

# **Intellectual Property as a Tool for Financing Innovation and Technological Commercialization**

**Youngtack Shim, Ph.D. (Biomed. Eng), J.D.  
Patent Attorney (U.S.)**

**Professor, State Univ. of New York, Korea  
Visiting Professor, SNU Law School  
Co-Chair, Firstface**

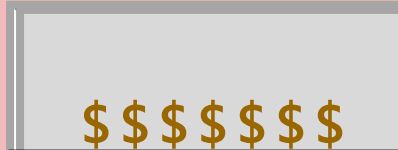
# Who is He? [1]



Inventor



BS, Chem. Eng.



Research Professor



MS, Chem. Eng.



PhD, Biomed. Eng.





# Who is He? [2]



Inventor



J.D.



Patent Lawyer (US)



Co-CEO.



BS, Chem. Eng.



Research Professor



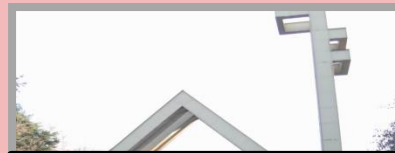
Visiting Professor



MS, Chem. Eng.



PhD, Biomed. Eng.



COO.



Professor



President



Invited Professor

# What are Patents?

**GOOD vs. BAD Patents?**

# Good Patents vs. Bad Patents?

- Patent
- Intellectual
- Intangible
- Property
  - aka
  - aka
- Patent
- Human
- Patent



ad!

# Mine is ... **R o m a n c e !**

- Are there **Good Patents**?
- Course there are!  
Only **My Patents** are **Good Patents**!
- Are **Your Patents** Good Patents?
- Of course **NOT**
- But **Your Patents** may become Good Patents  
if **You share your profit** with **Me**!
- If **You** do it, it is an **Adultery**.
- But if **I myself** do it ...

