

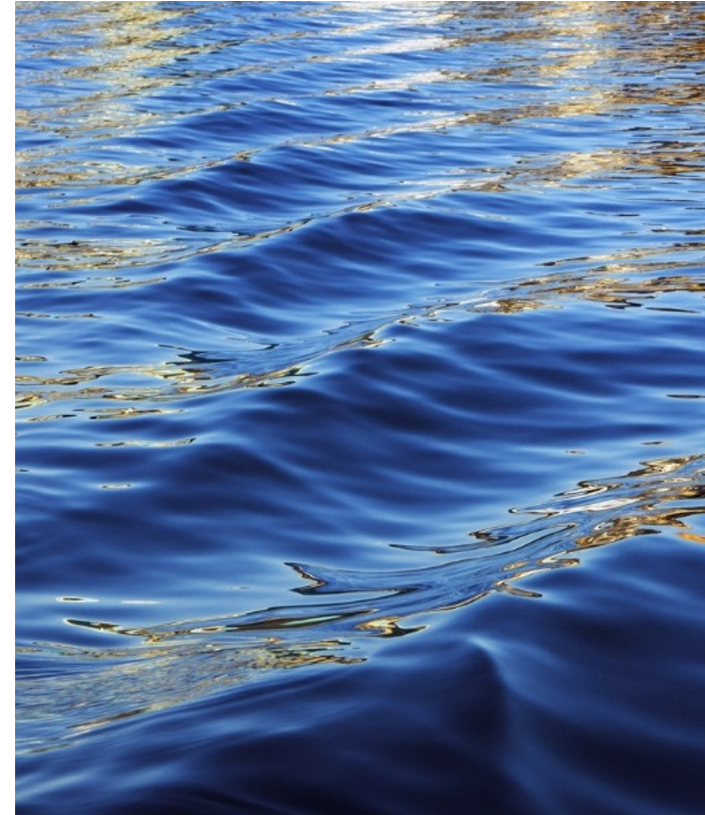


# The effect of blockchain-mediated donation transparency on resilience in hurricane-ravaged Puerto Rico

The HUMLOG Challenge

Valentina Contador, Keanu Isenring,  
Juan Pablo Millet, Nick Mitilenes

October 24, 2021- Team MIT Sloan





# Rural Puerto Rico: In desperate need of (efficient) aid



*"The United States is one of the world's richest, most powerful and technologically innovative countries; but neither its wealth nor its power nor its technology is being harnessed to address the situation in which 40 million people continue to live in poverty."*

*— Philip Alston, UN Special Rapporteur on Extreme Poverty*

"As a community social worker, I can tell you that Puerto Rico's recovery, if it can be called that, didn't come thanks to the government. It came from nonprofit associations, it came from the neighbors themselves. It came from foundations. It came from the hands of other people who supported the families that suffered the most"

---Ángel Pérez | Puerto Rican citizen

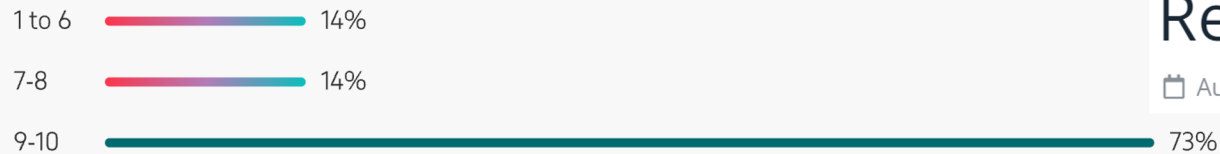


# NGO (In)efficiency & Donor Sentiment

## How important is it to trust a charity before giving?

Importance of trust before giving

In general, on a 10-point scale, how important is it that you trust a charity before giving to it?

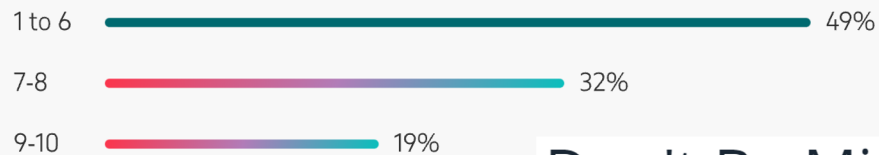


Trust in charity

1 = Not trust at all

10 = Completely trust

In general, on a 10-point scale, how much do you trust charities?



