

Ann Bostrom

Weyerhaeuser Endowed Professor in Environmental Policy

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Risk perceptions, mental models, and decision making under uncertainty about climate change, coastal hazards, and emerging technologies, to inform risk communication, management, and policy.

PROFILE

Ann Bostrom conducts research on risk perceptions, communication, and management, and decision making under uncertainty in environmental and health policy contexts. She has studied people's causal beliefs about hazardous processes and risks from, for example, climate change, earthquakes, and hurricanes, and how forecasts and warnings can be designed to support risk management decisions and actions. Her current work spans earthquake early warning, tsunami warnings, mental models of climate change and direct air capture of CO₂, and trustworthy artificial intelligence for the environmental sciences. She co-authored *Risk Communication: A Mental Models Approach* (Cambridge University Press, 2002). Bostrom co-chaired the National Academies study *Integrating Social and Behavioral Sciences Within the Weather Enterprise* and currently chairs the National Academies Roundtable on Artificial Intelligence and Climate Change. In addition to her academic work, she has worked at the Census Bureau, the Bureau of Labor Statistics, and the National Science Foundation, and served on advisory boards/committees for several U.S. Federal agencies, as well as the UNISDR International Research on Disaster Risk. She co-directed the National Science Foundation's Decision, Risk and Management Science Program from 1999 to 2001.

Research areas Risk analysis, perception, and communication · Mental models · Decision making under uncertainty · Natural hazards, forecasts, and warnings · Climate change communication · Trustworthy AI for environmental sciences · Environmental and science policy

EDUCATION

1990	Ph.D., Public Policy Analysis · Carnegie Mellon University
1986	M.B.A., emphasis in Statistics and Information Systems · Western Washington University <i>Transfer credits from the Stockholm School of Economics (Handelshögskolan)</i>
1983	B.A., English (Creative Writing) · University of Washington <i>Transfer credits from Brandeis University, La Sorbonne, and Stockholm University</i>

ACADEMIC AND PROFESSIONAL APPOINTMENTS

University of Washington, Daniel J. Evans School of Public Policy and Governance

2013–present	Weyerhaeuser Endowed Professor in Environmental Policy
2009–present	Professor
2007–2011	Associate Dean of Research
2007–2009	Associate Professor

Visiting and Federal Appointments

Spring 2014	Visiting Professor, DICE Lab, Department of Psychology, University of Bergen, Norway
1999–2001	Director, Decision, Risk and Management Science Program, National Science Foundation

Georgia Institute of Technology, School of Public Policy

2007–2010	Adjunct Professor
2007	Professor

2004–2007	Associate Dean for Research, Ivan Allen College
1998–2007	Associate Professor
1992–1998	Assistant Professor

Early Career

1991–1992	ASA/NSF/BLS Research Associate, Bureau of Labor Statistics
1990–1991	Postdoctoral Research Fellow, Carnegie Mellon University
1989–1990	Fulbright Scholar, Department of Psychology, University of Stockholm

HONORS AND AWARDS

2020	Distinguished Educator Award , Society for Risk Analysis
2019–2023	Board of Directors (elected), American Association for the Advancement of Science
2014	Fellow , American Association for the Advancement of Science; Chair, Section K, 2016–2017
2014–	Elected Member , Washington State Academy of Sciences; Board of Directors (2020-2026)
2014	Faculty Exchange Fellowship , University of Washington–University of Bergen
2012	President , Society for Risk Analysis
2007	Fellow , Society for Risk Analysis
1997	Chauncey Starr Award for a Young Risk Analyst, Society for Risk Analysis
1989–1990	Fulbright Graduate Research Fellowship and Lois Roth Endowment grant, University of Stockholm
1988–1989	Patricia Roberts Harris Fellowship , Carnegie Mellon University

SCIENCE ADVISORY SERVICE

National Academies of Sciences, Engineering, and Medicine (including NRC, IOM, and TRB)

2025–present	Chair , Roundtable on Artificial Intelligence and Climate Change
2023–2024	Chair , Workshop Planning Committee on Advancing Risk Communication with Decision-Makers for Extreme Tropical Cyclones: Learning from Extreme and Unprecedented Weather Events
2021–2022	Member , Workshop Planning Committee on Machine Learning and Artificial Intelligence to Advance Earth System Science
2020–2021	Member , Committee on the Assessment of Strategies for Managing Cancer Risks Associated with Radiation Exposure During Crewed Space Missions
2016–2017	Co-Chair , Committee on Advancing Social and Behavioral Science Research and Application within the Weather Enterprise
2015–2016	Member , Committee on the Science of Science Communication: A Research Agenda
2012–2014	Member , Committee to Review the EPA’s Integrated Risk Information System (IRIS) Process, National Research Council
2009–2012	Member , Standing Committee on Use of Emerging Science for Environmental Health Decisions
2008–2010	Member , Committee on the Review of the Food and Drug Administration’s Role in Ensuring Safe Food, Institute of Medicine and National Research Council
2008–2009	Member , Committee on the Review of the Tsunami Warning and Forecast System and Overview of the Nation’s Tsunami Preparedness, Ocean Studies Board, National Research Council
2005–2006	Member , Committee on Nutrient Relationships in Seafood: Selections to Balance Benefits and Risks, Institute of Medicine
2002–2004	Member , Committee on Optimizing the Characterization and Transportation of Transuranic Waste Destined for the Waste Isolation Pilot Plant, Board on Radioactive Waste Management, National Research Council
2001–2002	Member , Committee for the Study of a Motor Vehicle Rollover Rating System, Transportation Research Board

