

ROGER NEEDHAM

1935 - 2003

This biographical note was prepared for a meeting to celebrate Roger Needham's fifty years in Cambridge and five years at Microsoft Research Limited, held on 17th February 2003. For further details see

http://www.research.microsoft.com/~aherbert/needham_50_5.aspx

Taking his first degree at Cambridge in mathematics and philosophy, followed by the Diploma in Numerical Analysis and Automatic Computing, he obtained a PhD in 1961 for work on automatic classification and information retrieval. In 1963 he became a Senior Assistant in Research in the Mathematical Laboratory (now the Computer Laboratory), working on the TITAN operating system, and in 1994 an Assistant Director of Research. He developed his interests in protection with the CAP machine, and subsequently worked on distributed systems with the Cambridge Ring, Cambridge Model Distributed System and UNIVERSE projects. In 1973 he became Reader in Computer Systems, and in 1981 Professor. In 1980 he succeeded M.V. Wilkes as Head of the Laboratory, continuing till 1995. From 1996-98 he was a Pro Vice-Chancellor in the University. He became Managing Director of Microsoft Research Limited when this company research centre was created in 1997.

While in the Computer Laboratory he taught for the undergraduate and graduate courses and supervised many research students. He also fostered connections with local companies, especially information technology startups.

He is a Fellow of the Royal Society, the Royal Academy of Engineering, the British Computer Society and the Association for Computing Machinery. He has several honorary degrees, was awarded the Institution of Electrical Engineers' Faraday Medal in 1998, and became a CBE in 2001.

He has been a member of many national committees, including the University Grants Committee, the Alvey Committee, Research Council committees and boards, and the Defence Science Advisory Council. He is a Governor of Anglia Polytechnic University, a Member of Cranfield University Council, and a Trustee of the Foundation for Information Policy Research.

He was a consultant at Xerox PARC from 1977-84, at DEC Systems Research Centre from 1984-97, and at Hitachi Advanced Research Laboratory from 1994-97. He was a Fellow of Wolfson College, Cambridge from 1966-2002, and is now an Honorary Fellow.

His research in the last two decades has been primarily on security. His publications include two books and numerous papers, notably on encryption and authentication, with M.D. Schroeder, in 1978, and on a logic of authentication, with M. Burrows and M. Abadi, in 1989. His Royal Society Clifford Paterson Lecture, 2002, on computer security, will be published in 2003.