Hicks 1

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Programs, Patents, and Protection

For many products, such as television shows and books, companies want to protect their ownership of them from other parties who might publish them without the owner's approval. The creators and companies file for intellectual property protections such as copyright or patents to allow them to keep their ideas and products to themselves. These protections can also be placed on programming and software such as algorithms and source codes. To understand how programs can fall under these protections, we must know the types of intellectual property they can fall under, along with how algorithms are covered under patents and how software can be covered under copyright.

To get a better understanding on how computer software can be protected as intellectual property, it is best to understand the types of intellectual property and their differences. Copyright, a common form of intellectual property, is a form of protection for the "specific expression of [an] idea" and "gives the owner the exclusive right" of modifying or publishing the product ("Software Intellectual Property"). This specific expression can include the source code of a program or the Graphic User Interface, also called the GUI, pertaining to the software in question. A trademark is a "symbol, phrase, name, or other type of expression" designed to set a company or product apart from the rest; however, this will not protect software or its function directly ("Software Intellectual Property"). This is due to software not being a distinguishable expression, but the software's name and a symbol that represents it can be protected under a trademark.

Along with these types, there are trade secrets and patents. Trade secrets are processes, methods, or formulas that are not accessible by the public and are kept only by the company or person who owns it, protected by laws that prevent spying on companies ("Software Intellectual Property"). Because of this, this form of intellectual property is not directly protected and can be lost if a person were to find out the secret without spying. Lastly, a patent is "the exclusive right to produce, use, and sell an invention" if a new concept that cannot be an obvious step for technological advancement ("Software Intellectual Property"). While patents are valuable for companies to produce their own product without competition, there is some controversy regarding it and algorithms.

Today, patenting an algorithm can be considered a danger to scientific advancement as it allows only one party to use this form of development. However, an algorithm does not have a straight-forward patenting process. First, courts will consider algorithms as "foundational tools for scientific work" if they were presented by themselves (Mon). This is due to algorithms being abstract concepts with no specific manner of reaching the final product, making it ineligible for having a patent. However, it is possible to "break down [an] algorithm into a series of steps" to make it a process instead, allowing you to patent that process (Mon). With this process patented, a company will have sole practice with this process to make their software products. This form of intellectual property, however, does not have a long protection period in comparison to copyrighted property and will take more management and time for an

Hicks 2

algorithm to be patented. Therefore, it would be for the best if an algorithm was not protected as a patent for a company.

With copyright, a product of software can be protected and claimed by a company or individual along with being useful regarding statutory damages. First, the creator of the software will "automatically get copyright protection the instant" the product becomes tangible ("Copyrighting Your Software"). However, this protection does not help the owner when it comes to infringement of the property in question. This is because "the U.S. Supreme Court has ruled" the owner cannot file a lawsuit "unless [they] have registered the copyright with the U.S. Copyright Office" to make it official ("Copyrighting Your Software"). It is best to have registered the copyright early to prevent long waiting or paying extra to get your copyright protection in a hurry. What makes registering copyright earlier better is how statutory damages are taken care of.

Lawsuits and legal actions are especially costly regardless of what action is being brought to court. With copyright infringement, it is "very hard to show exactly how much monetary damage" infringement can cause on software ("Copyrighting Your Software"). This means you can be paid back for the damage that was caused by the infringement but still lose money due to the costs it took to go into court. However, if one were to fill out their copyright registration "within three months of the date the work was published" it is possible to get statutory damages, "special damages of up to \$150,000 per infringement," with your actual damages ("Copyrighting Your Software"). An owner with copyright protection will easily recover from infringement and the legal action against it when registering early.

Hicks 3

Hicks 4

Like all products, software and programs can be protected as intellectual property much like books and movies. Most programs can fall into copyright with some being held as trade secrets or being patented; however, it looks to be unlikely for software to be trademarked outside of their name and logo. Algorithms can be patented if they are specific and provide a specific process rather than be abstract. Programs can be automatically copyrighted, but it is best to register the copyright before infringement takes place to have better legal action.

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