Intellectual Property Rights and Computer Technology

objectives

To be able to:

1. Distinguish among patent, copyright, and trade secret protection
2. Discuss the legal background of copyright in national and international law
3. Outline the historical development of software patents
4. Discuss the consequences of software piracy on software developers and the role of relevant enforcement organizations

Topics

- Meaning and legal rights of intellectual property
- Computer programs as Products / services
- Copyright
  - Saudi Copyright Law
- Infringement
- Patents
- Trademarks

Scenario
Cybersquatting=domain squatting

- Grapping/trafficking/using with bad faith someone name or trademark and registering it with an internet registration company aiming at reselling it with a higher price or reaping higher rewards.

- Widespread in
  - Social media
    - Twitter suspends
    - Facebook reserves the right to reclaim
  - Domain name front running
  - Brandjacking

- Anti-cybersquatting Consumer Protection Act

What do we mean by IP?

- Tangibles claimed to be owned
  - Ideas
  - Inventions
  - Technologies
  - Artworks
- Ownership may have economic gain or rewards
- Sets of legal rights rsulting from intellectual activity in
  - Science
  - Technology
  - Literals
  - Art

Legal rights

- Made to protect owners' moral and economic rights +their creativity and dissemination of their work.

- Patents

- Trademarks

- Copyright

Computer Products and Services

- Computer products: Tangible components with intrinsic value
- Service: an act carried out on behalf of the recipient
  - Patient-doctor service
  - Computer technical support
    - Have intrinsic value
- Computer software is neither a product nor a service
  - Set of logical instructions (algorithms) made to perform a desired task
    - Starting with a logic map
    - Source code
    - Object code
    - Executables (memory-based and microcode)
    - Microcode

Computer programs

- Memory-based programs

- Hardware-based programs

- Documentation

- They have no tangible form but have value
  - Energy is a product in front of court

- Could be categorized as:
  - Canned: Off-the shelf software with no permission to change ➜product
  - Software on demand ➜ service
  - Off-the shelf software which can be customized ➜ mixed case

Why do computer scientists need IP

- Software production and delivery needs huge investment in time and money

- We need to reap the fruit

- Creates jobs which drive the economy
  - Economy is almost digital

IPRs

- Intellectual property rights form a wide scope of mechanisms that include
  - copyrights,
  - patents,
  - trademarks,
  - protection of trade secrets,
  - personal identity rights.
- Each of these instruments of protection is regulated by a body of laws and statutes.
- Some of these laws are not universal.

copyrights

Definition

- Copyright is the legal right given to the owner of a tangible intellectual property

- Time-limited (70 years in US then == > public domain

- Copyright notice (three elements):
  - visually perceptible
    Copyright © Year Owner
  - Phonorecords
  - ℗ year owner

- Meant to protect from losses due to unauthorized duplicating

- Overstatement Vs fair use

Recent History

- 1710 Statute of Anne –England

- 1790 Copyright Act- US

- 1886 Berne convention
  - 1988 became international

- 1952 Universal Copyright protection

- 1967 World Intellectual Property Organization (**WIPO**)

- WTO-GATT (General Agreement on Tariffs and Trade)
  - Trade-Related Aspects of Intellectual Property Rights (TRIPPS) agreement

Requirements for © protection

- Country and region dependendant
- US
    - Originality
    - Fixation
        - Define tangibles, domain, parameters, etc.
        - (binary code for computer programs)
    - expression (not ideas),
        - excluded in Canada

Includes and excludes

- Includes
  - Tangible works
    - Art, music, sculptures, pictures, books, writings, sound works, films, etc
- Not including
  - Trivial and utilitarian works
    - Calendars
    - Ideas and facts
    - Scorecards
    - Names
    - Forms.
    - Works with Lost or expired copyrights
- Excludes may be protected by trademarks and patent laws

Copyright duration (US)

- Creations before 1978
  - Published
    - 75 years after the date of issuance
  - Unpublished
    - By December 2002
- After 1978
  - Individuals:
    - Author lifetime + 50
  - Contracted
    - 75 years from the date of publication or 100 years from the date of creation

SAUDI ARABIA Copyright Law

- Royal Decree No. M/41 2 Rajab 1424H (30 August 2003)
- Work
  - Any literary, scientific or artistic work.
  - Can be joint, collective, or by individual
  - Can be a derivative of a pre-existing work
  - Audio, audio-visual
- Publication: making copies to meet public need
- It protects computer programs and databases among many.
- https://www.wto.org/english/thewto_e/acc_e/sau_e/WTACCSAU56_LEG_4.pdf

SAIP

- The Saudi Patent office
- Department of Trade
- General Administration for copyright.

