How to Make Technical Briefs Understandable for Generalist Judges

By **Hugh S. Balsam** and **Patrick C. Gallagher**

Legal briefs on technical subjects don't have to be impenetrable. With some care and effort, a lawyer can reduce even the most complicated subject matter to something that generalist judges—and their clerks—can understand. Doing so is important because you want the judge to be able to write an opinion in your client's favor, and a judge isn't going to be comfortable doing so if it is impossible to understand the factual reasons why your client should win.

We know that many lawyers have spent years mastering the science that underlies their special area of practice. The poor judge reading your briefs, however, likely doesn't share your passion for and mastery of, say, the biochemistry behind the development of pharmaceutical products. This disparity in knowledge can be a problem if your case involves—to continue with the same example—a drug patent. If you expect to prevail, you're going to have to simplify the science in your brief. If you don't, you risk losing the judge—and your case.

So, it should be clear from the start that your brief is *not* the place to show off the depths of your knowledge. Rather, it is the place to educate the judge, starting with the very basics, about the science that provides the context for the legal issues raised in your case. Judges and clerks, while adept at researching the law, are unlikely to research the science and technology independently. So your job is to give them all the knowledge they need to decide your case.

This article will help you do that. It is the product of 15 years experience distilling very dense scientific matter to produce clear and understandable briefs that even a grandmother—OK, a sharp grandmother—can comprehend. We have also talked to district judges and clerks to ascertain what they view as helpful—and unhelpful—in briefs in scientific and other technical subject areas.

While we refer frequently to patent cases here, this article is not limited to patent briefs. Rather, the tips and techniques we discuss apply equally in any case where the underlying subject matter is specialized and technical. Think medical malpractice or financial fraud, or even a case that involves a complicated statutory scheme. (Have you read through the Fair Credit Reporting Act lately?)

Our recommendations fall in a few general categories. The first is selection. Don't pack your brief with everything including the kitchen sink and let the overwhelmed judge try to sort it out to figure out what's important to your argument. Your job is to include only what's important and, most critically, to leave out what isn't. The second general subject area is organization. Just as every section needs to have a place and purpose, every paragraph and sentence do too. This sounds elementary, but it's probably the hardest thing to do in a brief. The final general subject area is simplification. This is particularly important in briefs in technical areas, where the arguments, by their nature, are anything but simple. Your goal is to make them less dense, and thus, more inviting, for the judge to understand and ultimately rule in your favor.

A fourth recommendation is to give your brief (before you finalize it) to a lawyer who has no knowledge of the particular field you are writing about. If that lawyer can't understand what you are arguing and why, then you need to go back and improve your work. One of the authors of this article has no scientific background, yet a major portion of his practice consists of writing and improving briefs in technical subject areas. Such nontechnical lawyers can be a significant asset to the briefing process.

Step One: Select

The product—or an illustration of it—is quite helpful. In selecting what information to give the judge, don't forget the product itself. Every one of the judges and clerks we interviewed said that it is extremely helpful for them to be able to look at the article or invention in question. In fact, if possible, you should leave the article or invention in the judge's possession for the duration of your lawsuit so that the judge or clerk can refer to it as desired. Then, when writing your briefs, you don't have to spend time explaining what the article looks like because the judge will already have a basic, macro-level understanding of the context. In this way, you can sooner get to the heart of the issues in your brief.

Of course, sometimes it is not practical to give the judge the article itself. Your case might involve an earth-moving machine or an element of nanotechnology. In those instances, you can still be helpful by giving the judge a three-dimensional model or a picture or diagram—anything that illustrates the particular piece of technology in question and gives context to the technical issues.

And don't stop there. Early on in your case, whether orally or in one of your early briefs, be sure to tell the judge about the real-world application of the article or invention. In particular, be sure to explain what problem this invention solves or addresses and how it does so. This advice holds just as true if you represent a patentee or an accused infringer. For instance, if you are trying to establish that the invention was obvious, you can describe the real-world application in such a way that simplifies the problem such that the "solution" appears to be easily attained. On the other hand, if you represent the patentee, you can describe the inventor's spark of genius in such a way that the subject matter being claimed seems truly inventive.

