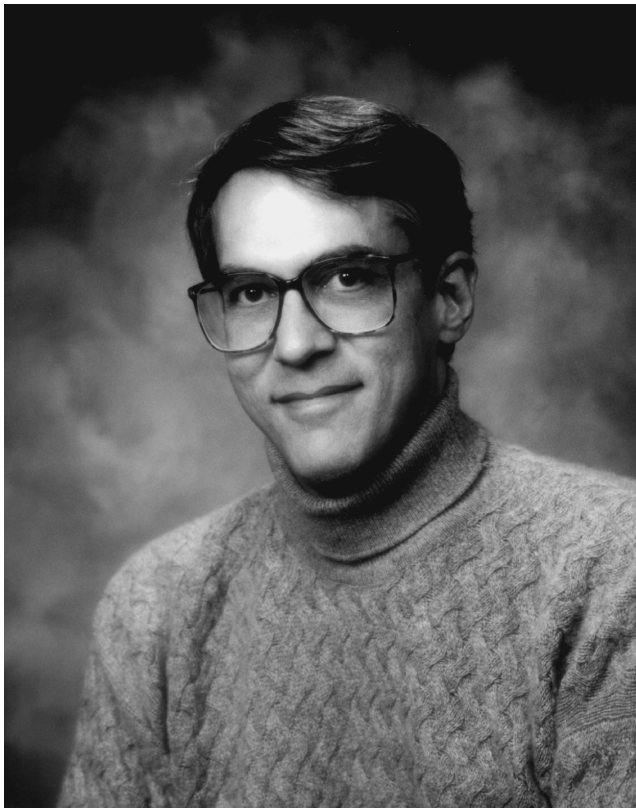


KEYNOTE ADDRESS

THE HAL 9000 COMPUTER AND THE VISION OF 2001: *A SPACE ODYSSEY*

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ABSTRACT

“I am a HAL 9000 computer production number 3. I became operational at the HAL Laboratories in Urbana, Illinois on January 12, 1997...”

--Arthur C. Clarke, *2001: A Space Odyssey* (1968 novel)

It's 2001: Where's HAL?

2001: A Space Odyssey, Stanley Kubrick and Arthur C. Clarke's 1968 epic film about space exploration and the evolution of intelligence, was the most carefully researched

and scientifically precise feature film ever made. Now, in its namesake year, we can compare the film's computer science “visions” with current technological fact -- in particular those related to its central character, the HAL 9000 computer, which could speak, reason, see, play chess, plan and express emotions. In some domains reality has surpassed the vision in the film: computer chess, computer hardware, and graphics. In numerous others, reality has fallen far short: computer speech, language, vision, lipreading, planning, and common sense. The film missed some trends entirely: the film showed no laptops or PDAs and HAL as large as a school bus but in reality computers instead got small. As such, the film provides a remarkable perspective on the sweep of developments in the modern era of computer technology.

This non-technical talk is profusely illustrated with clips from 2001 and current research and sheds new light on key moments of the film. You will never see the film the same way again.

AUTHOR BIOGRAPHY

DAVID G. STORK, Ph.D., is Chief Scientist at Ricoh Innovation's California Research Center and Consulting Associate Professor of Electrical Engineering and Visiting Lecturer in Computer Science at Stanford University. His most recent books are *HAL's Legacy: 2001's computer as dream and reality* (MIT Press) and *Pattern Classification (2nd ed.)* by R. O. Duda, P. E. Hart and D. G. Stork (Wiley). He is the creator and host of the PBS television documentary, “2001: HAL's Legacy.”