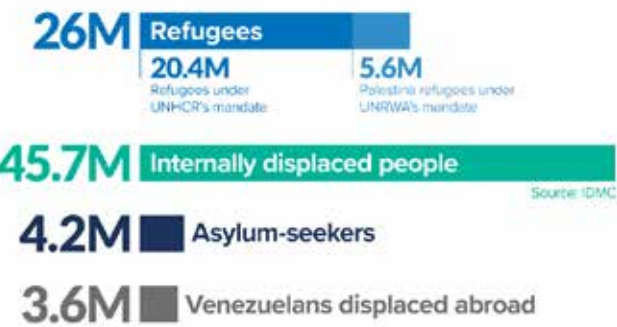


Research

The phenomenon of displaced people has existed since the dawn of human civilizations caused by wars, famines, mass migrations, pandemics, climate change, political persecutions, natural disasters, and more. In these calamities, children have been the first victims of conflict and displacement experiences. They take up roughly 30% to 60% of the refugee population. To create a digital platform for this most vulnerable group who don't have cell phones, it is crucial to understand how displaced children are and have been treated in complicated social contexts.

THE PRESENT

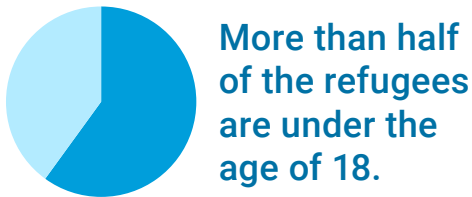
Our world today is still far from peace. The United Nations Children's Fund (UNICEF) was established in 1946 in the aftermath of World War II to help children. Four years later, the United Nations High Commissioner for Refugees (UNHCR) was created to address the refugee crisis that resulted from World War II. In 2018, UNICEF supported birth in health facilities for 27 million babies and education for 12 million children and treatment for 4 million children with severe acute malnutrition. At the same time, the organization responded to 285 humanitarian emergencies in 90 countries. As of May 2020, UNHCR employs over 17,300 staff in 135 countries, of whom around nearly 90% are based in the field. Both organizations are funded



Infographic by UNHCR 2020

almost entirely by voluntary contributions, with more than two-thirds from governments and the European Union.

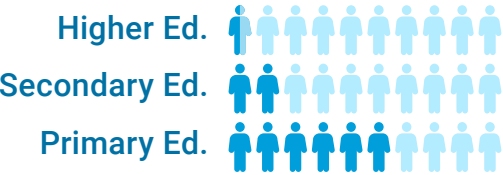
According to UNHCR, an unprecedented 79.5 million people worldwide—45.7 million internally, 26 million registered refugees, 4.2 million asylum seekers, 3.6 million Venezuelans displaced abroad—at the end of 2019 have been forced to flee their homes. Among the 26 million refugees, over half of them are under the age of 18. The U.N. estimates that more people have



been displaced than at any time since World War II. However, most refugees worldwide do not live in refugee camps. Slightly over a quarter of refugees worldwide were reported to be living in managed camps, while the majority of refugees around the world lived in individual and private accommodations.

One of the major disadvantages for refugee children is the lack of education opportunities.

According to UNHCR's report in August 2019, of 7.1 million refugee youngsters at school age, more than half do not attend lessons. The barriers that prevent them from accessing learning become harder to overcome as they get older. Only six in 10 refugee children attend primary school—compared to nine in 10



globally—and only around two in 10 refugees get a secondary education, compared to the world average of more than eight in 10. The trend is even clearer in higher education, where only three in every 100 refugee children are able to pursue their learning, compared with the world average of 37 in 100.

THE PAST

International relief organizations such as the U.N. and Médecins Sans Frontières have played an essential role in responding to global crisis after WWII, yet it is equally important to examine how displaced children were handled in society without international organizations around WWII—the largest warfare in human history. Although it is impossible for the designer to look into every refugee group during the War, it is feasible to explore a couple of countries among the Allies of WWII. Based on her previous research, the designer studied the United Kingdom and China.



Arrival of Jewish refugee children, port of London, February 1939.

UNITED KINGDOM (1938-1945)

Before the outbreak of the Second World War, the United Kingdom started taking in predominantly Jewish children fleeing the persecution in Nazi-occupied Europe organized by the rescue program Kindertransport (children's transport). Between 1938 and 1940, nearly 10,000 unaccompanied children were placed in British foster homes, hostels, schools, and farms.

At the beginning of WWII, the British government predicted the damage of the German bombing, which would cause civilian deaths. This precaution prompted the government to temporarily evacuate children by age, mothers with infants, and the infirm from British towns and cities in multiple waves during the War.

