

# 11. The strategic role of patents



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# 11. The strategic role of patents

## Outline:

- Strategic management of IP
- Patent trolls



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## **Strategic management of IP (mainly Reitzig 2004):**

- Importance of IP for Fortune 100 firms
- IP management mostly left to specialists (vs. top-level executives)
- Technological advantage through:
  - Technological lead
  - Brand name protection
  - Industry standard
  - Combinations of either



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## **Strategic management of IP (mainly Reitzig 2004):**

### **Motorola example**

- Used to be technological leader in Europe
  - Twofold management approach:
    - Establishment of GSM standard
    - Push of IP and strengthening of IP ownership
- ➔ Competitive advantage



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**Strategic management of IP (mainly Reitzig 2004):**

**Leo pharma (dermatological treatments) example**

- Daivonex – permanent treatment, soon out of patent
  - Daivobet – acute treatment, patent valid for another 17 years
  - Approach: bundling into one single therapeutic approach
- ➔ Competitive advantage



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## **Strategic management of IP (mainly Reitzig 2004):**

### **Bayer AG example**

- Aspirin, patent expired looong time ago
  - But still profitable product
  - Brand name reputation
  - Trademark protection (lasts forever)
  - Idea: shift focus from patent to trademark once patent expire
- ➔ Competitive advantage



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## **Strategic management of IP (mainly Reitzig 2004):**

### **Nokia example**

- Most important asset: interface for cell phones
  - Protected by a combination of different Ips:
    - multiple patents
    - design patent
    - trademark
- (same approach taken by Henkel KGaA)
- ➔ Competitive advantage



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## **Strategic management of IP (mainly Reitzig 2004):**

### **Another Nokia example**

- Nokia does not produce cell-phone components
- But holds patent on e.g. loudspeakers
- Why's that?
  - concentrated loudspeaker manufacturing industry
  - potential hold-up problems (remember “standing on the shoulder of giants”)
  - Nokia's patents a bargaining chip in negotiations
- Things are different in less concentrated industries





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## **Strategic management of IP (mainly Reitzig 2004):**

### **Timing**

- Products w/ short life cycles: grant after life cycle ended
- Secrecy may be a better option



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## Strategic management of IP (mainly Reitzig 2004):

### Switching cost

- More imminent if product is “incumbent”
- Another Novo example: Novo pen:
  - Novo patent on insulin about to expire
  - Innovation: Novo pen, pen w/ insulin that is refilled (like in printer market)
  - Quote from Novo CTO (Reitzig 2004, p. 38): “The most profitable part of the business in this sector is the refill business — selling insulin cartridges that fit the base delivery device.”



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## **Strategic management of IP (mainly Reitzig 2004):**

### **Switching cost**

- Patients may in principle substitute away from Novo insulin but that would involve a full switch (insulin & pen)
- As a health care product full switch unlikely
- ➔ Sustained competitive advantage through bundling



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## Outline:

- Strategic management of IP
- Patent trolls



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- Why do we have IPR?
- IPR today: strategic use (?): patent battles, trolls, sharks (NPEs)
- Today's focus: trolls



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[Home](#) › [News](#) › [Apple v. Samsung: A battle over billions \(roundup\)](#)

## Apple v. Samsung: A battle over billions



[http://news.cnet.com/2702-13579\\_3-1593.html](http://news.cnet.com/2702-13579_3-1593.html)