## Trust and confidence over time

On a scale of 0–10, how much trust and confidence do you have in charities?



## Red Cross Uses Donations To Pay Fines

Aug 01, 2008

## Five ways foreign aid and NGOs can make things worse when disaster strikes

March 2, 2016 1:15am EST

## Don't Be Misled by Deceptive Charity Efficiency Claims

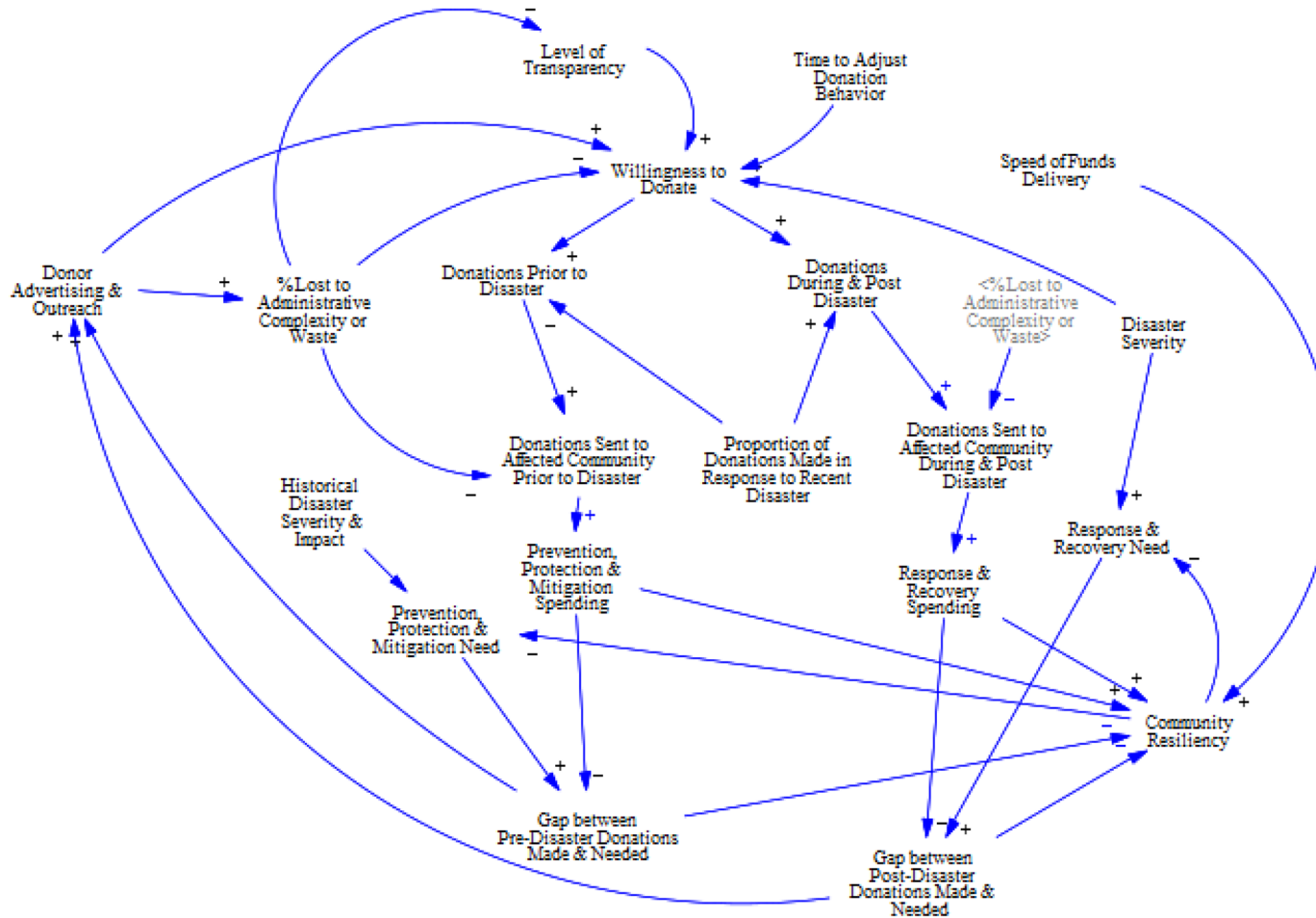
Jan 15, 2015

As a donor, which of the two claims below would be more likely to persuade you to make a charitable contribution?

