

# **DISSEMINATION OF SCIENTIFIC KNOWLEDGE**

## **UNDERSTANDING “WHY” AND “HOW” TO COMMUNICATE RESEARCH RESULTS TO THE PUBLIC**

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# Dissemination of Scientific Knowledge: What is it?

- Simply means getting our research findings to the beneficiary population
- Broadly, it is getting scientists to talk more about their work; producing attractive science events intended to make the public interested in science; develop confidence to talk about it, and a willingness to engage with science wherever and whenever it crosses their paths
- E.G. only 54% of citizens of the EU currently believe that the benefits brought to society by SET research outweigh the risks it generates (Frank Burnet, 2010)
- Remember research is meant to solve problems
- Research and Communication---a symbiotic relationship

# Why communicate science to an unscientific population?

- Complete production of chain
- Create awareness (merits over demerits of science)
- Science is indispensable to our daily lives/We use it consciously and unconsciously
- We benefit from the fall-out of scientific research (e.g ICTs, transportation-air, sea, land, etc)
- Needs of beneficiaries addressed (FAVM products, Drug Development, Libyan and Mali experiences)



## Actors and processes (HOW) of science communication

- **Science communicators are professionals who facilitate scientists' engagement with various sectors of the community.**
- **The main actors include:**
  1. scientists themselves (the producers of new knowledge);
  2. communication professionals,
  3. specialist, journalists or press officers (who often act as communication catalysts or mediators);
  4. the communication platform (for example mass media or social media) and the audience(s) or public(s).

**Con't:**

## **Actors and processes of science communication**

- There are many different ways (processes) to communicate science, but most will fall into one of the following three groups:
- 1. Traditional media (newspapers, magazines, radio, television);
- 2. Face-to-face communication (public talks, debates, science cafés, science festivals, etc);
- 3. Online communication (online articles, blogs, social media, etc).



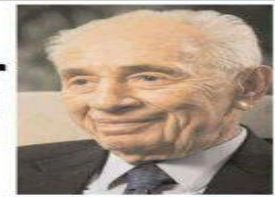
# Merits and Demerits of the Media

- 1. **Traditional media:** Powerful and can reach large audiences, but tends to be one-way and superficial, and scientists have little control over media coverage of their work. No feedback!
- 2. **Face-to-face:** Events are more personal and enhance two-way communication, and also give scientists more control. But have a limited audience (often reaching people already interested) and can be very time- and resource-intensive.
- 3. **Online communication:** Potential to reach large audiences and allow direct interaction, but hard to control how the audience will engage and respond. It requires an ongoing investment of time and specialized skills.

# Glaring Example in UB



**Shimon Peres, former Israeli leader dies at 93** Pg 10



**Biya's mandate as CPDPM National Chairman is intact**  
*- Prof Ngolle Ngolle*

## **DNA test now done in UB** Pg 2

- Test to solve paternity, maternity disputes; aid criminal investigations
- Researchers say government yet to support project

**Headlines**  
Western powers should hands-off African politics, lawyers warn Pg 7  
**Victoria United crowned champions of South West Region** Pg 12  
**Trial of 15 SCNC activists resumes** Pg 6  
**September 30**

**Ali Bongo to name new govt after inauguration**

*-Justice Minister represents Biya at security tight swearing in*



Pg 3  
President-elect Ali Bongo Ondimba (L), son of Gabon's late President pictured moments before he's officially sworn in

