

BA and ESRC Science in Society seminars 2005

Spinning science: nanotechnology and financial news

Nanotechnology and financial news was the subject of the last seminar in the ESRC Science in Society series. As the relatively new field of nanotechnology grows and its applications become ever more relevant to the public, its development and growth are increasingly covered in the financial news.

Nanotechnology is engineering at the nano scale – between 1 and 100 nanometers. One nanometer is one millionth of a millimetre. Nanotechnology is revolutionary in terms of its commercial potential because it is a technology which can be applied to many disciplines, such as physics, chemistry, material science, agriculture and genetics. Although nanotechnology is still at the early stages of commercialisation, there are already a few examples of products which have benefited from the science of nanotechnology, such as plasma screens, catalytic converters in cars and even sunscreen.

Mary Ebeling from the University of Surrey is the principal investigator on the research project 'Spinning Science: the Nanotech Industry and Financial News'. This one-year project has just begun and will be looking at the commercialisation of nanotechnology and how financial news information is created around it.

The research project will look at samples in both the United Kingdom and the United States of how the financial media report on the nanotechnology industry and what effect this has on the debate surrounding financial risk and uncertainty

of nanotechnology. The research will also be looking at the relationship between nanotechnology companies, journalists, public relations agencies and how this affects the debate.

One possible outcome of this research project is a better understanding of perceived financial and technological risk of nanotechnology companies. The project will also attempt to map the process of mediation between all the nanotechnology players and to gain deeper insights into the networks of stakeholders and how these networks will mutually shape the technology. There has been substantial debate about how science and risk is communicated through popular media, namely newspapers, but there has not been much research into financial risk and how that is communicable, which is what this research project will be looking at.

Research for the project will include talking to scientists and entrepreneurs in the nanotechnology field. It will also interview investment firms specialising in commercialising nanotechnology, venture capital firms, PR departments and firms and also journalists. Information will be collected through in-depth interviews, tracking press releases and news stories on 'nanoinvesting', time spent at university laboratories that are spinning out companies and by becoming a virtual investor in nanotechnology.

The objectives of the project are to develop a better understanding of how news sources control media messages on the financial potential of nanotechnology; to produce an ethnography of news sources and financial news media; to understand the role the financial media play in shaping the market in nanotechnology private equity investments and securities and to help enable the investing public to become more critical readers of financial journalism and corporate messages. It will also look at how investors are shaping the way scientists talk about the technology.

Three representatives from the fields which the research project intends to address, namely public relations, journalism and financial media, were then asked to comment on the project and its possible outcomes. Jim Giles, a journalist for Nature, focussed on the risk communication aspect of the research project. He pointed out that there have been several well-known cases where the communication of risk has been badly managed, such as the BSE outbreak, and the GM food debate. He raised the issue of the differences between PR departments in financial institutions and those in public institutions. Universities do not have as much money to spend on PR so the offices are not as well staffed as those of private institutions and they are also representing an institution with a much more complex agenda. Corporate press offices are better funded and have a much clearer message to deliver to the media and the public.

Christopher Spink is with Group Company Investor which produces information to guide investors, including venture capitalists. He offered the perspective from the finance community which is how are you going to make more money by investing in a company than leaving it in a bank or in a government bond. He recommended that the research project also looks at information from university commercialisation agencies which promote the financial worth of new technology.

The representative from the public relations industry, Jonathon Rees from Proof Communication, a PR company specialising in science and technology, stressed the importance of communicating science using vocabulary which is not just understood by the scientific community but also by the general public. This applies especially to new technology such as nanotechnology. It is essential that the scientific community and science communicators are ready to convey the appropriate messages to the public using accessible language before scare stories start to circulate in the media.

The issue of appropriate language was also raised by Bruce Lloyd from the London South Bank University during the audience discussion. He stressed that words used to communicate science soon become brands in their own right. He suggested there is a need for an analysis of the importance of words to different people and questioning if they matter and why.

There was some debate as to whether it was the scientists or the media who create these buzz words and encourage the media to create spin around them. Jim Giles believes that journalists are in a difficult position as using these recognised words helps them to get financial support yet they also want to get across the right message about new technology.

Further questions raised by members of the audience included: how do things reported in financial news make their way into the mainstream media and what the experts thought the popular applications of nanotechnology would be. The panel members mentioned such things as using nanotechnology to do a general health check which would cut out going to the doctors and save public money. Biosensing and materials sensing were raised as also being something that will be popular. The panel member from Nature magazine mentioned that the things that would be popular will be what the public will want to spend money on, such as computers.