- 1995–1996 **Member**, Committee on the Study of Consumer Automotive Safety Information, Transportation Research Board
- 2001–2021 **Report reviewer**, Institute of Medicine, National Research Council, and National Academies

National Oceanic and Atmospheric Administration and National Center for Atmospheric Research

- 2021 **Co-Lead**, Information Delivery Task Team, NOAA Science Advisory Board report on Priorities for Weather Research
- 2012–2020 **Member**, Environmental Information Services Working Group, NOAA Science Advisory Board
Including the subpanel reviewing NOAA’s Hurricane Forecast Improvement Program (2020)
- 2015–2021 **Member**, Mesoscale and Microscale Meteorology Laboratory Divisional Advisory Panel, NCAR
- 2005–2008 **Member**, Advisory Board, Institute for the Study of Society and Environment, NCAR

U.S. Environmental Protection Agency

- 2003–2007 **Member**, Science Advisory Board Committee on Valuing the Protection of Ecological Systems and Services
Advisory on EPA’s draft Ecological Benefit Assessment Strategic Plan (2005); final report, Valuing the Protection of Ecological Systems and Services (2009)
- 1999–2004 **Member, Executive Committee**, Board of Scientific Counselors, Office of Research and Development
Chair, ad hoc Committee on Communications (2004); Vice-Chair, Exposure Subcommittee, Particulate Matter Research Program review (2000); member, joint SAB/BOSC review of the Science to Achieve Results (STAR) program (2000)
- 1996–1998 **Member**, Risk Reduction Options Subcommittee, Integrated Risk Project, Science Advisory Board
- 1993–1996 **Consultant**, Radon Science Initiative Subcommittee, Radiation Advisory Committee, Science Advisory Board
- 1993–1994 **Consultant**, Industrial Excess Landfill Ad Hoc Panel, Science Advisory Board
- 1991 **Consultant**, Radiation Subcommittee, Science Advisory Board, on revisions to EPA’s Citizen’s Guide to radon; participant, Radon Review Panel

Other National and International Advisory Service

- 2020–2026 **Member**, Advisory Committee on Earthquake Hazards Reduction, National Earthquake Hazards Reduction Program
- 2021–2024 **Member**, Decision Science and Analysis Technical Advisory Committee, National Renewable Energy Laboratory
- 2017–2021 **Member**, National Science Foundation Advisory Committees for Environmental Research and Education (AC-ERE) and for Social, Behavioral and Economic Sciences
Chair, AC-ERE Subcommittee on Environmental Change and Human Security; member, Public Health and Environmental Research and Education Subcommittee
- 2012–2018 **Member**, Scientific Committee, Integrated Research on Disaster Risk (IRDR) programme
- 2011–2015 **Member**, Advisory Board, Center for Climate and Energy Decision Making, Carnegie Mellon University
- 2008–2011 **Member**, Project Steering Committee, Applied Technology Council ATC-58-1 (performance-based seismic design guidelines)
- 2006–2016 **Member and Co-Chair**, National Advisory Board, Center for Nanotechnology in Society (NSF-funded)
- 2006–2008 **Member**, Steering Committee, Earthquake Engineering Research Institute (EERI) online Earthquake Mitigation Center
- 2005–2007 **Member**, Advisory Board, Collaborative Large-Scale Engineering Analysis Network for Environmental Research (CLEANER)
- 1996–1998 **Member**, Advisory Committee, Harvard Center for Risk Analysis

SELECTED PUBLICATIONS

Selected from more than 100 refereed journal articles and numerous books, chapters, and reports. A complete list is available on request.

Books

- Bostrom, A.**, French, S. P., & Gottlieb, S. J. (Eds.). (2008). *Risk assessment, modeling and decision support: Strategic directions*. Springer. <https://doi.org/10.1007/978-3-540-71158-2>
- Morgan, M. G., Fischhoff, B., **Bostrom, A.**, & Atman, C. J. (2002). *Risk communication: A mental models approach*. Cambridge University Press.
- Institute of Medicine (US) Vaccine Safety Forum, Evans, G., **Bostrom, A.**, Johnston, R. B., Fisher, B. L., & Stoto, M. A. (Eds.). (1997). *Risk Communication and Vaccination: Summary of a Workshop*. National Academies Press. <https://doi.org/10.17226/5861>

