National Science Foundation
Societal Implications of Nanotechnology
2007 Principal Investigators' Meeting

16 March 2007

NSEC/Center for Nanotechnology in Society at Arizona State University

RTTA 3: Deliberation & Participation

1. Scenario Development
2. Innovation Space
3. Critical Corps
4. National Citizens' Technology Forum

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http://cns.asu.edu

RTTA 3: Deliberation and Participation

To engage researchers and various publics in deliberative and participatory research activities and other forums

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RTTA 3/1 Scenario Development

- What are plausible nano-enabled futures?
- Deliberative exercise among experts

RTTA 3/2 InnovationSpace

- How can we envision responsible nano products?
- User-centered research and design course

RTTA 3/3 CriticalCorps

- What are the cultural resonances of NSE futures?
- Critical theory

RTTA 3/4 National Citizens' Technology Forum

- How can the public be engaged in nano decision making?
- Six interlinked citizen's panels

RTTA 3/1: Scenario Development

http://cns.asu.edu/nanofutures/cspo/

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Scenario Development Process:

1. **Scan literatures – scientific, popular science, science fictional**
2. **Brainstorm "naïve technical scenarios"**
3. **Draft and refine scenarios**
4. **Vet scenarios to local technical experts**
5. Vet illustrated scenarios to a variety of external groups via wiki site
6. *Compare/contrast responses of external groups*
7. *Subject responses to analysis through CriticalCorps and other CNS activities*
8. *Feed results into POV activities (POP and RV) and other DP activities (NCTF)*

RTTA 3/1: Scenario Development

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Nano Futures

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"If present trends in nanoscience and nanotechnology continue, most aspects of everyday life are subject to change."
- National Science and Technology Council

Who controls your Nano Futures? Here are ten scenarios exploring possible futures of nanotechnology. Will they come true? Should they? Why or why not? Who gets to decide? Will it be you?

This site is your opportunity to interactively construct the future.

Click below to READ the scenarios and MODIFY them- DISCUSS them- and if you don't like ours, WRITE your own!

Tattoo Remorse?

Tomorrow's Sponge?

