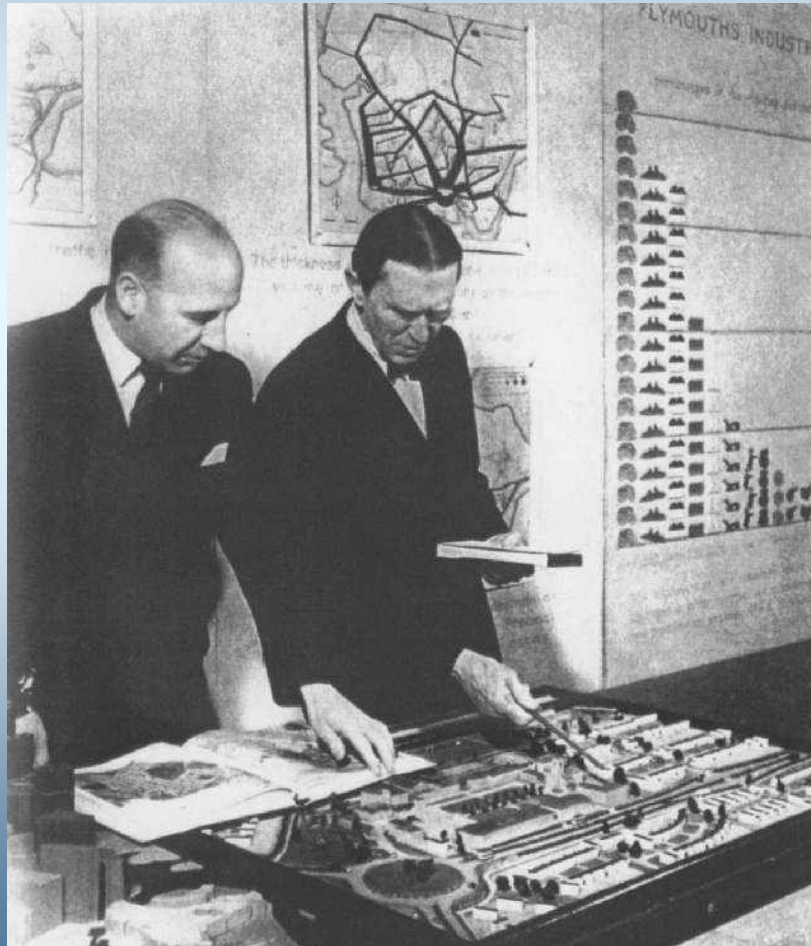
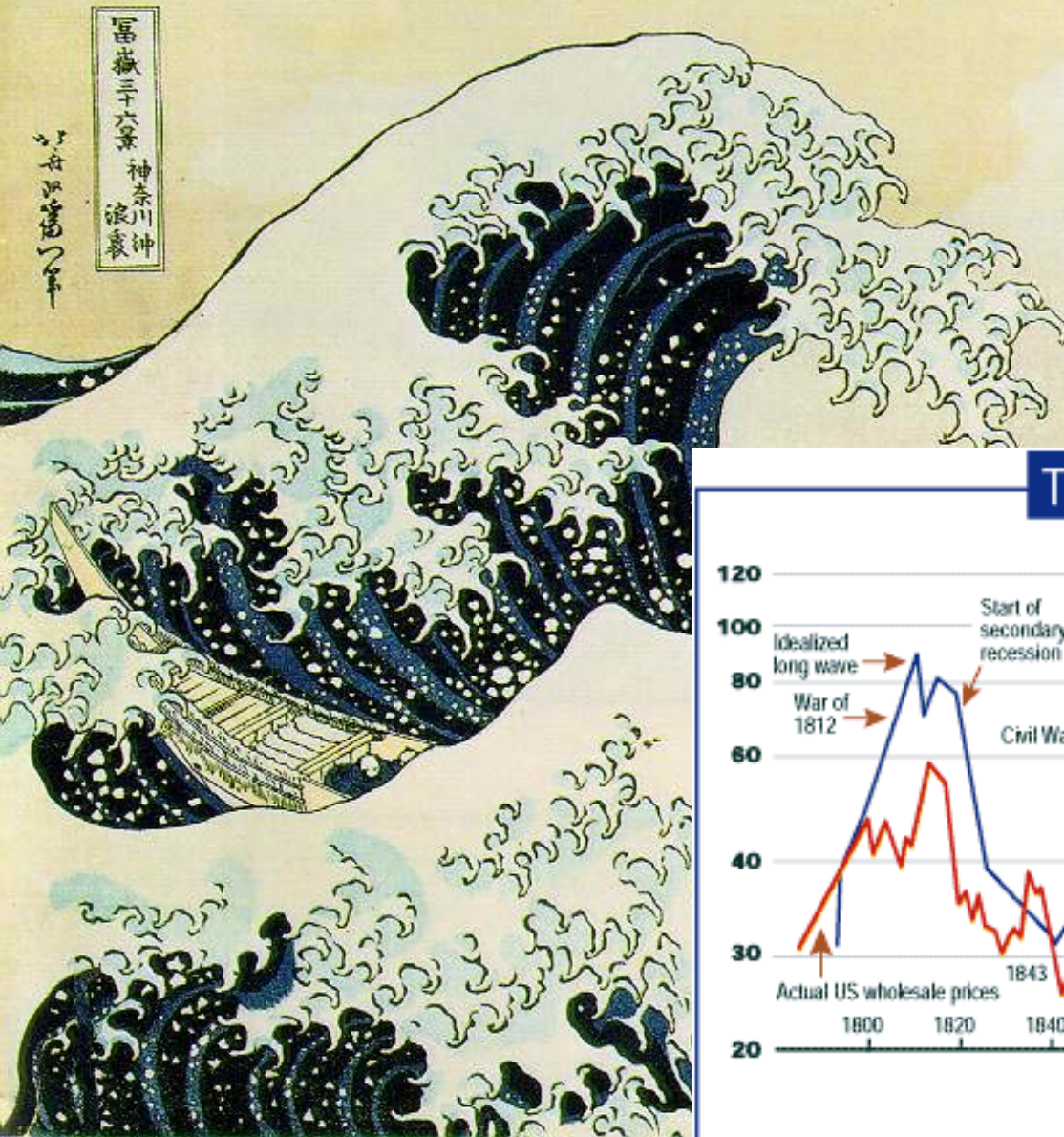
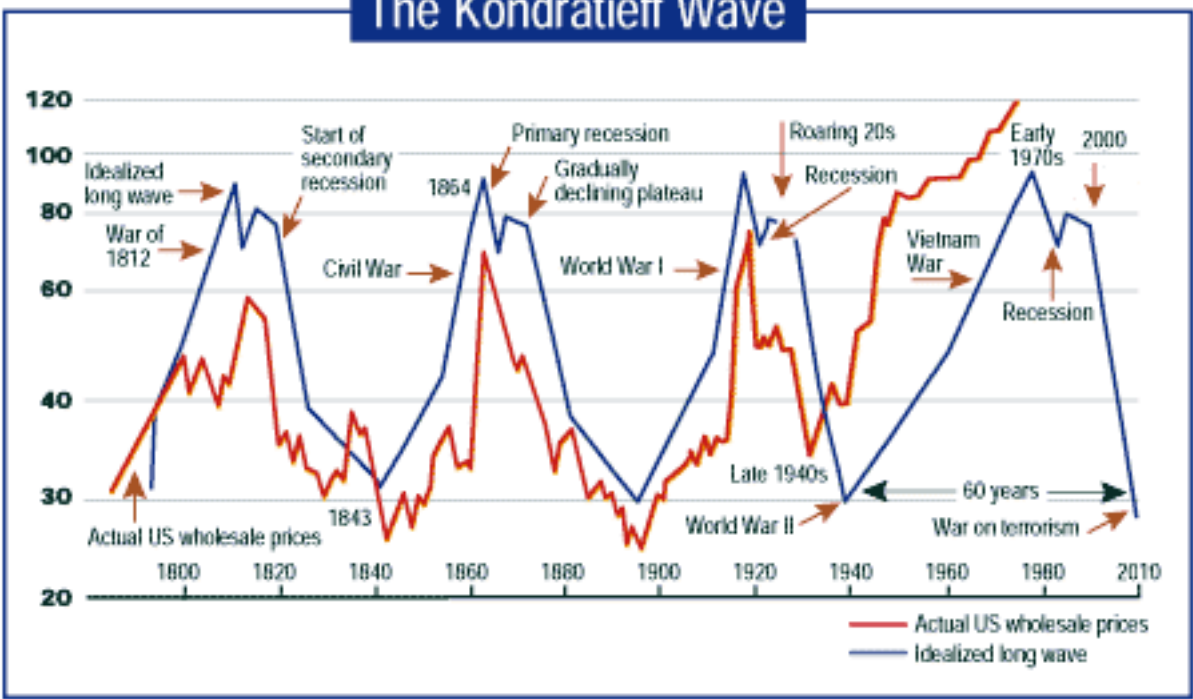


