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He is the recipient of three IBM Outstanding Innovation Awards, the ACM SIGACT Goedel Prize, the ACM Kanellakis Award, the ACM SIGMOD Codd Award, the Blaise Pascal Medal, the IEEE Computer Society Goode Award, the EATCS Distinguished Achievements Award, the Southeastern Universities Research Association's Distinguished Scientist Award, and the ACM SIGLOG Church Award. He is the author and co-author of over 600 papers, as well as two books: Reasoning about Knowledge and Finite Model Theory and Its Applications. He is a Fellow of the American Association for the Advancement of Science, the American Mathematical Society the Association for Computing Machinery, the American Association for Artificial Intelligence, the European Association for Theoretical Computer Science, the Institute for Electrical and Electronic Engineers, and the Society for Industrial and Applied Mathematics. He is a member of the US National Academy of Engineering and National Academy of Science, the American Academy of Arts and Science, the European Academy of Science, and Academia Europaea. He holds six honorary doctorates. He is currently a Senior Editor of of the Communications of the ACM, after having served for a decade as Editor-in-Chief.

Lecture Topics:

1. **Humans, Machines, and Work: The Future is Now**

Automation, driven by technological progress, has been increasing inexorably for the past several decades. Two schools of economic thinking have for many years been engaged in a debate about the potential effects of automation on jobs: will new technology spawn mass unemployment, as the robots take jobs away from humans? Or will the jobs robots take over create demand for new human jobs?

I will present data that demonstrate that the concerns about automation are valid. In fact, technology has been hurting working-class people for the past 40 years. The discussion about humans, machines and work tends to be a discussion about some undetermined point in the far future. But it is time to face reality. The future is now.

2. **An Ethical Crisis in Computing**?

Computer scientists think often of "Ender's Game" these days. In this award-winning 1985 science-fiction novel by Orson Scott Card, Ender is being trained at Battle School, an institution designed to make young children into military commanders against an unspecified enemy. Ender's team engages in a series of computer-simulated battles, eventually destroying the enemy's planet, only to learn then that the battles were very real and a real planet has been destroyed.

Many of us got involved in computing because programming was fun. The benefits of computing seemed intuitive to us. We truly believe that computing yields tremendous societal benefits; for example, the life-saving potential of driverless cars is enormous! Like Ender, however, we realized recently that computing is not a game--it is real--and it brings with it not only societal benefits, but also significant societal costs, such as labor polarization, disinformation, and smart-phone addiction.

The common reaction to this crisis is to label it as an "ethical crisis" and the proposed response is to add courses in ethics to the academic computing curriculum. I will argue that the ethical lense is too narrow. The real issue is how to deal with technology's impact on society. Technology is driving the future, but who is doing the steering?