On March 17-18, 2018, the Humanitarian Innovation Initiative hosted Hack for Humanity, Brown University’s inaugural humanitarian hackathon. Over the course of the weekend, 75 undergraduate and graduate students from Brown University, Rhode Island School of Design, and the Naval War College formed into 20 teams to address five cross-cutting challenges within the context of the Rohingya refugee crisis. Drawing upon the interdisciplinary diversity represented among participants, teams developed creative ideas for innovative programs, policies, and technologies that aimed to improve the lives of the disaster and conflict-affected Rohingya community. To encourage teams to delve into the complexities and realities of humanitarian emergencies, humanitarian practitioners were brought in to help guide each team, enabling thought processes to develop into relevant and grounded project pitches. Following final pitch presentations by each team, a panel of judges awarded three prizes to encourage continued engagement on the topic and further development of the winning pitches. With the completion of the two-day event, we can confidently say that Hack for Humanity offered an inspiring, creative, and collaborative platform that students used to productively explore their ideas on how to improve the lives of disaster and conflict-affected communities. Participants learned about the most pressing needs in the humanitarian sphere and left with a more complete and grounded view of the solutions that are needed to reduce human suffering.

2 Days
5 Challenges
75 Participants
20 Teams
5 Mentors
12 Advisors
Hack for Humanity Lens

The Rohingya Refugee Crisis

Hackathon participants were directed to view their challenges through the lens of the evolving Rohingya refugee crisis and to tailor their pitches in a relevant way. Resources on the crisis and the global humanitarian response were provided to all teams prior to the event to encourage teams to come prepared with a foundational understanding of the lens.

Lens Description ~

Since August 25, 2017, over half a million ethnic Rohingya Muslims have fled Myanmar’s Rakhine State into neighboring Bangladesh to escape appalling violence and violations of human rights. Others remain internally displaced within Myanmar without access to humanitarian aid. The speed and scale of the refugee influx to Bangladesh has made this the fastest growing refugee crisis in the world and the concentration of refugees in Cox’s Bazar, Bangladesh is now among the densest in the world. With the total Rohingya population in Bangladesh now close to 1 million, Bangladesh and the international community are struggling to meet the displaced populations’ escalating needs. The displaced Rohingya population is highly vulnerable, having fled conflict and experienced severe trauma, and now living in extremely difficult conditions with limited access to food, water and sanitation, shelter, healthcare, and other basic services in the spontaneous sites where they have settled. In addition to the extreme vulnerability of the displaced, the sheer number of Rohingya refugees seeking shelter in Bangladesh has put a remarkable strain on the already limited resources of host communities.

The UN OCHA Interagency Standing Committee (IASC) Humanitarian Response Plan for 2017-2018 identified the areas of WASH, health, nutrition and food security and shelter for immediate scale-up to save lives in both settlements and host communities. Given the current population density and poor sanitation and hygiene conditions, any outbreak of cholera or acute watery diarrhea (AWD), which are endemic in Bangladesh, could kill thousands of people residing in temporary settlements. Urgent nutrition needs have been prioritized for children aged under five (including infants), pregnant and lactating women and adolescent girls. These include close to 17,000 children under five suffering from severe acute malnutrition (SAM) to be supported over the next six months. Moreover, children, adolescents and women in both the Rohingya and host communities are exposed to high levels of violence, abuse and exploitation including sexual harassment, child labor and child marriage and are at high risk of being trafficked. With roughly 60% of new arrivals being children, an estimated 453,000 Rohingya children aged 4-18 years old are in need of education services.
Five cross-cutting humanitarian challenges, applicable to the Rohingya crisis, were identified and published prior to the event. Challenges were left intentionally broad in hopes of cultivating a wide range of creative solutions. Participants registered to address one of the five following challenge areas:

- **Increasing Access to Community-Based Management of Acute Malnutrition**
  Total Number of Teams: 2

- **Overcoming Deliberate Obstruction of Humanitarian Access**
  Total Number of Teams: 2

- **Enhancing Local Participation in Disaster Risk Reduction Efforts**
  Total Number of Teams: 5

- **Providing Education Opportunities for Displaced Children**
  Total Number of Teams: 10

- **Delivery of Adequate WASH Services in Situations of Severe Population Overcrowding**
  Total Number of Teams: 1
To encourage teams to delve into the complexities and realities of humanitarian emergencies, humanitarian practitioners and academics were brought in to help guide each team, enabling thought processes to develop into relevant and grounded project pitches. Each challenge area had a designated mentor who teams interacted closely with over the two days. Another valuable resource available to teams was the opportunity to communicate with area specific advisors with specific professional, technical, and procedural expertise.

