



# Knowledge-Based Capital and the Patent Marketplace

Professor Colleen Chien

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# What's the Value of a Patent Asset?

PRINCETON UNIVERSITY

## Research Technology Licensing

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#### **Alimta: Fundamental science, fundamental benefits**

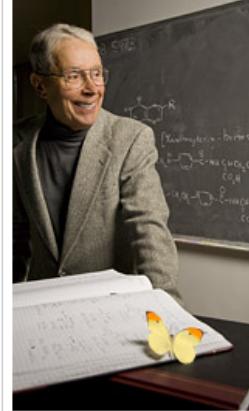
Posted Nov 18, 2011 By Catherine Zandonella [Share](#)

The story of Alimta® highlights how university research can yield benefits to human health and society while enhancing revenue for a major pharmaceutical company.

Alimta® is a drug approved for the treatment of certain types of cancer. The drug is based on ground-breaking research by Princeton University's Edward C. Taylor, the A. Barton Hepburn Professor of Organic Chemistry Emeritus, in collaboration with Eli Lilly & Co.

Eli Lilly & Co. reported worldwide sales of Alimta® of **\$1.82 billion** for the first nine months of 2011, according to Lilly's third-quarter SEC filing.

Yet this cancer drug, which has touched the lives of so many cancer sufferers, would never have been developed if not for the creative brilliance of Princeton's Taylor, who first began to study its biological mechanism while a student in 1946.



# Vehicle of Technology Transfer (TTO)

# What's the Value of a Patent Asset?

**WIPO**  **RESOURCES**

WORLD INTELLECTUAL PROPERTY ORGANIZATION

ABOUT WIPO    IP SERVICES    PROGRAM ACTIVITIES    **RESOURCES**    NEWS & EVENTS

Home > Resources > WIPO Handbook (Standards)

## WIPO HANDBOOK (STANDARDS)

Introduction  
International Cooperation  
WIPO Standards  
PCT Min. Documentation  
International  
Classifications  
IP Information  
Examples & IPO Practices  
Terms & Abbreviations

## RELATED LINKS

Committee on WIPO  
Standards (CWS)  
WIPO GOLD  
WIPOSTAD

## List of WIPO Standards, Recommendations and Guidelines

(Part 3 of the *Handbook on Industrial Property Information and Documentation*)

All documents listed below are in PDF format. Most of the PDF files are tagged for accessibility.

- Group (a): [Standards of a general Nature, common to Information and Documentation](#)
- Group (b): [Standards relating to Patent Information and Documentation](#)
- Group (c): [Standards relating to Trademark Information and Documentation](#)
- Group (d): [Standards relating to Industrial Design Information and Documentation](#)

### **Standards of a general nature, common to information and documentation**

- Standard ST.2: Manner for designating calendar dates (May 1997) [\[PDF\]](#)
- Standard ST.3: Two-letter codes for the representation of states, other entities and organizations (November 2011) [\[PDF\]](#)
- Standard ST.13: Numbering of applications for IPRs (February 2008) [\[PDF\]](#)
- Standard ST.96: Recommendation for the processing of Industrial Property information using XML (May 2012) [\[PDF\]](#) 

### **Standards relating to Patent Information and Documentation**

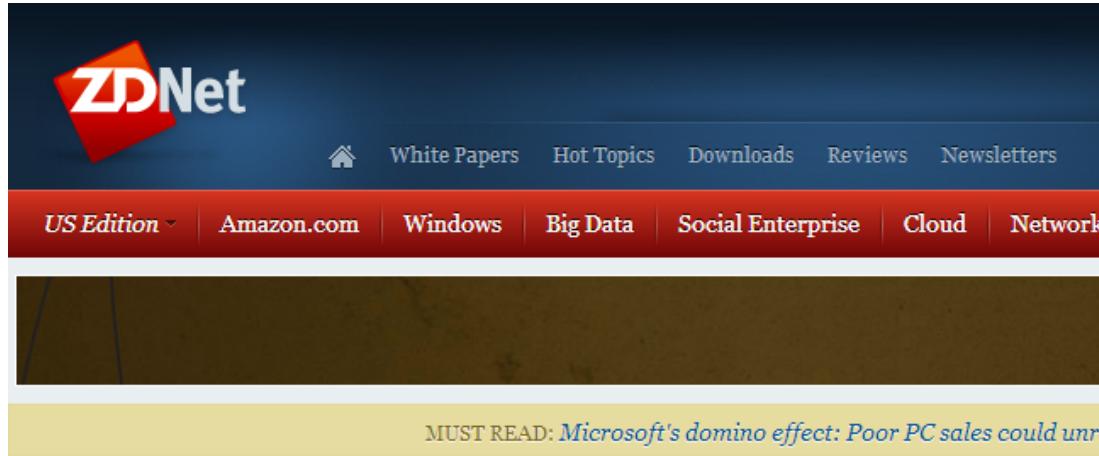
# Facilitator of Technology Sharing (Standard)

# What's the Value of a Patent Asset?



## Protection, Deterrence

# What's the Value of a Patent Asset?



The screenshot shows the ZDNet website interface. The header includes the ZDNet logo, a navigation bar with links to Home, White Papers, Hot Topics, Downloads, Reviews, and Newsletters, and a secondary navigation bar with links to US Edition, Amazon.com, Windows, Big Data, Social Enterprise, Cloud, and Networks. Below the navigation is a large, dark image of a computer monitor. At the bottom of the page, a yellow banner reads "MUST READ: Microsoft's domino effect: Poor PC sales could unra...".

Topic: [Security](#)

Follow via: [!\[\]\(bd1a142de767a21e5362c595f844a4ff\_img.jpg\)](#) [!\[\]\(d4257ae6a3e163e6d467b3eb87960fa1\_img.jpg\)](#)

## Wowza! Google acquires Motorola Mobility in defensive move

**Summary:** Google announced that it will acquire Motorola Mobility for about \$12.5 billion in a move to "protect Android from anti-competitive threats from Microsoft, Apple and other companies."



