

# The Biometric Identification of Persons

**Professor John Daugman**



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## **Biography**

*John Daugman received his degrees at Harvard University and then taught at Harvard before coming to Cambridge, where he is Professor of Computer Vision and Pattern Recognition. His areas of research and teaching include information theory, computer vision, and statistical pattern recognition. He is the inventor of iris recognition*

## **Abstract**

Technologies for reliable automatic identification of persons by their biometric traits have advanced greatly in the past two decades, in sensors, modalities, algorithms, architectures, and standards. Several national deployments have been launched, most notably the Unique Identification Authority of India which is now midway through enrolling the biometric traits (iris patterns and fingerprints) of the entire population of 1.2 billion citizens over three years for welfare benefits distribution, fraud reduction and access to government services, under the slogan: "To Give the Poor an Identity." But disquiet is expressed within some countries about the potentially Orwellian nature of such "big data" acquisition, especially concerning privacy, data protection, and loss of control over the uses of irrevocable personal information. This talk will discuss the technologies behind national scale biometric identification, especially the mathematics underlying high speed matching and the avoidance of collisions (False Matches), focusing mainly on iris recognition. The talk will also review some large deployments, their purposes, and cultural and political issues.