Be selective about your arguments. It is crucial that you resist the temptation to raise every issue for which you think you have a non-sanctionable argument. This

is all the more important in cases involving complicated technology because the more you dispute, the more technology you're going to have to explain, and the greater the chance the judge will become confused. The failure to circumscribe arguments is such an acute problem that some courts have issued rules presumptively limiting the number of claim terms that the parties can dispute or that the court will construe. *See, e.g.*, N.D. Ill. Local Patent R. 4.1. To be sure, you have to raise an argument to preserve it for review. But if an argument is marginal in the district court, it is not likely to improve with age. So select wisely in the first instance and you, your client, and the judge will be better off for it in the long run.

That having been said, when you feel you must give the court flip-side or alternative arguments (or if your client insists on it), be sure you make it clear that you are arguing in the alternative. Lawyers sometimes overlook this, and it can be thoroughly confusing to read a brief whose arguments seem irreconcilable with each other. Further, alternative arguments should be as precise and focused as possible so as not to detract from your more important primary point.

Select only the technical facts necessary to support the arguments in your brief. The most important thing you can do in a brief involving a really technical subject is to withhold information from the judge. No, we are not advocating withholding important facts. Rather, you should strive to withhold technical information that isn't necessary to your argument or to an understanding of the general scientific context. The best way to accomplish this goal is to try to generalize the scientific or technical concepts rather than including every last supporting fact.

Consider an example. In a brief we edited recently, our client was challenging the validity of a patent that claimed to have solved the problem of a noxious black smoke forming when a certain chemical reaction occurred. There was, however, a scientific article from the 1950s that described the same type of chemical reaction and did not mention any black smoke—and the article surely would have mentioned the smoke had it occurred. Thus, the article tended to show that the "problem" the inventors purportedly solved in the patent was not a problem at all.

The draft brief we received to work on laid out, in mind-numbing detail, the type of chemical reaction the old article described, complete with chemical diagrams and impenetrable scientific language. When we finished, however, all of that was gone. We cut it out because it was sufficient to mention the old article and tell the judge merely that it showed that the black smoke was not a problem to begin with. And we simply cited and attached the article so that the judge could go back and look at it to obtain more in-depth detail. That way the brief was not clogged up with a maddening level of science that the judge was never going to understand in the first place. Further, in editing the excessive level of detail out of the brief, we were able to elevate, front-and-center, the excellent take-away point that the drafters of the brief were trying to make all along.

The best briefs tell a story, and this is so even when the subject matter is technical.

In other words, you must always keep your take-away point in mind and present it clearly enough—which often means generally enough—that it doesn't get buried and lost in your recitation of the applicable science. Yes, you must educate the judge—but only enough for the judge to understand and resolve the issues in dispute.

Don't repeat arguments needlessly in successive briefs. The time to educate the court about the technology is your first brief where a mastery of the technology is required. Say that is your brief in support of your motion for summary judgment. If that's the case, you do not need to reeducate the court in your reply brief in support of summary judgment. Even though there might be a span of several months between when you write your initial brief and your reply brief, rest assured that the judge is not waiting for the daily mail delivery to rip open every envelope and read everything that comes in the door that day. The judge and clerks generally will wait until briefing is complete, and only then will they sit down and read the full set of briefs at once. Thus, long explanations from the initial brief need not and should not be repeated in the reply brief. Your reply brief can be more pointed and direct, because you need not waste space reeducating the court about the basic points.

That said, there is likely a need to refamiliarize with each round of new briefing. Thus, if you educated the court primarily during a motion to dismiss, you need not repeat the whole background again in your reply brief, but you might need to give a refresher course in a later brief in support of a motion for summary judgment.

Don't waste time reciting boilerplate law. The judges and clerks we interviewed advised strongly against larding briefs up with a lot of standard boilerplate law. They know that law already. It is more helpful to focus on any recent decisions that might have developed or changed the area of law you are dealing with and on cases you believe are closely analogous to the facts of your case.

Step Two: Organize

Don't forget to tell a story. The best briefs tell a story, and this is so even when the subject matter is technical. A patent case presents the same opportunity to narrate a story and develop a theme as any other case. Say, for example, the issue is obviousness of a patent claim. If your client is the patentee, you have the opportunity to relate how novel the claimed invention is and how surprising it was that the inventors came up with it. If your client is the alleged infringer, you can set forth a parade of prior-art references in such a way that the invention seem inevitable,

Continued on page 20

Continued from page 5

and certainly not the result of some inventive spark. In most cases, therefore, you can further your argument by telling a compelling story rather than getting mired in scientific drudgery.

