

WHY AREN'T WE DEVELOPING AFRICAN IP?

FOLLOWING FIRTH
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We are living in a world where unforeseen technological innovation is the new normal, and companies are grappling with how to best use new technologies such as AI and big data to create real value. They are also struggling to balance product innovation against business model innovation. At the same time, customers are demanding real-time, personalised experiences. Consumers can no longer be viewed as the end users of products, but must be seen as active participants in the supply chain. As a result, any new technology must be implemented as part of a strategic decision to solve today – and tomorrow's – customer demands.

In Africa, this is happening in a very different way to many other territories, mainly because our digital transformation efforts are following a slightly different trajectory. Not only have we leapfrogged many legacy technologies, our challenges and solutions are unique as well.

As a result, we have seen innovations like Mobile Money and IoT-enabled anti-poaching efforts as African companies rise to the challenge of meeting African consumer needs, opening even more opportunities for digitally-enabled entrepreneurial businesses and SMMEs. Unfortunately, this is not changing the reliance of larger African organisations on American and European software solutions, hampering the continent's ability to capitalise on the opportunities digital transformation offers.

ARE WE WINNING?

For years, Africa has bemoaned the lack of digital skills found on the continent. While some countries produce more skills than others, as a region, we are still lagging behind even other developing regions like South Asia.

Some 230 million jobs across the continent will require some level of digital skills by 2030, according to a study by the International Finance Corporation (IFC). That translates to a potential for 650 million training opportunities and an estimated \$130 billion market. With the COVID-19 pandemic forcing many businesses to go digital to survive, the need for these skills has only become more apparent.

For example, the demand for African software developers skyrocketed in 2021. The Africa Developer Ecosystem report, which gathered data from Kenya, Tanzania, Uganda, Rwanda, Algeria, Cameroon, Egypt, Ethiopia, Ghana, Ivory Coast, Kenya, Morocco, Mozambique, Nigeria, Senegal, South Africa and Tunisia, found that the pool of professional developers increased by 3.8% year on year. The total number of developers in Africa was 716,000 last year.

Unfortunately, while these statistics may seem like Africa's digital transformation initiatives are gaining traction, the reality is that we are building skills too slowly for Africa's future needs – and more worryingly – we are building skills that are not actually benefiting Africa. We may slowly be establishing a digital skills base across the continent, but we are not building African Intellectual Property (IP).

The same report that found our development skills are growing showed another less inspiring trend: 38% of African developers work for companies based outside of the continent. Four out of every ten African software developers now work for at least one company based outside of the continent, while five work for local start-ups.

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For all of Africa's focus on digitisation and home-grown solutions, both public and private sector organisations still invest in international technology before they look closer to home. While there are some international solutions that are best of breed, there are a number of local alternatives to most of the global offerings that are at least as good, if not better.

The misconception that international solutions are better than home-grown ones has not only hindered the growth of African development houses, but ultimately, African economies. Over and above those developers working for international companies from their home country, many African developers are physically leaving to work overseas.

The 2019 State of South Africa's Software Development Nation survey found that one in five developers are actively looking for international opportunities, with Europe leading as the destination of choice. In fact, Africa has now become the recruitment centre of choice for many global companies, with Microsoft, for example, investing over \$100 million to open development centres on the continent. The global software giant is aiming to grow its African developer pool to 500 by 2023.

The customer base of most African companies is 99% local, with their physical supply chains also in excess of 90%. And yet, almost 100% of the software solutions they use is developed offshore. There is absolutely no reason that this should be the case.



HURDLES AND OPPORTUNITIES

The world is in the throes of the Fourth Industrial Revolution (4IR). Almost all organisations in the future will be digital, and 60% of all global GDP will come from digital sources in the next few years, according to the World Economic Forum (WEF). In fact, the WEF says that an estimated 70% of new value created in the world's economy over the next decade will be based on digitally enabled platform business models.

In light of this, African countries not keeping on top of emerging technologies and understanding how to harness their capabilities will find themselves falling even further behind. The coming decade will be a pivotal time for Africa. The continent may have come a long way in developing its digital skills base, but it has even further to go.

Another WEF report found that there are many African countries ideally placed to invest in digital skills creation, if they can overcome their infrastructural and educational challenges. With 70% of its population having access to broadband internet, Kenya is ripe for digital skills training across all levels. Nigeria, Africa's largest market with 200 million people, has great potential too but faces major infrastructural hurdles. For example, with only 35% of schools in Nigeria connected to a power supply (and that supply being erratic, to say the least), it will be vital to improve the power infrastructure to enable networks to operate uninterrupted and at optimal levels. In Cote d'Ivoire and Rwanda, inadequate internet access is a problem; less than half their populations have access to broadband. In Mozambique, less than a quarter do.



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Despite these hurdles, Africa is succeeding in increasing the number of skilled software developers available to local businesses, only to have them poached by their international counterparts. As a continent that appreciates the work that is being done to achieve the benefits digital transformation offers – and a continent that understands the work that still needs to go into overcoming our unique challenges – it seems extremely short-sighted to allow our valuable skills and IP to belong to organisations not based in Africa. We need to ensure African IP becomes as much of a focus as further skills development.