

POSITION STATEMENT

Eligibility of Patentable Subject Matter Under 35 U.S.C. § 101

*Adopted by the IEEE-USA
Board of Directors, 29 October 2015*

IEEE-USA supports a patent system that protects and preserves innovations in all technology sectors, including software, computer-implemented systems, medical devices, diagnostic, treatment, dosing methods, pharmaceuticals, manmade materials, and isolated or improved versions of materials that exist in nature, only in impure form. Decisions on subject matter eligibility should be made under predictable rules. Categories of subject matter eligible for protection under U.S. patent laws, stated in 35 U.S.C. §101 (“any ... process, machine, manufacture, or composition of matter, or any ... improvement thereof”), should be broad enough to include all innovations that include technological content. The “subject matter” requirement of §101 is a gating filter that excludes from the patent system, such areas as the fine arts, social sciences, unembodied abstract ideas, laws of pure science with no application, and the like. Subject matter is only one requirement among many in the patent system, and subject matter inquiries should not be confused or diluted by concerns for prior art, obviousness, quality of disclosure, or definiteness of claiming.

Patent protection is an essential property interest for entrepreneurs and inventors. Patent protection serves to help attract investment. Investment is essential, and often the most constrained input, in the process of turning ideas into products and businesses. A strong patent system provides individuals, startups, small companies, and large companies alike with a sustainable competitive advantage, and allows a return on investment in research and development. The United States’ technological successes have been built in large part on the strength of its patent system, and its ability to protect wide areas of inventive subject matter. Unless patent protection is available in all such areas, some R&D efforts will offer too little incentive to investors, resulting in a loss of U.S. technological momentum, and eventually, leading to a loss in technological, manufacturing and STEM jobs.

The subject matter requirement is separate and distinct from the other requirements for patentability in the *U.S. Patent Act*, which serve as specific filters based on other parameters. These specific filters include novelty and non-obviousness over the prior art, written description, enablement, utility requirements, and definiteness of claiming. These specific filters protect the public by ensuring that inventors genuinely disclose their inventions to the public, the scope of resulting patents is not overbroad, and the public’s rights to use pre-existing technology and to conduct research are not impaired.

To implement these broad objectives, IEEE-USA believes the following:

1. To function effectively, the patent law must provide a commercial level of certainty. The law of subject matter eligibility must be sufficiently objective to enable businesses and innovators to have reasonable expectations as to patentability; examiners to apply the subject matter tests predictably; and judges to apply the tests consistently. For that reason, subject matter eligibility under §101 must be based on claim language, using the same precision and evaluation, as under any other requirement of the *U.S. Patent Act*. The courts have applied informal concepts, such as “the invention,” “inventive concept,” “directed to,” and “technical contribution,” subjectively and imprecisely. Unnecessary subjectivity and imprecision imparts uncertainty that undermines a robust, commercially predictable patent system.
2. Judicial exceptions to patent eligibility, such as “laws of nature,” “natural phenomena,” and “abstract ideas,” should be bound with precision and certainty, so that they apply only to claims expressly reciting such subject matter--without additional elements that constitute an “actual application” of such subject matter--and that entirely preempt all embodiments of the law, phenomenon, or idea. An actual application of such subject matter would be sufficient to meet the subject matter requirement of §101. IEEE-USA favors subject matter eligibility of computer-related inventions, so long as the patent’s claims recite actual participation of a computer, or other real-world “machine.”
3. Evaluating subject matter eligibility based on old vs. new concerns, and other patentability requirements, such as “new,” “useful,” “long prevalent,” “conventional,” “fundamental,” “generic,” “inventive concept,” “well known,” “routine” (and discounting subject matter properties, such as “machine”) creates immense uncertainty. If each requirement is applied carefully and independently, cases are decided under predictable and uniform standards of law, and reach correct results.
4. Section 101 need not address every patentability problem. A patent is valid only if it meets *all* requirements of patentability, including utility, eligible subject matter, novelty, non-obviousness, written description, enablement, and definiteness. A valid patent is infringed only if it does not fall within infringement exemptions, such as the exemption for medical procedures in 35 U.S.C. §287(c).
5. IEEE-USA favors the patent eligibility of research tools, which significantly contribute to innovation. R&D policies should not be enacted through §101 exclusions, which affect all patents and all uses in an overbroad manner.

IEEE-USA favors implementing these broad objectives through either legislation, or decisions by the courts.

This statement was developed by IEEE-USA’s Intellectual Property Committee, and represents the considered judgment of a group of U.S. IEEE members with expertise in the subject field. IEEE-USA advances the public good and promotes the careers and public policy interests of the more than 200,000 engineering, computing and allied professionals who are U.S. members of the IEEE. The positions taken by IEEE-USA do not necessarily reflect the views of IEEE, or its other organizational units.