By Jason D. O'Grady for The Apple Core | August 15, 2011 -- 08:00 GMT (01:00 PDT)

[!\[\]\(0b5e7e25e8775f7e7e80906ada4f0021\_img.jpg\) Follow @jasonogrady](#)

## Protection, Deterrence

# What's the Value of a Patent Asset?



*Lodsys v. Rovio*

**Exclusionary Value (PAE)**

# What's the Value of a Patent Asset?

THE iECONOMY | *Part 3: Protecting Profits*

## How Apple Sidesteps Billions in Taxes



David Calvert for The New York Times

Braeburn Capital, an Apple subsidiary in Reno, Nev., manages and invests the company's cash. Nevada has a corporate tax rate of zero, as opposed to the 8.84 percent levied in California, where Apple has its headquarters.

By CHARLES DUHIGG and DAVID KOCIENIEWSKI  
Published: April 28, 2012 |  1370 Comments

RENO, Nev. — [Apple](#), the world's most profitable technology company, doesn't design iPhones here. It doesn't run AppleCare

 FACEBOOK

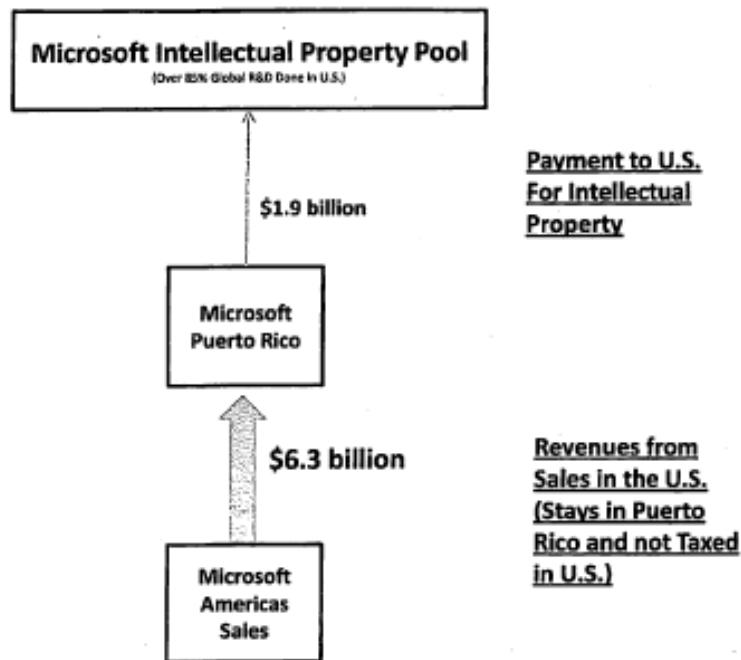
 TWITTER

## Vehicle of Transfer Pricing

# What's the Value of a Patent Asset?

## 2011 Microsoft Intellectual Property Payments (Puerto Rico)

Permanent Subcommittee on Investigations  
EXHIBIT #4



Prepared by the U.S. Permanent Subcommittee on Investigations, September 2012

