

My Client Has the App of the Century How Do I Protect It?

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Agenda

- Introduction
- Patents
- Copyrights
- Trade Secrets
- Considerations and Conclusion



Introduction

- IP protection of software is no longer only for “tech companies”
 - Healthcare
 - Media and entertainment
 - Financial services
- Significant developments in recent years, particularly in the areas of patents and trade secrets
 - Alice Corp. v. CLS Bank International (2014)
 - Defend Trade Secrets Act of 2016



Patents - Overview

- In the U.S., patent protection lasts for 20 years from the earliest date of filing
- Is software eligible for patent protection?
 - By 2011, software patents made up more than half of all U.S. patents issued*
 - However, U.S. courts have long held that laws of nature, natural phenomena, and abstract ideas are not eligible for patent protection
 - Recent case law has expanded the applicability of the “abstract ideas” concept to software, thus narrowing the field of patent-eligible software

* U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-13-465, INTELLECTUAL PROPERTY: ASSESSING FACTORS THAT AFFECT PATENT INFRINGEMENT LITIGATION COULD HELP IMPROVE PATENT QUALITY 13 (2013), <http://www.gao.gov/products/GAO-13-465>.



Notable Cases

- Gottschalk v. Benson (1972) – algorithm implemented on a general purpose computer, without a specific use, is not patentable
- Diamond v. Diehr (1981) –
 - U.S. Supreme Court ruled that a computer-implemented process for curing rubber is patent-eligible
 - Algorithm was used in a specific application to improve a technological process
- State Street Bank & Trust Co. v. Signature Financial Group (1998) – software is patent-eligible if it creates a “useful, concrete, and tangible result”
- Bilski v. Kappos (2010) –
 - Method for hedging against financial risk held to be an unpatentable “abstract idea”
 - Put forth the “machine or transformation” test as a useful tool for determining whether software is patent-eligible



Alice Corp. v. CLS Bank International (2014)

- Summary of key facts
 - 4 patents at issue that cover a scheme for mitigating settlement risk in financial transactions by using a computer system as a 3rd party intermediary
 - In 2007, CLS Bank sued Alice seeking a declaratory judgment of non-infringement and invalidity; Alice countersued for patent infringement
 - District court declared the patents invalid as patent-ineligible abstract ideas under Section 101 of the U.S. Patent Act
 - Divided Federal Circuit affirmed; U.S. Supreme Court granted certiorari



Alice Corp. v. CLS Bank International (2014) (contd.)

- Holding
 - On June 19, 2014, the U.S. Supreme Court unanimously affirmed the Federal Circuit’s ruling that Alice’s patents were directed to patent-ineligible abstract ideas and therefore invalid
- Two-step framework:
 - 1) Are the claims at issue directed to a patent-ineligible concept?
 - 2) If so, do the claim’s elements contain “something more” (i.e., an “inventive concept”) so as to transform the abstract idea into patent-eligible subject matter?
- Takeaway: merely requiring generic computer implementation is not enough



Alice Corp. v. CLS Bank International (2014) (contd.)

- Effects and subsequent developments
 - As of March 2017, defendants who bring Alice challenges to software-related patents win ~75% of the time*
 - Patents found invalid in 292 out of 436 federal court decisions (67%)
 - Patents found invalid in 218 out of 247 PTAB decisions (88%)
 - At the application level:**
 - Number of business method patents issued by the PTO has declined significantly
 - 64% of rejections under Section 101 cite Alice
 - Only 50% are able to overcome an Alice rejection (compared to 61% for other Section 101 rejections)

* Robert R. Sachs, Alicestorm Update February 2017, Fenwick & West's Bilski Blog, March 16, 2017, <http://www.bilskiblog.com/blog/2017/03/alicestorm-update-february-2017.html>.

** James Cosgrove, Alice: Three Years On, Juristat, July 19, 2017, <https://blog.juristat.com/2017/7/19/alice-three-years-on>.



Patents - Considerations

- Protects against independent discovery / development and reverse engineering
- Relatively easy to monetize through licensing
- Disclosure of the invention (after publication or issuance)
 - Loss of the ability to protect the invention as a trade secret
 - Provides a “roadmap” to facilitate copying or slight modifications by a competitor
- Remedies –
 - Difficult to establish liability for patent infringement
 - Damages typically limited to a “reasonable royalty”
 - More difficult to obtain an injunction (eBay Inc. v. MercExchange LLC (2006))



Obtaining a Patent in the U.S.

