Analysis&Perspective

Sometimes the use of a neutral expert—one not affiliated with any party in a dispute—can resolve issues much more efficiently. There are a number of roles that a neutral expert can play, says Dr. Lee Hollaar, a professor of computer science who has been a court-appointed expert, arbitrator, or special master in a number of computer software cases.

Based on his experiences, Hollaar discusses ways that neutral experts can be used, and suggests how such experts can be selected and how they can carry out their work.

The Use of Neutral Experts

BY LEE A. HOLLAAR, PH.D.

We normally associate experts with one of the sides of a case, with the expert either testifying for that side or providing support to the attorneys as they try to understand and evaluate the issues in the case. But there also are times when an expert not affiliated with either side can help to resolve the issues far more efficiently.

The role of a neutral expert can run the gamut from providing a factual answer to a particular question after reviewing the evidence, to deciding the case as an arbitrator. It really depends on the creativity of the judge or a party in seeing an unconventional way to resolve a matter.

Court-appointed Experts

The most common role for a neutral expert is as a court-appointed expert. Federal Rule of Evidence 706 governs such an appointment.

> The court may on its own motion or on the motion of any party enter an order to show cause why expert witnesses should not be appointed, and may request the parties to submit nominations. The court may appoint any expert witnesses agreed upon by the parties, and may appoint expert witnesses of its own selection. An expert witness shall not be appointed by the court unless the witness consents to act. A witness so appointed shall be informed of the witness' duties by the court in writing, a copy of which shall be filed with the clerk, or at a conference in which the parties shall have opportunity to participate. A witness so appointed shall advise the parties of the witness' findings, if any; the witness' deposition may be taken by any party; and the witness may be called to testify by the court or any party. The witness shall be subject to cross-examination by each party, including a party calling the witness.

Such a court-appointed expert can be of value when there is little or no dispute about the underlying facts, but each side—through their experts—puts their particular spin on them, oftentimes downplaying any agreement. This leaves the judge, who has to decide the particular shade of gray, listening to one side telling him that things are white while the other side tells him that things are black.

A particularly interesting use for a court-appointed expert is the examination of computer source code to determine whether there is a trade secret misappropriation or copyright or patent infringement. There can be no question what is actually in the source code and what function it performs. The primary need for an expert is to protect trade secret status by making it unavailable to a competitor but allowing testimony about what it contains through an expert employed for that purpose. (There is generally a protective order in place, preventing the expert from using the information gained through the litigation in future activities.)

Advantages in Having a Neutral Expert

There are advantages to both sides in using a neutral court-appointed expert. The time and expense of using a single expert will often be considerably less than if each side has its own expert, leading to a faster completion of the case. This is not only because both sides are sharing the costs of the neutral expert, but also because each side is more willing to cooperate with the court-

Dr. Lee A. Hollaar is a professor in the School of Computing at the University of Utah in Salt Lake City, where he teaches networking and computer law. He is the author of Legal Protection of Digital Information, *published in 2002 by BNA Books and available at no cost at http://digital-law-online.info. He was a committee fellow at the Senate Judiciary Committee, where he worked on patent reform legislation and what became the DMCA, and was a visiting scholar at the Federal Circuit. He has been the technical expert in a number of intellectual property and antitrust cases, and is on the recruitment and screening panel of the American Association for the Advancement of Science CASE project. Professor Hollaar is a member of the Advisory Board of* Expert Evidence Report, *and can be reached at hollaar@cs.utah.edu.*

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appointed expert in providing the information needed by the expert to resolve the factual issues.

It is all too common in computer software litigation for a party to respond to a discovery request by either resisting such a production request or by burying the other side in source code consisting of many versions, with no significant difference as to the matter being considered, and to produce that material in a form inconvenient for easy examination. Listings of source code can fill many boxes even for a small program with many versions, and it is impossible to search for something using the normal tools used by a software developer. Even electronic production could be in the form of image files of the source code, with each page being a separate image, again making it difficult to find a key needle within a haystack of image files.