## Vehicle of Transfer Pricing

# What's the Value of a Patent Asset?

**It depends on the context**

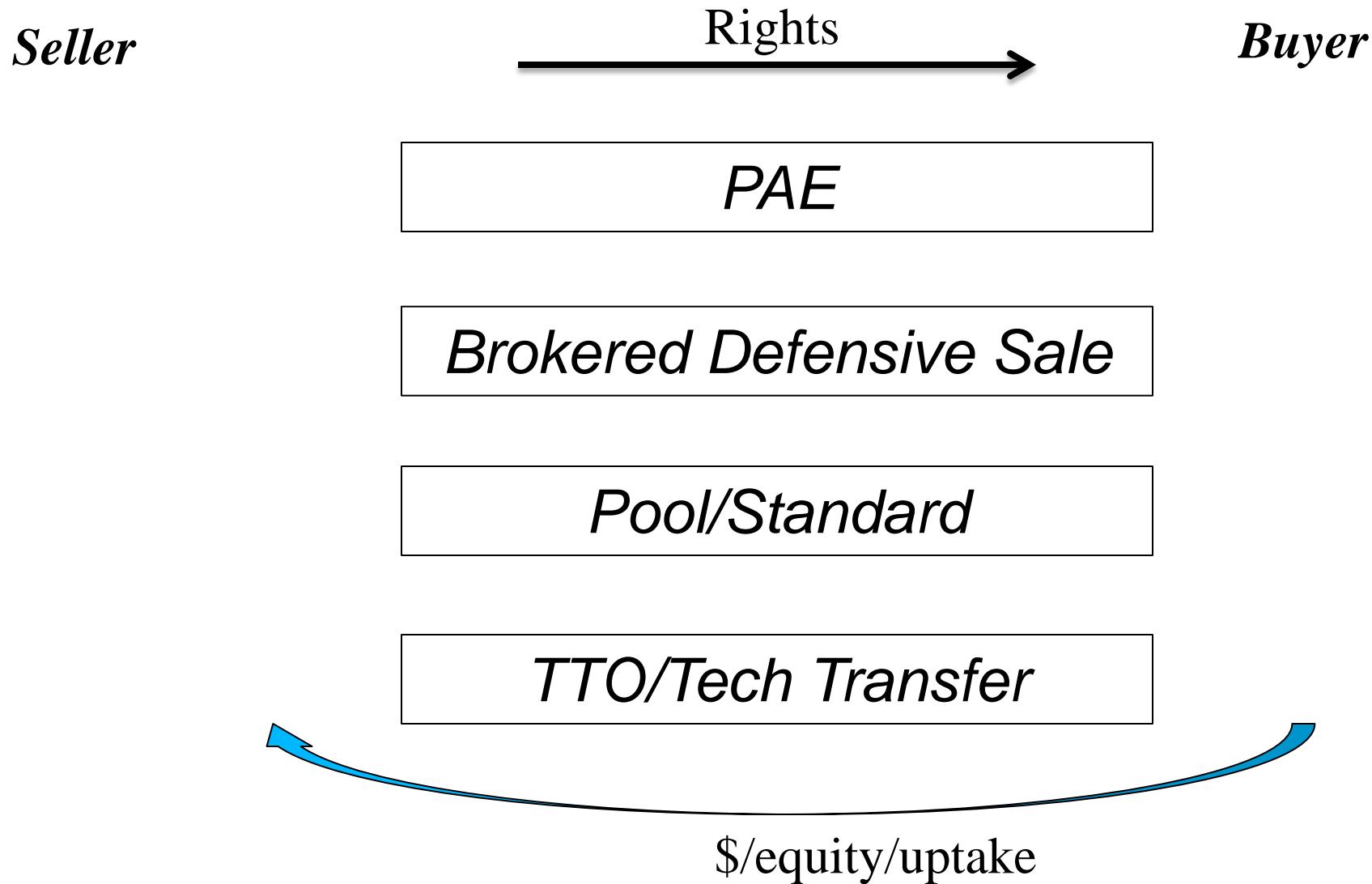
# Key Questions

***What are the contexts?***

***What are the private and social values of transfers?***

***What are the implications for policy design?  
For governments and the private sector?***

# What are the contexts of patent transfers?



# What are the contexts of patent transfers?

*Seller*

Rights

*Buyer*

*PAE*

*Brokered Defensive Sale*

*Pool/Standard*

*TTO/Tech Transfer*

*\$/equity/uptake*



# What are the private and social value of transfers?

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**Alimta: Fundamental science, fundamental benefits**  
*Posted Nov 18, 2011 By Catherine Zandonella*

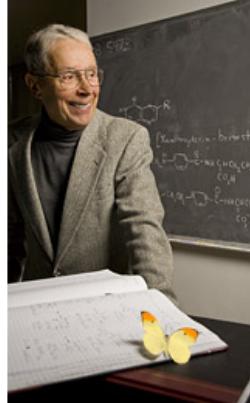
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# What are the contexts of patent transfers?

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Rights

*Buyer*

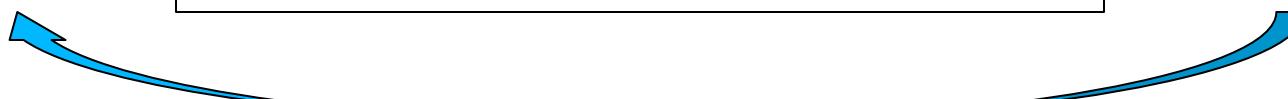
*PAE*

*Brokered Defensive Sale*

*Pool/Standard*

*TTO/Tech Transfer*

*\$/equity/uptake*



# Many infringed patents, many possible enforcers



**~250K patents cover a smartphone**

# Many infringed patents, many enforcers, many lawsuits?



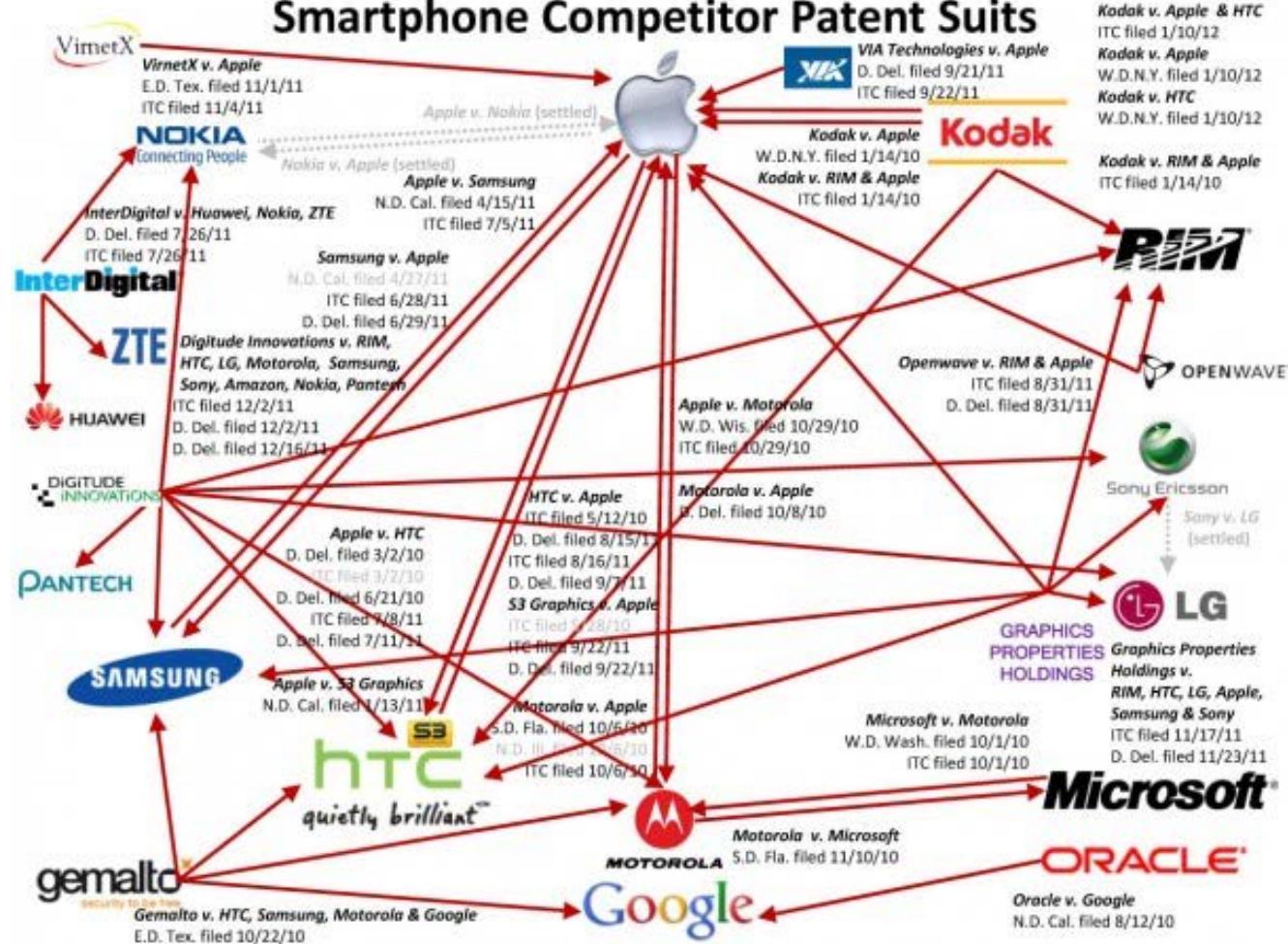
Traditionally Not...

