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CONFERENCE NEWSLETTER

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Socialising at the Johannesburg Observatory



Science Communication troubadours? From the left are Dr Chandra Nautiyal (India), Guy Redman (South Africa), Mbongiseni Buthelezi (South Africa), Dr Olufemi Bolarin (Nigeria) and Nurudean Ssempe (Uganda)



Guy Redman and Olufemi Bolarin

"This conference highlighted the importance of science communication. And how it still has to grow in Africa. We still have to do a lot to convince scientists and the public."

- PROF GERVAIS MBARGA, CAMEROON



Thembela Mantungwa, Tyhra Carolyn Kumasi and Sarah Abel

"Demystification of science will help unleash the immense potential for creativity and innovation in young and aspiring scientists."

- COLLINCE CHISITA, ZIMBABWE

'The art of science is really the art of asking questions'

- THANDI O'HAGAN, SCI-BONO DISCOVERY CENTRE, SOUTH AFRICA



At the ASCC2, over 40 new subscribers joined SciDev.Net, with the result that the network has now reached its target of 42 000 subscribers. Thanks from SciDev.Net to all who joined at the conference.



Janus Snyders and Elizabeth Obel Lawson

Building nations through promoting health

Science communication is a relatively new discipline in South Africa and the world. The science community has begun to realise the important role science communication can play in advancing society.

Professor Anthony Mbewu, CEO of the Medical Research Council (MRC), South Africa, believes science communication is vital in producing a healthy nation. And investors and governments should not view funding scientific research as an expense, but rather an investment, because a healthy population results in a healthy economy.

Science communication can positively affect the three main areas shaping scientific research.

Firstly, in communicating the importance of research to gatekeepers, policy makers, and the media in terms of generating funding and shaping positive public opinion. With the majority of South Africans being 'scientifically illiterate' it is science communicators' responsibility to improve knowledge, understanding and interest in scientific research.

Secondly, in promoting public participation in research or clinical trials through creating enough awareness to develop informed consent.

Thirdly, in translating scientific findings into everyday, comprehensible terms that will positively impact people's quality of life - not only regarding health but also career development and education. Mbewu believes that accurate and responsible communication can change the public's perception that research is vague and obtuse.



Professor Anthony Mbewu

Science community sees value in cartoons

New and innovative ways need to be found to communicate science to the layperson. Robert Inglis of Jive Media, South Africa, and Dr Pradeep Srivastava from the Central Drug Research Institute, India, are two pioneers in this regard.

Inglis revealed the move of the science community towards using cartoons as a valuable resource for communicating science. He listed four projects he has been involved in that aim to bring science to the masses. These are:

1. **Eclipswatch** which used cartoons to educate people on eclipses and the dangers of looking directly at one. These cartoons were distributed through the popular press.
2. **Agent Zee**, a comic book series aimed at tertiary students, profiles cutting-edge research in scientific fields.

Not only do they aim to use print as a medium for distribution but are also looking into using new media (such as Facebook) to create a hype around the character and project.

3. **LADUMA! Stick to Your TB Gameplan** is aimed at primary school children and combines activities with a cartoon. Its aim is to increase TB medication adherence and positively influence behaviour.
4. **Mission MeerKat** seeks community appeal to educate the region of the importance of their local 'MeerKat' radio telescope.

Srivastava is the mastermind behind the highly popular **Sciuntoons**. These cartoons combine scientific explanations with one-scene 'skits' explaining difficult concepts or placing the science in an everyday situation. Sciuntoons are currently part of the biggest science awareness project on the African

continent and have been found to be effective communication devices to explain unusual concepts like nanotechnology.

Both methods make use of visuals, wit and storytelling to engage different people and make science real, fun, interesting and understandable.



Beverley Damonse, Robert Inglis and Prof Anusuya Chinsamy-Turan

ASCC2 position statement

The following were points considered for the development of a position statement for ASCC2. The meeting decided that feedback will be obtained from all delegates in order to formulate a resolution. In the meantime it has been resolved to carry on with the collaboration between all present.

Track 1: The translation of science for:
 a) policy; b) economically viable products or initiatives; c) the facilitation of trans - and inter-disciplinary research; and d) an informed society through the mass media

- National drivers for science advancement should provide structure and direction;
- Data of scientific research activities and publications;
- Pan African collaborations, Conferences – WFSJ 2011, 3rd ASCC;
- Language diversity when communicating science;
- Role of science councils and academies.

Track 2: Science, engineering and technology human skills development, education and learning for human skills

- Profile science, scientists (role models), career opportunities, products;
- Current curricula should be updated with contemporary African scientific focus areas;
- Stronger focus on biodiversity as a primary study area to lead into biotechnology and nanotechnology/ other specialisation areas;
- Develop innovative methods to produce a next generation of science communicators;
- More educator support – evolution;
- Science centre development.

Track 3: Science and the media

- Investment should be made in scientists who has already shown an interest in science communication;
- Analysis of media reporting – quality, scientific accuracy, frequency;

- Media policies on science reporting given important role and impact of media;
- National independent Science Media Centres – resource for media (ASSAf);
- Investment in science journalism and communication training;

Track 4: International benchmark activities in science communication

- Language diversity;
- Evaluation and assessment measuring tools – need development;
- True engagement means two-way engagement;
- Research needs to respond from dialogue with public;
- Development of national public and indicator surveys.

