

#### **Conveying Science through Flash Talks**

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PEER conference, Arusha, Tanzania (4-7 August, 2014)

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FESTIVAL HIGHLIGHTS

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- International communications competition
- Aims to identify, train and mentor scientists and engineers with a flair for communicating with public audiences.
- Started in 2005 in the UK by Cheltenham Science Festival; partnership with British Council in 2007 sees competition going global; in 2012 NASA joins to run the competition in the USA.
- So far more than 5000 young scientists and engineers participating in over 25 different countries from Hong Kong to South Africa, USA to Egypt have taken part.



### An example:

# FameLab 2013 International Winner Fergus McAuliffe (Ireland)



# So what? (Why) should scientists communicate?

What do you think?



The first



street in

London

# Why communicate University perspective

- It helps universities adapt to a changing world
  - Accountability and transparency
  - Trust and license to practice
  - Relevance
  - Responsiveness
- It enriches the institutions research and learning
- It strengthens and enriches the university's brand and identity
- Increases public appreciation and support for higher education and research

Source: National co-ordinating centre for public engagement.

# Why communicate Benefits to society

- Public engagement helps to maximise the flow of knowledge between higher education institutions & societies
- It contributes to social justice and corporate responsibility
- It helps build trust and mutual understanding

e.g. In the UK over 75% of the public agree that "we ought to hear about potential new areas of science before they happen, not afterwards"

- It generates unforeseen outcomes, stimulates creativity and innovation
  - Fresh perspectives
  - Challenging questions
  - Lateral insights

## Why communicate Benefits for the researcher

 It enriches students and researcher's experience – develops employability and skills

"My public engagement activities have given me a new perspective and broader outlook to my own research work. For example, I have recently collaborated with a microbiologist, applying quantum mechanics to biology, which arose from new contacts."

**Professor Jim Al-Khalili** an Engineering and Physical Sciences Research Council (EPSRC) Senior Media Fellow at The University of Surrey

Source: Research Councils UK

## Why communicate Benefits for the researcher

- Ensures researchers stay 'in tune' to social and ethical issues e.g.
  - 75% of the UK public believe academics should listen more to what ordinary people think
  - Over 50% believe that scientists pay insufficient attention to potential risks
     Cell biologist Dr Kelly BéruBé of Cardiff University, whose research focuses on pollutant-induced lung disease, has seen how public engagement activities have improved both her personal skills and opened up doors for influence.

In 2009 an instant profile boost came from her contribution to a Cheltenham Science Festival panel discussion which resulted in over **50** worldwide media items on the research and later that year was invited House of Lords to speak to MPs and Peers about the use of human tissue in clinical drug trials, to push for a regulatory requirement of drug testing in human tissues.

## Why communicate Benefits for the researcher

Priceless feedback

"Engaging the public ... can directly improve the **depth and quality** of that interpretation and feedback into new research questions which has added a new dimension to my research"

**Professor Alan Winfield** of The University of the West of England, Bristol. Leader of Walking with robots, a project that took the UK's intelligent robotics research to the public, reaching close to 80,000 people over three years

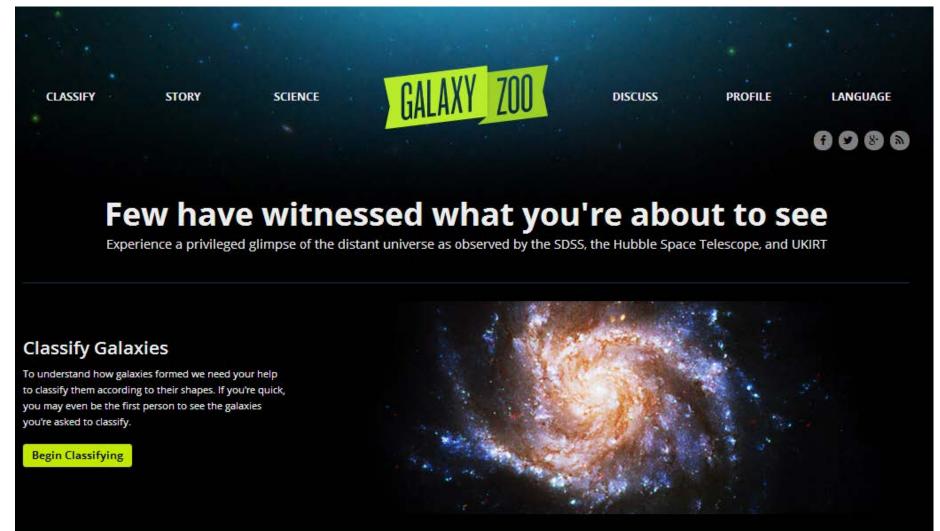
- Raising your profile
- Better quality grant applications
- Developing skills

Developing my public engagement skills has helped me in briefing the courts on stabbing incidents. **Professor Sarah Hainsworth** of The University

