A Journalist's Perspective on Communicating Environmental Risk

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Journalism: The answer!
(deficit model)

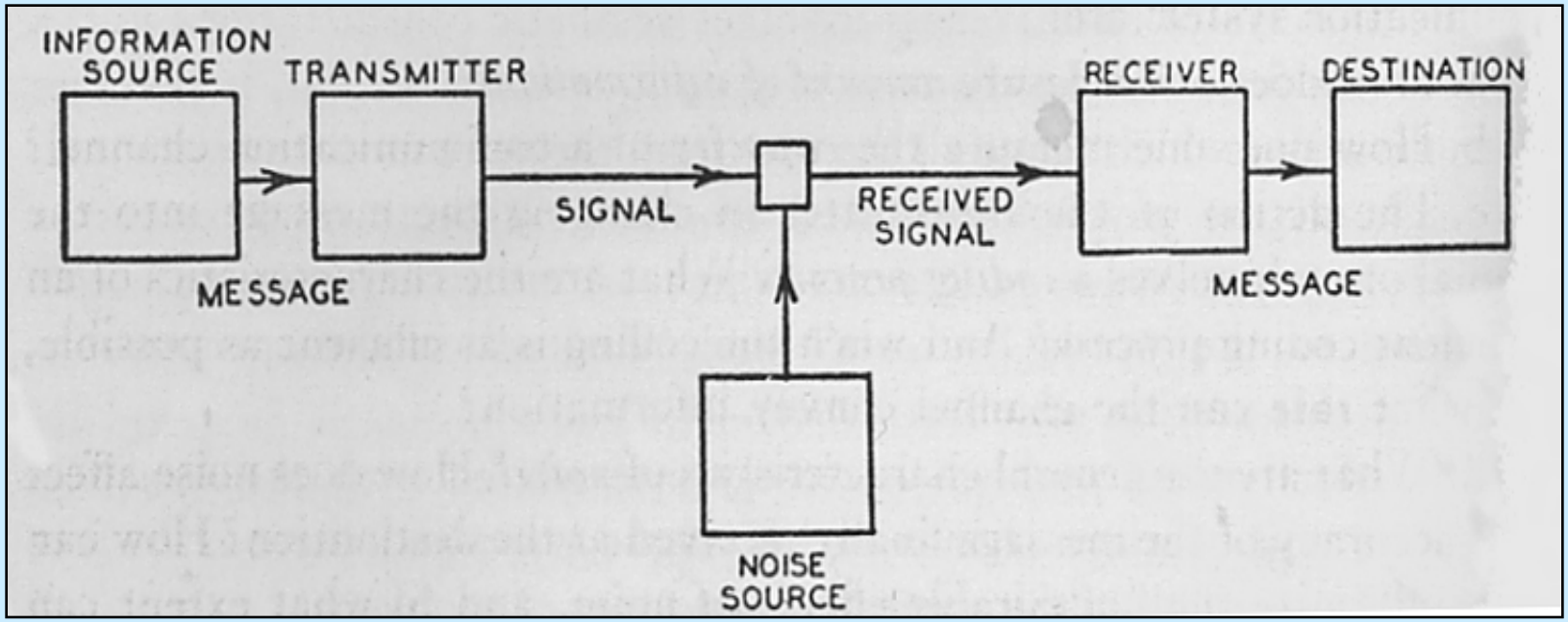
Journalist/Environment Reporter

Problem: Lay audiences do not understand the technical language of science

Strategy: Journalists act as “translators”

