Can we develop a manual to assist the responsible generation and use of science as policy advice?

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4 ethical challenges at the science-policy interface
dealing with ‘complex problems’
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\textit{dealing with ‘complex problems’}

\textbf{constructing credible hypotheses}
\textit{with regard to the feasibility and reliability of specific technological ‘solutions’}

\textbf{dealing with moral pluralism today}
\textit{with regard to the technological choices we need to make}

\textbf{dealing with pressure from politics and the market to deliver evidence}
\textit{that cannot (always) be delivered (yet)}

\textbf{dealing with moral authority over the next generations}
\textit{because we cannot communicate and reason with them}
Theoretical approaches

aiming to address these ethical challenges
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→ concepts, dynamics, paradigms and fashions of ‘advanced knowledge generation’

participatory technology assessment (PTA) / transdisciplinarity (TD) / postnormal science (PNS)
Theoretical approaches
aiming to address these ethical challenges

→ concepts, dynamics, paradigms and fashions of ‘advanced knowledge generation’

participatory technology assessment (PTA) / transdisciplinarity (TD) / postnormal science (PNS)

☑ all have in common that they start from the recognition that
  - ‘traditional science’ relying on techno-scientific methods, models and numbers alone cannot longer do the job
  - science as policy advice should also be inspired by ethical reflection and that it should integrate (through social sciences and humanities approaches) recognition of uncertainties, value-based arguments and interests of various stakeholders and the future generations

☑ emerged post 1970’s on, also stimulated by ecological awareness and sustainability and social justice thinking
  no paradigm shift, but a slow push-pull process
Theoretical approaches aiming to address these ethical challenges put in practice
Theoretical approaches aiming to address these ethical challenges put in practice what ‘is’ participatory technology assessment, transdisciplinarity or post-normal science?
Theoretical approaches aiming to address these ethical challenges put in practice

what ‘is’ participatory technology assessment, transdisciplinarity or post-normal science?

→ Participatory technology assessment, transdisciplinarity or post-normal science put in practice is simply people with different interests, expertise and backgrounds engaging in a dialogue that would never happen in traditional science and policy settings and that generates new knowledge and insights that would otherwise never have existed

☒ The preparedness of each of them to engage in that dialogue is motivated by the insight that this dialogue will serve a common goal: effectively dealing with a complex problem that affects us all
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however The possibility and effectiveness of these advanced approaches of knowledge generation not only depend on the preparedness of the scientific community, stakeholders, citizens and policy makers to engage in that dialogue, but also on their possibilities and capabilities to do so.
Theoretical approaches
aiming to address these ethical challenges put in practice

What do we have already?

there is growing awareness of the need for and added value of public participation (of informed civil society & citizens) in decision making, although one has to acknowledge that the possibility of participation still depends on the goodwill of political power holders.

growing awareness of the need and added value of doing science differently (through PTA/TD/PNS), although still mainly only among those social sciences and humanities researchers concerned with the issue.
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do we need manuals? checklists? rulebooks that can inspire and assist **putting PTA / TD / PNS in practice**?

SSH research has inquired into and proposed various practical approaches, and puts them in practice for the sake of its own research and at the service of policy advice.

ref UNU Participatory Methods Toolkit (emphasis on participation, not on advanced science methods)
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But ... what’s the use of a manual for someone who doesn’t understand / sees the need of / feels threatened by the machine?
The importance of perceiving practical approaches from an ethical capability-possibility framework
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→ Re-interpretation & ‘extension’ of the capability approach (Sen – Nussbaum)

capability approach [1]:
- the freedom to achieve well-being is of primary moral importance
- well-being should be understood in terms of people’s capabilities and functionings

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participation The possibility to contribute to the social dialogue (as a ‘democratic right’)

The capability to contribute to the social dialogue (as a right to learn)

capability to gain insight and think critical
to be vocal, raise concerns, formulate ideas
to care for precaution and other ethical values

Possibilities and capabilities are no unrelated concerns that should be addressed separately

The importance of perceiving practical approaches from an ethical capability-possibility framework
The importance of perceiving practical approaches from an ethical capability-possibility framework as a contribution to the social dialogue to care for precaution and other ethical values to be vocal, raise concerns, formulate ideas to gain insight and think critical capabilities possibilities to be able to contribute to the social dialogue
The importance of perceiving practical approaches from an ethical capability-possibility framework

applicable to political decision making science for policy advice education

capabilities
\[ \rightarrow \]
- to gain insight and think critical
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as a contribution to the social dialogue
\[ \leftarrow \]
- to be able to contribute to the social dialogue
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reflexive (self)learning processes that can feed into and inspire each other

possibilities

possibilities

capabilities

capabilities

education

science

politics
The importance of perceiving practical approaches from an ethical capability-possibility framework

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education

SHARE
The importance of perceiving practical approaches from an ethical capability-possibility framework

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There is a need to focus on a care for capabilities and possibilities in science education in the general interest of better dealing with complex problems in the specific interest of ‘successful’ advanced knowledge generation (PTA, TD, PNS) for policy advice, taking into account the 4 ethical challenges:

- constructing credible hypotheses
- dealing with moral pluralism today
- dealing with pressure from politics and the market to deliver evidence
- dealing with moral authority over the next generations
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Only then manuals for advanced knowledge generation can be made together.

The social science and humanities and ethics research community is the best breeding ground for reflections on the why and how of possible reform of education in that sense.

An invitation to SHARE to consider its possible role in this.