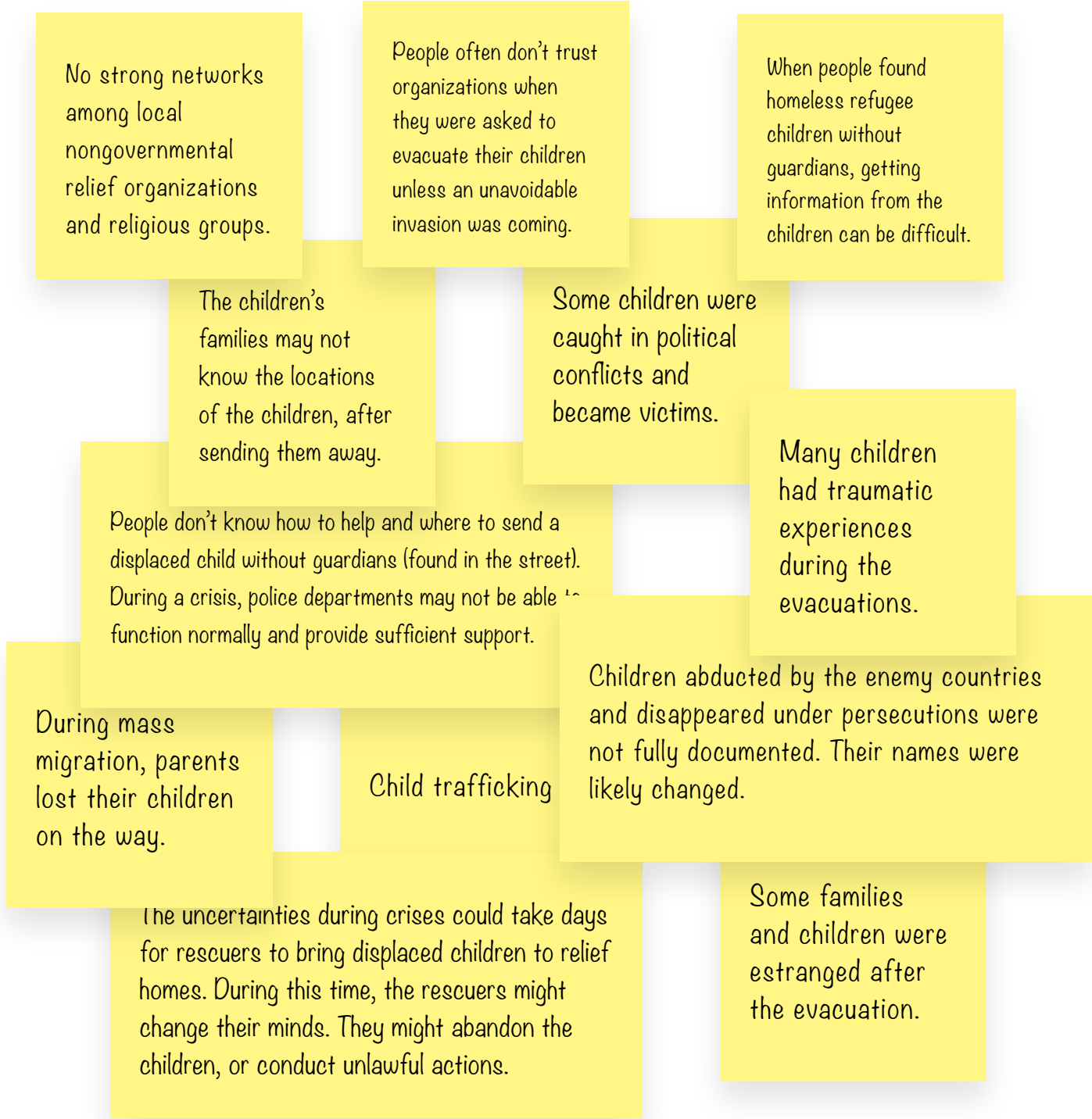
According to the Imperial War Museums, the first evacuation came on September 1st, 1939, when Germany invaded Poland and two days before the British declaration of war. The evacuation was voluntary, although the fear of bombing, the closure of many urban schools, and the organized transportation of school groups helped persuade families to send their children

Four Key Questions

GOAL	Rescue and educate displaced children in calamities.
CONTEXT	All the circumstances that children become the victims of a large scale social turmoil caused by wars, famines, mass migrations, pandemics, climate change, natural disasters, political persecutions, etc. In these intractable conflicts, governments are often lack of resources and support to protect vulnerable populations.
NEED	The guidance of sending children to a safe home—a private or state-owned relief program, providing better education, and keeping them connected with their loved ones during the disasters.
END TO END	Every step from encountering a displaced child or sending one’s children in a mass evacuation, finding a relief home and/or school program suitable for the child, tracking and keeping the displaced child engaged, and reunion with their family after the adversities.

