Epistemic Responsibility in Socio-Technical Epistemic Systems

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KNOWING TODAY
• In knowing, we rely in numerous more or less transparent ways on other agents, human agents as much as non-human agents, infrastructures, technologies.

→ However, this socio-technical entanglement in knowing is philosophically still only poorly understood.
Epistemic Responsibility: Background

- Research Project on „Epistemic Trust in Socio-Technical Epistemic Systems“ (Austrian Science Fund)
  - Relationship between trust and knowledge, between trust & vigilance, responsibilities of different human and non-human agents

- Onlife-Initiative (EC INFSO)
  - The Onlife Initiative - Concept Reengineering Exercise intends to explore the extent to which the digital transition impacts societal expectations towards policy making.
Epistemic Responsibility

- How do we trust to know – and how should we trust to know in socio-technical epistemic systems?
- What could epistemic vigilance mean – on the web and elsewhere?
- What are the epistemic responsibilities of different agents, e.g. of designers or users of search engines or recommender systems?
- How should concepts such as agency, accountability and responsibility in socio-technical epistemic systems and their epistemic counterparts be understood in the first place?
• **Goal:** explore the requirements for a concept of epistemic responsibility that can account for the responsibilities of different (human and non-human) agents within entangled socio-technical epistemic systems.

• **Valuable insights from**
  - research on *(distributed) moral responsibility in philosophy of computing*
  - research on *epistemic responsibility in (social) epistemology*
  - research on *distributed or entangled responsibility in feminist theory*
Insights from Philosophy of Computing
Epistemic Responsibility: Philosophy of Computing/Law

- Research on:
  - Moral & Legal Responsibility
  - Responsibility, Accountability, Liability
  - Responsibility, Agency & Intentionality
  - Distributed Morality

- Drones
- Robots
- Unmanned vehicles
- Software
- SNS
- AA
Epistemic Responsibility: Philosophy of Computing/Law

• Research on:
  – Moral & Legal Responsibility
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  – Responsibility, Agency & Intentionality
  – Distributed Morality
Floridi & Sanders’s concepts of agency & mind-less morality

- Agency requires interactivity, autonomy, adaptability - not required: intentionality, free will...
- Accountability requires only agency
- Responsibility in addition to agency requires also intentionality

→ (Simple) Technical artefacts – in isolation – can at best be accountable, but not responsible. For responsibility some human agents has to be present (within a socio-technical compound)
• **Useful insights on:**
  – Moral & Legal Responsibility
  – Responsibility, Accountability, Liability
  – Responsibility, Agency & Intentionality
  – Distributed Morality

• **Missing:**
  – Epistemic responsibility as specific responsibility of knowers/epistemic agents
Insights from Social Epistemology
Epistemic Responsibility: Social Epistemology

- **Research on:**
  - Epistemic trust, epistemic authority, epistemic injustice, epistemic responsibility, …

- **Problems:**
  - Strong focus on testimonial exchange between speaker and hearer
  - Responsibility: as duties for giving reasons or for accepting testimony
  - Neglect of socio-technical embeddedness of most epistemic practices
My Claim:
- Processes of knowing take place in increasingly entangled systems consisting of human and non-human agents, systems in which epistemic content from multiple sources gets processed, accepted, rejected, modified in various ways by these different agents.

Task
- Develop a notion of epistemic responsibility that can account for this!
- i.e. put technology into the equation
- i.e. address the relationship between knowledge and power
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Insights from Feminist Theory
Epistemic Responsibility: Feminist Theory/Code


- Critique of:
  - unconditioned subject S who knows that p, “the abstract, interchangeable individual, whose monologues have been spoken from nowhere, in particular, to an audience of faceless and usually disembodied onlookers” [13:xiv],

- Emphasis on
  - social, i.e. cooperative and interactive, aspects of knowing with all its pros and cons
  - The “complicity in structures of power and privilege” [13:xiv]
  - “the linkages between power and knowledge, and between stereotyping and testimonial authority” [13:xv].

- Need to relate epistemology to ethics
Karen Barad’s Agential Realism

“[…] epistemological-ontological-ethical framework that provides an understanding of the role of human and nonhuman, material and discursive, and natural and cultural factors in scientific and other social-material practices” [17:26].
Epistemic Responsibility: Feminist Theory/Barad

- **Agencies of observation**
  - get constituted by and within the process of observation itself, i.e. they are not pre-defined entities.

- **Reality as a noun**
  - Reality not pre-defined, but something that develops and changes through epistemic practices, through the intra-actions of objects and agents of observation in the process of observation and measurement.

- **Intra-Action**
  - Neologism to denote the intrinsic entanglement of object-observer compounds & to challenge dichotomous thinking

- **Emphasis on matter & mattering**
  - versus excessive focus on discourse
Entangled Responsibility, Accountability & Agency

“[n]ature has agency, but it does not speak itself to the patient, unobstrusive observer listening for its cries – there is an important asymmetry with respect to agency: we do the representing and yet nature is not a passive blank slate awaiting our inscriptions, and to privilege the material or discursive is to forget the inseparability that characterizes phenomena” [16:181].

“[a]gency is a matter of intra-acting; it is an enactment, not something that someone or something has” [17:261]

→ From critique of ANT’s symmetry thesis to hybrid forms of agency
→ Performative understanding of agency
• **Entangled Responsibility, Accountability & Agency**

• "Learning how to intra-act responsibly within and as part of the world means understanding that we are not the only active beings—though this is never justification for deflecting that responsibility onto other entities. The acknowledgment of “nonhuman agency” does not lessen human accountability; on the contrary, it means that accountability requires that much more attentiveness to existing power asymmetries [17:218f]."
Epistemic Responsibility: Feminist Theory/Barad

- Entangled Responsibility, Accountability & Agency
  - Hybrid forms of agency
  - Performative understanding of agency
  - Attentiveness to power asymmetries
Tasks for Responsible Disentanglements
• How to account for all these insights when developing a notion of epistemic responsibility?

• Case Studies/Examples
• Conceptual Inquiries
• Normative Considerations
Epistemic Responsibility: Disentangling

- How to account for all these insights when developing a notion of epistemic responsibility?

- Case Studies/Examples
- Conceptual Inquiries
- Normative Considerations

→ Let’s make some accountable cuts!
How to account for all these insights when developing a notion of epistemic responsibility?

Example 1: Search Engines
- As code written/run/used by human and non-human agents
- Based upon socio-technical infrastructures
- Embedded in organizational/economic/political/societal context
- “Obligatory passage points” (Callon)/ Powerful nodes with high economic and epistemic power
  ➔ How to conceive epistemic responsibilities?

Example 2: Recommender Systems
Example 3: Reputation Metrics
1. Conceptual issue #1: relationship agency, responsibility, accountability
2. Conceptual issue #2: Dual nature of responsibility as sth. being assumed or attributed
3. Conceptual issue #3: entangled/distributed responsibility; responsibilities of socio-technical compounds
4. Conceptual issue #4: power & knowledge as node status (reputation, authority, bias, injustice, ..) and network effects
5. Normative Issue #5: Epistemic responsibilities as rights and duties of (entangled) epistemic agents as recipients of information as much as informants
Many thanks for your attention!

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