Track 5: Research and development in science communication

- African centre for Science Policy and Science Communication (TWAS);
- Data collection – public perceptions and attitudes (longitudinal studies);
- More detailed knowledge of public/s (including policy makers);
- Scientists and engineers should include communities in their participatory research and decision making;
- Financial incentives need to be unleashed for private companies to do outreach and not just seen as a development activity;
- GRIPPP – Getting research results into Policy, Practice, Promotion and Products (MRC).

“ASCC2 has provided me with hope for the clearly growing rapport between scientists and the media.”

- CHARMEELA BHAGOWAT, SOUTH AFRICA

DR PRADEEP SRIVASTA ON NANOTECHNOLOGY

Nanotechnology is one of the fastest developing areas of science and has already entered everyday life through the medical, pharmaceutical, agricultural and textile industries, just to name a few. It is believed that nanotechnology will eventually infiltrate every aspect of society - from the clothes we wear to the cars we drive. Scientists hope to one day create nanobots to fight cancer cells, and nanobreeze technology which kills pathogens in air-conditioned air.

SOME ASCC STATISTICS

- **PRESENTERS:** 49 speakers from 11 countries (South Africa, Spain, India, Ghana, Cameroon, Nigeria, Zambia, Lesotho, Uganda, Zimbabwe, Australia)
- **DELEGATES:** 118 from 16 countries represented
- **MEDIA:** 9
- **SCIENTIFIC INSTITUTIONS:** 23 institutions represented

Improving the status of women in science also concerns science communicators

Prof Anusuya Chinsamy-Turan highlighted the ways in which South African Women in Science and Engineering (SAWISE) is trying to improve the status of women in the scientific fields. She stated that the challenges faced by women are, amongst others, a lack of permanent, high-ranking positions, under-funding (less than 20% of all research funding is allocated to women's research) and few role models for girls interested in science.

These shortcomings can be rectified through establishing support networks, funding research and studies through bursaries such as SAWISE Angus Scholarship, and raising the profile and prevalence of women scientists in the media.



Dr Olufemi Bolarin

Evaluating the media to improve science communication

“The media has been paying lip service to science information,” said Dr Olufemi Bolarin at his presentation based on the content-pattern of agricultural information published by Nigerian newspapers. Olufemi's argument is based on research into the amount of media reportage of agriculture. He said that, “the Nigerian press has a social duty to pass information to the populace”.

Olufemi's argument was contested by the audience on the grounds that blame could not be placed solely on the print media as platforms such as the radio were better suited to reach the farming community, who listen to the radio more than they read the paper. His findings were that only 37% of newspaper editions included agricultural related stories. Most of the population (70%) living in Nigeria are farmers. If the media serves as a purveyor of change as well as a watchdog of society, then countries such as Nigeria need to emphasise media coverage. He said that, “newspapers are extension counterparts for social transformation”. His research showed that the *Nigerian Tribune* used just over 100 words for agricultural stories - which shows an obvious restriction of reporting space. His recommendation was that, as a matter of national policy, federal government should compel national newspapers to include columns for agriculture.

Let's host the 2011 conference of the World Federation of Science Journalists

Reiterating the call for increased quality and quantity of science communicators in Africa by Professor Mohamed Hassan during the opening session of ASCC2, the round table discussion on the future of journalism training echoed this need with a focus on science journalists.



Prof Gervais Mbarga

Marina Joubert of SouthernScience, drew on her experience in lecturing science journalism at the Tshwane University of Technology (TUT) in Pretoria, to suggest how a mainstream journalist can convert to science journalism. She highlighted three key areas that journalists need to understand to enable their move into the science journalism sphere:

- Scientific method and understanding how science works, e.g. peer review, pseudo science, and the placebo effect
- Science basics on topical and cutting edge science, e.g. climate change, cloning etc
- Field/lab visits – to meet scientists face to face.

Although many of the 181 students reached through the TUT courses since 2007 expressed initial disinterest in science journalism, by the end of the course they showed a “hunger” for basic science knowledge and a clear appreciation of the topic. In 2008 the course used an online curriculum produced by the World Federation of Science Journalists (WFSJ).

The second speaker, Prof Gervais Mbarga from the Université Laval in Quebec, Canada, highlighted the challenges facing science journalists in Africa and other developing countries, such as the scarcity and isolation of

quality science journalists and lack of training opportunities available. He outlined the pros and cons of the classical approach of science journalism training via formal, university based courses and workshops; and the related high drop-out rates versus a newly implemented initiative called SJCOOP (Science Journalism Cooperative).

Implemented by WFSJ and funded by the International Development Research Centre (IDRC), the UK Department for International Development (DFID) and the Swedish International Development Cooperation Agency (Sida), this Pan African and Pan Arabic initiative aims to break the isolation experienced by science journalists in these regions and to increase their quality via in-house training opportunities. Involving 29 African countries and 46 science journalists to date, spin off benefits include the establishment of science journalism associations, now totalling 10 in Africa. Trans-border media stories have highlighted the interconnectedness of science journalism – with simultaneous reporting on international stories in different countries.

The session participants concluded that a variety of training approaches are needed and the continued isolated efforts highlight the need for a bid to be made by South Africa or another African country to host the 2011 Conference of the World Federation of Science Journalists.