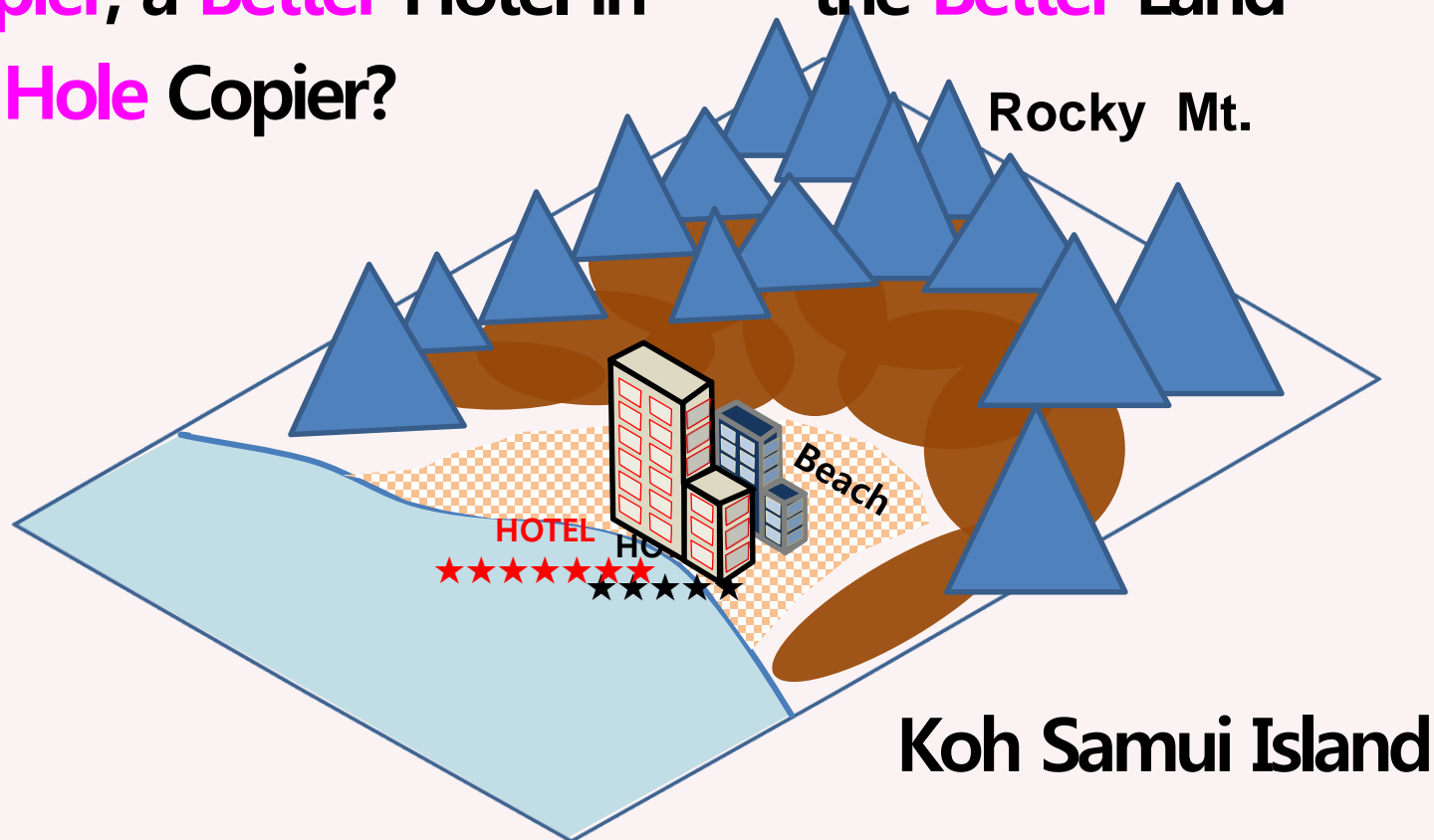
# Patent Basics

## Why Do They Copy?



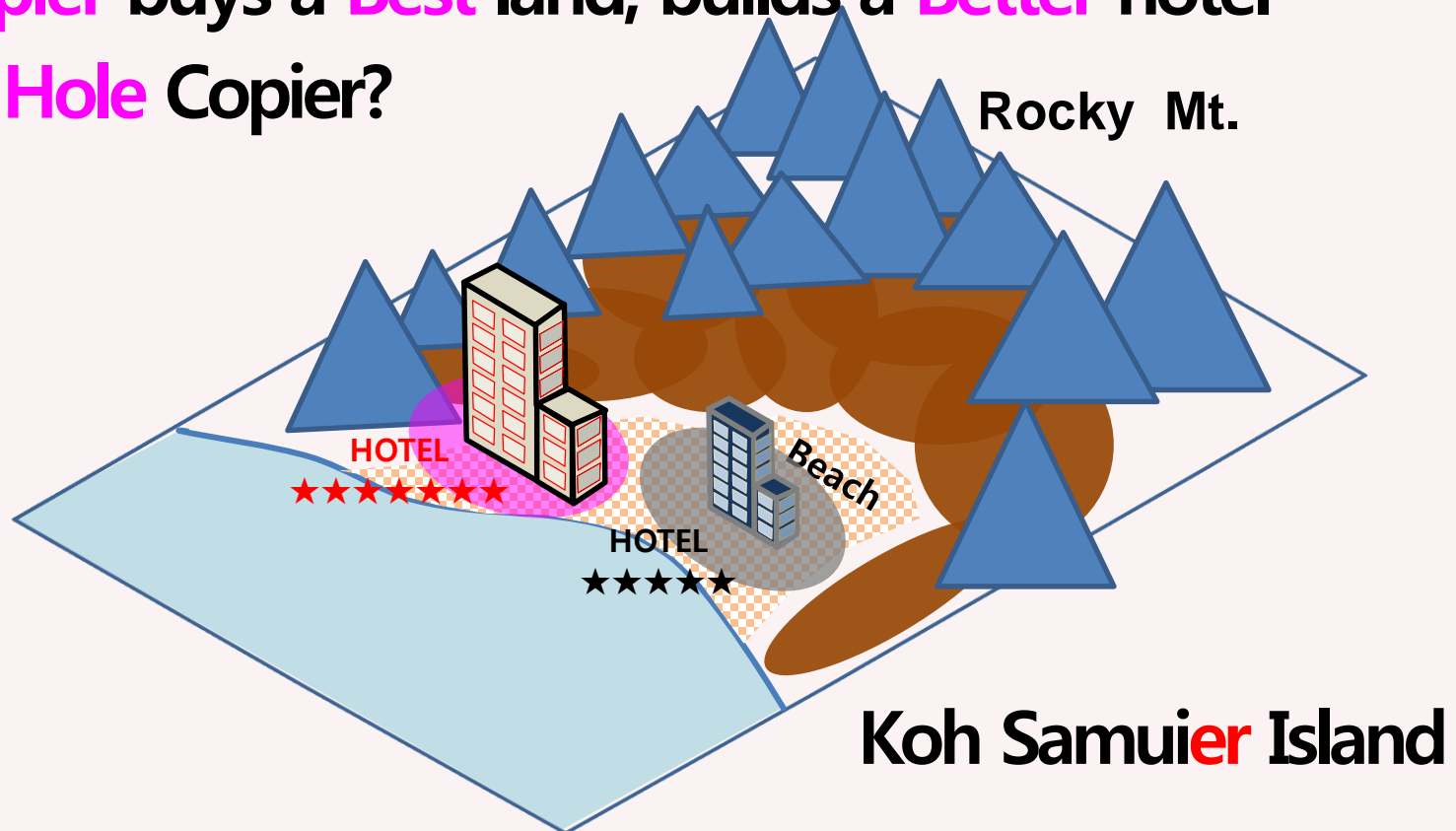
# Inventor and Copier [1]

- **Inventor** leases a parcel of Land, Build a Hotel
- **Copier**, a **Better** Hotel in the **Better** Land
- **A~Hole** Copier?



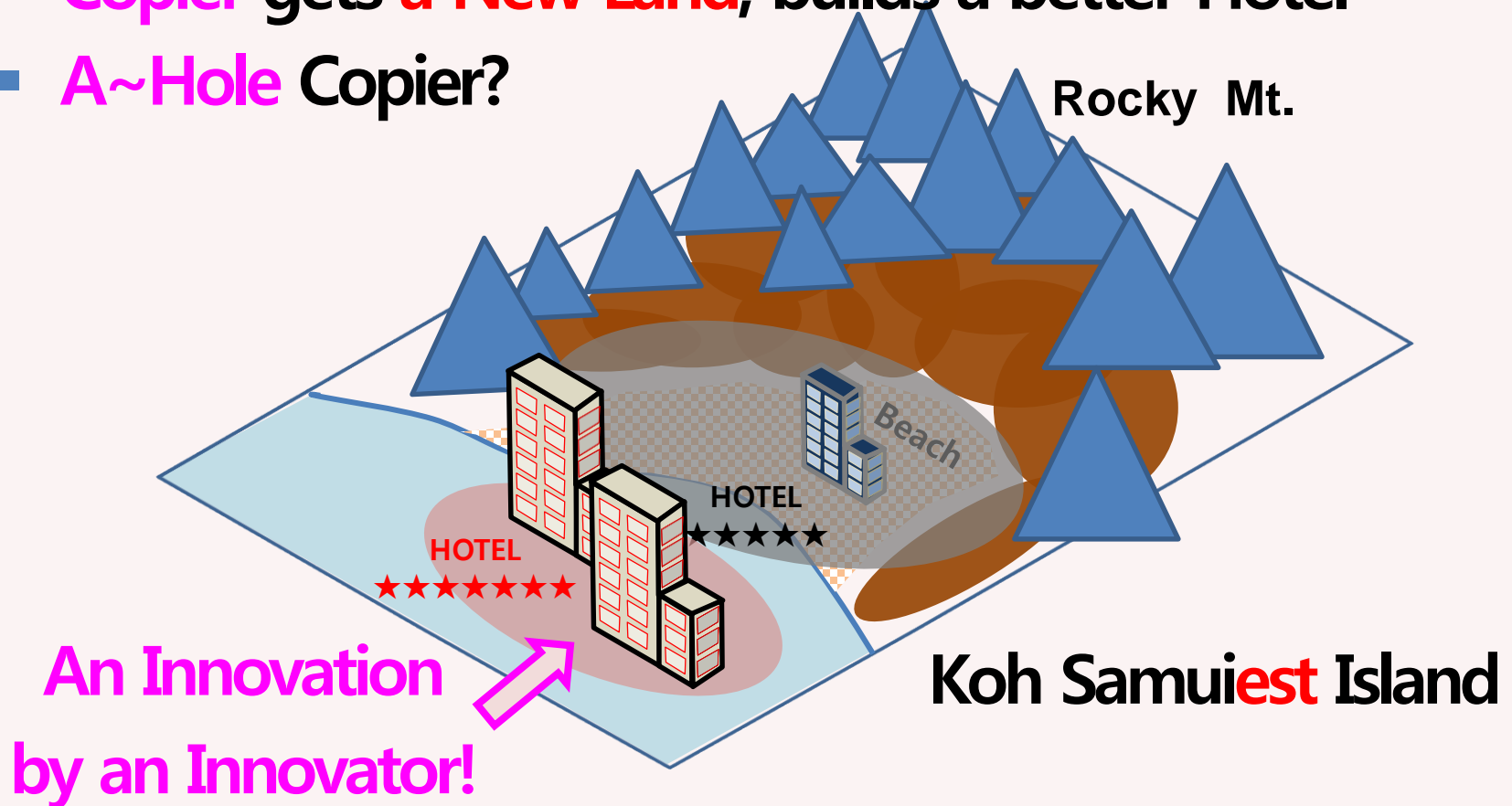
# Inventor and Copier [2]

