

GOOD NEWS

From Public Invention RECENT ACCOMPLISHMENTS

by inventor(s) or invention teams

- Our **RespiraCon II** conference commenced and brought about significant conversation by industry leaders and professionals. Check out the conference results below to see what came from this event!
- Public Invention received over 100 signatures for its **Open Medical Technology Manifesto**: [Link Here!](#)
- **Leith Greenslade** and **Robert Read**, had the opportunity to take part in a recent podcast interview led by **Dale Dougherty** of **Make Community LLC**. In this podcast, Dale captured how Leith and Dr. Read are trying to rethink the deployment of global respiration technology with the virtual conference and their **Open Medical Technology Manifesto**. [Interview Link Here!](#)
- **Moonrat** is reactivated as an available project and **Harshit Kumar** is now leading this team! Please check out the available volunteer roles here: [Link #1](#) & [Link #2](#)
- **Pio Lee** has started as an outreach coordinator for **PolyVent**
- **Chad Estill** is pursuing an Electromechanical Engineering Lead Role with our **PolyVent Open Source Ventilator** team

OPPORTUNITIES

- Make a Public Invention/humanitarian engineering club at your school using this source: [link](#)
- Check out our current project ideas available for inventors and invention coaches to join: [Google spreadsheet](#)
- Do you have some progress to share with the general public/our membership regarding your current Public Invention project? Then submit your summarized efforts or any images to our Public Outreach Coordinator (Megan) for the next newsletter!

Email: outreach@pubinv.org



We invent things that help all people. All of our work is in service to nurture humanitarian invention.

FOLLOW US!



PUBLIC INVENTION'S 2022 GOALS

- Within the year, we are hoping to spark the formation of Public Invention Humanitarian Engineering Clubs across university campuses. Read our blog about this endeavor and available resources:
 - [How to Start](#)
 - [How to register under Public Invention](#)
- This year we will partner with international Institutes to help students from other countries to pursue invention clubs at their universities
 - Current efforts are being made in Mexico through our prior pitch meeting with Mariella Castro from La Universidad del Valle de Atemajac (UNIVA)
- This year we hope to recruit and sustain even more inventors and invention coaches!
 - Meet **Harshit Kumar** - Joining our **Moonrat** project as **Lead Researcher**
 - Meet **Pio Lee** - Joining our **PolyVent** team as their **Outreach Coordinator**
 - Meet **Chad Estill** - Joining **PolyVent** as their **Electromechanical Lead**



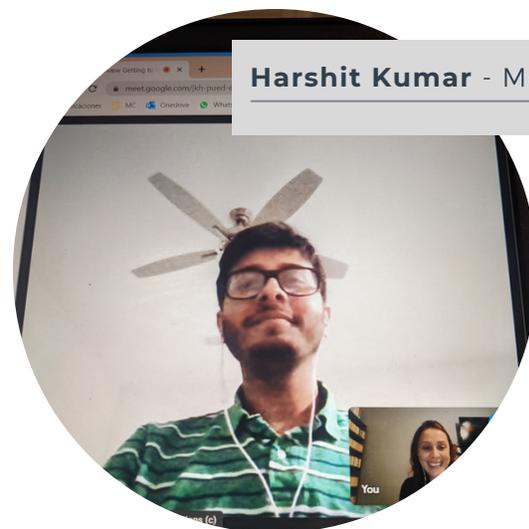
Chad Estill - PolyVent Project



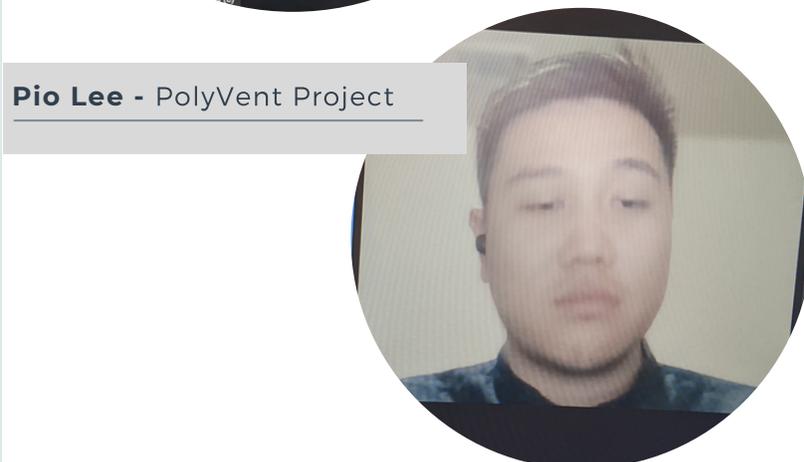
Let us know if there's an international university interested!