Copyright duration (KSA)

- Author lifetime + **50**

- Corporate : (pictures and handcrafts): **25** years

- Broadcasting materials: **20** years

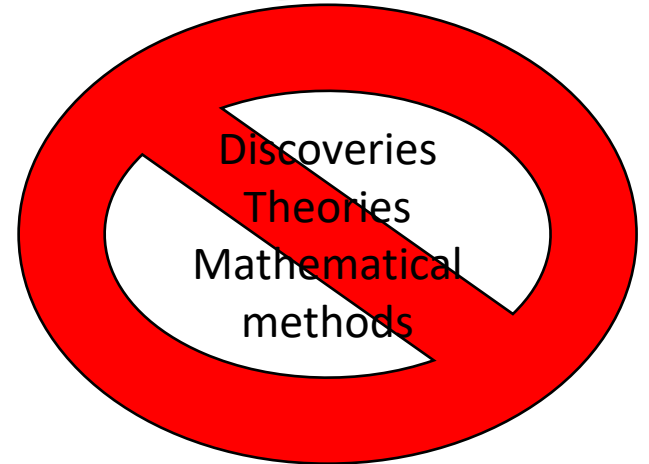**Q: Is copyright duration renewable?**
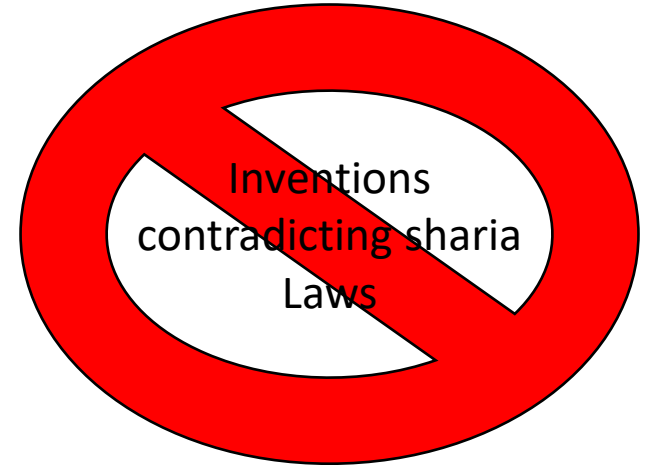
Infringement

- Article 21-5: Removing and cracking any protective electronic code that guarantees the use of the original copies of the work, such as coding or data recorded by the use of laser or other means.

- Article 21-6: Commercial use of intellectual works through deception, which is not permitted by the owners of the copyright, such as using copied software or receiving coded broadcasting programs through illegal means.

Violations and applicability

- **Copyfraud**: claiming a copyright of a content which is available in the public domain
- **anti-copyright notice**
- **Copyleft**

Patent

- Protects inventions and discoveries
- It is a kind of contract between the government and the inventor.
- Requires
    1. New and useful improvement of
        1. Process
        2. Manufacture
        3. Machines
    2. Satisfys
        1. Utility: useful for the public, legal and moral
        2. Novelty
        3. Non-obviousness
        4. Disclosure
- Duration :
    - 17 years in US
    - 20 years in KSA
    - Can not be extended

Inventions contradicting sharia Laws

Discoveries
Theories
Mathematical methods

Game playing

Trade secrets

- Includes information, effort and value
- Indefinite

Trademarks

- A trademark is a product or service-identifying label.
- It is a mark that attempts to distinguish a service or a product in the minds of the consumers.
- The label may be any word, name, picture, or symbol.
- Gives rights to prevent others from using the trademark.
- Categories:
  - Service: e.g. STC, Banks, etc.
  - Certification: e.g seal of the university diploma
  - Collective: e.g. degrees obtained such as PhD, CCNA, etc.
  - Can be arbitrary, suggestive, descriptive, or general.

Trademark registration

- 10 years in US and in KSA

- Conditions
  - It must be in good "taste" for the public—not immoral, deceptive, or illegal.
  - It must not have suggestive connotations to its origin.
  - It must not be a symbol of any recognized country.
  - It must not use people's likenesses either in death or living without prior consent.

In KSA, please visit

https://iclg.com/practice-areas/trade-marks-laws-and-regulations/saudi-arabia

Personal identity

- Theft
  - Wangling financial information
  - Collecting data through persuading advertisements
  - Telemarketing scams
  - Fake ids
  - Using radio scanners and other smart technologies
  - Redirecting mails and electronic traffic
- Prevention
  - Clean your credit information
  - Do not reveal personal information
  - Review credit cards reports
  - Report incidents
  - Insure

Intellectual Property Crimes

- Infringement:
  - moving within the protected domain to claim rights for the use of someone else's manifestation of an idea without permission from the holder of the rights.
  - Can be
    - Direct (no change of the protected item
    - Inducement: supporting infringement activities without being involved
    - Contributory: taking part
- Difficult to detect and prove

Infringement at the court

- Copyright infringement
  - Infringer has visual contact with the work
  - Claimer has copyright
  - Difference between work under dispute and the original one
    - Major revision
    - Just a variation
    - Substantial new content/ideas
- Patent Infringement
  - No public law protects patents
  - Owner bears all the cost and efforts.
    - Attempt to rely on the public (patent labels)
    - Arbitration
- Trademark infringement
  - Convincing proof of confusion to the public
    - Financial compensation

doctrine

- Selling, leasing, transferring of IP
- Controlled by Fair Use
  - Purpose
  - Nature of use
  - % of use
  - Commercial impact

Software protection

- Algorithms are not protected.
  - As they are not IP
- Software is protected
  - Depending on the categorization, classification and own way of using the algorithm
- Piracy
  - Act of copying, distributing or using proprietary software.
- SW protection under Copyright laws
  - Has pros and cons
    - Disclosure of product secrets for registration
    - Difficult to trace
    - Public understanding and buyer's rights
- SW protection under patents
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Exercises

- Why it is difficult to protect software developers to apply for protection under patent laws or trade secret statutes?

- Is it possible to trademark software? How the trademark is protected if your answer is yes

- What would you suggest to enforce copyright protection in cyberspaces

- Discuss the influence of globalization in violating IP rights