

From the Editor's Desk

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Of the five articles in this issue, three are about machines, two planned but not built, and the third planned, built, and used for over two decades. Raul Rojas' article on Babbage's Analytical Engine describes the programmer's view of the proposed machine, with particular attention to how one would have to manage the separate tapes of instructions and their operands. The article on Percy Ludgate by Brian Coghlan and colleagues reports on their investigations into his life and work, and examines the detailed design of his proposed Analytical Machine, quite different from Babbage's. It is noteworthy for the way in which it performed multiplication by means of the addition of carefully chosen magnitudes, sometimes called "Irish logarithms."

The third machine is Whirlwind, a digital computer built at MIT around 1950 for real-time computation. Guy Fedorkow describes its software environment and the work that he has done with colleagues at the Computer History Museum to recover its software from well-aged paper and magnetic tapes. The project will continue to study Whirlwind software to illuminate the early days of digital computer programming.

Colin Garvey's article on Mortimer Taube is about a major figure in information science who was an early critic of artificial intelligence research as a project to model human intelligence. The article describes the strong reaction by AI researchers and considers the reasons for Taube's relative obscurity today. Finally, Jim Cortada studies IBM's corporate culture, taking an anthropological approach to the significance of material things such as pins and coffee mugs.

We also have an anecdote by Jerry Saltzer on a little-known aspect of the origins of the Kerberos

authentication system. Jeffrey Yost has an update on the Charles Babbage Institute in Events & Sightings, including its name change and its recent virtual symposium, Just Code. E&S editor David Walden provides several brief notes on events. Thanks to our having a new Reviews editor, we have a review by Christophe Lécuyer of a book on the microchip revolution, and look forward to more reviews in the coming issues. A Think Piece by Burt Grad on preserving the records of software industries rounds out this issue.

Call for Articles



IEEE Software seeks practical, readable articles that will appeal to experts and nonexperts alike. The magazine aims to deliver reliable information to software developers and managers to help them stay on top of rapid technology change. Submissions must be original and no more than 4,700 words, including 250 words for each table and figure.

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