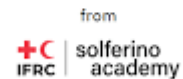


I am Elly Savatia, a forward-thinking 23 yr-old Red Cross Volunteer and entrepreneur with a deep-rooted passion for technology-driven innovation and social impact. My entrepreneurial journey began at a young age, fueled by a natural curiosity for technology.



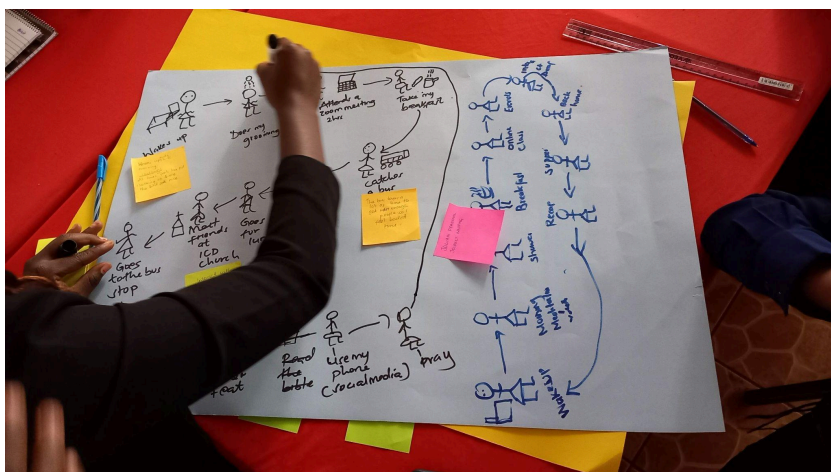
Building upon the support received from IFRC and Kenya Red Cross through the Solferino Academy, our journey began with a crucial question: How are young Deaf and hard of hearing individuals across Kenya and Sub-Saharan Africa navigating these unprecedented times? To gain firsthand insights, we initiated a comprehensive study and survey aimed at capturing their perspectives and real-time experiences amidst the COVID-19 pandemic and post Covid era.

Driven by a commitment to address the pressing needs of the Deaf community, my team and I organized a rigorous Design Sprint in collaboration with the Kenya Red Cross Youth, Dagoretti Branch. Focused on the theme 'How Might We Help the Deaf Community recover from the impacts of the pandemic,' this sprint was a collaborative endeavour to co-create and prototype innovative solutions for addressing hearing disability access challenges in Kenya.

Our goal was not only to generate ideas but also to co-design solutions with the community, ensuring that they are tailored to their unique needs and preferences.

Throughout the sprint, we also explored the potential integration of our technology with the Red Cross fraternity, envisioning how it could enhance accessibility and productivity within the humanitarian sector. Our discussions centered on seamlessly incorporating our platform to streamline communication and support initiatives, thereby making the humanitarian sector more accessible and efficient for all involved parties.

By engaging in this Design Sprint, we not only aimed to develop practical solutions for the Deaf community but also contribute to a more inclusive and responsive humanitarian sector. Through collaboration and innovation, we are determined to pave the way for a future where accessibility is a cornerstone of every endeavour, ensuring that no voice goes unheard.



Recognizing the value of real-time insights, we embarked on a comprehensive data-gathering initiative, seeking perspectives from young Deaf and hard of hearing individuals across Kenya and Sub-Saharan Africa. This invaluable feedback served as the cornerstone for our prototype development phase, informing every aspect of our solution.

During the design thinking phase, we conducted rigorous user research, employing a range of methodologies including questionnaires, one-on-one interviews, and focus groups. We ensured comprehensive stakeholder engagement, mapping their pain points to tailor a solution that effectively addresses their needs. Real-life testing scenarios provided invaluable insights, allowing us to refine our prototype iteratively.



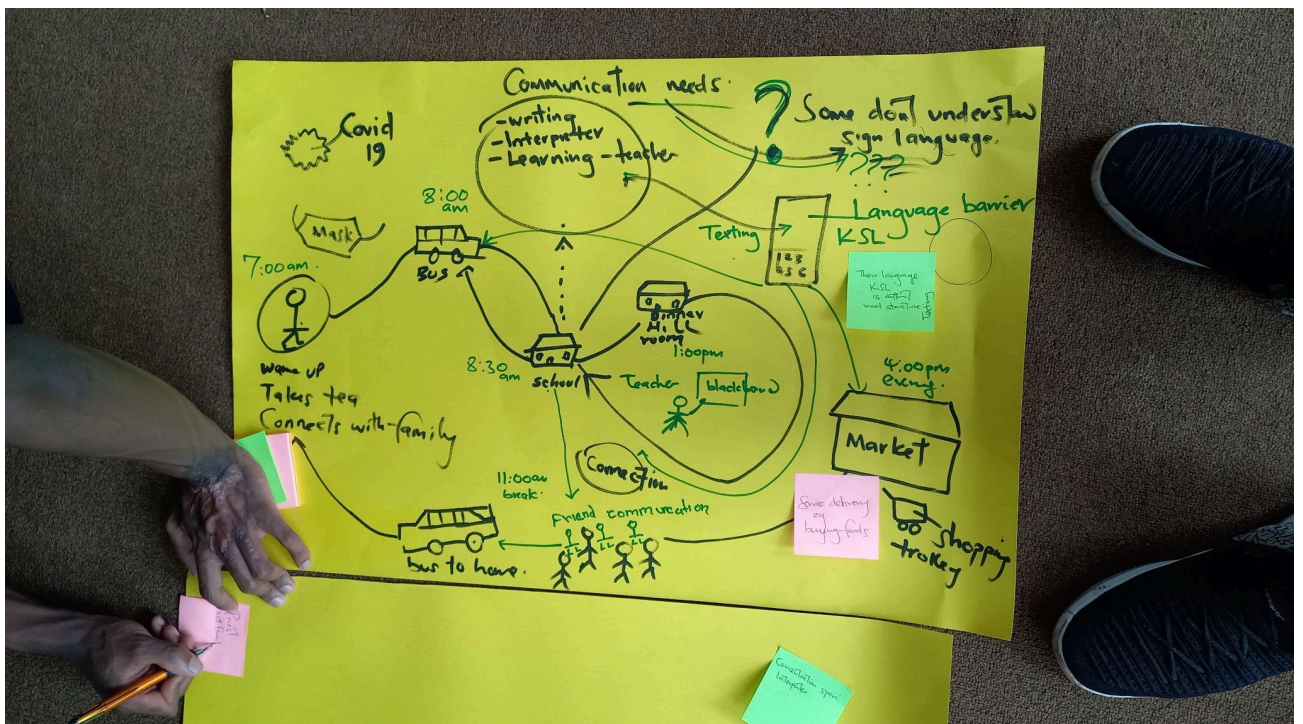
We expanded our testing efforts, engaging over 100+ Deaf individuals in multiple Design Sprint activities and programs. By involving both Deaf and hearing youth in feedback sessions, we sought to enhance the design of our software, ensuring its usability and effectiveness in real-world scenarios.

