Software Mercantile Trends: Return to Feudalism?

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Overview

- Intellectual Property (IP): Friend or Foe?
  - Origins, Rights, Value
- Definitions:
  - Feudal, Mercantile
- Protectionist Intervention
  - Does it work?
  - Alternatives
- FLOSS Update
Intellectual Property: friend or foe?
Defining Knowledge

- Intellectual Property
  - Product of the mind involving
    - Knowledge
    - Search and Find Skills
    - Applied Expertise

- The Core of Invention
  - Intellectual Property
What are IP Rights?

- Protection for IP
  - Rights attached to intangible, intellectual products
  - Exists
    - Under common law
    - And through statutory grant
- Some rights are inherent
- Others are specifically granted
  - By government
    - (The State, The Crown, The Parliament, etc.)
Defining Property

- Depending on perspective is one of:
  - An outcome of a social contract
  - Given by divine attribution
- Personal Property: *money, clothes, tools*
  - Can: *Use it, lose it, sell it or donate it*
  - Origins go back to pre-recorded history
  - Recognised in most civilizations
    - Hammurabi (Babylon), Joseph (Egypt)
Real Property

- Concept attributed to the Norman Conqueror, William (1066)
  - Killed Danish King Harold at the battle of Hastings
  - Introduced the feudal system
    - Barons as land owner/protectors
      - Responsible for providing armies
    - Barons made land grants to knights
      - Real estate titles through sub-grants
- **Real Property** derives from state grants
  - Source: Doomsday Book
Monopolies

- From 14\textsuperscript{th} century granted by English monarchs
  - For commodities and some luxuries in return for payment to the crown
  - Monopoly holders were often corrupt
    - Subject of bribes and corruption
    - Increased prices
- By 15\textsuperscript{th} century Venice and Florence granted monopolies for inventions
Monopoly = Government Statute

- Queen Elizabeth-I enacted the Statute of Monopolies (1623)
  - Restricted the right of the Crown to grant oppressive monopolies
    - Limited to new methods of manufacture
  - Monopolies were called: *litterae patentes* = letters patent
    The Latin word *patent* means *open*
    - Open Letters - on registers that could be viewed by public
The First Patents

- Covered
  - Glass blowing method
  - Weaving method
- Crown protection in England against imports from Belgium
  - Belgians were the inventors
    - Not protected by the Patents issued in England!
  - English inventors petitioned Crown for protection from competition
What is a Patent?

- Contract (or bargain) between an assignee (inventor) and the government
- The inventor (assignee) reveals all secrets of how to produce the invention in return for which the state grants/permits protection that restricts others (unlicensed practitioners) from copying or imitating the invention for the duration of the Patent
Intellectual Property Rights (IPR)

- A private right issued by statutory grant
  - For inventions
  - Issued on the premise that it will serve the public good
- Typically has a 20 year life
Objects of IPR

- Includes statutory rights of:
  - Patents
  - Trade marks and Service marks
  - Copyrights
- Includes common law rights
  - Eg: Confidentiality
Value of IPR

- Rights are exclusive
- Assignee's permission is required for use
- Can be used to generate income
IPR Problems

- IPR Laws and Rights are NOT globally consistent
- Many countries do not respect foreign IPR laws
  - Problem at point of origin of IPR legislation!
- We need globally standardised IPR Laws
IPR Summary Status

- IPR are not globally respected
  - It seems that money is the root of evil!
- IPR itself are not evil
  - The problem is corruption
    - Ethics issue
- The GNU GPL stipulates rights and privileges
  - Demands protection of rights granted
    - Thus we must conclude that the GNU GPL is Pro-IPR!
Definition of Terms: Avoiding Confusion
Definitions

- **Mercantile:**
  - Of, or relating to, merchants or trade,
    Eg: commerce
  - Does NOT mean:
    - medieval or out-dated
      - A common mis-interpretation!
  - Economics relates the term *mercantile* to the practice of rule over colonies
    - Really not anything to do with the specific term *mercantile*
      - Mercantilism is a philosophy and practice of economics
Modern Mercantile Trends