Email: outreach@pubinv.org

Meet New Inventors!



Harshit Kumar - Moonrat Project



Pio Lee - PolyVent Project

RespiraCon II Conference

We had an amazing turn out for this virtual conference! We are truly grateful for each speaker and participant that took part in this global discussion on open source respiratory care technology.

From industry leaders to game changing inventors, this conference was filled with powerful speakers, insightful content, and engaging discussions. Please check out our conference materials to learn more about what was shared at **RespiraCon II** this year.

Check Out Our Conference Materials:

- **Open Medical Technology Manifesto - [Link](#)**
- **Shared Notes From RespiraCon II - [Link](#)**
- **Participant Map - [Link](#)**
- **RespiraCon II Guestbook - [Link](#)**
- **Network Analysis Graphic - [Link](#)**
- **Zoom Conference Recordings Coming Soon!**

Event page: [Click Here!](#)

Event Organizing Committee:

Special thanks to our RespiraCon II organizing committee!



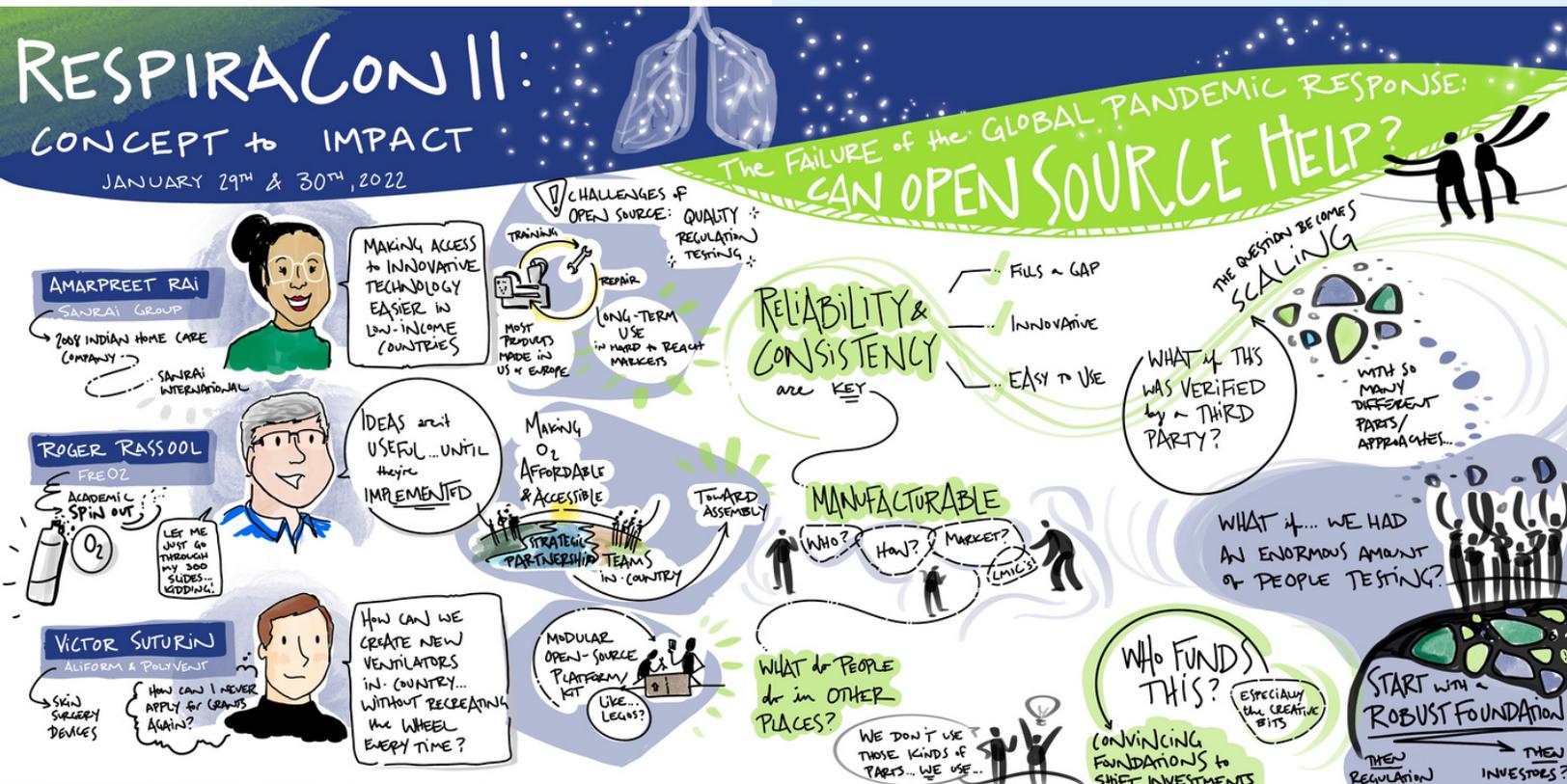
Victor Suturin, CEO and Founder, Aliform; Co-founder and Invention Coach, PolyVent