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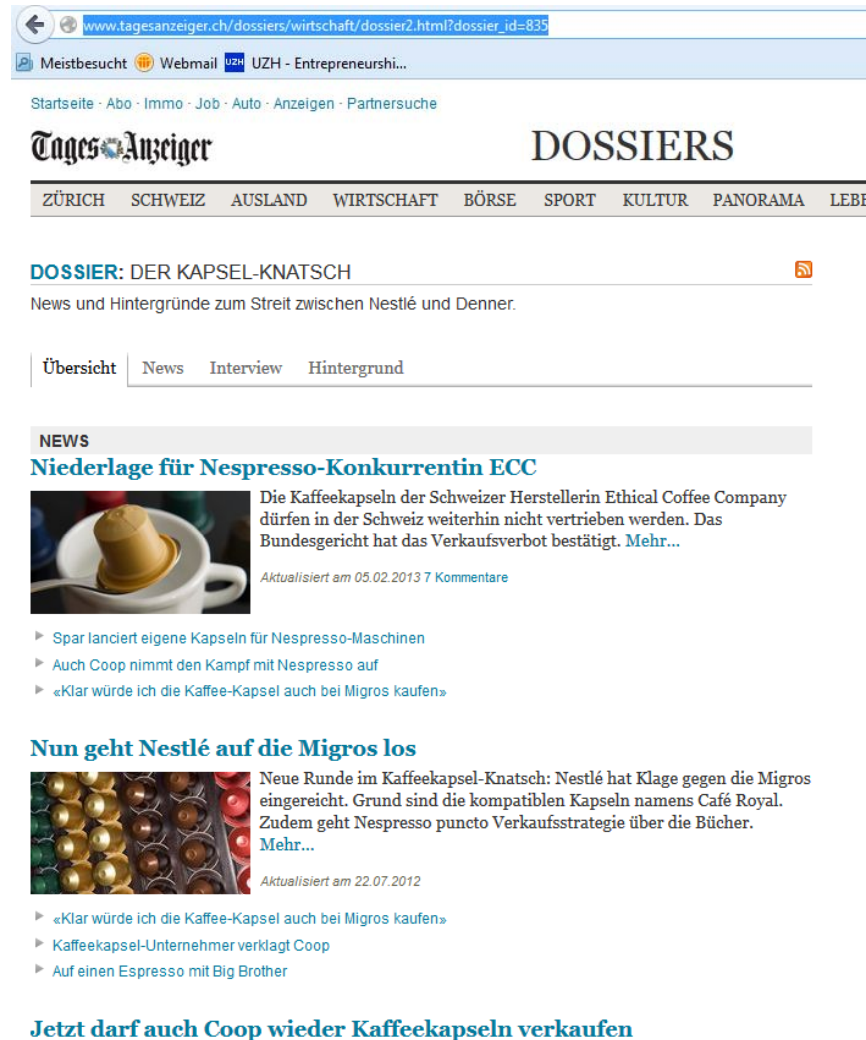
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http://www.tagesanzeiger.ch/dossiers/wirtschaft/dossier2.html?dossier\_id=835




The screenshot shows a web browser window with the URL [www.tagesanzeiger.ch/dossiers/wirtschaft/dossier2.html?dossier\\_id=835](http://www.tagesanzeiger.ch/dossiers/wirtschaft/dossier2.html?dossier_id=835). The page is from the 'TagesAnzeiger' website, specifically the 'DOSSIERS' section. The main article is titled 'DOSSIER: DER KAPSEL-KNATSCH' and discusses the legal dispute between Nestlé and Denner regarding coffee capsules. The article includes a sub-section 'NEWS' with two main items: 'Niederlage für Nespresso-Konkurrentin ECC' and 'Nun geht Nestlé auf die Migros los'. Each item includes a small image, a brief summary, and a list of related links.

Startseite - Abo - Immo - Job - Auto - Anzeigen - Partnersuche

**TagesAnzeiger** DOSSIERS

ZÜRICH SCHWEIZ AUSLAND WIRTSCHAFT BÖRSE SPORT KULTUR PANORAMA LEBE


**DOSSIER: DER KAPSEL-KNATSCH** 

News und Hintergründe zum Streit zwischen Nestlé und Denner.

Übersicht | News | Interview | Hintergrund

**NEWS**


**Niederlage für Nespresso-Konkurrentin ECC**

 Die Kaffeekapseln der Schweizer Herstellerin Ethical Coffee Company dürfen in der Schweiz weiterhin nicht vertrieben werden. Das Bundesgericht hat das Verkaufsverbot bestätigt. [Mehr...](#)

*Aktualisiert am 05.02.2013 7 Kommentare*

- ▶ Spar lanciert eigene Kapseln für Nespresso-Maschinen
- ▶ Auch Coop nimmt den Kampf mit Nespresso auf
- ▶ «Klar würde ich die Kaffee-Kapsel auch bei Migros kaufen»

**Nun geht Nestlé auf die Migros los**

 Neue Runde im Kaffeekapsel-Knatsch: Nestlé hat Klage gegen die Migros eingereicht. Grund sind die kompatiblen Kapseln namens Café Royal. Zudem geht Nespresso puncto Verkaufsstrategie über die Bücher. [Mehr...](#)

