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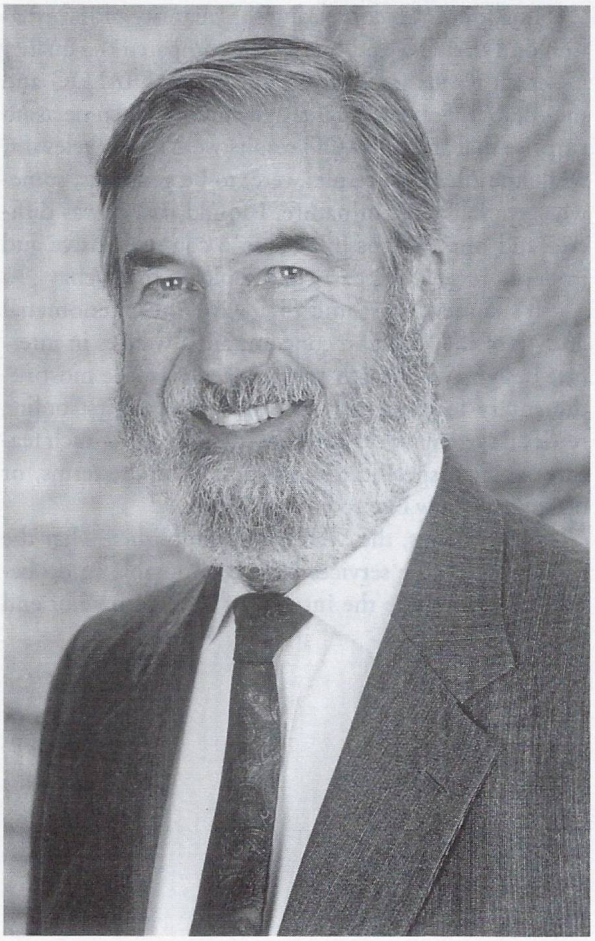

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Roger Kent Summit

An Explorer of the Online World

As one of the earliest explorers in the online world—in fact, some have credited me with creating it—I have been asked to tell you a bit about the history of Dialog and how my original vision for the online industry is still relevant today.

It all began when I was a doctoral candidate at Stanford in 1960. I took a summer job at Lockheed Missiles and Space Company to improve information retrieval methods. Many of you are too young to remember the second-generation computers of that era. Suffice it to say, they used batch processing, which was cumbersome and required that you be a computer programmer to interact with a computer. Moreover, computers in those days were used mainly for accounting and scientific computation—not for processing text. The common argument around Lockheed was that it was usually easier, cheaper, and faster to redo scientific research than to find out if anyone had ever done it before!

There came a point when I got very excited about the possibility of using the computer for information retrieval. My feeling was that by using the computer we could make a significant contribution toward providing access to the world's published literature.

By the mid-1960s third-generation computers with random access disks, CRT terminals, and telecommunications ushered in the new possibility of interactive computing. A colleague and I proposed that Lockheed establish a lab to explore this new technology. Our primary goals for an information retrieval system were that

- It had to be command driven so that searchers could use it directly without needing computer programmers to act as intermediaries.
- It had to be recursive, meaning that there needed to be a means to limit or expand the hits from a search without having to re-enter the search.
- It had to provide an alphabetical display of all retrievable terms from which one could choose.
- It had to let searchers retrieve a few items at a time to see if their query was on target.

In 1968 we won our first major contract from NASA to develop an online retrieval system for their database of aerospace research documents. The result was NASA/RECON (Remote Console Information Retrieval Service), which permitted the searcher to enter several descriptors at once and get an immediate response. Furthermore, the search could be modified as you went along (i.e., recursion) without having to reenter the entire search. For example, engineers interested in an alloy's heat tolerance could enter the name of the alloy, the heat range or ranges that concerned them, and other relevant indexing terms. It sounds like ancient history today, and it is—but try entering that kind of search in one of today's popular Web search engines!

Subsequently, our group won contracts with the Atomic Energy Commission, the European Space and Research Organization, the U.S. Office of Education, the National Technical Information Service, and others to apply this retrieval technology to their databases.

Because interactive access proved of value to many organizations, in early 1972 we arranged to offer the ERIC (Educational Resources Information Center) and NTIS (National Technical Information Service)

databases to any subscriber with a computer terminal. This is when the DIALOG Information Retrieval Service, named after its information retrieval language, became the world's first commercial online service.

Over the years the company has undergone changes in ownership and name, and Knight-Ridder Information continues to expand its products and services. But my dream that this company would be the primary source of access to professional information throughout the world has remained constant throughout its twenty-five-year history.

With the rapid growth of the Web, some have been predicting the demise of traditional online services. I don't agree. Recently, I was doing some research in preparation for a speech I presented in Stockholm. I determined that DIALOG contains more than twenty times the total amount of information accessible through the Web. Furthermore, the two have grown at roughly the same rate over the past year, based on AltaVista statistics.

In addition to comparing the quantity of information on DIALOG and the Web, I compared the quality of search results for several topics using DIALOG and the AltaVista search engine. I'm sure it will come as no surprise that the DIALOG results were highly relevant, while the AltaVista results were, to be generous, somewhat encyclopedic in nature. I found that it was difficult and often impossible to do a comprehensive and in-depth review of a particular topic on the Web.

It's somewhat ironic that with the phenomenal growth of the Web and concomitant advances in interface design, Web search engines lack even the most rudimentary features that were basic in the first online retrieval system we designed thirty years ago—such features as field specification, display of index terms, or options to allow one to refine a search.

Nevertheless, the Web has accomplished what the traditional online services have been unable to do before now—capture the interest of a broad base of end users.