

## **Edward L. Robertson**

*Professor of Computer Science and Informatics*

Edward (Ed) Robertson combines the best features of an academic colleague with a broadly successful career in research, teaching, and service. He has been a valuable and compassionate member of the community, always ready to help his friends, associates, students, and the common good.

Ed was born on July 16, 1944, in Saint Paul, Minnesota. He graduated from the California Institute of Technology with a major in mathematics in 1966. Ed's graduate work in the computer science department at the University of Wisconsin was on the properties of complexity classes and sets in abstract computational complexity, under the guidance of Lawrence Landweber. He received his Ph.D. in 1970. He became an assistant professor at the University of Waterloo in 1972, where he stayed two years, and then joined the Pennsylvania State University in 1974. He joined the Indiana University Department of Computer Science as an associate professor in 1978, and has been a full professor in the department since 1984.

Ed was the chair of computer science from 1982 to 1988. Under his leadership, the department nearly doubled in size, it acquired an excellent computing infrastructure through generous support from the National Science Foundation, and it hired a superb professional support team responsible for all its computing needs. In the period 2000–2008 Ed was the associate dean for undergraduate studies of the School of Informatics, and as such he was one of the founders of this newly created Indiana University school.

Ed began his research career by investigating the mathematics of algorithms, and focused in particular on identifying classes of such algorithms that can be solved efficiently by computers, as well as classes of algorithms that are not well suited to computers. Gradually, his research interests turned to problems concerning the design and implementation of information systems, of which database systems are the most important. His background in the theory of computation and logic, which he had honed while working with an influential group of computer scientists at the University of Wisconsin, had prepared him well. Ed made lasting contributions in this area. His paper on search languages over triadic relations, where he drew upon the work of the American philosopher Charles Sanders Peirce, anticipated the large body of current work on the semantic web. Equally impressive is his work on languages and systems wherein both the actual data and the metadata characterizing the data are simultaneously modeled and manipulated. That research has set the standard for work in this area. Ed has published about 50 papers in the leading journals and conference proceedings of his field.

In the computer science curriculum at Indiana, Ed developed courses in the mathematical theory of computer science, the theory of information systems, and the discipline of software engineering. In the software engineering discipline, Ed worked with

his colleague James E. Burns to develop a classic sequence of two courses on the design and implementation of software products. This pair of courses has been taught in the department since 1988. Ed is recognized as one of the department's best teachers, and he has mentored hundreds of students who have become information technologists. Not surprisingly, he has been honored with numerous teaching awards. In 2004, Ed received the Trustees' Teaching Award for Faculty, and, in 1999, 2000, and 2007 Indiana University Teaching Excellence Awards. There are also of course the many students who have trained with him during their doctoral programs. Ed chaired the committees of eight completed Ph.D.s, and is currently directing another Ph.D. student.

In 1969 Ed married Claire Cone, a doctoral student in African history at the University of Wisconsin. They have two sons, Andrew and Ian. Ed and Claire have been frequent travelers, often arranging to combine their professional interests so they could travel together to distant places. As Fulbright scholars, Ed and Claire spent the 1987–1988 academic year in Nairobi, Kenya. Claire C. Robertson is a professor of women's studies and history at The Ohio State University.

It is anticipated that Ed will begin his retirement in Bloomington and will continue to interact with his colleagues and students. Ed will also be involved in research projects and advising students, while looking forward to having more time to spend with his family.

We wish Ed a happy and productive retirement, and we extend our heartiest thanks to him for his many years of dedicated and distinguished service, and for his friendship.

*~Dirk Van Gucht*