The appointment by the court of an expert to examine the source code substantially changes the dynamics of the situation. . . . [T]he parties want the expert to see how the source code supports their position and not that of the other side, especially when they realize that the report of the neutral expert may decide the case.

In contrast, the appointment by the court of an expert to examine the source code substantially changes the dynamics of the situation. It now may be advantageous for a party to be forthcoming to the neutral expert, since he or she is not working for the other side. Instead, the parties want the expert to see how the source code supports their position and not that of the other side, especially when they realize that the report of the neutral expert may decide the case.

The court can reinforce this by modifying the fee-splitting provisions of the expert's appointment (generally, each side pays half) to require a party to pay all the expert's fees and costs when the expert must expend additional effort because the party was not forthcoming with information—source code or answers to questions—requested by the expert. This changes delay and obfuscation from something that costs the other side to something that directly affects a party.

The use of a neutral expert also helps overcome the tendency for the plaintiff in a trade secret or copyright dispute to "mine" the source code to try to find anything that might support its claims against the defendant. The court-appointed expert instead will be looking first at the big picture: Is there substantial similarity between the defendant's source code and the plaintiff's code?

Two Examples

In one case, the parties asked me to review the source code and give a preliminary opinion about whether defendant's program was based on the plaintiff's. I was able to provide that opinion and answer the parties' questions after spending about four hours reviewing the code and talking with each party's programmers because of substantial differences between the two programs. What was needed was not an extensive analysis of the two programs, but a way for each side to provide their information to a trusted neutral rather than to the other side's "hired gun."

In another trade secret case in which I was the court-appointed expert, the defendants had worked for the plaintiff and immediately after leaving had started marketing a very similar system. Without examining the source code, it would be difficult for the plaintiff to say what trade secrets were misappropriated, but such an examination could easily turn into a hunt for trivial similarities, especially if places where the two systems were similar were the result of external considerations or generally-known techniques not protectible as trade secrets.

It was not difficult to find portions of the plaintiff's system in the defendants' source code, but it was not clear whether that constituted trade secret misappropriation, since the same people had written both and the defendants were claiming that many parts of the plaintiff's system were based on ideas and programs they had before they were hired by the plaintiff.

Looking first for things that had only minor or no changes between the plaintiff's system and the defendants' system, I asked the defendants for any evidence or information they could provide regarding what I had found. In some cases, they were able to demonstrate that the program modules had been written before they were hired by the plaintiff (and, when asked directly, the plaintiff confirmed this). In other cases, they pointed to articles that they felt described the techniques implemented in the source code.

After the initial examination, I wrote a preliminary report and forwarded it to each side for their comments. They then submitted additional information that I should consider. After a couple of iterations, the issues were clearly framed and I was able to produce my final report for submission to the court.

In some instances, I was not able to answer whether there was a misappropriation because that depended on how contracts and business relationships were considered, but I was able to indicate how the issue could be decided after those issues were resolved.

From start to finish, I spent less than 40 hours comparing two systems with hundreds of different modules, with no clear initial indication of what the trade secrets might be (beyond the system as a whole) and whether they had been copied. It wouldn't surprise me that if the court had not appointed a neutral expert, each side's experts could have spent more than 100 hours each and the court then having to resolve two very conflicting views.

Other Roles for a Neutral Expert

While I have just described the most common role for a neutral expert, there are a number of other ways that they can be employed.

One judge appointed a medical school professor to serve "as a sounding board for the court to think through the scientific significance of the evidence," to "assist the court in determining the validity of any scientific evidence," and to "assist the court in determining the validity of any scientific evidence, hypothesis or

theory on which the experts base their economy" in a highly-technical medical case.[1]

While certainly helpful to the judge, most litigants would be rightfully worried about the use of an expert in the judge's chambers. While the role might look like that of a law clerk, there is a difference between researching what was said in past cases and helping the judge evaluate the facts. The danger is magnified when the "helper" is a skilled expert in the area: The judge may end up relying on the help rather than the case record. This can be particularly problematic because any appeal will give great deference to the findings of fact, while reviewing the applicable law without deference.

