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AFRICAN SCIENCE COMMUNICATION CONFERENCE
SCIENCE IN SOCIETY | SOCIETY IN SCIENCE

# CONFERENCE NEWSLETTER

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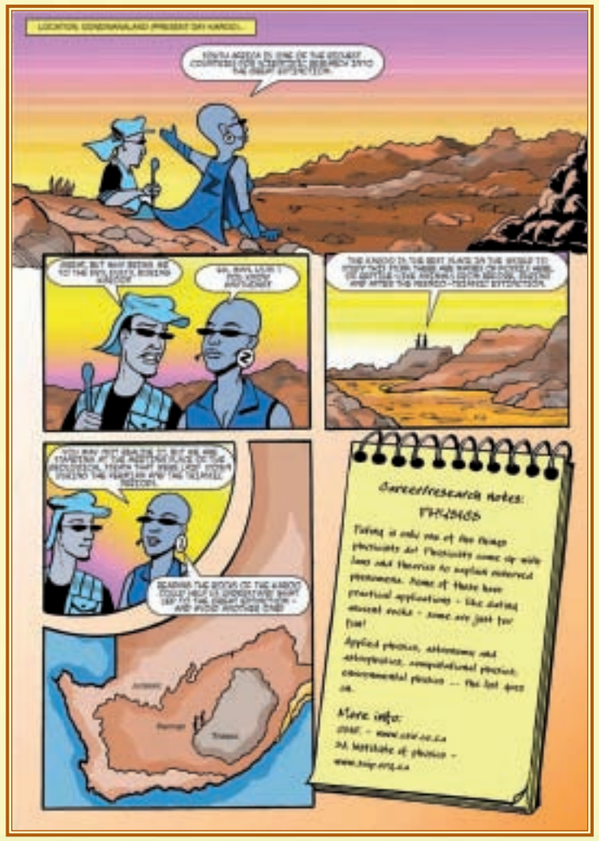
*Above: Where was Robert? Definitely not at THIS ASCC!*

## Translating science in innovative ways for specific audiences

**Effectively reaching young audiences with various innovative measures to promote science and its communication was at the forefront of this session.**

Robert Inglis, (Jive Media) entertained delegates with comic strips and even a short video – all methods of communicating science in an entertaining way. Inglis proposed new ways of breaking the barriers which keep the communication of science locked up. These barriers include too much information.

Inglis suggests target audiences have to be closely identified. The communicator then has to grab their attention and hold it. Another barrier is the inaccessible language often used by scientists. It is important to create the message for the audience, not for the scientist. "Therefore, only use the language and information that is important and applicable," he says. This effectively means a 'translation of science'. Stereotypes and fears also play an important role. His example for countering this was a magazine promoting a young black female 'science superhero'. Lastly, low general and science literacy also play a role. In such cases, more graphics and fewer words should be involved to keep the readers' attention.




*Right: A page from the new Jive Media cartoon featuring Agent Zee.*

## Sign up with SciDev.Net now!

SciDev.Net , the science and development network website, is close to reaching 40,000 registrations/members on their free access website, which now has an entire section dedicated to science communication. It provides a variety of resources on influencing policymakers, promoting and writing about science, publishing research and networking. Visit the SciDev.Net stand in the foyer for more information and help them reach their goal of 40,000 registered users by signing up now for this free resource.

## Passion for science will lead to a better world, says Hanekom

**In his opening address at the ASCC2, Deputy Minister of Science and Technology Mr Derek Hanekom stated that what was important to the advancement of science communication would be passion, "a passion for science and a passion for a better world". He said, "we need to understand the context to which science unfolds as we are all affected by each other, everything is interrelated". Adding onto that he said, "we need clarity on our problems so as to find adequate solutions".**

*Deputy Minister of Science and Technology Mr Derek Hanekom*

## Hassan's recommendations for science communication in Africa

*Courtesy SciDev.Net blog*

**"Africa's sustainability problems can only be solved by science-based solutions, and effective communication must play a key role in this," said Professor Mohamed Hassan of The Academy of Sciences for the Developing World (TWAS) in a special lecture at the 2009 African Science Communication Conference. He added, however, that science communication can only be effective if there is enough science to communicate – a real issue in Africa.**

*Professor Mohamed Hassan*

He provided staggering statistics on how Africa lags behind in terms of producing new knowledge (as measure by ISI-listed scientific papers). The whole of Africa produces only 1.7% of the world's new scientific knowledge, and most of this comes from only a few countries on the continent. South Korea, for example, contributes 1.6 times that of the whole African continent.

He made the following five key recommendations for strengthening science communication in Africa.

1. Create at least one science centre in each African country to bring science closer to society. He pointed out that of the 2400 science centres worldwide only 23 are in Africa, and 17 of these are in South Africa. By contrast every UK citizen lives within 2 hours' drive of a science centre.
2. Establish an African centre for science policy and science communication to train a new generation of experts in science policy formulation and science communication; as well as to build the communication capacity of scientists.
3. Create a science communication unit in each African science academy to support more effective communication strategies, engage the mass media and ensure that government policies on science related issues are based on the best available scientific evidence.
4. Consider the formation of an African space agency to coordinate space research efforts on the continent, with leadership from Algeria, Nigeria and South Africa.
5. Engage the general public in science in more innovative ways. Learn from the Brazilians who are including science when they enjoy music, art and even during carnival time!

Professor Hassan also spoke about the challenges facing many science academies – mostly in terms of the age and gender of their members. While the academies themselves are widely recognised for their scientific excellence and independence, most members are older than 65 and only 5% are women. They communicate mostly with their members and far too little with decision makers and the general public.

