A Base Dispute

A tussle over access to chemical databases has erupted into a bitter lawsuit; whoever wins, it probably won't be the users

THEIR RIFT may not have the tabloid appeal of the Trump divorce, but Dialog Information Services and the American Chemical Society (ACS) are showing just as much flair for an all-out war of press releases.

"The society's actions violate the federal antitrust laws and have caused millions of dollars of damage to our business," declared Dialog founder and president Roger K. Summit in an open letter to his customers on 7 June, the same day the on-line database vendor filed a $150-million lawsuit against ACS and the society's Chemical Abstract Service.

Because Chemical Abstracts' databases were originally developed with federal subsidies, Summit claimed, the service is legally required to share them with everyone. And yet, he said, the organization is monopolizing the most lucrative of those databases for its own direct on-line service, while leaving Dialog and every other commercial vendor with the dregs.

"Patently false," fired back ACS executive director John K. Crum in a press release dated 29 June. The Society has done nothing wrong, he declared, and will not succumb to Dialog's efforts "to put pressure on ACS and intimidate the Society." The press release also hinted that when ACS issues its formal legal reply to the suit on 13 August, it may well file a counter suit charging Dialog with "certain violations of the license agreement"—according to Society spokesmen, an allusion to ACS's suspicion that Dialog is incorrectly calculating royalty payments.

Both sides, of course, claim to be acting out of concern for the innocent parties in this dispute: the chemists who use their services. Somehow, though, the chemists don't find that very reassuring. Like children watching their parents slug it out in divorce court, they sense that, whoever wins this fight, it won't be them. "All I see is a lot of time and money and energy on both sides being diverted from keeping in touch with their customers," sighs Barbara Peterson, director of information services at the 3M Corporation.

What Peterson and other chemical information specialists find especially sad about this rift is that it seems so unnecessary: with Chemical Abstracts being one of the biggest producers of computerized technical databases, and with Dialog being one of the biggest marketers of database services, they would appear to be natural partners. Indeed, the two organizations once thought so themselves. In the late 1970s, they signed a licensing agreement under which Dialog would offer most of Chemical Abstracts' databases to its users and in return would pay Chemical Abstracts a royalty each time a database file was accessed. Those chemical databases quickly became some of Dialog's hottest sellers. The only problem was that the two organizations were already getting on each other's nerves.

The fundamental irritant was Chemical Abstracts' decision about a decade ago to launch its own commercial marketing operation in direct competition with Dialog. It established a service called STN that offers end users direct access to Chemical Abstracts' databases for a fee. This step was almost unheard of in the on-line world: technical databases are typically compiled by not-for-profit organizations as a public service, and few of those groups have the resources to compete in the marketplace. But then, Chemical Abstracts was hardly typical.

To begin with, Chemical Abstracts was one of the first of the technical database producers to make the shift to computers. Starting in the late 1960s with $15 million in National Science Foundation seed money, the service created an on-line system that the foundation still hails as one of its great success stories. Furthermore, Chemical Abstracts' databases are among the largest in the world, with some 18 million items on file. The organization currently has annual gross sales of about $100 million. And finally, Chemical Abstracts is a money spinner for the ACS, contributing about $3 million annually to the Society's education and public awareness programs.

The creation of STN was thus an explicit effort to make sure that the profits in the increasingly lucrative on-line business didn't all go to middlemen such as Dialog. "If Chemical Abstracts didn't compete [directly in the marketplace], we could lose a significant portion of our income," says retired University of Pennsylvania chemist Joseph Dixon, chairman of the ACS board and a former chairman of the Society's Committee on Chemical Abstracts.

Dialog, meanwhile, wasn't worried about competition with Chemical Abstracts per se. Founded by the Lockheed Corporation in the early 1970s, and sold to the Knight-Ridder newspaper chain in 1988 for $354 million, the company was and is the world's premier database supermarket. What did irk Dialog, however, was the fact that Chemical Abstracts was not giving Dialog access to some of its databases. The original licensing agreement covered only article references and certain technical files. But the most popular and useful databases—notably the one containing the article abstracts themselves—would be available *only* through STN.

Summit and his colleagues argued long and hard that this was illegal, that Chemical Abstracts' original contract with the NSF required that the on-line data must be made available to everyone—which Dialog interpreted to mean every vendor. Chemical Abstracts replied that the databases *were* available to every user—through STN.

Chemical Abstracts, for its part, was finding plenty of reasons to be unhappy with Dialog. The most recent and most notable was an informal ACS audit of Dialog's algorithms for calculating royalty fees; according to Chemical Abstracts spokesman Richard Kaser, the Society suspects it is being shortchanged.

Thus, it came as a surprise to no one in the on-line world when tensions between the two organizations finally exploded. The last straw for Dialog was Chemical Abstracts' 1988 announcement that it was withdrawing outside vendors' access to a database known as the connection tables, which encodes information about the geometric structure of molecules. After 1991, said the company, the tables would only be available through STN.

A last-ditch negotiating session with top ACS officials at the Society's headquarters in Washington, D.C., broke down on 7 June, and Dialog slapped ACS with an antitrust suit that same afternoon. The suit alleges that Chemical Abstracts' monopolistic practices had cost Dialog $50 million in lost opportunities over the past 5 years and asks for the triple damages provided under the

antitrust laws—a total of $150 million.

Chemical Abstracts is expected to respond in legal filings later this month that it satisfied all the terms of its 25-year-old NSF contract long ago and it has been self-supporting ever since. "No public money is involved," declared Crum in the 29 June press release.

