

# Good practice in science communication: A global perspective

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## Science communication is a powerful tool for public engagement



Effective science communication



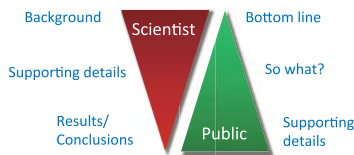
Moving away from a 'deficit' model towards actively engaging your audience

### 10 golden rules of science communication

#### 1. Define your target audience

There are many different stakeholders<sup>1</sup>. Be specific about who exactly you want to reach. Young people; older people? Science fans? Skeptics?

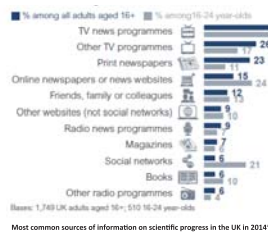
Fig. 1: Scientists communicate differently<sup>3</sup>



#### 2. Talk with your audience, not at them

Strive to bridge the gap between how researchers are taught to communicate and what their audiences want to hear<sup>2</sup> (Figure 1).

Fig. 2: There are many sources of science news



#### 3. Choose the medium to match your purpose

Different groups use different media<sup>4</sup>. Using this knowledge helps tailor communication channels to maximize impact (Figure 2).

#### 4. Learn from mistakes and successes

Use trial and error to determine what works for you. Learn from success stories from other institutions.

#### 5. Throw away the cookie cutter

There is no one-fits-all solution. Think outside the box and be creative in your approach<sup>5</sup>.

#### 6. Celebrate the human side of science

Scientists are human too. Raising interest in the people behind the science can translate into increased interest in the science itself. A good example is *"I'm a Scientist, Get me out of here"*, an online platform for students to vote for their favourite scientist<sup>6</sup>.



#### 7. Invite your audience to get involved

Emphasize audience participation and involvement, not static information. The Exploratorium in San Francisco<sup>7</sup> (USA) has been a widely recognized and award-winning<sup>8,9</sup> role model for successfully getting the public involved in scientific matters.



#### 8. Evoke emotions, stories and humor

Emotions are a powerful tool to grip your audience and keep them engaged<sup>10</sup>. *"Bright Club"*, an initiative from University College London (UK), aims to evoke positive emotions and make science fun. Researchers voluntarily become stand-up comedians and show the audience the humorous side of science. A true measure of the success of the programme is that the audience actually pays to see the show<sup>11</sup>.



#### 9. Harness the power of digital media

Technology is your greatest ally! Websites, social media, and mobile apps let you reach a wider audience and get your message across vividly. An institution's homepage is often the first point of contact with your audience.



#### 10. Be interesting

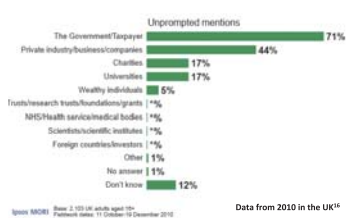
Effective science communication can rouse long-term interest, as exemplified by the Royal Institution's annual Christmas Lectures in London<sup>12</sup>. Running since 1825, they have become a global event, viewed by more than one million people worldwide<sup>13</sup> each year, with live repeats of the event held in different countries<sup>14</sup>.

### Why engage in science communication?

#### Engage or expire

Public engagement is now a necessity<sup>15</sup> and publishing papers in academic journals is no longer enough, particularly when the wider community sees science as being funded mainly by taxpayers' money<sup>16</sup> (Figure 3).

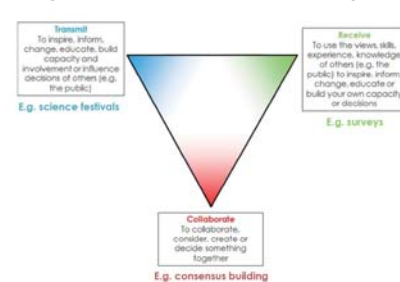
Fig. 3: Scientific research: 'publicly funded'



#### Build connections

Modern science communication has three important modes that help connect scientists to the wider community<sup>17</sup> (Figure 4):

Fig. 4: Science communication has three goals<sup>17</sup>



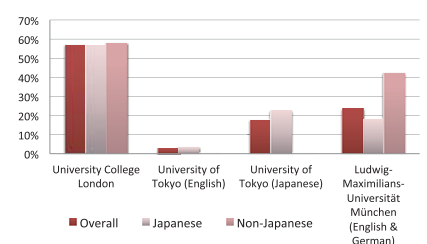
- Transmitting information to inspire, educate or encourage
- Receiving information and feedback from your audience
- Actively collaborating and involving your audience in the scientific process

### University homepages – Good, bad, ugly?

We asked a total of 81 people (62 Japanese, 19 non-Japanese) about the attractiveness of these institutional homepages:

- University College London (UK)<sup>18</sup>
- Ludwig-Maximilians-Universität München (Germany)<sup>19,20</sup>
- The University of Tokyo (Japan)<sup>21,22</sup>

#### Multimedia websites are more appealing



**Result:** The sites with more multimedia content and images were more popular.

- ↑ Multimedia content & images
- ↓ Text-heavy sites

#### What do you think?

Which homepage do YOU find most attractive?

Please take a sticker and vote in the boxes to the right!

