Software Inventions, Trademarks & Copyrights

Kevin M. Kercher





Software Inventions



Topics to Cover

- Shattering the Patent Myths
- Why Patents Are So Important
- How can Software Inventions be Patented?
- How You Factor In The Road To Patentability



Shattering The Patent Myths

- Some of the Common Myths:
- IT Inventions are not patentable
- Software-related inventions are not patentable
- Must be high-tech to be patentable
- Must be ground-breaking to be patentable

None of these are true



Examples of Patents We've Obtained



(12) United States Patent Rice, Jr.

(10) Patent No.: US 6,839,609 B2 (45) Date of Patent: Jan. 4, 2005

- 54) SYSTEM, METHOD AND APPARATUS FOR ON-DEMAND PRINTING OF HAZARDOUS MATERIALS PLACARDS FOR USE IN THE TRANSPORTATION AND/OR STORAGE OF HAZARDOUS MATERIALS
- (75) Inventor: Richard Mark Tilee, Jr., St. Charles, MO (US)
- (73) Assignce: Timothy Ridge LLC, St. Charles, MO
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 24 days.
- (21) Appl. No.: 10/413,319
- (22) Filed: Apr. 14, 2003
- (65) Prior Publication Data

US 2004/0204790 A1 Oct. 14, 2004

- (56) References Cited

U.S. PATENT DOCUMENTS

4,034,339	A	*	7/1977	Free et al 714/45
5,532,928	A	*	7/1996	Stanczyk et al 700/213
5,822,716	A		10/1998	Morell et al.
6,097,955	A	+	8/2000	Bhat 455/445
2002/0103570	A1		8/2002	Petrancosta

OTHER PUBLICATIONS

Keller's 2002 HazMat Catalog; 2002; Catalog Identification No. 405455–032; J. J. Keller & Associates, Inc.; USA. Hazardous Materials Chart; 1999; Identification No. 51–FA (Rev. 7/99) 1296; J. J. Keller & Associates, Inc.; USA. Cardous Materials Placarding Chart; 2002; Identification No. 8 TB (Rev. 1/02) 1132; J. J. Keller & Associates, Inc.; USA.

Hazardous Materia. Load and Segregation Chart; 2001; Identification No. 41–FB (Dev. 10/01); J. J. Keller & Associates, Inc.; USA.

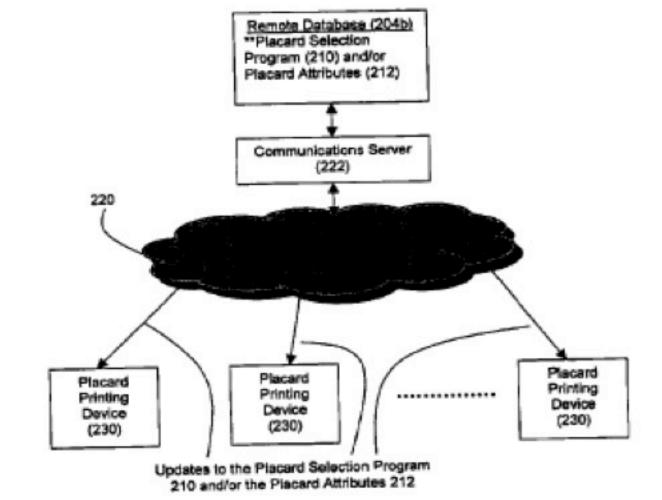
* cited by examiner

Primary Examiner—Gene O. Crawford (74) Attorney, Agent, or Firm—Thompson Coburn LLP

(57) ABSTRACT

A system for on-demand printing of hazardous material placards, the system comprising: (a) an input device through which a user can input parameters relating to a hazardous material to be transported or stored; (b) a processor configured to determine a hazardous material placard for the hazardous material according to a computerized analysis of the input parameters; and (c) an output device configured to print the determined placard. Preferably, the processor determines the appropriate placard by executing a placard selection program that comprises a plurality of placard selection rules, wherein the placard selection rules define the conditions under which a placard is to be used. Further, the placard selection rules preferably comply with government regulations relating to the shipment and/or storage of hazardous materials. Also, the system may display a menu of placards selectable by the user for printing.

62 Claims, 14 Drawing Sheets





System, Method and Apparatus for On-Demand Printing of Hazardous Materials Placards for Use in the Transportation and/or Storage of Hazardous Materials

(12) United States Patent Weinstock et_al_

WEB ENABLED BUSINESS TO BUSINESS OPERATING SYSTEM FOR RENTAL CAR SERVICES

(75) Inventors: rimoth, Cart Weinstock, St.

Charles, MO (US); Kimberly Ann DeVallance, Maryland Heights, MO (US); Randall Allan Haselhorst, Imperial, MO (US); Craig Stephen Kennedy, St. Louis, MO (US); David Gary Smith, Wildwood, MO (US)

(73) Assignee: The Crawford Group, Inc., St. Louis, MO (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 942 days.

Appl. No.: 09/641.820

Aug. 18, 2000

(51) Int. Cl. G06Q 10/00

(2006.01)(52) U.S. Cl. 705/5; 705/4

Field of Classification Search 705/1. 705/5, 6, 64, 13, 26

See application file for complete search history.

(56)References Cited

U.S. PATENT DOCUMENTS

1/1990 Foster et al.

4,714,989 A 12/1987 Billings 4,757,267 A 7/1988 Riskin 4,774,663 A 9/1988 Musmanno et al. 4,788,643 A 11/1988 Trippe et al. 4,797,818 A 1/1989 Cotter 4,799,156 A 1/1989 Shavit et al. 4,831,526 A 5/1989 Luchs et al. 4.858,121 A 8/1989 Barber et al 4,891,785 A 1/1990 Donohoo 4,897,867 A

US 7,275,038 B1 (10) Patent No.: (45) Date of Patent: Sep. 25, 2007

4/1990 Doyle, Jr. et al. 4,916,611 A 6/1990 Dalnekoff et al. 4,931,932 A 4,951,196 A 8/1990 Jackson

(Continued)

SN PATENT DOCUMENTS

(Continued)

OTHER PUBLICATIONS

Travel Web site Expedia's shares take off during initial offering, Reeves, Nov. 1999, Denver Post Pg C-02, entire document.

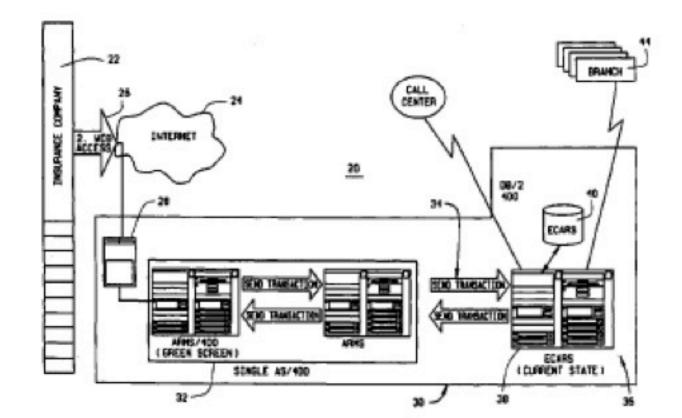
(Continued)

Primary Examiner—John G. Weiss Assistant Examiner—Michael Fisher (74) Attorney, Agent, or Firm—Thompson Coburn LLP

ABSTRACT

An Internet enabled, business-to-business computerized transaction system is disclosed in its preferred embodiment for use in providing rental car services for high volume users and comprises an Internet web portal through which the high volume user may access an integrated business computer network for the rental vehicle service provider. The rental vehicle services provider computer network is configured to interconnect a geographically diverse plurality of branch offices, cataloguing their available rental vehicles and schedules for same as well as handling all transactional data relating to its business. The Internet web portal provides ubiquitous connectivity and portability for a multi-level business organization who regularly places high volumes of rental purchases with its business partner. Utilizing the method and apparatus of the present invention large volumes of rental transactions may be placed, monitored, altered during performance, and closed out with financial accounting and payment being made virtually without human intervention.

