

ApacheCon

# International Intellectual Property Laws

Cliff Schmidt



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## What is IP Law?

- Copyright
  - copying original expression/deriving new ones
- Patents
  - using/selling novel, non-obvious inventions
- Trademarks
  - representing source/quality of goods
- Trade Secrets
  - keeping a secret safe



## Older IP Agreements and Law

- Universal Copyright Convention (UCC) (1955)
  - no longer significant due to other treaties
  - sponsored by UNESCO
  - weaker copyright treaty
  - signed by U.S. and Berne Convention members
- Paris Convention for the Protection of Industrial Property (1883)
  - signed by most EU nations
  - protects patents, trademarks, and trade secrets
  - no mention of software patents



## Berne Convention

- no mention of software, but see WCT and TRIPs
- term: life + 50 years (or 50 years after made available to public if anonymous)
- economic rights: reproduce, publish, translate, and neighboring rights (perform, broadcast, recite, adapt)
- moral rights (Article 6bis)
  - derived from French “droit morale” (distinct from English tradition of copy/commercial rights)



## TRIPs

- WTO Agreement on Trade-Related Aspects of Intellectual Property Rights
- negotiated at Uruguay Round of the GATT treaty
- compulsory requirement of WTO entrance
- Requires complying with all Berne terms except moral rights



## TRIPs

- Computer programs must be regarded as "literary works" under copyright law and receive the same terms of protection.
- Article 27 requirements for patentability "in all fields of technology" provided new, with an inventive step, and capable of industrial application.
- Allows for fair use exceptions



## WIPO Copyright Treaty

- not self-executing (like most treaties):
  - ratified by member nations, but must be implemented in each nation's legislation
  - drove amendments to legislation, e.g. U.S. Copyright Act of 1976
  - drove 2001 EU Copyright Directive, which drove DADVSI in France



## WIPO Copyright Treaty

- Mentions two subjects protected by copyright:
  - computer programs
  - compilations of data or other material (“databases”), in any form, which by reason of the selection or arrangement of their contents constitute intellectual creations.
- Specifies right of communication to cover on-demand, interactive Internet



## WIPO Copyright Treaty

- “The Treaty obliges the Contracting Parties to provide legal remedies against the circumvention of technological measures (e.g., encryption)”
- All parties agree to Berne Convention Paris Act of 1971



## Copyright

- Covered actions
  - reproduce
  - create derivatives
  - distribute
  - publicly display
  - publicly perform
- Key requirements
  - original expression with some minimal creativity
  - fixed in a tangible medium
- Term:
  - life of author + 75 years, or publication + 95 years



## Copyright and Moral Rights

- Moral Rights
  - foundation of copyright law in many EU nations
  - moral rather than economic rights
  - work is invested with artist's spirit/personality
  - inalienable and unwaivable rights include:
    - right of integrity of the work (object to distortion)
    - right of paternity (attribution of the artist)

“Independently of the author's economic rights shall have the right to claim authorship of the work and to object to any distortion, mutilation, or other modification of, or other derogatory action in relation to the said work, which would be prejudicial to his honor or reputation.” Berne Art 6bis



## EU Copyright Directive of 2001

- “Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society”
- primarily implements WCT



## Overview of DMCA and EU Copyright Directive

- Two important areas:
  1. Online Service Provider liability
  2. Anti-Circumvention



## Overview of DMCA and EU Copyright Directive

### 1. Online service provider liability

- grants OSPs “safe harbors” for immunity from liability for damages flowing from activities by end users
- “notice and takedown” procedures: removing/disabling access to alleged infringing material upon notice from the aggrieved party until resolved
- covers storage, caching, transmission, routing
- Napster was not mere passive conduit



## Overview of DMCA and EU Copyright Directive

### 2. Anti-Circumvention: civil/criminal liabilities:

- import/make/sell devices designed to circumvent technical measures preventing unauthorized access to or copying of a copyrighted work
- actual circumvention of technical access restrictions
- knowing alteration/removal/provision of false copyright infringement



## Copyright for Databases

- WIPO Copyright Treaty (WCT) Article 5:
  - protection of compilations does not extend to the data - no sui generis protection for databases
  - U.S. legislation almost passed with DMCA
- EU Directive 96/9/EC (1996) covers this, but provides special protection for databases:
  - 15-year term
  - electronic and hard copy
  - based on sweat of the brow (investment of time/effort)



## Fair Use with EU Databases

- EU Directive 96/9/EC (1996):
  - allows extracting/reutilizing insubstantial parts of contents for any purpose
  - forbids prejudicing legitimate interests of database maker (acts that conflict with normal exploitation)
  - forbids causing prejudice to holder of copyright in subject matter in database



