

# *Who Do You Trust? Science Museums as Forums for Conversations between Scientists and the Public*

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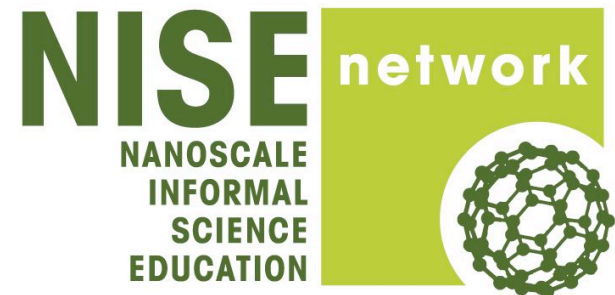
RESEARCH INTEGRITY: FOSTERING RESPONSIBLE RESEARCH

16-19 September 2007 Lisbon, Portugal

Track IIc: Institutional and Societal Issues - Public Perceptions & Responsibilities



Museum of Science  
Boston



# Science museums serve as links between science and the public



Live presentations by MOS staff



Guest Presenters

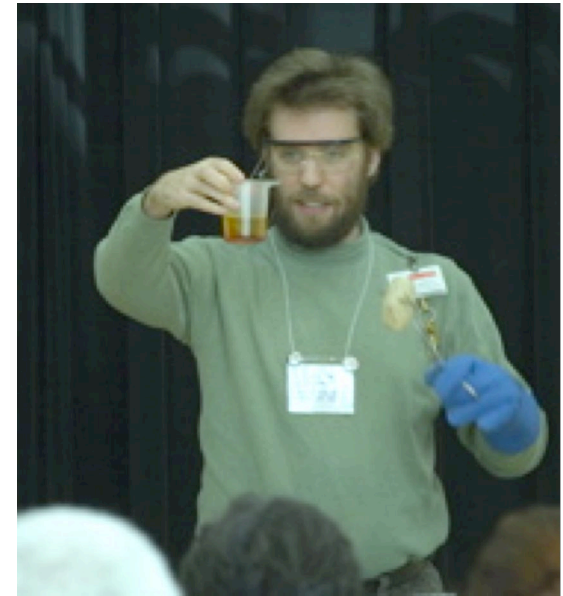
- 82% of Americans polled said that they do not personally know any scientists

Research! America. 2005. America Speaks: Poll Data Booklet. Vol. 6. Alexandria, VA





Science  
museums  
build trusting  
relationships  
with the public





How does the  
public feel  
about  
science?

## Three sources of data:

**Science and the Public: A Review of Science  
Communication and Public Attitudes to Science in Britain**  
Office of Science and Technology and the Wellcome Trust, October 2000

**Science and Engineering Indicators 2006**  
National Science Board, U.S.

**Center for Nanotechnology in Society Survey**  
Preliminary data not yet published, Arizona State University, 2007

# Public Attitudes to Science in Britain are very positive

- 68% agree that science and technology are making our lives healthier, easier, and more comfortable
- 72% agree research that advances knowledge should be supported by the government even if it brings no immediate benefits
- 75% are “amazed” by the achievements of science
- 84% think scientists and engineers make a valuable contribution to society

[http://www.wellcome.ac.uk/doc\\_WTD003420.html](http://www.wellcome.ac.uk/doc_WTD003420.html)



## Public Attitudes to Science in Britain also show reservations

- Only 43% agreed that the benefits of scientific research outweigh any harmful results.
- 70% agree that rules will not stop researchers from doing what they want behind closed doors.
- 56% think scientists seem to be trying new things without stopping to think about risks.
- 69% think scientists should listen more to what ordinary people think

[http://www.wellcome.ac.uk/doc\\_WTD003420.html](http://www.wellcome.ac.uk/doc_WTD003420.html)

# U.S. Science and Technology Indicators 2006 are very positive

- 91% agreed that science and technology are making our lives healthier, easier, and more comfortable
- 83% agree research that advances knowledge should be supported by the government even if it brings no immediate benefits
- 86% agreed that because of science and technology, there will be more opportunities for the next generation
- 84% agreed that the benefits of scientific research outweigh harmful results.

<http://www.nsf.gov/statistics/seind06/>

## A sizeable segment of the U.S. population has some reservations about S&T

- 56% agreed that "we depend too much on science and not enough on faith,"
- 61% agreed that "scientific research these days doesn't pay enough attention to the moral values of society,"
- 51% felt that "scientific research has created as many problems for society as it has solutions."
- However, this 2004 data shows that agreement with the last two statements declined from 2001.

