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SafeR Maps

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SafeR Whitepaper

Corporation Research Analysis and Novel Implementation

To serve as ancillary support to affirm SafeR's technological claims, the primary intention of this paper is to highlight the conditions that qualify one as a refugee, the circumstances surrounding a refugee's journey to freedom, and the lack of meaningful government assistance in the overall migratory process. SafeR (the corporation and technology) is working towards creating optimal routes for refugees to relocate safely. The company's goal is to use artificial intelligence and software technology to support refugee relocation by finding safe routes to reach aid camps or their intended destination. However, the technology does consider elements such as borders (both open or closed), locations of available camps and resources, terrain, and the probability of danger in particular areas based on past activities, among others. Every few months, the world is reminded of uncertainty when it witnesses the number of refugees and displaced persons generated due to conflict. Families are stripped of their resources, left hungry, thirsty, and often assaulted and injured to fend for their own and loved ones' lives. Chances of survival in their hometown become drastically low and force them to require relocation. Millions of such families exist worldwide, and thousands die yearly due to malnutrition, infectious but preventable diseases, and violence.

Moreover, these numbers only seem to be growing each year. The tools refugees currently have to rely on include conflict profiteers and non-state actors, and these refugees hand in all their documentation and trust these groups blindly. Eventually, many find themselves trafficked illegally to nearby countries in inhumane conditions or sent back home. By implementing AI-backed algorithms, SafeR aims to become the primary application for refugees, revolutionizing relocation with its platform that suggests safe, efficient, and passable routes for refugees to escape persecution based on the factors that matter to them for survival.

Macro Analysis and Research

To develop this technology, SafeR had to conduct relevant yet insightful research into the true hardships and difficulties refugees go through to assess better and combat those issues. According to the United Nations Refugee Agency, “Refugees are people who have fled war, violence, conflict or persecution and have crossed an international border to find safety in another country.” (The UN Refugee Agency). A refugee’s journey is a highly non-linear path filled with struggles, and the challenges they face along their way have only grown recently, as many countries walk towards instability. Organizations such as the United States of America for the United Nations High Commissioner for Refugees share that “Most likely, [Refugees] cannot return home or are afraid to do so.” Often, “War, ethnic, tribal and religious violence are [the] leading causes of refugees fleeing their countries.” (USA for the UNHCR).

Many citizens of these countries escape for a better life outside their hometown warzone. As refugees and immigrants seek resettlement, physical and societal issues often block their journey to their destination. To corroborate the beliefs of these organizations, refugees’

difficulties surrounding violence and ethnic conflicts are the primary cause of displacement of these individuals and play a significant role in the hardships that prevent refugees' travels. However, refugees are not the only group facing difficulties that travel requires. Like a refugee, "An internally displaced person," or IDP, is someone who has been forced to flee their home but never crossed an international border. These individuals seek safety anywhere they can find it—in nearby towns, schools, settlements, internal camps, forests, and fields. IDPs, which include people displaced by internal strife and natural disasters, are the largest group that UNHCR assists. Unlike refugees, international law does not protect IDPs or make them eligible to receive many types of aid because they are legally under the protection of their government." (USA for the UNHCR). Yet, the most important similarity between IDPs and Refugees is that the two seek protection. However, only one has government support in doing so.

"A vital part of being recognized as a refugee is Refugee Status Determination (RSD), a legal process that governments or UNHCR use to determine whether a person seeking international protection is considered a refugee under international, national or regional law." (Habitat for Humanity Great Britain). Numerous motives exist for refugees fleeing their country; however, according to Global Citizen, five key reasons are most common: Religious, National, Social, Racial, or Political Persecution, War, Gender and Sexual Orientation, Hunger, and Climate Change. These motives frequently play a prominent role in one's ability to gain the support required to classify themselves as a refugee.

In 2016, according to Pew Research, 46% of refugees who came to the US were Muslim, 44% Christian, and the other 10% were a mix, including Hindus, Buddhists, and Jews.

Frequently, religious divides stir much greater conflicts that ripple throughout regions, causing people to flee their nation for freedom of religion and better humanitarian and social rights.

Nowadays, especially in the Middle East, religion plays a prominent role in global conflict, “currently, the largest group of refugees in the world are fleeing civil conflict in Syria, which has been raging since 2011 and has killed 400,000 Syrians and displaced 6.3 million internally. Another 5 million have left the country entirely” (Global Citizen). However, the war in Syria isn’t the sole time this has occurred. Refugees fled wars in Iraq and Afghanistan in the 1980s, 90s, and 2000s, contributing to Afghanistan’s status as the single largest producer of refugees of any country in the world for more than two decades before being overtaken by Syria (Global Citizen).