Obstacles to Assertion

1. Counterassertion
2. Disruption
3. Cost
4. Reputation

*e.g. Apple v. Motorola spawns...*

## Smartphone Competitor Patent Suits



# Patent Assertion Entity (Troll) = efficient provider of patent enforcement

An entity focused on assertion of patents rather than technology

- Does not manufacture
- Does not sell products
- Not a startup

*Vernetix (VHC) is “a tiny company with a handful of patents and little or no ongoing R&D is worth billions of dollars.” – Seekingalpha.com*



REUTERS

EDITION: U.S. ▾

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PRESS RELEASE:

## Speculation In The Patent Litigation Segment: Seeking Out The Next Big Stock Movers

\* Reuters is not responsible for the content in this press release.

Wed Oct 31, 2012 7:01am EDT

Scott Matusow  
Contributor

There has been a lot of bu  
(GOOG). Google's ad pla  
Filtering Technology with

***“VirnetX stock  
is up 700% in  
three years”***

Google  
ancy

# Many infringed patents, many infringers



What Apple has to worry about when it sues...

1. Counterassertion
2. Disruption
3. Cost
4. Reputation

Apple v. Google

What Trolls have to worry about when they sue...

1. Counterassertion
2. Disruption
3. Cost
4. Reputation

Infinity Search LLC v. Google

# Many infringed patents, many infringers

## *Troll Tactics that Drive down the cost of assertion*

- Sue many Ds
- Same patent
- Contingent fee lawyers
- Friendly venues

## Economies of Scale

What Trolls have to worry about when they sue...

1. ~~Counterassertion~~
2. ~~Disruption~~
3. ~~Cost~~
4. ~~Reputation~~

Infinity Search LLC v.  
Google



**Don't Call them Trolls**

## *Troll Tactics that Drive down the cost of assertion*

- Sue many Ds
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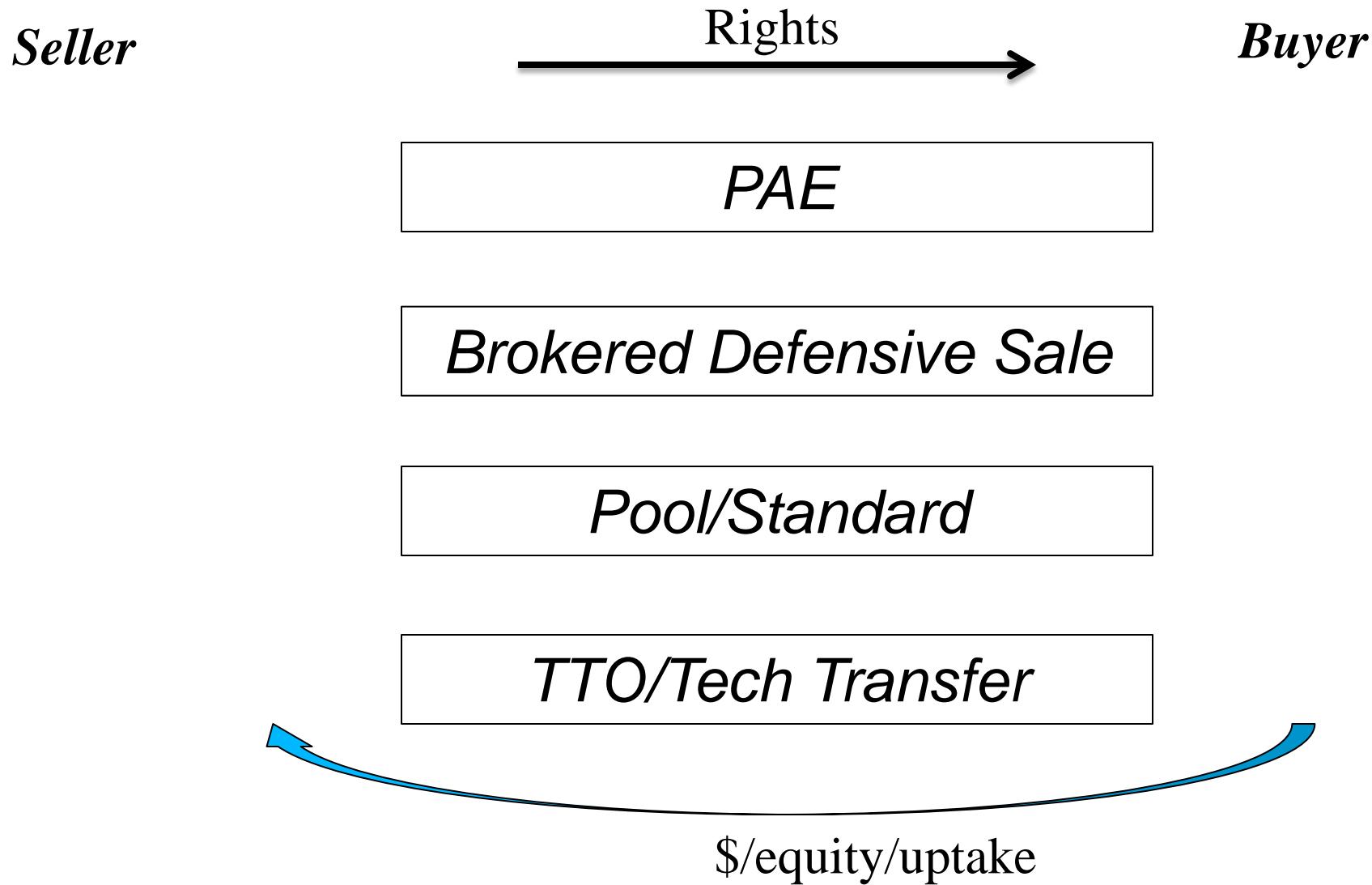
## Economies of Scale

What Trolls have to worry about when they sue...