Surveys and Pain Points

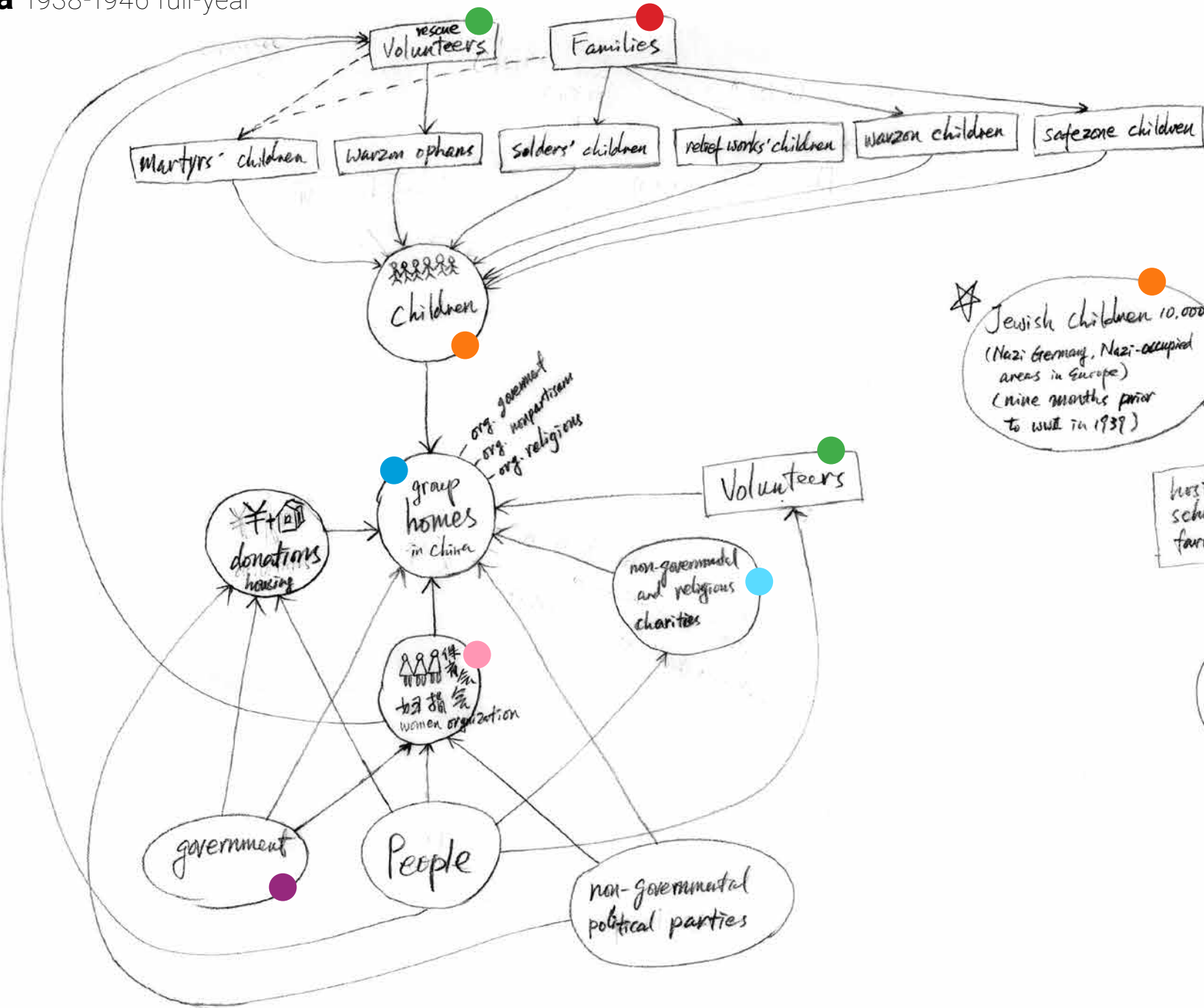
Although the designer didn’t have the access to interview current refugees, she analyzed historical evidence and existing interviews of both current and past refugees from various media. This step provides direct insight into users’ needs. Here are the pain points.