Peer-Reviewed Journal Articles

- Mah, A., Sepp, K., Riggio, C., Gleeman, E., Rashid, N., Blockstein, J., Abramson, D., Richmond, L., **Bostrom, A.**, Howard, M. and Tilt, J., (2026). Community Asset Identification for Natural Hazards Research: A View from the Pacific Northwest. *International Journal of Disaster Risk Reduction*, p.106365. <https://doi.org/10.1016/j.ijdr.2026.106365>
- McFeely, M., McPherson-Siegrist, N., Jung, H., Harari, L., Borges, J., Mix, E. C., Donatuto, J., **Bostrom, A.**, & Errett, N. A. (2026). Tribal hazard mitigation planning pathways: A comparative content analysis. *International Journal of Disaster Risk Reduction*, 142, Article 106208. <https://doi.org/10.1016/j.ijdr.2026.106208>
- Bostrom, A.**, van den Broek, K. L., Böhm, G., Grünzner, M., Felipe-Rodriguez, M., Fian, L., Stevens, S., Abdeljaoued, A., Budhiraja, V., Carratta, G., Mondellini, S., Özdamar, A., Suffill, E., Pahl, S., & Doran, R. (2025). Scientists' mental models of microplastics: Insights into expert perceptions from an exploratory comparison of research methods. *Microplastics and Nanoplastics*, 5, Article 36. <https://doi.org/10.1186/s43591-025-00141-w>
- Wirz, C. D., Demuth, J. L., **Bostrom, A.**, Cains, M. G., Ebert-Uphoff, I., Gagne, D. J., II, Schumacher, A., McGovern, A., & Madlambayan, D. (2025). (Re)conceptualizing trustworthy AI: A foundation for change. *Artificial Intelligence*, 342, Article 104309. <https://doi.org/10.1016/j.artint.2025.104309>
- Doyle, E. E., Thompson, J., Hill, S., Williams, M., Paton, D., Harrison, S., **Bostrom, A.**, & Becker, J. (2025). Communicating natural hazards science advice: Understanding scientists', decision-makers', and the public's perceptions of the scientific process. *International Journal of Disaster Risk Reduction*, 128, Article 105731. <https://doi.org/10.1016/j.ijdr.2025.105731>
- Sloot, D., & **Bostrom, A.** (2024). The role of framing in public support for direct air capture: A moral hazard survey experiment in the United States. *Energy Research & Social Science*, 116, Article 103694. <https://doi.org/10.1016/j.erss.2024.103694>
- Bostrom, A.**, Demuth, J. L., Wirz, C. D., Cains, M. G., Schumacher, A., Madlambayan, D., Bansal, A. S., Bearth, A., Chase, R., Crosman, K. M., Ebert-Uphoff, I., Gagne, D. J., II, Guikema, S., Hoffman, R., Johnson, B. B., Kumler-Bonfanti, C., Lee, J. D., Lowe, A., McGovern, A., Przybylo, V., Radford, J. T., Roth, E., Sutter, C., Tissot, P., Roebber, P., Stewart, J. Q., White, M., & Williams, J. K. (2024). Trust and trustworthy artificial intelligence: A research agenda for AI in the environmental sciences. *Risk Analysis*, 44(6), 1498–1513. <https://doi.org/10.1111/risa.14245>
- Mix, E. C., Noltner, A., Jenicek, A., Veith, C., **Bostrom, A.**, Donatuto, J., Moore, A., & Errett, N. A. (2024). The whole community? Assessing FEMA's inclusion of Tribal governments in hazard mitigation efforts. *PLOS Climate*, 3(8), Article e0000479. <https://doi.org/10.1371/journal.pclm.0000479>
- McGovern, A., Demuth, J., **Bostrom, A.**, Wirz, C. D., Tissot, P. E., Cains, M. G., & Musgrave, K. D. (2024). The value of convergence research for developing trustworthy AI for weather, climate, and ocean hazards. *npj Natural Hazards*, 1, Article 13. <https://doi.org/10.1038/s44304-024-00014-x>
- Wirz, C. D., Demuth, J. L., Cains, M. G., White, M., Radford, J., & **Bostrom, A.** (2024). National Weather Service (NWS) forecasters' perceptions of AI/ML and its use in operational forecasting. *Bulletin of the American Meteorological Society*, 105(11), E2194–E2215. <https://doi.org/10.1175/BAMS-D-24-0044.1>
- McGovern, A., **Bostrom, A.**, McGraw, M., Chase, R. J., Gagne, D. J., II, Ebert-Uphoff, I., Musgrave, K. D., & Schumacher, A. (2024). Identifying and categorizing bias in AI/ML for Earth sciences. *Bulletin of the American Meteorological Society*, 105(3), E567–E583. <https://doi.org/10.1175/BAMS-D-23-0196.1>
- Moore, A., Jean, C., Korfmacher, M., Vickery, J., **Bostrom, A.**, & Errett, N. A. (2024). Coastal emergency managers' risk perception and decision making for the Tonga distant tsunamis. *International Journal of Disaster Risk Reduction*, 108, Article 104560. <https://doi.org/10.1016/j.ijdr.2024.104560>
- Lovell, S., Vickery, J., López, P., Rodríguez, A. J., Cummings, B. J., Moloney, K., Berman, J., **Bostrom, A.**, Busch Isaksen, T., Estrada, E., Hartwell, C., Kohler, P., Kramer, C. B., Patel, R., Schnall, A., Smith, M. H., & Errett, N. A. (2024). Evaluating an equity-focused approach to assess climate resilience and disaster priorities through a community survey. *PLOS ONE*, 19(6), Article e0302106. <https://doi.org/10.1371/journal.pone.0302106>
- Randazza, J. M., Hess, J. J., **Bostrom, A.**, Hartwell, C., Adams, Q. H., Nori-Sarma, A., Spangler, K. R., Sun, Y., Weinberger, K. R., Wellenius, G. A., & Errett, N. A. (2023). Planning to reduce the health impacts of extreme heat: A content analysis of heat action plans in local United States jurisdictions. *American Journal of Public Health*, 113(5), 559–567. <https://doi.org/10.2105/AJPH.2022.307217>