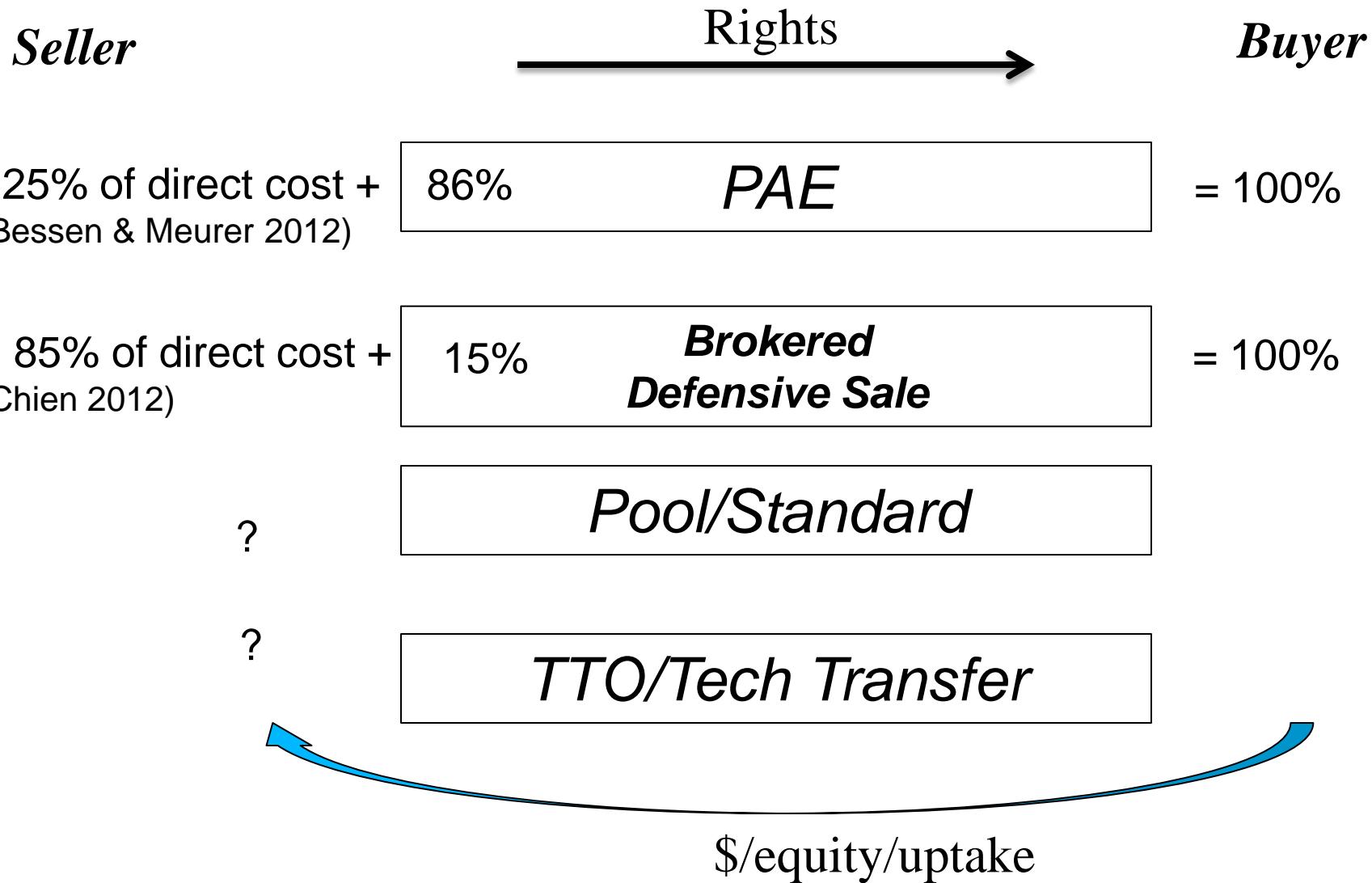
1. ~~Counterassertion~~
2. ~~Disruption~~
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Infinity Search LLC v.  
Google

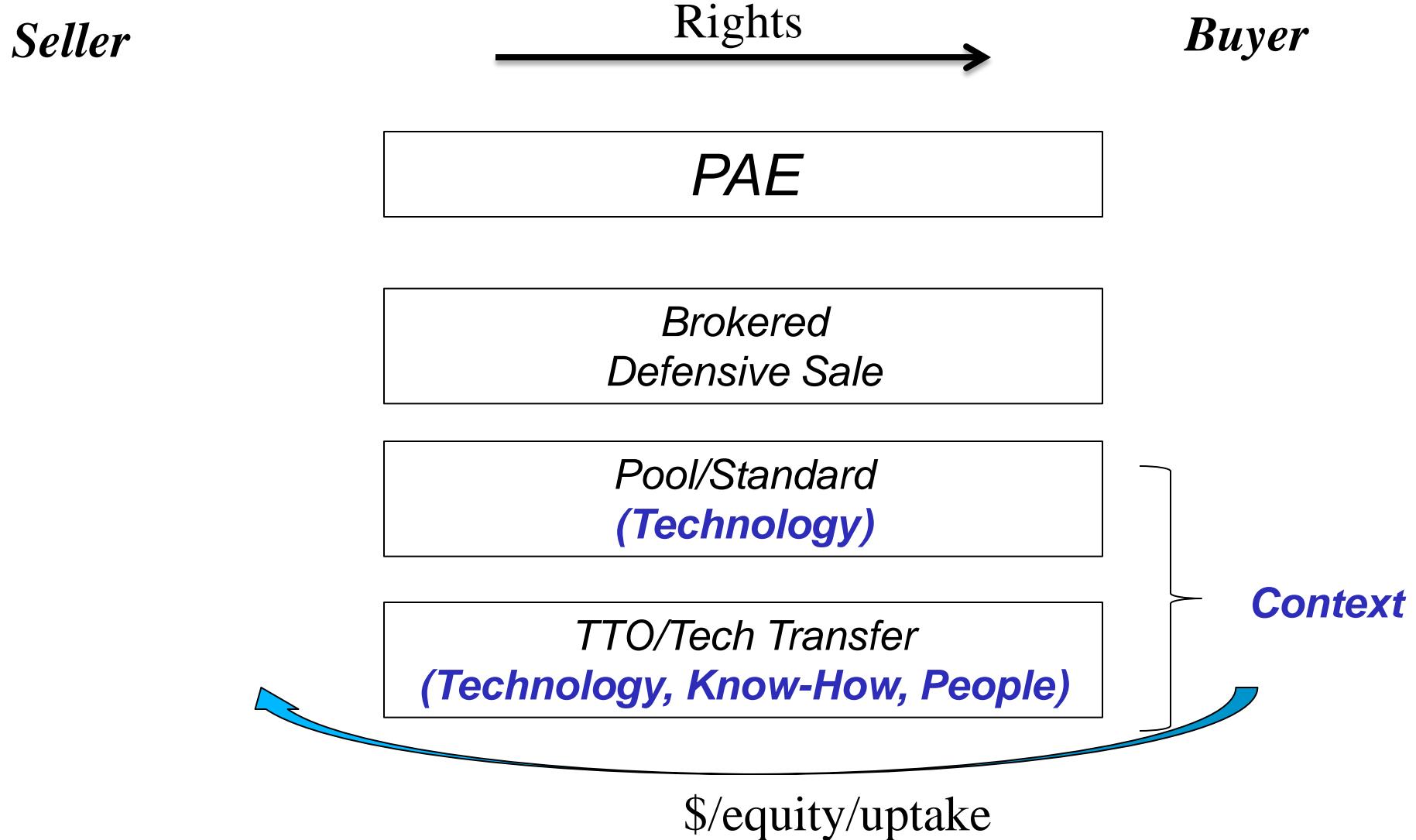
# What are the contexts of patent assets?



