

Advancing The Teaching Profession Through The 4th Industrial Revolution

1. Introduction

The 4th Industrial Revolution is one of the biggest continuous events of the 21st century. It is also referred to as Industry 4.0 or simply 4IR. In terms of the Government¹ Gazette of 2020 (South Africa, 2020:202), the South African Presidential Commission on the 4th Industrial Revolution (PC4IR) defines 4IR as *“an era where people are using smart, connected and converged Cyber, Physical and Biological systems and smart business models to define and reshape the social, economic and political spheres”*.

The PC4IR says that this definition “has a human-centric approach” and it puts “the human at the centre” and drives the 4IR towards meeting the country’s social and economic needs. Where we as educators are concerned, the humans at the Centre are our learners, and by extension the society at large.

The whole digital economy is now being transformed by rapid and disruptive digitalisation that is pushing us to Artificial Intelligence, self-driving cars, robotics, promotion of web-based entrepreneurship, and other technologies and systems. Countries who fail to assist their populations to become part of this revolution, will be left behind. It is imperative that we advance the teaching profession through 4IR.

¹ South Africa, 2020. *Summary Report and Recommendations of the Presidential Commission on the 4th Industrial Revolution (PC4IR)*. Government Gazette No.43834:1-347: Oct. 23 (Report).

Digital technologies have made it possible now for us to access and make online submissions on SASAMS Database, attend ZOOM meetings, and access useful educational materials. The Gateway to 4ir is Internet Access. Without this basic tool, we cannot enjoy its technological benefits.

2. Challenges

However, for us who teach in deep rural schools, advancing the teaching profession through 4ir is a daunting task due to the challenges we experience around internet access:.

- In some rural areas, like my own school in Ngubevu, Msinga area, we have network issues, some cellular phone companies have no networks at all there, those that do, their networks have weak signals.
- Whenever I must attend a ZOOM meeting for example, I must travel 45 minutes to have sustainable network access.
- There are schools that have been identified as smart schools but those schools are still struggling to use the resources provided to them because of network issues.
- We are grateful that the Department of Education has given Tablets to schools. However, in deep rural areas, some of these are not being used because the network company that supplied them has no network towers in some of these areas.

3. Recommendations

- a. The Presidential Commission on 4ir needs to look into issues affecting schools in deep rural areas as far as internet access is concerned.
- b. A digital access Indaba must be held with all South African Network providers to discuss their role in improving access to the internet in

Deep rural areas, and a detailed network provision plan must be the outcome.

- c. The Department must not approach network service providers to provide things like Tablets for rural schools without first researching which networks are available in which areas. Otherwise, equipment can be delivered but remains unused. In some cases where Tables cannot go online, the Department has taken them back, but did not provide an alternative, and thus worsening the digital divide.
- d. **I thank you.**