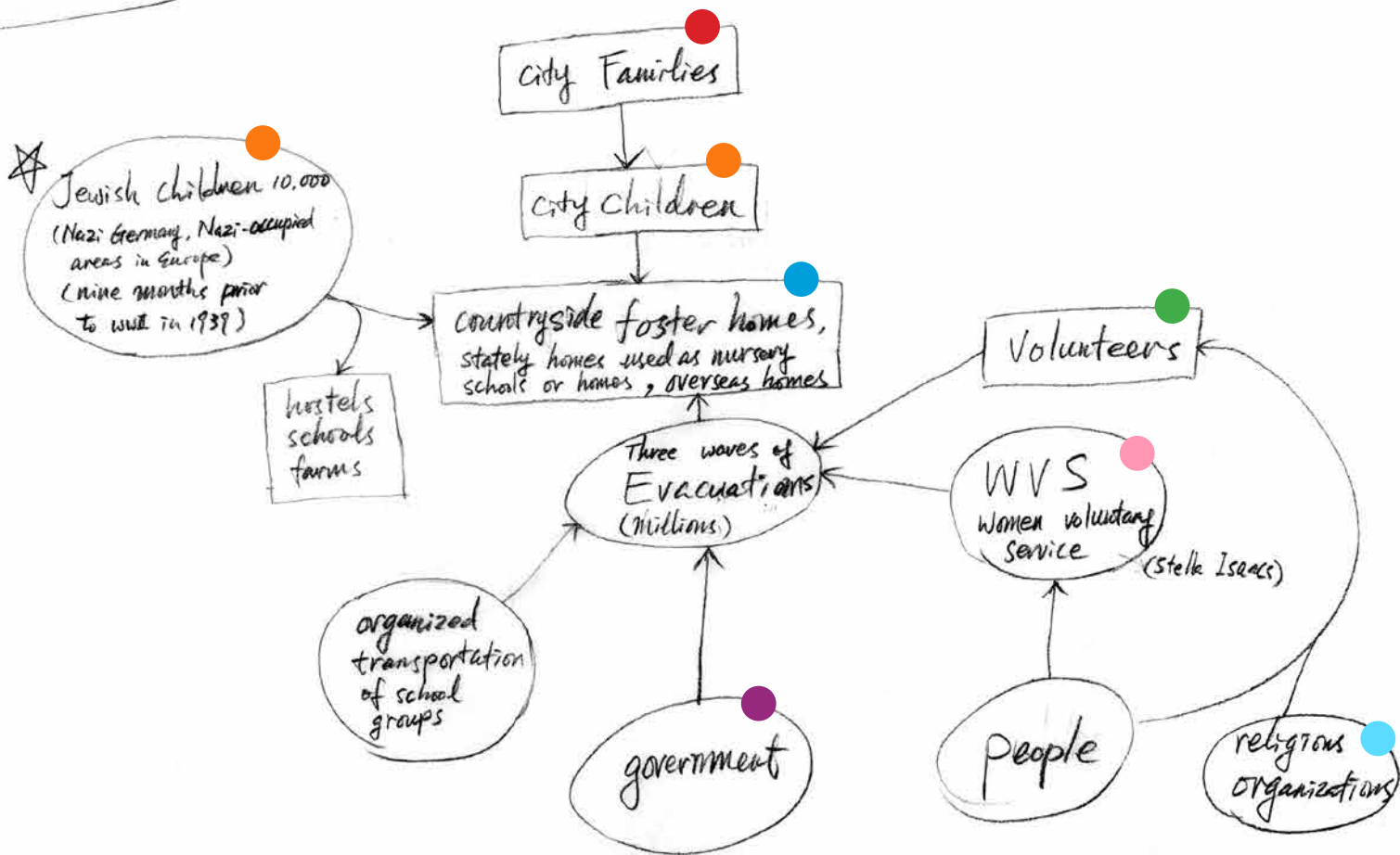
User Journey and Social Patterns

The analysis and comparison of two historical events helped the designer to reached a breakthrough in this project. Based on the research and collective stories of refugees from different regions and eras, this diagram unveils major social patterns hidden in both situations. This discovery assisted the designer to recognize the users—target audiences—and their needs.

China 1938-1946 full-year



United Kingdom 1938-1945 periodically



- Children ● Families ● Homes and Schools ● Women's Organizations
- Volunteers ● Nongovernmental and Religious Groups ● Government

User Personas



Tasmin 35, Housewife

NATIONALITY Burmese

ETHNICITY Rohingya

RELIGION Muslim

LOCATION Kutupalong Camp, Cox's Bazar, Bangladesh

“I worry about my daughters' future. I need to find a reliable boarding school for them. If the school is far away, I must keep in contact with them and talk to them as often as possible. If the school is nearby, I want to volunteer for the school.”

ABOUT

Ever since the notorious Rohingya genocide broke out in Myanmar in 2016, Tasmin and her family have been pushed to the brink. Their village has been burned down in 2017, so they fled to the world's largest refugee camp accommodating nearly 600,000 people who depend on aid without opportunities to generate income.

FRUSTRATIONS

The Rohingya children in the camp are not allowed to attend local Bangladesh schools because they are not recognized as refugees. And the young girls are most vulnerable to exploitation; they risk early marriage, child labor, or being trafficked on the black market. Tasmin and her husband have four children, among whom two are girls. Tasmin's husband believes that their oldest daughter—10-year old Ruhima—is ready to be married.

The outcomes of the research and survey suggested various types of users with diverse needs. These insights and common patterns based on historical interviews and analysis helped the designer to create four personas which are the manifestation of that data in a cogent character sculpted by the current political climate. In accordance with historical evidence and real-life stories, each persona was portrayed in an ongoing humanitarian crisis that impacts us today. Blending a wide range of ethnic and cultural backgrounds into a few characters, the designer intended to be as inclusive as possible.



Nizar 28, Soldier

NATIONALITY Syrian

ETHNICITY Arab

RELIGION Catholic

LOCATION Aleppo, Syria

“I want to send my children to a safe region where they will receive education supported by a reliable family or organization. I need to keep in touch with them until our reunion.”

