

## *Computational Thinking: A Vision for the 21<sup>st</sup> Century*

**Prof. Jeannette Wing**

**Wednesday, April 2, 2008**

**3:00 – 4:00 PM**

**Grand Ballroom B, Student Center  
Eastern Michigan University**

*-- refreshments served immediately after the talk --*

<http://www.emich.edu/compsci/wing/>



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**Prof. Wing is President's Professor and Head (on leave)**

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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. The two A's to computational thinking are abstraction and automation. Thinking like a computer scientist means thinking at multiple levels of abstraction simultaneously; and it is the automation of our abstractions that gives us the ability and audacity to scale. In this talk I will give many examples of computational thinking, argue that it has already influenced other disciplines, and promote the idea that teaching computational thinking can inspire future generations to enter the field of computer science.