

Citizen science and science communication

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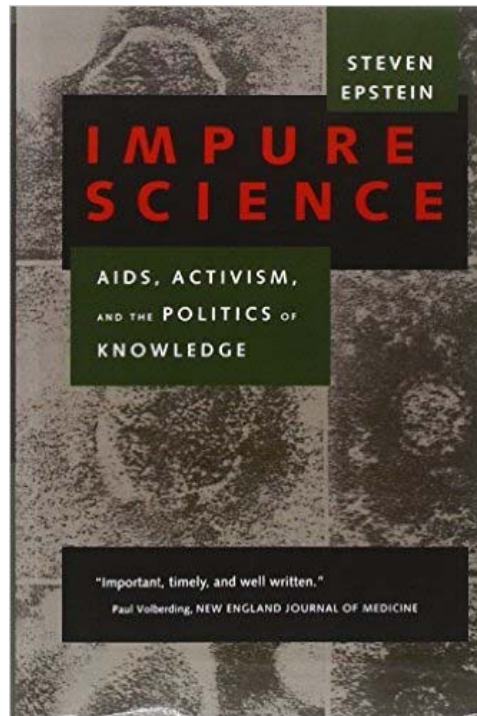
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What is the place of citizen science in the ecosystem of public communication of science?

**What is *citizen
science*?**



*Contributory citizen
science*



*Democratized citizen
science*

Scientists

Communication



Public

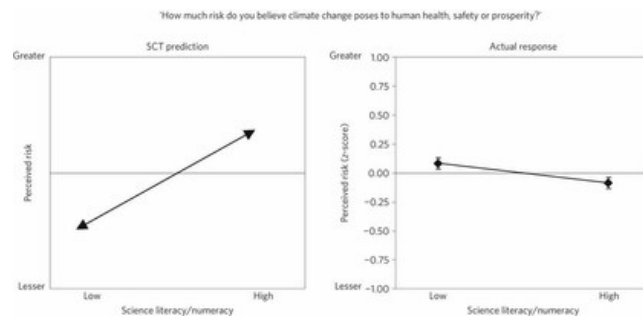


Scientific literacy

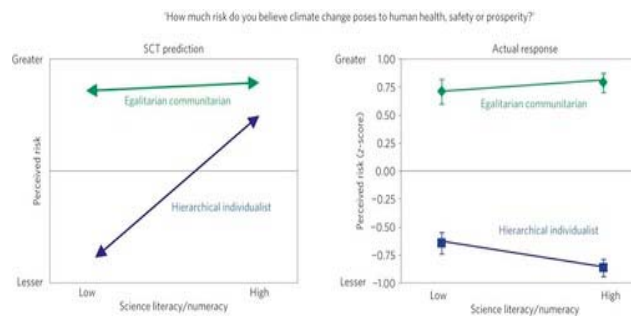
Radioactive sheep «crisis»



Lay knowledge is not an
impoverished or
quantitatively inferior version
of expert knowledge; it is
qualitatively different



Kahan et al., 2012: Contrary to deficit model predictions, higher degrees of science literacy and numeracy are associated with a small decrease in the perceived seriousness of climate change risks.



Kahan et al., 2012: Contrary to deficit model predictions, highly science-literate and numerate hierarchical individualists are more sceptical, not less, of climate change risks..

“The public divisions over climate change stem not from public’s incomprehension of science, but from the agreement with the dominant view of their cultural group”