- Nguyễn, L. T., **Bostrom, A.**, Abramson, D. B., & Moy, P. (2023). Understanding the role of individual- and community-based resources in disaster preparedness. *International Journal of Disaster Risk Reduction*, 96, Article 103882. <https://doi.org/10.1016/j.ijdrr.2023.103882>
- Bostrom, A.**, McBride, S. K., Becker, J. S., Goltz, J. D., de Groot, R. M., Peek, L., Terbush, B., & Dixon, M. (2022). Great expectations for earthquake early warnings on the United States West Coast. *International Journal of Disaster Risk Reduction*, 82, Article 103296. <https://doi.org/10.1016/j.ijdrr.2022.103296>
- Morss, R. E., Vickery, J., Lazrus, H., Demuth, J., & **Bostrom, A.** (2022). Improving tropical cyclone forecast communication by understanding NWS partners' decision timelines and forecast information needs. *Weather, Climate, and Society*, 14(3), 783–800. <https://doi.org/10.1175/WCAS-D-21-0170.1>
- Hudson-Doyle, E. E., Harrison, S. E., Hill, S. R., Williams, M., Paton, D., & **Bostrom, A.** (2022). Eliciting mental models of science and risk for disaster communication: A scoping review of methodologies. *International Journal of Disaster Risk Reduction*, 77, Article 103084. <https://doi.org/10.1016/j.ijdrr.2022.103084>
- Fleming, W., Hayes, A. L., Crosman, K. M., & **Bostrom, A.** (2021). Indiscriminate, irrelevant, and sometimes wrong: Causal misconceptions about climate change. *Risk Analysis*, 41(1), 157–178. <https://doi.org/10.1111/risa.13587>
- Lindell, M. K., **Bostrom, A.**, Goltz, J. D., & Prater, C. S. (2021). Evaluating hazard awareness brochures: Assessing the textual, graphical, and numerical features of tsunami evacuation products. *International Journal of Disaster Risk Reduction*, 61, Article 102361. <https://doi.org/10.1016/j.ijdrr.2021.102361>
- Bostrom, A.**, Böhm, G., Hayes, A. L., & O'Connor, R. E. (2020). Credible threat: Perceptions of pandemic coronavirus, climate change, and the morality and management of global risks. *Frontiers in Psychology*, 11, Article 578562. <https://doi.org/10.3389/fpsyg.2020.578562>
- Morss, R. E., Lazrus, H., **Bostrom, A.**, & Demuth, J. L. (2020). The influence of cultural worldviews on people's responses to hurricane risks and threat information. *Journal of Risk Research*, 23(12), 1620–1649. <https://doi.org/10.1080/13669877.2020.1750456>
- Bouta, A., Ahn, A. Y., **Bostrom, A.**, & Vidale, J. E. (2020). Benefit-cost analysis for earthquake early warning in Washington State. *Natural Hazards Review*, 21(2), Article 04019015. [https://doi.org/10.1061/\(ASCE\)NH.1527-6996.0000346](https://doi.org/10.1061/(ASCE)NH.1527-6996.0000346)
- McBride, S. K., **Bostrom, A.**, Sutton, J., de Groot, R. M., Baltay, A. S., Terbush, B., Bodin, P., Dixon, M., Holland, E., Arba, R., Laustsen, P., Liu, S., & Vinci, M. (2020). Developing post-alert messaging for ShakeAlert, the earthquake early warning system for the West Coast of the United States of America. *International Journal of Disaster Risk Reduction*, 50, Article 101713. <https://doi.org/10.1016/j.ijdrr.2020.101713>
- Bostrom, A.**, Hayes, A. L., & Crosman, K. M. (2019). Efficacy, action, and support for reducing climate change risks. *Risk Analysis*, 39(4), 805–828. <https://doi.org/10.1111/risa.13210>
- Crosman, K. M., **Bostrom, A.**, & Hayes, A. L. (2019). Efficacy foundations for risk communication: How people think about reducing the risks of climate change. *Risk Analysis*, 39(10), 2329–2347. <https://doi.org/10.1111/risa.13334>
- Bostrom, A.**, Morss, R. E., Lazo, J. K., Demuth, J. L., & Lazrus, H. (2018). Eyeing the storm: How residents of coastal Florida see hurricane forecasts and warnings. *International Journal of Disaster Risk Reduction*, 30(Part A), 105–119. <https://doi.org/10.1016/j.ijdrr.2018.02.027>
- Mossler, M. V., **Bostrom, A.**, Kelly, R. P., Crosman, K. M., & Moy, P. (2017). How does framing affect policy support for emissions mitigation? Testing the effects of ocean acidification and other carbon emissions frames. *Global Environmental Change*, 45, 63–78. <https://doi.org/10.1016/j.gloenvcha.2017.04.002>
- Bostrom, A.**, Morss, R. E., Lazo, J. K., Demuth, J. L., Lazrus, H., & Hudson, R. (2016). A mental models study of hurricane forecast and warning production, communication, and decision-making. *Weather, Climate, and Society*, 8(2), 111–129. <https://doi.org/10.1175/WCAS-D-15-0033.1>
- Lazrus, H., Morss, R. E., Demuth, J. L., Lazo, J. K., & **Bostrom, A.** (2016). “Know what to do if you encounter a flash flood”: Mental models analysis for improving flash flood risk communication and public decision making. *Risk Analysis*, 36(2), 411–427. <https://doi.org/10.1111/risa.12480>
- Claassen, L., A. Bostrom & Danielle R.M. Timmermans, (2016). Focal points for improving communications about electromagnetic fields and health: a mental models approach, *Journal of Risk Research*, 19(2), 246–269. <https://doi.org/10.1080/13669877.2014.961519>
- Lazo, J. K., **Bostrom, A.**, Morss, R. E., Demuth, J. L., & Lazrus, H. (2015). Factors affecting hurricane evacuation intentions. *Risk Analysis*, 35(10), 1837–1857. <https://doi.org/10.1111/risa.12407>
- Turaga, R. M. R., Noonan, D., & **Bostrom, A.** (2015). Spatial regulation of air toxics hot spots. *Journal of Policy Analysis and Management*, 34(2), 298–327. <https://doi.org/10.1002/pam.21820>
- Bostrom, A.**, Walker, A. H., Scott, T., Pavia, R., Leschine, T. M., & Starbird, K. (2015). Oil spill response risk judgments, decisions, and mental models: Findings from surveying U.S. stakeholders and coastal residents. *Human and Ecological Risk Assessment: An International Journal*, 21(3), 581–604. <https://doi.org/10.1080/10807039.2014.947865>