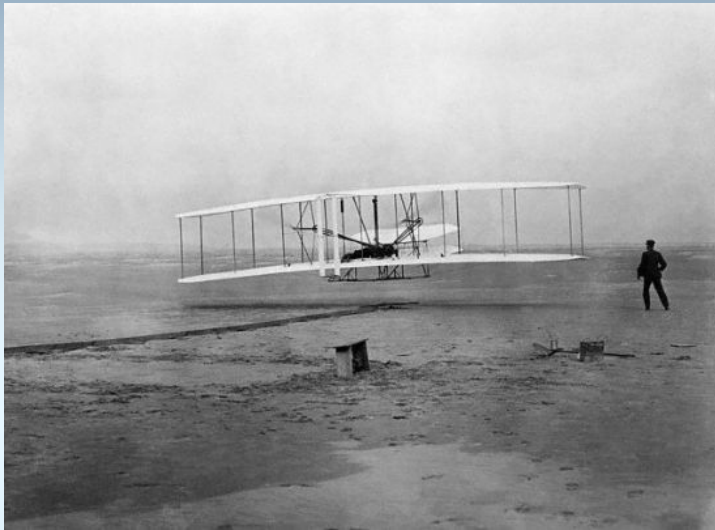
Anticipation Without Prediction: Governing Technologies That Don't Yet Exist