*Aktualisiert am 22.07.2012*

- ▶ «Klar würde ich die Kaffee-Kapsel auch bei Migros kaufen»
- ▶ Kaffeekapsel-Unternehmer verklagt Coop
- ▶ Auf einen Espresso mit Big Brother

**Jetzt darf auch Coop wieder Kaffeekapseln verkaufen**



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http://www.blick.ch/news/wirtschaft/jetzt-greift-aldi-schweiz-nespresso-an-id2292959.html

Premiere im Kapselkrieg

## Jetzt greift Aldi Schweiz Nespresso an

Publiziert: 05.05.2013 · Von Ulrich Rotzinger

31 Kommentare · Drucken · E-Mail



Aldi Suisse geht in die Kapsel-Offensive: Ab Mitte Mai Verkauf von Nespresso-Klonen. (ING)

Das hat Aldi bisher noch in keinem anderen Land gemacht: In der Schweiz Jetzt greift der Harddiscounter jetzt Nestlé mit billigen Kaffee-Kapsel-Kopien für Nespresso-Maschinen an.

Empfehlen 6 +1 0 Twittern 2

### MEHR ZUM THEMA

» **Vertrauen in die eigene Kapsel** Jetzt brüht auch

Der Discounter Aldi Suisse bläst zum Angriff auf Nestlé. Mitte Mai nimmt die Billigkette Nespresso-Klone ins Sortiment seiner 163 Läden. Die Schweiz ist das erste Aldi-Land überhaupt, in welchem der Harddiscounter Kaffee kapseln verkauft, die in Nespresso-Maschinen passen.



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- Key problem: cumulativeness in ICT