Build the technology piece by piece. When presenting scientific or technical subjects in your background section or your statement of facts, start with a few basic principles and then build on those principles step by step. The judge likely does not know as much as you do about the technology, but you do not know how much the judge already knows. Therefore, you should start with the very basics (probably more basic than you think you need). The judges we interviewed said that they would never complain if a lawyer spent a paragraph or two on scientific fundamentals, even if they already understand those fundamentals. Far better to err on that side than to start your explanation in the middle and use terms and concepts that you might incorrectly assume the judge understands.

For instance, if your case involves deicing technology, do not fear reminding the judge at the outset that, in the normal course, water freezes at 32°F. While it is likely that the judge already knows this fact, when you set it out at the beginning, it establishes a common baseline of knowledge. You can then spoon-feed the judge by slowly building on that knowledge step by step until you have given the judge enough science necessary to understand your legal arguments. Be sure not to skip steps, even if they appear self-evident. And it is best (as in all writing) that when you explain the steps, each sentence clearly relates to the sentence before it and the sentence after it.

Be sure your facts and argument present the science in a consistent manner. The best statements of facts are those that make it clear what the legal argument will be. This should also be your aim when writing a brief on a technical subject. To achieve this goal, it is important to use the same technical facts in the same way in both the statement of facts and the argument. It does your case no good to painstakingly teach the science in the statement of facts only to use, in the argument section, a different vocabulary or more advanced concepts than you set forth in your fact statement. Be sure your brief is a unified, harmonious whole.

A technology tutorial is a session where the parties educate the court about the science and technology involved in the case.

Use headings liberally. All the advice we offer in this section is easier to apply if you make liberal use of headings and subheadings, especially in your statement of facts. While most lawyers know to break up their argument using section headings, fewer lawyers use headings in their statements of facts. That is the reader's loss, because a logically thought-out statement of facts lends itself perfectly to headings and subheadings that not only make the brief look less intimidating but actually make it easier to understand.

Use topic sentences. It is always a good practice to use a topic sentence for each paragraph, and never more important than when you are writing an argument based on complicated technology. When the writer fails to use a topic sentence, the reader begins reading the paragraph unsure of the point the writer is trying to make. And a writer who fails to use topic sentences probably hasn't thought out the structure of the brief and how the various paragraphs fit together. Just as one sentence should build on the previous sentence, each paragraph should build on the paragraph before it. In this way, the argument has a logical structure and readers aren't at a loss for what point they are supposed to be getting from the paragraph.

While lawyers often start their paragraphs by talking about a case and its facts, this doesn't help their arguments, because their readers don't know how the facts fit into the overall argument. Thus, a very bad first sentence to a paragraph is something like: "In *Smith v. Jones*, the defendant sped through a red light and hit the plaintiff's car." A far better practice is to tell the reader at the start of the paragraph what the point of the paragraph is. Then the case discussion will make more sense. Thus, it is more effective to start the paragraph by saying "Courts in this jurisdiction consistently hold that a defendant's violation of a traffic law is persuasive evidence of negligence," and then proceed to explain how *Smith v. Jones* illustrates that point. In other words, don't assume the court knows where you are going when you start reciting the facts to *Smith v. Jones*. The court might be able to guess, but it might not.

Step Three: Simplify

Offer a technology tutorial. Even if the court does not ask for one, you should consider offering the court a technology tutorial. This is a session where the parties educate the court about the science and technology involved in the case. If you hold a tutorial, you can refer back to the concepts and terminology used at the session in your briefs to jog the judge's memory. That said, don't assume that the judge has automatic and immediate recall of complicated concepts introduced months or years earlier. Further, there is turnover among the judge's clerks, so a clerk who sat in on a tutorial might no longer be working for the judge when you are submitting your briefs. There may be a new clerk who hasn't had the benefit of your tutorial. In this regard, it might also be helpful for you to offer to videotape the tutorial if the judge does not beat you to the punch and suggest it in the first instance.

