

Online Science Campaign To Inspire The Future Generation Of African Scientists

We can often assume that the importance of science to our lives and in driving societal developmental is obvious to most people. However, there is a high level of cultural and religious misconception about science in Africa. In Nigeria, Africa's most populous nation, science literacy is extremely low, partly due to the near absence of science communication by scientists, which itself could be partly linked to low government support for science. In schools, many science teachers lack equipment for science teaching and do not employ alternative innovative teaching approaches. As such, many students never develop a passion for science. In trying to tackle the situation, I founded the TReND (Teaching and Research in Natural Sciences for Development in Africa) Outreach Programme in 2013 which currently has over 90 scientists across Africa engaged in science communication (<http://trendinafrica.org/activities/outreach/>) (Fig. 1). Since 2013, I have run several outreach events in Nigeria and Uganda to inspire students about science and enhance public trust and support for science. Interestingly, my first funding for these activities was from my The Biochemical Society in 2015, which really helped in securing subsequent support from other societies. Through these activities, I came to meet and interact with nearly a thousand students and also learned that many often see scientific innovation as a thing of the West, partly because of the lack of visible science role models or stories of science driven by African scientists.



Figure 1. TREND in Africa Outreach Network

In Nigeria, online news has become a popular media for news access. This is partly due to increasing accessibility to mobile phones which mostly have internet capabilities. With a population of over 170 million, Nigeria currently has about [100 million mobile internet users](#). To leverage on this for the benefit of science, in January 2018 I founded Science Communication Hub Nigeria (SciComNigeria – <https://www.scicomnigeria.org/>) to promote science in Nigeria and Africa online via four main pathways:

- 1) [Science Stories](#) of Nigerian scientists, not only to inspire aspiring scientists but allow their stories to be celebrated by the public. The stories depict passion for science, success and challenges in the pursuit of science about aspiring, emerging or established scientists (Fig. 2). A story published about an [emerging scientist](#)'s journey from a Nigerian public school to the UK for science had over 500 website views a few days after publication.

Home	About	Stories	Articles	Ask A Scientist	Meet A Scientist	Submit
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Breaking Through The “Glass-Ceiling”: Meet Professor Adeyemo - The Pioneer Deputy Vice Chancellor (Research, Innovation and Strategic Partnerships), University of Ibadan Nigeria
July 30, 2018





 SCIENCE COMMUNICATION HUB NIGERIA

“Excellence and Integrity will earn you the respect you deserve. Set goals, work hard and stay focused”

Professor Olanike Kudirat Adeyemo, FCVSN, FAAS, FAS
Deputy Vice-Chancellor
(Research, Innovation and Strategic Partnerships)
University of Ibadan, Nigeria

Finding Therapy For Prostate Cancer: Journey From Dawakin Tofa To United States
April 28, 2018



 SCIENCE COMMUNICATION HUB NIGERIA

....”choose a field that you enjoy, work hard, and keep an open mind”

Sarki A. Abdulkadir, MD, PhD
John T. Grayhack Professor of Urologic Research
Director, Center for Urologic Oncology,
Northwestern University Feinberg School of Medicine,
Chicago IL, United States

Professor Abdulkadir, an elected member of the American Society for Clinical Investigation, started his science journey as a young boy in Kano State, Northern Nigeria. He attended Government Science Secondary School Dawakin Tofa where he finished with National Distinct...

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Figure 2. Format of science stories from Science Communication Hub Nigeria

2) [Articles and Interviews](#) about scientific research aimed at a non-specialist audience to inform and dispell misconceptions about science. The articles are contributed by scientists on relevant science to the society. For example, following a publication of news by Daily Mail about Sugar intake and Alzheimer’s disease, it became a subject of discussion among many Nigerians on social media. In response, I wrote an article titled [“Sugar Intake Enhances The Risk For Alzheimer’s Disease – Should Nigerians Be Worried?”](#) to further enlighten the public about the risks in a Nigerian context.

3) [“Ask A Scientist”](#) - a radio programme on a local radio station in which scientists are invited to talk about their research and respond to questions from the audience. In addition to connecting with the audience, this enables scientists to showcase the importance of their work to the society through radio, which is the [dominant platform for news in Nigeria](#).

4) “Meet A Scientist”. Unlike in many countries, especially in the “Global North”, in Africa, accessibility to scientists is often difficult. Most institutions do not have an accessible website with details of scientists for prospective students to contact, or for collaborators or members of the public to identify. Inspired by the resource developed by [500 Women Scientists](#), the “Meet A Scientist” pathway enables website visitors to search for Nigerian scientists based on their institution or area of research, this way, making scientists visible and accessible in Nigeria.