- Means a focus on commerce
  - The need to be financially viable
    - The need to sustain income above costs
- Means trade in goods and / or services
  - Includes bartering
  - Basis of Win-Win transactions
    - Each party believes they are better off for having conducted the exchange of goods and / or services
Feudalism

• The practice of paying to get what you want!
  • A mercantile (commercial) system
    • Is a form of economic transaction
      • with supply to match demand

• Feudal:
  • Pertaining to a fee
    • A right granted in return for a service provided
  • A grant protected by Royal decree
    • Land tenure in return for military service
      • Including right to partial produce from the land
What Feudal Does NOT Mean

- Not an oppressive system for exploitation of workers
  - Marxist Dogma
- Not an out-dated system
  - We all barter to get what we want!
  - Not something we have surpassed in development and intellect
Feudalism is Ever Present

- Is the basis of enterprise
  - Includes services provided
    - Even those services rewarded by tip or gratuity
- Lies at the heart of contract law
Protectionist Intervention
Definition of Terms

- **The Crafty Nature of Man**
  - Negative Characteristics
    - Exploitative, Monopolistic, Racketeering
    - Given to dishonest gain
    - Placing self-interests ahead of neighbors
  - Positive Values
    - Protective, Insulative
    - Evasive of threat
      - particularly to financial interests
Protectionism

- A term generally applied to defensive action
  - The practice, system, or theory that applies tariffs or quotas to limit or impede the importation of foreign products and services with the intent of helping local (domestic) producers

- Passed into Law
  - Essential Intent is to protect the national or regional public weal (welfare of the general community)
Intervention

- The policy and practice of interfering in
  - The affairs of another sovereign jurisdiction
    - Can be another town, state, country (government)
  - Includes use of government power to control or influence the domestic economy
    - Interpretation by some:
      
      *Includes use of government power to control the freedom of its citizens*
History of Protectionism

- Often thought of as a modern practice
  - British practiced it
    - All trade between colonies had to pass via England
  - Within USA, dates to transition from a British colony to an independent nation
    - 1789 - Congress enacted first tariff act
    - 1816 - Congress extends tariffs with protectionist goals
    - 1828 - Enacted the Tariff of Abominations
      - Up to 49% duty on certain goods
"The intrinsic soundness of the argument for protection to young industries therefore may not be touched by the conclusions drawn from the history of its trial in the United States, which shows only that the intentional protection of the tariffs of 1816, 1824, and 1828 had little effect."

These tariff acts are generally recognised as having led to the Civil war of 1861-1865

USA: Smoot-Hawley tariff act of 1930

- Economists and historians continue to debate how important the Smoot-Hawley tariff was in causing the Great Depression. ... if that tariff was not the single cause of the Great Depression, it certainly made a bad situation worse.

Another Perspective

- **USA: Federal Reserve Bank of Dallas**
  - “... Smoot-Hawley taught us trade's lesson the hard way - protect and destroy. Today we're learning it the right way - compete and prosper.”
- **Ludwig von Mises (An Economist)**
  - “The history of mankind is a long record of obstacles placed in the way of the more efficient for the benefit of the less efficient.”
More of Protectionism's Record

- Shipping:
  - Late 19th Century USA had 2000 ships, carried 80% of world trade
  - 1950 - US Flag Carriers handled 43% of America's foreign trade. Employed 57,000 US citizens
  - Merchant Marine Act of 1970
    - Richard Nixon said the act would “replace the drift and neglect of recent years and restore this country to a proud position in the shipping lanes of the world.”
Results of Merchant Marine Act

- Today:
  - US Flag carriers carry less than 4% of American trade products. Employs fewer than 9,000 US citizens
  - Most sea trade is carried by flags of convenience vessels
    - Subject to fewer and lighter regulations and lower cost
  - Goods move efficiently but piracy is a big problem
- US Shipping fleet
  - The victim of efforts to save it!
More Victims

- **Agriculture**
  - Legislation protecting Monsanto and DuPont is pushing trade overseas