He also feels that some African science academies are removed from the hard realities in many African societies (such as poverty, hunger, disease and malnutrition). He urged them to "wake up" to the needs of the broader societies that they should be serving.

# Working towards an ASCC2 position statement

**Lorenzo Raynard, Manager of SAASTA's Science Communications Unit, is excited that the aim of this year's ASCC will be to form a position statement in accordance with the AU's action plan regarding the development of Science Communication. And hopes special emphasis will be placed on creating and cultivating public awareness and understanding.**

"I hope that this conference will assist in including Science Communication as an integral component of science and technology initiatives," he says.

South Africa is on the cutting edge of many Science Communication developments. One of these key areas, according to Raynard, is the landmarks in health science communication which has managed to affect both behavioural and social change in our society. Other examples include popularising science through story-telling; creating awareness by developing exhibitory; and SAASTA's pioneering of studies in consumer confidence and public attitudes with regards to science.

According to Raynard, science communication can be defined by five ideals: 1) The ability to influence policy; 2) recognition of potential entrepreneurial or economic opportunities; 3) assisting in the development of an informed public; 4) inspiring the youth in terms of revealing potential career opportunities; and 5) bridging the gap between various scientific sectors through joint research.

"As a government agency, SAASTA is ideally placed to provide access to benchmarks in science communication," says Raynard. Due to their close relationship with government, SAASTA can fulfil the strategic functions of promoting public awareness, developing quality standards for science reporting and communication, and aiding scientists to communicate their own work more effectively.

*Lorenzo Raynard of SAASTA welcoming guests at the Joahnnesburg Observatory for Wednesday's social function at this historical site.*

But SAASTA is not the only role-player in science communication development. Different organisations – from science centres to NRF facilities such as the National Zoological Gardens and the SA Astronomical Observatory – are all involved in this cause.

While South Africa is privy to many research resources with regards to the Antarctic, marine biosciences, and astronomy, and holds the potential of creating a more cohesive society and democratised science, there is much that can still be done. Raynard highlights this in terms of the African Union 2005 Africa's Science and Technology Action Plan's findings, which revealed that Africa's own governments and industry structures did not invest enough in the development of science and technology.

Raynard claims that science communication can play a vital role in this regard in identifying the importance of investing in scientific research. "In addition, science communication needs to be prioritised by ensuring that awareness and outreach is included in more research protocols."

# Thinking and acting 'green'

**Pavitray Pillay, a speaker in Session 2 on Wednesday morning, introduced a new Green Audit Toolkit for high schools.**

Developed through a partnership of various organisations, this kit will sensitise young people to their environment and the way their behaviour influences it. The programme will team schools up to audit their schools' 'green standard' and to propose ways to live sustainably in their environment. A useful tip is to make resources curriculum-relevant to fit in with school work and get the buy-in from teachers.

*Pavitray Pillay*


*Science communicators on the highway...*

# Overcoming challenges and finding ways to integrate science communication

**Increasing public awareness, creating an African scientific database and the implementation of plant biotechnology in combating disease. These were the issues discussed regarding challenges facing science communication in Africa.**

Penny Haworth from the SA Institute for Aquatic Biodiversity (SAIAB) elaborated on how the organisation integrates its research of genetics, conservation and aquatic ecology with reaching the public through education and awareness. These include outreach programmes, communications within the science community, and synergies with science centres like SciBono and the MTN ScienCentre.

Haworth, and the other speakers, believe that science must serve the needs of ordinary people to create a transformed society and a sustainable environment. SAIAB is attempting to realise this through investing in higher education via the National Research Foundation (NRF). It also focuses on school outreaches, exhibitions, and media relations to enhance participation, performance and knowledge of career choices through awareness, interactions and information.

Dr Tuarai Imbayarwo of Africa Science Trackers spoke on developing the visibility of African science internationally. He believes that Africa first needs to know what science it has to offer. Imbayarwo stated that the most effective way to do so is for African countries to develop comprehensive databases for all their peer-reviewed journals. This will be an expensive process, but through it, Africa will know its science capacities and outputs and build a stronger foundation for science culture and research on the continent and globally.

*Koreen Ramessar*

Koreen Ramessar from the University of Lleida addressed research into plant biotechnology. The importance for the development of plant-derived antibodies is especially evident with regards to HIV in Africa. The sustainability and benefits of such studies are clear. Plants are cheaper to produce, purification methods are simpler, they pose less health risks, they are easily transferred to developing countries and they represent mammal cells. Ramessar also addressed biosafety and science communication.

The session revealed that through the development of science communication and interaction within the scientific community, challenges facing the developing world could be overcome.

*Science is not fun. Science is serious, and when you do it seriously it becomes really enjoyable. And I think there is a difference between fun and enjoyable.*

*– ANDREA BANDELLI, ASCC PROGRAMME COMMITTEE*

# Astronomy presents an opportunity to communicate science

**"Astronomy studies can greatly aid us in math and science teaching, says Kevin Govender of the South African Astronomical Observatory.**

His workshop on astronomy communicated the importance of astronomy in helping us stretch our imagination and curiosity on how the earth, stars, moon and sun are positioned and what those positions mean in relation to what outer space phenomena we experience. Govender explained in his presentation how good science communication can dispel many astronomy misconceptions, amongst others, seasonal changes and "shooting stars".

*Kevin Govender*

*As a science journalist you have to take off your clothes and put other clothes on, as you have to think completely differently from normal journalism! It takes some getting used to understanding how science works and the scientific process, which is very different form the journalistic process…*

*– ELSABÉ BRITS, DIE BURGER*