessible.

“A bunch of legal nonsense”

Law and service systems change rapidly – experts can't keep up. Sometimes information is presented in a very "formal" way and is not intuitive, and it's difficult to digest, even for Finnish speakers.



User research conclusions

1. Immigrants have **different approaches** to accessing and using services, as well as categorizing them, which can differ from the current system design.
2. The service ecosystem is so **dynamic and altered by changing laws** that even experts have difficulties to keep track of the latest changes.
3. There is a **lack of transparency** of the integration system as a whole as well as individual steps one has to follow.
4. It's unclear what is the **scope of one's own agency** as an individual, both on immigrant and service advisor's ends.
5. In order to proceed with the integration process, **some steps require prioritisation** and more effort than others.

Concept design

Part 4/5



Concept design

- The concepts were achieved through internal discussions within the group and outside, and derive directly from co-creation workshop findings.
- We had internal ideation session after the second workshop findings were analyzed.
- **Two main concepts** were designed as outcomes of the summer project.



Finland – A Walk in the Park

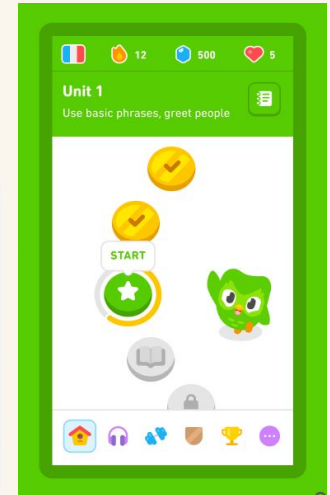
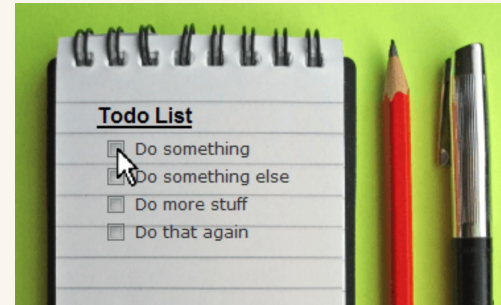
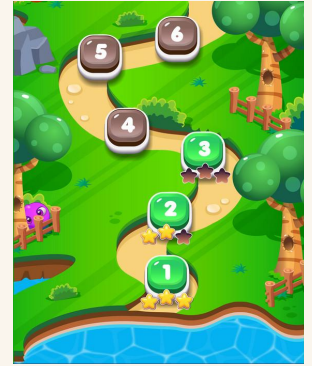
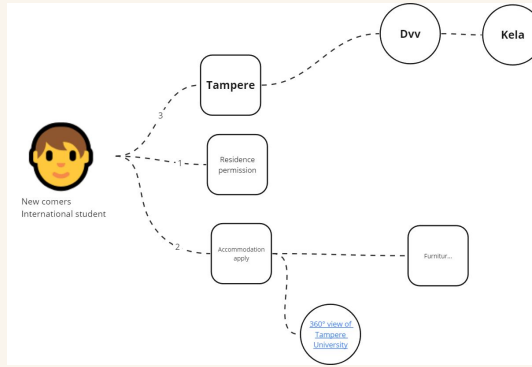
Breaking down the integration process into bite-sized pieces (micro journeys)



Concept

A relaxing virtual world inspired by Finnish nature that helps newcomers to navigate the integration process and break it into small, more easily achievable pieces.

- User decides the goal they want to attain, which AI can help to clarify
- Pre-set or custom micro journeys
- Game-like experience to manage tedious to-do lists





Finland – a walk in a park

Breaking down your integration process into bite-sized pieces

[Read about our data collection and safety here.](#)

Select one of our trails

Continue your previous trail

Generate a custom trail



Onboarding

Please provide as much info as you're comfortable with! We will clarify the details in the next step.

What is your goal?

Getting strong identification so I could access Finnish public services.

Please provide some context on your situation:

I just arrived to Finland last week because my spouse got a job, I want to apply for some Kela benefits but I don't have a strong ID because I don't have a bank account yet.

Clarifying

Thanks, let's double-check some things before our AI generates your journey map:

You need a strong ID for Kela benefits as a newcomer to Finland.

ⓘ

You have a residence permit on the basis of family ties.

