**Colorado State University's
Information Science and Technology Center (ISTeC)
*presents***

Dr. Jeannette Wing

**NSF Assistant Director of the Computer
and Information Science and
Engineering Directorate,
Carnegie Mellon University
President's Professor of Computer
Science**

ISTeC Distinguished Lecture

**in conjunction with the
Electrical and Computer Engineering Department and
Computer Science Department Seminar Series**

"Computational Thinking and Thinking About Computing"

Wednesday October 21, 2009
Reception: 10:30 a.m.
Lecture: 11:00 – 12:00 noon
Location: Lory Student Center Room 230

My vision for the 21st Century: Computational thinking will be a fundamental skill used by everyone in the world. To reading, writing, and arithmetic, we should add computational thinking to every child's analytical ability. Computational thinking involves solving problems, designing systems, and understanding human behavior by drawing on the concepts fundamental to computer science. Thinking like a computer scientist means more than being able to program a computer. It requires the ability to abstract and thus to think at multiple levels of abstraction. In this talk I will argue that computational thinking has already begun to influence other disciplines, and promote the idea that teaching computational thinking can not only inspire future generations to enter the field of computer science but also benefit people in all fields.

In thinking about computing, I have started a list of "Deep Questions in Computing," with the hope of encouraging the community to think about the scientific drivers of our field. These drivers, alongside technological innovation and societal grand challenges, point to a bright future for computer science, with exciting new discoveries and transformative capabilities yet to happen.

SPEAKER BIOGRAPHY

Dr. Jeannette M. Wing is the President's Professor of Computer Science in the Computer Science Department at Carnegie Mellon University. She received her S.B. and S.M. degrees in Electrical Engineering and Computer Science in 1979 and her Ph.D. degree in Computer Science in 1983, all from the Massachusetts Institute of Technology. From 2004-2007, she was Head of the Computer Science Department at Carnegie Mellon. Currently on leave from CMU, she is the Assistant Director of the Computer and Information Science and Engineering Directorate at the National Science Foundation.

Professor Wing's general research interests are in the areas of specification and verification, concurrent and distributed systems, programming languages, and software engineering. Her current focus is on the foundations of trustworthy computing. Professor Wing was or is on the editorial board of twelve journals. She is a member of AAAS, ACM, IEEE, Sigma Xi, Phi Beta Kappa, Tau Beta Pi, and Eta Kappa Nu, and is an AAAS Fellow, ACM Fellow, and IEEE Fellow.

To arrange a meeting with the speaker, please contact Dr. Robert France at (970) 491-6356 or france@cs.colostate.edu

ISTeC (Information Science and Technology Center) is a university-wide organization for promoting, facilitating, and enhancing CSU's research, education, and outreach activities pertaining to the design and innovative application of computer, communication, and information systems. For more information, please see ISTeC.ColoState.edu.

The lecture is open to the public.