Remembering Richard R Nelson

It is with great sadness that we have learned of the death of Dick Nelson. For over 60 years, he was at the forefront of the field of science policy and innovation studies, often pioneering new areas and perspectives.

For decades, students and researchers at the Science Policy Research Unit (SPRU) at the University of Sussex have learned the historical foundations of their field by reading his 1959 article on the economics of basic scientific research and his edited book *The Rate and Direction of Inventive Activity* (1962). A half century later, this book was seen to have "ushered in the modern era of study of the economics of technological change" (Lerner & Stern, 2012, p.1).

Dick Nelson and Sidney Winter's book *An Evolutionary Theory of Economic Change* (1982) continues to be the defining work for the field of evolutionary economics. It is complemented and extended by the 1988 book *Technical Change and Economic Theory* which Nelson co-edited with Giovanni Dosi, Chris Freeman, Gerald Silverberg and Luc Soete. This set out a devastating critique of orthodox economic theory and introduced theoretical tools for modelling economic systems as well as empirical evidence about how these systems operate.

Nelson's 1993 edited book *National Innovation Systems* reinforced the empirical foundation and developed Chris Freeman's and Bengt-Åke Lundvall's defining contributions. Within a remarkably short period of time (and thanks in no small part to Lundvall's work at the OECD), the national systems of innovation concept found its way into innovation policies that focused on building and strengthening national systems. (More complete accounts of his contributions are in preparation of leading journals including *Research Policy* and *Industrial and Corporate Change*.)

Richard Nelson was born in New York in 1930. He obtained a BA at Oberlin College in 1952 and a PhD in economics at Yale University in 1956. After a brief period as an assistant professor at Oberlin College, in 1957 Nelson joined the RAND Corporation, working with a group of extraordinarily illustrious economists in developing the economics of R&D and technical change.

In 1960, Nelson was appointed as an associate professor at the Carnegie Institute of Technology and, a year later, he became a staff member of the Council of Economic Advisers under President Kennedy's Administration. During this time, he organised a conference bringing together nearly all the American scholars who were beginning to focus on innovation.

This led to the publication of the 1962 book on *The Rate and Direction of Inventive Activity* noted previously. Nelson returned to RAND in 1964 where he continued to work until 1968 when he was appointed Professor of Economics at Yale where he was to work for the next 18 years, including a period as Director of the Institute for Social and Policy Studies (ISPS).

In the mid-1970s, Nelson was a Visiting Fellow at SPRU where he collaborated with SPRU researchers Chris Freeman, Keith Pavitt, and others and helped to bring SPRU research to the attention of innovation researchers in the United States.

Nelson served on the Advisory Board for *Research Policy* for much of its existence, supporting the editors in their efforts to build and strengthen the reputation of the journal. A total of 21 of his articles are published in this journal, the first and most highly cited being the 1977 paper with Sidney Winter, 'In search of useful theory of innovation', a precursor to their book *An Evolutionary Theory of Economic Change* (1982).

The links that Nelson developed with researchers at SPRU during his regular visits there, and with others elsewhere in Europe who were part of the SPRU network, have been a continuing source of SPRU's international reputation and success.

In 1986, Nelson moved from Yale to Columbia University, first as Henry Luce Professor of International Political Economy, and later as George Blumenthal Professor of International and Public Affairs in the School of International and Public Affairs. There he was to work for the rest of his career, including serving as Director of the Program on Science, Technology and Global Development in the Columbia Earth Institute from 2005 onwards.

His remarkable research output continued undiminished – indeed, it accelerated as he collaborated with an ever-widening range of innovation scholars on key issues in the fast-evolving field of innovation studies. During his time at Columbia, he continued to interact with SPRU, serving on the International Advisory Board, providing invaluable advice to successive SPRU Directors and others, and mentoring early-career researchers.

In an academic world characterised by increasing competitive pressures and beset by petty rivalries, Dick Nelson remained the most approachable of individuals, always willing to listen, to advise, and to encourage. As his career advanced, he collaborated not only with those at the top but also with young emerging talents. Despite the effort required to produce such a prodigious research output, he always seemed to have time for others and be willing to help. Particularly indebted to him are all the PhD students he supervised at Yale and Columbia and the other young researchers he mentored over the years.

Dick Nelson was universally liked and admired. His values and norms, and his openness and intellectual generosity, were shared by other key figures in the establishment of the field originally known as 'science policy' and now more commonly as 'innovation studies', in particular, Chris Freeman and Nathan Rosenberg. As a result, our community today is fortunate to be far less afflicted by the hypercompetitive ethos and accompanying unpleasantness that permeate numerous other research fields.

Dick Nelson will be sorely missed by family, friends and colleagues. Without him, and his immense contributions, the field of innovation studies would be very different. Schumpeter is generally credited with being the founder of innovation studies; in certain respects, his was a 'voice in the wilderness' and for years after his death in 1950 his legacy was unclear. It took the efforts of Dick Nelson in the United States and Chris Freeman in Europe to revive the Schumpeterian school of thought and set innovation studies on a firm footing. Today it is a thriving community of thousands of scholars throughout the world. We are all in Dick Nelson's debt.