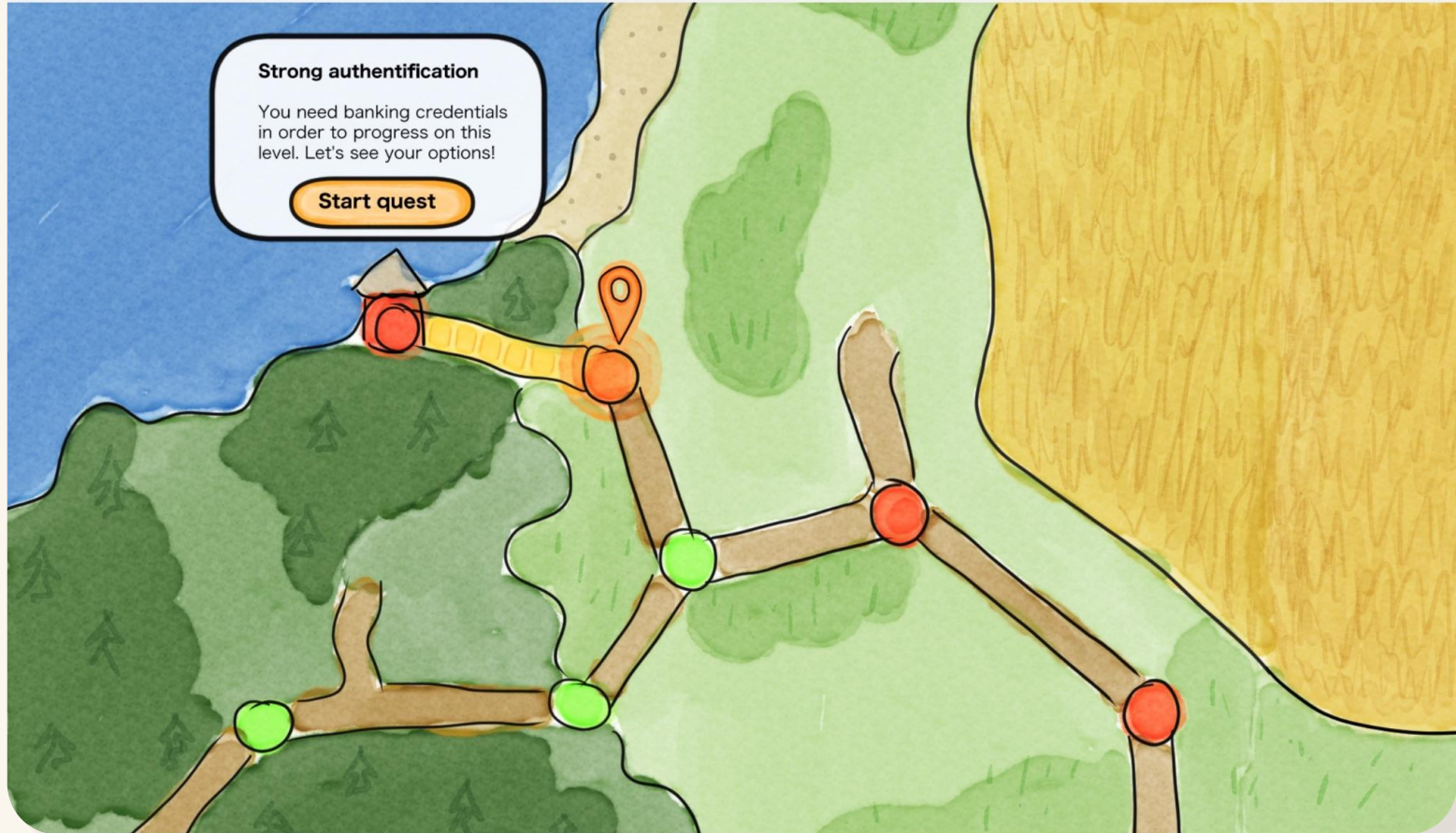
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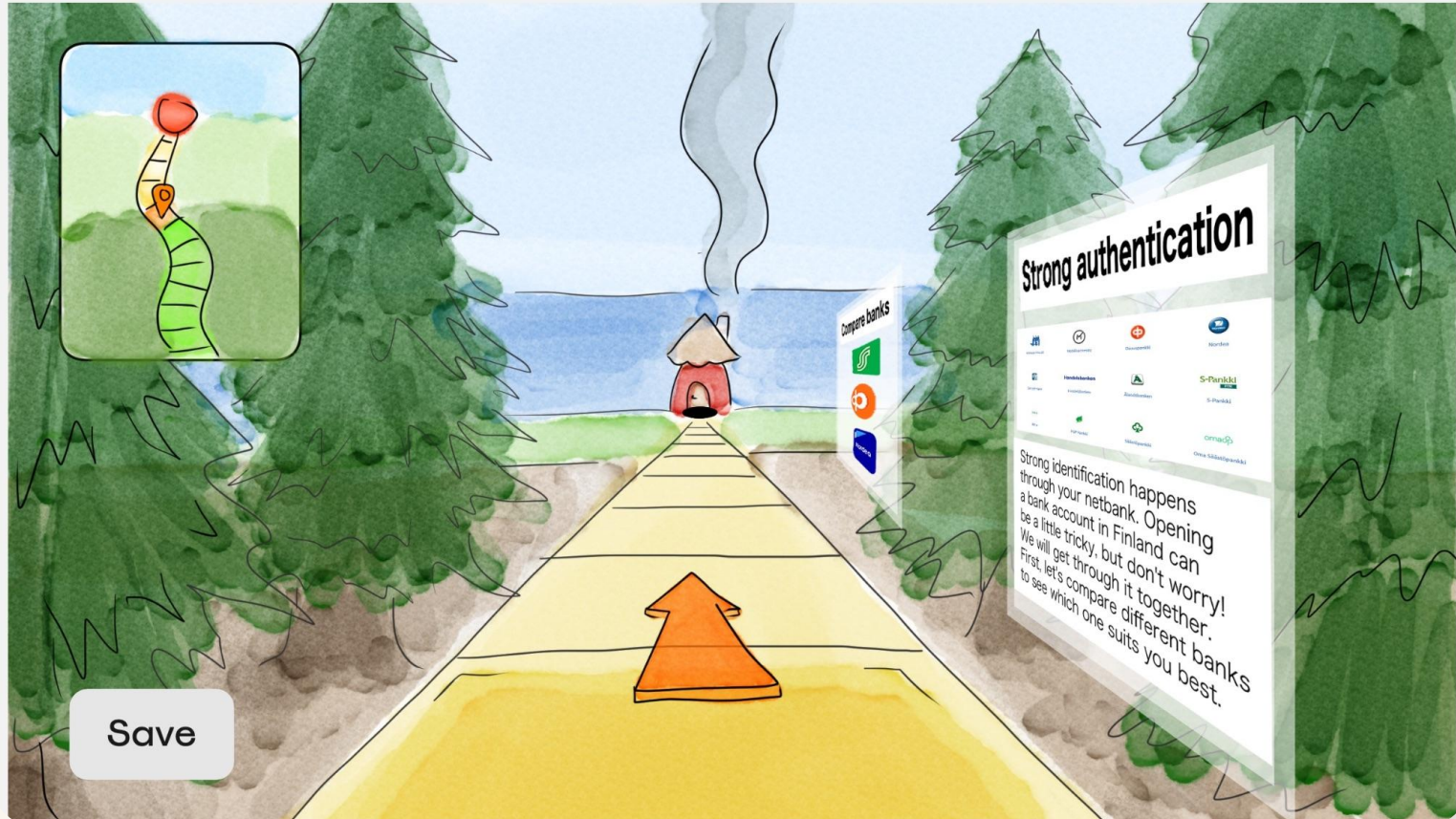
You want your strong ID based on bank account.

