

# Responsible Technology Workshop

How do we create fairer algorithms in the next 10 years?

**June 26, 2020**

2:00 to 4:00 PM BST

[bit.ly/responsible-tech-workshop-jun2020](https://bit.ly/responsible-tech-workshop-jun2020)



DEPARTMENT OF  
**COMPUTER  
SCIENCE**

# Agenda

- 2:00pm – 2:30pm Introduction to Responsible Innovation
- 2:30pm – 3:15pm Break out sessions
- 3:15pm – 4:00pm Plenary feedback and discussion
  - 5': each group to report back + Q&A
  - 5': wrap up

# Introduction to Responsible Innovation

Dr Philip Inglesant  
University of Oxford



# Every new technology raises questions

- Who benefits?
- What are the risks?
- What if we're wrong?
- What are the alternatives?
- Who decides?
- Who's in control?
- Who's responsible?

Stilgoe 2012

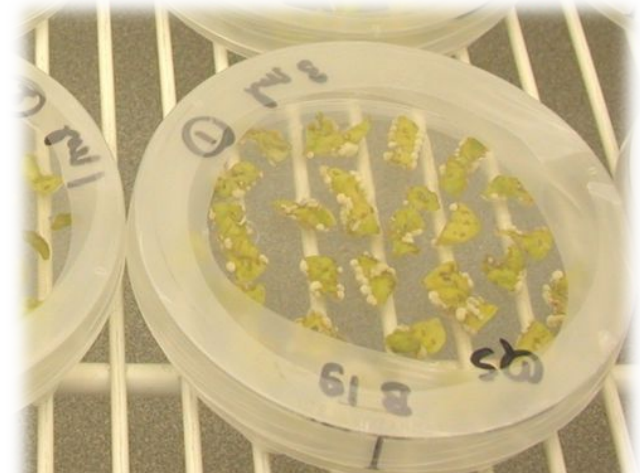
*Why Responsible Innovation?*



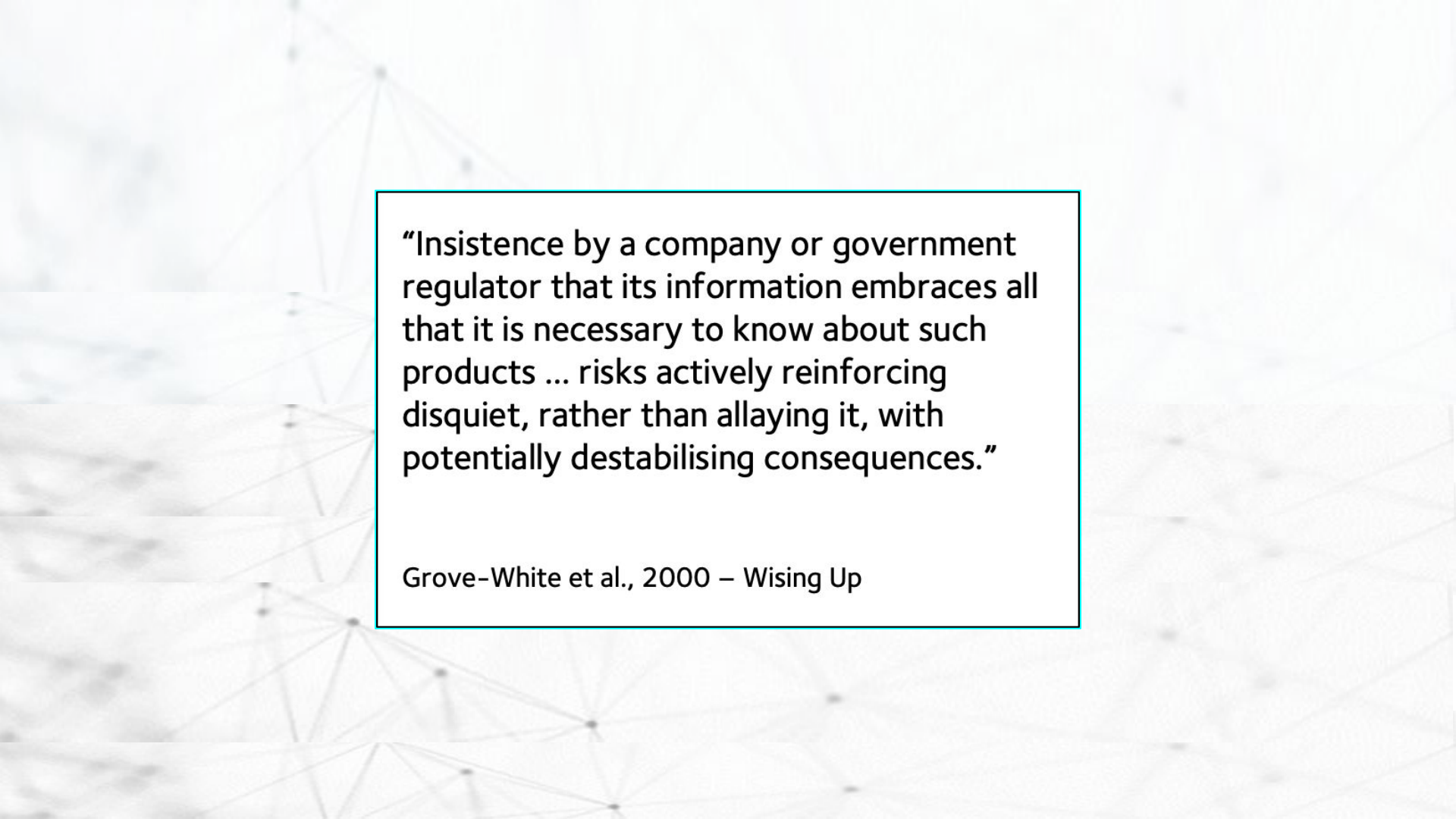
Handtiegelpresse von 1811". Licensed under CC BY-SA 3.0 via Wikimedia Commons