<http://www.nsf.gov/statistics/seind06/>

In this spot there will be a slide showing  
CNS- ASU preliminary data on  
public trust of various sources  
on benefits and risks of new technologies

# Residency

Eric Heller,  
Don Eigler &  
Stephanie Maxwell



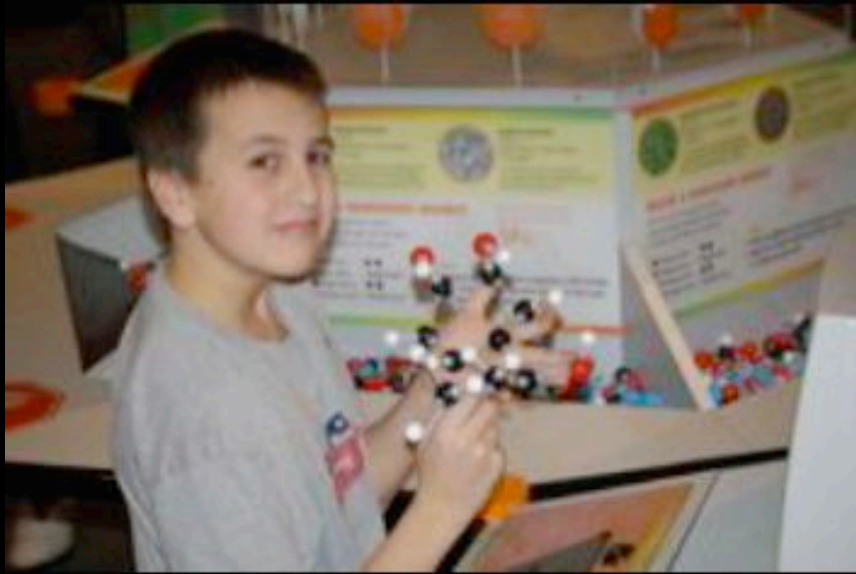
Working with scientists to create  
experiences for the public







Using new technologies to create engaging learning experiences about science



Research to learn how well various science thinking tools work with youth - molecular modeling