The Kondratieff Wave





“TA should forecast the full spectrum of possible consequences of technological advance”

--H. Brooks, 1976



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Anticipatory Governance: engagement, foresight, and integration



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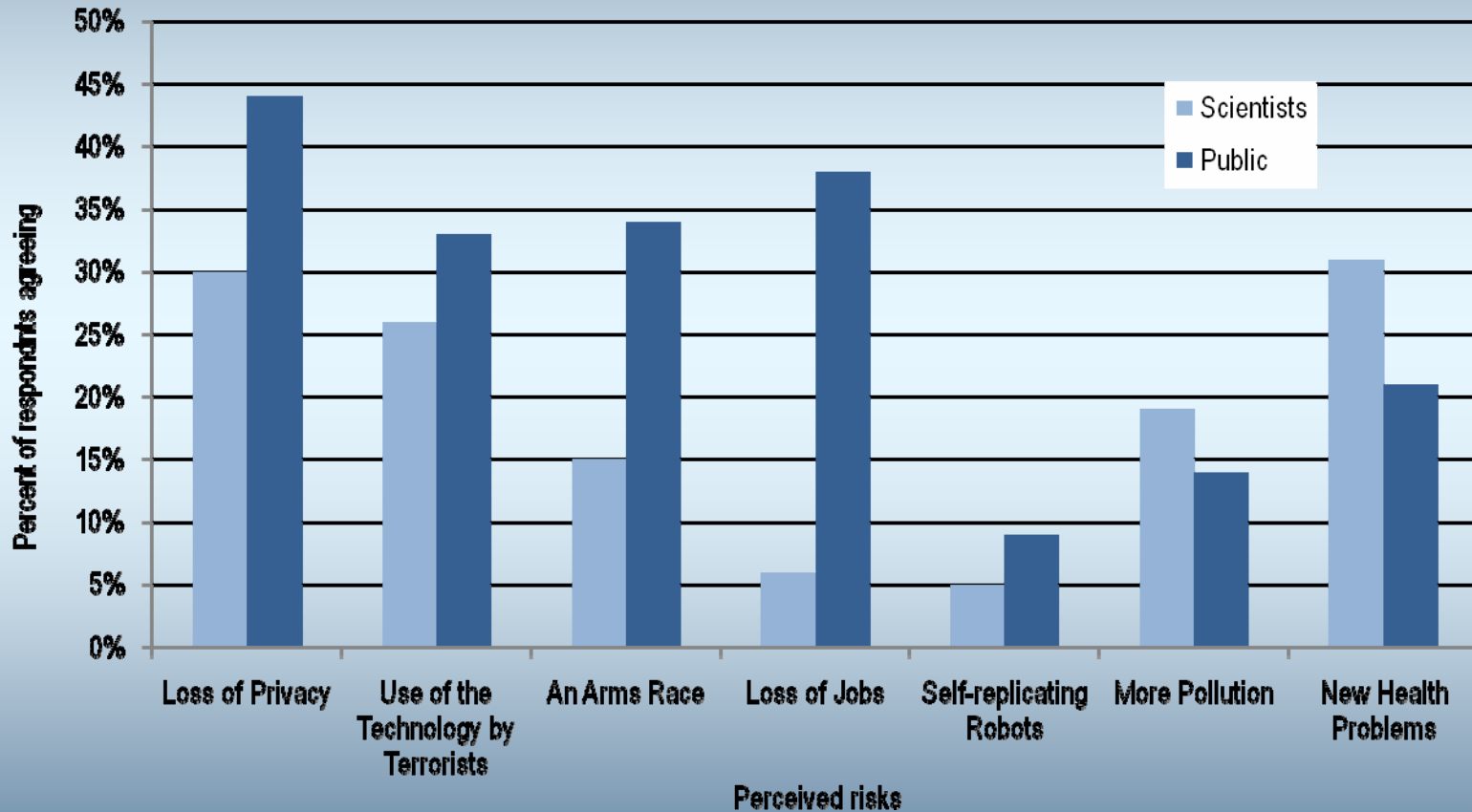
RTTA 1: Research and Innovation Systems Analysis