46 Claims, 2 Drawing Sheets





Web Enabled Business to Business Operating System for Rental Car Services

(12) United States Patent

Taylor

(10) Patent No.:

EP

(45) Date of Patent:

US 7,636,703 B2 Dec. 22, 2009

54) METHOD AND APPARATUS FOR APPROXIMATE PATTERN MATCHING

(75) Inventor: David Edward Taylor, St. Louis, MO

(US)

(73) Assignee: Exegy Incorporated, St. Louis, MO

(US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 223 days.

(21) Appl. No.: 11/381,214

(22) Filed: May 2, 2006

(65) Prior Publication Data

US 2007/0260602 A1 Nov. 8, 2007

(51) Int. Cl. G06F 15/00

(2006.01)

See application file for complete search history.

(56)

References Cited

U.S. PATENT DOCUMENTS

3,601,808	A	8/1971	Vlack
3,611,314	A	10/1971	Pritchard et al.
3,729,712	A	4/1973	Glassman
3,824,375	A	7/1974	Gross et al.
3,848,235	A	11/1974	Lewis et al.
3,906,455	A	9/1975	Houston et al.
4,081,607	A	3/1978	Vitols et al.
4,298,898	A	11/1981	Cardot
4,314,356	A	2/1982	Scarbrough
4,385,393	A	5/1983	Chaure et al.
4,464,718	A	8/1984	Dixon et al.
4,550,436	A	10/1985	Freeman et al.
4,823,306	A	4/1989	Barbic et al.

4,941,178 A 7/1990 Chuang 5,023,910 A 6/1991 Thomson 5,050,075 A 9/1991 Herman et al. 5,101,424 A 3/1992 Clayton et al. 140,692 A 8/1992 Morita 5,12, 131 A 11/1992 Row et al.

(Continued)

FOREIGN PATEN CUMENTS

0880088 11/1996

(Continued)

OTHER PUBLICATIONS

'Models, algorithms, and architectures for scalable packet classification': Taylor, Turner, Washington University.*

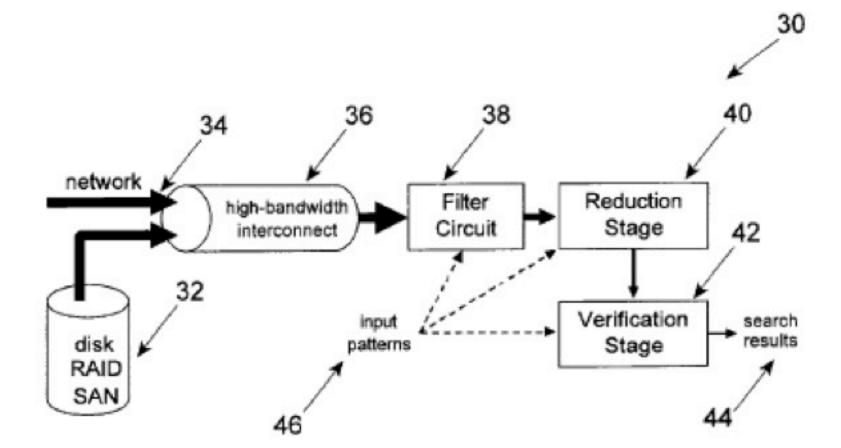
(Continued)

Primary Examiner—David R Vincent
Assistant Examiner—Peter Coughlan
(74) Attorney, Agent, or Firm—Thompson Coburn LLP

(57) ABSTRACT

A system and method for inspecting a data stream for data segments matching one or more patterns each having a predetermined allowable error, which includes filtering a data stream for a plurality of patterns of symbol combinations with a plurality of parallel filter mechanisms, detecting a plurality of potential pattern piece matches, identifying a plurality of potentially matching patterns, reducing the identified plurality of potentially matching patterns to a set of potentially matching patterns with a reduction stage, providing associated data and the reduced set of potentially matching patterns, each having an associated allowable error, to a verification stage, and verifying presence of a pattern match in the data stream from the plurality of patterns of symbol combinations and associated allowable errors with the verification stage.

95 Claims, 6 Drawing Sheets





Method and Apparatus for Approximate Pattern Matching

(12) United States Patent Gourley

METHOD AND APPARATUS FOR PROCESSING PHARMACEUTICAL ORDERS TO DETERMINE WHETHER A BUYER OF PHARMACEUTICALS QUALIFIES FOR AN OWN USE" DISCOUNT

(75) Inventor: Ewing B. Gourley, 1690 Royal Dr., Springfield, MO (US) 65809

(73) Assignce: Ewing B. Gourley, Springfield, MO

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 2101 days.

(21) Appl. No.: 09/710,227

Nov. 10, 2000

(51) Int. Cl. G06Q 30/00 (2006.01)G06Q 50/00 (2006.01)G06F 19/00 (2006.01)

705/2; 705/3; 705/1 (52) U.S. Cl.

Field of Classification Search See application file for complete search history.

(56)References Cited

U.S. PATENT DOCUMENTS

5,890,129 A * 3/1999 Spurgeon 705/4 6,003,006 A * 12/1999 Colella et al. 705/2

OTHER PUBLICATIONS

Gardner, Jerome Richard, "Pharmaceutical Scam: Use Audit to Detect 'Pyramid Cube Scheme'" Sep. 1982, Healthcare Financial Management (HFM), vol. 36, No. 9, pp. 72, 74.*

Gire, Michael K., "Hospital Procurement and Illegal Price Discrimination," Nov. 1989, Hospital Materiel Management Quarterly, vol. 11, No. 2, pp. 71-76.*

(10) Patent No.:

US 7,640,170 B1 (45) Date of Patent: Dec. 29, 2009

Gardner, Jerome Richard, "Pharmaceutical Scam: Use Audit to Detect 'Pyramid Cube Scheme'" Sep. 1982, Healthcare Financial Management (HFM), vol. 36, No. 9, pp. 72, 74.*

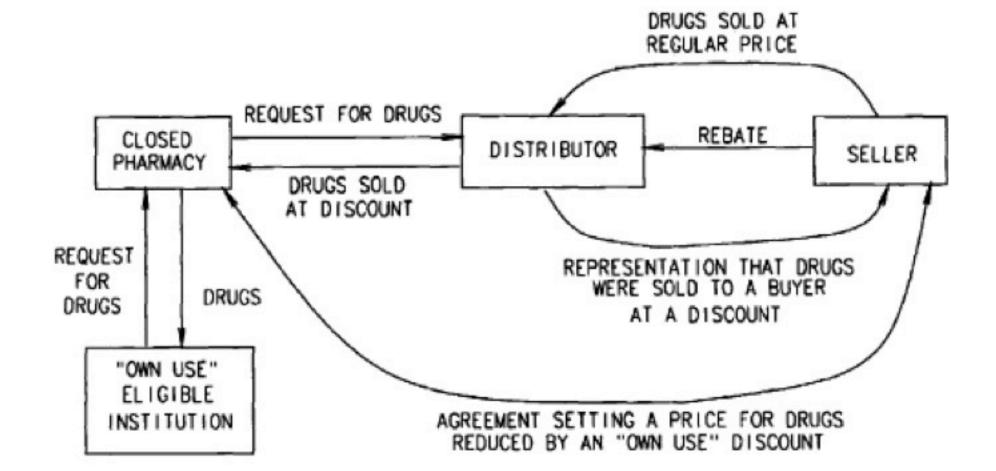
Nielsen, Richard P., "Public Policy and Price Discrimination in Favor of Nonprofit and against Profit Seeking Organizations," Apr. 1977, Academy of Management Review, vol. 2, No. 2, pp. 316-319.* Letter day, Jul. 6, 2000 from Health Resources USA, LLC to Drug Enforcement Prog. o four pages.

Primary Examiner—C. Luke Gilligan Assistant Examiner—Rachel L Porter (74) Attorney, Agent, or Firm-Thompson Coburn LLP; Benjamin L. Volk, Jr. Esq.

(57)ABSTRACT

Disclosed is a method and apparatus for processing pharmaceutical orders to determine whether a buyer of pharmaceuticals qualifies for an "own use" discount. "Own use" discounts on pharmaceuticals are available for a limited class of buyers under 35 U.S.C. §13c. Under one method, an auditor receives an order for a quantity of pharmaceuticals, receives a report associated with the order containing sufficient information therein to perform an audit on the order, and compares the information found in the order with the information found in the associated report to make a status determination as to whether a buyer qualifies for an "own use" discount. Preferably a second report containing additional audit information is received as well. The auditor can also audit the order by comparing the order to this additional information. If these comparisons result in a determination that the buyer does in fact qualify for an "own use" discount, the auditor can then place the order with a pharmaceutical seller for a discounted price. Also disclosed is a pharmaceutical order auditing system that uses a computer to perform the above-described

54 Claims, 10 Drawing Sheets





Method and Apparatus for Processing Pharmaceutical Orders to Determine Whether a Buyer of Pharmaceuticals Qualifies for an "Own Use" Discount

(12) United States Patent Schuchardt et al.