Eliminate or define technical terms. Becoming proficient in a technical area like engineering, chemistry, or medicine entails learning a new vocabulary, much like learning a foreign language. But, just as you wouldn't write a brief in French, so you shouldn't write a brief in the technical language of the field you are dealing with. Rather, you should try your best to strip your brief of as many technical terms as possible.

Of course, it will usually not be possible to parse *all* the technical jargon out of your brief; it is likely that some technical terms will be necessary to your argument. That's OK—the court is an intelligent audience. But they may not have the technical background and scientific understanding that you have—or that your client has. You should tell the court what the technical terms mean, and you should take a step back and explain how these terms relate to your argument and the larger scientific context.

Say, for example, you are dealing with a patent that claims a faster way to release a drug from a tablet so it gets into the body more quickly. A key concept in this area is dissolution testing, which, in the pharmaceutical context, consists of dropping a pill into a solution and measuring how fast it dissolves. It will probably be unavoidable for you to refer often to dissolution testing. So, you just need to be sure that the first time you mention this potentially off-putting phrase, you explain it in a manner that is friendly enough that the judge can capture a mental image and be comfortable with the concept each time you use the term.

Don't try to obscure a bad argument in a thicket of impenetrable science. If your argument is weaker than you would like it to be, resist the temptation to obscure your position in a morass of unexplained science. First of all, a judge who can't understand your position is unlikely to rule in your favor. Judges are aware of the obfuscation trick, and they do not reward it. Second, your opponent might well explain the science and take the time to translate your argument into something understandable, exposing its flaws. In that event, you will simply wind up looking foolish and unhelpful.

Avoid acronyms and odd specially defined terms. Acronyms frequently make a brief more difficult to follow and should generally be avoided unless the acronym is universally known (e.g., IBM). A brief we recently were asked to edit had the following sentence: "During this time period, FIE compensated ZSC for the PPO access provided and its other bill-review services, and ZSC paid CCN for access to the PPO." Huh? Some lawyers think acronyms are a convenient shorthand, but if you use more than just one or two of them in a brief, they quickly wear out their welcome and become overwhelming. If a party's name is Zippo Service Corporation, call it Zippo in your brief, not ZSC.

Similarly, there is no need to ascribe shorthand nicknames to selected terms you use in a given brief. Say your case involves a certain seven embezzled checks. You might be tempted to define these initially as "the Checks" and then invariably refer to them in this artificial manner throughout the rest of the brief. Avoid the temptation. There are many other perfectly natural-sounding ways in which you can refer to the checks and still leave no doubt in the judge's mind which checks you are referring to—"the checks at issue" or "the embezzled checks," and so on. Better to use these general terms interchangeably (making sure the context makes it clear you mean the seven checks) than to set forth made-up terms of art that you have endowed with special meaning for purposes of this one brief only.

Along these same lines, you should avoid the practice of advising the judge that Sarah Smith will henceforth and forevermore be known in your brief as "Smith." Or that Honda Motor Co. will be referred to as "Honda." Provided there are no other Smiths or Honda entities in your case, you can safely just go ahead and use the person's surname, or the shortened form of the company's name.

Don't forget to simplify the non-science, too. Not only is it important to simplify the science in your brief, but you must also strive to pare down or eliminate unnecessary nonscientific details. This is another fix that is important in technical briefs because you plainly cannot remove *all* the science. Therefore, eliminating other unnecessary details becomes that much more important. These unnecessary details come in a variety of different forms—all equally disagreeable.

You can start with dates. Lawyers love to include them, not just in procedural histories, but in any and all other factual recitations. Sometimes, of course, exact dates are important—as in a case involving the statute of limitations or any number of patent-invalidity defenses—and we are not advocating eliminating those dates from your brief. But most other dates are truly superfluous. Unless relevant to some issue, no one really cares what date you filed your answer or the date so-and-so moved for summary judgment. If you feel compelled to use dates, general mileposts are usually fine, e.g., "a few months later" or "in 2007."