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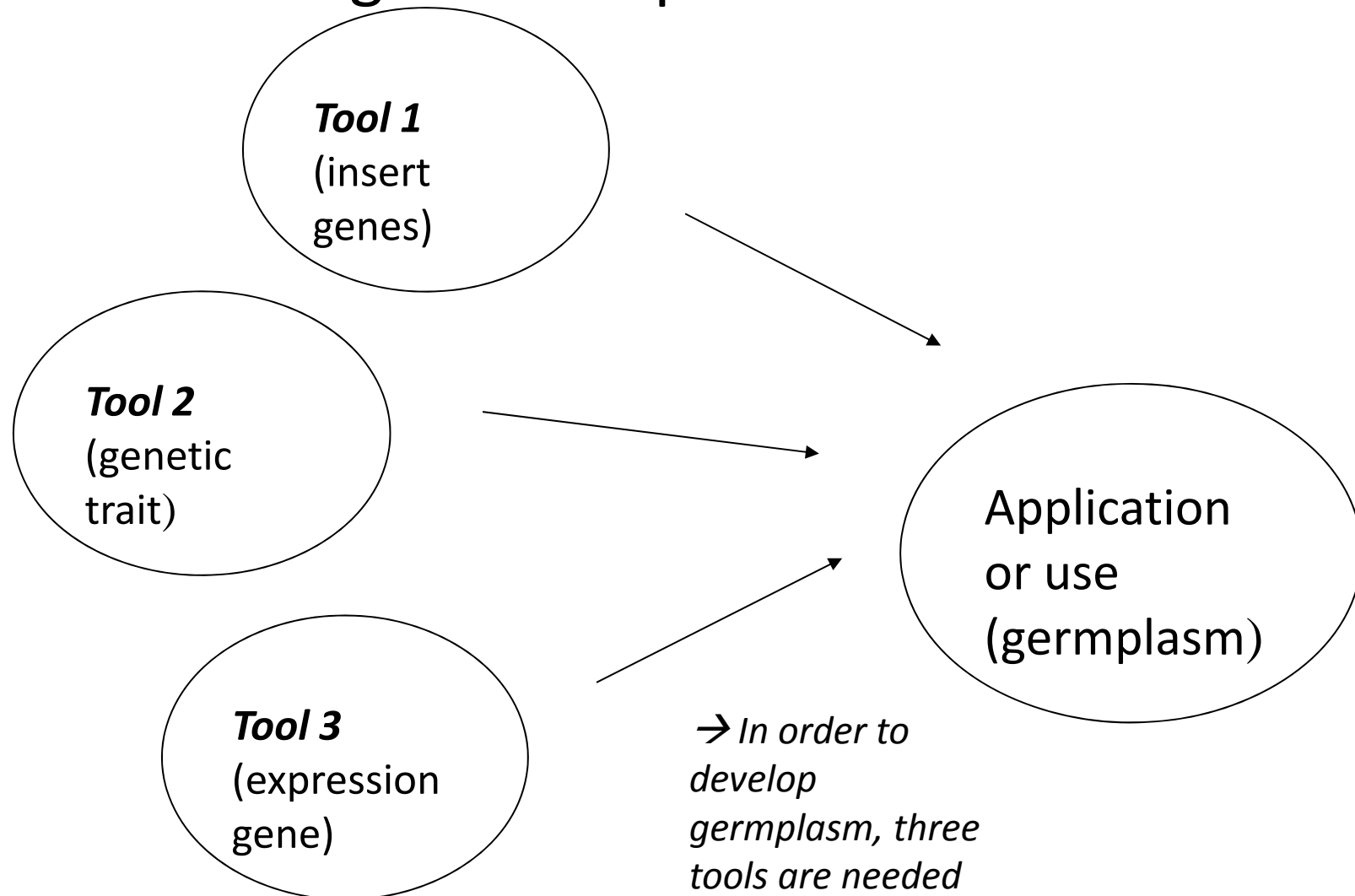
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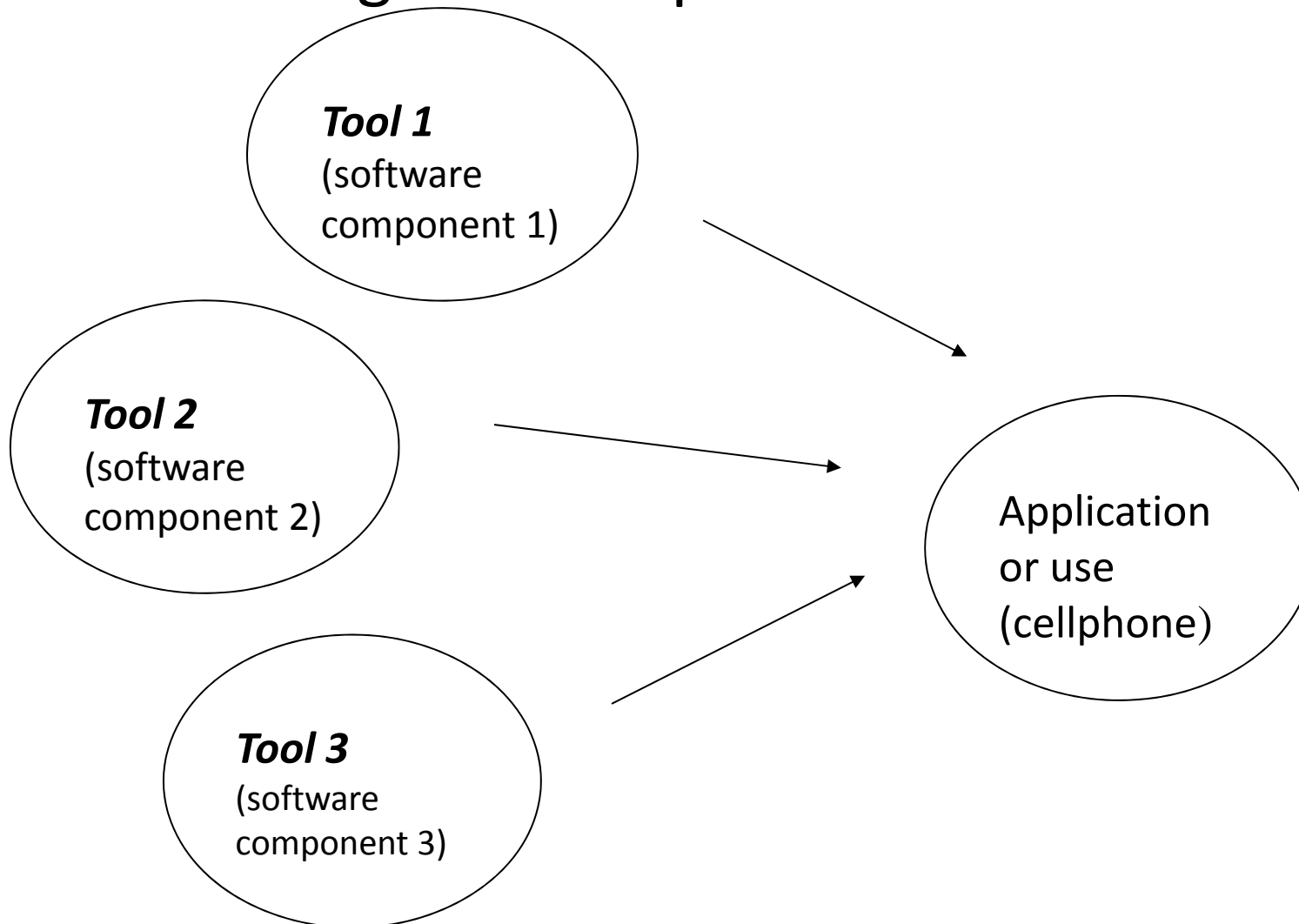
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## Patent trolls

