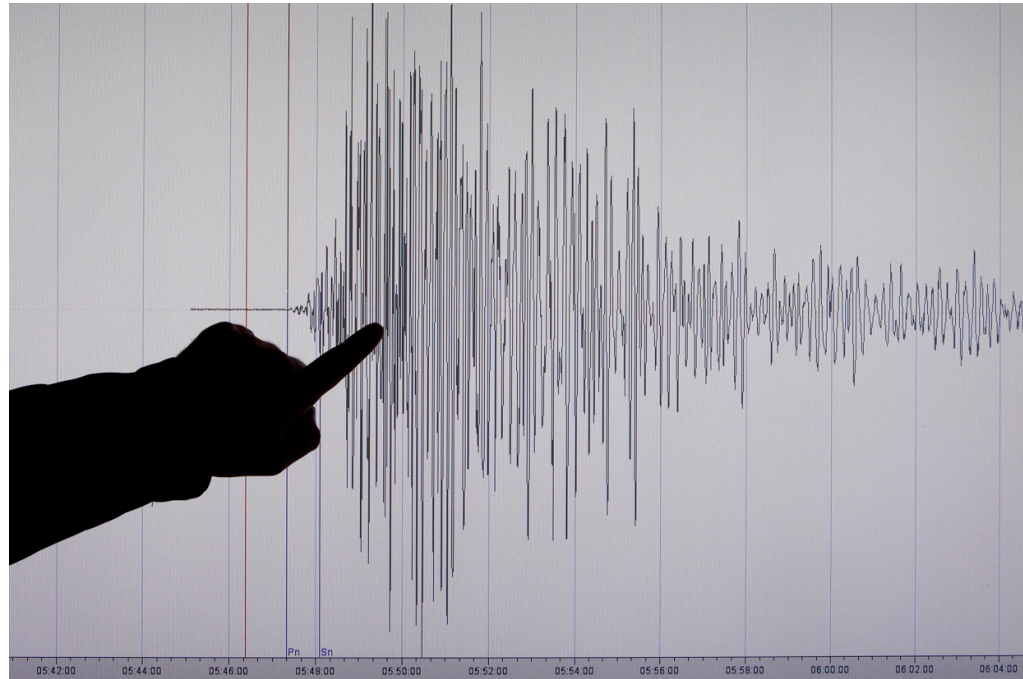
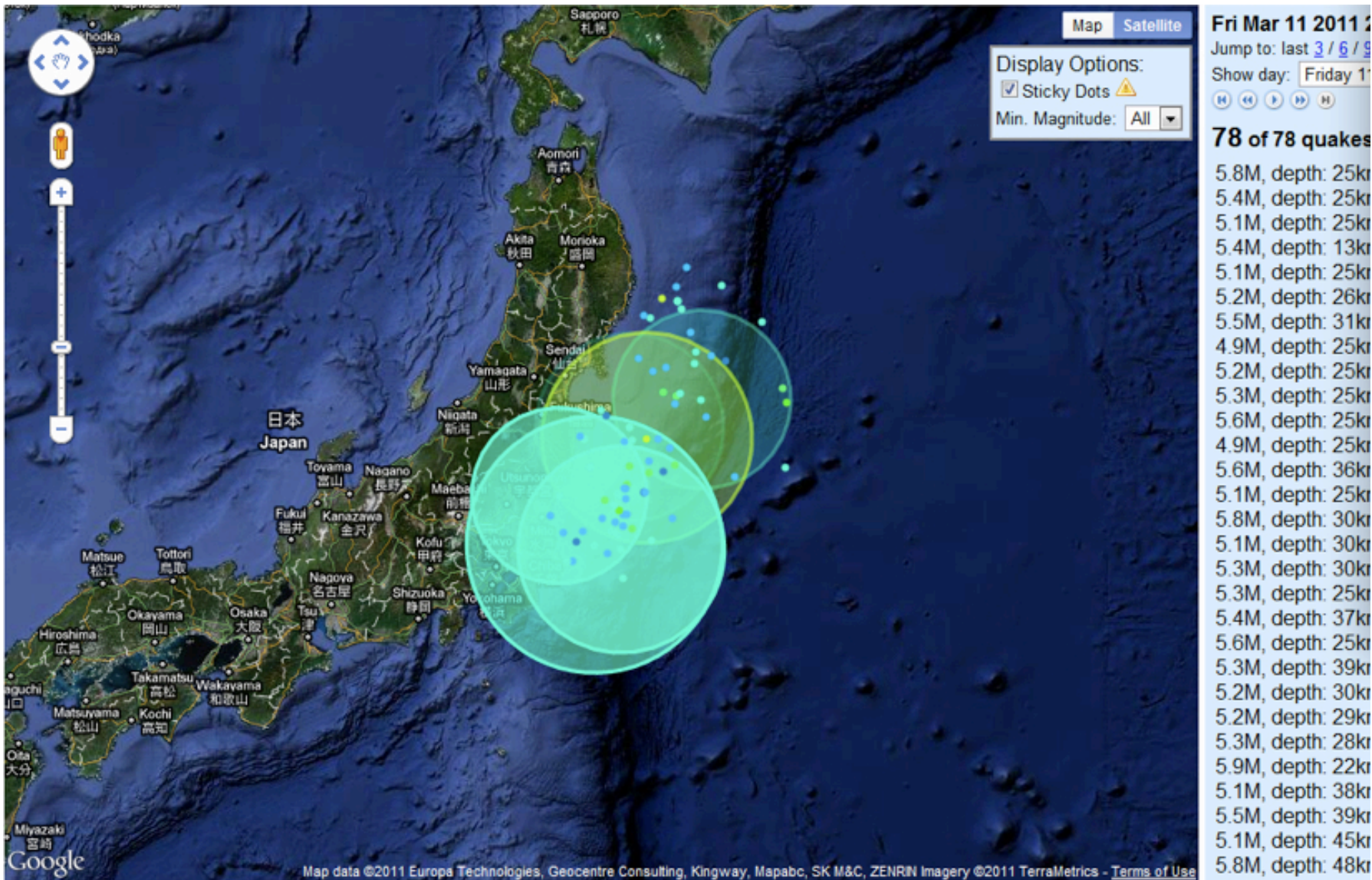