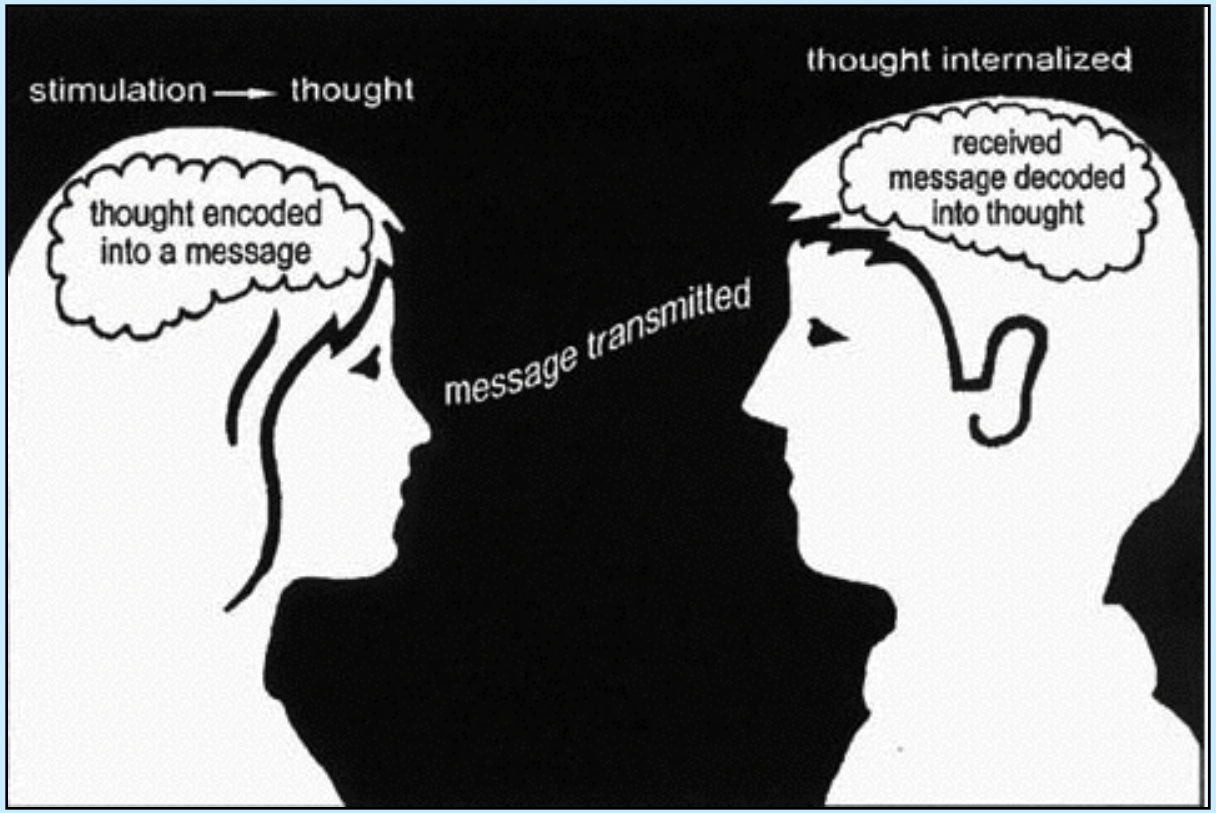
- Translate science content into plain language
- Use analogies to connect the familiar with the unfamiliar
- Preserve accuracy of science content
- Do not exaggerate or distort
- Tell an engaging story

The transmission or “deficiency” model



Shannon and Weaver, 1949

A powerful hold…



Better journalism is the answer!
(still the deficit model)

Science Writer and Public Information Officer

Problem: Lay publics are irrational about risk

Strategy: Provide better context for risk information; provide scientists with media training

Provide risk comparisons (carefully!)

- compare similar risks
- compare risks to benefits
- do not compare voluntary to involuntary risks

Provide concentration analogies (carefully!)

- 1 ppm = 1 drop of water in an Olympic pool

Journalism on the side
(contextual or deliberative model)

SRP Outreach PI, science communication scholar (student)

National Research Council Report

"The view of risk characterization as a translation or summary is seriously deficient…. Risk characterization should not be an activity added at the end of risk analysis."

"We envision a process in which the characterization of risk emerges from a combination of analysis and deliberation."

