REVIEW

The Most Influential Scientists in the Development of Medical Informatics (8): Jean Raoul Scherrer

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Jean-Raoul Scherrer (1932 - 2002) was a pioneer in the development and deployment of clinical information systems (1, 2, 3). He received in 2000 the Morris F. Collen Award of Excellence in medical informatics. Jean-Raoul Scherrer was born in the Canton of Jura, Switzerland, in October 1932 but has lived most of his life in Geneva, Switzerland. He went to college in Fribourg, at a Jesuit School called College of Saint Michel, and followed the classical pathway - ancient Greek, Latin, and strong mathematics studies. In 1959, he graduated from the Medical School of the University of Geneva, where he studied Physiology and Internal medicine. From 1967 until 1969, Professor Scherrer did postgraduate work in Medical physics at Brookhaven National Laboratory, on Long Island, and then returned to Geneva and the Cantonal Hospital of the University of Geneva, where he began to design and build what was to become DIOGENE, the Hospital's patient information system. The idea was to have a system that would be patient-centric. Professor Scherrer addressed the needs of the physician, and not only that, he did not encumber the physician with the need to learn the computer (1). The basic principle was : One puts orders in through the telephone. One could immediately see on the screen what he had ordered. Behind this outward façade was a bank of individuals who were keying in the information for orders, for medications, for laboratory work, and for radiology. But his objective was to see how the computer could be an en-

Figure 1. Scherrer Jean-Raoul (1932.-2002.)

abling tool, to assist the health care provider in doing what he or she needed to do to be giving the best possible care for the patient. Starting with the main-frame-based patient-centered hospital information system DIOGENE in the 70s, Prof. Scherrer developed, implemented and evolved innovative concepts of man-machine interfaces, distributed and federated environments, leading the way with information systems that obstinately focused on the support of care providers and patients. Through a rigorous design of terminologies and ontologies, the DIOGENE data would then serve as a basis for the development of clinical research, data mining, and lead to innovative natural language processing techniques. In parallel, Prof. Scherrer supported the development of medical image management, ranging from a distributed picture archiving and communication systems (PACS) to molecular imaging of protein electrophoreses (2). Recognizing the need for improving the quality and trustworthiness of medical information on the Web, Prof. Scherrer

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created the Health-On-the-Net (HON) foundation. He had groups working on natural language processing and image processing and manipulation in the OSIRIS system. Another of his groups was determining protein constellations in human patients by the use of bi-dimensional electrophoresis of human serum, and correlating these patterns with the identification of genes, using several scattered remote data bases. This Web-based system is called ExPASy. This was one of the first bioinformatics groups assembled any place in the world. In Geneva in 1992, researchers at CERN, a high-energy physics laboratory, invented the World Wide Web. Luckily, the director of CERN was a neighbor of Professor Scherrer, and because of this neighborhood collaboration, the group at Geneva Hospital was really the first to apply World Wide Web technology in health care. They made their protein research databases available to colleagues around the world via the Web and were really the first to do this. Dr. Scherrer was Executive Vice President of IMIA (International Medical In-

formatics Association) in charge of Working Groups and Special Interest Groups from 1993 to 1996: and President of the EFMI (1996-1998) (2).

CONFLICT OF INTEREST: NONE DECLARED

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