**Hillary trounces Trump in first debate** Pg 10

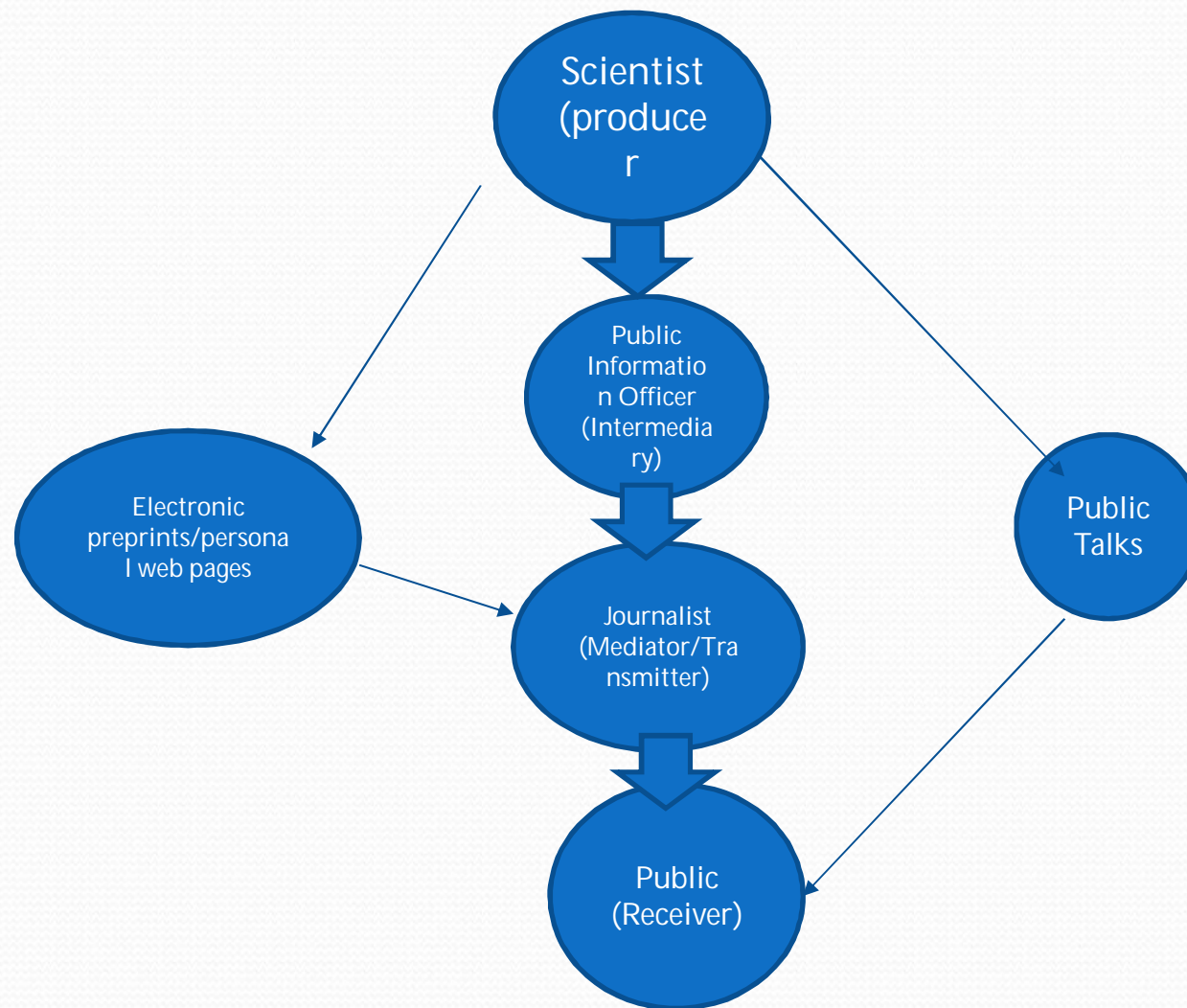


# Target Groups

- **Universities:** Other researchers/funders/partners (MOUs)
- **Government Agencies:** Funders, policy makers
- **Funding agencies:** They fund people; not things. Updates
- **Businesses:** End users of scientific knowledge, skilled workers
- **Learned Societies/Professional bodies:** For developments in evolving research like HIV, Ebola, COVID-19; etc
- **The Masses:** Community leaders, Chiefs/Fons, Opinion leaders, religious leaders, etc.



# Simple Linear Model for Science Communication Process



Source: Christensen, 2017

# Principles of Effective Science Communication

The following principles enhance effective science communication:

**Accessibility:** Keep the audience's communication needs and preferences in mind when choosing your communication tools, tactics and platforms. For example: Can't use Internet for rural population

**Relevance:** Scientists should address the 'so what' question. Tell the audience why it matters to them and how they can use it. As a general rule, the public wants to know what science can do, rather than how it is done.

**Focus:** Don't try to share large volumes of information. Rather focus on just one or two ideas that are most likely to be useful and relevant within a specific context.

NB: **Message** design tools such as the "Message Box" can help scientists to craft clear and compelling messages which resonate best with a specific audience in a specific context.



CON'T

# Principles of Effective Science Communication

- **Style:** Communication style is as important as content. **The language must be jargon-free, the messages must be relevant and easy to grasp** and the stories must be compelling. E.g. use tools such as **metaphors (Images, symbols, etc) and anecdotes (Stories)** to transmit meaning and make their content more memorable. •

**Emotion:** People connect more easily with the human and emotional side of science than with hard facts.

**Start at the end:** Skip the background and methodology of the research and start with the implications and benefits. **Popular communication is the exact opposite of scientific writing** where the background is given first, with findings and recommendations at the end.



## Sources

- **Burnet, F. (2010). Why and how to communicate your research: A Guide for Scientists, Engineers and Technologists. UWE, Bristol, UK**
- **Christensen, L.L. (2007). The hands-on guide for science communicators. Munich: Springer Science and Business Media.**
- **Development Research Uptake in Sub-Saharan Africa (DRUSSA). Handbook: Essay 5: Science Communication. An Introduction to Theory and Trends, UK AID, 2015.**





**Thank you for your kind  
attention**