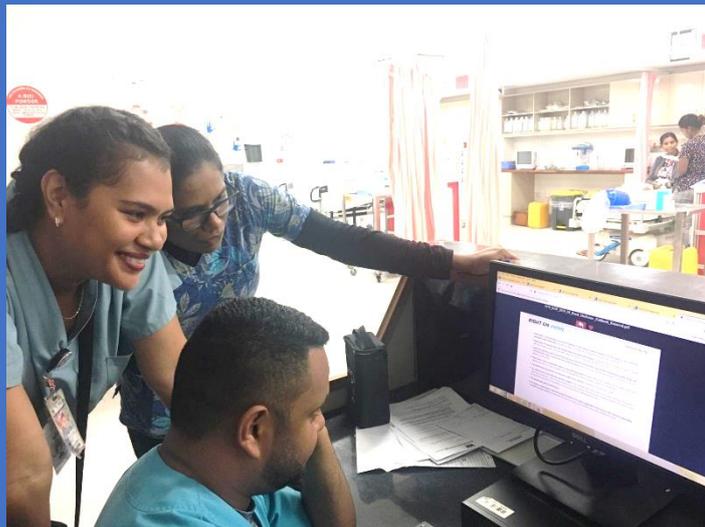




TECHIES WITHOUT BORDERS

Annual Report 2021



Message from Manoj Thomas, President



As 2021 rolled through, our Techies Without Borders (TWB) journey continued with our eyes and minds focused on the core project – Continuing Medical Education on Stick (CMES).

Although the Covid19 pandemic was sufficiently challenging to stay the course, the TWB volunteers took on monumental tasks of revamping, upgrading, and promoting CMES. We co-designed and integrated new resources and tools within CMES, an already solid solution with a firm foundation, making it even better! Accelerating growth - we expanded our participant base in Africa, Asia, and Oceanic islands.

As I look back in the rear-view mirror, we dug deep when we hit roadblocks; we shared humor when it was most needed; we supported our friends, colleagues and partners working in challenging settings across the world; and above all, we inspired the mindsets of many young people to create an impact.

Looking forward through the windshield, I see endless possibilities and countless ways in which we can make an impact. I encourage all of you to consider joining the TWB journey. Check us out on social media to see the transformative experiences of the many health professionals and volunteers who have been with us over the years. Reach out to us and share your tales if TWB or CMES has made a difference in your life and profession. We read each and every comment and story.

I remain your fan, friend, and champion. *Manoj Thomas*

Statement from Jennifer Borneman, CFO



Techies without Borders finished in a strong financial position, thanks to a successful GoFundMe campaign at the end of 2021. The fund campaign brought in over \$13,000 that will be used for future Continuing Medical Education on Stick projects in Papua New Guinea, Timor Leste, and Nigeria in 2022.

TWB non-profit corporation remains rated as a Platinum Level member on GuideStar-Candid platform, which is the highest Seal of Transparency.

As in the prior year, no travel related expenses were incurred in 2021 due to the worldwide pandemic and travel restrictions. During the year devices were distributed through postal services and hand delivered by traveling partners when possible. TWB will incur travel related expenses to Oceania and African regions as soon as travel is deemed safe to do so.

Our continued volunteer support has allowed TWB to keep administrative costs extremely low. Administrative costs accounted for less than 5% of total costs for the year.

It has been my honor to work with donors and the TWB teams to assure financial accuracy and security. Warm regards,

Jennifer Borneman

IMPACT

The Continuing Medical Education Project (CMES) provides thumb drives and small computers called Raspberry Pi to doctors and nurses in 15 countries. CMES provides free up-to-date monthly podcasts and PDF files on Emergency Medicine, Rural and Primary Care to over 3600 medical participants serving over 2 million patients

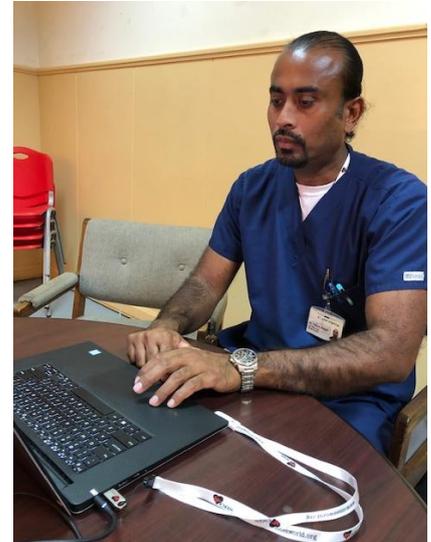
CMES Project global usage for 2021

Our USB participants logged **1439** usage hours

Pi users downloaded **598** files including PDF and MP3 to listen to or to read.

The top 3 articles accessed globally were

1. *2019 EM:RAP December Written Summary*
2. *2021 EM:RAP April Written Summary*
3. *2019 December Continuous Core Content*



St. Jude Hospital, St. Lucia, WI

CMES-Pi Project in Uganda & Nigeria:

In 2021 the CMES and CMES-Pi Project expanded in Uganda and Nigeria.

