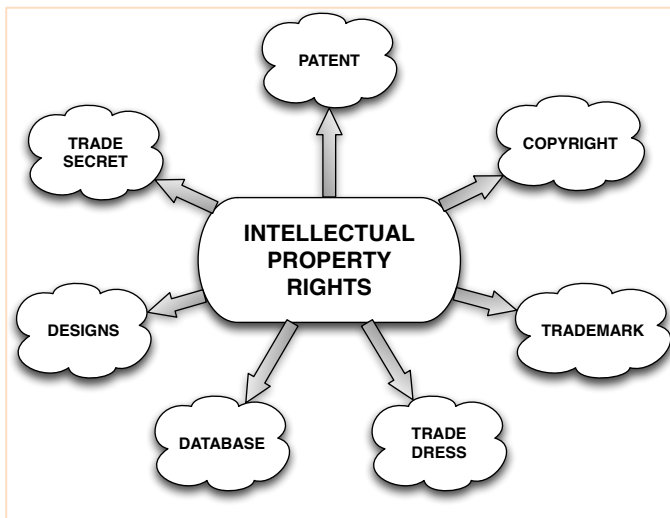


Protecting IP in Software

By: Gautam B. Singh, PhD, JD

Some of the mechanisms for protecting intellectual property in software and information technology assets is through copyrights, patents, and trade-secrets. Copyright law protects the authors of original works. Patent law provides protection for inventions or discoveries by granting a limited monopoly to the inventor in exchange for a complete and enabling disclosure. And, trade secret laws protect confidential information regarding any process, method or design that confers a competitive advantage to the holder of the trade secret. These and other regimens for protecting intellectual property rights are illustrated in Figure 1.



Protection of software and information technology assets, such as pieces of code, the design of a web site, the architecture of a web services facility, or the contents of a database may itself be protectable as a patent, copyright or a trade-secret.

Software development organizations generally protect their source code as trade secrets and the machine code through copyrights. Copyrights protection in machine code protects through imposition of sanctions for making “exact copy” or “substantially similar” copy of the original. Therefore, as long as source code is maintained as secret, legal remedies compensate the IP owner for losses incurred against entities engaged in pirating executable code.

Patent rights granted by the government enable an inventor to exclude others from making, using, selling, or importing a patent owner’s new, non-obvious, and useful invention. In the United States, this limited monopoly is granted to the inventor for 20 years from the date of filing a utility patent application.

Specifically within the context of software, it is worth noting that under patent law, inventors can enjoin the making, using, selling, or importing of an infringing piece of software or database even if the infringing piece of software was *independently created*. It is therefore beneficial for an inventor to patent software as early as is feasibly possible to satisfy the requirements necessary of obtaining patent protection. Herein lies one of the hurdles for obtaining software patents. Specifically, US federal statute 35 USC 101 requires that the subject matter of a utility patent application be a new or improved useful “process, machine, manufacture, or composition of matter.” Furthermore, since abstract ideas are not patentable subject matter, an algorithm without more, is barred from issuing as a patent.

Most software patents fall within the purview of a “process” patent, unless the software is a part of a



machine as is a micro-controller embedded within an electronically controlled device. While theoretically, sequences of mental thoughts (algorithms) are processes also, public policy warrants that individuals not hold monopoly on fundamental concepts, thoughts and mental procedures. In 2010, the US Supreme Court ruled that software, business methods, database applications, or process yielding useful results are patentable subject matter; and in determining whether piece of software is patentable, the critical question is whether the results produced by the software are useful, concrete, and tangible. *Bilski v. Kappos*, 130 S. Ct. 3218 (2010).

Under US Copyright Act 17 USC 102, copyright protection exists for *original* work of authorship fixed in any tangible medium of expression. With regards to the originality, or creativity, required for copyright protection, the threshold is quite low with Copyright laws providing protection for eight enumerated categories including literary works. Literary works are expressions comprising of words, numbers, or other printable or non-printable symbols regardless of which medium, such as books, manuscripts, records, films, tapes, or discs, used for their affixation. Computer programs, databases, and websites are treated as literary works since these works utilize expressions of letters, symbols, numbers, and words. In order for software or database to be protected by copyright, there must be some original creative expression. Facts, data, and utilitarian elements alone do not satisfy the requirements of copyright laws.

A trade secret is defined as any valuable business information giving a competitive advantage or benefit to its owner. Trade secret information generally includes formulas, patterns, programs, devices, methods, techniques, or processes that derive independent economic value from their not being generally known or readily ascertainable through proper means. Within the context of software, trade secrets law may be used for protection of source code as long as an organization takes reasonable measures to protect the secrecy of its source code. If object or machine code is released by a software company to its customers, and in so far as the object code is not decipherable, any steps taken by the competitors to “crack the machine code” to decipher the logic utilized by the company would be deemed as an improper means and potentially subjected to misappropriation penalties, including punitive damages.

