

Preparing for the Computer Revolution

Ian Foster

The University of Chicago and Argonne National Laboratory

Computer pioneer Alan Kay has asserted (most recently in 2007) that "The Computer Revolution Hasn't Happened Yet." That may seem a strange statement to make some 60 years after the surely revolutionary ENIAC, and the subsequent 12+ orders of magnitude increase in computing capability. Kay was referring, however, to what he sees as the yet-unrealized potential for the computer to act as a true intelligence amplifier. In this talk, I examine Kay's vision, asking: Was he right in his assessment? Is this computer revolution imminent? How will we know when it arrives, and how will life be different? How can we accelerate its arrival?