(10) Patent No.: (45) Date of Patent: US 7,685,063 B2 Mar. 23, 2010

(54) CLIENT-SERVER ARCHITECTURE FOR MANAGING CUSTOMER VEHICLE LEASING

(75) Inventors: Jeff D. S. hardt, L. Luis, Mo (US); Mark E. McDaris, Wildwood,

MO (US)

(73) Assignee: The Crawford Group, Inc., St. Louis,

MO (US)

(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35 U.S.C. 154(b) by 1143 days.

2 24.00/2003 079.55

(22) Filed: Mar. 25, 2005

(21) Appl. No.: 11/090,400

(65) Prior Publication Data

US 2006/0218085 A1 Sep. 28, 2006

(51) Int. Cl.

G06Q 40/00 (2006.01)

(56) References Cited

U.S. PATENT DOCUMENTS

4,736,294 A 4/1988 Gill et al.

(Continued)

FOREIGN PATENT DOCUMENTS

1724719 11/2006

(Continued)

OTHER PUBLICATIONS

redit Risk in the Leasing Industry. Mathias Schmit. Journal of oking & Finance 28 (2004) 811-833.*

(Continued)

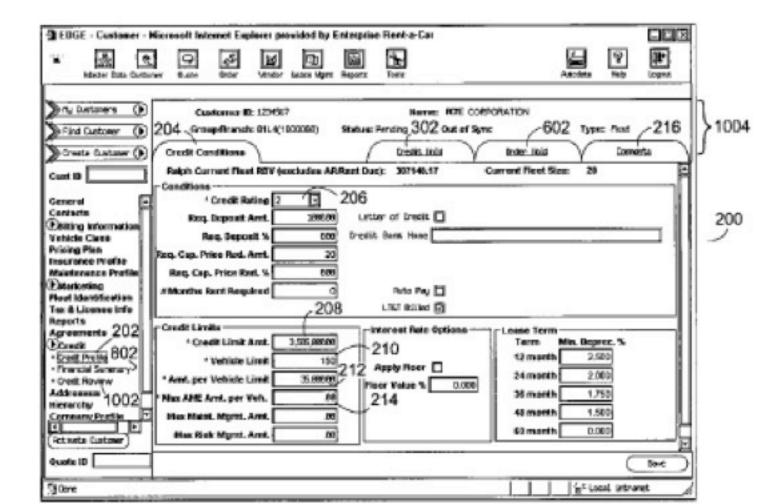
Primary Examiner—Frantzy Poinvil
Assistant Examiner—Ford Madamba

(74) Attorney, Agent, or Thompson Coburn LLP; Benjamin L. Volk, Jr.

(57) ABSTRACT

A system for managing a credit profile for a customer having a fleet of leased vehicles, the system comprising: (a) a client computer; (b) a server in communication with the client computer; and (c) a database in communication with the server. the database being configured to store a plurality of customer credit profiles, each customer credit profile comprising a credit limit for a customer and a leased vehicle limit for a customer, the credit limit corresponding to a maximum amount of monetary credit that has been authorized for extension to the customer, the leased vehicle limit corresponding to a maximum number of leased vehicles that are authorized for the customer's leased vehicle fleet; and wherein the server is configured to (1) provide a plurality of GUIs for display on the client computer, wherein at least one of the GUIs is configured to submit a request for a change to a customer's credit profile in response to user input, at least one of the GUIs is configured to display at least a portion of the customer's credit profile in response to user input, and at least one of the GUIs is configured to receive input from the user corresponding to an action to take on the submitted request, and (2) update the customer's credit profile in accordance with the action input. Also disclosed herein is a method for managing a credit profile for a customer having a fleet of leased vehicles.

52 Claims, 64 Drawing Sheets





Client-Server Architecture for Managing Customer Vehicle Leasing

(12) United States Patent Brown et al.

METHOD AND SYSTEM FOR ON-DEMAND DELIVERY OF PERSONALIZED INTERNET-BASED CONTENT TO TELEVISION VIEWERS

(75) Inventors: Michael A. Brown, University City, MO
(US); Edward D. Briscoe, Ladue, MO

(73) Assignee: Vibe Solutions Group, Inc., St. Louis, MO (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 1551 days.

(21) Appl. No.: 11/015,325

(22) Filed: Dec. 17, 2004

(65) Prior Publication Data

US 2006/0146788 A1 Jul. 6, 2006

(51) Int. Cl. H04N 7/173 (2006.01)

725/10

(56) References Cited

U.S. PATENT DOCUMENTS

(10) Patent No.: (45) Date of Patent:

US 7,721,315 B2 May 18, 2010

OTHER PUBLICATIONS

Bickers, James; How DVRs Work; downloaded from http://electronics.howstuffworks.com/dvr.htm on Dec. 14, 2004.

Scien: Jay; Network PVR: Everything on Demand; downloaded from http://electronthen.pdf.com/pressroom/downloads/nvpr-whitepape.

pdf around but not acc. than Dec. 10, 2004.

TechEncyclopedia, CMTS, decreased from http://www.techweb.com/encyclopedia/defineterm.jhtml on Dec. 7, 2004.

TechEncyclopedia, cable Internet; downloaded from http://www.techweb.com/encyclopedia/defineterm.jhtml on Dec. 1, 2004.

TechEncyclopedia, Internet TV; downloaded from http://www.techweb.com/encyclopedia/defineterm.jhtml on Dec. 1, 2004.

TechEncyclopedia, MSN TV; downloaded from http://www.techweb.com/encyclopedia/defineterm.jhtml on Dec. 1, 2004.

TechEncyclopedia, cable modern; downloaded from http://www.techweb.com/encyclopedia/defineterm.jhtml on Dec. 1, 2004.

TechEncyclopedia, WorldGate; downloaded from http://www.techweb.com/encyclopedia/defineterm.jhtml on Dec. 1, 2004.

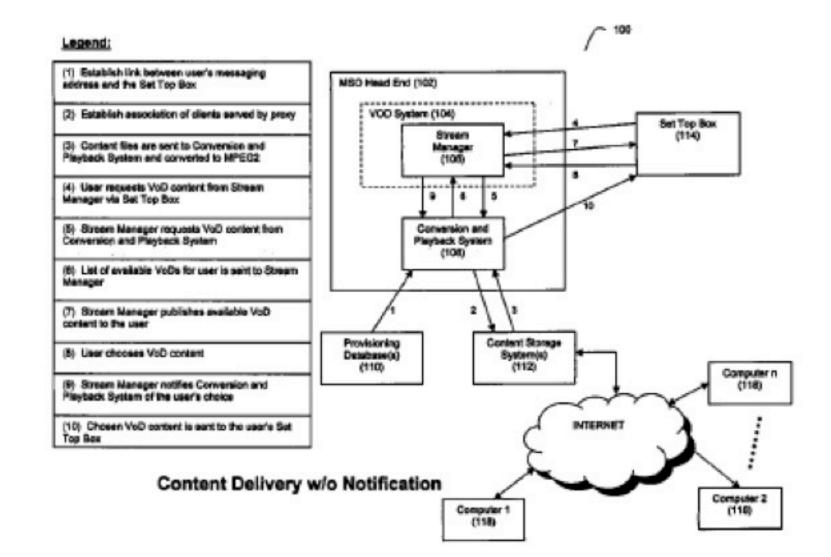
(Continued)

Primary Examiner—Hunter B. Lonsberry (74) Attorney, Agent, or Firm—Thompson Coburn LLP; Benjamin L. Volk, Jr.

(57) ABSTRACT

A method of delivering personalized content to customers of a subscription television service for display on their televisions, the method comprising: (a) converting Internet-based content from an Internet based format to a format suitable for display on a customer's television through a customer's set top box, and (b) after the conversion, delivering the converted content to a set top box associated with that customer for display on that customer's television. With such a method, the customer's set top box need not be Internet-enabled. Preferably, the customer's subscription television service is a cable television service.