And there the situation stands: a stalemate. However, there is one side to be heard from in this dispute—the database users. They will have their first chance to speak up later this month when the ACS Committee on Chemical Abstracts convenes in Washington, D.C., at the society's semiannual national meeting. The occasion could be a noisy one. It turns out that many chemical information specialists are basically on Dialog's side.

"A number of us have been trying to reason with Chemical Abstracts for some time to liberalize access" to their databases by making them available through other vendors, says organic chemist Ronald Doeltzen, an information specialist at 3M. "So personally, as a member of ACS, I'm really going to be upset if my dues money goes to pay a bunch of defense lawyers."

For a database user, Doeltzen explains, it's a pain to have crucial chemical information isolated in STN away from all other non-ACS data. Suppose you do a search through the abstracts, for example, and you find that a lot of the entries you retrieve have references to U.S. patent numbers. You want to know more about those patents. In Dialog, he says, you could port those references into a patent database and pull up a new set of bibliographies and abstracts automatically. But in STN you're stuck, because STN doesn't have those patent data.

"The ACS has been using Chemical Abstracts as a cash cow for years," says Doeltzen, "so Chemical Abstracts has begun to make decisions based on the best cash-generating policies, not the best information dissemination policies for chemists and society as a whole." The irony, he says, is that this effort to control the information flow may actually be self-defeating: If more online services offer access to Chemical Abstracts databases, then more people will search them and Chemical Abstracts will make more money.

"In my opinion there's no evidence for that assertion," says board chairman Dixon. And in any case, ACS can't afford to take risks. "I consider the Chemical Abstracts databases a legacy that ACS must protect," he says. "It's almost a holy mission—but it costs a hell of a lot."

Both sides have plenty of time to reflect on the issues: it will be at least 2 years before the suit can possibly get on the court docket.

■ **M. Mitchell Waldrop**

SSC Cost Estimates Climb

The cost of building the Superconducting Super Collider could climb as high as $8.9 billion—more than double the original cost estimate—a Department of Energy advisory committee warned last week.

When the project was first proposed in 1987, DOE officials assured reporters that the machine could be built for $4.4 billion. By late 1988 the cost had escalated to $5.9 billion. And early this year, the department acknowledged that it had climbed to about $7.5 billion, largely because changes had to be made to the original design in order to ensure that the accelerator would perform as required (*Science*, 25 August 1989, p. 809). Now the High Energy Physics Advisory Panel (HEPAP) says even DOE's latest figure is unrealistic.

This new price tag could cause the SSC's supporters some problems on Capitol Hill. Although political support for the project has so far remained strong, the escalating cost projections have already drawn caustic remarks from a few members of Congress. Thus, in a clear attempt to blunt the political impact of HEPAP's estimate, DOE officials called a press conference the day before it was made public to announce that other analyses are expected to come in with lower—and, in DOE's view, a little more palatable—figures. Deputy Energy Secretary W. Henson Moore said that Universities Research Associates (URA), the consortium that will build the machine, is reporting that it can complete the project in 1998 for $7.835 billion. And an internal analysis by DOE's Office of Energy Research will estimate $8.3 billion. A fourth cost analysis is being performed by a team of DOE officials and outside contractors, but Moore says he has not yet heard what its conclusion will be. The estimates, according to Moore, differ largely in the amounts they include for unexpected technical problems and slippage in the schedule.

Moore says DOE will try to reconcile these wildly varying estimates in the next 2 weeks and present Congress with an official figure on 17 August. But the department may already have made up its mind: "We feel very strongly from what we have seen so far that we should go with what the contractor [URA] thinks," said Moore.

HEPAP made it clear that it believes URA is being far too optimistic, however. "The biggest problem, to put it bluntly, was a lack of confidence about their scheduling," says Jack Townsend, director of the Goddard Space Flight Center and chairman of the HEPAP committee that reviewed URA's cost calculations. HEPAP suggests in its report that 6 to 12 months should be added at the front end of the SSC's schedule. This would push up the estimated cost by $300 million. The advisory group says another $500 million should be added to cover unanticipated expenses related to tunneling and development of the superconducting magnets that will steer protons around the racetrack-shaped collider. And still another $300 million may be needed to upgrade two detectors that will record the results of proton collisions.

SSC Laboratory Director Roy Schwitters told *Science* he is confident that the 1998 deadline can be met and that costs can be kept within URA's $7.8-billion estimate. Stretching the schedule now when there is no demonstrated need just drives up the cost, he says. Schwitters also takes issue with HEPAP's suggestion that more capable detectors should be budgeted for. While better detectors would permit a "broader and more varied research program" when the SSC first starts operating, he notes, the detectors will have to be upgraded anyway in later years in response to new findings and to take advantage of improved detector designs. In other words, there's no argument that improved detectors will be needed, the only question is when.

Townsend's committee points to many reasons why it thinks URA's estimates and schedule are too rosy. Ramping up the construction programs in a short period will be difficult because key personnel still are not in place, it says. And nobody has yet been put in charge of the superconducting magnet program, yet this program "probably has the highest degree of risk of any of the technical elements." (Even SSC officials say the magnets will cost $2.1 billion, twice the figure estimated in 1987.)

The project would also be stretched out if huge funding increases are not provided in the next few years. The SSC's schedule requires that the budget be doubled from $525 million in fiscal year 1991 to about $1.2 billion in 1992. "Given the state of the federal budget deficit now, factors of 2 are kind of hard to attain," notes Townsend.

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