Big Data, Machine Learning, and Data Science for Policy in California: Prospects, Possibilities, Limitations

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How will big data, machine learning, and data science change policy and governance in California? Exactly what is machine learning and what are its strengths and limitations? After defining these ideas, this talk will provide examples from California and elsewhere of how data science and big data will change the way we formulate, implement, and evaluate policy. The talk will emphasize four public policy arenas that will be affected: the management of cities, the delivery of health care, the management of natural resources, and the management of information. The problems of privacy and confidentiality and the dangers of algorithms that lack a moral sense will be addressed.

Henry Brady is Dean of the Goldman School of Public Policy and Class of 1941 Monroe Deutsch Professor of Political Science and Public Policy at the University of California, Berkeley. He received his PhD in Economics and Political Science from MIT in 1980. He has written on electoral politics and political participation, social welfare policy, political polling, and statistical methodology, and he has worked for the federal Office of Management and Budget and other organizations in Washington, D.C. He is past president of the American Political Science Association, past president of the Political Methodology Society of the American Political Science Association, and director of the University of California’s Survey Research Center from 1998 to 2009. He is coauthor of numerous books including: The Unheavenly Chorus: Political Voice and the Promise of American Democracy (2012), which won the 2012 Award for Excellence in Social Sciences from the Association of American Publishers; Counting All the Votes: The Performance of Voting Technology in the United States (2001); Expensive Children in Poor Families: The Intersection of Childhood Disability and Welfare (2000); Voice and Equality: Civic Voluntarism in American Politics (1995), which won the Philip Converse Award for a book making a lasting contribution to public opinion research and the AAPOR book award for influential books that have stimulated theoretical and scientific research in public opinion; and Letting the People Decide: Dynamics of a Canadian Election (1992), which won the Harold Innis Award for the best book in the social sciences published in English in Canada. He is co-editor of the Oxford Handbook of Political Methodology (2008); Capturing Campaign Effects (2006); and Rethinking Social Inquiry (2004), which won the Sartori Award for best book on qualitative methods. His most recent book is Unequal and Unrepresented: Political Inequality and the People’s Voice in the New Gilded Age (2018). Henry Brady has also authored numerous articles on political participation, political methodology, the dynamics of public opinion, and other topics. He was elected a Fellow of the American Academy of Arts & Sciences in 2003 and a Fellow of the American Association for the Advancement of Science in 2006.

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