

# **The Challenges of Communicating Science: A Journalist's Perspective**

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# 1. Introduction and Background

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Although the trend is changing, science reporting is not a daily routine in most media houses worldwide. Science reporting - unlike sports, politics, business, arts and culture – is generally placed on the fringes of mainstream journalism.

Close analysis shows that there are various deep-rooted factors that tend to keep science at the bottom of newsgathering, packing and dissemination. It begins with journalism schools that traditionally avoided admitting students with science backgrounds or strong interest in science reporting, preferring those excelling in literature, languages, history and others. The courses offered hardly mentioned the coverage of science.

Today, the few journalism schools that design courses on science journalism are considered “special or unique.” This means that the coverage of science is yet to be integrated into the core or the basics of overall journalism training.

Journalism schools, with newspapers or FM radio stations within universities, hardly encourage their students to cover, for example, departments of engineering, medical schools, and colleges of biological and physical sciences. Still those who are chosen to learn the art of reporting in-house or given on- the- job training are not introduced into the world of science journalism.

However, to be fair, there were some early indicators that the mass media was bound to pay attention to the coverage of science. These included giving mostly health and agricultural experts space or airtime to answer specific questions and focus on common or unique problems affecting some readers and listeners.

Like other professions worldwide, journalism is evolving. There is need to cope with new socio-economic, cultural and political developments including those based on research findings and innovations within scientific fields.

There are also challenges posed by an increasingly enlightened audience –including policy makers and scientists - in the need of credible, interesting and well-researched stories with updated facts and data to inform and educate appropriately.

Some of the most difficult challenges facing science reporters are linked to stereotypes and myths – associated with the work of journalists and scientists - that have yet to be overcome.

It is still assumed that when dealing with serious academic, professional and research issues, scientists have their own communication outlets especially peer-reviewed journals that are inaccessible to the general public. Serious scientists, therefore, have no business dealing with the mass media as an important outlet. Science writers have to routinely examine and extract information considered important to the public from journals dealing with various aspects of science and technology.

Journalists are suspicious of scientists, who seek to disseminate or channel information on important findings through mass media unless they could be linked to ongoing emergencies and the government. The challenges seem to multiply because scientific experiments and findings tend to take a long time when the media seems to seek instant answers. Thus innovations – new products, services, theories and other findings – derived from prolonged research activities initially sound ‘distant or remote’ while the mass media business thrives on the ‘immediate and is highly perishable.’

The above serves as inbuilt sources of conflict between the mass media and researchers. Few journalists are prepared to wait until research results are published in some peer reviewed quarterly or annual science journal.

When journalists push for timeliness and proximity, researchers feel harassed and pushed beyond ethical limits. However, there are emerging trends in which the mass media carries stories about the initiation of research, the aims, possible results, impact and public good.

Scientific research remains an endless source of new and old terminologies that drive journalists mad. Mountains of raw data contained in research papers worsen it. It is a major professional challenge for even those with the best mass communications skills when one is to reduce piles of jargon and statistics into short, simple and clear message sentences and paragraphs which, for example, reduce 15-page research paper into quarter page news story.

All these tend to push journalists to depict scientists as poor communicators. Even worse researchers may be depicted as experts who hide their failures in complex data and terminologies. This in turn leads to scientists being wrongly branded as poor sources of information.

Equally, scientists see journalists as poorly- trained or lazy professionals who want everything chewed for them. They are incapable or unwilling to extract important information beneath piles of vital data and terminologies.

For both the researcher and science reporter, things get worse when dealing with editors who believe that science only makes news whenever new – products or services- discoveries emerge. In

such cases generating news and features based on the “scientific process” remains an uphill battle for most science communicators.

The challenges are enormous. It is a bigger burden in Africa, stereotyped as a continent that has been left behind in scientific research and development. The continent is depicted as generating minimal scientific information that can be packaged as news for local, regional and global consumption.

However, science reporters in Africa are well-placed to generate stories with impact because it is a region where the role of science and technology can be easily linked to solving various devastating problems. These problems are caused by diseases, food shortages, poor housing, lack of clean water, power or energy shortages, poor sanitation, and decaying transport and communication infrastructure.