- Key problem: cumulateness in ICT
- Firms that make money from enforcing infringed patents
- Money from damage payments (court order) or settlement payments (outside courts)
- Sole interest in exclusion rights, not in the knowledge
- Nice NPE feature: may helped financially constrained inventors to enforce patents
- Why they work: courts overcompensate NPEs
- NPE patent transactions take place on market for patents, not for technologies



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## Patent trolls

- But: many see them as obstacle to innovation in cumulative high-tech industries
- Peter Halkjær, senior IP manager, Nokia (Reitzig et al. 2007), p. 136:

“From an IP management perspective, patent sharks currently pose one of the great challenges to our firm”.

- Troll business is profitable & legal
- “Being infringed” is the troll’s best option
- Reitzig et al. (2007), p. 142: “It is both the patent law and its interpretation by the courts that forms their basis of existence.



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“The operations of patent sharks sometimes compel an inventor to obtain patents for articles which are never meant to be placed on the market. A fellow often gets up a machine, and somebody else comes along, and by getting patents through for certain parts, can give the inventor a great deal of bother and make him pay well, even if the inventor gets control of it ”  
(Thomas Edison, 1898).

Reitzig et al. 2007, p. 134



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“patent sharks or trolls [or NPEs] as individuals or firms that seek to generate profits mainly or exclusively from licensing or selling their [. . .] patented technology to a manufacturing firm that, at the point in time when fees are claimed, already infringes on the shark’s patent and is therefore under particular pressure to reach an agreement with the shark.”

Reitzig et al. 2007, p. 137



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**theguardian**

## Patent trolls in Piney Woods make mischief for innovators everywhere

*The small town of Marshall (population: less than 25,000) in the east Texas part of the Piney Woods forest – famous for wild hog hunting – is the self-proclaimed "Pottery Capital of the World". More recently, however, it has become best known for lawsuits brought by "patent trolls" – companies that apply for or buy up catch-all patents (often from companies forced to liquidate their assets), hunt down other companies with patents that may have a degree of crossover with theirs – and then sue.*

<http://www.guardian.co.uk/law/2011/nov/09/patent-trolls-make-mischief>



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## Research in Motion

<http://www.techdirt.com/articles/20120715/15122919703/rim-loses-another-patent-case-told-to-pay-1472-million.shtml>

[http://en.wikipedia.org/wiki/NTP,\\_Inc.](http://en.wikipedia.org/wiki/NTP,_Inc.)

March 2006: RIM pays fee of US\$ 612.5 million to NTP in an out-of-court settlement; at time of the settlement, all five pertaining patents had already been preliminarily invalidated by the USPTO; [http://news.cnet.com/BlackBerry-saved/2100-1047\\_3-6045880.html?tag=mncol;txt](http://news.cnet.com/BlackBerry-saved/2100-1047_3-6045880.html?tag=mncol;txt).

Fischer & Henkel 2012, FN 1



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## Remember from Ch. 7 Litigation & enforcement:

How should monetary damages be established?

- Two objectives:
  - Deterrence
  - Compensation
- Two main theories of damages:
  - Lost profit (make the infringed party whole)
  - Unjust enrichment (take away the illegal gains)
- In addition: ordinary licensing fees; “reasonable royalty”;  
problem: cost structure disclosure (cost of inventing around is threat point!)

Remedies “should do justice”. Do they?