ORA-IP Seminar

By: Pratima Krishna, PhD

With a goal to encourage innovation and disseminate information on intellectual property protection and management in a University setting, Office of Research Administration hosted second Intellectual Property Protection Seminar on Friday, Nov. 22, 2013 at Lake Michigan Room in Oakland Center.

The seminar featured informative presentations from Dr. Joan Dunbar, Ph.D., Associate Vice President for Technology Commercialization, Wayne State University and Dr. Kenneth Mitton, Ph.D., Associate Professor, Eye Research Institute, Oakland University.

Opening remarks were delivered by Dr. Dorothy Nelson, Vice Provost for Research, Oakland University.

Event's keynote speaker Dr. Dunbar focused on intellectual property management and technology transfer at academic institutions. She emphasized that it is a complex process that requires shared participation among faculty and administrative personnel for success.



Dr. Mitton gave an overview of IP Management at the National Institutes of Health (NIH). He also highlighted success stories of commercialization of university technologies.



The presentations were followed by Q&A from faculty and discussions moderated by Dr. Gautam Singh, Associate Professor and Acting Director of Technology Transfer, Oakland University.

The Office of Research Administration hosts seminars targeted on Intellectual property to facilitate technology transfer and commercialization process among faculty

researchers at Oakland University. It works proactively to provide resources and support for faculty inventors.

Additional information about IP seminar is available at:
http://www.oakland.edu/view_news.aspx?sid=177&nid=10660

Copyright Notice

By: Gautam B. Singh, PhD, JD

Article I, Section 8, Clause 8 of the United States Constitution, known as the Copyright Clause, empowers the United States Congress to “promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” Copyright Act grants the original authors’ rights in their original work of expression endure for a term consisting of the life of the author and 70 years after the author's death. Under 17 USC 201, copyright in a work protected under this title vests initially in the author or authors of the work. The authors of a joint work are co-owners of copyright in the work. An exception to this for is works made for hire where the employer or other person for whom the work was prepared is considered the author for purposes of this title, and, unless the parties have expressly agreed otherwise in a written instrument signed by them.

Fair use is a judicially created defense against a claim of copyright infringement. If your use qualifies as fair use, then it is not considered an illegal infringement. Fair use defense applies to the copying of copyrighted material done for a limited and “transformative” purposes, such as to comment upon, criticize, or parody a copyrighted work. Such uses can be done without permission from the copyright owner and are given the fair use as a defense. Transformative use was purposefully not limited by judges, and like free speech, an expansive meaning of fair use is left open to interpretation.

While this was not the case a few decades ago, in most countries today – including the US – copyright notice is not required to perfect your rights in an original work of authorship. Today, a copyright is given to the author as soon as the material is published and affixed in a tangible form. A copyright notice can nonetheless be useful if the matter ends up in court where a notice helps establish that the infringement was ‘willful’ as the copyright notice put the infringer on notice. A notice makes harder for the other party to claim innocent infringement and claiming ignorance.

The correct form to display a copyright notice is the following:

Copyright 2004 John Snow

or

© 2004 John Snow

The copyright notice has three elements. The first element is the word Copyright *or* © symbol. The second element is the year when the material was first published. And, the third element is the name of the person or organization that holds the copyright.

Finally, if work is continuing on as original work such as a website or a book, the copyright notice on your work should include the dates of publication of all articles and web pages and could include:

© 2006-2009 ABC-Corp.Com

Technology Transfer Network T3N – Teaming with Michigan Universities

By: Dorothy Nelson, PhD

Oakland University is a member, with six other universities, in the Technology Transfer Talent Network (T3N). With a \$2.4 million grant from the Michigan Economic Development Corporation, the University of Michigan’s tech transfer office has been leading an initiative to help the seven member universities to leverage the talents of local entrepreneurs and inventors in their efforts to commercialize university innovations.

In addition to OU and U-M, the other member universities are Wayne State University, Michigan State University, Michigan Technological University, Western Michigan University, and Grand Valley State University. The goals of the program are to connect seasoned entrepreneurs with university tech transfer offices, and to develop a network that allows the members to share resources, identify talent, and learn from each other’s best practices in technology commercialization.

OU’s participation in T3N since 2011 has allowed us to begin to formalize a tech transfer program, develop processes, establish tracking systems, and benefit from expertise within and beyond our university community. It is hoped that the T3N program will raise awareness of the universities’ entrepreneurial efforts throughout Michigan.