- **Pharmaceuticals**
  - Research and development is moving overseas where costs are lower and laws are not so restrictive

- **Steel**
  - Protection has resulted in USA and Australian manufacture and R&D to move overseas
The Technology Logic Gap

- And then there is SOFTWARE
  - Recent legislation
    - Software Patents, Trade marks, Service marks, Copyrights
    - Legislation:
      - DMCA - The Digital Millennium Copyright Act
      - MPAA and RIAA seeking permanent anti-trust exemptions
  - Litigation abounds
    - Companies that wish to cash-in on IPR
  - Will this save or sink the US software industry?
    - Is legislation and litigation protective or destructive?
“Rationalizing the differences between intellectual property rights as defined and enforced in the United States and those of our trading partners has emerged as a seminal issue in our trade negotiations.”

Alternatives

- Freedom is pivotal
  - Unrestricted freedom to trade
    - Open and public commerce
  - Royalty free public open standards
    - For all Intellectual Property
  - Freedom to innovate
    - Improve efficiency, effectiveness, and competition
- Anything less turns the protected into a victim
“Market economies require rule of law. A society without state protection of individual rights, especially the right to own property, would not build long-term assets, a key ingredient of a growing modern economy.”

The Dividing Line

- Free Libre Open Source Software divides the world
  - Either *laissez faire*
    - or *interventionism*
  - Either build *long-term assets*
    - or chase *short-sighted goals*

- Central to the issue
  - Freedom
    - or Control
  - Community
    - or Special Interest
FLOSS and the Consumer

- FLOSS and Standardisation reduces the cost of market entry for new consumers
- Expands the total market size
  - More consumers = greater service opportunity
    - Product customization
    - Delivery standardization
    - Customer hand-holding (Service Specialisation)
- Combined effect is HIGHER MARKET VALUE
FLOSS Update:
Desktop Developments
Samba-3 Update
Linux Desktops

- Novell acquires SuSE and Ximian
  - New Focus on Linux Desktop
  - Focus also on back end servers
  - Novell eDirectory is a vital part of the picture
    - Alternative to Microsoft Active Directory

- OpenOffice
  - Progress
    - Version 1.1.1 due soon
    - Version 2 under development
Desktop Interfaces

- Recent and Current Development Status
  - KDE 3.2.1 Released March 9, 2004
  - Gnome 2.6 - soon
  - Mozilla 1.7 - soon
  - Ximian Desktop 2 - Released Jan 2004
    - Includes Evolution mail client
  - Linux Kernel 2.6 - Released and stabilizing
Benefits of Linux

- Innovation activity still growing
  - Multi-user orientation
  - Desktop and tool set developing rapidly
- Most applications are free
  - Part of the Operating System
- Problems are being addressed rapidly
  - Typical 48 hour resolution
- No virus / worm problems
New Opportunities

- Book Publishing
  - Old process is inefficient and costly
    - Pre-print editing costs $15-23 per page
    - Editing process is slow, manual work
    - Limited re-use of editorial effort
  - New processes made possible by FLOSS
    - Reduces pre-print costs up to 80%
    - Shortens publishing cycle
The Old Publishing Process
The New Publishing Process

- Authors
- Editors
- CVS Repository
- Cron Job
- PDF File
5.3 Implementation

The following configuration process begins following installation of Red Hat Linux 9.0 on the three servers shown in the network topology diagram in Figure 5.1. You have selected hardware that is appropriate to the task.

5.3.1 Installation of DHCP, DNS, and Samba Control Files

Carefully install the configuration files into the correct locations as shown in Table 5.1. You should validate that the full file path is correct as shown.

The abbreviation shown in this table as [RFC] means the directory location beginning with /var/lib/samba.
Business Linux Desktops

- Key questions
  - Interoperability (Compatibility)
  - Applications
- Perceived obstacles
  - Support
    - Cost
    - Availability
Competitive Reactions

- Assertions against Open Source Software
- Claims FLOSS Violates Intellectual Property
  - Theft and misappropriation
  - Stifles innovation
  - Destroys jobs
- Claims it is counter the national interest
  - Leaks technology to the enemy
  - Communist (subversive)
- We know that protectionist interference is the kiss of death to an industry
- So why do so many vendors demand it?
Why?

