

## **DENISE CARUSO**

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### **IN BRIEF**

Since the mid-1980s, Denise Caruso has written and published analyses of technology and technological innovation, for audiences in the industrial sector, government and the general public.

In the 1990s, she founded *Digital Media*, the seminal newsletter that anticipated, then chronicled, the digital “convergence” of computers, media and telecommunications which gave rise to the commercial Internet. She was the Technology columnist for *The New York Times* for five years, and has contributed to several other elite publications, including *Harvard Business Review*.

In 2000, Caruso shifted her focus to research, founding the nonprofit Hybrid Vigor Institute. Its mission was to increase awareness and improve the practice of interdisciplinary research, and thus to improve decision skills in and across sectors. To that end, Caruso published an award-winning book, *Intervention*, that detailed the shortcomings in government risk assessments of genetically engineered organisms.

In January 2010, Caruso began a courtesy appointment as research scholar in the Department of Engineering and Public Policy (EPP) at Carnegie Mellon University. In 2011, she joined the staff.

### **RESEARCH AND RELATED ACTIVITIES**

#### *Carnegie Mellon University*

Caruso teaches technology and policy writing for lay audiences to EPP students, at both the undergraduate and graduate levels. She regularly serves as co-faculty for EPP Projects, the department’s undergraduate capstone course.

Her research interests are focused on creating or improving methodological approaches to decision making under conditions of deep uncertainty. These include methods used to study and address complex problems at the intersection of risk, innovation and public policy, as well as those used for peer evaluation of interdisciplinary projects and publications.

#### *Guides to Controversy: The Marcellus Shale*

In 2010, Caruso was granted a summer fellowship by CMU’s Studio for Creative Inquiry. The result was a prototype for a new media format, based on the tenets of behavioral decision making and risk communication, specifically designed to increase public understanding about science-related controversies. *Guides to Controversy: The Marcellus Shale* was developed in collaboration with veteran public radio producer Robin Gianattassio-Malle.

#### *The Hybrid Vigor Institute*

From 2000 to 2010, the Hybrid Vigor Institute’s interdisciplinary projects received support from the National Science Foundation (NSF); public philanthropies including the Google, Packard, Rockefeller and Surdna

Foundations; and several private foundations and individuals, including multi-year general operating support from the Whitman Institute.

Projects included two NSF funded studies, one of which mapped the social networks of a group of interdisciplinary research centers. Another, a methodology study, sought to integrate decision analysis with scenarios to support more accurate assessments of risk and the impact of uncertainty (see *Methodology development*, below).

#### Methodology development

While at Hybrid Vigor, Caruso began an ongoing collaboration with Baruch Fischhoff, head of the Decision Sciences major and professor in EPP and SDS at Carnegie Mellon, on an integrated scenario and decision-analytic approach to risk assessment. The method is specifically aimed at assessing the risks of highly uncertain or unprecedented events and technological innovations, e.g., pandemics or xenotransplantation, where few historical data are available to forecast probable outcomes.

Articles about or applying the method have been published in the academic journals *Global Public Health*, *Journal of Risk and Uncertainty*, and *Risk Analysis*.

#### Pandefense 1.0

Along with several schools of public health and corporate sponsors, Hybrid Vigor co-hosted the cross-sector Pandefense 1.0 meeting in November 2005. Convened with the goal of reducing the probability and effects of an influenza pandemic, the meeting was organized and co-produced by epidemiologist Larry Brilliant, MD (formerly the president of Google.org, now at the Skoll Foundation's Global Threats Fund), the Global Business Network, and Hybrid Vigor.

#### Online credibility

In March 1999, Caruso was asked by the Pew Charitable Trusts to develop her ideas regarding standards and practices to increase credibility of information on the Internet. The project was developed by Consumers Union into *Consumer Reports WebWatch*, with multi-million dollar funding provided by Pew, the Knight Foundation and the Open Society Institute.