- **Inv.** buys his Best Land, and builds a hotel
- **Copier** buys a **Best** land, builds a **Better** hotel
- **A~Hole Copier?**



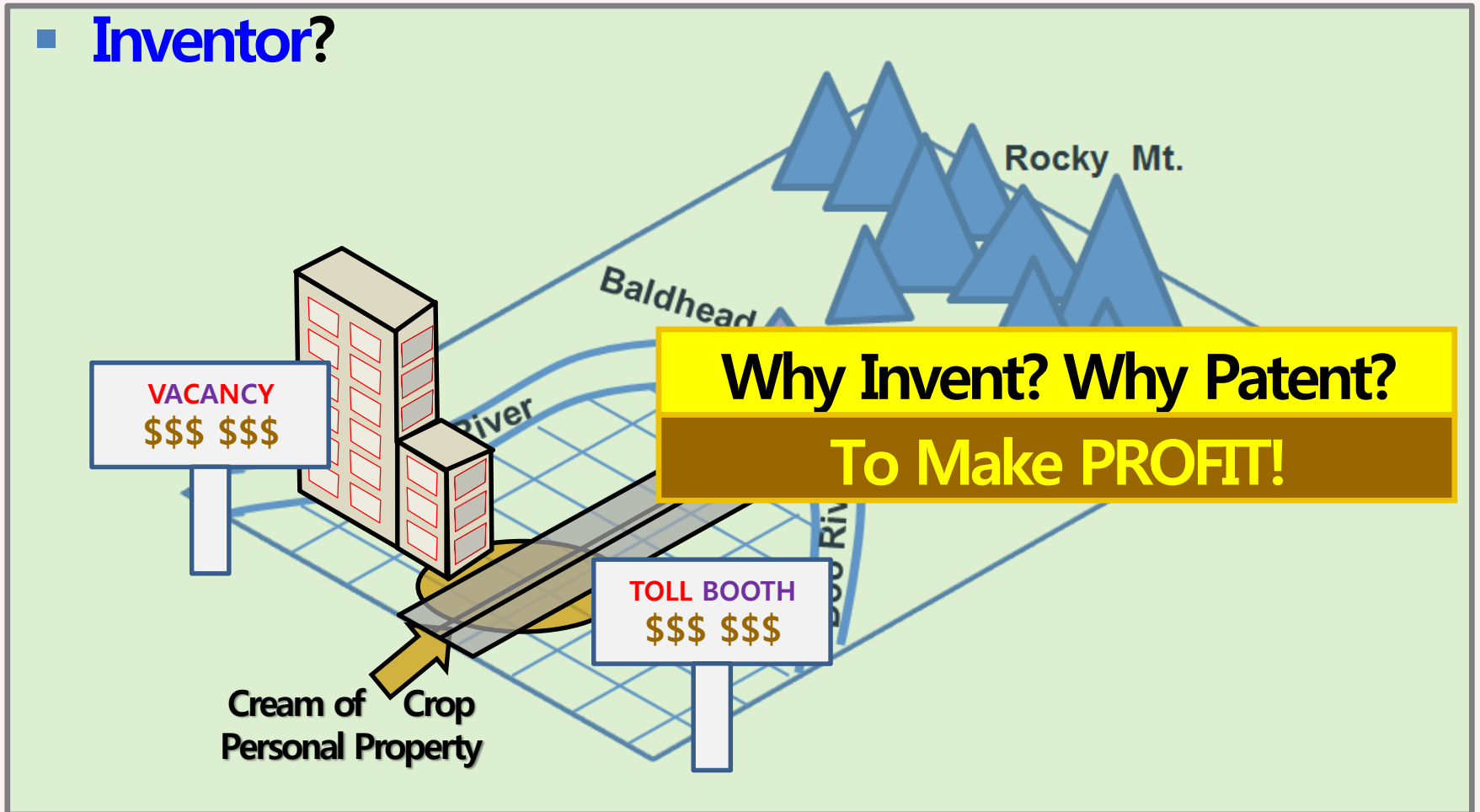
# Inventor and Copier [3]

- **Inv.** Buys/registers **All Lands**, builds a Hotel
- **Copier** gets a **New Land**, builds a better Hotel
- **A~Hole Copier?**



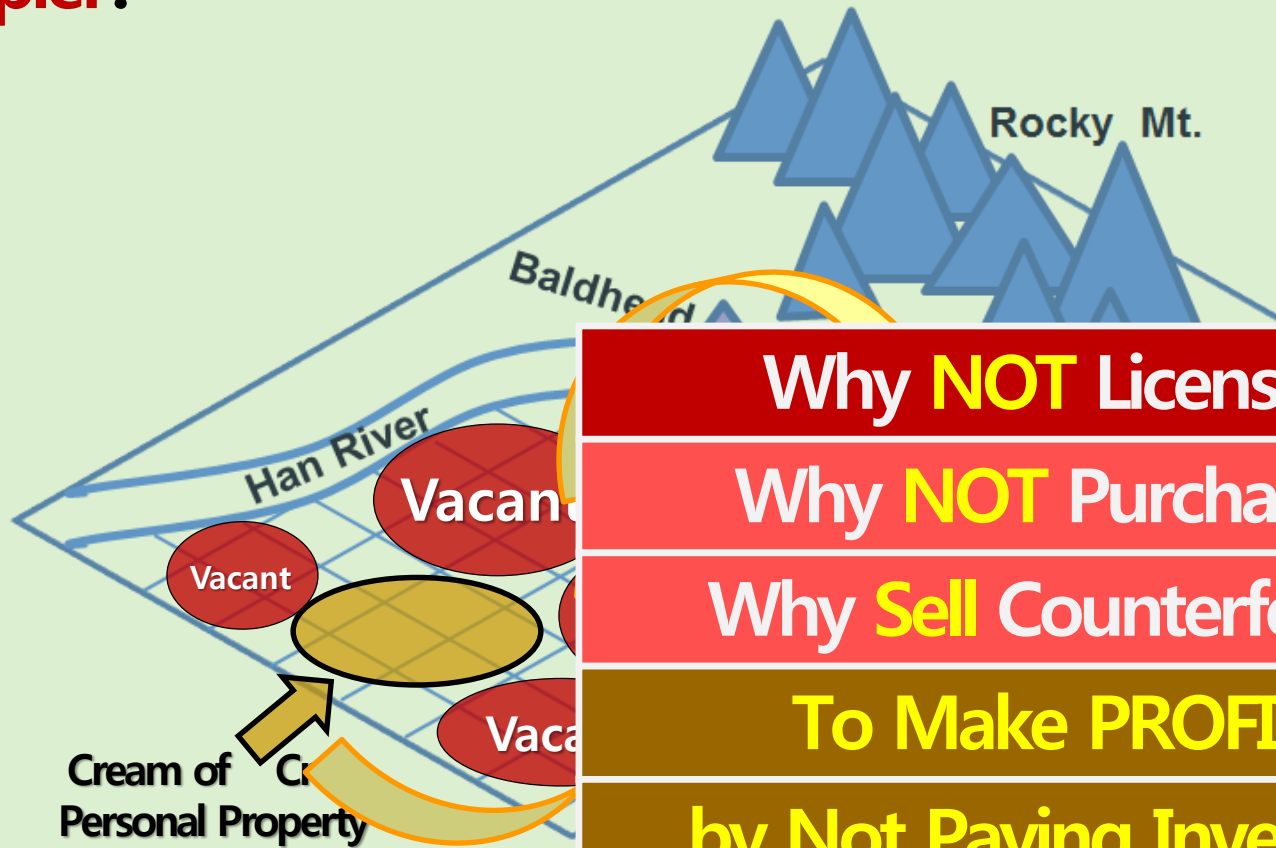
# Why Innovate?

