

Study Examines Public Attitudes On Nanotechnology

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Scientists have a rare opportunity to define public discourse over nanotechnology, if they provide citizens with easily digestible information about the emerging technology, a University of Wisconsin-Madison journalism professor says.

"The message to scientists is: The public is not going to come to you. You have to take your work to the public, and make it available where people look," says Dietram Scheufele, who conducted one of the first national surveys on public knowledge and attitudes about nanotechnology - the engineering of objects measuring in the billionths of a meter.

Scientists need to take their messages to mainstream media - and not just scientific journals - before opponents seize the initiative, as they did in debates over biotechnology and derisively labeled "Franken-foods" made from genetically altered crops, he says.

Although citizens have little time for consulting scientific literature, he says they do pay attention to television and newspapers. Such people are "cognitive misers," he says, who are willing to use as much or as little information as they have available to make judgments on issues.

"People will search under the street light if they lose their keys. They won't search where it's dark, even if it makes sense to search there," he adds.

Scheufele says the findings of the survey, funded by the National Science Foundation, suggest that people consume information in much the same way that they buy toothpaste or choose political leaders.

"People use mental short cuts when thinking about complicated issues," says Scheufele. "When they vote for president, they take the issues that are most salient to them, but they aren't going to go out and read the party platform."

Scheufele worked with Cornell University associate professor Bruce Lewenstein on the survey, the results of which will be published in the *Journal of Nanoparticle Research and Science Communication*.

The survey showed that about 25 percent of respondents reported never having heard of the issue, even if it was explained to them by the interviewer, and only 16 percent felt at least "somewhat informed" about nanotechnology.

Survey results also showed that there were significant differences between those who were aware of nanotechnology and those who were not.

For instance, 59 percent of those who indicated they were aware of nanotechnology expressed overall support of the emerging technology, compared to 28 percent support among those who were not aware.

The survey also revealed that those who were aware of the technology had a much more optimistic view of the potential positive effects of nanotechnology.

Two-thirds to three-quarters of respondents who were aware of the issue agreed that nanotechnology has potential benefits in health and medicine, national defense and environmental policy, while only about half of the respondents who were unaware shared this perspective.

The reason for those differences, Scheufele says, is that nanotechnology has received limited media coverage, and usually in terms of science or business. But he stressed that as the technology emerges, it will likely be covered by the media in terms of conflict, instead of concept.

"It will be covered as one side versus the other," Scheufele says. "That makes it important to establish your turf. If you want to get your side

heard, you have to communicate effectively, rather than waiting for an interest group to frame the issue."

Source: University of Wisconsin-Madison

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