# Communicating science across fields



"We've arranged a global civilization in which the most crucial elements... profoundly depend on science and technology. We have also arranged things so that no one understands science and technology. This is a prescription for disaster. "

*Carl Sagan, The Demon-Haunted World: Science as a Candle in the Dark, 1997*





## Results for #tsunami

Tweets

Tweets with links

Tweets near you

People



**thiagomfc** Thiago Cavalcante

Bom dia galera. Hoje começamos com a notícia do maior terremoto da história do Japão. <http://fb.me/Tuyh1uBX> #tsunami

1 minute ago



**MuslimMatters** Muslim Matters

#Tsunami warnings world-wide: California, Taiwan, Hawaii, Indonesia, Philippines, #Japan, more. If u live on coastal area, turn on news.

1 minute ago



**takaosaito** Takao Saito

Next to Tokyo, in Chiba prefecture, Mineral oil refinery plant is having fire. #prayforjapan #tsunami

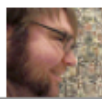
1 minute ago



**NicolaSchmidt** schmidt nicolas

AlJazeera's live coverage of the earthquake in Japan <http://bit.ly/eA542l> #japan #earthquake #tsunami

1 minute ago



**dieselboi** dieselboi

Tsunami sirens going off every hour at :15 The hwy in front is the line, so we are in the safe zone #tsunami



No need to reload, updates automatically.  
Follow @BBCWorld on Twitter

**1055:** Roland Pease from the BBC Science Unit says: "I doubt scientists have ever had images like this showing the waves of water and debris, and they will be looking at them closely to find out more about these events."