- **Inventor?**



# Why Copy?

- **Copier?**



Why **NOT** License?

Why **NOT** Purchase?

Why **Sell** Counterfeits?

To Make **PROFIT**

by Not Paying Inventors

# 1<sup>st</sup> Weakness of Patents

**The System only Guarantees  
the Rights to Exclude Others**

- (1) You can obtain a patent but most of you can't practice your own patented technology.
- (2) Because yours is an Improvement Patent, you do not have the Rights to Practice.

# General Property Rights?

## Tangible Property

I, Tom Jones, **purchase** this parcel of land which is **SOUTH** of Mount Baldhead and which ranges from the **EAST** of the Han River to the **WEST** of the Doo River.

Guarantees **RIGHTS**  
to **USE** your property

Guarantees **RIGHTS**  
to **EXCLUDE** others

Property Law Guarantees **Use Rights**

Property Law also Guarantees **Excl. Rights**

# Patent Rights?

## Patent

I, Jesse James, **CLAIM** this parcel of land which is **SOUTH** of Mount Baldhead and which ranges from the **EAST** of the Han River to the **WEST** of the Doo River.

Guarantees ~~RIGHTS~~  
to **USE** your property

Guarantees **RIGHTS**  
to **EXCLUDE** others

Patent system Guarantees **Excl. Rights**

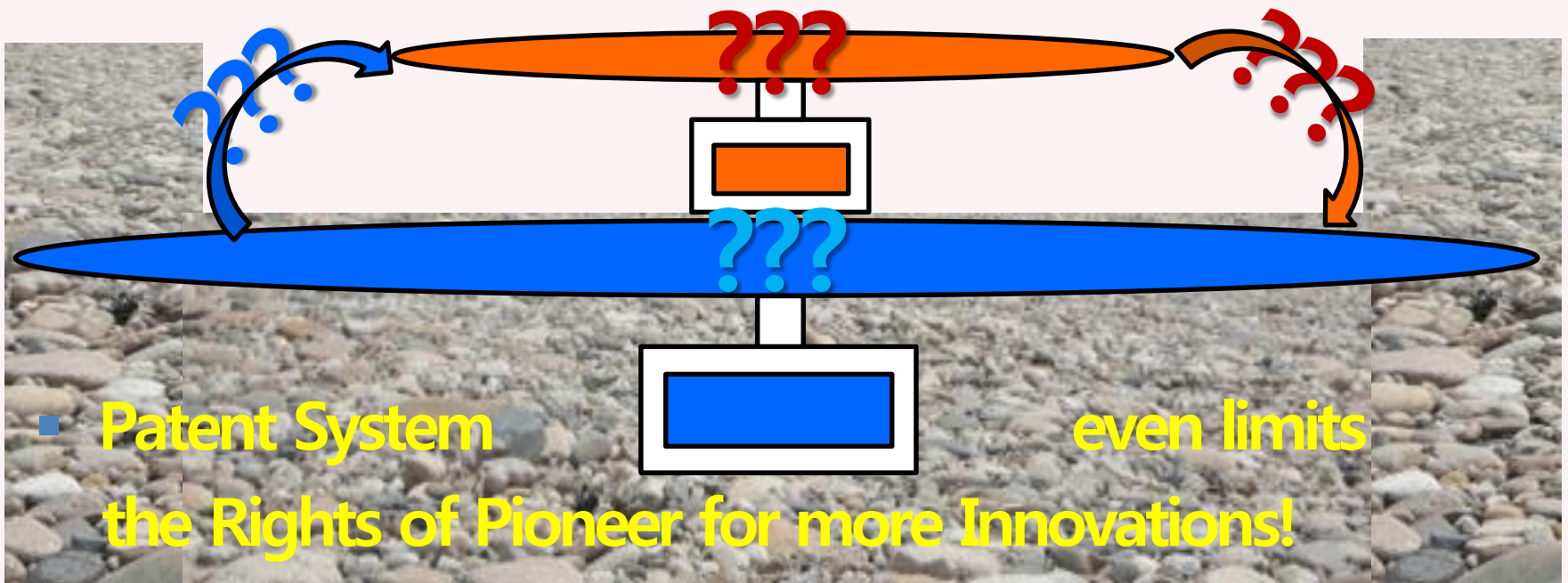
but does **NOT Guarantee Use Rights**

In reality, mostly **Excl. Rights** only



# Patent Rights = Negative Rights

- Pioneer found Blue Land in 2010 and started agriculture
- Improver just found a gold mine in a portion of Blue Land
- Improver can get a patent on the gold mine (when conditions are met)



# Blocking Patents [1]

- Improver cannot practice Pioneer's agriculture w/o P's consent
- Pioneer cannot practice Improver's gold mine w/o I's consent
- Improver cannot practice Improver's gold mine w/o P's consent
- Pioneer can practice Pioneer's agriculture regardless of I's consent