1. "85 cents of every dollar **spent** goes to our charitable programs."
2. "85 cents of every dollar **donated** goes to our charitable programs."



A systems thinking approach to analyzing the cause of low resilience in regions with recurring hurricanes & low donor enthusiasm





# Current stakeholder perspectives

*"The questions that I hear the most from our donors and partners are around making sure the money gets to the people in need and doesn't end up in the wrong hands. Reputation is important, they have to trust our organization, otherwise is really hard to find and maintain donors"*

-Mariana Ceballos partner of Donaciones con Causa para los Damnificados (primary research)

*"The BitGive foundation started as a project to give some Bitcoin to help different communities, but through the years we have realized that the blockchain solves a lot of problems around fundraising. There is definitely a brighter future for nonprofits implementing blockchain "*

-Former BitGive Foundation partner and employee (primary research)

*"Our fund have made several donations through the blockchain to different medium and small non-profits organizations, working closely led me to find out many inefficiencies that the blockchain could fix. And you will be impressed how open they are to change, they are always on the look for acquiring new donors"*

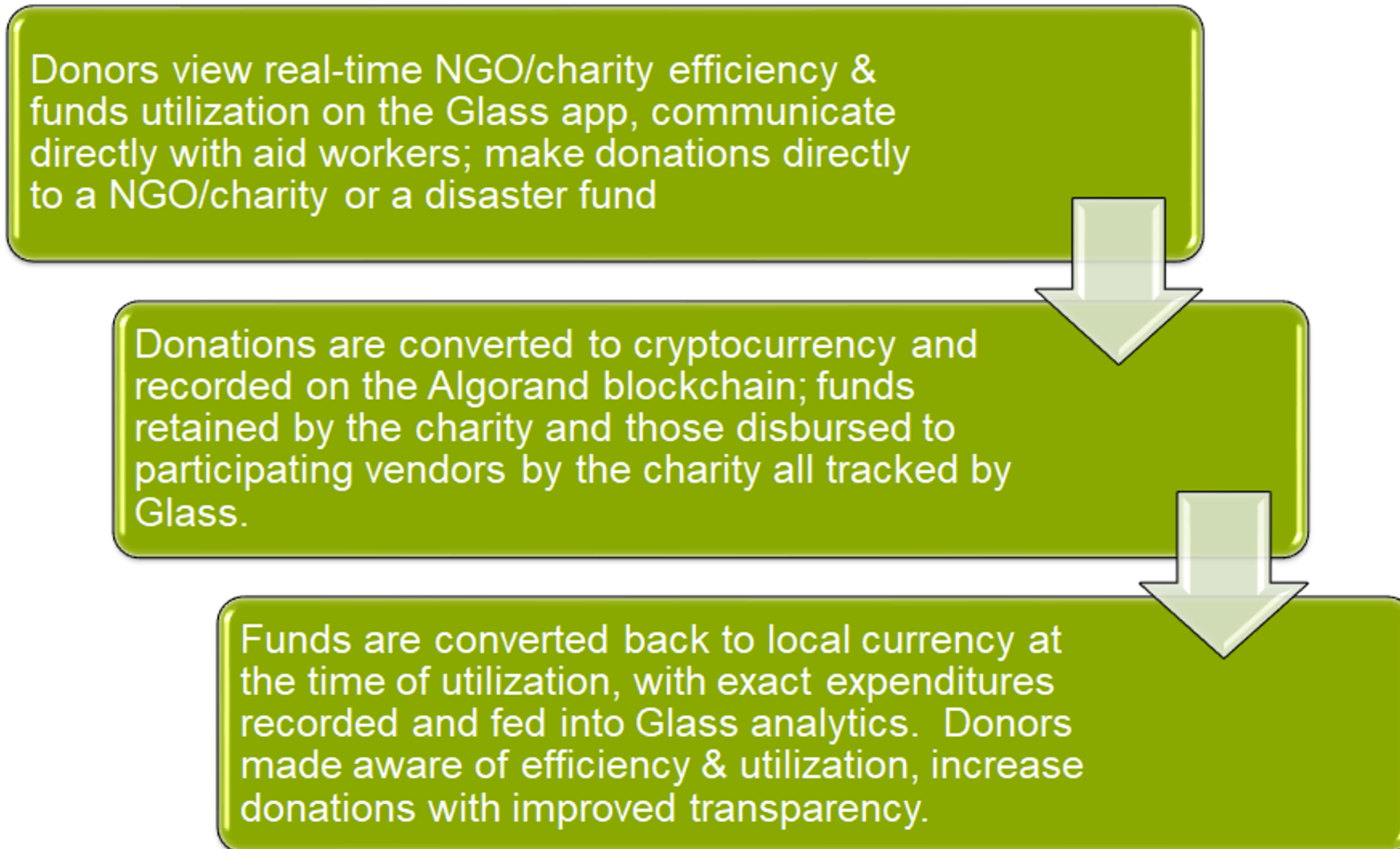
-Dave Craige, partner at The Studio Capital blockchain fund (primary research)