- Bostrom, A., S. Joslyn, R. Pavia, A. Hayward Walker, K. Starbird, T. M. Leschine (2015). Methods for Communicating the Complexity and Uncertainty of Oil Spill Response Actions and Tradeoffs. *Human and Ecological Risk Assessment: An International Journal*, 21(3), 631-645. <https://doi.org/10.1080/10807039.2014.947867>
- Scharks, T., **A. Bostrom**, L. Reimann-Garretson, & G. Rix, (2014). Risk Decision Making and Seismic Risk Preparedness at North American Seaports: Analysis of a System-wide Survey. *Earthquake Spectra*, 30(4), 1511–1529. <https://doi.org/10.1193/081711EQS199M>
- Bruine de Bruin, W., & **Bostrom, A.** (2013). Assessing what to address in science communication. *Proceedings of the National Academy of Sciences*, 110(Suppl. 3), 14062–14068. <https://doi.org/10.1073/pnas.1212729110>
- Bostrom, A.**, Böhm, G., & O'Connor, R. E. (2013). Targeting and tailoring climate change communications. *WIREs Climate Change*, 4(5), 447–455. <https://doi.org/10.1002/wcc.234>
- Eiser, J. R., **Bostrom, A.**, Burton, I., Johnston, D. M., McClure, J., Paton, D., van der Pligt, J., & White, M. P. (2012). Risk interpretation and action: A conceptual framework for responses to natural hazards. *International Journal of Disaster Risk Reduction*, 1, 5–16. <https://doi.org/10.1016/j.ijdr.2012.05.002>
- Chan, K. M. A., Guerry, A. D., Balvanera, P., Klain, S., Satterfield, T., Basurto, X., **Bostrom, A.**, Chuenpagdee, R., Gould, R., Halpern, B. S., Hannahs, N., Levine, J., Norton, B., Ruckelshaus, M., Russell, R., Tam, J., & Woodside, U. (2012). Where are cultural and social in ecosystem services? A framework for constructive engagement. *BioScience*, 62(8), 744–756. <https://doi.org/10.1525/bio.2012.62.8.7>
- Bostrom, A.**, O'Connor, R. E., Böhm, G., Hanss, D., Bodi, O., Ekström, F., Halder, P., Jeschke, S., Mack, B., Qu, M., Rosentrater, L., Sandve, A., & Sælensminde, I. (2012). Causal thinking and support for climate change policies: International survey findings. *Global Environmental Change*, 22(1), 210–222. <https://doi.org/10.1016/j.gloenvcha.2011.09.012>
- Wood M, **Bostrom A**, Bridges T, & Linkov I. (2012). Cognitive Mapping Tools: Review and Risk Management Needs. *Risk Analysis*, 32(8), 1333–1348. <https://doi.org/10.1111/j.1539-6924.2011.01767.x>
- Keller C, **Bostrom A**, Kuttischreuter M, Savadori L, Spence A, White M. (2012). Bringing Appraisal Theory to Environmental Risk Perception: A Review of Conceptual Approaches of the Past 40 Years and Suggestions for Future Research. *Journal of Risk Research*, 15(3), 237-256. <https://doi.org/10.1080/13669877.2011.634523>
- Park, J., **Bostrom, A.**, Goodno, B.J. & Craig, J.I., (2011). Application of Probabilistic Decision Models for Seismic Rehabilitation of Structures. *International Journal of Information Technology & Decision Making*, 10(2), 309–331. <https://doi.org/10.1142/S0219622011004348>
- Bostrom, A.**, & Löfstedt, R. E. (2010). Nanotechnology risk communication past and prologue. *Risk Analysis*, 30(11), 1645–1662. <https://doi.org/10.1111/j.1539-6924.2010.01521.x>
- Reynolds, T. W., **Bostrom, A.**, Read, D., & Morgan, M. G. (2010). Now what do people know about global climate change? Survey studies of educated laypeople. *Risk Analysis*, 30(10), 1520–1538. <https://doi.org/10.1111/j.1539-6924.2010.01448.x>
- Bostrom, A.** (2008). Lead is like mercury: Risk comparisons, analogies and mental models. *Journal of Risk Research*, 11(1–2), 99–117. <https://doi.org/10.1080/13669870701602956>
- Bostrom, A.**, Anselin, L., Farris, J. (2008). Visualizing Seismic Risk and Uncertainty: A Review of Related Research. *Annals of the New York Academy of Sciences*. 1128: 29–40. <https://doi.org/10.1196/annals.1399.005>
- Dueñas-Osorio, L. Craig, JI, Goodno, BJ & **Bostrom, A.** (2007). Interdependent Response of Networked Systems. *ASCE Journal of Infrastructure Systems*, 13(3), 185-194. [https://doi.org/10.1061/\(ASCE\)1076-0342\(2007\)13:3\(185\)](https://doi.org/10.1061/(ASCE)1076-0342(2007)13:3(185))
- Bostrom, A.**, Barke, R., Turaga, R.M., O'Connor, R.C., (2006). Environmental Concerns and the New Environmental Paradigm in Bulgaria. *Journal of Environmental Education*, 27(3), 25-40. <https://doi.org/10.3200/JOEE.37.3.25-40>
- Bostrom, A.**, Turaga, R.M., & Ponomarev, B.(2006). Earthquake Mitigation Decisions and Consequences. *Earthquake Spectra*, 22(2), 313-327. <https://doi.org/10.1193/1.2190668>
- Woo, E.J., Ball, R., **Bostrom, A.**, Shadomy, S.V., Ball, L.K., Evans, G., & Braun, M.M. (2004). Vaccine Risk Perception Among Reporters of Autism after Vaccination: Vaccine Adverse Event Reporting System 1990-2001. *American Journal of Public Health*, 94(6), 990-995. <https://doi.org/10.2105/AJPH.94.6.990>
- Bostrom, A.** (2003). Future risk communication. *Futures*, 35(6), 553–573. [https://doi.org/10.1016/S0016-3287\(02\)00100-3](https://doi.org/10.1016/S0016-3287(02)00100-3)
- Bostrom, A.** & Löfstedt, R.E., (2003). Communicating Risk: Wireless and Hardwired. *Risk Analysis*, 23(2), 241-248. <https://doi.org/10.1111/1539-6924.00304>
- Ball, L.K., Evans, G. and **Bostrom, A.** (1998). Risky Business: Challenges in Vaccine Risk Communication. *Pediatrics*, 101, 453-458. <https://doi.org/10.1542/peds.101.3.453>
- Bostrom, A.** (1998). Risk Perceptions: Experts versus Laypeople. *Duke Environmental Law and Policy Forum*, VIII, 101-113. <https://doi.org/10.1196/annals.1399.005>
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Book Chapters, Contributed Volumes, and Encyclopedia Entries