**1053:** Stuart Weinstein, from the PTWC, tells the BBC World Service that coastal areas of Hawaii have been evacuated. He says Hawaii could be hit by a wave of up to two-metre high. He adds: "For South America, we are looking right now at a height of between half-a-metre and a metre, for some places on the US West Coast it might be around a metre."



**1046:** **tokyoreporter** tweets: "NHK showing massive cracks in pavement, extensive external building damage in Sendai."

**1043:** Shola Fawehimni, who is at Hokkaido's airport in northern Japan, says: "It was a bit surreal. The chairs and the floor started moving and swaying. I wasn't really sure what was going on. Then the building started swaying and I realised it was an earthquake. Some ceiling panels fell down."

**1034:** The UN nuclear watchdog, the IAEA, says four nuclear power plants closest to the earthquake's epicentre have been shut down



BGS in the media : New Zealand earthquake: build

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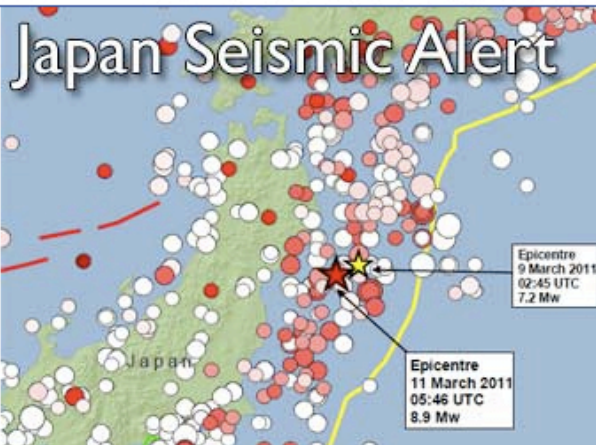
Popular geology

Free resources for teachers and students. Britain beneath our feet, geological timeline & timechart, Make-a-map, historical photographs more...



SEISMIC ALERT: Honshu, Japan Earthquake | Magnitude 8.9 | 11 March 2011 05:46 23.0s UTC 8.9 Mw

More about the Japan earthquake



Quick links

- Downloads
Earthquakes
Hosted websites
National Geoscience Data Centre (NGDC)
Gilmerton | Relocating core
Online data — GeoIndex
Online shops
OpenGeoscience
Recent publications
Vacancies

Latest news

- SEISMIC ALERT: off east coast of Honshu, Japan 11 March 2011 05:46 UTC 8.9 MW
Ukrainian State Geological Research Institute sign an MU with BGS
BGS geologist caught up in Christchurch earthquake
Appointment of Dr Mike Patterson
SEISMIC ALERT: South Island, New Zealand 21 Feb 2011 23:51



Academics & researchers

Online databases, paper records, laboratories. Map, fossil and core collections ...



Businesses & consultants

Site specific reports, geohazard data and advice ...



For everyone

What is the BGS? Free downloads. Buy books, maps, reports ...



News summary



Government & agencies

International to local government. Data and consultancy ...



Homeowners

Subsidence, ground conditions, radon reports ...