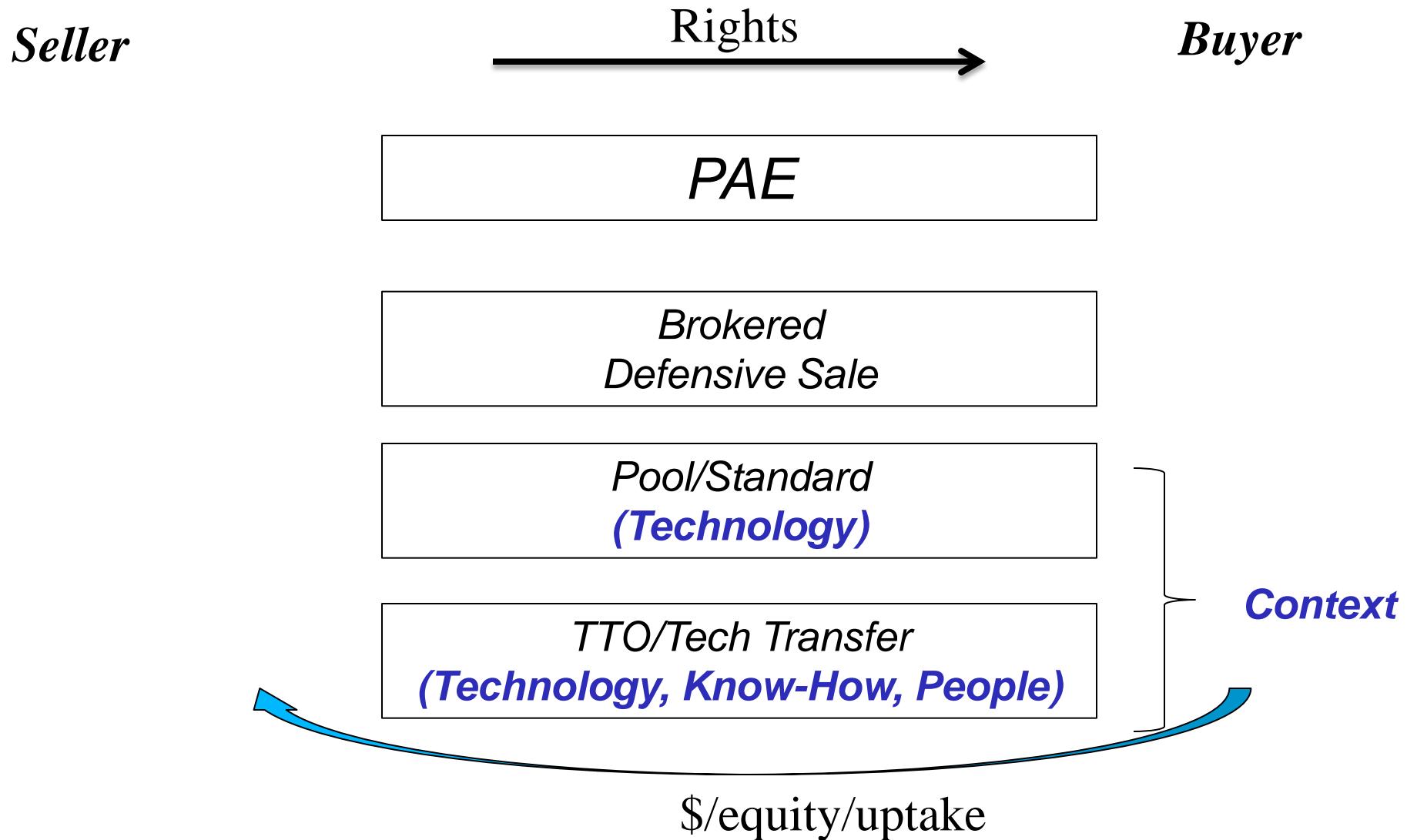
# Social v. private costs: Not all transfers are created equal



