While companies race to the Patent Office to build their patent portfolios, it should be remembered that, technically, a company is not granted a patent. In the United States, only the inventor or inventors may apply for a patent for their invention. In common practice, of course, a company usually files a patent application for an invention on behalf of the inventors, usually employees of the company. But this begs the question: Who are the true inventors for a patent application?

Unfortunately, this inventorship question can upset the sensitivities and egos of individuals within a company, triggering interoffice politics and dividing research and development teams. Being named an inventor can be a source of pride, and many companies offer financial incentives for employees who submit invention disclosures on their new ideas. It is not surprising, therefore, that most people would like to be included on a patent application as a joint inventor, even when their connection to the invention is slight. Conversely, being left off a patent application can cause hurt feelings and create resentment.

Many of these problems stem from a lack of understanding of patent law – namely, the test for exactly what makes an inventor, an inventor. The inventorship test is designed to answer a narrow legal question, not to recognize in a broad sense all types of employee achievement. As such, there is a fundamental disconnect between what activity constitutes invention and what activity is otherwise meritorious for an employee of a technology company. Knowledge of the legal standard coupled with an understanding of this disconnect should help to resolve the inherent conflicts that can arise with inventorship issues.

The legal standard for inventorship is complex and can be a difficult question even for an experienced patent practitioner. As the Federal Circuit recently recognized, “The line between actual contributions to conception and the remaining, more prosaic contributions to the inventive process that do not render the contributor a co-inventor is sometimes a difficult one to draw.” Eli Lilly & Co. V. Aradigm Corp., 376 F.3d 1352 (Fed. Cir. 2004). But every day, patent applicants do draw this line, and often do so incorrectly.

Inventorship is simple when a single person develops a new idea unaided by others. That person is clearly a sole inventor. But this sole inventor scenario is often not found in a company where groups of people work together to develop a new product. Joint inventorship issues thus arise, and it becomes necessary to evaluate whether the contribution of each individual in the group constitutes sufficiently inventive activity.

Joint inventorship is provided for in the Patent Act, 35 U.S.C. § 116, which states in relevant part: “When an invention is made by two or more persons jointly, they shall apply for patent jointly and each make the required oath, except as otherwise provided in this title. Inventors may apply for a patent jointly even though (1) they did not physically work together or at the same time, (2) each did not make the same type or amount of contribution, or (3) each did not make a contribution to the subject matter of every claim of the patent.”

Notably, the Patent Act does not expressly establish a minimum threshold of inventive activity needed to make someone a joint inventor. Anyone who contributes to any aspect of the invention may be a joint inventor, even though that aspect may be only a small part of the overall invention. But because an inventor may contribute to any part of the invention,
it is necessary to define the invention with precision. In a patent application, the invention is defined by the claims. This leads to the corollary that someone can be a joint inventor if that person contributes only a single claimed feature of one claim in a patent application. Of course, if that claimed feature is ever canceled from the application’s claims, that person is no longer an inventor.

Although there is no minimum contribution requirement, the law does outline the nature of the contribution required of each inventor. In some areas of patent law, invention is defined as conception of an inventive idea coupled with a reduction to practice to create a working example of that idea. But the Federal Circuit has explained that only the mental aspect of this activity is relevant to determining inventorship: “Conception is the touchstone of inventorship, the completion of the mental part of invention.” Burroughs Wellcome Co. v. Barr Labs., Inc., 40 F.3d 1223 (Fed. Cir. 1994). As the court held, the inventors are those who thought of the idea, not those who only realized the idea. As such, discovery that an idea actually works and reduction of that idea to practice are irrelevant for inventorship.

Joint inventorship also requires some element of joint behavior, such as collaboration between or among the joint inventors. As the Eli Lilly court explained, “A joint invention is the product of collaboration of the inventive endeavors of two or more persons working toward the same end and producing an invention by their aggregate efforts.” While joint inventors need not work directly together at the same time and in the same place, there must be some collaboration or concerted effort between them. For example, a latter worker who was unaware of the efforts of an earlier worker in the same company is not a joint inventor with the earlier worker.

This brief summary of the law illustrates that the inventorship question has many pitfalls, and there are several ways to name inventors on a patent application improperly. But through diligence, companies can watch out for and avoid the more common errors. While not an exhaustive list, many of the common errors involve three types of people who are often misnamed as inventors: the Supervisor, the Implementer, and the Expert.

The Supervisor is typically the leader or technical head of a research and development team whose duties include directing development activities of the team and approving their ideas. The Supervisor is therefore intimately involved with the development of the team’s new ideas. As an experienced technologist, the Supervisor will often provide a general statement of the problem to be solved and will guide the efforts of the team in the course of solving that problem. And when the team produces an invention disclosure for a patent application, it is no surprise to see the Supervisor is listed as an inventor. This is especially true when the researchers come from an academic environment, where attribution for research is more freely given to a lead professor.

The Supervisor has undoubtedly played an important role in the development of the new idea. But mere direction of the inventive activity of others is not itself inventive activity, nor is the approval of that inventive activity after it has occurred. Again, inventorship requires conception of the idea, and the typical contributions of a Supervisor do not necessarily qualify. Of course, a Supervisor certainly may contribute to the conception of an idea, especially where the invention lies within the high-level concept rather than in the implementation details. However, a Supervisor should not be listed as a joint inventor without first identifying such a contribution.

The Implementer is another person who is often improperly identified as a joint inventor. The Implementer brings to physical reality what others have conceived, often spending a significant amount of time and effort towards that end. But no amount of work can transform reduction to practice of an idea into its conception. “One does not qualify as a joint inventor by merely assisting the actual inventor after conception of the claimed invention.” Ethicon, Inc. v. United States Surgical Corp., 135 F.3d 1456 (Fed. Cir. 1998).
This result seems unfair, as the Implementer may in fact contribute much more time and resources to the product development cycle. But again, one should consider the disconnect between the law and reality: The law of inventorship is concerned with satisfying a legal test, not with bringing the invention to market or making money for the company. Like the Supervisor, of course, the Implementer may be a joint inventor, but not as a result of the implementation efforts. For example, many problems are not discovered until an idea is carried out, and the Implementer’s solution to these problems and other improvements on the original concept may become part of the invention itself. Of course, these improvements are part of the invention only if they are claimed in the patent application.

The Expert is another commonly mislabeled inventor. The Expert is typically an independent contractor or a university professor who is tapped for the Expert’s vast scientific knowledge in the field of the invention. Because of the technical nature of the Expert’s contribution, which directly concerns the subject matter of the invention, the sufficiency of the contribution is rarely questioned. But it should be. Someone who explains what is known in the art – even if only known by a select few experts – is not an inventor. Explanation of known science is not conception of the invention, which necessarily involves elements or combinations that go beyond the known state of the art. Hess v. Advanced Cardiovascular Sys., 106 F.3d 976 (Fed. Cir. 1997). Like the Supervisor and the Implementer, the Expert’s contribution to conception of the claimed invention must be clearly identifiable, or the Expert is not an inventor.

Unlike intentional errors, an innocent mistake of including or even omitting an inventor does not by itself invalidate a patent. Despite this, however, it is best to resolve the issue correctly before filing a patent application. Determining the correct inventorship before filing a patent application can foreclose future headaches, including the costs associated with correcting inventorship, or, worse, the cost of litigating the issue if the patent is ever asserted. Improper inventorship can also call the ownership of a patent into question, as every inventor has an equal, undivided interest in a patent unless and until that property interest is transferred by law.