#### of Leicester

National / global data collection – citizen science

We needed to classify **one million galaxies** -- So we have managed to attract around 250,000 amateurs to become involved. By using their own computers with a specially designed software interface they could watch, research and contribute their findings". **Dr Chris Lintott – University of Oxford, United Kingdom** 



## Changing cultures: reaching audiences, open source publishing & broader engagement

#### How journals like Nature, Cell and Science are damaging science

The incentives offered by top journals distort science, just as big bonuses distort banking

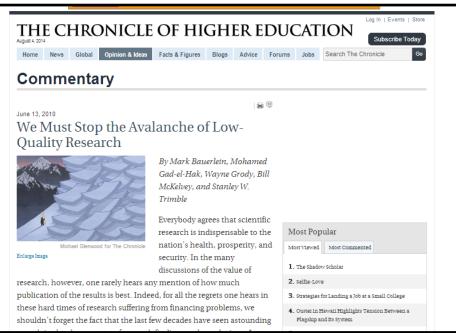


Randy Schekman
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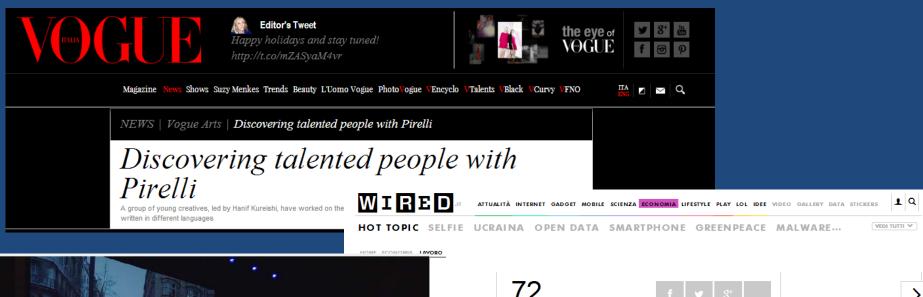


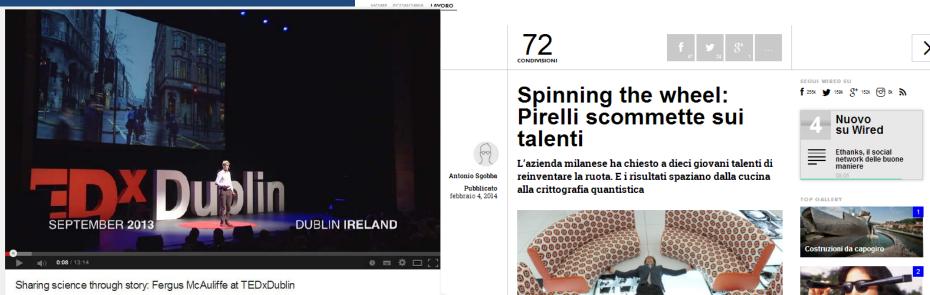
Nature, Cell and Science as they distort scientific process





# Benefits for the researcher FameLab winner – Fergus McAuliffe





# Why communicate In summary:

- Skills development
- Career enhancement
- Enhancing your research quality and its impact
- New research perspectives
- Higher personal and institutional profile
- Influence and networking opportunities
- Forming new collaborations and partnerships
- Enjoyment and personal reward
- Additional funding
- Increasing awareness of the value of research to society
- Increasing student recruitment
- Inspiring the next generation of researchers

## Today – Flash talk training Aims:

- "I understand why being involved in public engagement alongside my research can benefit my research and wiser society"
- "I've a better idea of science communications opportunities I might pursue and / or involve my students with."
- "I understand how to help my institution/students/research group find resources/be involved in public engagement."

### Today – Flash talks Training:

- Activity 1 This is me! Communication without words
  - Who are you and what do you do? Something surprising... NOW
- ------Move into break out groups-----
- Activity 2 Pass the box
  - Goal Body language and the importance of non-verbal communication and expressing sensations as well as using facial expressions.
- Activity 3 Speed dating / fast track story making
  - Goal Critical listening & improvisation. An opportunity to get instant and accurate feedback from your peers, allowing you to make quick adjustments.
- Activity 4 Flash talk practice sessions

### Today – Flash talks Judging criteria

3 Minutes – No PowerPoint – only the props you carry on stage

- Content: needs to be factually correct and scientifically sound, but also well-chosen for a lay audience (not too obscure but not patronisingly simplified) and well structured as a "story".
- **Clarity**: as well as being understood, the subject should be put in context. Is this well-established knowledge, an exciting new piece of research, or a controversial theory?
- Charisma: do they make you want to watch and listen to them? Did the time fly by and were you sorry they had to stop?

#### Flash talks – score sheets

### Sample Score Sheet Name: Contestant # Marks / 5 Subject: content Comments: clarity charisma Total / 15 Response to Judges Questions:

#### This week: come and talk to me about

- FameLab International -
- Scientists and social media / blogging –

See e.g. "A scientist guide to social media" http://tinyurl.com/kwgzknr

- Public engagement opportunities / Resources See e.g. "Top Tips" http://tinyurl.com/lrld9ye
- Presentation techniques
- Science journalism

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