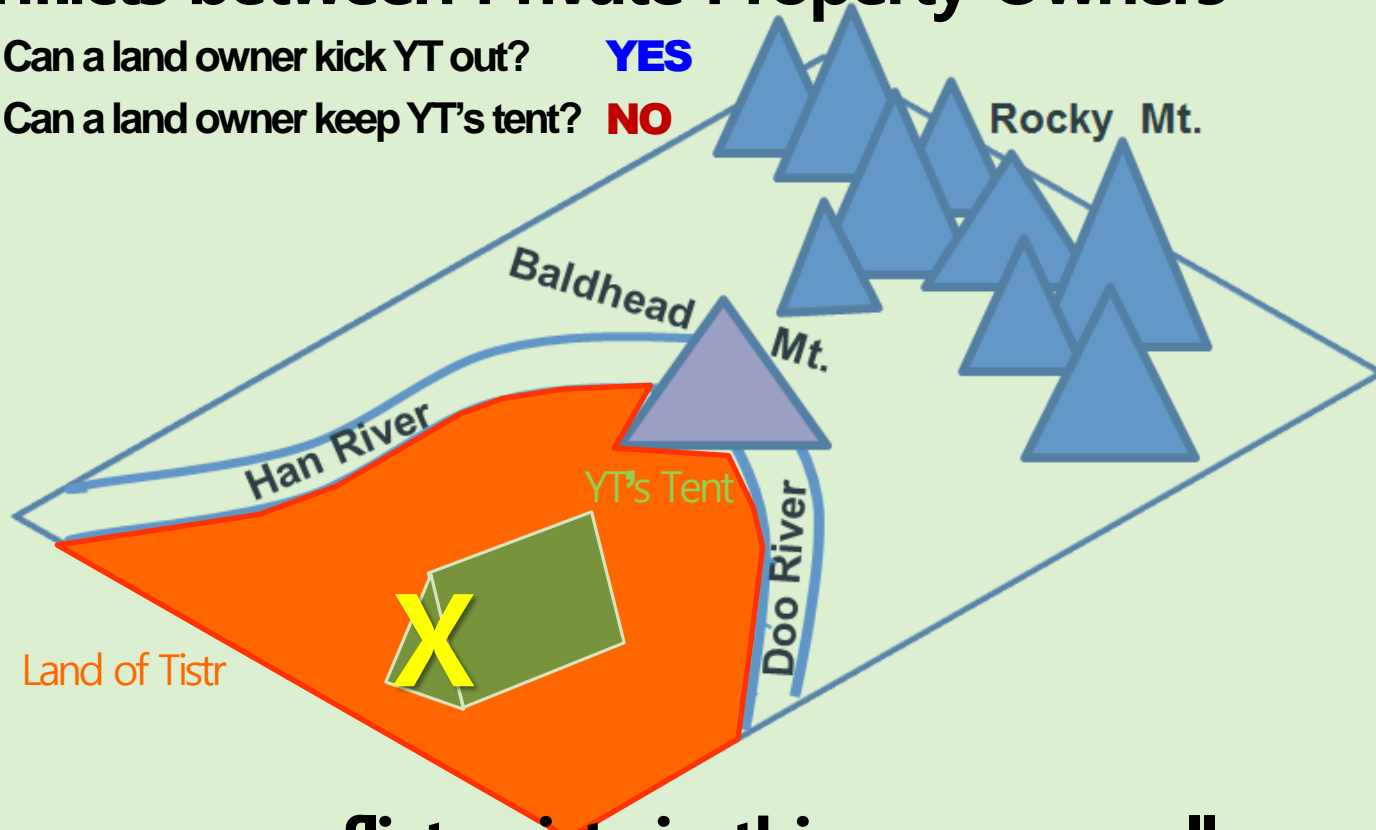


- Therefore, they argue that the patent system impedes innovation! But are they RIGHT?

# Blocking Patents [2]

## ■ Conflicts between Private Property Owners

- Can a land owner kick YT out? **YES**
- Can a land owner keep YT's tent? **NO**



- The same conflict exists in this case as well

# Blocking Patents = Bad?

- **It is plainly a WRONG ARGUMENT:**
  - There **ALWAYS** is a **DISPUTE** whenever property rights **OVERLAP**
  - A owns land, and I own a tent, and I set up my tent in A's land?
    - A exercises his exclusive rights and kicks me out of his land
    - But can A own my tent? **NO**, the tent is my property
  - Is private property **BAD**? Can A and I resolve the dispute?
  - Yes, in **SO MANY WAYS** (sale, purchase, lease, and the like)
- **Resolving the “Blocking Patents” Problem:**
  - Party A sells the patent to Party B
  - Party A licenses the patent to Party B (similar to a Lease):
    - Pioneer licenses Pioneer Patent to Improver
    - Improver sells his Improvement Patent to Pioneer
  - Pioneer and Improver set up a joint venture
  - Pioneer and Improver sell their patents to a 3<sup>rd</sup> Party
- **“Blocking Patents” impedes Innovation? No!**

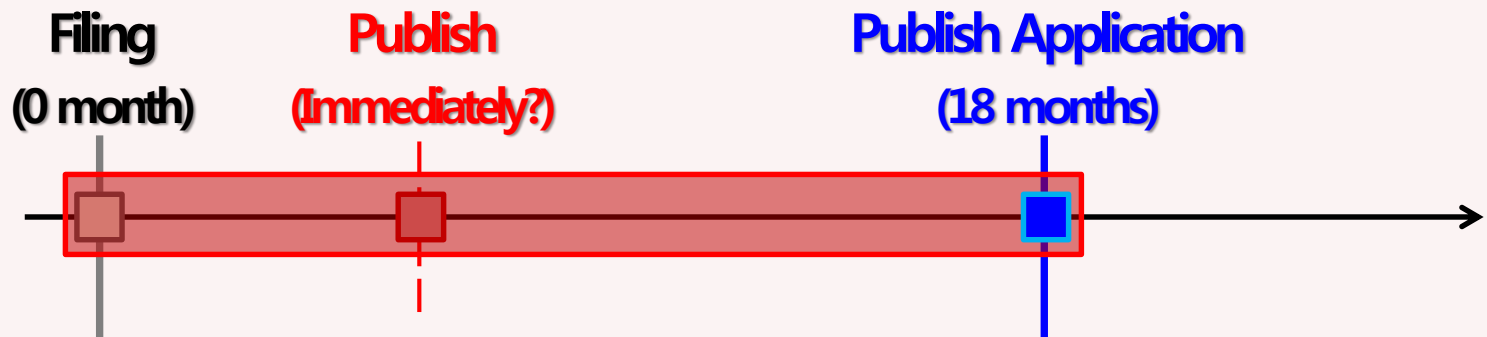
## 2<sup>nd</sup> Weakness of Patents

Patents Issued! End of Story?  
No, they are **NOT ALMIGHTY**

- (1) Even issued patents can be found **INVALID** by the Patent Office or by the courts of law.
- (2) Even those patents found **VALID** by the Office or by the courts can be **PATENTED AROUND**.

# Patents are Invalidated?

- Error of a patent examiner
- In some cases, due to **Hidden** Prior Arts
- Why Hidden? Due to **Rules and Regulations**:
  - Patent applications are disclosed to prevent redundant R&D (reinventing the wheels)
  - But disclosing immediately after filing may be disadvantageous to small inventors:▪ That is, big corporations can make improvement inventions faster than small inventors▪ Thus, patent applications are **published 18 months after** the filing date



- In other words, whatever the inventor does, he **cannot search** those patent applications which have been filed within **18 months** from the filing date

