

Looking it up in the RightPages

You never know what may catch your eye when browsing among the stacks of recent journals overflowing shelves in a research library. It could be an unusual title, a splashy illustration, a thought-provoking comment, or a striking juxtaposition of disparate elements. You don't normally get that same rich mix of image and text in a database on a computer. Indeed, conventional methods of storing and retrieving information electronically tend to inhibit rather than encourage serendipitous discovery.

Now computer scientists at AT&T Bell Laboratories in Murray Hill, N.J., have developed a prototype system that attempts to recreate electronically the "look and feel" of a traditional library. The scheme, developed by Guy A. Story and his co-workers, relies on fast, sophisticated computer equipment to provide images of journal covers and individual pages, thus enabling users to view and choose journals from stacks, check tables of contents, locate articles of interest, and even flip through selected articles page by page.

"We maintained this traditional 'look and feel' in the belief that libraries and journals have evolved over centuries into forms that are both comfortable and efficient," the researchers say. They describe their project, known as the RightPages image-based electronic library, in the September COMPUTER.

Because the system resides in a computer, users have the advantage of quick retrieval of specific information. The computer can also alert users to the arrival of new journal articles that happen to match their particular interests and identify additional material related to a given topic.

In the first phase of the RightPages project, between 50 and 100 electrical engineers and computer scientists at Bell Labs


had access to 64 journals supplied by 10 publishers. The Bell Labs project represents one of several such efforts, including the Chemistry On-Line Retrieval Experiment at Cornell University, aimed at creating an effective electronic library.

Checkers crown eludes computer

It was man versus computer for a world championship. On one side of the checkerboard was semiretired mathematician Marion Tinsley of Tallahassee, Fla., the best checker player in the world. On the other side was the precocious challenger—a checker-playing computer program known as Chinook, developed by Jonathan Schaeffer of the University of Alberta in Edmonton and his co-workers (SN: 7/20/91, p.40). After 40 games, played in London, England, at the end of August, Tinsley emerged with four wins to Chinook's two. "We were absolutely delighted with the result," Schaeffer says.


Although Tinsley won the tournament, Chinook put up a strong fight. After tying the first four games, Chinook lost the fifth because its programmers had unknowingly incorporated an error contained in a respected book concerning strategies for playing checkers. But Chinook came back to take the eighth game, defeating Tinsley for the first time. Until then, Tinsley had lost at checkers only five times in the last 42 years. The computer also won the 14th game. "It was a beautiful game," Schaeffer says. "Everybody was really impressed."

Game 18 proved the turning point. Seventeen moves into the game, Chinook simply stalled, and time ran out. "We forfeited the game," Schaeffer says. "To this day, we don't know what went wrong." That unexpected setback for Chinook prompted Tinsley to play more cautiously, and he eked out two more wins.



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