

The Greatest Engineering Innovations To Come Out Of Africa

When one speaks about 'engineering innovations' and the continents which were responsible for developing these, Africa is not one of the continents which readily comes to mind. However, while they may not have been responsible for developing a particular technology from scratch, Africans have taken already-developed technology. They have adapted it to the needs of their people.

In this article, we have a look at some of these.

3D Printers From E-Waste

3D printing technology has been existence for a number of years and has been used for purposes as diverse such as printing human organs to moulds for jewellery.

In 2019, according to the United Nations' Global E-waste Monitor 2020, 2.9 million tonnes of e-waste was generated in Africa. WoeLabs apportioned some of this e-waste and, at the tech hub in Togo, manufactured the first 'made in Africa' 3D printer from these materials. This project aims to revolutionise technology in Africa.

M-Pesa

In Africa, there is a large proportion of unbanked people. In other words, these people do not have a bank account. As such, they are more vulnerable to theft as they have large amounts of cash on their person or in their homes. In addition, not having a bank account makes it very difficult to send money to relatives or to others who they owe money.

Vodafone and Safaricom thus launched M-Pesa ('m', which stands for 'mobile', and 'pesa' which is the Swahili for 'money') in Kenya. Through this technology, people were able to send and receive money via their cellphones. This new technology in effect gave people a renewed sense of security as they were not carrying around large amounts of money.

With the advent of smartphones and the proliferation of the Internet in Africa, this technology has morphed into the e-wallet system which is a handy way of exchanging cash when no credit card machines or ATMs are in the near vicinity.

Pneumonia Diagnostics

Pneumonia is a deadly disease which is responsible for the deaths of 16% of children under the age of five years old. The reason for this high mortality rate is that it is not diagnosed quick enough.

To counteract this, Brian Turyabagye – who is an inventor from Uganda – has developed a biomedical jacket that is able to diagnose patients five times faster than was previously possible. Bluetooth sensors are fitted in the jacket and analyse the chest. It then transmits information to a smartphone app which performs the diagnosis.

These are just some of the phenomenal engineering discoveries that have come out of Africa. These discoveries were born out of a need that the inventors saw in their communities and thus developed a solution to respond to these challenges.

Africa is set to become a centre of innovation and a lot of phenomenal thinking is coming from rising stars in African communities. For example, in South Africa, there are locations called 'innovation hubs' where people – who have ideas – come and develop these ideas into fully-fledged solutions. We're excited to see what solutions are next to come!

