tance as the Internet becomes more widespread.

Video is rare on the Internet, but as video transmission increases, the Internet's current capacity limits will become evident. Compression is vital for video data, and here the techniques of lossy compression are much more useful than they are for text or numbers.

Good compression techniques won't obviate the need to expand the Internet's capacity, but they will help buy enough time to do it. As a result, this will be an important area of computer science education over the next few years. If you're teaching such a course or studying the field on your own, be sure to consider this book.

King of the Seven Dwarfs: General Electric's Ambiguous Challenge to the Computer Industry, Homer R. Oldfield (IEEE Computer Society Press, Los Alamitos, Calif., (800) 272-6657, 1996, ISBN 0-8186-7383-4; $19, CS members; $22, nonmembers)

For 15 years, from the end of 1955 to the beginning of the 1970s, the General Electric Company tried to be in the computer business. The eight major participants in the industry at that time were known as IBM and the seven dwarfs. But GE, because of its great financial and technical resources, was far from a dwarf. It was at the center of seminal developments like timesharing, Basic, and Multics, and the pressure it put on IBM may have contributed to the huge System/360 debacle. GE was a major player during an important stage in the growth of our industry.

In the end, GE sold its computer business to Honeywell, which just drifted away. I remember a National Computer Conference in the early 1980s. The keynote speaker stood up and began by saying that he had just heard a big announcement on his way to the hall: Fairchild had just merged with Honeywell. There was a moment of shocked silence and people began whispering to their neighbors. Then he delivered the punch line: "They're going to call the new company Farewell Honeychild."

Homer Oldfield was pretty low in GE's pecking order. He has pulled

together his recollections and those of many of his coworkers and managers to give us a bottom-up view of the management storms and turmoil that went on above him. He tells the story the way he might tell it to you at a cocktail party. I think you'll enjoy reading it.

Superdistribution: Objects   as Property on the Electronic Frontier, Brad Cox (Addison-Wesley, Reading, Mass., (800) 822-6339, 1996, 222 pp., ISBN 0-201-50208-9; $26.85)

I was a little surprised at this book's sloppy editing, which was not up to Addison-Wesley's usual standards. The book's credits include a sponsoring editor, an associate editor, and a senior production editor—but no copy editor. I hope that's not a case of downsizing and outsourcing.

The book is about compensating software writers for their work. Copyright is not solving that problem anymore, and the draconian measures that have been proposed in Congress could make criminals out of the entire industry.

Superdistribution is a term coined by Ryoichi Mori in the mid-1980s, but it harks back to Ted Nelson's 1974 book, *Dream Machines.* Nelson closed his book with an astonishingly wise and prescient section called "Nelson's Canons: A Bill of Information Rights." The last of his six canons said:

> Copyright must of course be maintained, but a universal flexible rule has to be worked out, permitting material to be transmitted and copied under specific circumstances for the payment of a royalty fee, surcharged on top of your other expenses in using the system.

Cox's contribution to all this is to explain the technical details. As a professor, he apparently feels a need to explain everything from scratch, so he spends the first three-quarters of the book going over the history and mechanics of the "software crisis" and the development of modern software engineering techniques. It's good material, heavily larded with interesting quotations, but the book could start on page 150 with little serious loss.

Cox notes that software can't tell if it has been copied, but it can tell if it's being used. The essence of superdistribution is to pass out software freely, but build in a mechanism to make users pay for each use. If you're interested in how to make something like that work, you should certainly read this book.

Reader Interest Survey

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WHAT'S NEXT, YOU ASK?

Check out the October issue: It features the Fifth MicroNeuro Conference on Microelectronics for Neural Networks and Fuzzy Systems held last February in Lausanne, Switzerland. These excellent conference papers centered on hardware implementations and were published in the proceedings (IEEE Computer Society Press, PR07373).

Guest editors E. Vittoz, Centre Suisse d'Electronique et de Microtechnique, and J.D. Nicoud, École Polytechnique Fédérale de Lausanne, selected the following to be rewritten and reviewed for publication in *IEEE Micro*:

- **VLSI for image processing**
- **Analog VLSI velocity sensors**
- **Analog VLSI system for active drag reduction**
- **Array-based analog computation**
- **Retinomorphic vision systems**
- **Low-power analog fuzzy rule implementation based on a linear MOS transistor network**

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