# How Easily Invalidated?

## China

☆ **Invalid 10%?**

☆ **Valid 90%?**

**No Infr. 10%**

**Infr. 80%**

## Japan

☆ **Invalid 20%?**

☆ **Valid 80%?**

**No Infr. 40%**

**Infr. 40%**

## Korea

☆ **Invalid 70%**

☆ **Valid 30%**

**No Infr. 15%**

**Infr. 15%**

## U.S.

☆ **Invalid 34%**

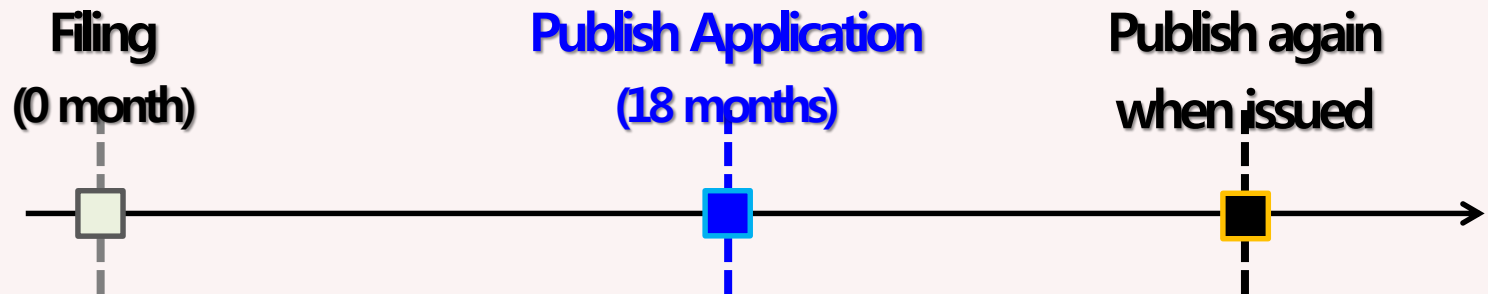
☆ **Valid 66%**

**No Infr. 33%**

**Infr. 33%**

# Patents are Patented Around?

- Poorly written (unaware of the SCOPE)
- **One-Sided** Nature

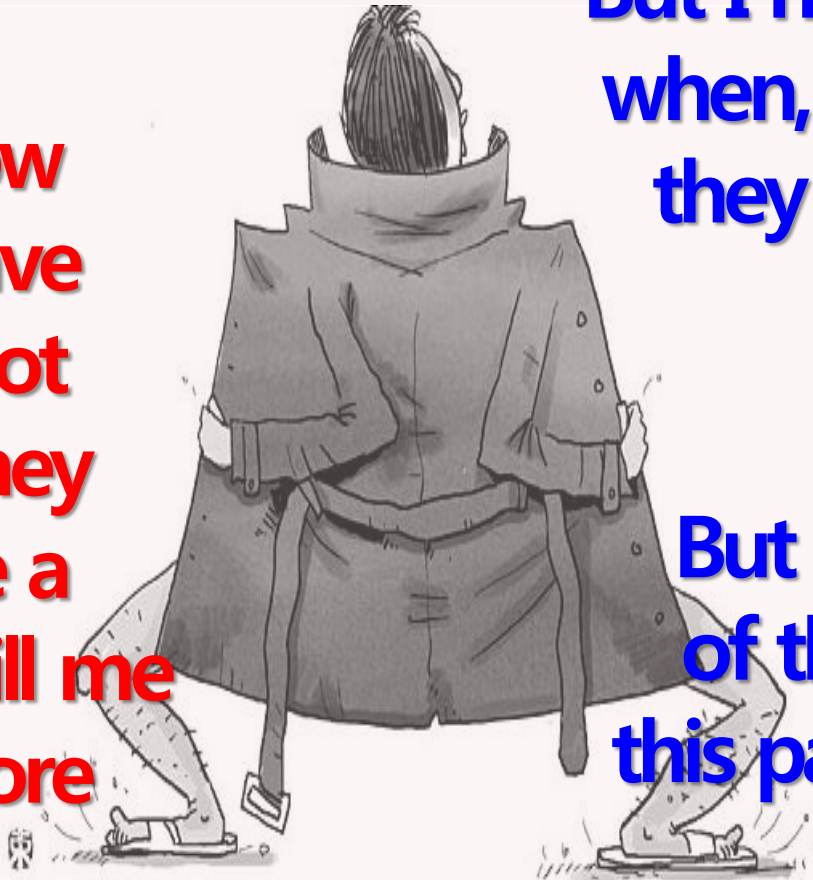


- **1<sup>st</sup> Publication:**
  - Usually a patent application before examination starts
  - Thus, it includes the claims with broader scopes which the inventor wished to acquire
- **2<sup>nd</sup> Publication:**
  - The issued patent which is issued after the examination has been completed
  - Many times, inventors narrow the claim scope to overcome examiner's rejections
- **1<sup>st</sup> Publication - 2<sup>nd</sup> Publication = ???**



# How Easily Patented Around? [1]

**That is,  
They know  
what I have  
and do not  
have. They  
will make a  
plan to kill me  
or to ignore  
me ...**



**But I have no idea who,  
when, where, and how  
they will kill or ignore  
me.**

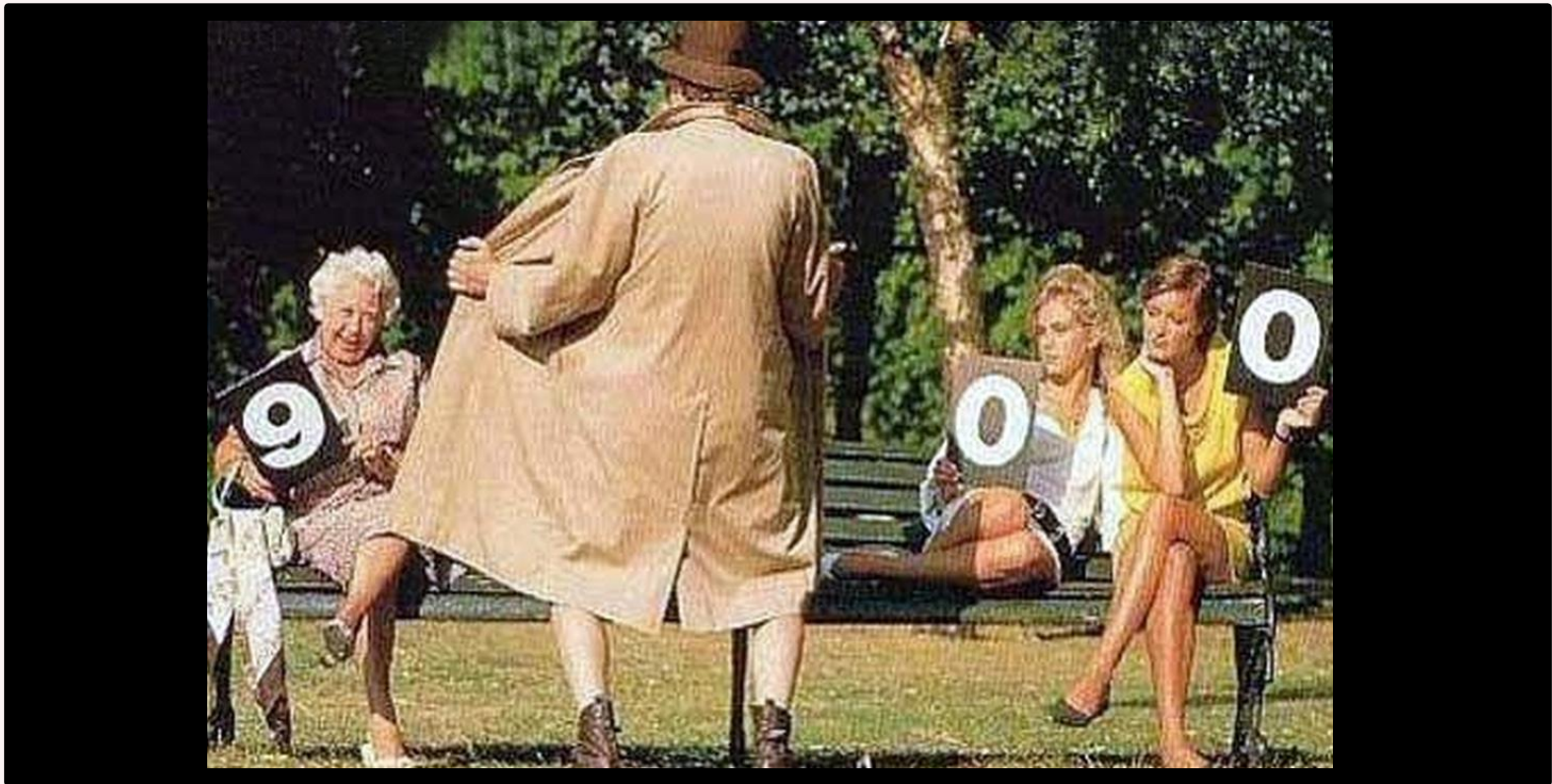
**But I must predict all  
of them while I draft  
this patent application.**