Robert L. Read, President, Public Invention



Sabia Abidi, Board Member, Public Invention; Professor, Rice University

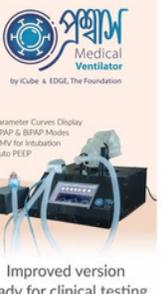


Illustrated by KARIINA BRANSON CONVERSKETCH.COM

RespiraCon II Highlights - Some Speakers

You are viewing Nahreen Ahmed's screen View Options

Megan Cadena Sabia Abidi Robert Lee Read Victor Suturin Victoria Jaqua



Parameter Curves Display
CPAP & BiPAP Modes
CPAP for Intubation
Auto PEEP

Improved version ready for clinical testing
Features added for ICU use

Localizing Supply Chain



Participants 50 Q&A Chat Share Screen Raise Hand Record

Dr. Nahreen Ahmed & Debbie Aloyo

Megan Cadena Sabia Abidi Debbie Aloyo

Recording

Participants 50 Q&A Chat Share Screen Raise Hand Record

Concept

- Access to Open-Source Design
- Identifying Grants and Funding
- Engagement of local and national government and NGOs
- Localizing Supply Chain- SHORT and Long Term
- Innovative Infrastructure Planning
- Input of Local Health Care Community

- Implementation of infrastructure
- Task Shifting and Capacity Building
- Continuing Medical Education
- Localizing Maintenance
- Monitoring and Evaluation of Efficacy
- Improvement in Patient Outcomes

Impact

Participants 50 Q&A Chat Share Screen Raise Hand Record

THE ENGINEERING DESIGN PROCESS



NEEDS ASSESSMENT FOR LMICs

DEVICE LIFE CYCLE				
COST <i>Initial costs: Device, Installation (standalone systems) + Training costs</i> <i>Long term: servicing, service contracts, PPM repair, tools</i> <i>Critical: sustainable spares consumables, reagents and accessories</i> <i>-supply chain</i>	TRAINING <i>User training application specialist preprogrammed modes accessible, who & where?</i> <i>Documentation: Quick user guides user manuals Technical manuals CMEs (user training) -BMET/ BME/BA training</i>	COMPATIBILITY <i>Voltage ratings</i> <i>Language</i> <i>Spares, reagents & consumables with other manufacturers</i> <i>BMET tools (access?)</i> <i>Software (universal/standard, unique and access?)</i>	INFRASTRUCTURE <i>back up electricity (solar, generators) stabilizers</i> <i>-water requirements -staffing -medical gas source alternatives</i>	ENVIRONMENT <i>Dust Humidity, temperature & storage (A.C?)</i> <i>(Fixed/portable) Outreach clinics</i> <i>Rats & Insects</i> <i>Disinfection, cleaning & SOPs</i> <i>Administration: tracking, safety & theft</i>