Though most fixate on the physical factors, the lack of resources in lesser developed countries contributes mainly to the motives of refugees. The Guardian reports that “about 17 million displaced persons across the African continent, and only a small proportion of them are reaching the shores of the European continent. Many end up in sprawling, informal refugee camps like the town of Monguno in northeastern Nigeria” (The Guardian). Conflict over resources is probably the most significant motivator (if not religion or war) since it includes access to items required to survive and the money (currency) needed to obtain those things. An apparent struggle exists between groups (corporations, individuals, and others) attempting to gain more abundant resources while (at the same time) removing them from refugees.

Lastly, while many have attempted to disprove its existence, climate change is a crucial motive for refugees to flee their country. “It’s estimated that in the next 83 years, a stunning 13 million coastal dwellers could be displaced by climate change, joining the teeming throngs of

refugees and displaced people” (Global Citizen). Unfortunately, climate change has not yet become a valid reason for an asylum claim. The first refugee asylum case based upon climate change was closed by the New Zealand High Court in 2013 after a Kiribati man attempted to claim that status by law. (Global Citizen). But as artificial climate change worsens and oceans rise, past legislative precedents might require revisitation to combat the growing problem. The case in New Zealand further emphasizes that newer factors like Climate Change have become significant players that aid in creating conflicts prompting refugees or IDPs to flee their home countries.

Yet, what SafeR most clearly values are factors that many dismiss, such as closed-border policies and strained asylum systems that have driven migrants to take dangerous and hard-to-navigate land routes, increasing their vulnerability. With over 1 billion people on the move globally, refugee numbers continue to grow. Over 281 million of these migrants are international, and another 84 million were at some point forcibly displaced. Many significant issues play a vital role in these increasing numbers, with refugees on the move due to poverty, lack of security, access to essential services, & many more environmental issues. Vulnerability rises among migrants due to these various issues, heightening the risk of infectious diseases and physical/mental health needs.

Migrants remain subject to vulnerability issues both socially and physically, like refugees who experience xenophobia, discrimination, and substandard living. They face constant exclusion from basic healthcare programs across the globe and lack immediate access to health and wellness services. The lack of access to food in temporary and permanent refugee shelters varies based on the route, with many refugees still facing threats of malnutrition. Multiple

factors, such as their environment, water, sanitation, and hygiene (WASH), affect their health and wellbeing as equally as their access to medical services, security, and shelter. When any of these factors are inadequate, the risk for malnutrition increases. Based on their route, access to these factors varies, with most refugees still facing malnutrition threats. The UNHCR reports, “The share of refugee households with at least 10 liters of potable water storage capacity per person has slightly increased from 70 to 75% from 2018 to 2021,” but an even lower access to waste disposal facilities and basic sanitation devices continues to plague the livelihoods of refugees. Multiple other issues hurt refugee camps on the route and even at their destinations, such as overcrowding, frigid temperatures, inadequate medical assistance, water, sanitation, lack of access to adequate amounts of food, understaffing, and significant dehydration, all leading to the spread of illness and tragic deaths. Refugee arrivals to final destinations have been at a constant decrease due to a multitude of issues. A few primary ones in current times surround sexual, and gender violence, the lack of safe and legal pathways, and the refugee acts practiced by these countries. Often, the lack of facilitation within multi-sectoral services is harmful among survivors of sexual and gender violence, an unnaturally large group of arrivals who need a proper identification system to ensure their safety and treatment. Primarily women and girls find difficulty procuring sexual and gender-based violence protection and response services. To address this, cross-border cooperation between refugee arrival points is necessary to bring perpetrators of crimes against refugees and migrants to justice.

Significant illegitimacy with border control continues to hinder refugee progress. The U.S. Commission on Civil Rights reports that “Changes in federal policy further resulted in substantially increased law enforcement activity at the southern border and the separation of

thousands of migrant children from their parents.” A culture of racism leads to the illegitimacy surrounding border control that perpetuates violence based on their racist tendencies making entry into the US dangerous and discouraging travel.

The culture surrounding border control within developed countries dehumanizes refugees & migrants through the use of physical force and goes against many modern human rights policies regarding refugee migration and the equal treatment of refugees. There is also constant criminalization of asylum seekers who traveled through 3rd world countries to send them back and deport them to their conflict-filled countries. The UK Nationality and Borders Bill contribute to this by rehauling the asylum system and cherry-picking refugees who get access to safe entry, effectively going against past maneuvers related to refugee safety and hurting migrants in the process. Legitimizing refugees must guarantee fundamental human rights and physical security to those escaping from 3rd world country conflicts. Individuals suffer human rights violations due to the negligence and instability of their home country's government. Therefore, “since, by definition, refugees are not protected by their governments, the international community steps in to ensure the individual’s rights and physical safety.” (UNHCR Cyprus, 4) Many developed countries who have agreed to ensure the rights of refugees are obligated to protect them, yet, the UNHCR’s hindered scope of influence, alongside some countries’ resistance to asylum seekers through border patrol and policies, has led to calls for action to legitimize refugees rather than discourage them.