Attack of the Autonomous Window Cleaners

Brain Drain

My Gulag

Surviving Brain Enhancement

DNA Sewer

Shake it Like a Can of Soup

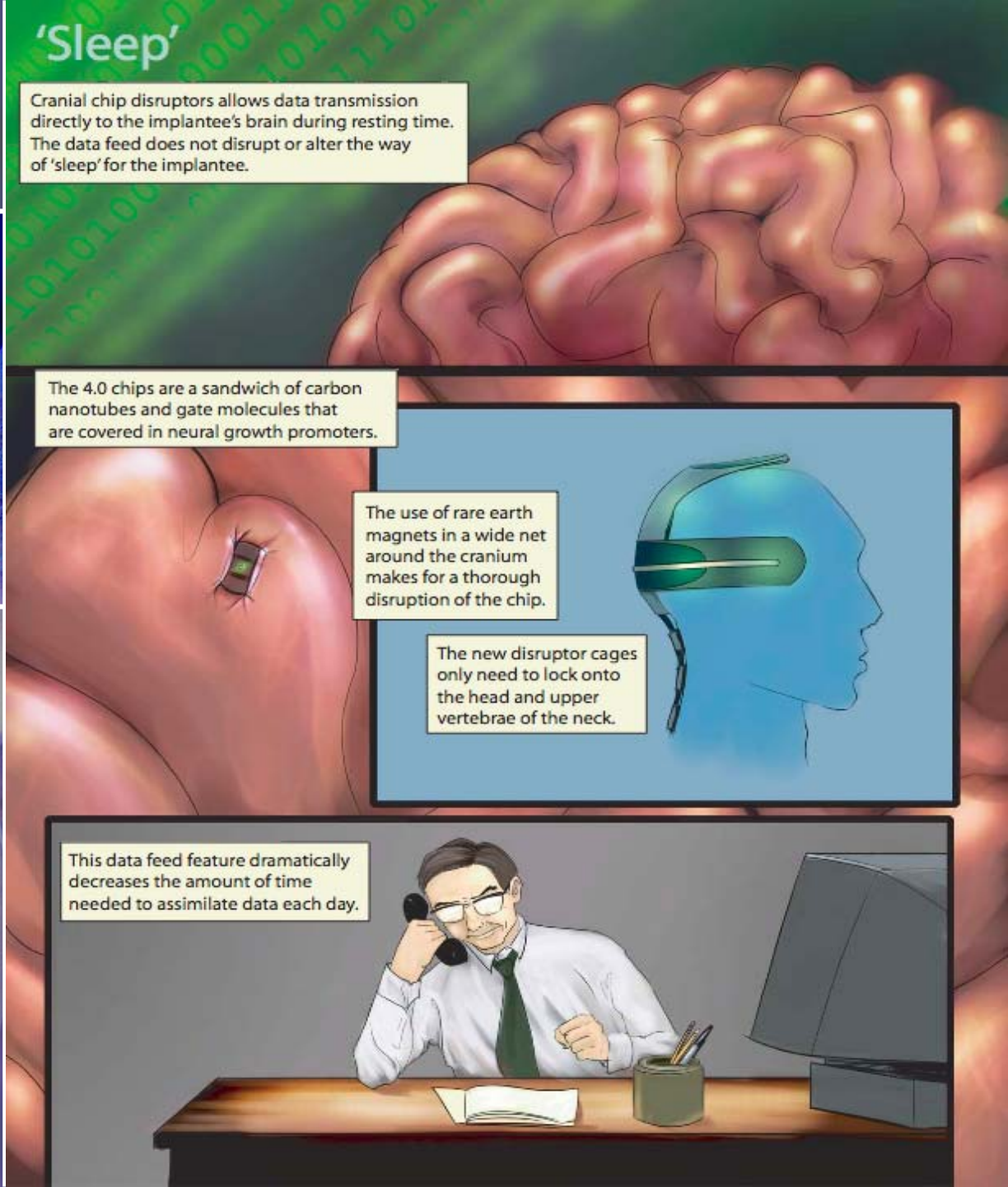
Is Someone Tracking Your Every Step?

PanOpticon

"Now nanotechnology had made nearly anything possible, and so the cultural role in deciding what should be done with it had become far more important than imagining what could be done with it."
Neal Stephenson

"Every time I see an adult on a bicycle, I no longer despair for the future of the human race."
H.G. Wells