Mentors

Maria Kasparian
Executive Director
Edesia

Rob Grace
Political Science
Brown University

Rabiul Islam
Professor of Social Work
Rajshahi Univ., Bangladesh

Zein Tayyeb
Humanitarian Affairs
UN OCHA, Jordan

Sangeetha Yogendran
Researcher
KAS Rule of Law Programme Asia

Advisors

Nour Audi
MPH, School of Public Health, Brown University

David Barros
Sierra Cordera
VP, Empowerment
Dharma Platform

Saadiyah Bilal
Fellow, Emergency Medicine Brown University

Angela Blanchard
CEO of BakerRipley

Juliana Carvalho
Consultant, MERCOSUR
Human Rights Institute

Benjamin Davies
Humanitarian Specialist
U.S. Naval War College

Elizabeth Hermann
Professor of Landscape Architecture, RISD

Chris Kwaja
Conflict Management
Jos Jos University, Nigeria

Peter Lundgren
Humanitarian Coordinator
MSF & UN

Rashmi Sharma
Fellow, Emergency Medicine Brown University

Julie Thompson
UN OCHA, Geneva
Hack for Humanity opened with welcoming remarks by Dr. Adam Levine, Director of the Humanitarian Innovation Initiative. Participants were then introduced to the Dharma platform, a newly developed software program that allows organizations to simplify data collection, management, analysis and visualization. An inspiring keynote address was then given by Kirsten Gelsdorf, Senior Lecturer and Director of Global Humanitarian Policy at the University of Virginia. Students then formed into their teams, ranging from 3-6 students, to begin “hacking” their identified challenge.
At the end of day one, teams shared their progress in a pitch sharing poster session. This provided each team with a valuable opportunity to bounce their ideas off one another and gain helpful insight moving forward into the next day.
After spending the morning finalizing their pitches, day two of Hack for Humanity featured an engaging panel discussion with the invited mentors and the final pitch presentations. Each team presented their pitch to a panel of five judges, who evaluated each pitch on the basis of originality, respect to individuals and communities, context, feasibility, impact, sustainability, and partnerships. Following the presentations, the judging panel convened to award the top 3 project ideas with seed funding to further develop their pitches.

**Judges**

Angela Blanchard  
CEO of BakerRipley

Christopher Bull  
Senior Lecturer in Engineering

Elizabeth Dean Hermann  
Professor of Landscape Architecture, RISD

Adam Levine  
Director, Humanitarian Innovation Initiative

Jennifer Nazareno  
Presidential Diversity Post Doctoral Fellow at the Nelson Center for Entrepreneurship
Final Pitch Presentations

Below are the ideas that were generated by the participating teams and presented to the judges. View the Pitch Presentations of Each Team >

- JerryPot - Re-Designing the Jerry Can
- Increasing Access to CMAM Programing - Identify, Inform, and Incentivize
- Reducing Risks for Pregnant Women in Refugee Camps: Prevention, Preparedness, Response, Recovery
- Fortification and Stabilization: Vetiver Grass
- Buddy Bags: Building Resilience and Empowering Rohingya Youth
- Utilizing Bangladeshi Schools for Effective Education Aid
- Implementing a Health-based Curriculum for Rohingya Refugee Children
- P.E.E.R: Program for Education and Engagement of Refugees
- InScribe: A Digitized Database of Shared Experiences in the Rohingya Language
- Live: A Remote Teacher Training System Through Community Radio
- The Humanitarian Codex: A One Stop Source for Negotiating Humanitarian Access
- DirectMe: A Crowdsourcing App that Enhances Local Participation in DRR Efforts
- Re-designing RUTF Packaging and Reuse: Values, Community, and Therapy
- Developing Drainage Systems Through Local Participation
- Clustr: A Coordination Tool for Access Mapping and Data Sharing
- Youth Speaks: Giving Refugee Youth a Voice
Awarded Prizes

The prizes for this year’s Hack for Humanity were awarded to the three following teams, encouraging them to continue working on the development of their ideas.

Fortification & Stabilization: Vetiver Grass
Humanitarian Innovation Initiative
Seed Grant ($500)

Live: Community Radio Teacher Training System
Nelson Center for Entrepreneurship
Explore Grant ($500)

JerryPot: Re-Designing the Jerry Can
Brown Design Workshop
Maker Grant ($500)
Thank You!

This event would not have been made possible without the generous support from the Nelson Center for Entrepreneurship, Brown Design Workshop, AP&S, Edesia, Swearer Center, Alpert Medical School, Wyze, and the Brown Global Health Initiative. We also want to thank Kirsten Gelsdorf for her inspiring keynote address, all of our wonderful mentors, advisors, and judges for sharing their wealth of knowledge and experience, and the Student E-Board for their amazing organizing efforts. Finally, kudos to all the participants who put in a remarkable amount of energy and dedication to develop their project pitches. See you next year!