John George Kemeny

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Obituary for Manchester Guardian

J. Laurie Snell

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John Kemeny will be remembered for his contributions to computing and mathematics education, and also for the sweeping changes he brought to Dartmouth during his eleven years as president of this prestigious Ivy League college.

Born in Budapest, Hungary, Kemeny came to the United States in 1940 and, after completing his high school education in New York, attended Princeton University. His undergraduate work was interrupted while he worked on the Manhatten project in Los Alamos.

Kemeny's student years were times of exciting developments in mathematics, particularly in the areas of logic and computing. John took full advantage of his opportunity to learn from the greats; he worked with fellow Hungarians John von Neumann and Leo Szilard at Los Alamos, wrote his Ph.D. thesis with Alonzo Church, and was a research assistant to Albert Einstein. He was on his way to a traditional distinguished scholarly career as a promising young assistant professor at Princeton with a joint appointment in mathematics and philosophy when he decided instead to accept the challenge of developing a new mathematics department at a college which he had barely heard of and which was certainly not known as a center of excellence in mathematics.

Kemeny came to Dartmouth only 27 year old and was given great freedom to develop a mathematics program. He had already written his first book A Philosopher Looks at Science that had been well received. Even at this early age Kemeny showed the special abilities that were to become his trademark. He was extremely bright and a remarkable problem solver. Given a complex problem, be it mathematical, political, or social, John could come up with a simple, elegant and practical solution. One of the first to anticipate the central role that computing would come to play in our world, Kemeny insisted that some knowledge of computing was an integral part of a liberal education. To make the computer accessible to undergraduates, a notion nearly unheard of at the time, he and his colleague Tom Kurtz developed one of the world's first time-sharing systems.

John carried out this time-sharing project in true Kemeny style. Knowing that the professionals would believe his goal impossible, he shunned them and enlisted instead the help of bright undergraduates who, like him, were naive enough to think it possible.

Just as von Neumann realized that a computer that did only ordinary arithmetic operations could have extraordinary power, Kemeny realized that to make this power available to everyone,

a programming language could and should be exceedingly simple. This led him to develop with Tom Kurtz the computer language BASIC which is still one of the most widely used computer languages.

Kemeny also applied his own philosophy to curriculum development. Not content with mathematics being "the only subject you can study for 14 years and not learn a single thing that has been done since 1800", he introduced a new freshman course, finite mathematics, which included logic, probability, and matrix algebra, to complement the standard calculus curriculum. He also encouraged students interested in pursuing mathematics not simply to study the subject, but actually to do mathematical research while still undergraduates.

During all this activity Kemeny maintained an active research program developing with me new theories for and applications of Markov chains.

In 1970 Dartmouth College faced major problems with increasing demands to provide a more diverse student body. The trustees chose Kemeny to tackle these problems, electing him the 13th president of the college. Once again his solutions to complex problems bore his unmistakable stamp. He initiated co-education and made it more palatable to the alumni by an ingenious calendar reform that used the summer term to admit women without decreasing the male enrollment. At the same time Kemeny revived a long forgotten Dartmouth commitment to educate Native Americans by making a special effort to recruit Native American students and, establishing a strong Native American program.

John Kemeny was a great teacher and teaching was his first love. The chairman of the Board of Trustees did not want him to impose the condition that he continue to teach for his acceptance of the presidency. Kemeny remarked, " You would have given me two afternoons off a week to play golf, if I had insisted. My hobby happens to be teaching; look at it that way." He continued to teach throughout his presidency rarely missing a class.

As chairman of the Three Mile Island investigation Kemeny was horrified by the problems he found that led to this accident. However, he was a born optimist and felt that for this problem, and, in fact for all of society's major problems, we have the tools to find a solution and need only need the will to do so.

While at Princeton working in the World Federalist movement, John was tempted to devote a major part of his time to this program. Einstein told him that he should first make his mark in the world, for then people would listen to him. We have all been rewarded by Kemeny's decision to heed Einstein's advice.