24 Claims, 9 Drawing Sheets





Method and System
 for On-Demand
 Delivery of
 Personalized Internet Based Content to
 Television Viewers

(12) United States Patent Singla et al.

(10) Patent No.: US 7,840,482 B2 (45) Date of Patent: Nov. 23, 2010

(54) METHOD AND SYSTEM FOR HIGH SPEED OPTIONS PRICING

(75) Inventors: Naveen Singia, St. Louis, MO (US); Scott Parsons, St. Charles, MO (US); Mark A. Franklin, St. Louis, MO (US); David E. Taylor, St. Louis, MO (US)

(73) Assignee: Exegy Incorporated, St. Louis, MO

(US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 289 days.

(21) Appl. No.: 11/760,211

(22) Filed: Jun. 8, 2007

(65) Prior Publication Data

US 2007/0294157 A1 Dec. 20, 2007

Related U.S. Application Data

(60) Provisional application No. 60/814,796, filed on Jun. 19, 2006.

(51) Int. Cl. G06Q 40/00

(2006.01)

52) U.S. Cl. 705/37; 705/36 R

(56) References Cited

U.S. PATENT DOCUMENTS

2,046,381 A 7/1936 Hicks et al. 3,082,402 A 3/1963 Scantlin 3,296,597 A 1/1967 Scantlin et al. 3,573,747 A 4/1971 Adams et al. 3,581,072 A 5/1971 Nymeyer 3,601,808 A 8/1971 Vlack 3,611,314 A 10/1971 Pritchard, Jr. et al. 3,729,712 A 4/1973 Glassman 3,843,375 A 7/1974 Gross et al. 3,843,335 A 11/1974 Lewis et al.

3,906,455 9/1975 Houston et al. 4,081,607 A 1978 Vitols et al.

(Continued)

FOREIGN PATENT DOCUMENTS

EP 0573991 12/1993

4,298,898 A

(Continued)

OTHER PUBLICATIONS

International Search Report for PCT/US2003/015638 dated May 6, 2004.

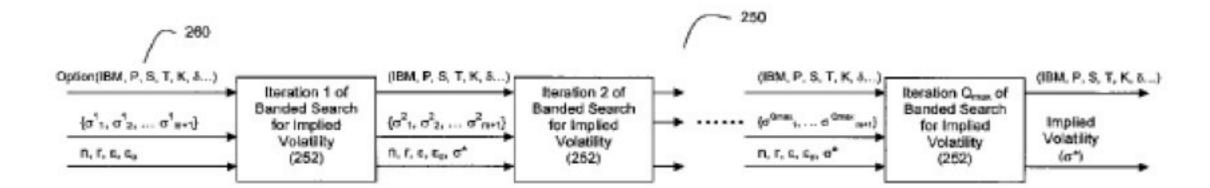
(Continued)

Primary Examiner—Jagdish N Patel
Assistant Examiner—Sara Chandler
(74) Attorney, Agent, or Firm—Thompson Coburn LLP;
Benjamin L. Volk, Jr., Esq.

(57) ABSTRACT

A high speed technique for options pricing in the financial industry is disclosed that can provide both high throughput and low latency. A parallel/pipelined architecture is disclosed for computing an implied volatility in connection with an option. Parallel/pipelined architectures are also disclosed for computing an option's theoretical fair price. Preferably these parallel/pipelined architectures are deployed in hardware, and more preferably reconfigurable logic such as Field Programmable Gate Arrays (FPGAs) to accelerate the options pricing operations relative to conventional software-based options pricing operations.

22 Claims, 32 Drawing Sheets





Method and System for HighSpeed Options Pricing

(12) United States Patent Indeck et al.

(54) METHOD AND APPARATUS FOR PROCESSING FINANCIAL INFORMATION AT HARDWARE SPEEDS USING FPGA DEVICES

(75) Inventors: Ronald S. Indeck, St. Louis, MO (US); Ron Kaplan Cytron, St. Louis, MO (US); Mark Allen Franklin, St. Louis, MO (US); Roger D. Chamberlain, St.

Louis, MO (US)

(73) Assignee: Washington University, St. Louis, MO

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 718 days.

(21) Appl. No.: 11/561,615

(22) Filed: Nov. 20, 2006

(65) Prior Publication Data

US 2007/0078837 A1 Apr. 5, 2007

Related U.S. Application Data

(63) Continuation of application No. 10/153,151, filed on May 21, 2002, now Pat. No. 7,139,743.

(56) References Cited

U.S. PATENT DOCUMENTS

See application file for complete search history.

2,046,381 A 7/1936 Hicks et al. 3,082,402 A 3/1963 Scantlin (10) Patent No.: (45) Date of Patent:

US 8,069,102 B2 Nov. 29, 2011

3,296,597	A	1/1967	Scantlin et al.
3,573,747	A	4/1971	Adams et al.
3,581,072	A	5/1971	Nymeyer et al.
3,601,808	A	8/1971	Vlack
611,314	A	10/1971	Pritchard et al.
3, 712		4/1973	Glassman
3,824		7/1974	Gross et al.
3,848,235	3	11/1974	Lewis et al.
3,906,455		1975	Houston et al.
4,081,607	A	3/12	Vitols et al.
4,298,898	A	11/1981	Calcus
4,314,356	A	2/1982	Scarbrough
4,385,393	A	5/1983	Chaure et al.
4,412,287	A	10/1983	Braddock, III
4,464,718	A	8/1984	Dixon et al.
		(Con	tinued)

FOREIGN PATENT DOCUMENTS

EP 0 851 358 A 7/1998

(Continued)

OTHER PUBLICATIONS

Anonymous, "Method for Allocating Computer Disk Space to a File of Know Size," IBM Technical Disclosure Bulletin, vol. 27, No. IOB, Mar. 1, 1985, New York.

(Continued)

Primary Examiner — Charles Kyle

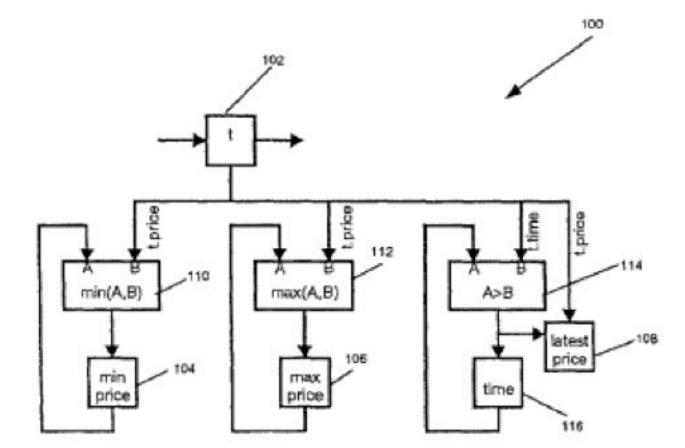
Assistant Examiner — Greg Pollock

(74) Attorney, Agent, or Firm — Thompson Coburn LLP

(57) ABSTRACT

A method and apparatus use decision logic deployed on a reconfigurable logic device to process a stream of financial information at hardware speeds. The decision logic can be configured to perform data reduction operations on the financial information stream. Examples of such data reductions operations include data processing operations to compute a latest stock price, a minimum stock price, and a maximum stock price.

34 Claims, 24 Drawing Sheets





Method and
 Apparatus for
 Processing Financial
 Information at
 Hardware Speeds
 Using FPGA Devices

Why Patents Are Important

- Statutory right to exclude
- Competitive Advantage
- Licensing Revenues
- Defense Mechanism
- Bottom line: they enhance the company's value



How Do You Know If It May Be Patentable?

- Is it new?
- Do you know of anyone else who's done it?
- It is useful?
- It is an improvement over something?
- It is non-obvious?
- Does it provide a competitive benefit?
- Would you pay \$ for it?