**WHEN?**

**NOW !!!**

# How Easily Patented Around? [2]

- **Burberry Man's** Dilemma? This is what I am!



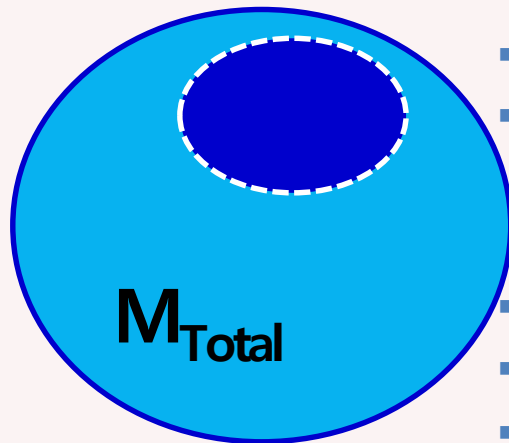
## 3<sup>rd</sup> Weakness of Patents

**Many infringers make money,  
even when they lose in courts**



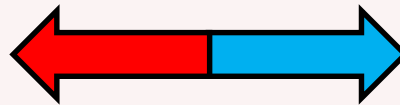
# It usually Pays to Infringe [1]

- **Damages which an Infringer must Pay:**
  - LOST PROFIT
  - REASONABLE ROYALTY
- **Lost Profit may favor an Infringer [1]:**
  - Lost Profit = A profit which a patentee could not realize due to infringement
  - Standard: Revenue and Profit of a Patentee

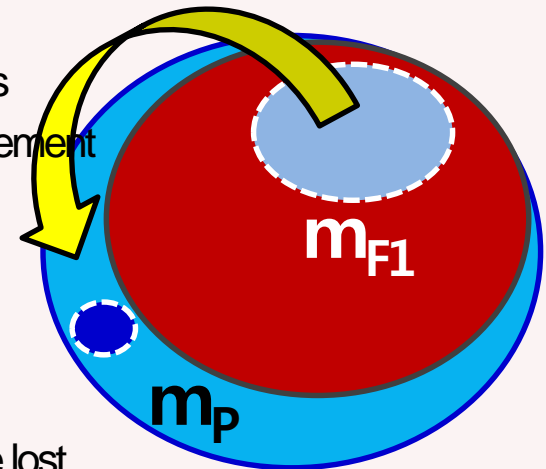


**Patentee's Market**

- Patentee could have sold 100 units
- He sold only 20 units due to infringement



- Damage = profit of those 80 units
- When infringer sold 80 units?
- The infringer pays the patentee the lost profit, the profit of those 80 units
- Patentee can be WHOLE again

