IP: Intellectual Property
- Copyright, Patent, Trade Secret: IP
  - IP term is pervasive, so we will use it
  - Differences from "real" property?
  - What does IP mean to Cisco employee?
- In US, and most other countries, IP similar
  - Copyright: fixed/expressed, not an idea
  - Patent: idea/invention, non-obvious, useful
  - Trade-secret: not-disclosed, secret

Patents and the Internet
- Internet built on open standards and source
  - What are open standards? Why?
  - cf: patented, licensed, proprietary standards?
- Is IP an oxymoron with Internet’s start?
  - Why was there a change (e.g., patents)?
  - Court system and economics/business
  - Why does the world change?

Key Patent Aspects
- US: First to File
  - Provisional Patent (protect invention)
  - $1500 provisional to $15K full (legal fees)
  - Lasts 20 years from date of filing
    - Requires paying “maintenance fees”
- Non-obvious to one skilled-in-the-art
  - Must examine prior art, who must?
- Must be useful, must exist!
  - No speculative patents

Why patent something?
- Effectively grants monopoly: invention/idea
  - Not expression as copyright, but novel concept
  - Different protection than trade secret
    - If it stays secret, good forever, but once out, gone!
- Defensive patent
  - Keep invention accessible/available
  - Lessen concerns about infringement
  - More common with software, esp. Open Source
Software Patent: Brief History

- State Street Bank & Trust, 1998
  - Software running mutual funds
  - State Street asks to invalidate patent
  - Patent upheld: *useful, concrete and tangible result should be considered patentable.*
- Beginning of huge number of software patents being filed
  - Prior to this no *algorithms* patented

Amazon One-Click

- What does patent cover? How to find this?
  - USPTO online, Google Patents
  - Essentially store credit card
  - Sues B&N 23 days/issue
- Some claims invalidated
  - What’s a claim?

Patents: good, bad, ugly, other?

- USPTO examiners not always “expert”
  - Are they skilled-in-the-art?
  - Getting better, but...
- Defensive patenting: Red Hat, IBM, Sun
  - Procure patents, no enforcement, why?
- Patent trolls as business model
  - Buy patents, not “in business” per se
  - http://pubpat.org/ What are the stories here?

Patent issues

- Repeal: prior art ignored
  - Robert Silvers: photo mosaic
- License to *infringers*, MP3
  - Law/Lawyers can intervene
- Sue *infringers*
  - Google query: patent suit. Settled or in court
Aside: Akamai for neophytes

http://www.akamai.com/html/about/company_history.html
http://www.youtube.com/watch?v=d2E3NfcomVI

- How do cnn.com and facebook.com cope?
  - What was traffic like at 10:00 pm EST?
  - Web/Internet cope with flash crowds?
- 15,000 servers; 69 countries; 1,000 networks
  - Richmedia, software, e-commerce, ...
  - 70% of CDN market
- Customized DNS, overlay network, patented
  - Location, Server, ...

Akamai and other CDNs

- Referenced in local/cache YouTube article
  - Redirect URL to distributed hosting service
  - Leverages capabilities in HTTP (what's the P?)
- Facebook has and uses CDNs
  - Largest photo-site on the web
  - Custom and commercial CDNs
- Patent: Limelight law suit
  - How do lawsuits work?

Summary of Invention: Patent 5577724

- It is, therefore, an object of the present invention to provide a football having a plurality of lacings, preferably two lacings, which will provide greater balance to the football and will allow players to improve their passing performance.
- It is, still, a further object of the present invention to provide a football wherein a quarterback receiving the twin-laced football of the present invention is able to find a lacing for throwing the ball in half the time, as a result of having at least two lacings on the football.

test.com, Patent 6513042

- One may appreciate that although the invention has been shown and described with respect to a certain preferred embodiment, obvious and/or equivalent alterations and modifications will occur to others skilled in the art upon the reading and understanding of this specification. The present invention includes all equivalent alterations and modifications and is limited only by the scope of the following claims.