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Challenges for Public Engagement about the Ethics of Synthetic Biology

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With support from the Alfred P. Sloan Foundation



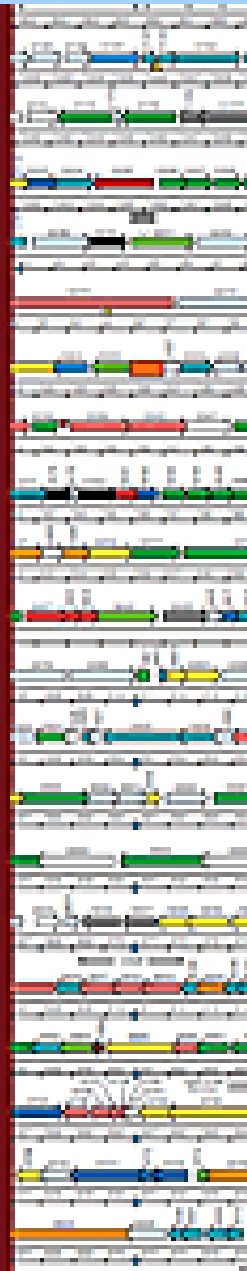


NEW DIRECTIONS

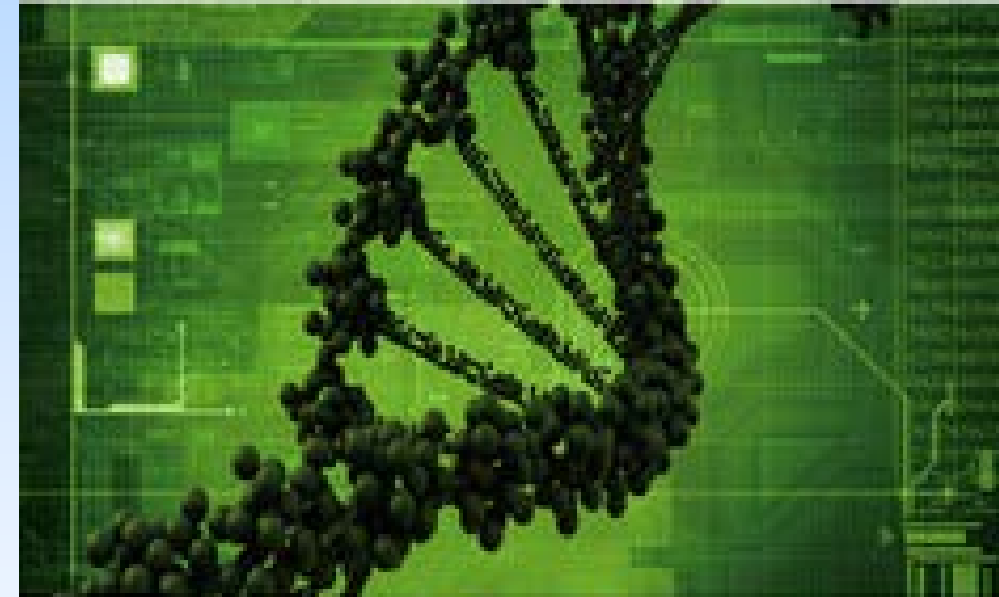
The Ethics of Synthetic Biology
and Emerging Technologies

Presidential Commission
for the Study of Bioethical Issues

December 2010



The Principles for the Oversight of Synthetic Biology



From ethics to policy

Broad categories of moral questions

- What are the potential harms and benefits?
- Will it lead to more or less just outcomes?
- How does it change the human relationship to nature?

Turn to particular applications, and also raise underlying fundamental questions

Concern about the human relationship to nature

- A metaphysical or religious point?

“playing God”: a cosmic category mistake

- A moral ideal:

altering nature to accommodate human demands

versus

altering human demands to accommodate nature

Concern about the human relationship to nature

Can be legitimate, but is not telling against most near-term applications of synthetic biology

- Syn bio is mostly only about *modifying* organisms, not creating them
- Regardless, syn bio does not show that humans can create “Life”
- “Life” is not as significant morally as particular sorts of living things, and syn bio is mostly about microbes
- Most applications so far envisioned are already far from nature
- It is not necessarily destructive of nature
- In fact, it may offer nature-saving opportunities

The human relationship to nature and public policy

- Articulation of the concern
 - Is the account above (or some other) compelling?

