ABSTRACT:
Data science holds the promise to solve many of society’s most pressing challenges but much of the necessary data is locked within the volumes of text and speech on the web. Thus, in many cases, data science can only succeed if paired with natural language processing. In this talk, Professor McKeown will describe research projects that draw from language data along a continuum from fact to fiction. She will present a system that predicts the future impact of a scientific concept—represented as a technical term—based on the information available in recently published research articles, research on learning from knowledge of past disasters, as seen through the lens of the media and on the use of data science in a far different discipline, the field of literature.

BIOGRAPHY:
Kathleen R. McKeown is the Henry and Gertrude Rothschild Professor of Computer Science at Columbia University and she also serves as the Director of the Institute for Data Sciences and Engineering. She served as Department Chair from 1998-2003 and as Vice Dean for Research for the School of Engineering and Applied Science for two years. McKeown received the Ph.D. in Computer Science from the University of Pennsylvania in 1982 and has been at Columbia since then. Her research interests include text summarization, natural language generation, multi-media explanation, question-answering and multi-lingual applications. In 1985 she received a National Science Foundation Presidential Young Investigator Award, in 1991 she received a National Science Foundation Faculty Award for Women, in 1994 she was selected as a AAAI Fellow, in 2003 she was elected as an ACM Fellow, and in 2012 she was selected as one of the founding Fellows of the Association for Computational Linguistics. In 2010, she received the Anita Borg Institute Women of Vision Award in Innovation for her work on text summarization. McKeown is also quite active nationally. She has served as President, Vice President and Secretary-Treasurer of the Association of Computational. She also served as a board member of the Computing Research Association and as secretary of the board.