# Technology Push: GM Crops

- 1990s Introduction of genetically modified crops in Europe
- Public backlash against GM foods and biosciences in general
- Regulators discussed risk to human health and environment
- Public feared unintended, unpredictable effects



[https://en.wikipedia.org/wiki/Genetically\\_modified\\_crops#/media/File:Transformation\\_with\\_Agrobacterium.JPG](https://en.wikipedia.org/wiki/Genetically_modified_crops#/media/File:Transformation_with_Agrobacterium.JPG)

The background of the slide features a complex network diagram. It consists of numerous small, dark grey circular nodes connected by thin, light grey lines. The nodes are scattered across the frame, with a higher density in the lower-left and upper-right areas, creating a web-like structure that suggests interconnectedness or a data network.

“Insistence by a company or government regulator that its information embraces all that it is necessary to know about such products ... risks actively reinforcing disquiet, rather than allaying it, with potentially destabilising consequences.”

Grove-White et al., 2000 – Wising Up

“Regulation ... is poorly equipped to govern areas of novel science and technology which are highly uncertain in terms of their current and future impacts, or which, by virtue of their novelty, have no historical precedent.

Regulation, put simply, struggles with innovations that it has not encountered before ...”

Owen et al 2013

"When change is easy, the need for it cannot be foreseen; when the need for change is apparent, change has become expensive, difficult, and time-consuming."

The Social Control of Technology: Collingridge 1980

This Explains Everything: Morozov 2013



# A framework for Responsible Innovation

**Anticipate** – describing and analysing the impacts that might arise.

- Foresight, technology assessment, scenario development
- What if? What else ...?
- Informal, everyday decisions
- Informal discussions, coffee, corridor

# A framework for Responsible Innovation

**Reflect** – reflecting on the purposes of, motivations for and potential implications of the research.

- Make visible dominant values
- “holding up a mirror” to one’s own assumptions
- Pausing for a moment
- Systemic context

# A framework for Responsible Innovation

**Engage (Inclusion)** – opening up visions, impacts and questioning to broader deliberation, dialogue, engagement.

- Participatory
- Workshops, focus groups
- Encourage users to reflect on *their own* assumptions; open up the design space

# A framework for Responsible Innovation

**Act (Responsiveness)** – using these processes to influence the direction and trajectory of the research and innovation process itself.

- What is the purpose of the innovation?
- Adapt to emerging knowledge
- Institutional responsiveness, Corporate Social Responsibility
- Regulations, standards, moratoriums
- Who has agency?
- Not once-for-all