- Morgan, M. G., Abdulla, A., Apt, J., Azevedo, I., **Bostrom, A.**, Bruine de Bruin, W., Casman, E., Dowlatabadi, H., Griffin, M., McDaniels, T., Stolaroff, J., & Vaishnav, P. (2023). *Interdisciplinary research on climate and energy decision making: 30 years of research on global change*. Routledge.
- Bostrom, A.**, Böhm, G., & O'Connor, R. E. (2018). Communicating risks: Principles and challenges. In M. Raue, E. Lerner, & B. Streicher (Eds.), *Psychological perspectives on risk and risk analysis: Theory, models, and applications* (pp. 251–277). Springer. https://doi.org/10.1007/978-3-319-92478-6_11
- Bostrom, A.** (2018). Mental models and risk perceptions related to climate change. In M. C. Nisbet (Ed.), *The Oxford encyclopedia of climate change communication*. Oxford University Press. <https://doi.org/10.1093/acrefore/9780190228620.013.303>
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- Bostrom, A.** & Löfstedt, R. (2012). Nanotechnology Risk Communication, Chapter 9 (pp 215-230) in Shatkin J, Nanotechnology: Health and Environmental Risks, 2nd edition. CRC Press, Taylor & Francis Group, New York. ISBN 978-1439881750
- Lombardo, P.A. & **Bostrom, A.** (2008). Swimming Upstream: Regulating Genetically Modified Salmon. In: Lustig, B.A., Brody, B.A., McKenny, G.P. (eds) *Altering Nature. Philosophy and Medicine*, v98. Springer, Dordrecht. https://doi.org/10.1007/978-1-4020-6923-9_9
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- Bostrom, A.**, & Atkinson, E. (2007). Trust and risk in smallpox vaccination. In M. Siegrist, T. C. Earle, & H. Gutscher (Eds.), *Trust in cooperative risk management: Uncertainty and scepticism in the public mind* (pp. 173–186). Earthscan.
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- Bostrom, A.** (1999). Who calls the shots?: Credible Vaccine Risk Communication. In George Cvetkovich and Ragnar E Lofstedt (Eds.), *Social Trust and the Management of Risk*. World: Earthscan Publications (Island Press in the US).
- Fischhoff, B., **Bostrom, A.**, & Quadrel, M. J. (1997). Risk perception and communication. In R. Detels, J. McEwen, & G. Omenn (Eds.), *Oxford textbook of public health* (pp. 987–1002). Oxford University Press.

National Academies Consensus Reports

- National Academies of Sciences, Engineering, and Medicine. (2021). *Space radiation and astronaut health: Managing and communicating cancer risks*. The National Academies Press. <https://doi.org/10.17226/26155> [Committee member]

- National Academies of Sciences, Engineering, and Medicine. (2018). *Integrating social and behavioral sciences within the weather enterprise*. The National Academies Press. <https://doi.org/10.17226/24865> [Committee co-chair]
- National Academies of Sciences, Engineering, and Medicine. (2017). *Communicating science effectively: A research agenda*. The National Academies Press. <https://doi.org/10.17226/23674> [Committee member]
- National Research Council. (2014). *Review of EPA's Integrated Risk Information System (IRIS) process*. The National Academies Press. <https://doi.org/10.17226/18764> [Committee member]
- National Research Council. (2010). *Tsunami warning and preparedness: An assessment of the U.S. tsunami program and the nation's preparedness efforts*. The National Academies Press. <https://doi.org/10.17226/12628> [Committee member]
- Institute of Medicine & National Research Council. (2010). *Enhancing food safety: The role of the Food and Drug Administration*. The National Academies Press. <https://doi.org/10.17226/12892> [Committee member]
- Institute of Medicine. 2007. *Seafood Choices: Balancing Benefits and Risks*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/11762> [Committee member]
- National Research Council. 2004. *Improving the Characterization Program for Contact-Handled Transuranic Waste Bound for the Waste Isolation Pilot Plant*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/10900> [Committee member]