Most lawyers would be concerned about letting effective control of their case go to a neutral expert. But if the expert has to produce a report that can be questioned (and perhaps use the preliminary report process described above), it is clear to the parties how the court-appointed expert is influencing the case, and there is a mechanism to correct any misunderstandings. That is not true when the expert is working in chambers.

If it is advantageous to give the neutral expert a role in the ultimate resolution of the case beyond that of providing an unbiased assessment of the factual evidence, there are two ways that it can be done: appointment of the expert as a special master for a particular aspect of the case, or the use of the expert as an arbitrator deciding the matter.

The Expert as a Special Master

Rule 53 of the Federal Rules of Civil Procedure provides for the appointment of a special master by the court:

> (1) Unless a statute provides otherwise, a court may appoint a master only to:
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> (A) perform duties consented to by the parties;
>
> (B) hold trial proceedings and make or recommend findings of fact on issues to be decided by the court without a jury if appointment is warranted by
>
> (i) some exceptional condition, or
>
> (ii) the need to perform an accounting or resolve a difficult computation of damages; or
>
> (C) address pretrial and post-trial matters that cannot be addressed effectively and timely by an available district judge or magistrate judge of the district.
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> * * *
>
> (3) In appointing a master, the court must consider the fairness of imposing the likely expenses on the parties and must protect against unreasonable expense or delay.

An example of an "exceptional condition" is when there is a difficult question that involves both fact and law that must be resolved, and the use of an expert in the technical area in place of the judge will substantially expedite the proceedings and give a sounder result. This is similar to the specific example given in the rule, where an expert in accounting or economics may be appointed as a special master "to perform an accounting or resolve a difficult computation of damages."

In most instances, a court-appointed expert can provide the court with the information necessary to make a decision and a special master is unnecessary, although it may be useful to give the court-appointed expert the ability to conduct a hearing on a particular matter to help make a finding of fact. If there are matters of law that need to be resolved so that the expert can make his determination, they can be referred to the court (although this could increase the time to resolution if things keep going back and forth between the court and the expert) or the expert can make findings conditional on later determination by the court.

One instance where it may be necessary for the neutral expert to serve as a special master, rather than a court-appointed expert, is in the interpretation of the claims of a patent. The task of interpreting a claim is to determine what the claim is from the perspective of one skilled in the art of the invention, something particularly suited for an expert. But the Supreme Court has held that "the construction of a patent, including terms of art within its claim, is exclusively within the province of the court" as a matter of law.[2]

To help understand how a skilled artisan would understand a claim, judges hear often-conflicting testimony from experts about the accustomed meaning of the terms of a patent. While the answer to claim interpretation questions is generally found in the patent itself, because the judge most likely is not trained in the technology, he or she somehow has to learn what the patent really says from the contrary testimony of the parties' experts.

The special master can easily see which arguments from the parties have technical merit and should be examined in depth, and which are more hopeful than substantive.

This has led to an almost-religious reliance on dictionaries in claim interpretation as a way to determine how a person skilled in the art of the patent would understand the claim.[3] But unless you know which definition to select—which requires an understanding of how the term is used in the technology—dictionaries are of little real help.

However, if a neutral expert in the technology is appointed as a special master for claim construction, he or she can make recommended findings of law to the judge on how the claim should be construed based on an understanding of the technology in general and the invention in particular. It will be far easier for the neutral expert to separate the invention from its described embodiments (one of the fundamental errors in claim construction is to limit the invention to an embodiment)

[1] Quoted by Justice Stephen Breyer in "The Interdependence of Science and the Law," *AAAS Science and Technology Yearbook 1999*, http://www.aaas.org/spp/yearbook/chap9.htm.

