Clean Water Challenge

by

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I feel that providing access to clean water is the most important Grand Challenge for Engineering. Clean water is essential for drinking, hygiene, and sanitation. Each year millions of people become sick or die from water-related ailments such as cholera. I have volunteered to help raise money for a charity called Waves for Water. They provide water filters to impoverished countries like Haiti where a majority of the people do not have direct access to clean water. In countries like Cambodia, water is plentiful, but most of it is polluted or contaminated. My family members living in Cambodia, that were not able to get refugee status during the Khmer Rouge genocide, have to deal with daily shortages of clean water. There an organization called Charity Water helps people build inexpensive BioSand Filters to remove bacteria and other pollutants.

Filtering water can only do so much, though. In Sub-Saharan Africa, many people do not live near a water supply and have to walk miles to collect water for daily use. The real challenge is to get water from places that have a surplus to areas where there is not enough water. In Israel, they desalinate seawater and distribute it through a pipe system all over the country. My field of study, computer science, will play an important role in analyzing data related to weather patterns, global warming, water migration through aquifers, and population growth. Technology, such as data analytics, can be used to solve the Clean Water Grand Challenge.

Watch a short video I created that promotes using computer science to solve the Clean Water Grand Challenge: https://www.youtube.com/watch?v=UvyosWBiwcg