ABOUT

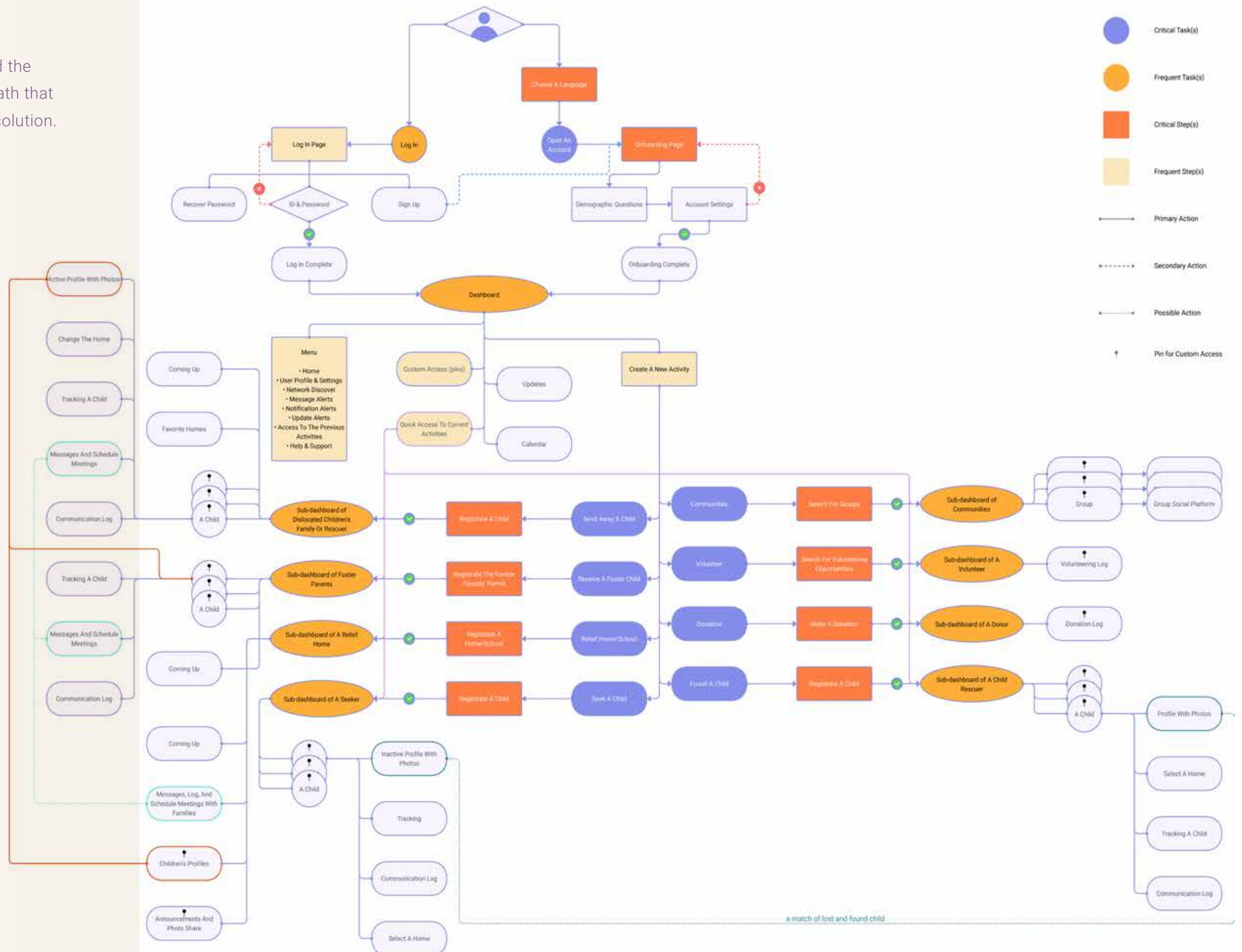
Nizar was a chef in Idlib, Syria before the Syrian Civil War broke out. He and his wife Balqis have two children, Amir and Noura. He was drafted for military service by the Syrian Armed Forces in 2013. Balqis and the children moved to the countryside of Idlib before the 2015 Battle of Idlib took place. Unfortunately, Balqis was killed as the clashes continue in the countryside in April 2015.

FRUSTRATIONS

After Balqis passed away, Nizar was unable to join his children due to his military service, so Amir and Noura are living temporarily with Balqis' Muslim cousin. Nizar has growing concerns for them living in the war zone without a reliable guardian. Meanwhile, Amir and Noura need a proper education as they will soon reach school age.

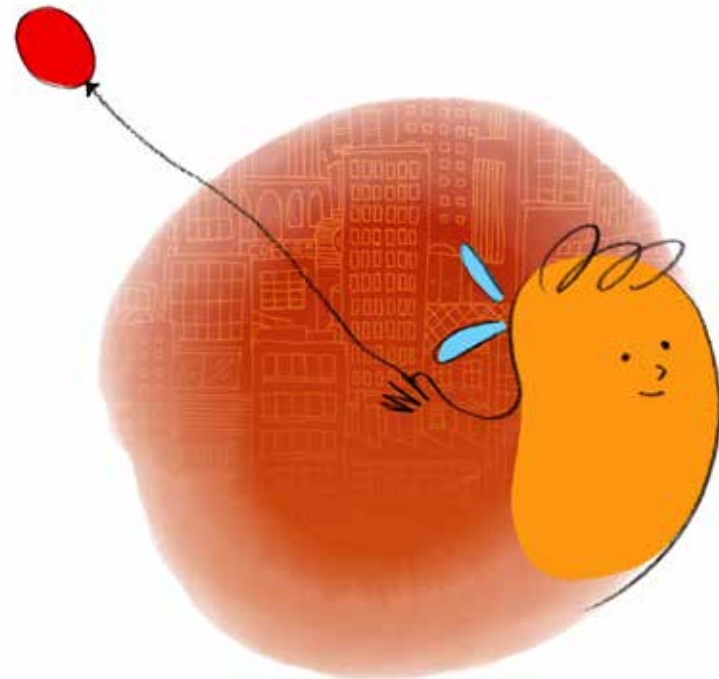
User Flow

Mapping the flow of the app helped the designer to see each step on the path that the users will take throughout the solution. It shows how the app will function.



BRAND ILLUSTRATION

Expressing a cohesive mood of hope and joy, a small collection of hand-drawn illustrations were created to complement the overall framework of the identity. Inspired by several well-known characters such as Karlsson-on-the-Roof (Sweden), Sanmao (China), and Charlie Brown (USA), Jan and Cai personify the Cradlr Global Network on the digital platform with a nod to human experience. The balloon and the kite holding by Jan and Cai are anthropomorphized as displaced children metaphorically. A less reddish shade of the orange brand color was selected for the skin tone (RGB 252 150 16, HEX #FC9610, CMYK 0 49 100 0).