How You Factor In

- You are the key
- Your everyday activities may result in patentable subject matter
- We're not trying to change your job flow
- Basically, just track what you do



The Road to Patentability

- The 1st step: tracking your activities
- The 2nd step: the invention disclosure form
- The 3rd step: the patent review committee
- The 4th step: the lawyers file



Things to Beware or AVOID

- Pre-filing outside disclosures
- Pre-filing sales or commercialization
- One-year clock
- Foreign patent considerations
- Ownership issues when working with outside parties
- Standards setting activities



Pre-Filing Outside Disclosure

- No Confidentiality Agreement/NDA?
- May start one-year clock to file in U.S.
- May sacrifice foreign patent rights



Pre-Filing Sale or Commercialization

- Pre-filing sale?
- Pre-filing offer for sale?
- Other pre-filing commercialization?
 - Example: Using software internally to perform work for the business or customers?
- May start one-year clock to file in U.S.
- May sacrifice foreign patent rights



One-Year Clock

- Applicants have one year from a triggering event to file a patent application with the USPTO
- Otherwise, there is a LOSS OF RIGHTS and the invention is DEDICATED TO PUBLIC!



One-Year Clock

- BUT WATCH OUT FOR FOREIGN PATENT RIGHTS!
- Taking advantage of the U.S. one-year clock may sacrifice foreign patent rights



Foreign Patent Considerations

- Many foreign patent systems (e.g., Europe)
 do not provide the one-year clock
- Any pre-filing public disclosure triggers a loss of rights
- If foreign patent protection may be desirable, file U.S. patent application before any non-confidential disclosure or commercialization occurs!



Development Efforts with Outside Parties

- Outside vendors may assist with development work, coding, consulting, etc.
- Will want agreements in place that make it clear who owns all patent rights arising from the work
- Absent such agreements, outside parties could end up as co-owners of patent rights if any of their ideas work their way into the claimed invention



- Quid Pro Quo of the patent system
- Statutory requirements:
 - Enabling disclosure
 - "Written Description" of the invention
 - "Best Mode" for carrying out the invention



Standard for Enablement:

 Does the patent application enable a "person having ordinary skill in the art" to make and use the invention without "undue experimentation"?



- Patent application must describe in detail how the invention would work and be implemented
- But, do not need to actually build the invention



- Flowcharts
- Diagrams
- Descriptions of data and data associations
- Exemplary use cases
- Other details?
 - Alternative arrangements, etc.



What was Bilski's Invention?

- A "pure" business method
- •A method for entering into a series of commodities transactions in manner that hedged certain types of risk
- NO COMPUTER REQUIRED
- ·Bilski organized purely human activities to alter contractual rights and business risks



Bilski at the Supreme Court

The Supreme Court's pronouncement:

- 1. The "machine-or-transformation" test is <u>not</u> the exclusive test for patent-eligibility
- 2. A method is patent in-eligible if it is merely an "abstract idea"
- 3. Relied on past Supreme Court precedent to summarily conclude that Bilski's invention was merely an "abstract idea"



Three Principal Areas of Concern

Courts have found 3 general areas of exclusion:

- 1. Laws of nature
 - $E=MC^2$
 - \bullet F=ma
- 2. Natural phenomena
 - Gravity
 - Lightning
 - Photosynthesis
- 3. Abstract ideas

But anything that is a <u>practical application</u> of the above may be patent eligible



Post-Bilski

Pure Business Methods

- No "machine"
- No physical transformation
- Down but not out...
 - Focus on the practical and real-world effects of the method
 - Make sure you have claims that specifically cover the practical/real-world application of the business method



Post-Bilski

Computer-Implemented Data Processing Inventions

- Computer-implemented business methods
- Computer Software
- Any type of data processing invention
- Data In/Data Out
- Number In/Number Out



Post-Bilski

Computer-Implemented Data Processing Inventions

May pass as a "particular machine" if claims are tied to a computer



Trademarks



What is a trademark?

- A "brand"
- Any word, symbol or device that
 - o identifies one's product, and
 - distinguishes it from the products of others
- Examples:
 - NIKE for shoes
 - COACH for purses



What is a servicemark?

- A name sometimes used to identify marks that are used in connection with services rather than products
- People often refer to both servicemarks and trademarks as "trademarks"
- Examples:
 - THOMPSON COBURN for legal services
 - SANFORD-BROWN for educational services



Trademarks vs. Trade Names

Trademark: describes the goods or services of a company ("a source indicator")



Trade name: identifies a company or business; can also be a trademark

The Coca-Cola Company



Types of Marks

- Word marks (i.e., the words per se)
- Slogans and tag lines
- Stylized words
- Designs, logos, etc.
- Trade dress/product configuration
- Colors, sounds, smells, etc.



Word Marks

NIKE

KODAK

COCA-COLA

BLACKBERRY



Slogans/Taglines

I'M LOVIN' IT THERE ARE SOME THINGS MONEY CAN'T BUY... THE ULTIMATE DRIVING MACHINE



Stylized Words





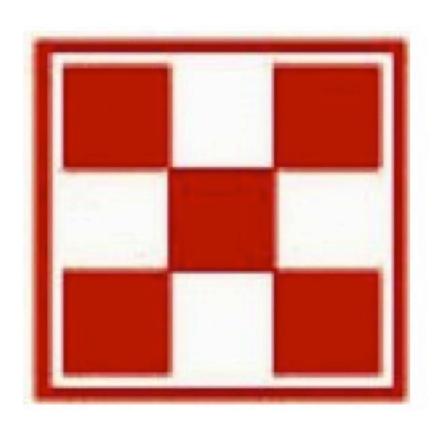




Logos/Designs



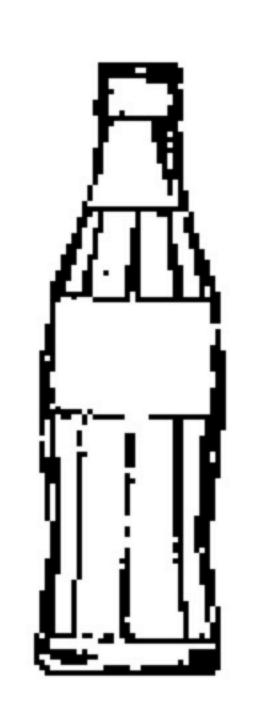








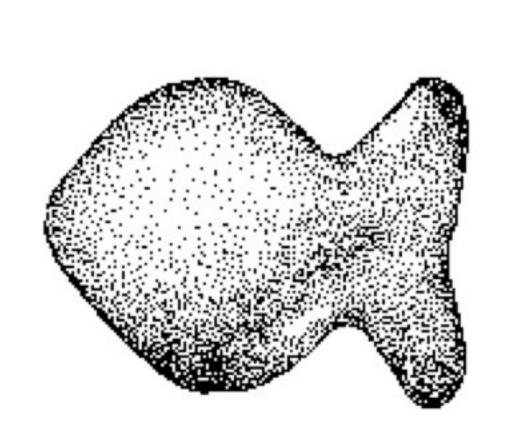
Trade Dress

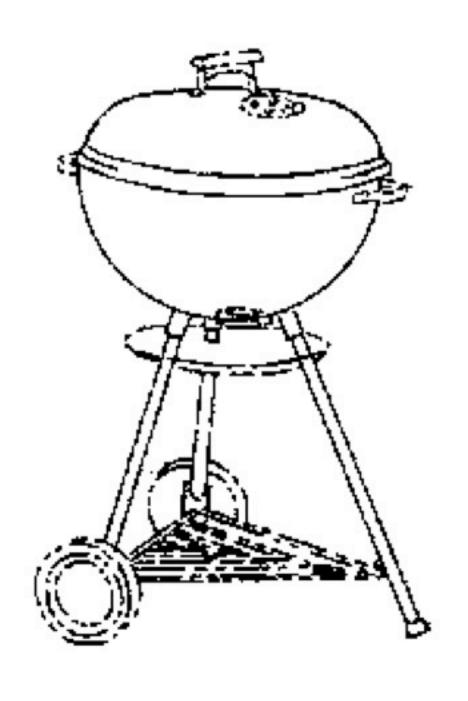






Trade Dress









Trademarks

- Term Perpetual, as long as the mark remains in bona fide use
- Purposes:
 - Identify the source of goods or services
 - Protect consumers from confusion
 - Indication of quality
 - Create business goodwill and brand identity



Trademarks

- Two basic issues clients face when adopting of a new trademark:
 - Can I use it?
 - Can I stop others from using it?



Can luse it?

