Whatever Happened to Bruce MacLennan

Then	Capsule Summary	Now
	Born in: Teaneck, New Jersey Grew Up in: Norwood, NJ; St. Petersburg, FL High School: Boca Ciega High School Undergraduate Degree: BS Math, Honors, FSU, 1972 Entered Purdue: Fall, 1972 Purdue Degrees: - MS CS 1973; - PhD CS December 1975 Lived/Worked in: Santa Clara, CA; Portland, OR; Monterey, CA; Knoxville, TN (current residence)	

Purdue Highlights	Career Highlights
Bruce arrived at Purdue in 1972 to pursue a PhD. Originally intending to work in either operating systems or programming languages, he eventually focused on syntactically and semantically extensible programming languages, working under the direction of Victor B. Schneider. Saul Rosen and Mike Machtey were also on his committee. His dissertation was produced on a low-resolution dot-matrix printer (so he could design his own characters) on continuous paper. He spent many hours on a paper cutter slicing it into 11" pages, which immediately curled up tight! Most of the time Bruce supported himself as a systems programmer with the Computing Center, but to satisfy the teaching requirement, he taught a course in "structured FORTRAN programming" (based on Kernighan and Plauger). By the time he graduated he had over 70 thousands lines of code on cards, which he transferred to tape. Of course, the looming draft was always a concern, until it was stopped. Memories include debates about programming languages, weekly drinks at a local bar, all-you-can-eat buffets on Sundays (where we ate for the week), and occasional trips to hear the Chicago Symphony Orch.	After receiving his PhD, Bruce joined Intel in January 1976 as a Senior Software Engineer. There he joined his classmate George Cox, hired shortly before, and they were soon joined by their classmate Kevin Kahn, thus forming the Purdue contingent. He first worked at corporate headquarters in Santa Clara, CA, but later was part of the first engineering team to be relocated to the Portland, OR area. Building on his PhD reseaarch, Bruce worked on programming language design and translator writing systems. He also contributed to the archtectural design of the 8086 and iAPX 432 microprocessors. In order to be pursue his own long-range research interests, Bruce decided to return to academia, joining the computer science faculty of the Naval Postgraduate School (Monterey, CA) in 1979, where he was tenured and promoted to Associate Professor. He also served for one year as acting Chair of the department, which was OK but convinced him that research is more fun than administration! In the mid-1980s, Bruce shifted his research from functional and object-oriented programming languages (about which he wrote two textbooks) to brain-inspired approaches to artificial intelligence. In 1986 Jesse Poore, the new chair of the computer science department at the University of Tennessee, Knoxville, under whom Bruce had studied at Florida State, invited Bruce to visit. He was excited by what he saw and accepted an invitation to join the department, moving in 1987 to the Knoxville, TN area with his wife and 6-week old daughter. He has been there ever since, except for a summer he spent as a Fellow of the Institute Studies of the Collegium Budapest. His research focuses on self-organizing systems and unconventional computation, including bio-inspired computation. For example, Bruce is investigating the application of embryological morphogenesis in nanotechnology and also works in the intersection of embodied artificial intelligence, developmental robotics, neuroscience, psychology, and philosophy.