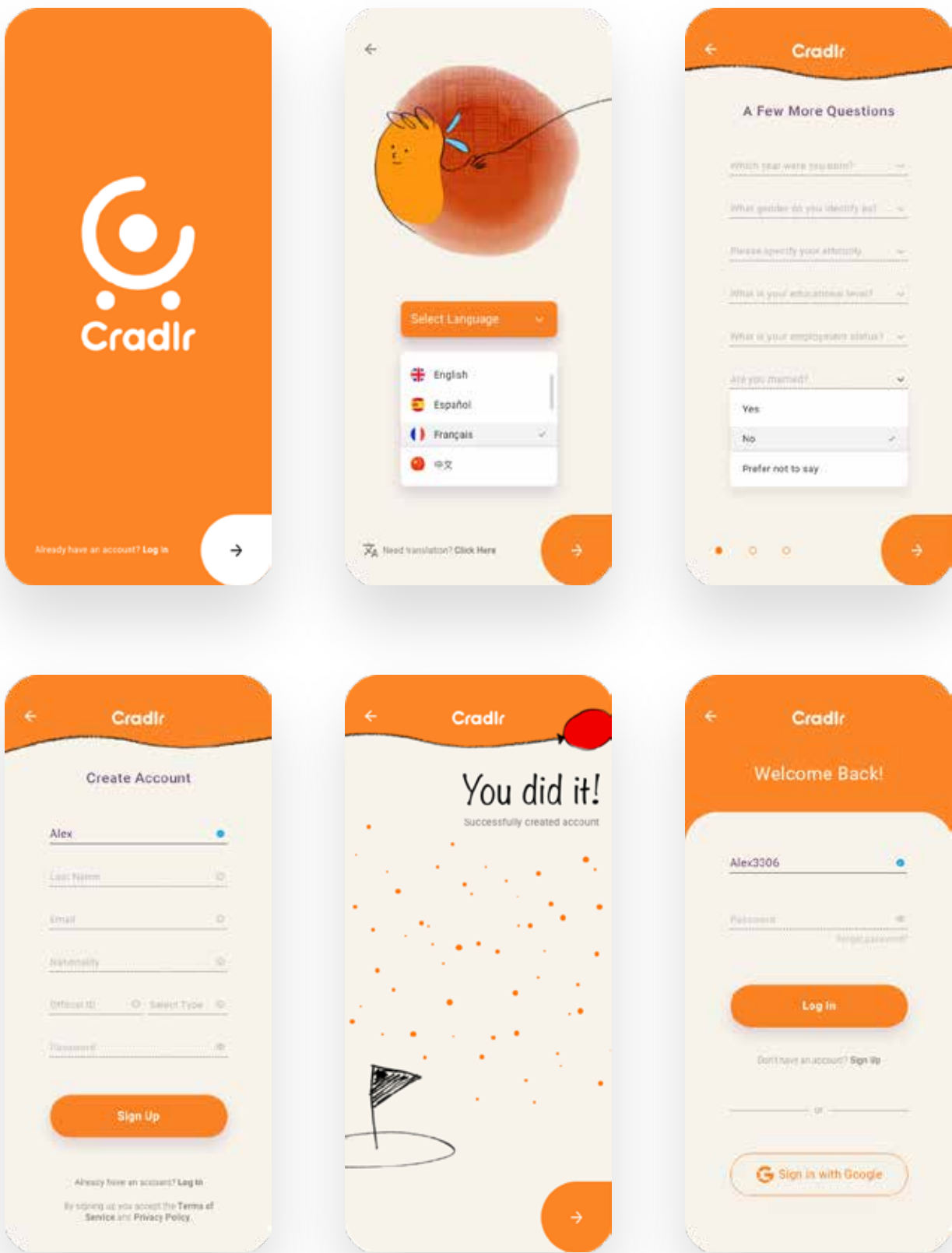
Jan and Cai
guide children to a safe home!