ⓘ

You can have your strong ID in three different ways: via bank account, mobile ID and citizen ID (DVV)

Generate a custom journey





Save

Compare banks

Strong authentication

Strong identification happens through your netbank. Opening a bank account in Finland can be a little tricky, but don't worry! We will get through it together. First, let's compare different banks to see which one suits you best.

Problem

"The first two months in Finland, you're not even a person yet"

Inadequate and / or conflicting information leads to letdowns

Successful integration is achieved through micro processes (e.g. setting up a bank account), some of which are difficult to navigate



Solution

Structuring the integration process and prioritising steps

Building trust by providing being transparent on the requirements and duration of bureaucratic processes

Offering visibility to the integration process and the micro journeys in it, providing step-by-step assistance for tasks process and prioritising steps



Finland – Integration gallery

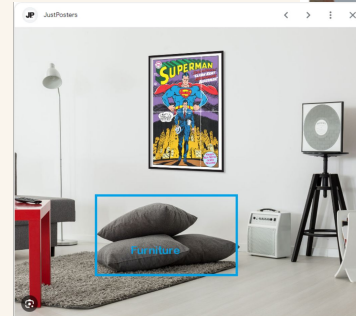
Displaying different parts of
integration process in a gallery
setting



Concept

An hybrid exhibition space in which users can gather, chat with each other and find information on different aspects of integration in their dedicated rooms.

- Explore different rooms based on immigrants' approaches to services.
- Co-design rooms with stakeholders.
- VR-based gallery, occasionally physical gallery.
- Chatting with people who visit the gallery at the same time.