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Reitzig et al. (2007), pp. 134-154:

The above assumes a “credulous” patent holder who has to fear a deliberate infringer. But what if, conversely, R&D-intensive firms start to fear the existence of patent-holding individuals who have ulterior motives of free-riding on a product’s core invention? As the introductory quotation shows, the great Thomas Edison recognized already a hundred years ago that a manufacturer who does not hold the rights to each and every invention embodied in its product may face harassment from such individuals.



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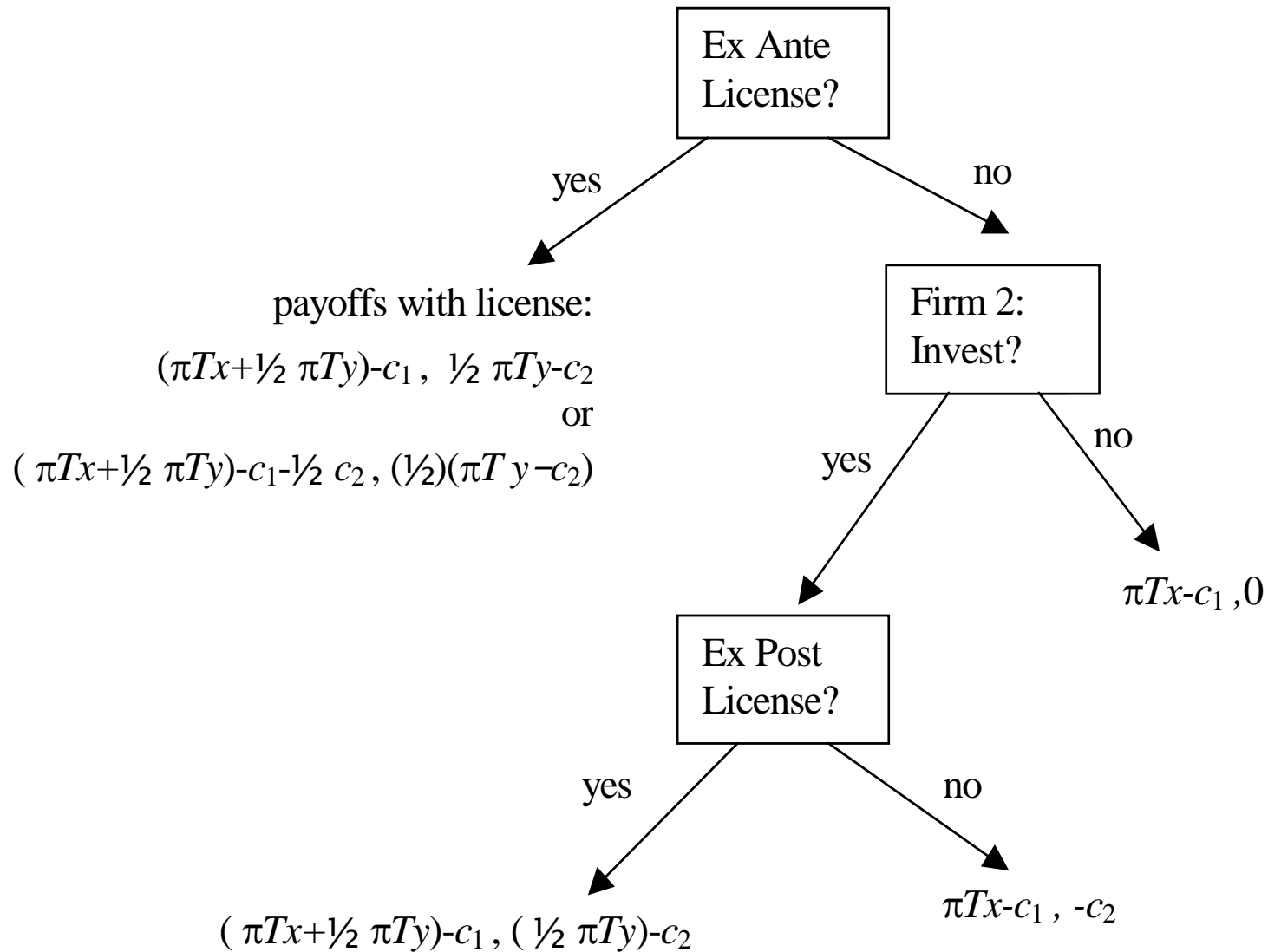
Second, the legal environment affects NPEs' returns to enforcing patents by setting the rules for damage awards and injunctions. Infringement damages are calculated, in the majority of cases, as "reasonable royalties," which for example the Directive 2004/48/EC (§13.1b) of the European Parliament on the enforcement of intellectual property rights defines as "the amount of royalties or fees which would have been due if the infringer had requested authorization to use the intellectual property right in question." However, in calculating such *ex post* damages, courts typically do not—although theoretically they should—take into account the hypothetical cost of replacing the infringed technology with a non-infringing alternative *ex ante*, i.e., before lock-in occurred (Reitzig et al., 2007). Furthermore, Lemley and Shapiro (2007;

