The Winifred Asprey Lecture Series in Computer Science

Sponsored by the Department of Computer Science in honor of Winifred Asprey '38 Emeritus Professor of Computer Science

Ray Polivka

Morten Kromberg

Wednesday, February 13th, 2019
3:30 - 4:30 pm
Sanders Physics 105

Miss Asprey, Vassar Computer Science, & APL: A Historical Perspective

When Winfred Asprey established the Computer Sciences Studies program at Vassar in 1969, APL was one of the languages in the curriculum. Ray Polivka was there with Miss Asprey, and will reflect on his experience of teaching APL in the 1960's and 70's.

Although APL moved out of the computing mainstream, and disappeared from many CS departments in the 1980's, the language has evolved continuously for 50 years, in an environment where dozens of bright new languages have burst into view and faded again. Morten Kromberg works on the design and implementation of a modern APL interpreter. He will talk about the work required to keep a programming language modern over five decades, as hardware has grown unbelievably cheap and the science of computing has evolved.

Modern hardware has multiple cores and depends on efficient use of cache memories. Curiously, although APL was originally designed as a notation for communication between humans, rather than being designed as a tool for instructing the computers of the day, the array operations supported by APL turn out to make extremely efficient use of modern hardware. Functional, array oriented programming is more relevant than ever before - 50 years after APL first appeared on the curriculum at Vassar.

Dr. Raymond Polivka has been associated with APL since 1968. Before retiring from a 35 year career with IBM, he was responsible for its companywide APL education. He has personally taught a range of APL classes worldwide. In addition to publishing many papers on APL, he has co-authored three APL textbooks. He has served as the chairman of SIGAPL, the Special Interest Group for APL, and the executive editor of SIGAPL's Journal, Quote Quad. In 1990, he received SIGAPL's Kenneth E. Iverson Award for an Outstanding Contribution to the Development and Application of APL. Dr. Polivka holds an AB from North Central College, and a PhD from the University of Illinois.

Morten Kromberg is the Chief Experience Officer of Dyalog Ltd. – the leading vendor of APL systems. Prior to assuming the role of CXO, he served as Dyalog's CTO from 2005-2015, and before that he spent about 20 years as an APL consultant, and 5 years as the CTO of Adaytum Software, where he was responsible for the development of a business intelligence package which used Dyalog APL as the core technology. Following the sale of Adaytum to Cognos in 2002 for $160M, he participated in a management buy-in of Dyalog's APL technology in 2005. Together with the CEO of Dyalog, Gitte Christensen, in 1990 he received SIGAPL's Kenneth E. Iverson Award for an Outstanding Contribution to the Development and Application of APL. He is a regular speaker at international software conferences.