The whole gallery view



Invite



Voice



Share



Place



React



Chat



Leave



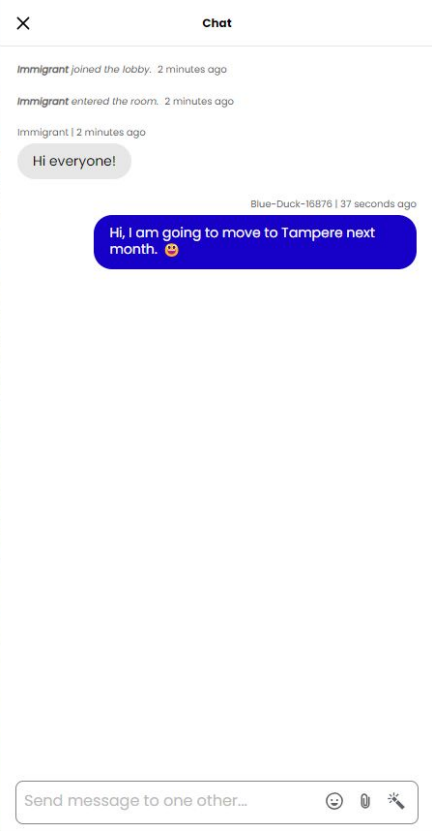
More

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The job seeking in Tampere room



Option to chat with other participants



Invite



Voice



Share



Place



React



Chat



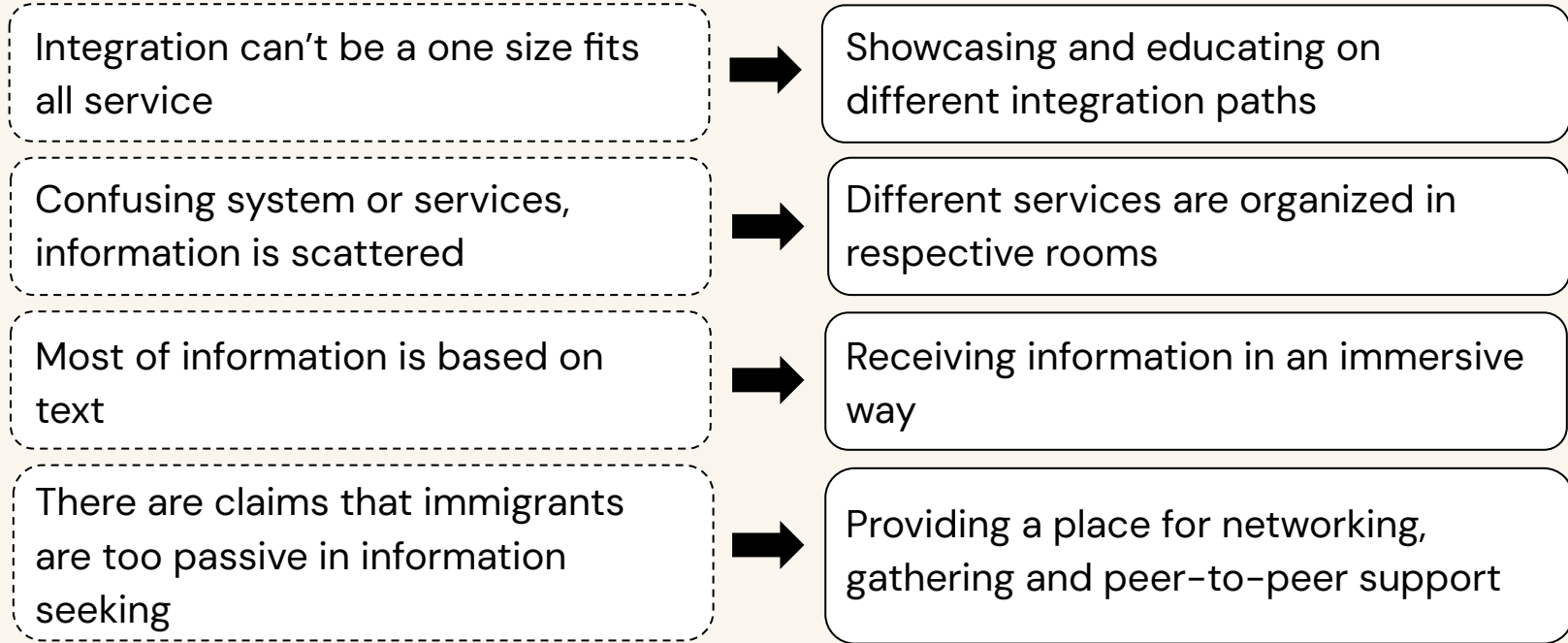
Leave



44
More

Problem

Solution



Future development

A Walk in the Park

Possibilities for **AI customisation** of the levels and micro journeys through different levels of personal data input

Accessibility of information and either a **low-tech alternative** or an incorporated feature

Incorporation of the concept in a **virtual reality** setting

Taking **trustworthiness** into account when designing

Plain language used in the both concepts

Taking into account different **emotional aspects** in design

Opportunity to utilize these concepts for **service manuals**

Integration gallery

Developing an **independent virtual reality** environment to ensure data security.

Possibility to collaborate with **informal channels** (forums, migrant communities)

**Trust-M summer
design team:**

Summer Designers:

Anfang Liu

Timothy Sowa

Sofia Kasari

Ville Minkkinen

With the help of:

Amir Pakpour

Rūta Šerpytė

Thank you!