# Not all transfers are created equal



# Policy Design: How do we encourage socially desirable transfers? Should we?



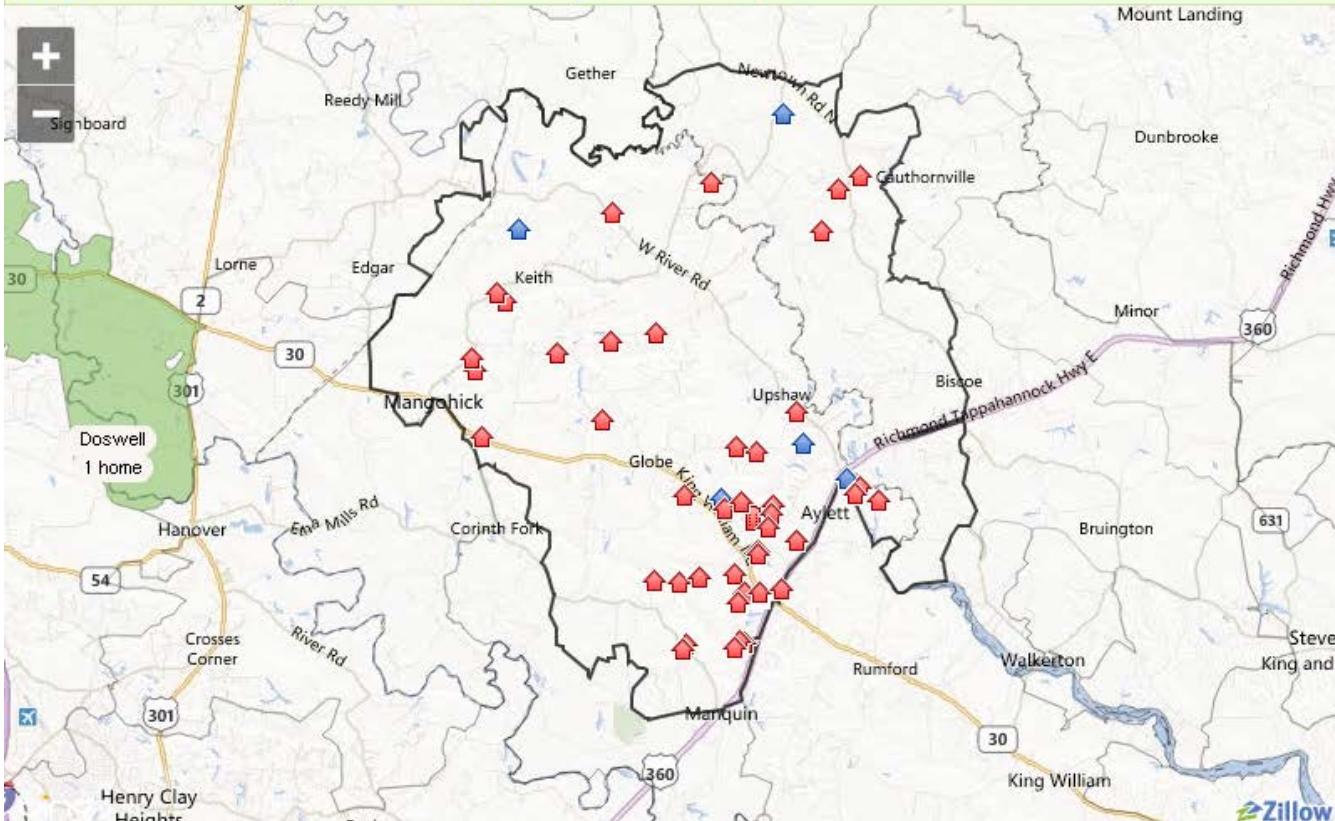
# Policy Design: How do we encourage socially desirable transfers? Should we?

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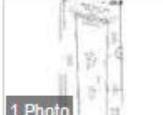


**Aylett**

84 results. 24 unmapped.

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**4150 Smokey Rd, Aylett, VA**  
Lot/Land For Sale: \$65,00  
Zestimate®: --  
Est. Mortgage: \$281/mo  
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 **1 Photo**

**359 Nottoway Ln, King Willia**  
House For Sale: \$115,000  
Zestimate®: \$171,434  
Est. Mortgage: \$498/mo  
[See current rates](#)

 **10 Photos**

**4708 Spring Cottage Rd, Nev**  
House For Sale: \$2,200,00  
Zestimate®: \$284,806  
Est. Mortgage: \$9,521/mo  
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 **13 Photos**

**Manquin, Manquin, VA**  
House For Sale: \$275,000  
Zestimate®: \$258,255  
Est. Mortgage: \$1,190/mo  
[See current rates](#)  
Availability: now



# Example traits: Intrinsic traits

**(12) United States Patent**  
**Zadesky et al.**

**(54) TOUCH PAD HANDHELD DEVICE**

**(75) Inventors:** Stephen Paul Zadesky, San Carlos, CA (US); Tang Yew Tan, San Francisco, CA (US)

**(73) Assignee:** Apple Computer, Inc., Cupertino, CA (US)

**(\*) Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 117 days.

**(21) Appl. No.:** 10/188,182

**(22) Filed:** Jul. 1, 2002

**(65) Prior Publication Data**

US 2003/0076306 A1 Apr. 24, 2003

**Related U.S. Application Data**

**(60) Provisional application No. 60/359,551, filed on Feb. 25, 2002, provisional application No. 60/346,237, filed on Oct. 22, 2001.**

# Example traits: Acquired traits (Chien 2011)

## Issuance   Ownership Investment   Financing   Citation Enforcement

(12) **United States Patent**  
Zadecky et al.

(54) **TOUCH PAD HANDHELD DEVICE**

(75) Inventors: Stephen Paul Zadecky, San Carlos, CA  
(US); Tang Yew Tan, San Francisco, CA (US)

(73) Assignee: Apple Computer, Inc., Cupertino, CA  
(US)

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Related U.S. Application Data  
(60) Provisional application No. 60/359,551, filed on Feb. 25, 2002, provisional application No. 60/346,237, filed on Oct. 22, 2001.

Transfer

Maintain

Securitize

Forward Citation

Litigate

Size Change

Reexamine

1 %

Intrinsic  
Traits

Acquired  
Traits

# Traits internal and external to the patent system

**(The Promise of Big Data )**

**What's being searched**

**What technology terms are trending**

**Patent attorney trends**

**Public disclosures**

**(Call me if you are interested!)**

# Traits internal and external to the patent system

1911579

Citations (1) Footnotes (189)

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## Predicting Patent Litigation

Colleen V. Chien  
Santa Clara University - School of Law

August 17, 2011

*Texas Law Review*, Vol. 90, p. 283, 2011  
*Santa Clara Univ. Legal Studies Research Paper No. 17-11*

disruptive, unpredictable, and costly. The inability to anticipate patent litigation makes it practically uninsurable, exposes companies to significant financial risk, and motivates them to accumulate patents in order to ward off litigation. This article confronts this systemic problem by examining the factors that

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# Policy design: should/how do we encourage socially desirable transfers?