- Cost - obtaining a patent for software typically costs \$8,000 to \$12,000 or more (including filing fees and legal expenses)
 - Ongoing maintenance costs
- Time to issuance – currently ~32 months from filing date
- Provisional patent applications –
 - Only includes specifications (description and drawings)
 - Establishes priority at low cost
 - File a non-provisional application within 12 months to claim priority to the earlier provisional application filing date
- Non-publication requests – patent application will not be published until the patent issues



Design Patents

- Design patents protect the ornamental features of a functional item
 - Ornamental design aspects must have function, but the design cannot be dictated by the function
 - Not subject to the same eligibility requirements of utility patents
 - Can be used to protect user interface and experience



Design Patents (contd.)



Apple's design patent used in its infringement suits against Samsung*



Google's design patent for its landing page*

* Mansi Shah, Is Your Code Protected?, The Startup, August 28, 2015, <https://medium.com/swlh/is-your-code-protected-70735e2e386>.

Copyrights - Overview

- Copyright protects original works of authorship that are “fixed in a tangible medium of expression”
 - Copyright does not protect the function / idea – only the expression of that function / idea
 - Copyright does not protect against independent development
- In the U.S., copyright protection (for all works created after 1977) lasts for the life of the author plus 70 years*
 - For anonymous works and “works made for hire,” copyright protection lasts for 95 years from first publication or 120 years from creation, whichever expires first

* U.S. Copyright Office, How Long Does Copyright Last?, <https://www.copyright.gov/help/faq/faq-duration.html>.



Copyrights – Overview (contd.)

- In the U.S., software has long been considered a “literary work” protectable by copyright
 - Literal elements – source code and object code
 - Non-literal elements – structure, sequence, organization, screen displays, menu structures, and user interfaces



Computer Associates International v. Altai (1992)

- Court held that Altai's "clean room" re-write (which did not contain any of CA's original code) did not infringe CA's software
 - Protectable non-literal elements were not substantially similar so as to support a finding of copyright infringement
- Abstraction-Filtration-Comparison Test
 - Abstraction – breaks down the software into different levels
 - Filtration – removes the parts of the software that don't qualify for copyright protection (e.g., efficiency, public domain, external factors)
 - Comparison – compares the original work with the allegedly copied work
- Widely seen as curtailing scope of copyright protection for software



Oracle America, Inc. v. Google, Inc. (2014)

- Oracle alleged that Google's Android platform infringed 37 separate Java APIs
 - Google copied Oracle's "declaring code" and the structure, sequence and organization, as shown below*



* Mansi Shah, Is Your Code Protected?, The Startup, August 28, 2015, <https://medium.com/swlh/is-your-code-protected-70735e2e386>.

Oracle America, Inc. v. Google, Inc. (2014) (contd.)

- Court held that the APIs are subject to copyright
 - Google infringed Oracle’s APIs because it had other ways of expressing the underlying idea (i.e., creating programming shortcuts) but chose not to
- In 2016, however, a jury determined that Google’s copying of Oracle’s Java APIs constituted permissible “fair use”
 - Decision viewed as a significant win for software developers given the recent proliferation of open source and startup projects that have copied APIs to ensure compatibility
 - Could also be viewed as a blow to copyright protection of APIs



Copyrights - Considerations

- Registering a copyright with the U.S. Copyright Office (USCO) requires public disclosure
 - Generally should not be used to protect source code
- Fair use
 - Purpose and character of the use, including whether use is “transformative”
 - Nature of the copyrighted work
 - Amount and substantiality of the portion used in relation to the copyrighted work as a whole
 - Effect of the use on the potential market or value of the copyrighted work



Obtaining a Copyright Registration in the U.S.