Participants 48 Q&A Chat Share Screen Raise Hand Record



Navajo Nation Gallup, NM



University of Pennsylvania Presbyterian Hospital



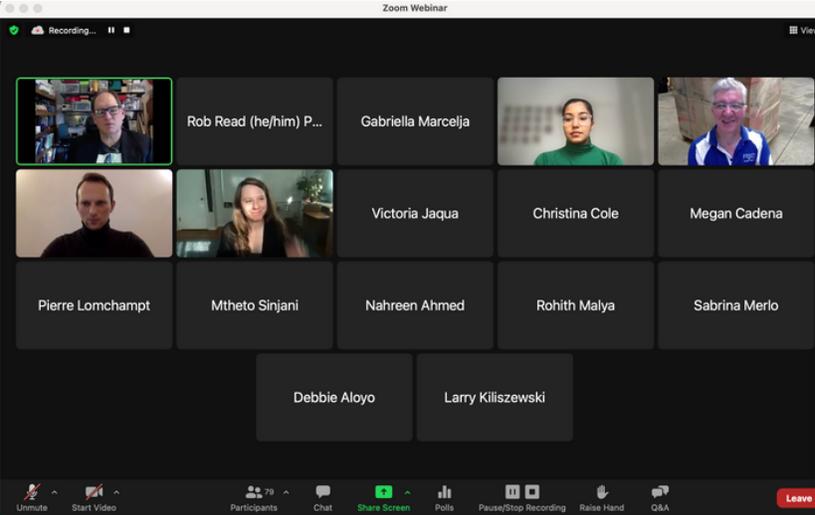
Dhaka Medical College Hospital, Dhaka, Bangladesh

