



# IP ESSENTIALS

A Toolkit for Entrepreneurs,  
Innovators, and Business Owners

---

## INVENTORSHIP



# INVENTORSHIP

**Inventorship has a strict legal definition under U.S. Patent Law.** The law stipulates that only those who have made contributions to the conception of an invention are inventors. This notion of conception is the touchstone of inventorship.

## Q **What is an invention?**

**A** An invention is any new and useful process (way of doing or making things), machine, manufacture, design, or composition of matter, or any new and useful improvement thereof, or any variety of plant, which is or may be patentable under the patent laws of the United States. It is important to remember that one must first identify the “invention” in order to be able to identify the “inventors.”

## Q **Who is considered an inventor?**

**A** An inventor is defined as someone who has substantially contributed to the conception of an invention, or the *mental* part of invention. Conception of an invention requires two steps: it must exist, and it must be complete. Persons involved in both steps are inventors. Note that conception may exist and be complete even though experimentation continues, for example when a concept is proven yet modifications are still being made, e.g. for optimization.



**Q** *I helped design the prototype of an invention. Am I an inventor?*

**A** Under U.S. patent law, someone doing routine experimentation or making passive contribution, such as maintaining lab notebooks or confirming data, is generally not considered an inventor. Complications often arise when defining the combined efforts of a team to reduce an invention to practice. There is a distinct difference between contributing to the actual conception of an invention, and merely acting under the supervision or at the direction of another.

**Q** *What is reduction to practice?*

**A** After conception, an invention is deemed to have occurred when the inventor(s) have reduced it to practice. **Reduction to practice** occurs in one of two ways: actual or constructive reduction to practice.

1. Actual – sufficiently developing and testing the invention to show that it will work for its intended purpose.
2. Constructive – filing of a patent application describing and claiming the invention sufficiently to teach one of skill in the art of how to practice the invention.

It should be noted that participation in the reduction to practice the invention, without more, does not make an individual an inventor. On the other hand, if a technician conceives of a breakthrough solution during the reduction to practice, and if the breakthrough becomes part of the invention as reflected in the claims, then the technician is a properly named inventor. In other words, someone participating in the reduction to practice must also contribute to the final, complete conception to be an inventor.

**Q** *Can an invention have more than one inventor?*

**A** Yes. **Joint Inventorship** occurs where more than one inventor contributes to the conception of at least one of the claims in the patent. However, each coinventor does not have to contribute to the conception of every claim, nor do they have to work in the same physical place or at the same time.

**Q** *Can the named inventors change during the patent process?*

**A** Inventorship can be changed in a provisional application at any time during its pendency, or even after expiration. The same process is followed to add or remove an inventor, to update the name of an existing inventor, or to change the order of the named inventors. A provisional patent application should identify all persons who may reasonably be named as inventors, even if their contribution may later be excluded in prosecution.

**Q** *Why is due diligence in the invention process so important?*

**A** Inventorship determines ownership of a patent. Thus, it is important to keep good notes and accurate records, not only of individuals' contributions during the development process, but also of efforts and diligence to reduce the invention to practice. Each situation is unique and must be evaluated on facts, so maintaining precise documentation for later reference is key in determining the proper inventorship.

*"Joint Inventorship occurs where more than one inventor contributes to the conception of at least one of the claims in the patent."*

---

**Q** *How do I ensure that my company retains ownership of an invention?*

**A** In order to obtain the ownership of an invention, a company should have some form of written agreement, typically a employment agreement, contract and/or assignment, that makes clear that the intellectual property created is the property of the company. In some circumstances, local law can ensure an obligation to assign the intellectual property rights to a company, but this obligation may not be enforceable worldwide.

**Q** *Is “authorship” the same as “inventorship”?*

**A** No. Unlike in academia, where it is common for all members of a team to be named as an author, inventorship (or joint inventorship) may not be granted simply as a reward for contribution to a project. Inventors must make an intellectual contribution, solely or jointly, to at least one element of a claim in the patent. In contrast, authors may have contributions that were done solely at the direction of others or made to the reported research, rather than contributions to the conception.

**Q** *What happens to my patent if I omit or misidentify one of the inventors in the patent application?*

**A** Patents, by law, must contain the names of all inventors, and all inventors named in the patent must have contributed to the conception of the invention. A patent that incorrectly identifies an inventor or inventors is rendered invalid, unless corrected. A mistake can be fixed if it was made through error and without intent to deceive.

**Q** *For inventions that are developed utilizing an AI system, who, if anyone, is the inventor?*

**A** The answer to this question is complex. For example, where a person conceives of an inventive solution to a problem and then instructs an AI system to optimize certain features of the inventive solution, the answer is clearer. The performance of routine optimization by the AI system will not call into question whether the AI system is an inventor.

However, if a person presents a problem to be solved by an AI system, and the system develops an otherwise inventive solution that the person had not conceived of the answer may not be straightforward. The person did not conceive of the solution, so in accordance with current patent laws, the person is not the inventor, even if the person programmed the algorithm that the AI system utilized to arrive at the solution. According to U.S. patent law, if the person did not *conceive* of the particular solution arrived at by the AI system, he/she is not the inventor. The question of who may properly be named as the inventor of an otherwise inventive solution developed by an AI system is not just for academics, since in order to apply for a patent on an invention, one must list the inventor(s).

This IP Essentials Topic is one of a series:  
*IP Essentials Toolkit for Entrepreneurs,  
Innovators, and Business Owners*

---

*The information provided on this document does not, and is not intended to, constitute legal advice; instead, all information, content, and materials are for general informational purposes only. Readers should contact an attorney to obtain legal advice with respect to any particular legal matter.*

© 2022 Lando & Anastasi, LLP

---



60 State Street, 23<sup>rd</sup> Floor  
Boston, MA 02109

lalaw.com | 617.395.7000