"Understanding Risk: Informing Decisions in a Democratic Society"
National Academy of Sciences
National Research Council
1996

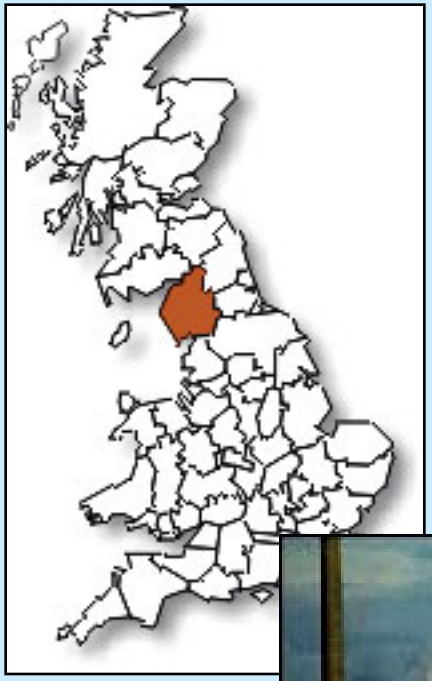
Problem: Scientists and communities represent different cultures; their understanding of what matters in terms of environmental risk reflects valid differences in values

Strategy: Facilitate dialogue between scientists and communities; construct risk characterizations through deliberation.

The legacy of a copper mine

Elizabeth Mine
Strafford, Vermont

Case study: sheep farmers after Chernobyl



Sheep farmer study: Lessons learned (same lessons in Vermont!)

- People actively interpret risk information
- Social and historic context are critical
- Uncertainty is inevitable
- Credibility and trust are fundamental
- Questions of environmental risk reflect cultural values and concerns

The limits of journalism (contextual model)

SRP OU/RTC PI, science communication scholar (student)

How environmental risk becomes a “story”

Is there something *new* to say?

Can it *compete* successfully with the “noise”?

Can it be told through a *personal experience*?

Will our audience find it *relevant* or *meaningful*?

Does the story *conform* with a cultural archetype?

Is it happening *nearby*?

Is there *conflict*?

Is it *entertaining*?

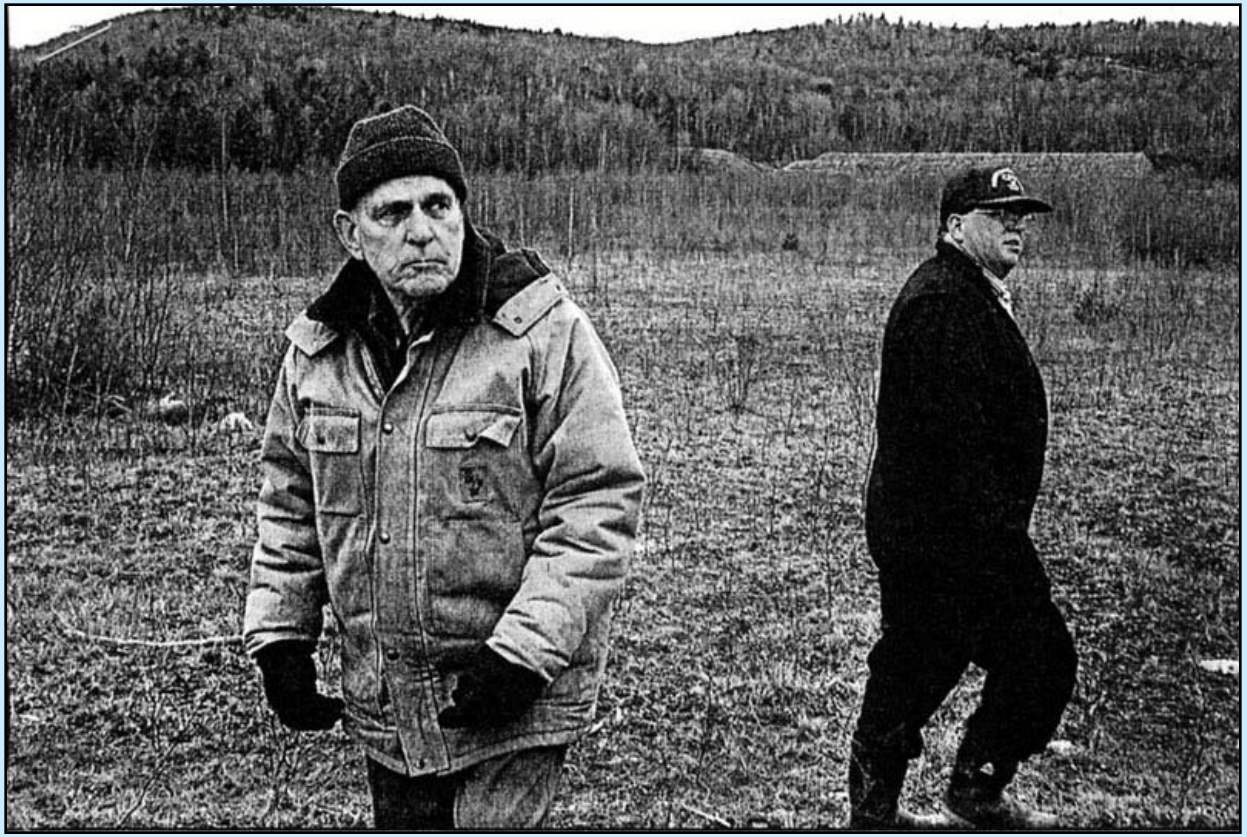
Are there *pictures*?