*"The resources we spend on administration are substantial... a key interest of UNICEF is how we rally donor support despite increasing concerns over spending not directly related to aid."*

-Former UNICEF Employee (primary research)

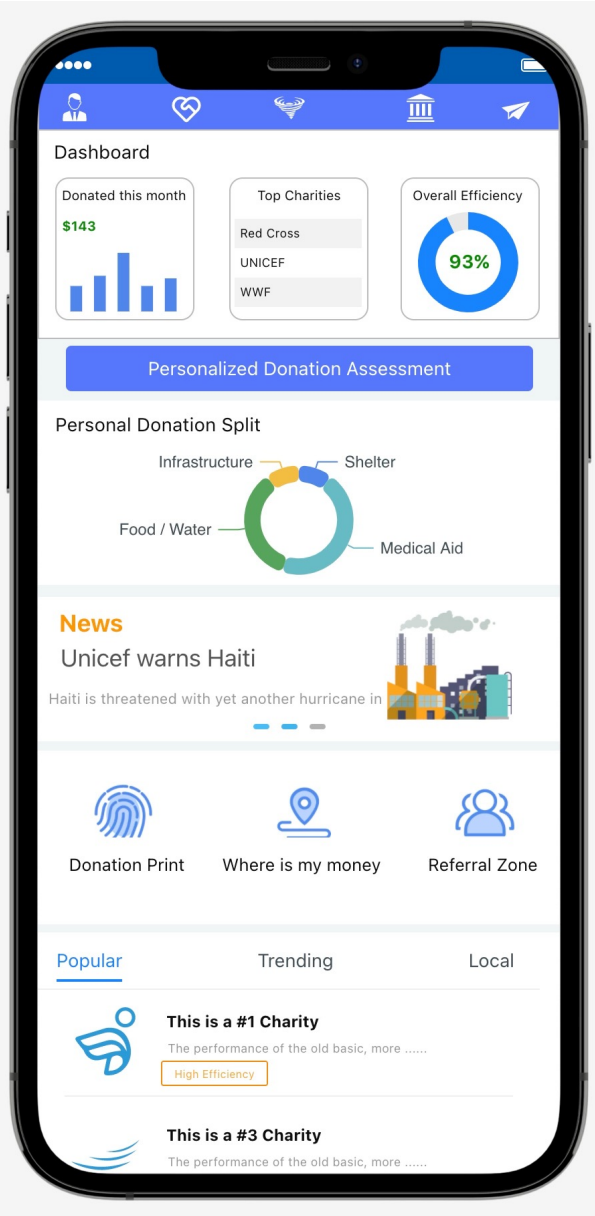


# Overview of our solution: Glass



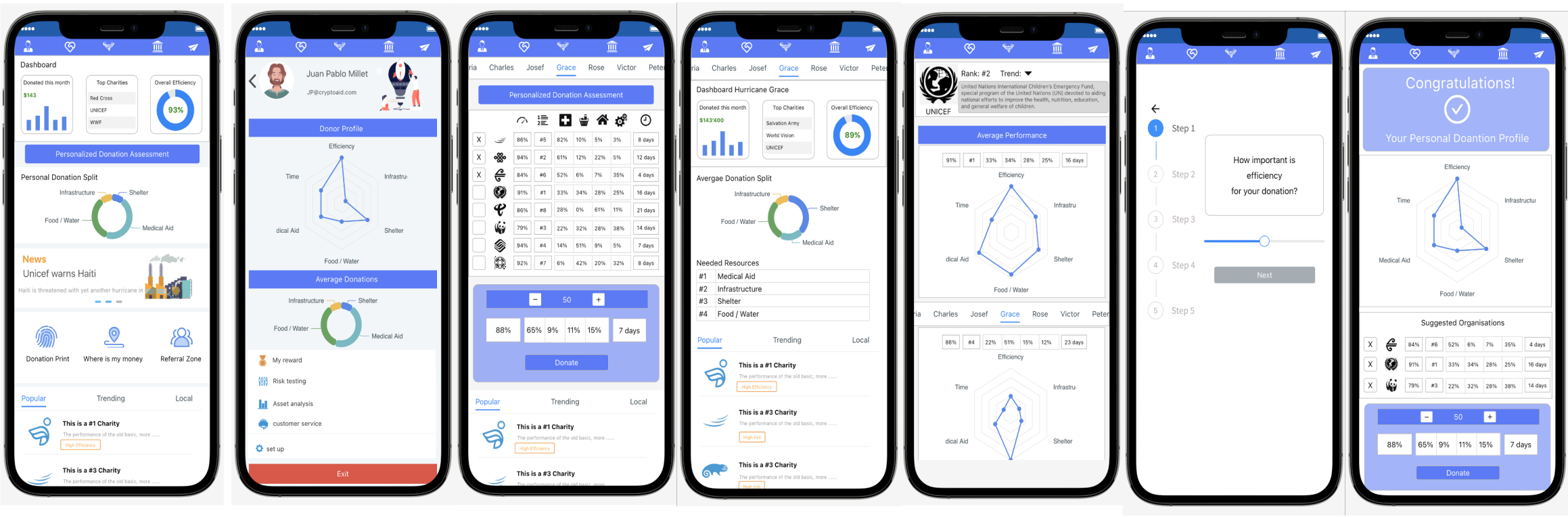


# Glass in action!

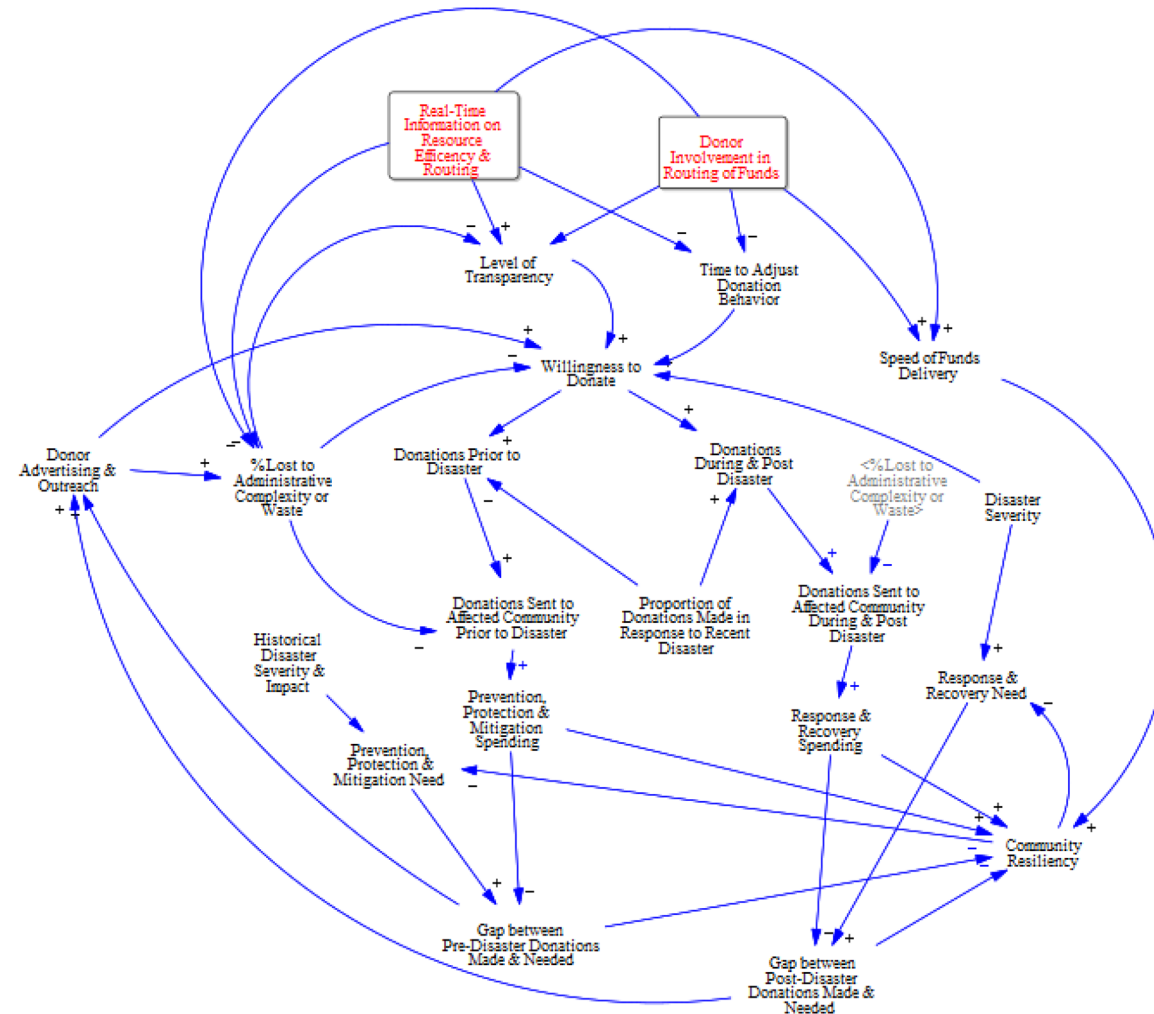




# Glass Wireframes



# Glass' impact on community resiliency & overall system dynamics





# Stakeholder reactions to Glass

*"This is definitely a problem that blockchain can solve, in fact there are very few reasons why all supply chain shouldn't adopt blockchain. Costs of this would be low and would definitely preserve capital for disaster victims."*

-Current blockchain technology company executive (primary research)

