

WOMEN IN ENGINEERING – NEWSLETTER

2023 will be the 8th year of Women in Engineering at the RNLI. We are excited to see what this year brings, join us for all news STEM related.

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ABIGAIL TURINAYO
HEAD OF DESIGN
DESIGN WITHOUT BORDERS



Design without borders are a team of Industrial, Product and Service designers, applying human-centred design to create impactful solutions to global challenges.. Abigail Turinayo is head of design at design without borders. She kindly agreed to answer a few questions about her role and career.

As head of design, can you tell us a bit about your career journey?

My journey started way back in highschool where I discovered my love for the science subjects; physics, applied mathematics and chemistry that together just felt like they were speaking a language I could finally understand. Coupled with my obsessive drawing and painting, I was all set to pursue architecture at the university. I could already see myself being introduced as 'Architect Turinayo', and that just sounded really cool!

Little did I know that my career journey was set up for some unfamiliar twists and turns. These turns were brought on one summer during an urban sanitation and housing project in the slums. Here my view of the 'architect' was challenged and my eyes opened to vulnerable communities suffering at the hands of bad design and often not the subject of design processes. So after graduation and about a year of conventional architectural practice, I restlessly began to seek out opportunities to work at a broader systemic level, and to be actively involved in addressing issues affecting living conditions that span beyond the built environment. This became especially pressing thinking about Uganda, my home country which has one of the youngest and most rapidly growing populations in the world faced with complex multi-dimensional challenges.

This is where my journey led to Design without Borders, where I started out as a design fellow working in Oslo, 4 years later took on the role of Managing Director in the Africa office and now where I currently serve as Head of Design. Here I've worked on extremely challenging projects together with multidisciplinary teams in the fields of healthcare, education, agriculture, energy efficiency and others - applying co-design methods that aim to create final solutions that are responsive to the wider ecosystem, are sustainable and suit the context of use.

Design without borders works with local communities "to develop solutions that can be developed, manufactured and distributed locally." Would you be able to provide some detail on a project that you particularly enjoyed working on?

I particularly enjoyed working on the design and implementation of child safety interventions (safe cooking, safe play and safe storage) to reduce injuries for children below age 5 years in informal settlements. Unintentional injuries are among the leading causes of death among children around the world. In Uganda particularly, majority of these accidents occur in or around the home environment, and it is with this in mind that the Makerere University School of Public Health (MakSPH), the George Institute for Global Health at Imperial College London and Design without Borders Africa (DwB) over a combined period of 4 years sought to collaborate with local communities in informal urban settings; using user centred design methods to better understand child injury risks, raising awareness and co-developing environmental modifications and interventions to mitigate risk of injury to children under 5 years.

From the start of the project, a significant part of the assignment was to ensure that the design interventions proposed were not just functional but also fit a broader sustainable model driven by requirements of affordability and communal acceptance with the potential for the community/local craftsmen to implement the solutions themselves. .

These needs translated into an extensive prototyping phase for DwB that involved the construction of all 6 prototypes together with ordinary households and artisans from the local community. As this project kicked off during the COVID 19 pandemic, it required that our team adapt rapidly to the constraints of travel, devising means of remote community engagement and co-design which was challenging and rewarding as we evolved. The testing phase of the project has been implemented over the past 6 months period during which the users of the solutions attest to their effectiveness in mitigating risks of injury and additional value gained through lucrative skills during the communal building of the solutions.

What advice do you have for the younger generation of women interested in a STEM career?

In a very fast-paced and constantly changing world that we live in, the demand for problem solvers is only going to keep increasing. The complex issues that continue to arise globally need thinkers and creators who are not afraid to be bold and challenge systemic norms. This generation of young females therefore needs to recognize that they have a significant role to play in shaping the environment by creating things that help people live better and more responsibly. Technology, Science, Industrial design, Engineering etc. are tools to enable us to do just that. By putting on your intuitive, empathetic and critical thinking hats, a whole world of opportunities is presented, filled with opportunities to meaningfully and impactfully transform lives.

INTERNATIONAL DAY FOR BIODIVERSITY

This month we celebrated international **Day for Biodiversity**. This years theme is **From Agreement to Action: build back biodiversity**.

Our planet provides us with an array of ecosystems, which we depend on in everyday life. Therefore we must respect our planet and the biodiversity it has to offer.

The RNLI operates within many coastal areas that harbour a diverse array of biodiversity. At the RNLI we recognise the importance of this biodiversity and often partake in beach cleans to ensure the preservation of this wonderful ecosystem.

Click [here](#) if you want to find out more.