**Knowledge is filtered
by way of an
individual's social
and political identity**

Some points

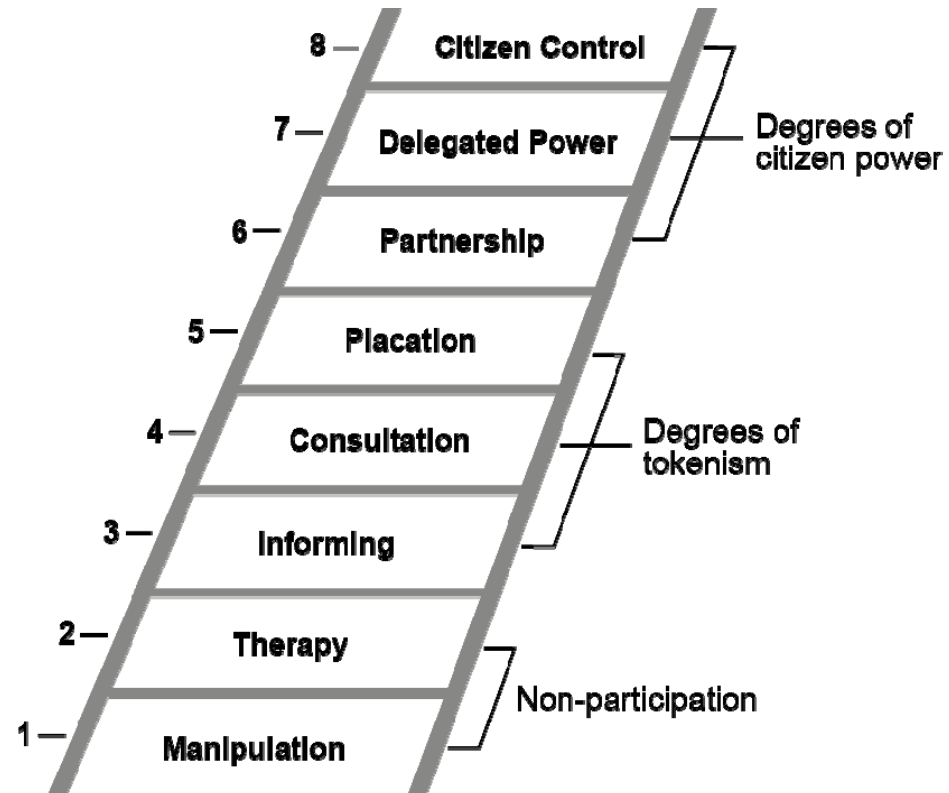
- Citizen science is about the relationship between science, democracy and expertise;
- The different strands of citizen science can come together;
- Citizen science has dramatically expanded through the use of the Internet and digital technologies.

**What is the role of
communication in
citizen science?**

Science communication is built in citizen science projects:

- To recruit **participants**;
- To explain the **scientific process**;
- To present the **results**.

**Motivation,
education,
democracy**



The ladder of citizen participation

Some results from research at the intersection of citizen science and science communication

- Citizen science succeeds when it is *real* science;
- One kind of learning that citizen science offers is not about science, but about **citizenship**;
- The shift to digital forms of citizen science shows more clearly that **the demarcation line** between certified experts (professional scientists) and lay people (non-scientists) is blurring;

**Digital media enable new social inclusion
spaces for both **production**
that for the **appropriation** and
assessment of knowledge**

Science outside institutions



The biohackers represent a bottom-up approach to science that combine practices of amateur marginalized amateur research with current trends towards Open Science, Open Source, Open Data

New online platforms to evaluate and discuss scientific publications



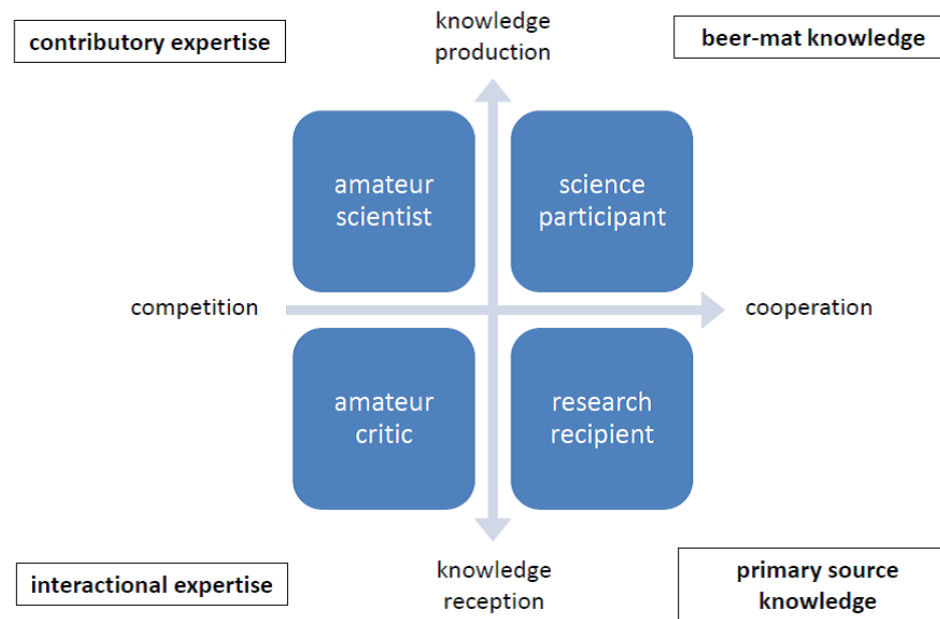


Figure 1. Inclusion space of non-certified expertise.

«The digital world brings new forms of co-construction of knowledge, which include a broad range of people regardless of their professional affiliation to the system of production, appropriation and assessment of knowledge»

Dickel, S. and Franzen, M. (2016). 'The "Problem of Extension" revisited: new How to cite modes of digital participation in science'. JCOM 15 (01), A06_en

“The book’s central proposition is that educators and researchers can be much more effective if they know more about how people think and learn about science”

Luigi Ceccaroni and Jaume Piera (2016) (eds.), *Analyzing the Role of Citizen Science in Modern Research*, Information Science Reference, pp. XX

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