Science journalism in Africa is still seen as journalism of basic human needs. It is interwoven with basic human needs and rights and is well placed to positively or negatively initiate positive changes in policy including budget allocations. Science writers are best placed to expose the availability or unavailability of important services needed for survival and development.

## **2. Social Responsibility**

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Sustainable coverage of science remains elusive for many media houses. To cope with what may seem as unlimited challenges, even skilled science reporters first need to develop at least some strong interest in the coverage of science issues. They also need to believe that they have a professional, ethical and social responsibility to effectively cover various aspects of science and technology, especially the people impact or improvements in their lives.

Science journalists, like others in the fourth estate are the people's watchdogs. They serve as 'the eyes of the unseen and ears of the unheard' in all their professional activities. Despite being science journalists they are always bound to ask, 'What is the people impact and is it for the common or public good?'

Some journalists are bound to generate stories on various aspects of science and technology. Thus what scientific researchers see as noble efforts to expand the frontiers of knowledge and civilization may generate negative mass media coverage when journalists consult various sources or inject other socio-economic, political and cultural dimensions.

One of the professional challenges facing science writers is linked to 'balancing' stories that may be scientifically deficient. One does not always balance science stories the way political writers do by simply getting opponents' views that may be based on propaganda. When sources seem blindly opposed to some scientific products, services and research activities without credible proof or explanation they often resort to propaganda that the media is expected to carry as facts in 'balanced' stories. This is particularly common when dealing with certain activists including anti-genetically modified (GM) crops, traditional healers, and even top professors ranging from those with fake HIV/AIDS cures to those saying HIV does not cause AIDS with no scientific proof.

A final major challenge is linked to the fact that science issues tend to be diverse ranging from space science and engineering to the alarming evolution of highly drug-resistant tuberculosis (TB) and malaria germs apart from genetically engineered crops and microbes. Thus apart from handling various science stories, there is also need to specialize and cope with rapid changes in the world of science and technology. In Africa health, environment, agriculture and emerging world of biotechnology are at the core of science reporting.



### **3. Coping with Newsroom Competition**

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Despite the increasing realization by media houses that there is need to improve the quality and quantity of science coverage, science writers have to be more competitive and innovative in the gathering and packaging of their stories in an environment that seems to regard them as outsiders.

Science stories have to compete for space and airtime against others from the world of business, art, music, sports, politics, education, conflicts, crime and accidents. In cases, for example, where a media house has a weekly science page or programme, there is need for integrating science into every section of the newspaper apart from being included in the news editor's list of the daily items.

Issues on diet and athletics or a focus on various aspects of sports medicine could appear in the sports pages. A science writer could, for example, target the features section with a profile of a leading scientist thus creating room to highlight important science activities linked to the expert. Similarly, science stories can be given business angles. Editorials focusing on specific issues credibly can also be generated.

To survive in newsrooms one has to come up with innovative strategies of making science stories earn space and airtime. Science journalists should be prepared to generate stories that are 'complete' meaning informative, timely, interesting, credible, effective and with appropriate background information.

A good science journalist needs to have a list of story ideas or issues to cover without waiting for the usual assignments from the news desks. This helps to ensure sustainability and initiation of routine beats. It is important for one to try and run a series of stories when dealing with important issues. It creates some impact if effectively handled. One must have a list of various important sources of information including their phone numbers and e-mail. A science writer needs to follow up issues. The tendency to forget to updates issues is a widespread weakness.

## **4. Remember the Basics**

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Science stories have to be interesting, easy to read and must meet the same standards like all others. There should be no favours. The basics including the five Ws and H - What, Who, Where, When, Why and How - have to be appropriately included.

Each word, sentence and paragraph must earn its place. Thus the need for short and clear sentences. Stories should have a clear message or make a point. Avoid technical jargons or terminologies. Know your audience or target. Give local examples even if it means appropriately using a common local word to improve clarity. Unlike a decade ago and with the era of Internet, those journalists who wait to do feature stories will soon be extinct.

The trend is to have news stories with full background thus providing the 'whole' story and leaving the readers or audience satisfied. Having a personal resource center is a must for science journalists.

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