

David H. Guston

Panel on Societal Issues of Nanotechnology: “Shaping Sustainable Futures for Nanotechnology”

Abstract:

The Center for Nanotechnology in Society at Arizona State University (CNS-ASU) pursues a vision of the anticipatory governance of nanotechnology and other emerging technologies through developing capacities for foresight, public engagement, and socio-technical integration. Using methods of real-time technology assessment, it focuses attention on cross-cutting themes of equity, equality and responsibility in nanotechnology, and on nanotechnology for urban sustainability. This presentation will review recent research activities and findings aimed at shaping sustainable futures for nanotechnology, ranging from attempts to understand the “green” character of nanotechnology through bibliometric and patent analysis to the attitudes of publics and scientists about the regulation of nanotechnology, and from prototyping green nanotechnology to integrating social science and nano-engineering to develop an “anticipatory life cycle assessment.” The presentation will emphasize the systemic nature of sustainability and the challenging and necessarily partial nature of nanotechnology options for addressing sustainability challenges.

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He is the co-director of ASU’s Consortium for Science, Policy and Outcomes.

He is the editor of the *Encyclopedia of Nanoscience and Society* (Sage, 2010).

He is the series editor of the *Yearbook of Nanotechnology in Society* (Springer, 3 current volumes).