RTTA 3/1: Scenario Development



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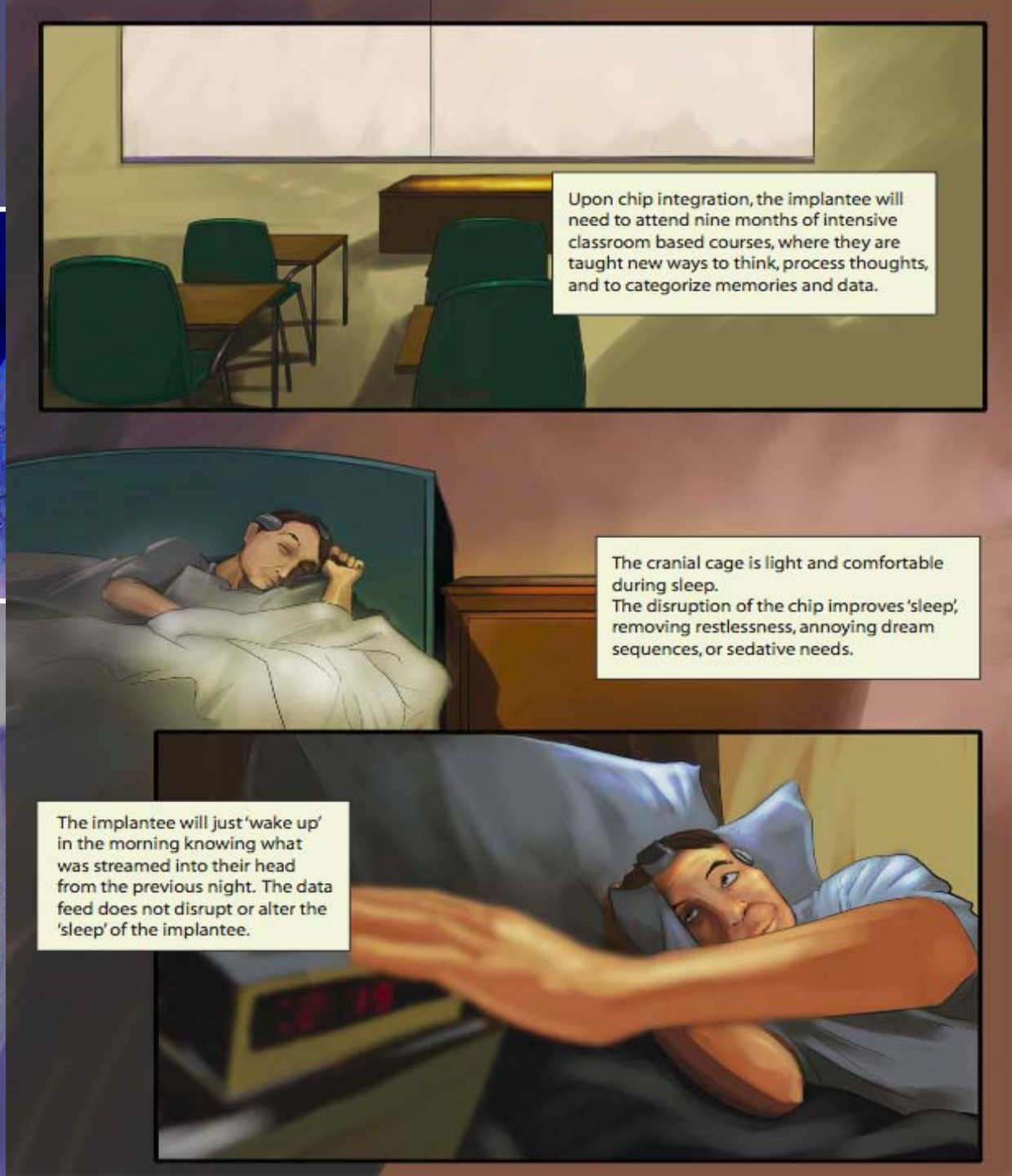
RTTA 3/1: Scenario Development



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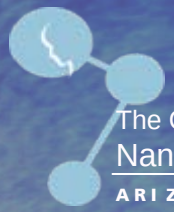
RTTA 3/2: InnovationSpace

How to engage in responsible innovation of nanotechnologies?



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- Undergraduate 10 credit practicum
- Cross-functional teams of
  - Industrial Design
  - Graphic Design
  - Engineering
  - Business
- Focused on Responsible Innovation
  - Is it desirable?
  - Is it possible?
  - Is it valuable?
  - Is it good?
- Three teams/projects
  - Electricitree
  - Current
  - Dialog

RTTA 3/2: InnovationSpace

Research in the context of education

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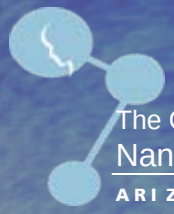
- IS Research Components
  - Rapid ethnographies of potential users
  - Road-mapping of technical milestones
- Honors Thesis on Dialog
  - potential use per IS plan
  - potential (mis)use under a health insurance mandate
  - potential (mis)use for workplace monitoring
  - full technical details including changes for other uses
  - discussion of technical precedents in health and workplace mandates

RTTA 3/3: CriticalCorps

What is the cultural significance of new nanotechnologies?



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To apply perspectives of critical theory and cultural criticism to developed scenarios and IS products

Begins work after this semester

RTTA 3/4: National Citizens' Technology Forum

How to engage publics in a deliberative and participatory activity of national scope?

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Six local sites

- ASU/Tempe
- Wisconsin/Madison
- GA Tech/Atlanta
- Colorado/Boulder
- UNH/Durham
- UCSB (planned)

Research components

- Pilot national scale for comparison to other deliberative activities
- Local comparisons to other activities
- Pre/post tests of quality of deliberations