Retinal Displays

Thomas A. Furness III, Ph.D.
Professor and Director
Human Interface Technology Laboratory
University of Washington
Seattle, WA 98195
Email:tfurness@hitl.washington.edu

Abstract

Computers have become pervasive, ubiquituous, mobile and can push increasing streams of data to people. But the utility of these information engines may be affected mostly by the design of last few inches connecting the human to the machine. Dr. Furness will relate lessons learned in a 36 year quest to develop advanced display technology culminating in his invention of the virtual retinal display, a means for scanning an image directly onto the retina of the eye. The unique resolution and luminance characteristics of the VRD make it ideal for wearable computing applications.

Dr. Furness *received a BS degree in Electrical Engineering from Duke University and Ph.D. in Engineering and Applied Science from the University of Southampton, England. He is currently a professor of Industrial Engineering and adjunct professor of Electrical Engineering and Technical Communication at the University of Washington, and is the founding director of the Human Interface Technology Laboratory at the Washington Technology Center. Prior to joining the faculty at the University, he served a combined 23 years as an officer and civilian at the Armstrong Laboratory at Wright-Patterson Air Force Base, Ohio, where he developed advanced cockpits and virtual interfaces for the Department of Defense. Dr. Furness is the inventor of the personal eyewear display, the virtual retinal display, the HALO display, and other display and interface technologies. In 1998, Dr. Furness received the Discover Award for Technology Innovation for his invention of the Virtual Retinal Display.*

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