Cradlr

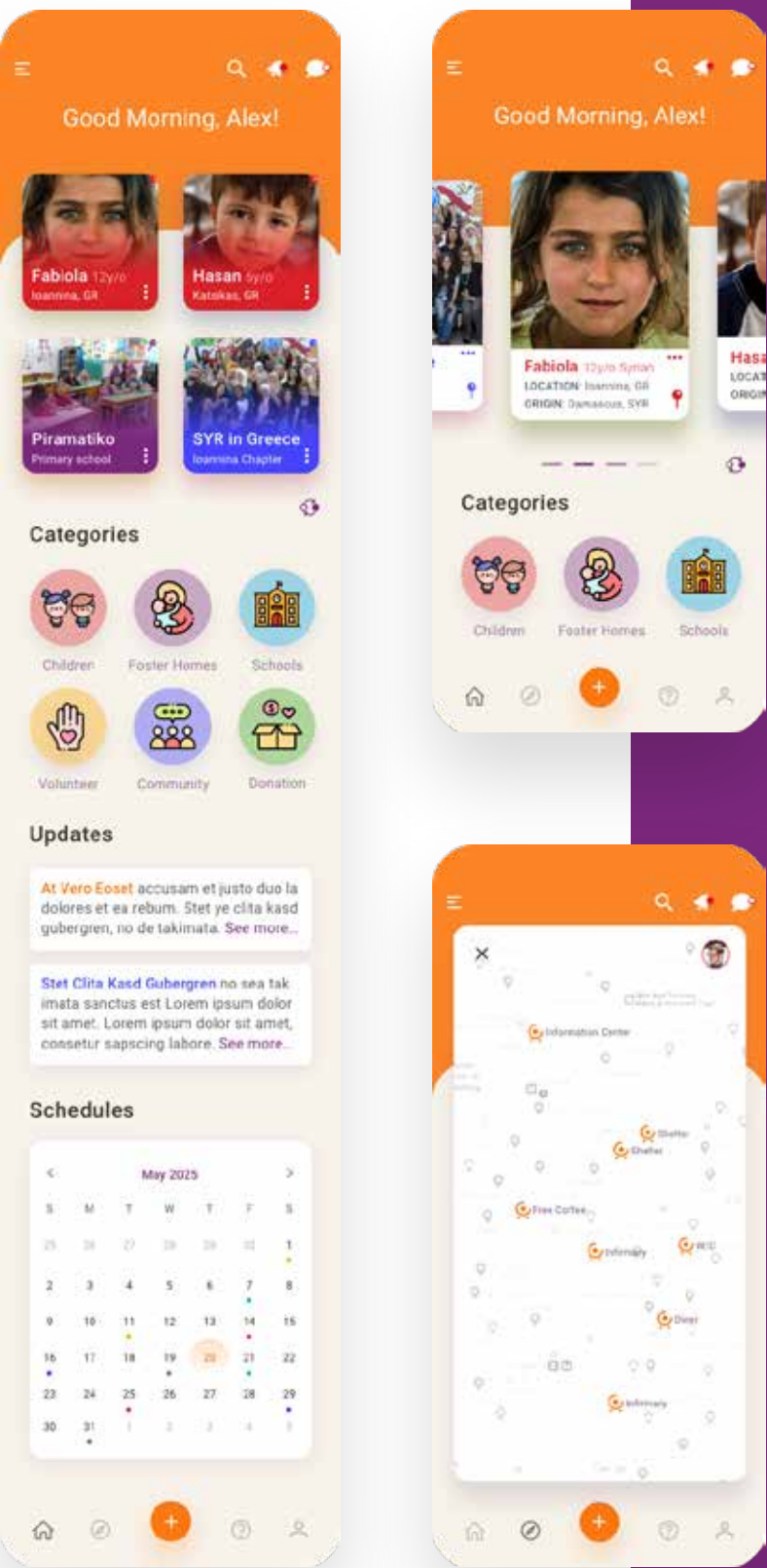


Final Design

ONBOARDING

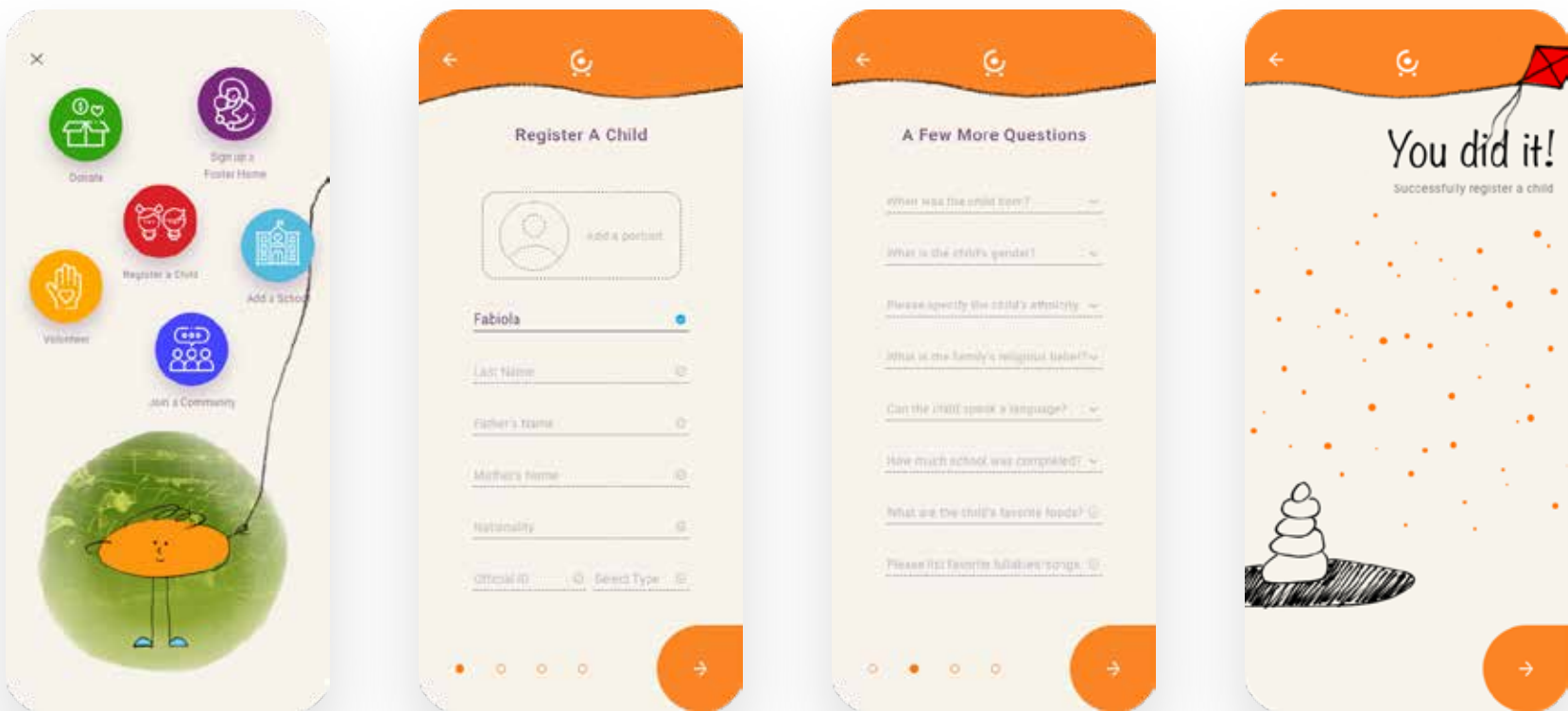


THE MAIN DASHBOARD

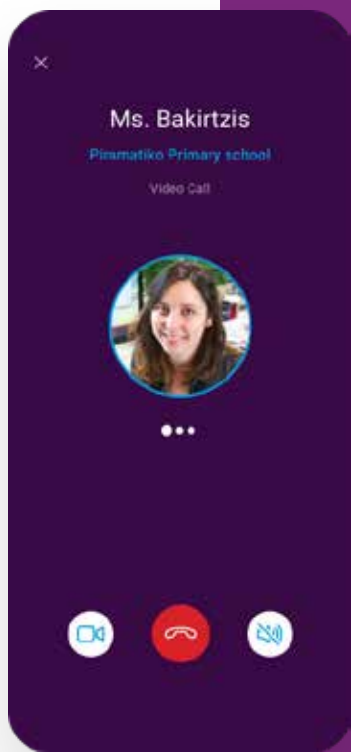


Cradlr embraces the connection and communication among the displaced children, their families and temporary guardians, education affiliations, international and regional organizations, as well as volunteers and donors. The full design for the Cradlr Global Network should consist of a website and a mobile app. Because the scope of this project is enormous, the designer decided to focus on the app prototype for the primary users—families, teachers, and foster families, which includes the initial onboarding flow and the process of registering a child shared by both primary and secondary users. The limited representation of the interface design embodies the project concept and user experience reflecting the displaced children from WWII to the present.