# Context-Driven Information – Defensive Context Example

The Ability to Search among patents and readily find..

- In-force patents (maintenance fee and invalidation)
- The owner of a patent
- Intrinsic and acquired traits
- Relevant patents

→ A solution to the sorting problem, that leverages existing and encourages further disclosure of context information

# How to Do This – Leveraging Existing Data

**Consolidate multiple patent information databases**

**Make patents searchable by:**

**- whether in-force (here and abroad), various owners of record, types of conveyances, family information (foreign/continuations), etc., litigated or not, who's litigating patents in this area**

**Classify patents according to industry definitions**

# How to Do This – Creation of New Data

## Marking Registry

**Virtual Marking provisions of the AIA**

**Reinvigorate the marking requirement**

**Administrative changes/carrots to encourage disclosure of context data**

## Licensing Registry

**PCT applicants can request that the Int'l Bureau make information available on its PATENTSCOPE website**

# Carrots/Administrative Tweaks for Context Disclosure/Dissemination?

Form PTO-1595 (Rev. 03-11)  
OMB No. 0651-0027 (exp. 03/31/2012)

U.S. DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office

## RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

### 1. Name of conveying party(ies)

Additional name(s) of conveying party(ies) attached?  Yes  No

### 3. Nature of conveyance/Execution Date(s):

Execution Date(s) \_\_\_\_\_

Assignment

Merger

Security Agreement

Change of Name

Joint Research Agreement

Government Interest Assignment

Executive Order 9424, Confirmatory License

Other \_\_\_\_\_

### 2. Name and address of receiving party(ies)

Name: \_\_\_\_\_

Internal Address: \_\_\_\_\_

Street Address: \_\_\_\_\_

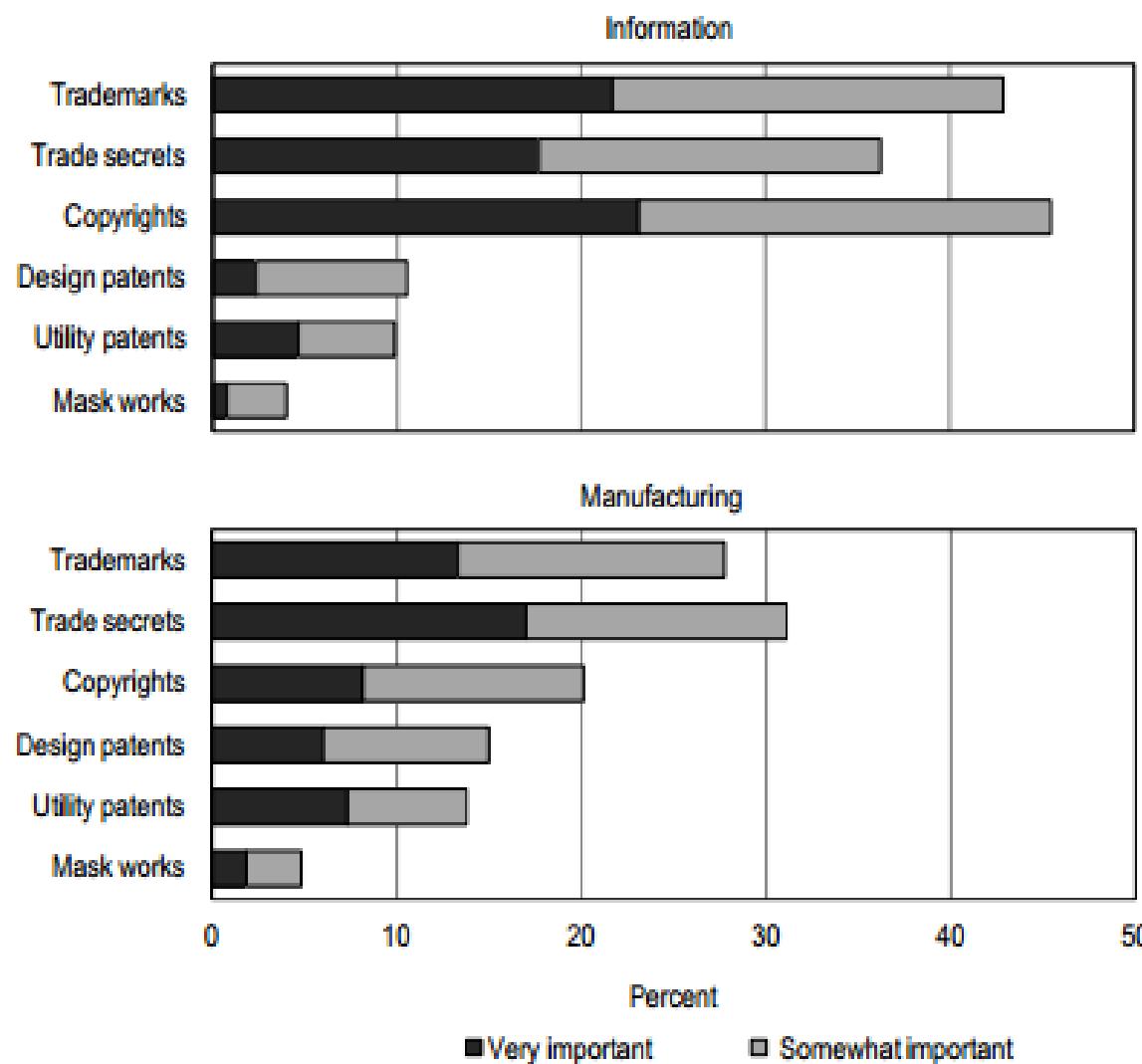
City: \_\_\_\_\_

State: \_\_\_\_\_

Country: \_\_\_\_\_ Zip: \_\_\_\_\_

Additional name(s) & address(es) attached?  Yes  No

# Markets for other IP assets (NSF 2012)



# Policy Design

Who should do what?

What transfers can/should the patent system facilitate?

- Patent rights
- Knowledge
- Technology