Lawyers also obsess about setting forth precise dollar figures, right down to the cents. In some contexts, of course, you need to be precise. But if not, it is much more reader-friendly to write more than $89 million instead of $89,235,708.55. And it is always preferable to write $89 million instead of $89,000,000.00. The judge knows that $89 million is a lot of money, so including all the zeroes—especially the .00—to try to puff it up further is transparent piling-on. And while we're talking about numbers, it is insulting—and unnecessary—to put a numeral in parentheses after writing out a number. There seems to be little doubt that the judge will understand what the word "thirty" means even if you don't put "(30)" after it.

There are also certain lawyerisms that you should avoid in any brief, and especially in a technical brief that is already difficult for the reader to plow through. It makes for far more pleasant reading if you write in plain English, and not in legalese. So, do your judge a favor and avoid not only the usual suspects, such as hereinbefore, hereinafter, and their many ugly cousins, but also other more innocent-sounding words and phrases that only lawyers use, like prior to ("before" is preferable), pursuant to (use "under" instead), attempt ("try" works better), and instant ("this").

Also, it is almost always preferable to call a party by its name, or at least a reasonable shorthand of its name. The use of party labels like "plaintiff" and "defendant" can be confusing in intellectual property cases, because sometimes the plaintiff is the party accused of infringing and is seeking a declaratory judgment that exonerates it from liability.

Avoid footnotes. As long as you have read this far, we will stay on our soapbox just a moment longer and exhort you to avoid footnotes in your brief. Many judges don't read them, and many courts hold that substantive arguments presented only in footnotes are waived. Thus, our briefs are generally devoid of footnotes. If the material you wish to put in a footnote is substantive, there should be a logical place for it in your argument. Sticking it in a footnote is just lazy and risks disrupting the logical organization you have worked so hard to create. If, on the other hand, the material you propose to include in the footnote is not substantive, you and your reader can probably do quite well without it.

And last, always have a conclusion. You have done a lot of work to select the important facts, organize your brief in a logical manner, and simplify the complicated concepts to the best of your ability. When you are finished with all that, don't forget to tell the court precisely what you want. We hope that if you follow the advice in this article, you stand a better chance of getting it. ■

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The Five Cs of Effective E-discovery Management

Continued from page 7

flow, it is important at the outset to supply reviewers with a manual that provides easy-to-understand instructions for tagging email chains or families, duplicates, annotations, and redactions, as well as other crucial information. Make sure that the review protocol is very clear: Identify review calls related to responsiveness, privilege, confidentiality, significance, and issues. Delegate and provide sufficient training for first-round privilege review so that review lawyers can make the cuts on their own. Attorneys tend to overanalyze, so stay a step ahead of them by crafting a protocol that will answer as many potential questions as possible.

Failing to be clear and consistent in your instructions renders sometimes tedious—but important and expensive—tasks meaningless. Also, no team, no matter how brilliant, ever thinks of everything in the beginning of the case. No matter how thorough you are, ambiguities will arise. Have a clear path for communication to resolve any ambiguities. Also define a protocol for resolving problems. A decision matrix provides a clear path for issue resolution and dramatically improves consistency in problem solving and review, which can decrease downtime and alleviate bottlenecks. Finally, formalize a process for regularly disseminating information with the review team. For example, when a decision is made, update the team at the weekly Friday meeting. Don't wait weeks to get a decision and then send out a mass email that everyone ignores.

This is not rocket science, but very few attorneys actually make sure these steps are implemented and followed on their cases. Following these steps will make a world of difference in your ability to handle your case and represent your client effectively.

Capture and Promote Best Practices

There are no mistakes, only failures to learn. Like anything else, effective discovery is a learning process, and the rules and technology are constantly changing. Nonetheless, tried, tested, and true procedures should be documented and incorporated as part of the process. If you have established an effective communications process, the easiest way to document and incorporate it is to encourage ongoing and continuous dialogue with your review attorneys and document the systems and processes that are effective as you go along. In addition, have a "lessons learned" review after project termination to identify practices for training, software selection, organization, and quality control that should be duplicated going forward. Take time to capture processes you want to repeat.

Conclusion

In spite of all the dramatic changes due to the information explosion, changes in technology and discovery rules, and their impact on your litigation practice and trial strategies, there are some basic rules that still apply. Use the five Cs to effectively manage discovery and reduce costs and stress so that you can focus on the merits of the case and your winning trial strategy. ■

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