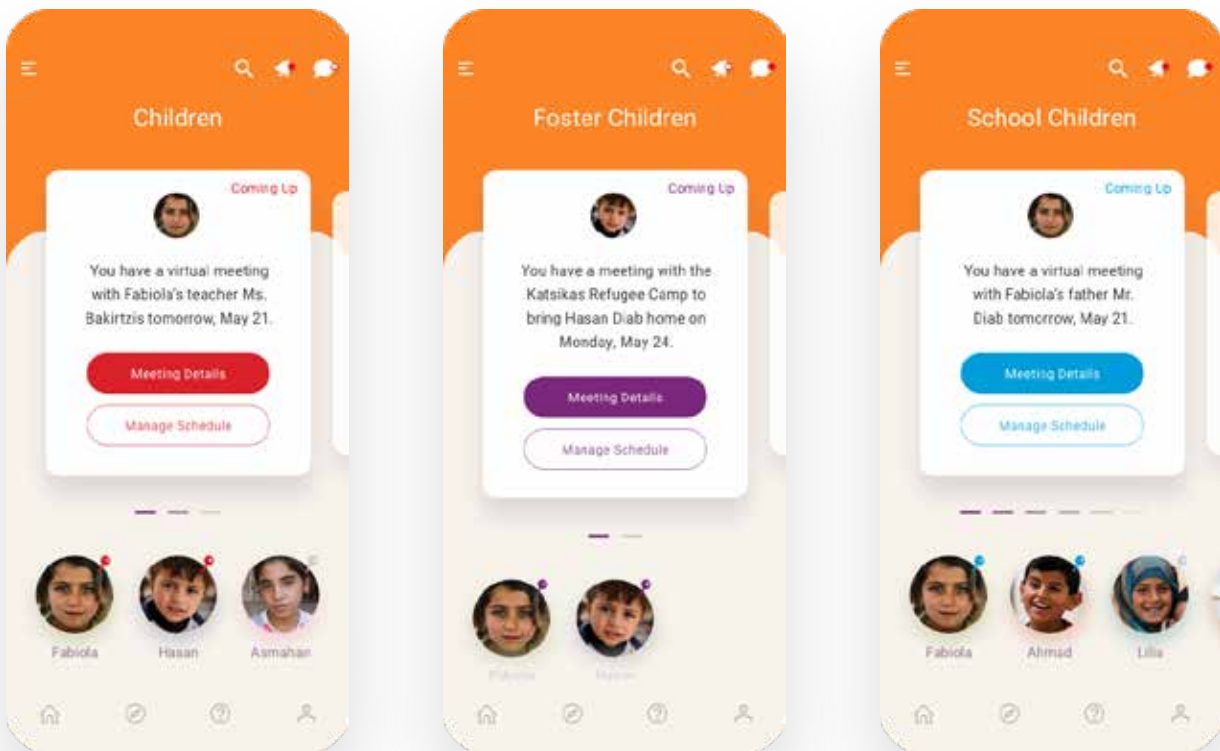
REGISTER A CHILD ONBOARDING



MEETING



THE SUB-DASHBOARDS FOR PRIMARY USERS



THE DESIGN OF A DISPLACED CHILD



The stories and personal data of these children accumulated by adults are collected and protected by the Cradlr Network Database, which becomes a collective digital memory.

Each design of this prototype closely follows the User Flow Map. The brand illustrations are integrated into the designs, especially for the onboarding processes, as the characters bring hope and delight to the users. The interface design for the exploration map on the previous page is contextual. The exploration button on the sub-dashboards leads the user to see the networked services based on a child's geolocation, while the exploration button on the main dashboard leads the user to explore his/her local networked services.