## Patents

- Covered actions
  - make
  - use
  - sell
  - offer to sell
  - import
- Key Requirements
  - non-obvious/inventive
  - novel/new
  - described in detail
  - useful/solves technical problem
- Requires approval by patent authority (e.g. USPTO or EPO)



## Patents

- Invention may apply to multiple implementations
  - patents not written to protect one piece of software
- Limited Monopoly
  - provides the right to exclude others from the above actions for a limited time (20 years for most patents)
  - covers processes, designs, machines, article of manufacture (differs across international laws)



## Patents

- Implied Patent License
  - distributor offers license with patented article
- Bottom Line
  - independent inventions still require a license for applicable patent rights
  - very difficult to check novelty of software patents
  - OSS has same risk as other software
    - seeing infringement vs. greater archive of “prior art”



## Impact of Patents

- Cost of Patents
  - ~US\$10-20k/patent or €60k across EU
  - ~\$3M to litigate a patent law suit
- Owners build defensive portfolios
- Settle with cross-licensing agreements
- Notification requirements:
  - Many jurisdictions in Europe require patent holder to provide notification of infringement and an opportunity to remedy prior to suing for damages



## Patents in Europe

- Still must be novel and “level of inventiveness” (non-obvious) with utility, described in detail
- Same 20-year term
- Many patent offices / issuing authorities:
  - European Patent Office
  - National offices
  - WIPO offices for forward
- What’s this about patents on computer programs not being allowed *as such*?



## European Patents and Software

- EPC states patents on computer programs “as such” are excluded
  - EPO interprets this to mean only technical software is patentable (broad and not well defined)
  - EPO has issued several thousand software patents
- Since 1978, EPO is estimated to have issued ~30,000 software patents



## Nationally-Issued Patents in Europe

- each nation has a patent office that may issue patents for their country's jurisdiction and no other
- each nation's courts determine the validity of such patents
- patents are not honored in other EU nations



## Patent Agreements in Europe

- Munich Convention on European Patents of 1973
  - also known as “European Patent Convention (EPC)”
  - not an EU measure
    - but nearly all EU members have signed (not Malta)
  - created European Patent Office (EPO)
  - EPO reviews applications for a “European Patent”
    - opposition procedure allows anyone to challenge during grant stage
    - act as “bundles of national patents”
    - may be found to be invalid in one country and upheld by another



## Patent Agreements in Europe

- Patent Cooperation Treaty (PCT) of 1978
  - signed by all EU member nations, except Malta
  - also signed by U.S.
  - governed by WIPO
    - send one application to Geneva
    - check which territories you wish to apply to
    - WIPO office does administrative checks and forwards application to each patent office
      - EPO is option, in addition to national patent offices of all signatory nations



## European Patents and Software

- Directive on the Patentability of Computer-Implemented Inventions
  - proposed in Feb 2002, but rejected overwhelmingly by European Parliament in 2005
  - still national courts, but can seek ruling from European Court of Justice
  - debate: would include all software? only software in hardware?



## European Patents and Software

- European Community Patent
  - saving for all EU territories from \$60,000 to ~\$25,000
  - cost savings partly due to translation from 20 to 3 languages
  - either be valid or fail across all member states



## European Patent Litigation Agreement (EPLA)

- creates
  - a "European Patent Court" and
  - a "European Patent Court of Appeal"
- attempting to address same issues of separate national courts



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## Trademarks

- Identifies the origin of a product or service (service mark)
  - includes brand names, symbols, shapes, numbers, slogans, sounds, and smells
  - identify and distinguish one company's products from another
- Protects both
  - trademark owner (erosion of brand value), and
  - public (deception of source and quality)
- Allows preventing others from using confusingly similar marks



## Trademarks

- Registration
  - not required in US
  - but required in EU and most other countries
- *Few open source licenses grant any trademarks rights.*



## Community Trade Mark (1996)

- regulated by series of EC regulations
- 10 years at a time, but in perpetuity
- rejected on absolute grounds not relative grounds (not worried about similarity with others)
- Madrid Protocol of 1989 – forwards from WIPO to national offices



## EU Community Trade Mark

- Series of EC regulations
- 10 years at a time, but in perpetuity
- Only rejected on absolute grounds  
not relative grounds
- Madrid Protocol of 1989
  - forwards from WIPO to national offices



## Questions

- [cliffs@apache.org](mailto:cliffs@apache.org)