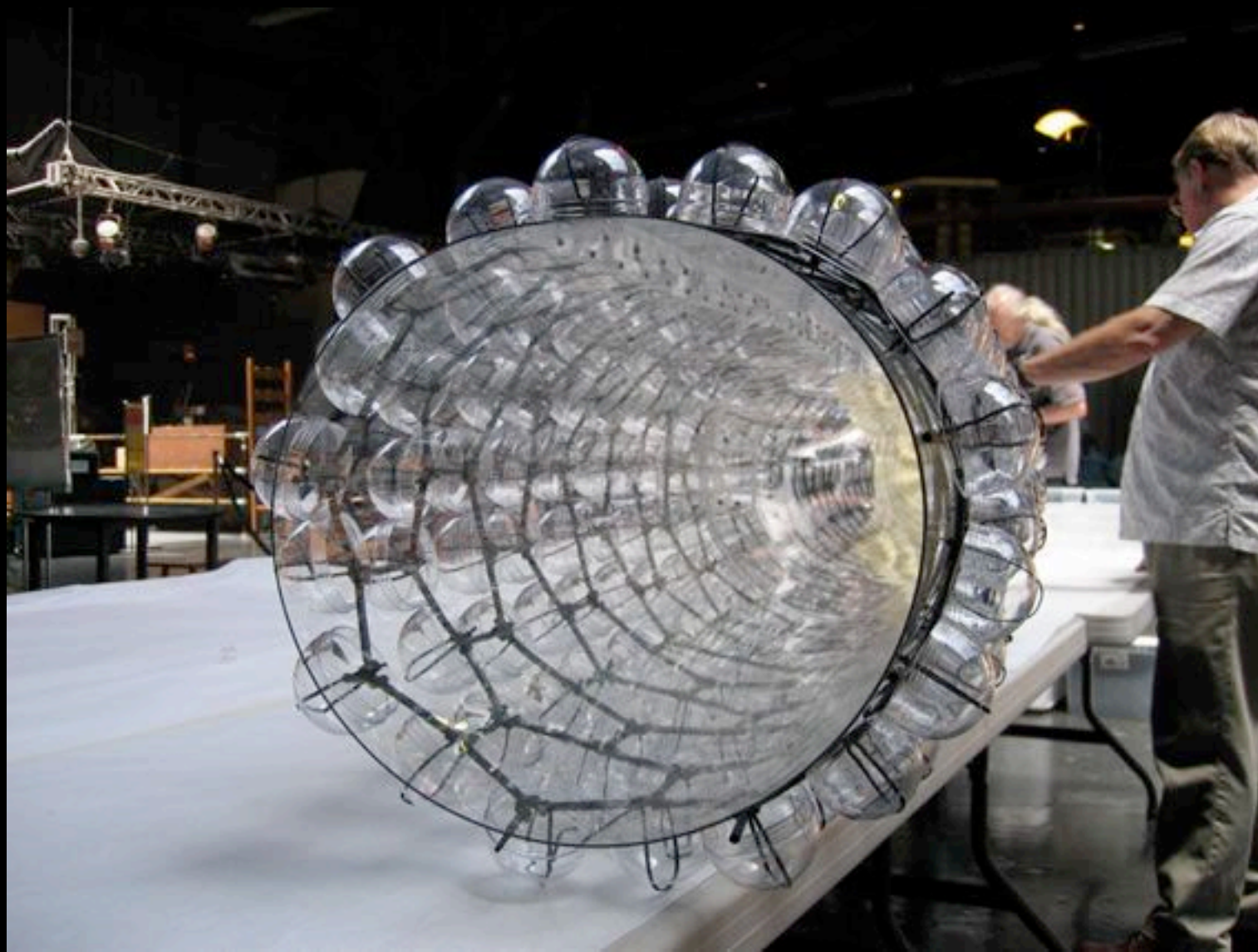




Visitors working with staff at the Exploratorium to create giant nano landscape model



Creating a giant nanotube model



## Forums:

# Nanotechnology

## Risks, Benefits, and Who Decides

Given the potential benefits as well as the unknown risks associated with nanotechnology, who should play the major role in shaping its future development and the government policies concerning its use?

Bringing people together for dialogue and deliberation



# Speaker presentations



# Facilitators help conversation



# Quizzing experts







# Deliberation

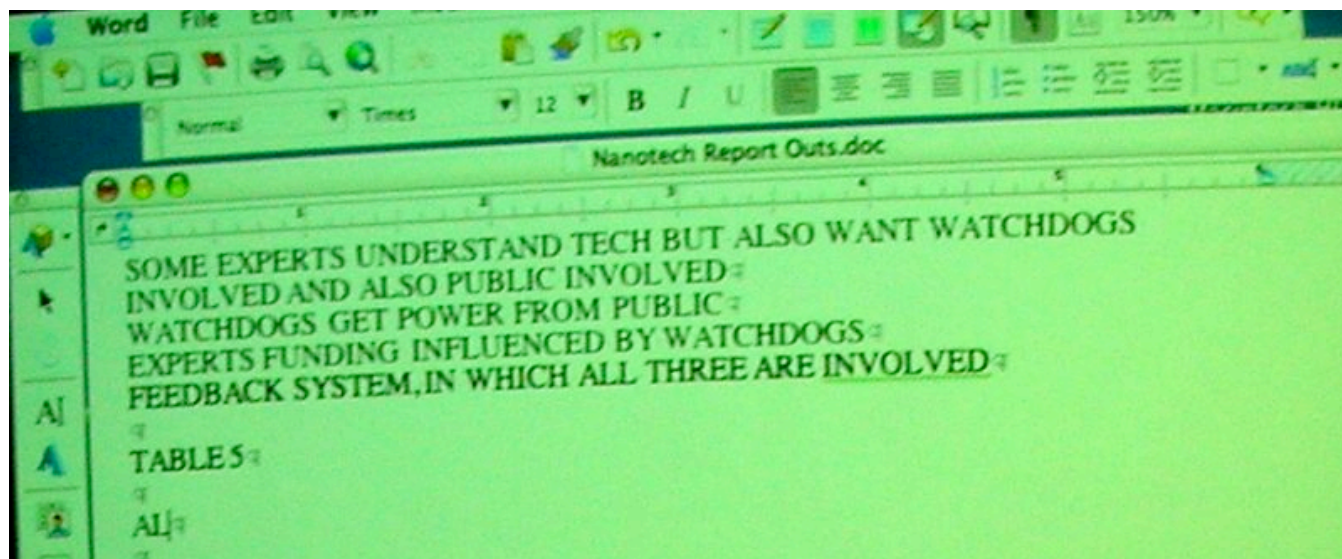




Participants are 20% scientists



# Reporting out



# Professional Development: Nano Education and Outreach for Researchers



To build capacity and sustainability for collaborations between research centers and informal science education institutions

# 20 Participants in Year 1

- Arizona State University
- Harvard University
- Northwestern University
- Portland State University
- Stanford University
- University of Alabama
- University of Chicago
- University of Colorado
- University of Delaware
- University of Florida
- University of Minnesota
- Virginia Tech University
- Museum of Science/Northeastern University

NEO is offered to  
Education Outreach  
Directors, Researchers,  
and Graduate Students

# Bringing Nano to the Public:

**A Collaboration Opportunity  
for Researchers and Museums**

By Wendy C. Crone

Edited by Susan E. Koch



# Websites

- [www.mos.org](http://www.mos.org)
- [www.nisenet.org](http://www.nisenet.org)
- [www.nctl.org](http://www.nctl.org)

## *Who Do You Trust?*

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Nanoscale Informal Science Education Network

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