- Benefits of registration with the USCO
 - Copyright holder cannot sue for copyright infringement until the work is registered
 - Register within 3 months of creation to be entitled to statutory damages and attorneys' fees
 - Prima facie evidence that the work is original and owned by the copyright holder
 - Right to obtain temporary injunctions
- Cost – as low as \$35 online or \$85 via mail
- Deposit – a full copy of the work must be submitted with the application
- Time to registration – typically 6-10 months



Trade Secrets - Overview

- In the U.S., a trade secret is defined as something that:
 - derives independent economic value from not being generally known or readily ascertainable by others; and
 - is the subject of efforts reasonable under the circumstances to maintain its secrecy
- Misappropriation – acquiring a trade secret through improper means, or disclosing or using a trade secret without the owner’s permission
- Up until 2016, protection of trade secrets was enforced through a patchwork of 48 different state laws
 - Based on the Uniform Trade Secrets Act (UTSA)



Defend Trade Secrets Act of 2016

- Creates a federal cause of action for trade secret misappropriation
- Preserves option for trade secret owners to use state law remedies
- Provides a new ex parte seizure provision to recover stolen trade secrets pending a full court hearing
- Employee mobility - limits the use of the inevitable disclosure doctrine
 - Courts may impose an injunction “to prevent any actual or threatened misappropriation” but may not “prevent a person from entering into an employment relationship.” Any employment conditions must be “based on evidence of threatened misappropriation and not merely on the information the person knows”
- No requirement to describe the trade secret at issue with particularity
- Protects whistleblowers reporting suspected trade secret misappropriation to government officials / court officials in confidence
- In addition to injunctive relief, the DTSA provides for specific monetary damages for a violation



Trade Secrets - Considerations

- Potentially unlimited in duration
 - A licensee can be obligated to continue paying royalties for the trade secret license even if the information has entered the public domain*
- Easier to obtain
 - Not subject to patent eligibility requirements or examination by the USPTO
 - No requirement to disclose the invention to the public
 - America Invents Act (AIA) – significantly expanded the prior use defense to patent infringement to technology
- Does not protect against independent discovery or reverse engineering

* Warner-Lambert v. John F. Reynolds, Inc., 178 F. Supp. 655 (S.D.N.Y. 1959), aff'd, 280 F.2d 197 (2d Cir. 1960).



Trade Secrets – Considerations (contd.)

- Recent high-profile trade secret verdicts
 - St. Jude Medical awarded \$2.3 billion
 - DuPont awarded \$360 million and obtained criminal convictions (initial award of \$920 million was overturned)
 - Lexar Media awarded \$465 million
- Generally easier to establish liability for trade secret theft than to establish patent infringement
 - Access + substantial similarity to or substantial derivation of the product/process at issue is sufficient to establish trade secret misappropriation
- Right to recover unjust enrichment and seek criminal penalties
- Injunctions can be issued to prevent both the actual and threatened misappropriation



“Obtaining” a Trade Secret in the U.S.

- Inventory and identify trade secret materials
- Avoid distribution of proprietary source code
 - Licensing and software escrow
 - Open source
- Use employee confidentiality agreements
 - Employee confidentiality and invention assignment agreements
 - Non-compete clauses
 - Exit Procedures



“Obtaining” a Trade Secret in the U.S. (contd.)

- Non-disclosure agreements with third parties
- Physical security measures and confidentiality policies and procedures
 - Source code repository with access controls, particularly in collaborative software development
 - Strong document retention policy
 - Protocols for new inventions and developments
 - Confidentiality and information security policies



Considerations

- What particular aspects of the software are worth protecting?
- What is the level of confidence in the software's patentability?
- What is the likely duration of the software in the marketplace?
- Is the software easy to reverse engineer or likely to be independently developed in the near future?
- What is the likelihood that competitors could design around a patent?



Conclusion

- Different aspects of the software can be protected in different ways
 - The different forms of protection are not always mutually exclusive
- Consider the following blended approach:
 - File a patent application (or provisional patent application) while concurrently maintaining the secrecy of the software
 - The pending application will remain confidential unless and until a patent issues or until the application is published (can file a non-publication request during filing)
 - This time window offers an opportunity to gauge the competition, assess the likely scope of available patent protection, and better determine its value to the company
 - If sufficiently broad protection can be obtained or if the invention appears to be commercially viable, the company can permit the patent to issue and enforce it
 - Alternatively, if trade secret protection becomes the better option, the company can abandon the application before the patent issues



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Questions?

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