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Diana Yousef

CEO of Change:Water Lab

"It's really important to know how to tell your story in a way that people get interested and they care right away about what you're doing."

Advice from Diana Yousef

Diana Yousef has loved science and math for as long as she can remember. As the daughter of Egyptian immigrants with science-based careers — her mother a pharmacist, and her father a doctor — there was never a question of whether she would study science. Her parents' influence, and Yousef's deep-seated love for science, would both prove meaningful in her career as a scientist. In her final years of high school, having struggled with advanced math and science courses, Yousef began to notice that many STEM classrooms didn't seem like they were meant for her. She found that young women were often treated as distractions in the classroom, rather than students themselves. However, after pushing through the challenges of high school, Yousef found that nobody in her 100+ person lectures at Harvard

really cared who she was. It was in those classrooms that Yousef realized, without the external noise telling her that she was incapable, science actually did come naturally to her. In her second year at Harvard, Yousef's interest in a career as a research scientist grew. This interest later motivated her to complete her PhD in protein biochemistry at Cornell University. Yousef recalls that without her childhood love for science, she may not have been able to put up with the early challenges of high school. Despite these challenges Yousef excelled academically. In addition to her PhD in protein biochemistry, she also holds an MA and MBA in international development from Columbia University. In 2009, while working as an advisor to a NASA and USAID initiative to help promote key solutions to challenges of the 21st century, Yousef came across an idea that would later launch her career as the CEO and founder of the company change:WATER. The idea was to use breathable materials, like the sweat-wicking materials we wear while working out, to passively pull water molecules away from waste. The ability to passively collect water from waste has applications off the grid, meaning that this material could function in locations that lack power or plumbing. Yousef was intrigued by this idea. She notes that issues of water accessibility have always been important to her, especially because of her Egyptian roots. She

notes that access to water isn't taken for granted anywhere in the Middle East.

Later, in 2013, Yousef's career was at a standstill, but she knew that she wanted to be a role model to her young daughters. This desire inspired Yousef to return to the idea from 2009. Her goal was to develop a material that could evaporate water from human waste, thus creating makeshift toilets without a need for power and plumbing. At the start, Yousef recalls pounding the pavement, travelling to Harvard and MIT while pushing a stroller, looking for any collaborators or resources to test her idea.

Eventually, change:WATER's material was born. The material is modeled off of plants' abilities to passively move water through their root systems, up the shoots, and then evaporating out through the leaves. After change:WATER gained traction with this material that creates sanitation opportunities off the grid, Yousef then had to master the art of storytelling. Yousef says that one of the most important things she has learned in her career is how to tell change:WATER's story. After one particularly bad interview, Yousef recalls spending many hours perfecting how to explain the importance of her idea. Access to sanitation is a basic human right, and in the world as it is, connecting everyone to plumbing and power isn't immediately possible.

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