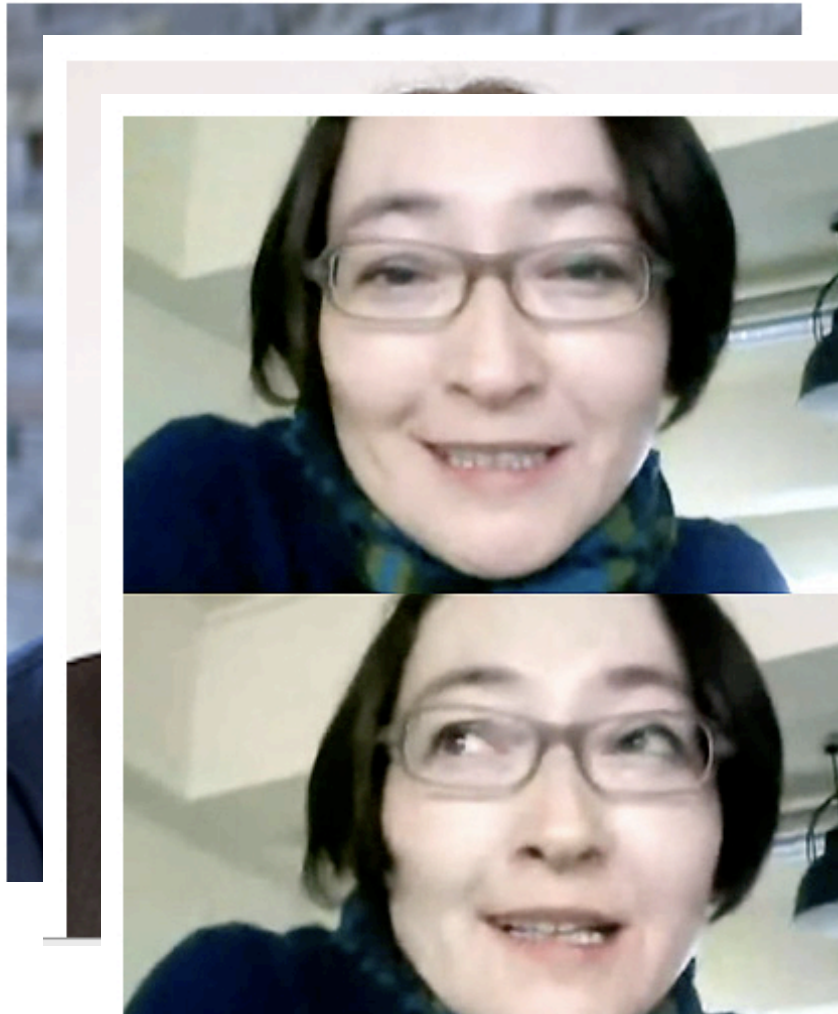
Teachers & students

Educational resources. Free downloads, fossils, earthquakes, volcanoes ...



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# The public assesses the experts



**Ranga Yogeshwar, Physiker**

**Michael Sailer, Chemiker**

**Lisa Eidt, Tokio-Bewohnerin**

Expertise: Fachlich null, in Alltagsfragen hoch. Fährt die U-Bahn? Fließt der Strom? Das weiß nur Eidt.

Präsenz: Auf den tapferen Tokio-Bewohner kann keine ARD-Talkshow verzichten - aber jeder kommt nur einmal dran. Zur Not zweimal.

Verständlichkeit: Einige Skype-Macken, aber Eidt ist präzise - und gut gelaunt.

Glaubwürdigkeit: Hoch. Die Halb-Japanerin Eidt schaut Japan in die Seele.

**Zum Thema**

.....  
› FAZ.NET-Sonderseite: Katastrophe in Japan





"Science, if it can deliver truth, cannot deliver it at the speed of politics."

*H. Collins/ R. Evans, Rethinking Expertise, 2010*



# Expertises

How we participate in expert knowledge:

general public			specialists	
beer-mat knowledge	popular understanding	primary source knowledge	interactional expertise	contributory expertise
			<i>science communicator</i>	<i>scientist</i>

How we assess the expert:

external		internal		
general	local	technical connoisseurship	downward discrimination	referred expertise