Uganda

A Pi was installed in Masaka Hospital, our partner's Global Emergency Care's teaching hospital, for training Emergency Care Practitioners (ECP). ECPs are two-year trained nurses who receive an additional 2 years of Emergency Medicine training. CMES and CMES-Pi are utilized by 14 ECPs at two sites treating 6600 emergency patients/year and serving a patient population of 350,000 in the two regions.

Nigeria

Port Harcourt Teaching Hospital in Nigeria received a Pi for the Emergency Department and one for the teaching classroom for rural healthcare providers. Thirty USBs were dispersed to the rural healthcare providers for use at home or their rural clinics. CMES-Pi Project is used by 22 doctors, 32 nurses, and 30 rural healthcare workers impacting 12,000 patients seen yearly in the emergency department and serving a patient population of 8 million in the region.

New volunteers

Brendan



Brendan is a high school senior and a prospective computer science major. He works on the backend technology that makes the CMES-Pi Project “fly”. He is interested in building his technical skillset and using them to make IT globally accessible no matter a person’s resources.

Raluca

Raluca is the youngest member of our team. She uploads the CME content monthly to the Microsoft supported server. She is currently studying for a Master’s degree in Communication and Advertising, and works in the pharmaceutical industry. She loves working with people and would like a better world for the whole planet. Respect, empathy and compassion are her sounding board.



Sebastian



Sebastian works with the CMES-Pi team in the Oceania region creating novel solutions for technology deployment. He is a researcher and educator at the University of Sydney. He is passionate about making the world a better place, taking it one day at the time.

Volunteer hours in 2021

1617 volunteers’ hours in the areas of medicine, administration, finance, and IT.

Social Media

Support on our social media sites continues to climb and we are grateful for your support when you like and share our weekly posts. Here are the figures for 2021.



[Facebook](#) **223** followers; **219** likes



[LinkedIn](#) **113** followers, views increased **32%**, new visitors increased **31%**



[Instagram](#) **86** followers; Monthly - average **45** accounts reached, **7-10** accounts engage



[Twitter](#) **40** followers; over **7900** Tweet impressions earned



2408 individuals from **125** countries visited the TWB website
2327 individuals from **120** countries visited the CMES website

IT update



Our IT Team improved many core features of CMES. Noteworthy mention goes to updates of Azure services and the release of the new version of the CMES app, which allows users to download CME content to their personal devices for listening on demand.



Summary of the core platform updates for the CMES project are as follows:

1. Optimization of Azure backend services
2. Application updated to function on the newer Pi-4 device from the previous Pi-3 version.
3. Updated Pi-on-the-fly version for more seamless operation in locations where IT support is not locally available.
4. New version release of the CMES app for Android and iPhone. New and improved features include a checkout function for the CME content.



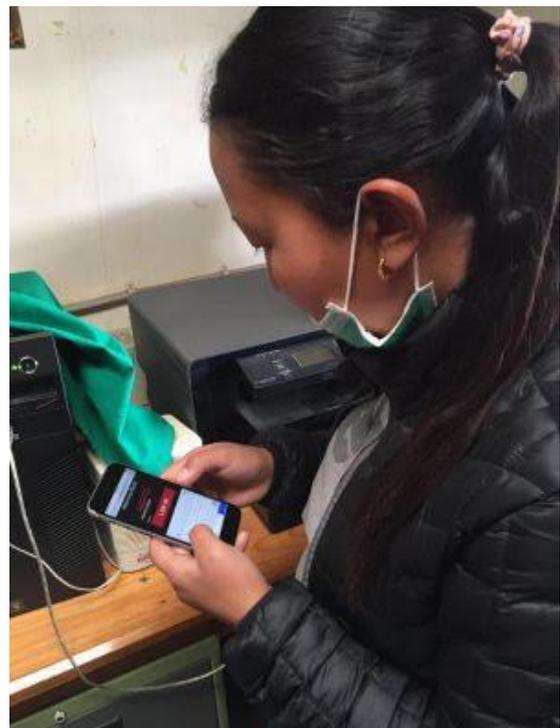
TWB is currently working to improve the administrative side of CMES, as well as improve tagging of the content to facilitate search capabilities for the end-users.



Fiji



Guatemala



Kunde Hospital, Nepal

Publications, Research and Presentations

1. Dr. Yan Li and Dr. Manoj Thomas presented the CMES Project design at the African Federation of Emergency Medicine (AFEM) Day of Updates in May 2021.
2. Three research papers written by TWB volunteers related to Information and Communication for Development (ICT4D) are under review for publication.
3. 123 graduate level students took courses based on the CMES project. One taught by Dr. Yan Li at Claremont Graduate University, California and the other taught by Dr. Sebastian Bell at University of Sydney, Australia.



Bayalpata Hospital, Achham, Nepal



Clinic in Xela, Guatemala

Partners & Sponsors

TWB would like to thank our long-term sponsors and welcome our new 2021 partners. Together we make the CMES Project a global example of cooperation, resource sharing, and scalable, cost-effective medical education.

EM:RAP Emergency Medicine: Reviews and Perspectives

African Federation of Emergency Medicine (Nigeria) 

Global Emergency Care (Uganda) 

Papua New Guinea Society for Emergency Medicine (PNG SEM)