Fischer & Henkel (2012), p. 1521

But: what if the infringer didn't know about the patented invention?

- Inventing around
- Ex ante negotiation
- Ideal: hypothetical ex ante licensing fee





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## Patent troll strategies

- NPE patents often become visible through litigation only
- NPEs aim at quick settlements and try avoiding risky/costly court proceedings
- Fischer & Henkel (2012), abstract: “NPEs procure patents that are more likely to be infringed, harder to substitute for, and robust to legal challenges”
- Very active players on market for technologies
- Given trolls exist – what does it mean for the functioning of the market for technologies?
- Consequence of trolls: inefficient duplication, failure of ex ante licensing & decreased returns to innovation
- Key issue: no ex ante licensing



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## Patent troll strategies

- (a) small firms, and in particular non-producing firms, have incentives to be infringed as they may be awarded remedies by the courts that are systematically higher than they could have obtained in licensing agreements with large patent holders before infringement;
- (b) increasing complexity of some technology fields, the increasing number of patents worldwide, and the resulting difficulty in monitoring the existing state-of-the-art technology, as well as the increasing firm sizes of large patent holding and manufacturing corporations should – in accordance with observations from the real world – lead to an increase in the importance of the “shark business”;





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## Patent troll strategies

- (c) large patent-holding and manufacturing firms are well-advised to spend extensive resources on ensuring access rights to technological substitutes of their core inventions as well as complementary technological assets, to allocate more money to technology monitoring, and to lobby for legislative changes;
- (d) courts need to reflect upon their interpretation of existing legal regulations and work towards a truly welfare-maximizing patent indemnification rule.



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## Patent troll's legal environment

- granting patents on trivial inventions
- granting patents on non-novel inventions
  - ➔ engineers may re-invent invention without realizing it
- No clear delineation of patents (does invention read on product?)
- Upward biased compensation bias (courts!)
- Inadvertent infringement hard to avoid with certainty (patent “submarines”)



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## **Patent “submarines” (Reitzig et al. 2007), p. 146:**

“In 1990, individual inventor Jerome H. Lemelson appealed at the US District Court for the Northern District of Illinois, Eastern Division against an earlier judgment according to which Mr. Lemelson had been granted damage awards for the non-willful infringement of his patent on a coupling technology used by Mattel, Inc. in one of the corporation’s toy trucks. Mr. Lemelson tried to prove that Mattel, Inc. had willfully infringed on his patent, and in accordance with US law he sought to be reimbursed with a triple licensing fee. Mr. Lemelson’s idea of multiple damages at the appellate court was denied; however, the single royalty rate he was granted for the inadvertent (!) infringement by Mattel Inc. still amounted to 24,780,000 US\$. The royalty rate was calculated using the standard remedy calculations for royalty rates as a standard 4.5% industry percentage of all truck toy sales of Mattel Inc. between 1971 and 1986.”



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## **Patent “submarines” (Reitzig et al. 2007), p. 146:**

Had Mattel known of the patented inventions existence, what would it have done?