VALLEY NEWS

THE NEWS SOURCE OF THE UPPER VALLEY

April 27, 2000

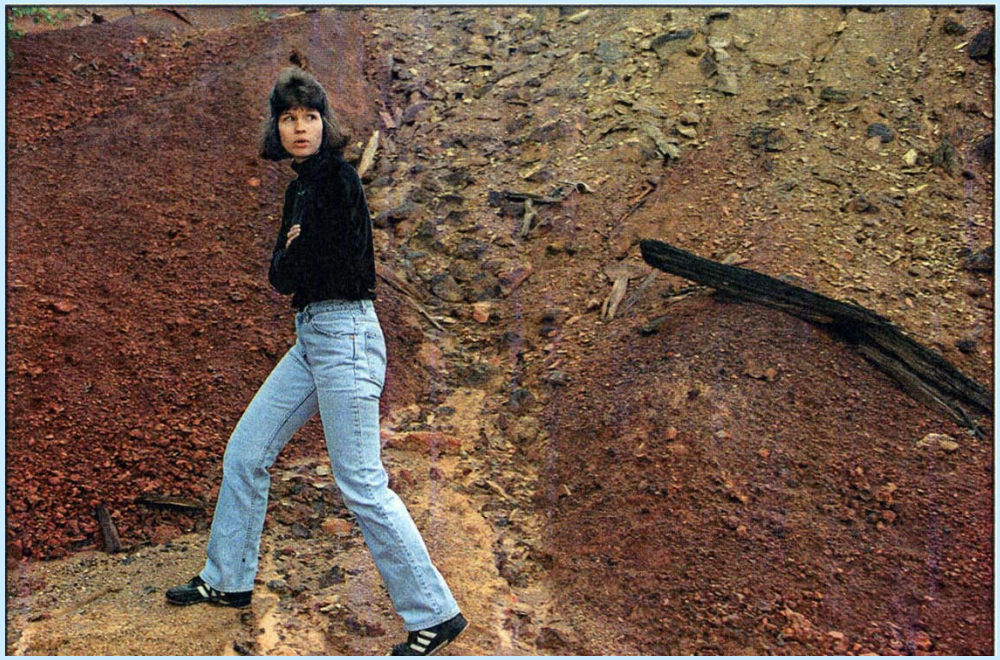
Neighbors Fear Mine is ‘Poisoning Us’



July 9, 2000

Old Mine’s Prospects Uncertain

Health Effects and Superfund Designation Among Debated Topics in Strafford



Alternatives to traditional journalism (contextual, constructivist model)

SRP OU and RTC PI, science communication scholar (student)

Community Advisory Group site launched

http://www.dartmouth.edu/%7Ecehs/CAGsite/index.html

Problem: Audiences for risk information don’t “receive” messages, they interpret them. Audiences construct understanding out of what they have experienced or what they already know.

Strategy: Communicate with (not to) the audience!

- Involve those concerned
- Do formative research about the audience
- Test messages empirically
- Iterate

On the horizon?

- “Improv” training to help scientists become more responsive to audiences (Stony Brook)
- Science communication training for graduate students (Stanford, Dartmouth)
- Research on “framing” of key issues and associated training of scientists and other communicators (Nisbet et al)