

NSE Research 2014

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Panel 6: Societal Aspects of Nanotechnology - Responsible Development, Innovation, and Public Engagement

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The relationship between risk and responsible innovation/governance: lessons from societal research on nanotechnologies.

As widely noted, new technologies raise a series of fundamental societal questions: Who benefits? who is harmed? and who decides? what are the risks? who's in control? will there be unforeseen consequences? what are alternatives? and who's responsible?¹ Yet responsible innovation as currently articulated generally eschews risk as a legitimate focus, with traditional risk assessment seen as being allied with "innovation's systemic irresponsibility" (Stilgoe 2013). However, in the analytic/deliberative approach to understanding risk, risk perception and deliberative participation are key elements. Both have extended risk understanding beyond its bases in quantitative hazard & exposure estimation and are critical to understanding and incorporating multiple stakeholders' concerns and assessing issues of vulnerability to differential effects of hazard and exposure. Risk can thus be allied with anticipation and foresight, can travel upstream as we have demonstrated in the nanotechnology case, and can provide well developed methods for understanding widely held but little acknowledged views and their behavioral correlates. In this talk, I will briefly argue for an inclusion of risk perception and vulnerability studies as a vital part of responsible innovation.

Key highlights of bio:

- Director, NSEC: Center for Nanotechnology in Society at UC Santa Barbara (2005-2015)
- Professor of Anthropology, UC Santa Barbara
- Executive Committee, UC Center for Environmental Implications of Nano (UC CEIN)
- Leads research team studying public, scientist, toxicologist, regulator, industry & NGO benefit and risk perceptions of nanotechnologies and emerging technologies
- Fellow of the AAAS since 2008

¹ Cf. Stilgoe 2013, foreword to Owen, Bessant & Heintz 2013, *Responsible Innovation: Managing the Responsible Emergence of Science and Innovation in Society*. Wiley.