

## **Executive MBA Master Class**



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## Job Market Robot Apocalypse?

Technological change has had dramatic effects on labor markets for several hundred years. For example, automation reduced the fraction of the US labor market employed in agriculture from over 40% to about 4% since World War II, despite large increases in total output.

The information technology and telecommunications revolutions have had important effects on job design, demand for different types of skills and inequality since about 1980. Many workers lost their jobs or saw compensation stagnate; others experienced the opposite. Largely, these changes were due to the ability of computers to take over predictable, repetitive tasks that were easily codified in software or machines.

Recent advances in artificial intelligence are changing the situation once more. Machine-learning algorithms are rapidly increasing the ability for computers to perform some types of cognitive tasks, and also helping machines become better at performing physical tasks.

Are machines finally reaching the point where they can replace people in most types of work? For example, one recent study by Oxford computer scientists estimated that nearly half of all jobs are at high risk of automation. These developments have caused many observers to worry that we have finally reached the age when technology will create mass unemployment, with employment and rewards for only the most highly-skilled, or the owners of capital.

Professor Gibbs discusses these developments and places them in context. He provides a framework for thinking about when automation of tasks replaces humans, when it augments their work (thus making them more valued in the labor market), and how that may be changing with modern machine learning and robotics techniques. He provides an assessment of recent research on the extent to which jobs are at high risk of automation, and discusses public policy implications.

Join us for Professor Gibbs's timely talk about the future of labor markets ... before robots make him obsolete.