Online Ethics Center
FOR ENGINEERING AND SCIENCE

Intellectual Property and Patents Subject Aid

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Year

2016

Description

A short guide to some key resources and readings on the topics of intellectual property, patents, and trade secrets.

Body

Intellectual property refers to creations of the mind, such as inventions; literary and artistic works, designs; and symbols, names and images used in commerce. Intellectual property rights act like other property rights in that they allow creators and owners of patents, trademarks or copyrighted works to benefit from their own work or investment in a creation. These rights are outlined in Article 27 of the Universal Declaration of Human Rights, which provides for the right to benefit from the protection of moral and material interests resulting from authorship of scientific, literary, or artistic productions. Intellectual property is usually protected in a number of ways including:

- Copyright, which protects the rights that creators have over their literary and artistic works,

- Trademarks, which are signs used to distinguish the goods or services of one enterprise from those of other enterprises (for example the Nike swish or the Coca-Cola label).
- Patents, which is a (special, alienable, prima facie) legal right granted by the government to use, or at least (in cases where other patents that such use would infringe) to bar others from using a device, design, or type of plant that one has created.

  In the United States patent restrictions last for 20 years for useful inventions, and 14 years for designs. Specific provisions of U.S. patent law may soon change to bring it into conformity with the provisions of other technologically developed countries. To patent a device one must prove that it is useful, original, and not obvious. Patents are subject to challenge in court and may be upheld or overturned.

Controversy over what types of materials can be patented have been prevalent for the past ten years. On June 13, 2013, in the case of the Association of Molecular Pathology v. Myriad Genetics Inc.. the U.S. Supreme Court ruled that human genes cannot be patented in the U.S because DNA is a “product of nature,” as nothing new is created when discovering a gene. However, the Supreme Court’s ruling allows for DNA that has been manipulated in the lab is eligible for patenting because DNA sequences altered by nature are not found in nature.

Enlarged from:

National Institutes of Health, U.S. National Library of Medicine. 2016. “Can Genes be Patented?” *Genetics Home Reference.* Accessed 12 October 2016. https://ghr.nlm.nih.gov/primer/testing/genepatents

World Intellectual Property Organization. 2015. “What is Intellectual Property?” Accessed 17 July 2016. http://www.wipo.int/edocs/pubdocs/en/intproperty/450/wipo_pub_450.pdf

Subject Overviews

Albin, Ramona C. 2010. "Patents, Innovation, and Privatization." *Science & Engineering Ethics* 16 (4):777-781. doi: 10.1007/s11948-010-9234-2.

The framers of the U.S. Constitution believed that intellectual property rights were crucial to scientific advancement. Yet, the framers also recognized the need to balance innovation, privatization, and public use. The courts' expansion of patent protection for biotechnology innovations in the last 30 years raises the question whether the patent system effectively balances these concerns. While the question is not new, only through a thorough and thoughtful examination of these issues can the current system be evaluated.

"Intellectual Property," in *On Being A Scientist : A Guide to Responsible Conduct in Research.* National Academies. Committee on Science Engineering and Public Policy. 2009. 3rd ed. 8-11. Washington, D.C.: National Academies Press. https://www.nap.edu/read/12192/chapter/12

The third edition of this publication is designed to supplement the informal lessons in ethics provided by research supervisors and mentors. The book describes the ethical foundations of scientific practices and some of the personal and professional issues that researchers encounter in their work. It applies to all forms of research--whether in academic, industrial, or governmental settings-and to all scientific disciplines. See specifically pages 39-41 for the section on intellectual property.

Moore, Adam, and Ken Himma. 2014. "Intellectual Property." In *The Stanford Encyclopedia of Philosophy* edited by Edward N. Zalta. http://plato.stanford.edu/entries/intellectual-property/

This entry provides a detailed overview of intellectual property and its related ethical questions, including some critiques of intellectual property and how it limits free speech and the use of ideas and inventions in some contexts.

Splawinski, Jacek. 2005. Patents and Ethics: Is it possible to be balanced?" *Science and Engineering Ethics. 11 1: (71-74).*

In this presentation, principles of ethics are confronted involving the desire of the inventor to make a profit. To this end, the presentation is focused on patent protection. Patents should guarantee the return of an inventor's investment and profit and, on the other side, ensure availability -- by patent disclosure -- of the invention for the society when the patent terminates. Recent patent applications made by inventors are infringing this principle and societies are paying an unexpected price for these practices.

World Intellectual Property Organization. 2015. “What is Intellectual Property: Patents.” http://www.wipo.int/patents/en/

Discusses what a patent is, how patents protect intellectual property in different countries, and how patents alter how information is used in in the areas of biotechnology and genetics, computer science, and in nanotechnology innovations. The site also includes a summary of intellectual property laws and conventions worldwide.

Policy and Guidance

National Academy of Sciences (U.S.), National Academy of Engineering., & Institute of Medicine (U.S.). 2009. *Ensuring the Integrity, Accessibility, and Stewardship of Research Data in the Digital Age.* Washington, D.C.: National Academy Press. https://www.nap.edu/catalog/12615/ensuring-the-integrity-accessibility-and-stewardship-of-research-data-in-the-digital-age

As digital technologies are expanding the power and reach of research, they are also raising complex issues. These include complications in ensuring the validity of research data; standards that do not keep pace with the high rate of innovation; restrictions on data sharing that reduce the ability of researchers to verify results and build on previous research; and huge increases in the amount of data being generated, creating severe challenges in preserving that data for long-term use.

United States Patent and Trademark Office. 2016. “Intellectual Property Policy.” http://www.uspto.gov/intellectual-property-ip-policy

The USPTO leads efforts to develop and strengthen both domestic and international intellectual property protection. This page summarizes current developments in patent policies, provides an overview of how this office enforces intellectual property protection in the U.S. and internationally, and also has links for how to begin to apply for a patent and search for registered patents.

Bibliography

Online Ethics Center for Engineering and Science. 2016. "Intellectual Property and Patents Bibliography." In Online Ethics Center for Engineering and Science. https://onlineethics.org/cases/engineering-and-legal-issues-bibliography#Property

> Discusses intellectual property in general and patents in particular, ethical questions raised about intellectual property in the course of the research process, and ethical issues connected with the patenting of biotechnology and other technologies.

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Intellectual Property and Patents
Trade Secrets

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