- Priority issues
- Conduct a Trademark Search!
- Based on the search results, we determine:
 - availability for use (does the mark conflict with marks owned by others?)
 - registrability



Can l use it?

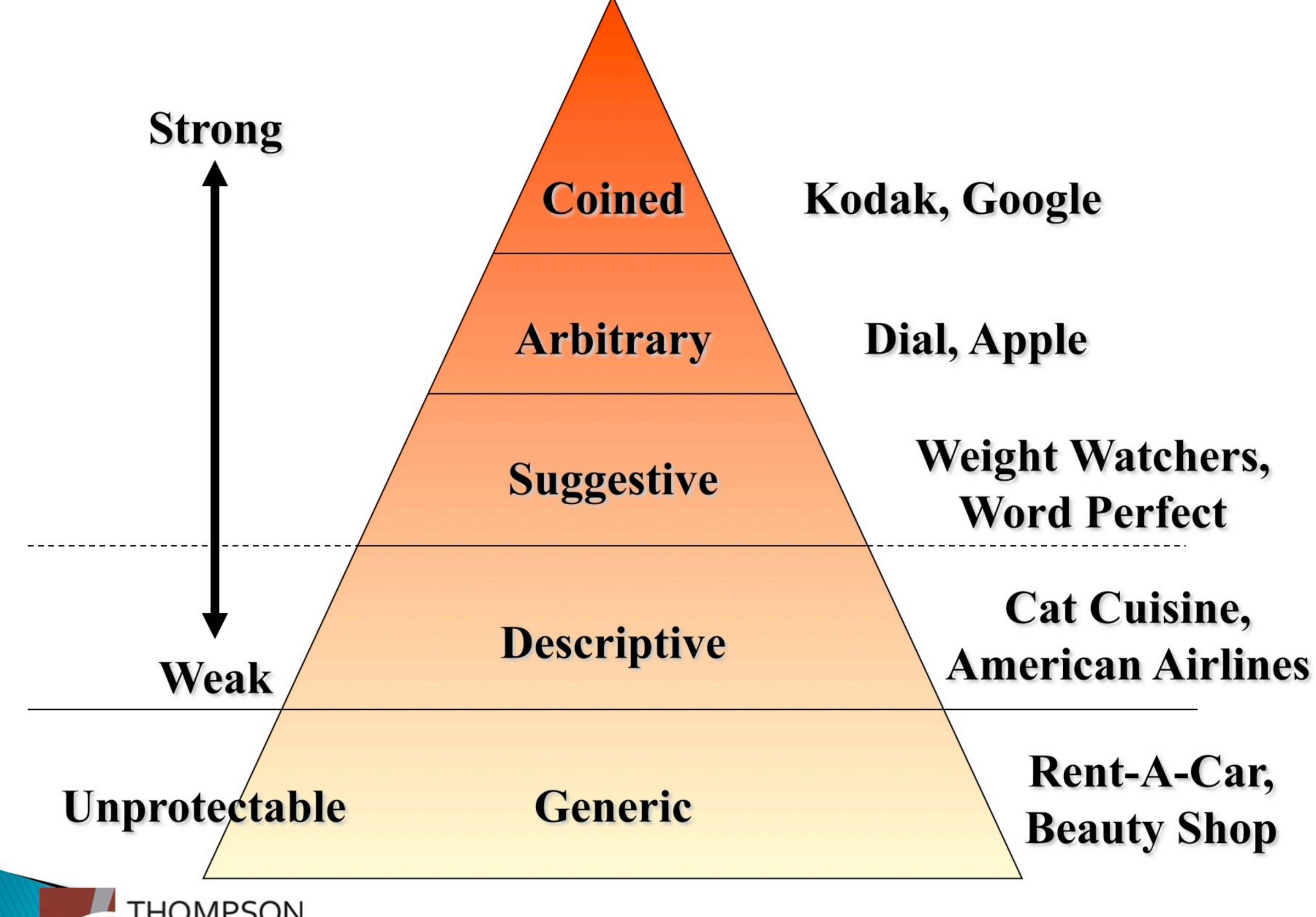
- "Likelihood of confusion" is the standard for infringement
- Multifactor analysis considers:
 - Similarity of marks
 - Similarity of goods/services
 - Other marketplace factors
 - Intent
 - Actual confusion



Can I stop others from using it?

- Is the mark distinctive and protectable?
- The more distinctive the mark, the greater its level of legal protectability







Establishing Trademark Rights

- Use the mark = common law rights
- Apply for federal trademark registration
 - Priority date based on filing date



Establishing Common Law Rights Through Use: Priority

- Generally, in the United States, trademark rights are created by priority of use
- The first person or business to use a mark in a given geographic area is the owner of the mark in that area
- But, federal trademark applications and registrations can affect rights acquired through use



Establishing Common Law Rights Through Use

- Generally, protection begins only after the product or service is available in the market
- Thus, during the time between your decision to use the mark and bringing it to market, someone else can acquire prior rights



Establishing Rights in Descriptive Marks

- Suggestive, arbitrary and fanciful/coined marks:
 - Automatically protectable and registrable
- Descriptive marks, product configuration:
 - Protected and registered only upon a showing of secondary meaning
- Generic marks:
 - Not protectable or registrable



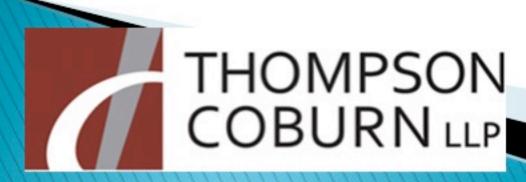
Secondary Meaning

- Consumers recognize the mark as a source indicator, not just a descriptor
- Generally, presumed after 5 years of substantially exclusive and continuous use of a mark



Pros: Benefits of Federal Trademark Registration

- Priority date based on application filing date
- Presumptions of ownership, distinctiveness and validity that facilitate enforcement
- Allows use of the ® symbol
- Provides nationwide protection
- Makes the mark easy to find in a search
- Access to enhanced remedies, including treble damages, and attorney's fees



Cons: Failure to Obtain a Federal Registration

- Priority based on first use in geographic area
- Rights limited to geographic area of use
- No presumption of ownership or distinctiveness, so must prove rights



Trademark Applications

- Applicant
- Drawing of mark
- Description of goods/services
- Filing basis
 - Use vs. Intent-to-use
- Specimen of use
- Signed declaration



Maintaining Trademark Rights

- Continue using mark
- Trademark registrations
 - Declaration of use
 - Between 5th & 6th year after registration
 - Renewal applications
 - Every 10 years after registration