*H. Collins/ R. Evans, Rethinking Expertise, 2010*



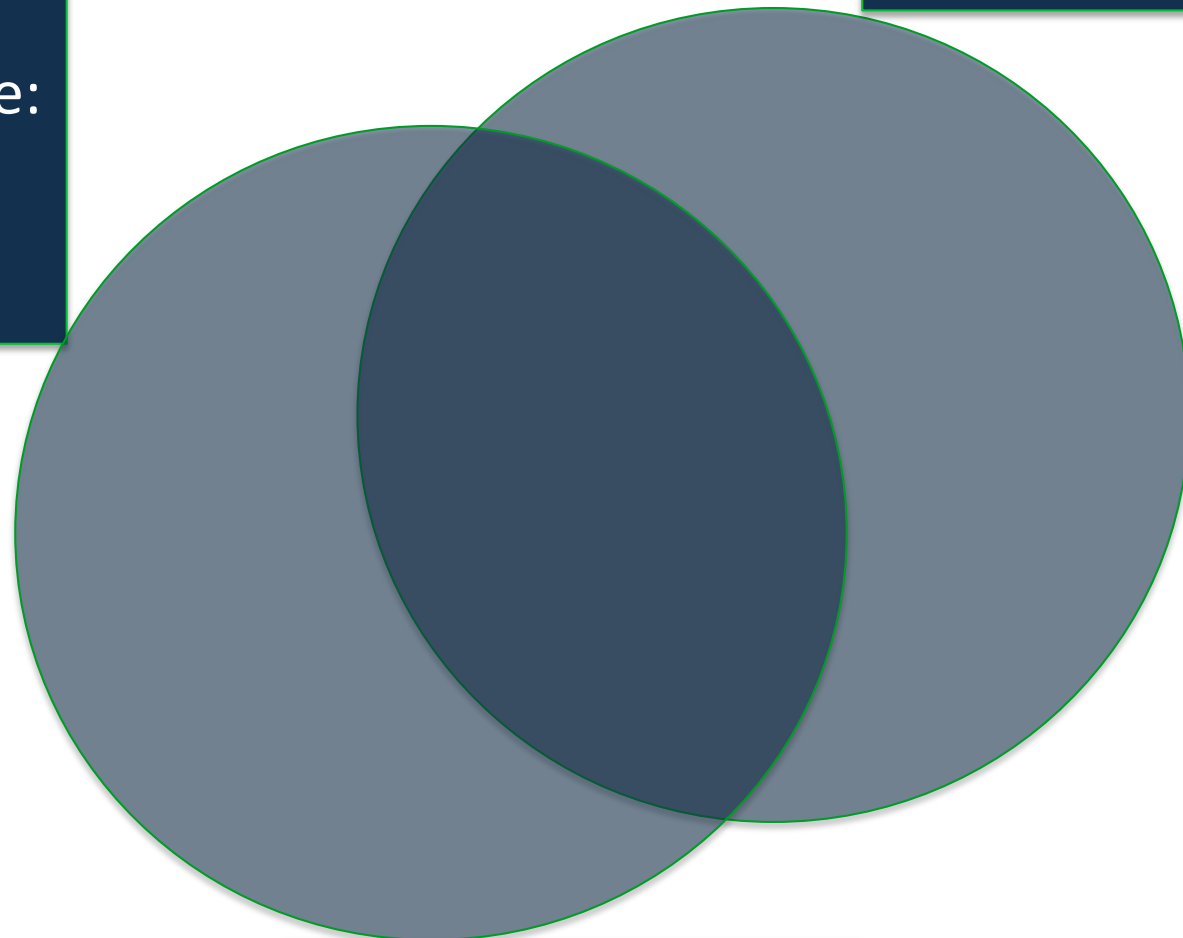
"Thought is not merely expressed in words;  
it comes into existence through them."

*Lev S. Vygotsky, Thought and Language, 1934*

# A meeting of minds

contributory  
expertise:  
The scientist

interactional expertise:  
The science  
communicator



interpersonal ability  
reflexive ability



# Points of reference

## Scientists:

- Background comes first
- Facts in context follow
- Scientific information is inherently uncertain
- Technical issues are complex

## Science communicators:

- Facts come first:  
What is the discovery?  
What does it mean?  
How important are the facts?
- Background follows
- Able to communicate technical issues in plain English