Participants 48 Q&A Chat Share Screen Raise Hand Record

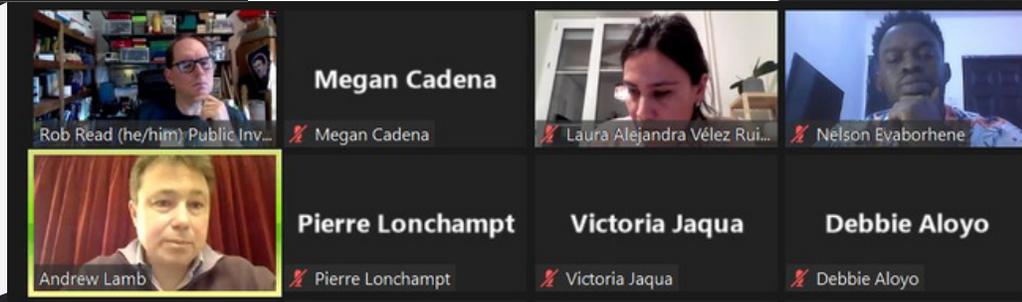


RespiraCon II Highlights Ctd... - Panelists

Sat Jan 29th



Sun Jan 30th



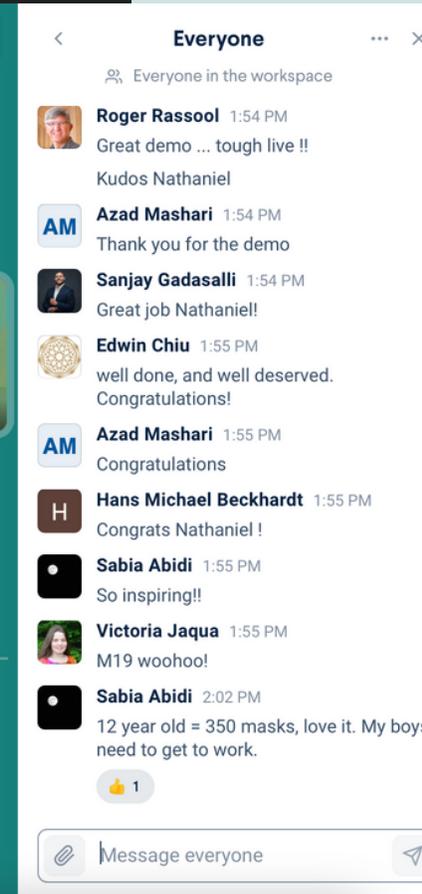
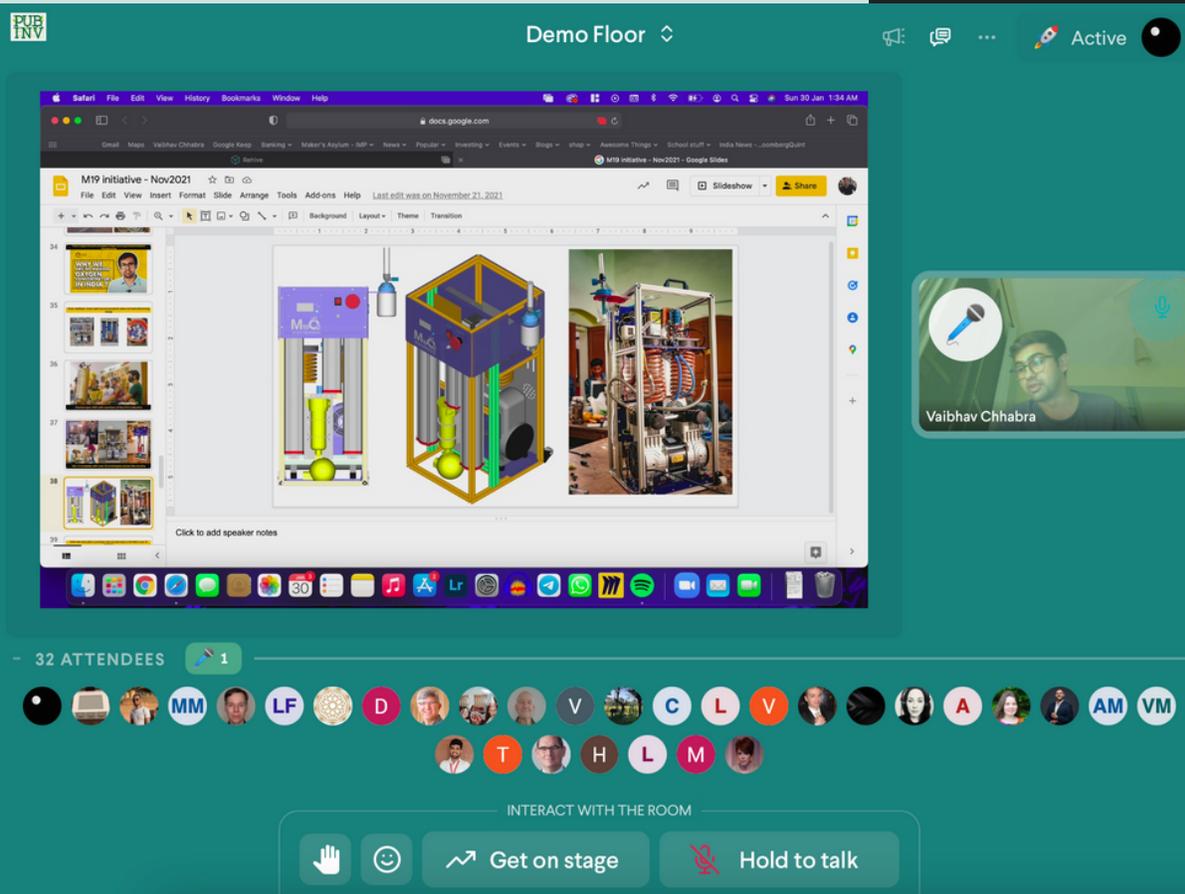
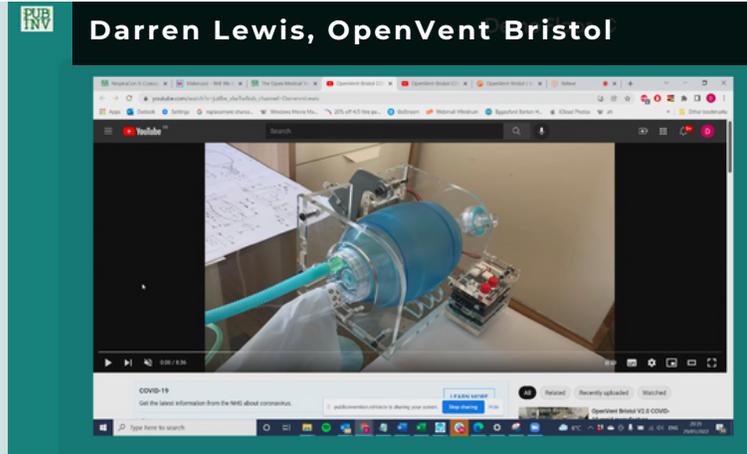
Group Pic 2nd Day



RespiraCon II Highlights Ctd...