*"We would love to be associated with something like this so that the general population can associate blockchain with the societal good that can result rather than just with the cryptocurrency craze. This concept can be developed fairly easily provided that the NGOs and their local partners get on board."*

-Current blockchain technology company executive (primary research)

*"Improved grassroots donation efforts combined with pressure on the NGOs to reduce administrative burden would result in a meaningful reduction on the gap between the aid needed and what can be delivered. I personally would love to use this platform for my own charitable giving..."*

-Current NGO employee (primary research)

# The MIT Sloan Team



Valentina Contador

Chile



Nick Mitilenes



Keanu Isenring

Switzerland  
United States



Juan Pablo Millet

Mexico





# Appendix



# Secondary Research References

<https://www.itransition.com/blog/blockchain-for-nonprofits>

<https://blogs.ncvo.org.uk/2016/06/28/how-charities-are-responding-to-the-fall-in-public-trust/>

<https://www.charitywatch.org/charity-donating-articles/red-cross-uses-donations-to-pay-fines>

<https://www.charitywatch.org/charity-donating-articles/don39t-be-misled-by-deceptive-charity-efficiency-claims>

<https://theconversation.com/five-ways-foreign-aid-and-ngos-can-make-things-worse-when-disaster-strikes-50486>

[https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/20191203-ocha-desastres\\_naturales.pdf](https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/20191203-ocha-desastres_naturales.pdf)

<https://www.unicef.org/press-releases/unicef-cryptocurrency-fund-announces-its-largest-investment-startups-developing-and>

<https://yaleclimateconnections.org/2020/12/a-look-back-at-the-horrific-2020-atlantic-hurricane-center/>

<https://nonprofitssource.com/online-giving-statistics/>

<https://thegivingblock.com/donate/>

<https://www.charitywatch.org/our-charity-rating-process>