SELECTED RESEARCH GRANTS

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|-----------|---|
| 2025–2027 | Co-PI. Resilience Innovation Incubator for Cascadia Coastal Hazards (R2I2)
<i>National Science Foundation, Award 2519682 · \$500,000 (\$152,000 to UW) · PI P. Ruggiero, Oregon State University</i> |
| 2025–2029 | Co-PI. RAISE: Integrating River-Avulsion Risk into Floodplain Management
<i>National Science Foundation, Award 2438774 · \$998,891 · PI A. Horner-Devine</i> |
| 2024–2027 | Co-PI. Ethical and Responsible Artificial Intelligence for Earth Sciences
<i>National Science Foundation, Award 2418577 · \$399,776 · PI A. McGovern</i> |
| 2023–2026 | Co-PI. Integrating Social and Meteorological Data to Assess the Dynamics of Flood Hazards and Impacts
<i>National Oceanic and Atmospheric Administration, NA23OAR40505031 · \$960,000 (\$219,284 to UW) · PI A. McGovern (AI2ES), University of Oklahoma</i> |
| 2021–2026 | Co-PI and Co-Director. Cascadia Coastlines and People Hazards Research Hub (Cascadia CoPes Hub)
<i>National Science Foundation, Large-Scale CoPe, Award 2103713 · \$18.9 million (\$7.9 million to UW) · PI P. Ruggiero, Oregon State University</i> |
| 2020–2026 | UW PI and Leadership Team. NSF AI Institute for Research on Trustworthy AI in Weather, Climate, and Coastal Oceanography (AI2ES)
<i>National Science Foundation, Award 2019758 · \$20 million total · Co-lead for risk communication · PI A. McGovern, University of Oklahoma</i> |
| 2020–2025 | PI. Testing Risk Communication Strategies Designed to Address Cognitive Simplifications that Underlie Factually Erroneous Beliefs about Scientific Issues
<i>National Science Foundation, Award 1948572 · \$649,300 including supplements for earthquake early warning research · Co-PI S. Joslyn</i> |
| 2020–2025 | Co-PI. CoPe RCN: Cascadia Coastal Hazards Research Coordination Network
<i>National Science Foundation · \$486,207 · PI D. Schmidt</i> |
| 2019–2021 | PI. Minding the Gap: Modernizing the Tropical Cyclone Product Suite by Evaluating NWS Partner Information Needs
<i>National Oceanic and Atmospheric Administration · in partnership with the National Center for Atmospheric Research (Lead PI R. Morss)</i> |
| 2014–2018 | Co-PI. Perception of Climate Change
<i>National Science Foundation, Award 1430781 · \$638,187 · PI S. Joslyn</i> |
| 2013–2019 | Co-PI. Hazards SEES: Magnitude 9 Earthquake Scenarios—Probabilistic Modeling, Warnings, Response and Resilience in the Pacific Northwest
<i>National Science Foundation, Award 1331412 · \$2.94 million · PI J. Vidale</i> |
| 2008–2011 | Co-PI. Warning Decisions in Extreme Weather Events: An Integrated Multidisciplinary Approach
<i>National Science Foundation · \$750,000 total (\$145,850 to UW) · Lead PI J. Lazo, National Center for Atmospheric Research</i> |

SELECTED INVITED AND KEYNOTE ADDRESSES

2026	<i>Perceptions of earthquakes and earthquake early warnings. 25 Years Since the Nisqually Earthquake: Are We Ready for the Next One?</i> Pacific Northwest Seismic Network, University of Washington
2025	<i>Powering up science and action: Roundtable on artificial intelligence and climate change.</i> AI, Energy Demand, and the Environment webinar, Societal Experts Action Network and Board on Environmental Change and Society, National Academies (panelist)
2025	<i>The ethics of strategic risk communication.</i> Society for Risk Analysis–Europe and ESREL joint conference, University of Stavanger, Norway (roundtable panelist)
2023	<i>Risk management of AI: How should we prepare?</i> Plenary, Society for Risk Analysis Annual Meeting, Washington, DC
2023	<i>Co-producing science to cope with coastal hazards and climate change in Cascadia.</i> Planning for Sustainability in a Climate-Altered Future: The Bevan Series on Sustainable Fisheries. UW Seattle, WA.
2022	<i>Correcting alluring misconceptions about climate change.</i> Plenary keynote, Society for Risk Analysis–Europe Nordic Chapter, Bergen, Norway
2021	<i>Three Risk Decision Traps for the Ethical AI Geoscientist,</i> 20th Conference on Artificial Intelligence for Environmental Science, 101st American Meteorological Society meeting (virtual).
2020	<i>Crisis Communications, Risk Assessment and Managing Radiation Risk.</i> Institutional Biosafety Conference 2020: Practicing Safe Science: IBC Excellence in the Northwest. Northwest Association for Biomedical Research (February), Seattle, WA
2019	<i>How to slow or stop climate change: Perceptions and policy preferences.</i> Distinguished Lecture, Social, Behavioral and Economic Sciences, National Science Foundation
2018	<i>Enhancing food safety.</i> Keynote, International Symposium of Food Safety Policy and Technology, Taipei, Taiwan
2017	<i>Toward improving forecast and warning systems.</i> Plenary, AFAC 2017 Research Conference, Bushfire and Natural Hazards CRC, Sydney, Australia
2017	<i>Does thinking concretely about climate change reduce perceived uncertainties?</i> Plenary, Cambridge Risk and Uncertainty Conference, University of Cambridge, UK
2014	<i>Setting the stage for early earthquake alerts and warnings.</i> Shah Family Fund Distinguished Lecture, John A. Blume Earthquake Engineering Center, Stanford University
2013	<i>Comments on lay narratives and epistemologies.</i> Plenary discussant, Sackler Colloquium on the Science of Science Communication II, National Academy of Sciences
2011	<i>Communicating about weather risks.</i> Keynote, NSF–NOAA Workshop on Risk Communications for Natural Hazards, National Hurricane Center, Miami