Through these iterative testing and feedback sessions, we have not only refined our solution but also strengthened our partnership with the Red Cross, demonstrating the potential of technology to enhance accessibility and productivity within the humanitarian sector. Our ongoing collaboration underscores our shared commitment to creating a more inclusive and responsive world, where every voice is heard and valued.

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Co-Creating the solution with the Deaf community and Red Cross Volunteers



Solution - AI Driven sign language interpreter

By leveraging advanced generative AI, motion capture technologies and automated 3D avatars, Signvrse envisions a world where the communication barriers faced by the Deaf and hearing-impaired population during humanitarian crises and everyday situations.



Our innovative solutions enable swift and effective communication , ensuring that vital information reaches all individuals, regardless of hearing ability, in times of need. **DEMO Here** <https://youtu.be/QMCpxyXyl8>

Through collaborative efforts, Signvrse has partnered with the Youth Department, Red Cross Kenya under IFRC Innovation Soferino Academy on various initiatives in Nairobi, testing and iterating this software with communities in Dagoretti and Nairobi Our innovative approach has enabled us to develop tailored assistive technology solutions that facilitate seamless communication for the hearing-impaired, ensuring they receive critical information and support when it matters most. Our mission goes hand in hand with the humanitarian efforts of the Red Cross. Signvrse plays a pivotal role in ensuring that Deaf individuals have equal access to essential services and resources, aligning perfectly with the Red Cross's commitment to inclusivity and accessibility. By leveraging cutting-edge technology, Signvrse breaks down communication barriers and fosters a more inclusive society where everyone can participate fully. Signvrse's contribution to humanitarian efforts cannot be overstated. Our platform can be seamlessly integrated into the operations of the Red Cross to provide real-time sign language interpretation during humanitarian aid missions. This ensures that Deaf individuals receive critical information and assistance effectively, enhancing the overall effectiveness of humanitarian efforts.

Questions & Summary

1. Problem Identification: Signvrse primarily addresses a humanitarian problem by focusing on improving accessibility for the Deaf community. However, it also has broader implications for businesses and communities seeking to foster inclusivity and effective communication practices.

2. Project Description and Data Utilization: Signvrse was conceived as a response to the communication barriers faced by the Deaf community, leveraging AI and 3D avatars to facilitate sign language interpretation. In our project, we utilized various data collection methods including surveys, interviews, and focus groups to gather insights from Deaf individuals and stakeholders. To mitigate bias, we ensured diverse representation among participants and employed standardized methodologies in data collection. Data reliability was ensured through rigorous validation processes and triangulation of findings from multiple sources.

3. Ethical Considerations: Ethical concerns were paramount throughout the project lifecycle. We conducted thorough risk assessments to identify and mitigate potential risks associated with data privacy, inclusiveness, and transparency. Measures such as obtaining informed consent, anonymizing sensitive information, and prioritizing the welfare of participants underscored our commitment to human-centricity and ethical integrity.

4. Impact Assessment: Signvrse has demonstrated significant impact in improving accessibility and communication outcomes for the Deaf community. For instance, our platform has facilitated enhanced engagement in education, healthcare, and public participation settings. Quantifiable metrics such as increased participation rates, reduced communication barriers, and improved quality of life for Deaf individuals underscore the tangible benefits of Signvrse.

5. Learning and Future Outlook: Throughout the project, we have gleaned invaluable insights that have informed our approach and future trajectory. Key learnings include the importance of user-centered design, the need for ongoing collaboration with stakeholders, and the potential for scaling and expanding Signvrse's reach.

In our project, we collected various types of data, with sign language data being of utmost importance. We utilized the Kenya Sign Language dataset, which is currently the largest available dataset of its kind. This dataset was collected directly from Deaf participants, ensuring ethical considerations and a diverse representation within the data.



The Red Cross Ji Position Mentorship Program underway, panellists engaging in discussions on volunteerism and job creation among the youth in January 2024. Elly Savatia - Far Right



Together with the Kenya Red Cross Youth, Signvrse is paving the way for inclusive humanitarian response, where AI-driven assistive technology will play a crucial role in enhancing accessibility and empowering marginalized communities