

Pioneering figure in the worlds of informatics and computing

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Gordon Foster: GORDON FOSTER, who died recently aged 89, was professor of statistics at Trinity College Dublin and a former dean of the faculty of engineering and system sciences.

Before joining Trinity, he held the chair of computational methods at the London School of Economics.

Among his many achievements was to devise the nine-digit code upon which the International Standard Book Number, or ISBN, is based. This was on foot of a decision of the Publishers Association in 1966 to carry out an inquiry into the feasibility of the UK book trade adopting a standard system of numbering all book titles.

A 10-digit ISBN format was adopted by the International Organisation for Standardisation in 1970; since 2007 ISBNs have contained 13 digits.

Born in Belfast in 1921, he was one of three children of Robert Foster and his wife Florence Evelyn (née Magee). Educated at the Royal Belfast Academical Institution, he then studied mathematics at Queen's University Belfast.

From there he was recruited by MI6 as a code-breaker at Bletchley Park. He remembered it as routine work. He and his colleagues scanned encrypted messages looking for human error and in time came to recognise the style of individual encrypters.

He remembered being trained by the Home Guard how to polish, but not fire, rifles. He disliked the horse meat served at meal times, and on visits to Belfast brought tea, which he traded for beef steak.

After the war, he continued his studies at Magdalen College, Oxford. A lecture by Norbert Wiener, regarded as the originator of cybernetics, on feedback control proved to be hugely influential on his research.

After completing his DPhil he was invited to lecture on his research at the University of Manchester. There he met Alan Turing, another Bletchley Park veteran and widely known as the father of computer science, who showed him the Manchester Mark I computer, which he had worked on.

In 1952 Foster joined the staff of the London School of Economics, first as an assistant lecturer in statistics, then lecturer and reader. In 1964, he was appointed to the chair of computational methods. It was at the LSE that he helped to develop operations research as an academic discipline.

He became professor of statistics at TCD in 1967. There he succeeded in promoting statistical analysis and computer applications in many schools and departments. And he built up his own department with a strong postgraduate as well as undergraduate programme. He also launched outreach to industry and the public service through the setting up of the statistics and operations research laboratory.

In addition, he initiated a systems development programme, an MSc programme for students from developing countries, in 1977. He derived much satisfaction and enjoyment from mentoring his overseas students, and visiting field projects in the collaborating universities.

He headed a number of international projects and worked on evaluation studies of the socio-economic effects of informatics. He acted as consultant to the UN body Unido in developing its policy on the role of

informatics in Third World development.

In 1997, he founded the Informatics and Social Development Research Institute (IDI). He directed the IDI Trinet project in order to facilitate connections between remote areas around the world using low-cost technology. The aim of the project, he said, was to ensure that the information superhighway could “lead up a few muddy lanes as well”.

Having researched low earth orbit satellites, messages were uploaded and downloaded from satellite to radio aerial, and on to computers via a terminal node controller – the equivalent of a modem.

The ground station also had a gateway to the internet so that messages received from the satellites could be transferred directly on to the internet and vice versa.

One of the most dramatic connections was made in 1995 arising from the Ebola virus outbreak in Zaire when two doctors at Vanga hospital managed to contact Foster’s ground station in Dublin.

Contact was made with the Centers for Disease Control and Prevention, Atlanta, ensuring an exchange of vital information throughout the outbreak.

Foster published many reports and technical papers on probability theory, applied statistics, computer systems performance modelling, information systems design, information technology assessment, operations research and management science.

In 1968 he delivered the annual Economic and Social Research Institute’s Geary Lecture, *Computers, Statistics and Planning – Systems or Chaos?* in which he discussed the computing needs of Ireland and anticipated the software export industry. He was elected a fellow of TCD in 1971.

Former TCD vice-provost and pro-chancellor David Spearman remembers him as a “committed and loyal member of the college” who was “well regarded and respected as a colleague”.

Faculty colleagues remember him as a “kind and gentle man, with a gentle sense of humour”, who “could be tough and determined when necessary”, and as an “informatics visionary”.

A member of the Religious Society of Friends (Quakers), his interests included sustainability, global risk management and lateral thinking.

As a young man he was a boxer. He also enjoyed sailing, playing the violin, travel and literature.

His wife Gwendolen (née Hollander), son Robert, daughters Michelle and Sophie, daughter-in-law Anne, son-in-law Iain Hutcheson and five grandchildren survive him.

Frederic Gordon Foster: born February 24th, 1921; died December 20th, 2010

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