



GRACE HOPPER

AND THE INVENTION OF THE INFORMATION AGE

KURT W. BEYER

A Hollywood biopic about the life of computer pioneer Grace Murray Hopper (1906–1992) would go like this: a young professor abandons the ivy-covered walls of academia to serve her country in the Navy after Pearl Harbor and finds herself on the front lines of the computer revolution. She works hard to succeed in the all-male computer industry, is almost brought down by personal problems but survives them, and ends her career as a celebrated elder stateswoman of computing, a heroine to thousands, hailed as the inventor of computer programming. Throughout Hopper's later years, the popular media told this simplified version of her life story. In *Grace Hopper and the Invention of the Information Age*, Kurt Beyer goes beyond the screenplay-ready myth to reveal a more authentic Hopper, a vibrant, complex, and intriguing woman whose career paralleled the meteoric trajectory of the postwar computer industry.

Hopper made herself "one of the boys" in Howard Aiken's wartime Computation Laboratory at Harvard, then moved on to the Eckert and Mauchly Computer Corporation. Both rebellious and collaborative, she was influential in male-dominated military and business organizations at a time when women were encouraged to devote themselves to housework and childbearing. Hopper's greatest technical achievement was to create the tools that would allow humans to communicate with computers in terms other than ones and zeroes. This advance influenced all future programming and software design and laid the foundation for the development of today's user-friendly personal computers.

Kurt W. Beyer is a former professor at the United States Naval Academy and lectures regularly on the process of technological innovation. He is a cofounder of a digital media services company and has authored multiple patents (pending) on high speed digital data processing.

Lemelson Center Studies in Invention and Innovation series

Available September 2009

5 3/8 x 8, 408 pp., 24 illus., \$27.95 cloth • 978-0-262-01310-9

"I saw Grace Hopper speak when I was a young software programmer at Bell Labs. While she spoke of great technology and the power of computing, she also re-enforced the creative power of youthful thinking, public speaking, and collaborative efforts. *Grace Hopper and the Invention of the Information Age* brings all of those themes together in a compelling way, placing Grace Hopper where she belongs: at the creative genesis of the technology upon which our world depends."

— **Lucy Sanders,**
CEO and Co-founder, National Center for Women and Information Technology

"It is a pleasure finally to read a biography of Grace Hopper that does not simply list the clichéd myths about 'Amazing Grace' but instead tells the story of her wonderful life and contributions to the development of programming languages. Beyer reveals interesting facts and aspects of her life that I have never seen published. It portrays Grace as a human being and subject to the whims of both personal and social problems of her era. Along the way it provides insight into the changing social status of technically oriented women and details the personal struggles that this caused Grace and her female colleagues."

— **Michael R. Williams,**
Professor Emeritus, Department of Computer Science, University of Calgary