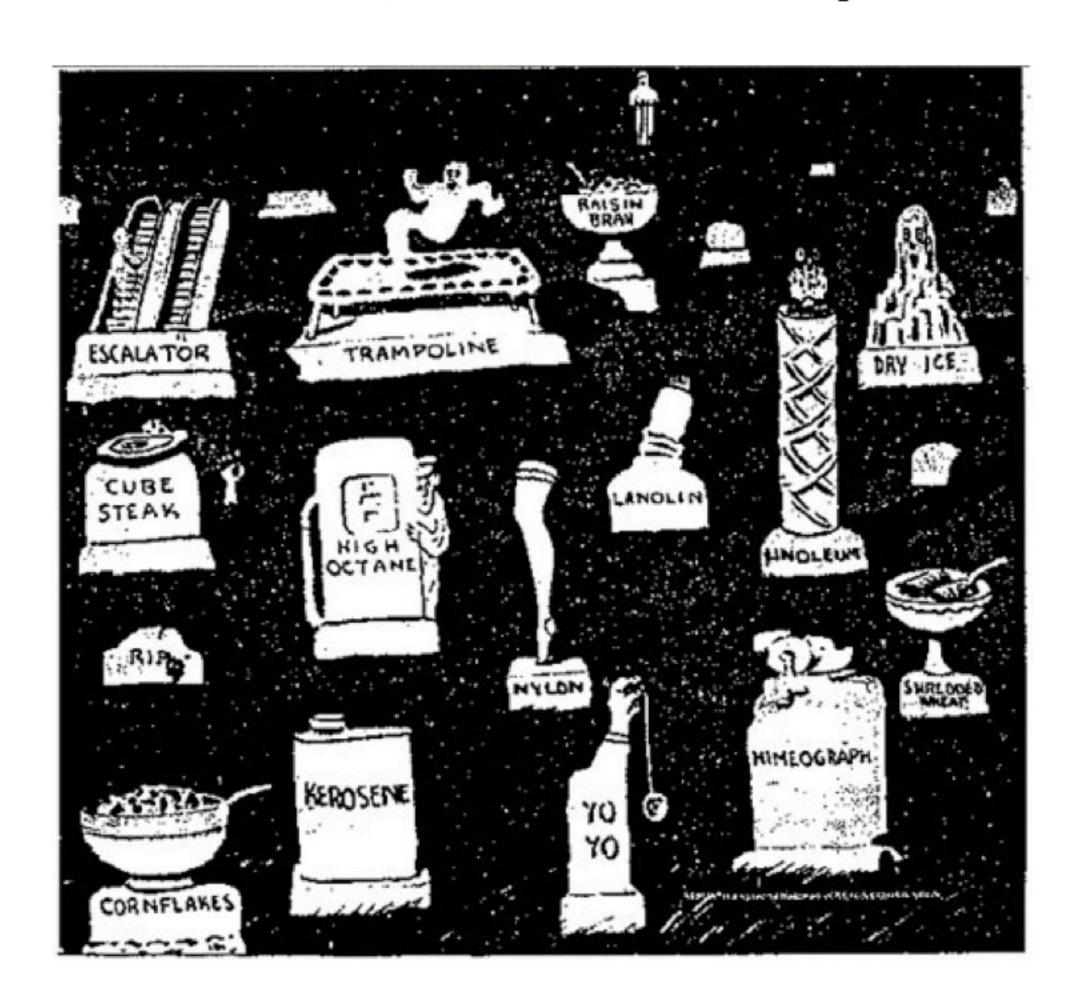
Loss of Trademark Rights

- Abandonment (non-use)
- Genericide
- Improper licensing or assignment
- Failure to police
 - -Third parties' unauthorized use, improper use
- Failure to comply with Trademark Office requirements for registered marks
- Cancellation



Avoiding Genericide

Duce a trademark, not always a trademark.





Proper Use

- Use the TM, SM and ® symbols where appropriate
 - -TM = Trademark
 - -SM = Service mark
 - -® = Registered trademark or service mark
- Distinguish mark from surrounding
 - Quotation marks "Mercedes Benz"
 - Larger-sized print Mercedes Benz
 - All capital letters MERCEDES BENZ
 - Initial capitals Mercedes Benz
 - Distinctive print Mercedes Benz
 - Color Mercedes Benz



Proper Use

- Use the mark followed by a noun:
 - e.g., KLEENEX tissue, Q-TIP cotton swabs



Wrong: Two DELLS

Correct: Two DELL computers

Never possessive

Wrong: POST-IT's quality

Correct: POST-IT note pads' quality













Proper Use

Never a verb Wrong: Xerox a document Correct: Photocopy a document

on a XEROX copier

Proper spelling
 Wrong: COCACOLA
 Correct: Coca-Cola







Enforcement

- First, confirm priority
 - Professional investigation may be required
- Cease & desist letters
 - Risk: declaratory judgment
- Opposition/cancellation proceedings
 - Trademark Trial and Appeal Board
- Lawsuit in federal court



Copyrights



What do we think Copyright is all about?

- Books and writing
- Art work and music
- Mostly, materials created for profit



First Principles

To Promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.

U.S. CONSTITUTION, Art. I, § 8, cl. 8.

Science [Humanities]
Authors
Writings

useful Arts [Science]
Inventors
Discoveries



U.S. Copyright Statute

- Copyright = protection exists in original works of authorship fixed in any tangible medium of expression
- Examples: literature, music, photographs, sculptures, graphic art, choreographic works, dramatic works, architectural works



Copyright Subject Matter – Originality in Expression

- Originality is required
- Some works are so short, utilitarian or lacking in creativity that they do not quality for protection
 - Examples:
 - Titles
 - Typefaces
 - Forms
 - Factual Compilations



Copyright Subject Matter – Originality in *Expression*

- Idea/Expression Distinction
 - Creative expression is copyrightable
 - Ideas are not
- Other things that are not copyrightable:
 - procedures, processes, systems, methods of operation, concepts, etc.



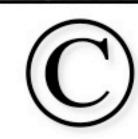
Copyright subject matter – the Idea/Expression distinction

An idea -- a lemonade stand



An expression — a creative comic strip







How Copyright Comes into Being – Steps in Obtaining a Copyright

- 1. Fix your expression in a tangible medium a copyright "springs" into existence on creation
 - Write down text
 - Draw or shape your design
 - Take your photograph
 - Record your words or actions



Steps in Obtaining a Copyright

2. (Optional) Use a Copyright Notice

- Copyright © 2014 Kevin M. Kercher
- "All Rights Reserved" if you wish
- You can add further instructions, restrictions or permissions.



Copyright Notice

Letter Edged in Black Press, Inc. v. Public Building Commission of Chicag

320 F.Supp.1303 (N.D. III.1970).

Before 1989 and especially before 1978, a copyright notice was more important

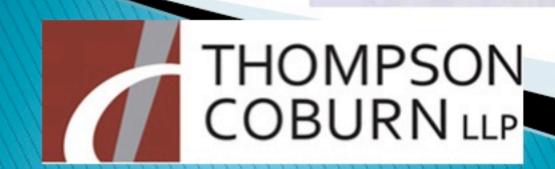
Decided in 1970, this case deals with the copyright status of the monumental sculpture known as the Chicago Picasso, which was designed for the Chicago Civic Center by Pablo Picasso, who transferred his rights in the work "to the people of Chicago." A local company challenged the Public Building Commission policy of requiring royalty payments from commercial sales of photographs and miniatures of the sculpture.

Judge Alexander J. Napoli found that although the monumental sculpture bore a copyright notice there was no notice on the original maquette (model), which had been publicly displayed without any restriction on copying it. Further, uncopyrighted pictures of the maquette were made available upon request.

The decision was that these acts resulted in the loss of copyright through the general publication of the work without copyright notice and that the monumental sculpture was a mere copy, although on a grand scale, of the maquette, which was already in the public domain.

It should be noted that the present copyright law, which took effect in 1978, provides that the public display of a work does not of itself constitute publication. (17 U.S.C. 101).





Steps in Obtaining a Copyright

3. (Optional) Register Your Copyright



- \$35 fee, online form (copyright.gov)
- Significant benefits of timely registration
 - Required to sue for infringement
 - May affect recover of statutory damages



What Copyright Ownership Means -- The Owner's "Rights"

- To reproduce the work
- To prepare derivative works based on the work (adaptations)
- To distribute copies of the work
- To publicly perform the work
- To publicly display the work
- To make digital audio transmissions



Divisibility of Rights

- Rights may be divided and sold
- Examples:
 - In a book contract, the author may grant U.S. publication rights, but save foreign, movie or other rights
 - The grant of newspaper print publication rights does not extend to electronic publication rights



Secondary Rights

- Radio
- Television
- Movie rights
- Foreign rights

- Paper backs
- Stage rights
- Adaptations



Term of Copyright

▶ 1998 Act -- Life of author plus 70 years or 95 years for corporate copyrights



Term of Copyright

DATE OF WORK	PROTECTED FROM	TERM
Created 1-1-78 or after	When work is fixed in tangible medium of expression	Life + 70 years (or if work of corporate authorship, the shorter of 95 years from publication, or 120 years from creation)
Published before 1923	In public domain	None
Published from 1923 - 63	When published with notice ³	28 years + could be renewed for 47 years, now extended by 20 years for a total renewal of 67 years. If not so renewed, now in public domain
Published from 1964 - 77	When published with notice	28 years for first term; now automatic extension of 67 years for second term
Created before 1-1-78 but not published	1-1-78, the effective date of the 1976 Act which eliminated common law copyright	Life + 70 years or 12-31-2002, whichever is greater
Created before 1-1-78 but published between then and 12-31-2002	1-1-78, the effective date of the 1976 Act which eliminated common law copyright	Life + 70 years or 12-31-2047 whichever is greater



The Public Domain

- U.S. government works = public domain
- How other works enter the public domain:
 - Expiration of copyright (if published prior to 1925)
 - Defective or missing copyright notice (if published prior to 1978)
 - Dedication to public domain (e.g., creativecommons.org)



Using Copyrighted Material

- Obtain permission ("rights")
- Infringement
- Fair Use



Obtaining Permissions

- Needed when your use is beyond fair use and work is not in the public domain
- Sometimes not offered at reasonable prices
 - Copyright owner can refuse to grant permission altogether, or can insist on unreasonable prices
- Often difficult or time-consuming to obtain, particularly for multi-media works



What do you do when you can't get a response? Or when the rights owner is far away?