Modern Solutions

As promoted by the UNHCR, there are three current solutions for relocating refugees: these include (but are not limited to); voluntary repatriation, local integration, and resettlement. According to Chapter 7, Solutions for Refugees by the UNHCR, “Enabling refugees to become self-reliant pending the realization of an appropriate long-term solution is an important first step towards achieving any of the three durable solutions. Working towards solutions can also reduce the need for irregular onward movements.” Therefore, with the encouragement of these solutions and the providence of resources to achieve them, individual refugees are more able to become self-reliant and, consequently, aid both their conditions and those of the world’s refugees.

Voluntary repatriation is the idea in which refugees return home, just not necessarily to their country of origin. Oftentimes, the home refugees intend to return to is more than just a territorial location connected to a political body, in contrast to the nation of origin, which is a specific geopolitical term. The UNHCR and the IOM help refugees who wish to return on their initiative and those who require assistance returning to their native countries. Moreover, they provide additional support for reintegration, finances, logistics, and administration, among many other factors. Independent of the IOM and UNHCR, many wealthy nations also offer help, and voluntary return programs, examples of such efforts include making travel plans and covering the cost of the trips. Though the problems associated with voluntary repatriation arise when refugees flee their country due to political turmoil that creates unsafe living conditions.

Further, many wealthy countries are greedy when distributing money for aid, often giving lower amounts than shown and providing fewer amenities. For example, Portugal only takes in

0.03 percent of refugees, yet is in a prime location for refugee relocation and spends less money on each refugee than other wealthier nations. (Global Figures 2022)

Local integration is when a refugee leaves their home country for another country that is significantly safer and contains more opportunities than their past home. Many host governments think migrants should only be allowed to reside in settlements or camps so they won't compete with locals for infrastructure and the limited resources in their home country. The host communities worry that the influx of migrants will cause them to lose their control over the land and their ability to access cheap housing, schools, and medical facilities. Age, poverty, language, and foreign backgrounds damage refugees' success within host countries and serve as barriers to refugee integration. Most refugees find challenges in assimilating the cultures and languages of the country they are going to, leading to poor integration and rejection from citizens of the host country.

On the other hand, similarities such as shared religious beliefs, characteristics of the host country, and social networks can serve as facilitators (helpful factors at times to assimilate into the host country). The overall problem with local integration is with border control, as many countries don't want refugees crossing their borders; consequently, establishing governmental and border policies to prevent the arrival of refugees from occurring.

Finally, resettlement is the process in which a refugee, across several months or years, successfully leaves their previous country and is accepted into another (both socially and legally). Resettlement is crucial because it allows people to start over, frequently occurring abroad. Rations are typically insufficient for those living in refugee camps to support themselves,

and generally, refugees try to move due to related causes. The problems with resettlement are with the process, which oftentimes is forceful, challenging, and unpredictable.

SafeR Technology Novel Proposed Solution

When refugees and internally displaced persons (IDPs) face journeys across extremely non-navigable or unmapped land, it can be extremely challenging to continue. SafeR hopes that refugees and IDPs can overcome these struggles using its technology. SafeR technology is software for safe refugee relocation using AI mapping that factors elements such as borders, aid camp locations, resources, terrain, and the probability of danger in particular areas based on past activities. For example, suppose there are mountains and dangerous valleys on the way for a refugee to reach their destination. In that case, the SafeR technology will show the safest route to reach the goal, whether going entirely around the obstacles or finding a precise path.

SafeR technology utilizes all the data at hand, such as aid camp locations, terrain, etc. and compiles it so that an AI algorithm can mark each data entry point with a level of danger, from one to ten. For example, an aid camp would have a danger level of zero (essentially non-classified as it is a destination for the refugee and is safe), but a known landmine zone would have a danger level of ten. After creating this “danger map,” the AI algorithm draws a route to the refugees’ destination while weaving through dangerous areas and striving for efficiency and safety. Moreover, the AI algorithm constantly improves as it frequently undergoes new tests in order to better model current data and ensure it maintains high accuracy. When there are far too many danger points to create a safe and efficient route, the software will display a message

notifying the user of such, but still draw a way that leads to the destination in the safest manner possible.

Conclusion

To conclude, the potential impact on refugees SafeR's technology and solutions can have astronomical effects. The company continues to grow and develop from the novel idea of using AI-mapping technology to create optimal routes for refugees to relocate safely to the real-world implementation of SafeR technology. To solve a global problem of frequent and inhumane devastation (refugees dying on their way to a safe destination), we provide the means for refugees to traverse non-navigable land and dangerous areas safely, routing refugees on the safest path to hope.

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