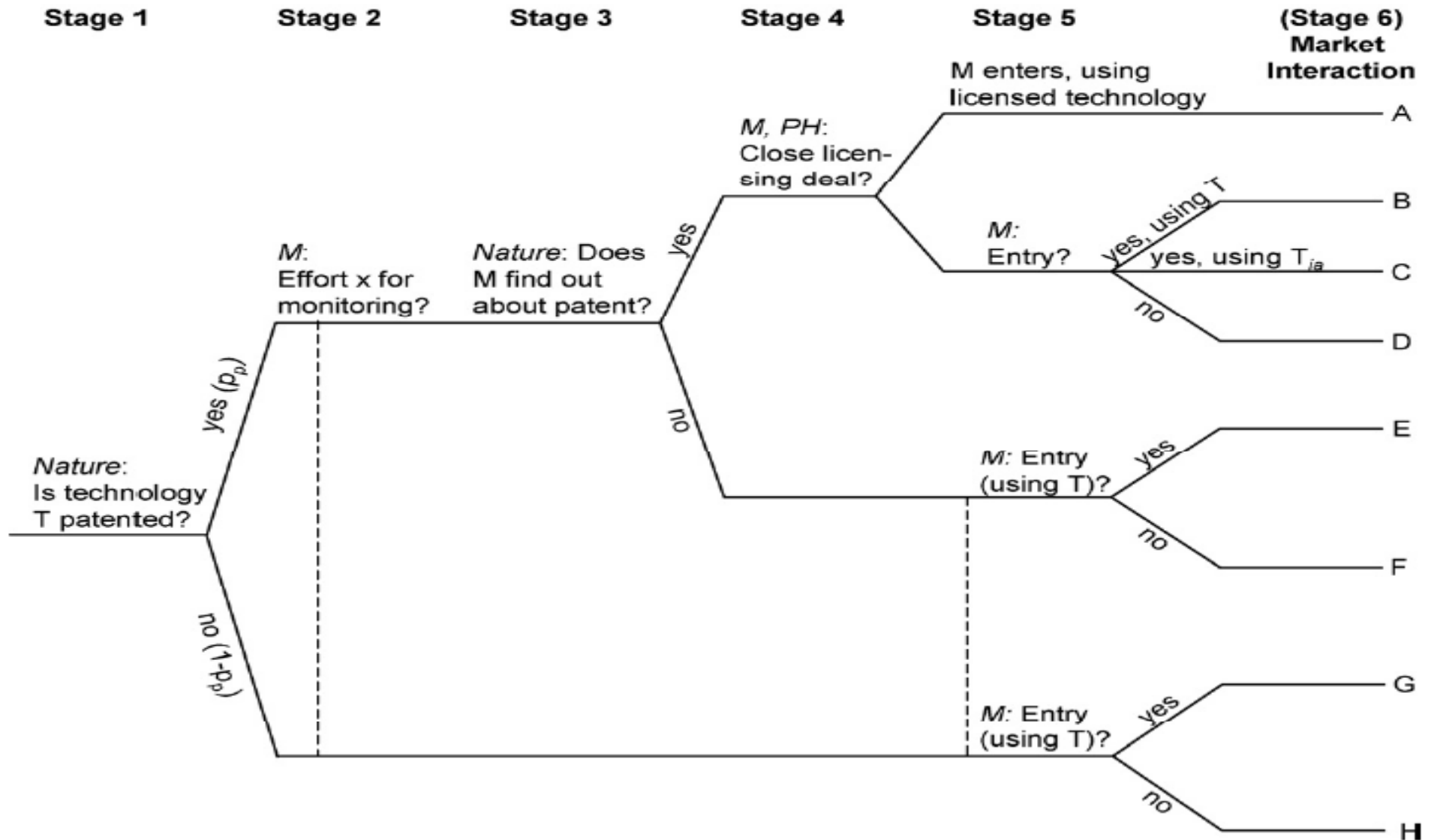
There's value of hiding patents → remember, the IPR system wants disclosure!

Unrealistically high damages create value of hiding



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## Patent troll business in a nutshell



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## Key result

Being a “troll” is the legitimate dominant strategy for small low-tech inventors

Acquisitions by trolls problematic from a PE’s perspective



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## **Sustainability of patent troll business**

- Traded patents are more likely to be brought by NPE rather than PE
  - the broader it's scope and hence the higher the likelihood of being infringed
  - the more dense technology field is (and hence cost of substituting around)
  - the higher patent quality (likelihood of being upheld in court)



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## Managerial implications

- More advanced patent clearing
- Independence from
- Hinder NPEs to acquire patents (patent pools? – example: Allied Security Trust, Google, Cisco, Motorola, Ericsson, Sun, HP, Verizon)
- Open standard help
- Lobbying for regulation
- Patent offices cannot reject something “because it’s stupid”





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