- First, do the best you can
- Reconsider fair use or public domain
 - Arguable fair use or public domain claim, coupled with reasonable efforts to obtain permission, will negate willful infringement
- Search for alternative sources, from the public domain or sources offering permissions (e.g., picture archives)



Infringement

- Requires copying of copyrighted expression
 - Access
 - Substantial similarity
- Independent creation ≠ infringement
- Substantial similarity requires taking of the original author's creative expression (not mere copying of facts, ideas, etc.)
- Infringement may occur in different words or different media than the original



"Substantial Similarity"

- The key test for infringement
- No minimal amount of copying is automatically permissible
- Copying that does not result in a substantial similarity is permissible
 - In other words, you may copy a work but avoid liability for infringement by making so many changes that the works are not substantially similar



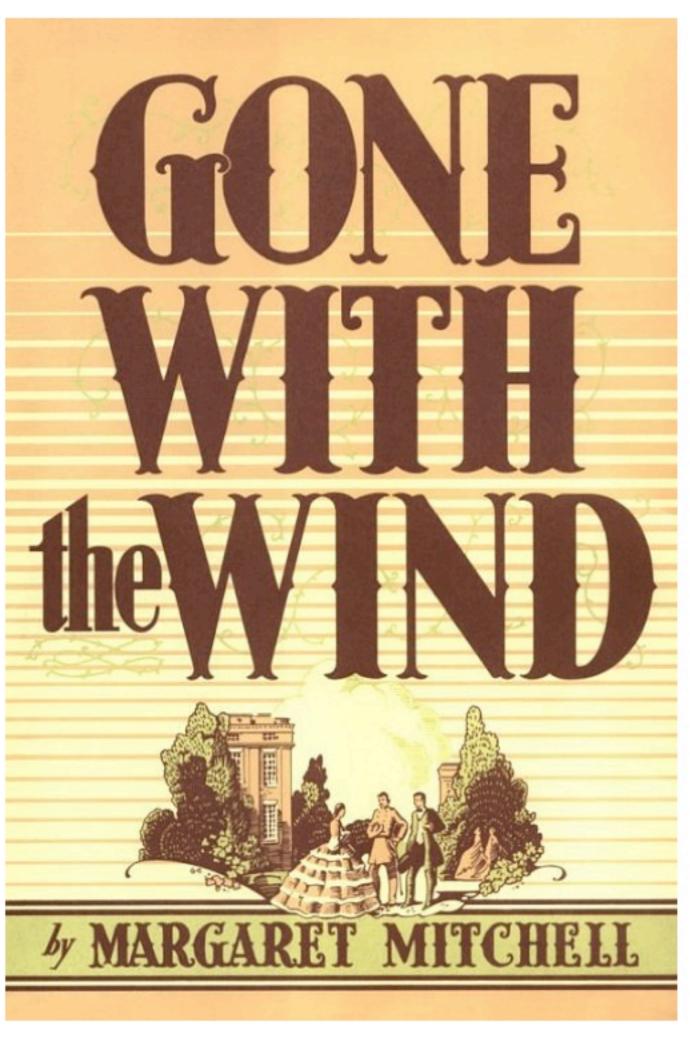
Infringement

- Copyright is a strict liability offense
- Defenses that are **not** available:
 - Lack of intent to infringe
 - Non-commercial use
 - Non-use of the copyrighted work

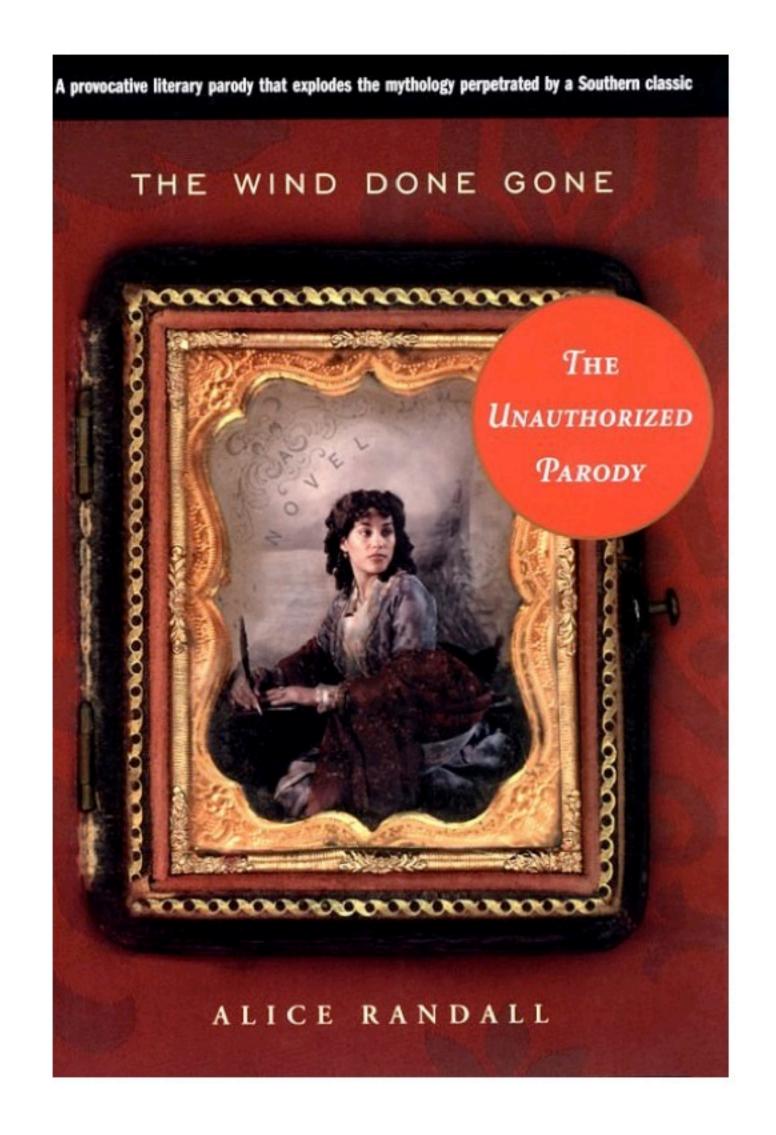


Infringement Injunctions

Courts can order an infringing work removed from the market.



VS.





Infringement

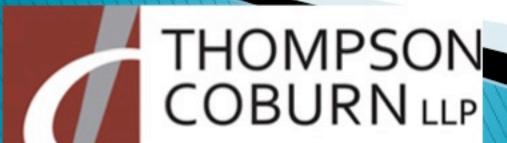




Infringement Injunctions

Works found infringing may have to be destroyed.





Infringement Remedies

- Without timely registration
 - Actual damages (lost profits, royalties)
- With timely registration
 - Statutory (presumed) damages option
 - \$250 for innocent infringement
 - up to \$30,000 for normal infringement
 - up to \$150,000 for willful infringement
 - Attorney's fees for the prevailing party



Fair Use

§ 107. Limitations on exclusive rights: Fair use

Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include—

- the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
 - (2) the nature of the copyrighted work;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.

The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors.



What is Fair Use?

- Copying of copyrighted material for a limited and transformative purpose
- A defense to copyright infringement
- Rationale:
 - The public benefits from the use of copyrighted material
 - The absence of fair use stifles creativity



Limitations of Fair Use

- Most difficult issue in copyright law
- Subjective
- No hard and fast rules
- Fact-specific



Examples of Fair Use

- Quoting from a book in a book review
- Summarizing a medical article in a news report
- Parody: a work that ridicules another work by imitating it in a comic way



Key Fair Use Considerations

- Research, educational and journalistic purposes
- Extent to which the commercial market of the original work is affected
 - Especially if your work may be a substitute
- Transformative value of the second work
- Spontaneity or regularity of use