### **SELECTED PUBLICATIONS**

- *Characterizing and Communicating Uncertainty in the Assessment of Benefits and Risks of Pharmaceutical Products*, the Institute of Medicine of the National Academy of Sciences, <http://bit.ly/1zqyTCi> (2014)
- "Thinking About Risk," keynote, PICNIC '10 conference, <http://bit.ly/1wCmyJn> (2010)
- "Progress Under Uncertainty: How Collaboration Can Improve Risk Assessment for Complex or Controversial Problems," presented at *Geoengineering: Contemplating the Issues and the Need for Research*, sponsored by Government-University-Industry Roundtable, The National Academies, <http://bit.ly/1w8I9Yf> (2010)
- "The Myth of Cost Benefit Analysis," *Strategy+Business*, <http://bit.ly/1ywvv4F> (2008).
- *Synthetic Biology: An Overview and Recommendations for Anticipating and Addressing Emerging Risk*, <http://bit.ly/1w1WNk0> (2008)

- “How to Confine the Plants of the Future?” *New York Times* Re:framing column, <http://nyti.ms/10sdLfd> (2007)
- “Knowledge is Power, But Only If You Know How To Use it,” *New York Times* Re:framing column, <http://nyti.ms/1rtyPIg> (2007)
- *Intervention: Confronting the Real Risks of Genetic Engineering and Life on a Biotech Planet*, <http://amzn.to/1nDtR06> (2006)
- “No Risk is an Island,” *Breakthrough Ideas of 2005: Harvard Business Review*, <http://hbr.org/2005/02/breakthrough-ideas-for-2005/ar/1> (February 2005)
- “Designing Nanostructures at the Interface Between Biomedical and Physical Systems,” West Coast rapporteur, The National Academies and Keck Futures Initiative, <http://bit.ly/1w7O3ZD> (2005)
- “The Moral Minority,” *WIRED*, <http://wrd.cm/1wxjcpq> (2002)
- “Technology Has Made Some People Money, But Is That All There Is?” *New York Times* Digital Commerce column, <http://nyti.ms/1xmcS28> (2000)
- “Maybe Media Is the Real Opiate of the People,” for *Edge.org Annual Question*, “What is today’s most underreported story?” <http://bit.ly/ZUdKjD> (2000)
- “Of Bonding and Bondage: Cult, Culture and the Internet,” keynote presentation at *America: Cult & Culture*, the AIGA 8th Biennial National Design Conference, <http://bit.ly/1wCqmH8> (1999)
- “The Law and the Internet: Beware,” *Columbia Journalism Review*, <http://bit.ly/1v514in> (1998)
- “Show me the money! How the FUD Factor has online news in its thrall,” *Columbia Journalism Review*, <http://bit.ly/1yFQCBH> (1997)
- “Ten Reasons Why I Am Always So Cranky,” Interval Research Forum Presentation, <http://bit.ly/1tZkKcT> (1996)
- “Microsoft Morphs Into a Media Company,” *WIRED*, <http://wrd.cm/1zdohG7> (1996)
- “Civil Rights Activists Say, ‘Sniff This!’” *Macworld*, <http://bit.ly/1wohKqM> (1996)
- “The Promise of New Media,” *Digital Media*, <http://bit.ly/1zdCdQk> (1991)
- “Suffocated by Useless Junk Mail,” *San Francisco Examiner* Sunday Business, <http://bit.ly/ZUiwxl> (1989)
- “Electronic ‘Bill of Rights’ Stalled,” *San Francisco Examiner* Sunday Business, <http://bit.ly/1td6xax> (1988)
- “Computer Network Insecurity,” *San Francisco Examiner* Sunday Business, <http://bit.ly/1wvzGNH> (1988)

*Please request an electronic copy of any publication without a link.*

## **EDUCATION**

In 1981, Caruso received a Bachelor’s Degree in English from California Polytechnic State University in San Luis Obispo, CA.

[updated May 2015]