Although industrial design as a formal profession has only existed for 60 years in the developed world, and the global outreaches of communication design have only recently been recognized, the design field overall has the capabilities to solve problems that have existed for centuries. As efforts are being made worldwide to globalize the economy, designers as well as other professionals must think cross-culturally to begin mending gaps between the technological and developing worlds. Socio-economic problems such as the serious lack of access to water and the difficulties of personal water acquisition must be addressed.

Access to water is a fundamental need and human right, and holds obvious health and economic benefits to households and individuals. Lack of access to adequate water contributes to death and illnesses, especially in young children; thus, improvement of access to water is a pivotal factor in reducing mortality, particularly in poor urban areas of the developing world. Difficulties of water acquisition also imply the considerable amount of time and energy women and children spend on fetching water, which could be spent engaged in other tasks, possibly tasks that can earn them money and a higher standard of living.

Furthermore, expanding agriculture and manufacturing businesses not only increasingly use water, but also contribute to pollution of valuable sources of both surface and groundwater. This pollution results in many waterborne and water-washed diseases, such as diarrhea, cholera, and trachoma. Although not a commonly recognized factor, communication design plays an imperative role in reducing the occurrence of these illnesses through educating communities.

Sadly, many diseases spread simply due to a lack of knowledge about safe and healthy hygiene practices. For example, six million people are blind from trachoma, a disease caused by the lack of water combined with poor hygiene practices. Studies found that providing adequate water supply could reduce the infection rate by 25%. If efforts were made to communicate with groups of people who lack hygiene knowledge, the infection rate would decrease even further. Communication and intellectual trade between the educated and developing worlds are challenges that a successful communication designer faces, but has the skills to conquer. If research on the knowledge of a particular community and its visual and linguistic means of communication were performed, designers could educate groups of people about hand-washing, the importance of soap, and the dangers of fluoride and arsenic poisoning. Millions of lives could be spared and social equity could greatly increase if designers thought globally, executed field research, and applied skills they have already honed in the industrialized world.

Industrial designers also have many chances at building global bridges to ensure higher standards of health and economy. Water access and acquisition can be greatly improved by the efforts of design teams, and examples of this effort are already coming into existence. For example, the Hipporoller, a polyethylene barrel-shaped water container designed to hold 20 gallons of water and roll across the ground with a clip-on steel handle, is a product that alleviates the hardships of water acquisition and transport. Water is placed inside the “wheel” of transport, not above it, and no longer on the heads and bodies of women and children. The cost of the Hipporollers is subsidized by
corporate, private and government donors, and community based projects are initiated where the rollers are handed over to communities which have inadequate access to water throughout Southern Africa. These communities contribute financially as they are able, and are also responsible for the sustainability of the project, increasing social equity and decreasing economic taxation. The health of the women and children who usually carry the burden of water on their heads and bodies can be improved through use of the Hipporoller, which reduces stresses on the spine, conserves bodily energy, and reduces the risk of acquiring water-washed and water borne diseases. In addition, communities often find uses for the Hipporoller even after its life as a water transporter has ceased, establishing the Hipporoller as a durable, long lasting, self-sustaining object.

Many projects similar to the Hipporoller have been established to improve community access to potable water supplies and the menial daily act of transporting water. Innovations such as the LifeStraw, a personal portable water purifier manufactured for a mere 2 USD, and the OPV Personal Water Cleaner, a filtration system that provides a whole family with potable water, reveal a conscientious shift in the design frame of thinking to act globally on economical, ecological, and equitable scales.

A synergy of efforts from communication designers to educate, industrial designers to innovate, and private and government corporations to donate could vastly improve standards of health and living in developing countries. Water access and water acquisition are needs that will never disappear, but hopefully through awareness from the educated world, the problems associated with the need will cease.

Sources:

