

What's holding back the value of 4IR?

 By [Alan Knott-Craig](#)

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The world is in the middle of the Fourth Industrial Revolution. 4IR is happening all around us, but what are some of the drawbacks South Africa and Africa are facing?



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There have been three industrial revolutions:

- The steam engine from 1760
- Mass production, early 20th century (Ford cars)
- Digital technology, starting 1950's (semi-conductors)

Each revolution represented a time when humans changed the way they worked, lived and communicated. Each revolution was triggered by an exponential decrease in costs for a specific input material.

The first industrial revolution was enabled and accelerated by cheap energy. The second industrial revolution was enabled and accelerated by cheap production. The third industrial revolution was enabled and accelerated by cheap semi-

conductors. The fourth industrial revolution will be enabled and accelerated by cheap data.

The cost of data

4IR has not gained traction in Africa because data is not cheap enough. The vast demand for internet access is like a river being dammed up against the wall that is expensive data.



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Internet connectivity is simply too expensive for most South Africans, and therefore we are still at the starting line for all the benefits of the 4th industrial revolution.

A paradigm shift is required in order to exponentially lower data costs.

This shift is already happening in the form of low cost, high-speed Wi-Fi technology, driven by almost-infinite global demand for always-on, uncapped internet. Cheaper, faster WiFi connectivity is transforming internet usage in low-income communities. Already, children are only interested in whether their home, or friend's home, or holiday destination, has WiFi.

No Wi-Fi = not interested

Widespread deployment of public WiFi networks will unleash the well-documented advantages of 4IR, and will lead to higher GDP growth and concomitant job creation. The contribution South Africa is making towards internet solutions for low-income communities revolves around innovative solutions for community buy-in, security, and payments. A typical South African township is very different to San Francisco.

Before deploying internet infrastructure in a township, you first need community buy-in. The locals need to understand the benefits, and to actively support the introduction of public Wi-Fi networks. Community buy-in solves the ubiquitous problem of theft. Once locals are behind an infrastructure project, they will ensure the security of such infrastructure.

Lastly, South Africa will solve the payments challenges via a combination of prepaid data (time-based and uncapped) and local spaza shops.

Unlocking potential, finding the path

The untapped potential of South Africa dwarfs the problems faced by the country. The challenge before us lies in unlocking that potential. The government won't do it. And it doesn't need to do it.

The market is solving the problem, and in the coming years will have solved the problem of internet affordability.

To me, the future of Africa is not rocket science. All you have to do is look to countries like the USA to know where Africa is going. Whilst the end destination will be the same as for the USA, our path will be different. The challenge is figuring how to most effectively play a role in finding the right path.



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An Afrofuturist needs to figure the African way towards success for our continent and people. Finding that unique path creates a competitive advantage which can be exploited in all similar socio-economic environments. Do that and you'll make money and make the world a better place.

Cheaper internet

My chosen path is to help bring cheaper internet to all South Africans and hopefully create a model for the rest of Africa to replicate. If we can bring down data costs, and all the benefits of 4IR will be unleashed. Whether 4IR will lead to a better country and continent, only time will tell. What is certain is that we can't stay where we are. We must keep moving forward.

4IR gives us the potential to leapfrog other nations and embrace the future.

Therefore, in order for South Africa to gain the full value of 4IR, all we need is free Wi-Fi!

ABOUT ALAN KNOTT-CRAIG

Alan Knott-Craig is a South African entrepreneur and author. He is the founder of Project Isizwe as well as executive chairman of Hero Telecoms, Ever Africa, and Happimo NPC.

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