



Understanding How Citizens Make Sense of Science



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Lecture overview

Objectives and approach

Sense-making as an approach to researching citizens' perceptions of science communication

Personal situation trumps information

Understanding the unknown

Bridging strategies and sources

Outlook: Developing strategies for science communicators to open up sense-making

Objectives and approach

Investigate challenges that occur at the science–society interface and consequences for science communication

Show the diversity of mechanisms that play a role in citizen sense-making practices

Context of **citizens' sense-making**: Case of the COVID-19 pandemic >> Situation raises **questions for citizens**:

- Which information is true, flawed or even false?
- Which actors can I trust to determine what is true?
- Will containment measures be effective, and are such measures proportional and legitimate?

Objectives and approach

Methodological approach:

Semi-structured interviews (n = 81)

Eight European countries (Germany, Italy, the Netherlands, Poland, Portugal, Serbia, Sweden and the United Kingdom).

First wave of the pandemic.

Explore various ways in which European citizens make sense of science.

How do 'lay' audiences understand, perceive and interpret science communication in their everyday practice?

Sensemaking as an approach to research citizens' perceptions of science

Sensemaking is the process through which people create an understanding of situations they find themselves in (Fiss & Hirsch, 2005; Zhang & Soergel, 2014).



Sensemaking as an approach to research citizens' perceptions of science

1. individuals confronted with a complex, ambiguous issue relating to science



individuals facing a gap

Micro-moment

2. 'fill' this gap by using and rejecting previous and actual information and knowledge



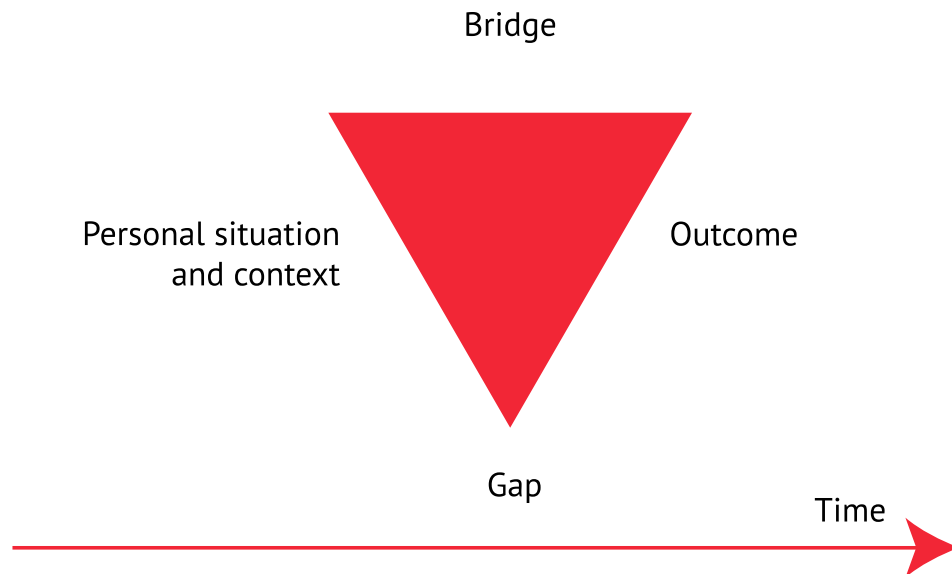
build bridges over the gaps

3. bridge building influenced by individual situation and context



in which a momentary understanding of the particular issue is formulated; perception of reality is neither complete nor constant

Sensemaking as an approach to research citizens' perceptions of science



Micro-moment triangle illustrating the five dimensions of the sense-making process as represented in the SMM (Sense Making Methodology) (modelled after Reinhard & Dervin, 2011).

Personal situation trumps information

Importance of the **personal situation** for making sense of science communication (context of COVID-19)

- the own affectedness
- the perceived vulnerability
- social context

Personal situation shapes

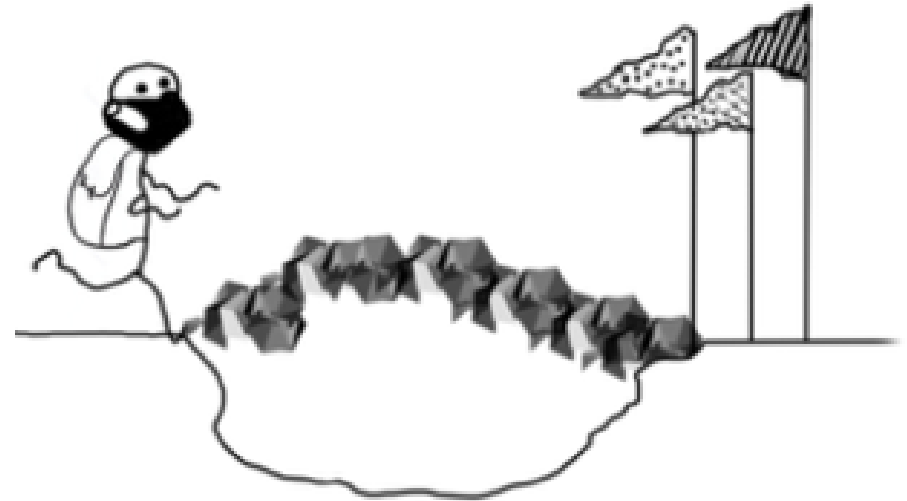
- gaps perceived
- bridging strategies employed
- outcomes reached

Implication for the practice of science communication:
Personal situation can outweigh information and insights provided by science communicators.

Understanding the unknown

Kinds of gaps:

- fundamental **uncertainties**
→ participants continuously confronted with new information
- **Ambiguities**
→ interactions with others



Bridging strategies and sources

1) Different worldviews

- *a priori* beliefs and ideas about institutions (i.e. society, government, experts and the media)
- connected to level of trust in institutions

2) Use of information

- passively or actively received information
- reference to science communication outlets limited,
- personal information (e.g. by friends and family) more important

3) Emotions

- mostly negative emotions: anxiety, anger, frustration
- occasionally positive emotions (for making the situation manageable)

Outlook: Developing strategies for science communicators to open up sensemaking

A better understanding of sense-making practices can enable the formulation of science communication strategies tailored to various sense-making styles and local contexts and communities, with the overarching aim of contributing to a constructive public dialogue on science.

- Enable science communication to take sensemaking practices of citizens into consideration.
- Facilitate science communicators to connect to citizens' underlying values, emotions and world views of science.
- Develop **reflective practices of science communicators** (Roedema et al., 2021; Schön, 1983).

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Thank you for your attention!



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