

International House NY
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Immersive Storytelling of Rohingya Refugee Experience
Cox's Bazar, Refugee Camp, Bangladesh

The displacement of refugees from their natural homes have caused violence and estrangement all over the world as victims, perpetrators, and hosts jostle for territorial and resource control, to the detriment of victims who live in unbearable conditions outside their homelands. There is often misunderstanding amongst the hosts, who see the refugees as parasites who come to their country to live off of the hosts' rightful land, taking resources that belong to the hosts and deflecting responsibility away from perpetrators. Hosts often don't understand the terrible lives that refugees are subject to, thinking that they are having better lives than those in their own countries. To educate both sides of the refugee/host conflict and de-escalate violence towards refugees, a more immersive experience that narrates the daily lives of refugees in host countries is necessary to increase awareness from host populations and the world public at large about the real plight of refugees and their unbearable circumstance.

The United Nations Refugee Agency (UNHCR) ascribes 68.5 million forcibly displaced peoples around the world, but one of the most pressing issue is those of the Rohingya, a Muslim group previously living in the Buddhist Rakhine state in Myanmar, due to its history of violence that cuts deep into the cultures of the respective communities. During World War II, the Rohingya Muslims were aligned with the British while the Rakhine Buddhists supported the Japanese. After the war, the Rohingya were denied citizenship, and in the 1978, the Myanmar government launched operations to clear the area of the Rohingya, leading to formation of militant groups like the Rohingya Solidarity Organization (RSO), which use drastic means to attack the Myanmar borders with Bangladesh. After renewed attacks by the Arakan Rohingya Salvation Army (ARSA) in 2016, the Myanmar government began processes to systematically root hundreds of thousands of Rohingyas away from Myanmar using violence and humiliation tactics. Over 700,000 refugees fled to neighboring Bangladesh, whose government is dealing with massive populations, and wants to prevent further explosion by forced sterilization and repatriation.

Photographic images from both sides have appeared that seem to support different agendas. Myanmar officials claim one image supporting ARSA attacking its own village, but later investigation led to identification of Hindu arsonists. Amidst all the rhetoric from both sides is a need for real, immersive documentation of the refugees' plight and stories of how these events came about. Photos can often be faked, and the narrative stories of the victims do not come across from official documentation. Meanwhile, refugees themselves do not have means of making films or immersive experiences that can tell their story, making misperception on the Bangladeshi side common place. According to conversations of Daiki Hidaka, who works closely with the Bangladesh Information and Communication Technology division (ICT), the public perception in Bangladesh as perpetrated by the government sponsored media, is that Rohingya militants have been breeding in refugee camps, and that refugees are given no freedom of movement in those restricted areas in addition to never given any sort of identification. As a developing country with a burgeoning infrastructure, Bangladesh has been reluctant to absorb the over 1.3 million Rohingya in its country, but UN resolution with Myanmar has been stalemate. The Bengladeshi authorities have portrayed the Rohingya as militant and self-serving outsiders who seek to benefit from using resources in Bangladesh if they are given any way of movement. The result is seldom documented abdominal conditions.

To give a voice to the displaced people of the Rohingya Muslims and to communicate broadly to the Bangladesh and world public at large, I propose to take 360 videos to be interactively experienced in Virtual Reality (VR) and record voices and stories by forming an expedition group experienced with the refugee area. I will enter the refugee camps southeast of Cox's Bazaar, a spot frequented by tourists in Bangladesh. With the help of my local contact Daiki Hidaka and his government and logistical contacts who speak the local language and have been inside the camps, I will talk to refugees and make a 360 video based (primarily) visual interactive documentary that narrates the daily plight of the Rohingya people inside the camp. Working with Film4Peace Foundation, I will distribute the VR experience online and through their media channels. In addition, I have procured an exhibition opportunity in Dhaka,

