

Science communication

All scientists need to be good at communicating about their research with their fellow scientists and with people who need to make direct use of their work. Many become engaged with a much wider audience — both adults and young people.

The most obvious science communicators are those you meet on a routine basis in school — your **science teachers**. Maybe your school organises visits to hear from **science presenters**, such as Karen Bultitude (Box 1). Or you may have seen chemistry films in school made by **multimedia producer** Ted Lister (Box 2).

Some science degrees include a **science communication module**. There is one stand alone degree in science communication and policy. Find out more at www.ucas.ac.uk > *course search* > 2007 > *subject search* > s > *science* > *science communications*.

Box 1 Karen Bultitude: presenter and facilitator

If you have been to a science and technology show recently there is a good chance you might have seen Karen in action. She devises, develops and manages a wide range of projects that take science to public audiences. She presents spectacular popular science lectures such as *Cool Science* and *Our Planet — Our Future*. Or you might have seen her in the team of young female scientists competing in *Scrappy Races*, an extension of *Scrap Heap Challenge*. She also contributed to Einstein Year and took physics to Glastonbury Festival.

How did Karen get involved with this? She explains: *At school I got the opportunity during the holidays to attend science schools, both in Australia (where I grew up)*

and overseas. All sorts of activities were arranged for us, including lectures and tours by scientific experts in cutting edge research such as chaos theory and cosmology. I also met other young people who were interested in science, which reassured me that I was normal and not a freaky geek! When I started doing research myself I felt I owed it to the next generation of students to provide them with the same inspirational opportunities that I had received. And, of course, it's a lot of fun.

In 1999 Karen won a Commonwealth Scholarship to Oxford University where she was awarded a PhD in Atomic and Laser Physics in 2003. Now she works as a Research Fellow in the Graphic Science Unit at the University of the West of England in Bristol.



Karen demonstrating 'musical coat-hangers' at Glastonbury Festival. This trick works by hanging coat-hangers from people's index fingers with string then asking them to put their fingers in their ears. If you hit the hanger with a metal object they will hear a loud deep chime

Log on to www.prospects.ac.uk and enter *science communication* in the search box. Also try *education officers*, for companies and institutions.

There are no formal qualifications for the roles Karen and Ted describe in Boxes 1 and 2, but, in common with most people involved with science communication, they needed:

- a good understanding of the sciences (to degree level)
- the ability to express themselves clearly in both writing and speech
- a reasonable level of computer literacy
- the ability to get on with people and work both alone and as a member of a team

Other career options

Other possible occupations in science communication are listed below, along with links to websites where you can find out more about the opportunities available.

Science centres and museums

These often have interactive exhibits and activities. They are open across the UK and employ various people, including explainers, guides and designers of exhibits. You can explore a number of these at the

24 hour museum website (www.24hourmuseum.org.uk/trout/TRA11863.html).

Science drama groups

These develop and tour productions. Some, such as YTouring explore issues, others, such as Kinetic or Quantum Theatre groups, illuminate basic science. Their web addresses are in the margin.

Science writers

Science writers generate articles for newspapers and magazines, technical manuals and books. Log on to www.absw.org.uk and click on *So you want to be a science writer* to find out more.

Science broadcasting

As well as correspondents and presenters, producers generate programmes, such as *Tomorrow's World*, science documentaries and natural history programmes. To find out about some presenters' lives, log onto www.bbc.co.uk and then click on > *Science & Nature* > *TV & Radio Follow-up* > *Presenters*.

Nigel Collins teaches biology and is an editor of CATALYST.

- Log on to www.ytouring.org.uk and www.quantumtheatre.co.uk to find out more about these drama groups.

Box 2 Ted Lister: writer/video producer

Ted was a teacher for several years before he began to write articles and textbooks and was invited to become a founding editor of CATALYST. He sent one of his CATALYST articles to the *Education Guardian* and started writing for it. After a year's secondment to the Royal Society of Chemistry (RSC) to write a book of experiments for teachers, he was asked to produce a video and has continued to work for the RSC ever since. Ted describes what he does in more detail:

There is no simple job title for what I do, which is mostly producing material to help teachers to teach, and school students to learn, science — chemistry in particular. This is in a variety of media — print, video and interactive packages for computer. Increasingly it is the last two. I work closely with others — I cannot lay out a book, use a camera or program a computer but I work alongside people who can.

The job is very varied — one day at the computer, another out at a chemical plant with a film crew, another talking to scientists working at the cutting edge. (I once talked to three Nobel prize winners in a single day!)

There is no set route into this field — most of the people I know work on a freelance (self-employed) basis and work for several different organisations. I have done work for book publishers, the RSC, Corus (formerly British Steel), GlaxoSmithKline and many more. Working freelance does lack security but can be liberating in that you can work when and how you like.



Ted Lister receiving an award for a book he wrote for the Royal Society of Chemistry. His book, *Cutting Edge Chemistry*, won the 2001 British Book Design and Production award in the Educational/College Category