Social media has become a very popular platform for communication, networking and engagement among people across the globe. In Nigeria, young adults typically have ~2-5k Facebook followers. While the older generation mostly read the print news, and listen to radio and TV programmes. Indeed, in a recent survey I conducted in Nigeria, about 40% of respondents said they would love to learn more about science via social media and radio. Therefore, to enable broader engagement, the content of SciComNigeria and recorded version of the radio programme (via [SoundCloud](#)) are linked to [Facebook](#), [Twitter](#) and [Instagram](#) (all at “scicomnigeria”), with a combined reach of about 9000 fans). Through this, the contents are promoted to thousands of Nigerians and the efficacy of engagement are measured by post “likes”, “shares”, “clicks” and “comments”. In addition, on the social media, fans are further engaged in science via science quizzes, facts and news, among others things.

Seven months since the commencement of this project, over 30 science stories and articles have been published, 5 radio programmes organised and thus far a database containing over 30 scientists have been generated to enable students, journalists and the general public to identify people of science in Nigeria. The outreach grant from The Biochemical Society has greatly helped in funding the radio programmes and social media promotions of the published contents of SciComNigeria. Indeed, the published content on the website has thus far had over 5000 views and on social media and over 220,000 people have been engaged (Fig. 3). Of the social media engagement, about 11% were organic but only when the content was initially promoted, suggesting that once posts were promoted, more audience become engaged even after the lifetime of the promotion.

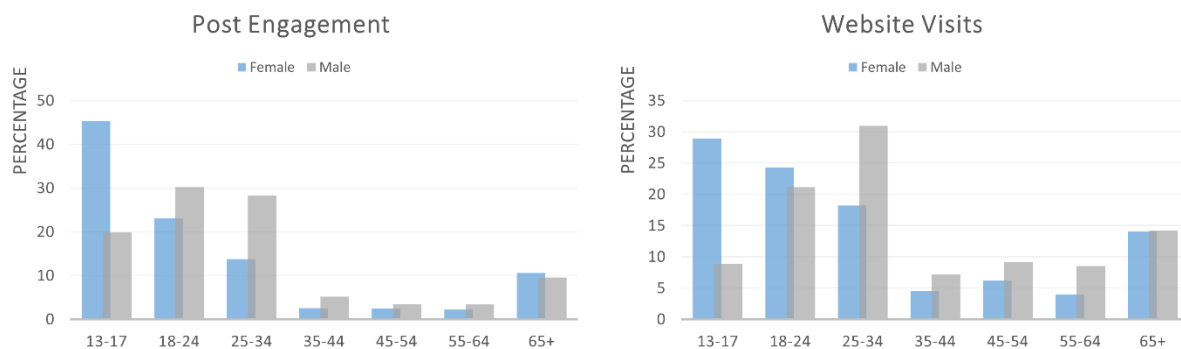


Figure 3. Online engagement with science content among Nigerians. Evaluation by age range revealed the percentage of the audience engaged (Left) and the percentage of engaged audience visiting the website (Right).

Interestingly, we find that young adults of 13 – 34 years generally engage and visit the website content more than adults of 35 – 64 years, who seem to have less interest in the science contents. Interestingly, the audience of 65 years and above seem to have a renewed interest to learn more about science (Fig. 3). We find that the percentage of female engagement was usually more, especially among 13 – 17-year-olds, when stories were about female scientists, suggesting that, such an approach could help in inspiring more young females in STEM. Feedback collected online was overwhelmingly positive. For example, all respondents revealed that reading content from either the SciComNigeria website or social media handle had inspired or increased their interest in science. Content, especially science stories, has been viewed and shared hundreds of times. About 83% of respondents indicated that they generally want to learn more about science, 4% were interested in

contents showcasing famous scientists, and 13% revealed they are only interested in learning more about scientific facts. Although 63% of viewers for the website were from Nigeria, other viewers were from other African countries, United Kingdom, United States, Malaysia and Maldives among others.

SciComNigeria is only seven months old. However, the evaluation shows the potential of the approach employed in changing the perception of science among Nigerians, as well as its potential to inspire more women into STEM subjects. I envisage that in the near future, SciComNigeria would mature into a science network that Nigerian and African students would visit to find mentors or inspiring stories, journalists to find science experts and scientists to identify potential collaborators. Moreover, this would continue to enhance the visibility of scientists, their interest in science communication and enhance their participation in public discourse that shape policies.

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About me

I am a Postdoctoral Fellow in Sussex Neuroscience studying neurodegeneration. I obtained my BSc in Human Anatomy from the University of Maiduguri, Nigeria, MSc in Cellular and Molecular Neuroscience and Ph.D in Neuroscience, both at the University of Sussex, Brighton, UK. When I am not in the Lab, I would be found somewhere passionately promoting and communicating science for which I was awarded the Royal Society of Biology [Science Communication Award](#) in 2017.