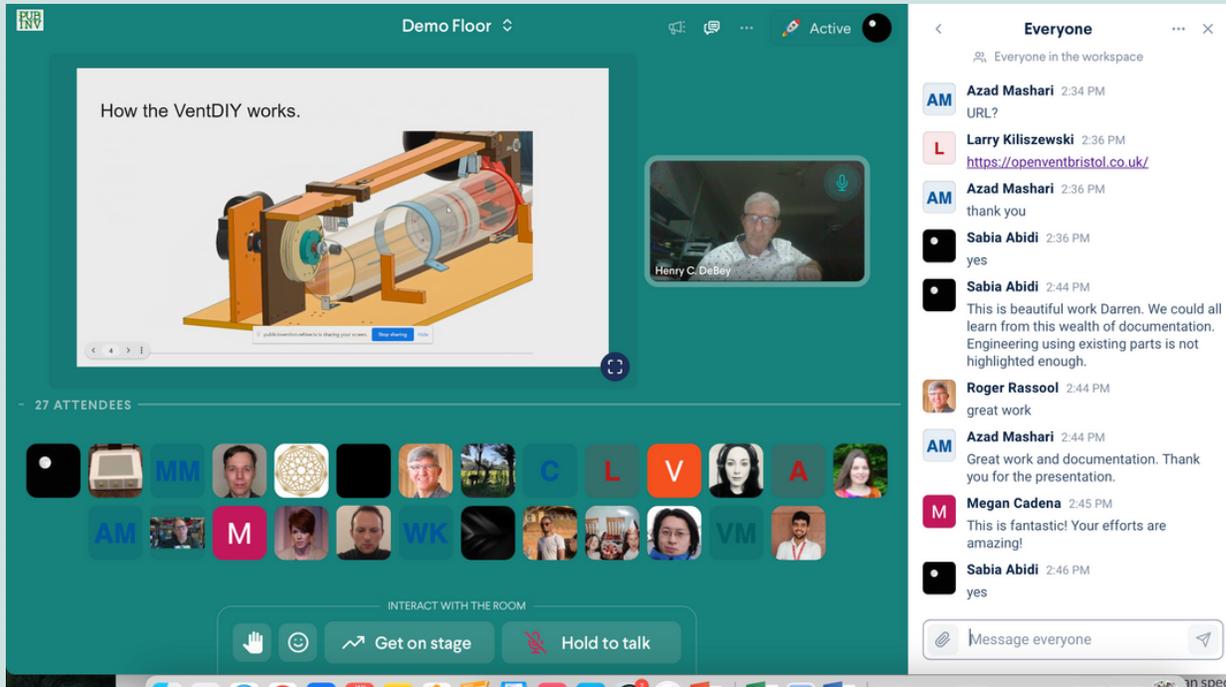
Demo Sessions:

- **Nathaniel Bechard**, lead engineer, PolyVent, Public Invention
- **Vaibhav Chhabra**, Founder, Maker's Asylum; M19 Initiative
- **Mtheto Sinjani**, Global Health Informatics Institute (GHII), Open O2, Low-cost oxygen analyzer
- **Veronica Stuckey**, R&D Engineer, Meditrina, Public Invention Researcher, Ferrofluid Check Valve
- Jamie Waters and Mark Roden and Project Papr, Project Tetra
- **Darren Lewis**, OpenVent Bristol
- **Hank DeBay**, Negative Pressure Ventilator (NPV)
- **Benjamin Treuhft**, Helpful Engineering



RespiraCon II Highlights Ctd... Demo Sessions

Hank DeBay, Negative Pressure Ventilator (NPV)



GET TO KNOW OUR TEAMS: POLYVENT

For Inventors and Invention Coaches

Nathaniel and Victor From PolyVent - Demo Session

Jan. 29th, 2022

Victor Suturin and **Nathaniel Bechard** from our **PolyVent** team gave a brief overview of their current work and research goals at the **RespiraCon II Virtual Conference**.



QUOTE OF THE MONTH

"For good ideas and true innovation, you need human interaction, conflict, argument, debate."

- Margaret Heffernan

Check out their efforts: [Click here!](#)