- Why are some vendors running scared?
  - Have they lost the ability to innovate?
  - Are they afraid of public open standards?
  - Do they fear customer retribution?

- Philip Kotler (marketing genius) said:
  - "When all other factors are equal price is the last determinant of consumer choice!"

- Have some vendors nothing to offer that they must fear Free Libre Open Source Software?
  - What happened to customer loyalty?
Samba-3 Update
Samba Update

- Samba-3.0.0 released September 24, 2003
- Samba-3.0.1 released December 15, 2003
- Samba-3.0.2 released February 9, 2004
- Samba-3.0.3 due out soon
- Samba-3.1.0 in development
  - Will have some new features that will be decided at the SambaXP Conference in Goettingen, Germany, April 5-7, 2004.
New in Samba-3

- Active Directory Integration
  - Domain Member Server (DMS)
- Windows NT4 migration to Samba-3
  - Samba-3 PDC/BDC now well supported
- Unicode support (Internationalisation)
- New User and Group Account handling
  - “passdb backend =” parameters
    - smbpasswd (original)
    - tdbssam (new binary file format)
    - ldapsam (extended LDAP support)
Samba Documentation

- **Samba-HOWTO-Collection**
  - Updated from 88 to 485 pages

- **Samba-3 by Example (New)**
  - 345 pages
  - *Nothing but documented example deployment cases*
  - Will become part of Samba Documentation
    - April 5, 2004
Samba-3 Objectives

- Better integration with MS Windows 2000/2003 and Active Directory
  - Support for MS Active Directory through Kerberos protocols
- Permit replacement of Windows NT4 Domains with a more scalable solution
- Improved LDAP support
  - Supports multiple concurrent LDAP directories
  - Supports LDAP directory fail-over
- Many other improvements - see Release Notes
Major Issues Since Samba-3

- Too many people deploying LDAP without adequate preparation
  - LDAP is often NOT needed
  - LDAP is NOT the same as ADS
    - Need to understand how LDAP works
- Kerberos and Active Directory Issues
  - Needs correct libraries (MIT 1.3.1, Heimdal 0.6+)
- Access Control List support
  - Poorly understood implications
    - Must have ACLs and EAs in file system and kernel
More Major Issues

- New Group Mapping not well understood
  - Much confusion
- New IDMAP and Winbind problems
  - Need to understand role of NSS and PAM
- Learning curve to understand how Windows permissions translate to UNIX/Linux
- Domain machine accounts
  - Automatic credentials change not understood
- Profiles
  - Many UNIX admins fear handling them
FLOSS and the Future
The Desktop

- Is being won slowly
  - Maturity is under way
  - Expect stronger competitive reaction!
  - Do not be surprised if competitors reduce prices
    - May drop price to zero out of survival fears
  - Virus and Worm issues will kill MS Windows

- The battle will be won on
  - Differentiated advantages
    - Not on being the same!
  - Users finding better solutions through FLOSS
The Server

- Has already won the battle
  - Global mass migration is happening
    - Web serving, File and Print, SQL
    - Many native applications now support Linux
    - Many convinced that Linux solutions have out-paced MS Windows server capabilities

- The competition is too late for defense!
  - Today they can do nothing but react
    - Shows loss of ability to innovate
    - Shows loss of customer loyalty (commitment)
Enemy is Protectionism

- We are witnessing a mighty conflict
  - Expect more litigation
    - Patent, Copyright, Trade mark and Service mark claims
    - Lindows Inc. (Lindows.Com) already barred from Netherlands
- Caution is required
  - Do not inflame issues by our behaviour
- Call for public open software standards
  - Our greatest defense against monopoly aggression
The Good News

- The faster protection is granted to monopolies
  - The faster they will tumble
- Psychological victory has been won
  - The monopolies are scared
  - They are also angry
- So be careful
  - Freedom is at stake
Q&A