TEACHING AND MENTORING

Courses Taught

2007–present	University of Washington Communicating Climate Change · Ethics and Practice of Climate Change Communication and Community Engagement Strategies · Environmental Disaster Policy · Surviving Disaster (co-taught, cross-listed with Earth and Space Sciences) · Capstone Seminar · Executive Decision Making (Executive MPA) · Quantitative Analysis I and II · The Role of Science in Environmental Decision Making · Prize Philanthropy: Gaming for Global Development (co-taught) · Research Design and Proseminar (Ph.D.)
1992–2007	Georgia Institute of Technology Risk Communication · Risk Perception, Communication and Management · Environmental and Technological Risk Management · Environmental Regulation · Sustainability, Technology and Policy · Statistical Analysis · Data Analysis in Policy Science · Quantitative Thinking and Policy Problems · Qualitative Research Methods (Ph.D.)

2014 **University of Bergen**
Survey Methodology (co-taught)

Doctoral Dissertations Chaired or Co-Chaired

2022 **Alicia Ahn**. *Households' perceptions of earthquake risks and protective measure adoption intentions*
2021 **Lan T. Nguyễn**. *Community matters: Local knowledge and social connections for disaster preparedness in Washington State* (co-chair)
2019 **Katherine M. Crosman**. *Stakeholder buy-in to marine and coastal resource management under conditions of complex governance*
2016 **Timothy E. Scharks**. *Threatening messages in climate change communication* (UW Best Dissertation in the Social Sciences, 2015–2016)
2014 **Pradeep Singh**. *Essays in intertemporal choice under uncertainty: A behavioral approach*
2007 **Rama Mohana Turaga**. *Spatial resolution, costs, and equity in air toxics regulation* (Georgia Tech)
2004 **Joonam Park**. *Development and application of a probabilistic decision support framework for seismic rehabilitation of structural systems* (Georgia Tech, co-chair)

PROFESSIONAL AND UNIVERSITY SERVICE

Professional Leadership and Editorial Roles

2021-present Member, American Meteorological Society (AMS), ad hoc committee on AI Ethics and Policy, January 2025 to present. Member AMS 2021-present.
2020–2026 Board of Directors, Washington State Academy of Sciences (elected 2020, re-elected 2023)
2015–present Editorial Board, *Environmental Hazards*
2013-2025 Member, Steering Committee, UW Ph.D. Program in Urban Design and Planning, 2013-2025.
2006–2015 Senior Editor for Risk Communication, *Human and Ecological Risk Assessment*
1998-present Area Editor for Risk Communication 2008-2011, *Risk Analysis* (editorial board since 1998)
1997–present Associate Editor (2005–present), *Journal of Risk Research* (editorial board since 1997)
1995-present Board of Directors, American Association for the Advancement of Science, 2019-2023; Committee and Board Liaison to the Committee on Science, Engineering, and Public Policy, 2021-2023. Chair, Section K (2016–2017).. Member 1995-present.
1991–present President, Society for Risk Analysis (2012), Councilor (2001–2004), Fellow (2014), Society for Risk Analysis. Chair, Risk Communication Specialty Group, 2000-2001. Secretary-Treasurer of Risk Communication Specialty group, 1993-1999, 2006-2008
1990-present Association for Public Policy Analysis and Management Policy Council (2009, one year); Member of Annual meeting planning committee 2000, 2004, 2005, 2011. Member 1990-present.
1988-present Society for Judgment and Decision Making Hillel Einhorn award review committee member 2007-2009 (Committee Chair 2009); Student poster judge at annual meetings, annually 2003-2006, 2008-2010. Member 1988-present.

University Service (Selected)

2023–present Member, Graduate School Council and its Policy Committee, University of Washington
2023-present Co-Director of Research, Center for Disaster Resilient Communities, University of Washington
2024–2025 Chair, Faculty Council, Evans School of Public Policy and Governance (Chair-elect 2023–2024)
2024 Member, President and Provost's task force working group on AI for Research, Spring 2024.
2017–present Primary Research Area Chair, Environments and Populations, Ctr for Studies in Demography and Ecology
2017–present Member, Governing Board, UW Program on Climate Change
2016–2023 Faculty Advisor, EarthLab Executive Committee; Co-Director, EarthLab Center for Natural Hazards and Resilience (to 2018)
2014–2021 Faculty Coordinator, Evans School Ph.D. Program in Public Policy & Management; Chair, Ph.D. Committee