[2] *Markman v. Westview Instruments*, 517 U.S. 370, 38 USPQ2d 1461 (1996).

[3] The Court of Appeals for the Federal Circuit, which hears all patent appeals, is currently considering the rules for claim construction, and in particular the role of dictionaries. See *Phillips v. AWH Corporation*, 376 F3d 1382, 71 USPQ2d 1765 (1994).

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and give each term its broadest interpretation consistent with the patent and its prosecution history.

The use of a special master who is an expert in the technology of the patent can substantially shorten the time necessary for claim interpretation in a patent case. There is no need to educate the special master about the technology, as there would be with a judge. The special master can easily see which arguments from the parties have technical merit and should be examined in depth, and which are more hopeful than substantive.

Some of the concerns the parties may have about having a technical expert who is not a lawyer acting as a special master can be reduced by the court reserving the power to sanction a party for not providing requested information, instead having the special master refer such matters to the court. The court, in its order appointing the special master, can also permit *ex parte* communications with the court, so that the court can assist the special master's activities if necessary.

The Expert as an Arbitrator.

Finally, the neutral expert can be the ultimate decision maker if the case is referred to arbitration, either because it falls under a contract with a binding arbitration clause or the parties ask the judge to order arbitration.

While the neutral expert could be the sole arbitrator, because most arbitrations will involve not only technical questions but also questions of law, it might be more reasonable for the neutral expert to be one member of a panel of three arbitrators. That would permit an attorney familiar with arbitration procedures and the rules of evidence to be panel chairman and supervise the hearing.

Selecting a Neutral Expert

So, how does one select a neutral expert? Most important in the selection process is a procedure where all parties feel that the selected expert is truly neutral.

For a court-appointed expert or special master, the judge can simply appoint somebody he or she knows is an expert in the area because the expert has appeared before the judge in an unrelated matter and the judge was impressed by the expert. Or the judge can ask others— particularly other judges—for recommendations. The judge could also contact local universities to locate a professor who works in the field but is not associated with the case or its attorneys. The expert should, of course, disclose any past relationship to the parties, their counsel, the action, or the court, and allow the parties to object to the appointment.

Another common way of selecting a neutral expert is for each party to put together a list of possible experts, allow the other party to strike those to whom they object, and submit the final list to the judge for the final selection.

Most important in the selection process is a procedure where all parties feel that the selected expert is truly neutral.

If there is a concern that a single technical expert would in essence be deciding the case, a panel of three neutral experts could be formed. There are a variety of ways to do this. One would be for the court to appoint the chair of the panel using one of the ways just discussed. The chair then selects the second member of the panel from a list provided by the plaintiff, and the third member from a list provided by the defendant, perhaps after interviewing them.

Another way would be for the plaintiff and the defendant to each select a panel member (perhaps from each other's list) and those two neutral experts select the third panel member.

For arbitrations where a neutral expert is wanted for the panel, the organization overseeing the arbitration may want to alter their procedures for selecting that arbitrator. The standard procedure could be used to select the two non-expert arbitrators for the panel, while the expert is either selected by the other two arbitrators or by the parties from a special list of technical experts. Arbitration organizations that handle technical cases may want to establish a procedure to recruit technical experts for such special lists, perhaps adapting their qualification rules to recognize that they will be used as part of panels where the other arbitrators have been trained in the necessary procedures.

Finally, and maybe the easiest way, the American Association for the Advancement of Science (AAAS) has a demonstration project to assist courts and arbitrators in finding and appointing scientific experts. With help from a recruitment and screening panel that includes representatives from the major scientific and engineering societies, AAAS staff locates and screens experts with the background necessary for a particular case and without conflicts of interest. More information on the AAAS project can be found at http://www.aaas.org/spp/case/case.htm.