The human relationship to nature and public policy

- Articulation of the concern
- Relevance for public policy
 - What kinds of values can be taken up into and supported by policy in a democratic government?

Risks and potential benefits for human well-being

Toward policy that addresses risks and potential benefits

- Methods for developing a rich picture of the facts
 - Multiple slices: attend to particular applications and the differences between them, in a way that is iterative and interdisciplinary

Toward policy that addresses risks and potential benefits

- Methods for determining the facts
- The philosophy of risk
 - A fundamentally normative task that is often not recognized as such
 - What is a “harm” or “benefit”? How is severity gauged? How much should a delayed risk or benefit be discounted? Does a given harm have a constant severity regardless of how it is caused? *How does uncertainty affect attitudes?*

Toward policy that addresses risks and potential benefits

- Methods for determining the facts
- The philosophy of risk
- The *practice* of evaluating risk and benefit?
 - May require broader public input to put it on the proper values base

Toward policy that addresses risks and potential benefits

- Methods for determining the facts
- The philosophy of risk
- The *practice* of evaluating risk and benefit?
- The ethics of knowledge
 - Consider mechanisms for deciding what knowledge is appropriate to generate and disseminate

Justice

Social and economic disruption for people who are already marginalized?

“[L]arge-scale, export-oriented biofuel production in the global South will have negative impacts on soil, water, biodiversity, land tenure and the livelihoods of peasant farmers and indigenous peoples.”

—ETC Group

Toward policy that addresses concerns about justice

- How can we develop a plausible understanding of the eventual outcomes?

We're talking about a technology that could change our world ... in ways that are impossible to predict.”

— Mark Bedau, Reed College and ProtoLife

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Toward policy that addresses concerns about justice

- How can we develop a plausible understanding of the eventual outcomes?
- Can we settle on some broadly acceptable but meaningful constraints?

Toward policy that addresses concerns about justice

- How can we develop a plausible understanding of the eventual outcomes?
- Can we settle on some broadly acceptable but meaningful constraints?
- Public engagement as a procedural solution, and also as intrinsically desirable?

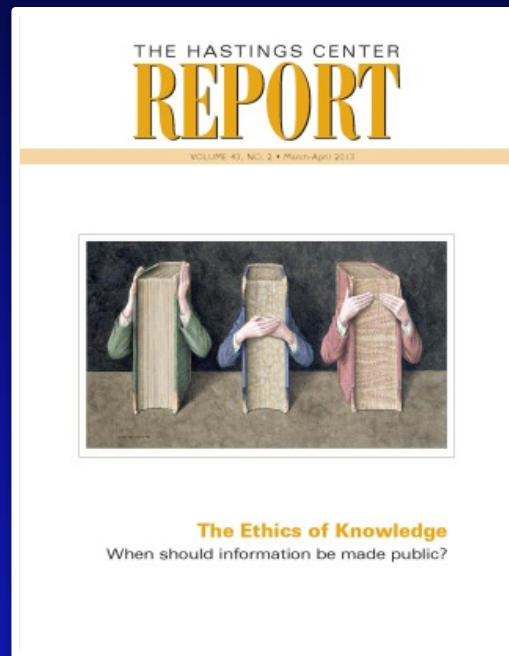
Challenges for public engagement

If public engagement is a deliberative enterprise:

- Questions about the boundaries of the problem to be addressed
- Questions about who the relevant “public” is
- Questions about what “deliberation” means

- “It is true that genuine deliberation can happen only in small-scale forums; but it is the interlinkages of communication and representation, authorisation and accountability between many such forums that create legitimacy for deliberative democracy. Reliance on representation alone within deliberative forums does not solve all the legitimacy problems; but if one sees legitimacy created between as well as within such forums, hope re-emerges” (Michael Neblo, 2010).

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