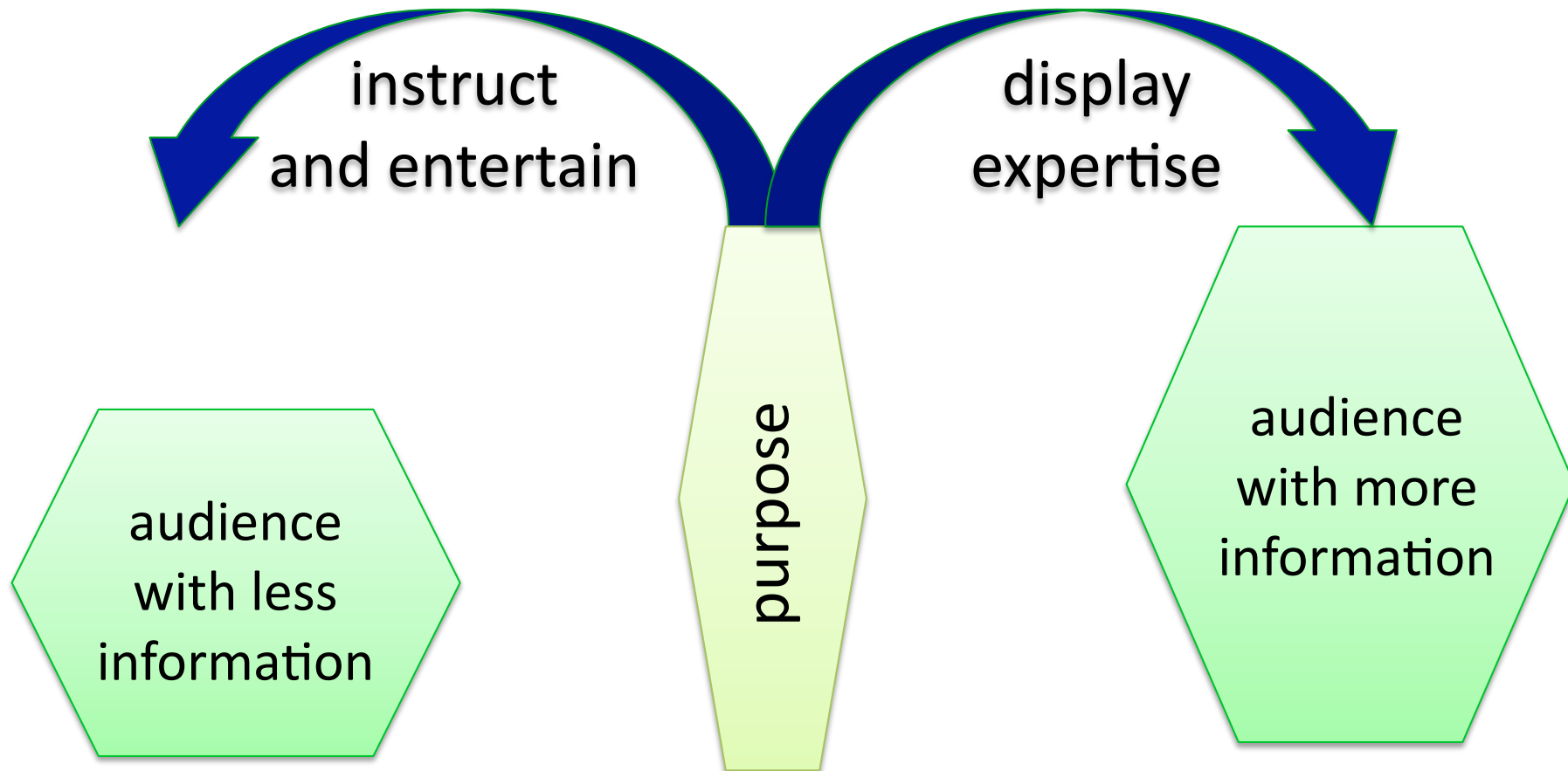
The science communicator asks the scientist:

# What is your research about?

- What is your hypothesis?
- Please sum up the major/preliminary finding of your work in one sentence.
- What motivated you to explore this subject?
- Does it relate to any major event known to the public?
- How will the results affect the public, immediately/ in the long term?

*Kristine Kelly: Translating Science. From Academia to Mass Media to the Public. 2010*

# Communicating to an audience



general public — policy makers — scientists in related areas — reviewers — instructor



# Your poster text should contain

**title and authors**

**methods**

**abstract – including key points  
from your interview**

**results**

**relevance**

**acknowledgements – people and funding**