- ISI Web of Science (Science Citation Index – SCI)
 - ~407,000 articles
 - Representing ~2.7% of SCI over the period and 4.1% of SCI for the 2005-06 period
- EI Compendex
 - ~381,000 articles & conference papers
- INSPEC (Engineering Village 2 website)
 - ~334,000 articles & conference papers
- EKMS searched MicroPatent, INPADOC and their proprietary U.S. Patent Citation database
 - ~61,000 patent families (from ~70 patent authorities)

Nano Data:
Global, 1990-2006



RTTA 2: Public Opinion and Values



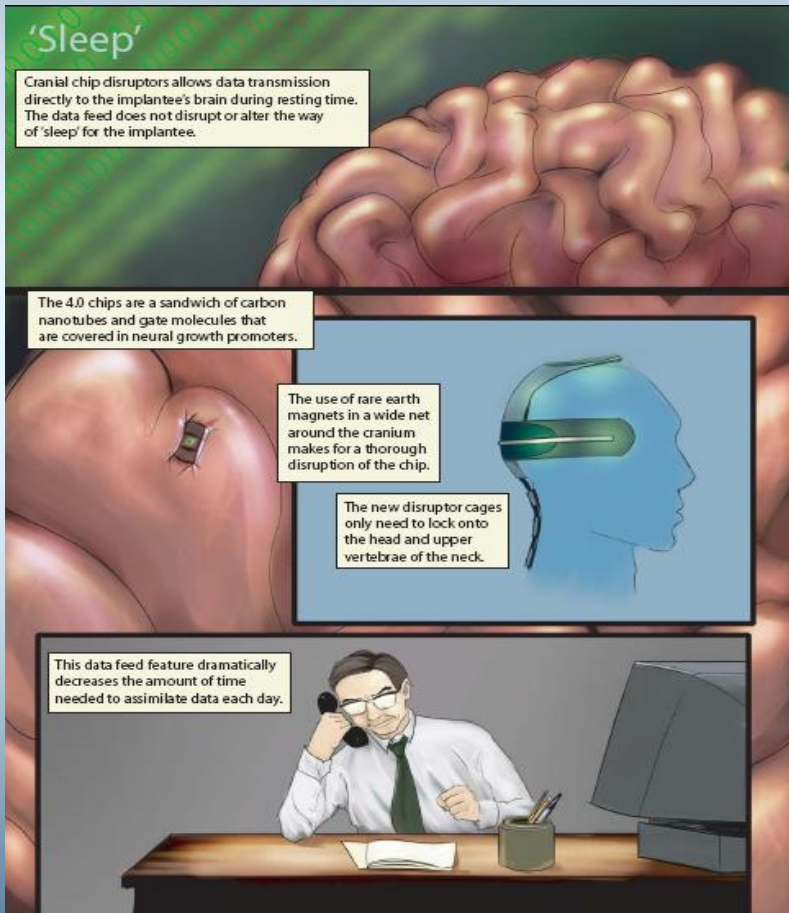
Perceived Risks: 2007
Scientist and Public Opinion Surveys



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RTTA 3: Imagine, Deliberate

Scenes of Future Nanotech



Deliberative Activities: NCTF, Science Cafes, Scenario Workshops, etc.



RTTA 4: Reflexivity, Assessment and Evaluation

Reflexivity Assessment

- Intensive interviews with nano researchers
- To understand change in Identity, Knowledge and Practice
 - High familiarity & high involvement associated with significant changes in knowledge & initial changes in practice

Laboratory Engagements

- Tubes in the Desert
- Photon Project
- Doc-in-a-box



Coming Soon to A Research Institution Near You???



Emerging Site of
Anticipatory Governance

THE biodesign INSTITUTE
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Rethinking the role of science in society: www.cspo.org

The Consortium for Science, Policy and Outcomes at Arizona State University is an intellectual network aimed at enhancing the contribution of science and technology to society's pursuit of equality, justice, freedom, and overall quality of life.



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