Bangladesh at Gallery 21, a contemporary gallery focusing on empowerment and independence. Working with curator and artist Shameem Subrana, I will show the VR exhibit to public audiences in Dhanmondi, Dhaka for a week, at the main gallery space previously designed for Rubina Akhter's work. Daiki also assures me of other opportunities in Dhaka. In New York, I will exhibit at the New York Hall of Science (NYSCI), where I am Designer in Residence. That exhibition will sit next to the "Connected World" exhibit, and will garner attention from local social justice artists (I'm my own curator and executor for it). Through these opportunities for active distribution of the interactive experience, I hope to educate the Bangladesh as well as the international public about the current plight and thoughts of the Rohingya. VR as a medium for telling stories promulgating sustainable peace has been at the forefront of development. Viewers are given a headset, headphone, and controller and allowed to roam in a virtual world whose environment can be created from photos or 360 videos. One company, Within, produced a VR project with the UN called "Clouds Over Sidra" about a Syrian girl refugee living in Jordan. Seeing the world from her perspective creates empathy and understanding that only VR delivers. According to a study conducted by Herrera et al at Stanford (PLOS ONE 2018), perspective taking in VR led to a significant increase of post-exposure-experience petition signing, up from 61% to 82% compared to the traditional 2D screen-based equivalent. Amnesty International generated a 16% rise in donations when the organization began distributing a VR program that allowed viewers to experience the Syrian civil war immersively. Using an immersive experience to narrate the plight of refugees will increase empathy generated from perspective taking in VR.

Most of the VR experiences created by the UN for its UNVR project have been purely non-interactive works. To make the experience more akin to real life and to make the immersion more relevant to the viewer, I will utilize technology I am creating at Parsons School of Design. As a creative technologist working with github (recfreq.github.io), I have been making VR interfaces that capture sensor data using electroencephalography (EEG) of the brain, and eye tracking data. For this project, I will use integrated eye tracking using the LooxidVR headset to enable the viewer's gaze to move towards the region of interest instead of using a controller. Gazes that fix on a part of the scene will also see that part magnified and sharpened. As the gaze moves, we can track the viewers' attention to see how she is engaged. This enables a more natural interactive experience in VR instead of viewing passively as in the Within's work.

I have a track record working with VR systems such as founding the startup "VRbal.io" which uses VR to help those who stutter practice making speeches at home instead of relying on expensive and ineffective cognitive therapies. I've also done work doing stress and anxiety sensing in VR environments for dealing with anxiety and panic in a project called "Weavable Tech." I've also created a WebVR experience using 360 cameras for my ailing father to view my school Parsons School of Design's work space, called "Gestalt 1: Livity." Moreover I've worked in the third world to improve lives, such as a design project in Ahmedabad India ("Bead It") which utilizes ceramic beads and a hand-cranked laundry machine to conserve the use of water for laundry, reducing total water use up to 80%. My connections in Pakistan, Bangladesh, and India, including work with Indian Institute of Technology and Bangladesh Institute of Peace and Security Studies make me an ideal candidate for undertaking this work. I also have an understanding with the Bangladesh people that can only come from an outsider who can take fresh perspectives and yet remain engaged, deeply committed to people's well being, with roots to South Asian culture garnered from living in Calcutta for two months and working in Ahmedabad (for "Bead It").

By taking 360 video and making an interactive VR experience for display both for Gallery 21 and others in Bangladesh, in New York, and online with Film4Peace, I hope to increase awareness for the plight of the Rohingya beyond only passive photos that are often doctored. The short term goal is to bring about better incorporation of the Rohingya into at least a segment of Bengladeshi consciousness, but the long term goal is to enable empathy with the plight of refugees in general so that we can find peaceful solutions for coexistence, as I engage the UNHCR. The project will be successful as long as our VR demo can reach those who are skeptical about the plight of the Rohingya, and if our VR experience is able to show the intimate experience that the Rohingya live through every day, conditions that we as a people, when we look into ourselves, recognize as deserving of peaceful and sustainable change.