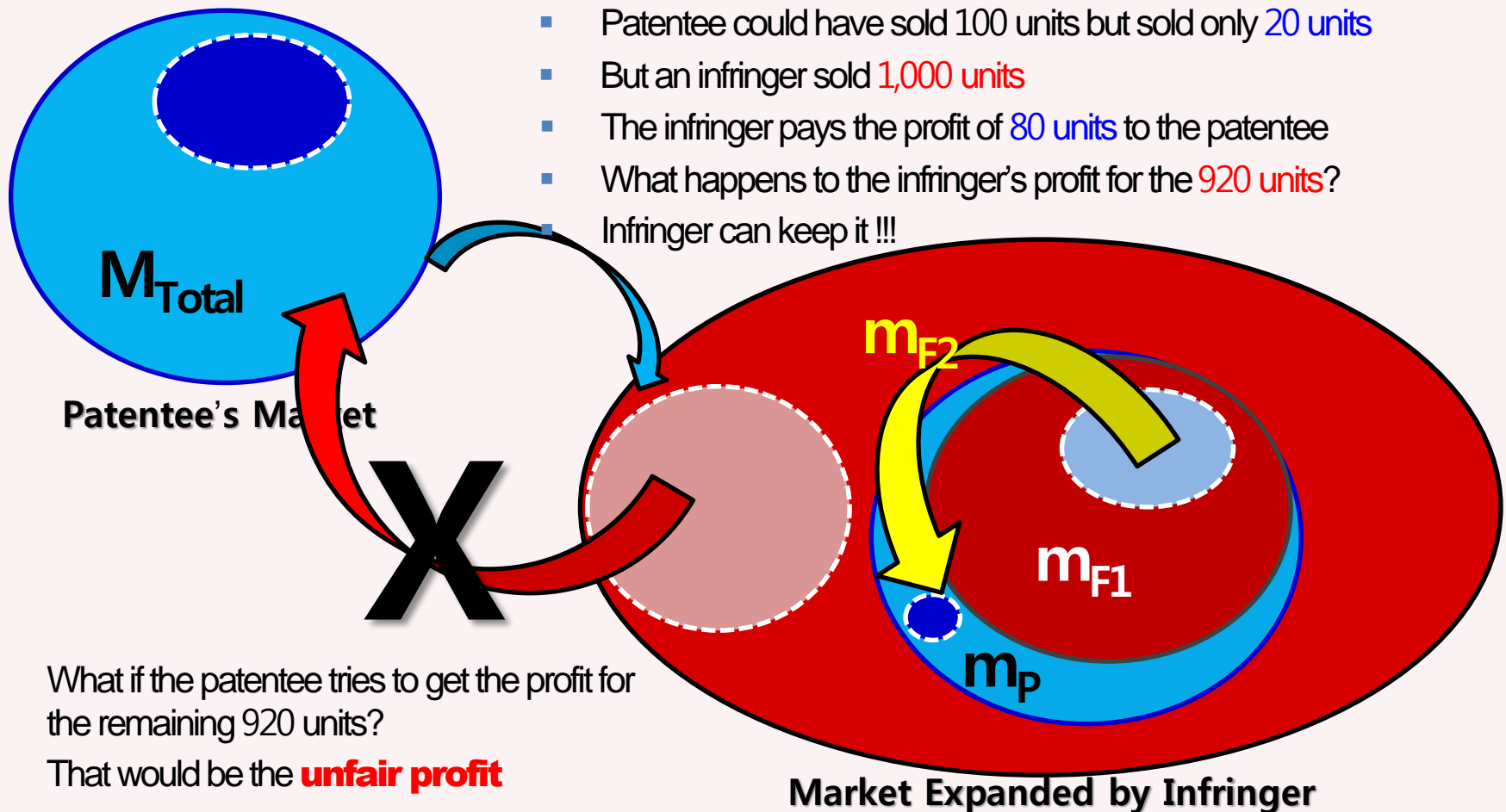


**Patentee's Lost Profit**

# It usually Pays to Infringe [2]

## ■ Lost Profit may favor an Infringer [2]:

- Patentee could have sold 100 units but sold only 20 units
- But an infringer sold 1,000 units
- The infringer pays the profit of 80 units to the patentee
- What happens to the infringer's profit for the 920 units?
- Infringer can keep it !!!



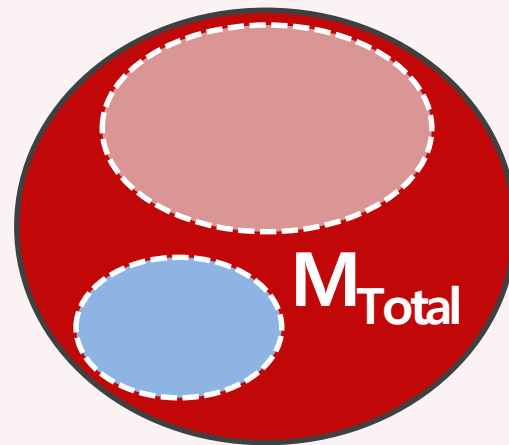
- What if the patentee tries to get the profit for the remaining 920 units?
- That would be the **unfair profit**

Market Expanded by Infringer

# It always Pays to Infringe

## ■ Reasonable Royalty also Favors Infringers:

- infringer pays a reasonable royalty to the patentee
- reasonable royalty = a hypothetical royalty rate x {revenue or profit}



- This is why the courts say DAMAGES based on the Reasonable Royalty is deemed as the **MINIMUM DAMAGES** in patent infringement!

- “Reasonable Royalty” is calculated as the royalty which the infringer would have paid if he had signed a licensing agreement with the patentee at the time of starting the infringement
- this is a “**PROFIT SHARING**” mechanism:
  - infringer always keeps a portion of the profit
  - this is always so whatever the reasonable rate may be!

# Injunction may Help? [1]

## ■ Injunction?

- Prevent manufacturing infringing goods
- Types of injunction:
  - Preliminary injunction
  - Permanent injunction
- But very **RARE** in the **U.S.**
- **NOT** applicable to **Standard Essential Patents**
- Available in Europe, Korea but damages are low



## ■ Injunction and IT Patents?

- Life cycle of IT is very short
- Injunction is almost meaningless, because ...
- Lesson?
  - **IT PAYS** to **INFRINGE** !!!
  - So **HIT AND RUN** !!!





# Injunction may Help? [2]

## ■ Effect of Injunction = Industry Dependent

- **BRICK-AND-MORTAR Industry** (chemistry, biotech, materials, nano, etc.):
  - You get the MARKET with just **A FEW Pioneer Patents**
  - But you need to do a lot of EXPERIMENTS and TESTS which cost money
  - In addition, you need to set a new plant, *i.e.*, heavy investment is required
  - Accordingly, just **A FEW Pioneer Patents** in the market (VERY VALUABLE)

Only 20 Years  
for \$1 billion R&D?

Even 20 Years for All  
Shitty Patents?

- **IT Industry** (both hardware and software):
  - You do not need to do a lot of EXPERIMENTS and TESTS
  - In addition, you do not need to set a new plant (utilizing OEMs)
  - About 50,000~250,000 patents relate to One Smartphone
  - In other words, there exist **LOTS of ALTERNATIVES** in the market
  - In addition, the life span is short so WAIT and GET a new one
  - Rampant Outsourcing ~ Rapid Innovation? No company can create all the IP it needs

# Efficient Infringement

## ■ IT Industry? Set up Tistra-ple with US \$5B:

- Set up **Tistra-ple**, a big smartphone manufacturer, in the Chiang Rai Mountains
- **Tistra-ple** begins to sell **Tistra X** which is an exact copy of **iPhone X**
- But the price of **Tistra X** is just 50% of that of iPhone X



- **Angry Apple** sues **Tistra-ple** in 2019 in 5 Oceans and 6 Continents
- **Tistra-ple** loses in each and every country
- **Tistra-ple** pays Damages using a “portion” of its profit
- **Angry Apple** moves for Injunction in all countries
- **Angry Apple** gets Injunction against **Tistra-ple** in all countries

## ■ Will **Tistra-ple** go bankrupt? **NOPE !!!**

- **Angry Apple** wins in the lower, appellate, and supreme courts in ??? **2022!**
- **Tistra-ple** cannot manufacture Tistra X in and after 2022
- But in 2022, no sane person will buy such old models, **iPhone X** and **Tistra X**, anymore
- Instead, in 2022, **Tistra-ple** manufactures **Tistra XV**, which is the **copy** of **iPhone 15**

# Effect of Injunction [1]

- **Effect of Injunction in B&M Industry?**
  - **Injunction** in the **Brick-and-Mortar Industry** = **Nightmare** !!!
    - You may lose your cash-cow and market
    - You may have wasted your **BIG, PAST** investment
    - And there are (usually) **NO ALTERNATIVES** !!!
  - Effects:
    - People tend to **BEHAVE** !!!
    - Thus, there are **NOT TOO MANY** efficient infringement cases (in a relative sense)
- **Effect of Injunction in IT Industry?**
  - **Injunction** in the **IT Industry** = **usually Not a BIG DEAL** !!!
    - You have never invested big time
    - Even if you did, there are (almost always) **MANY ALTERNATIVES** !!!
    - So **INFRINGE FIRST** and **SEE** !!!
  - Effects:
    - People have **NO REASON** to **BEHAVE** !!!
    - Thus, there are **ENOUGH** efficient infringement cases (in a relative sense)

# Effect of Injunction [2]

## ■ Short Life Span of IT:

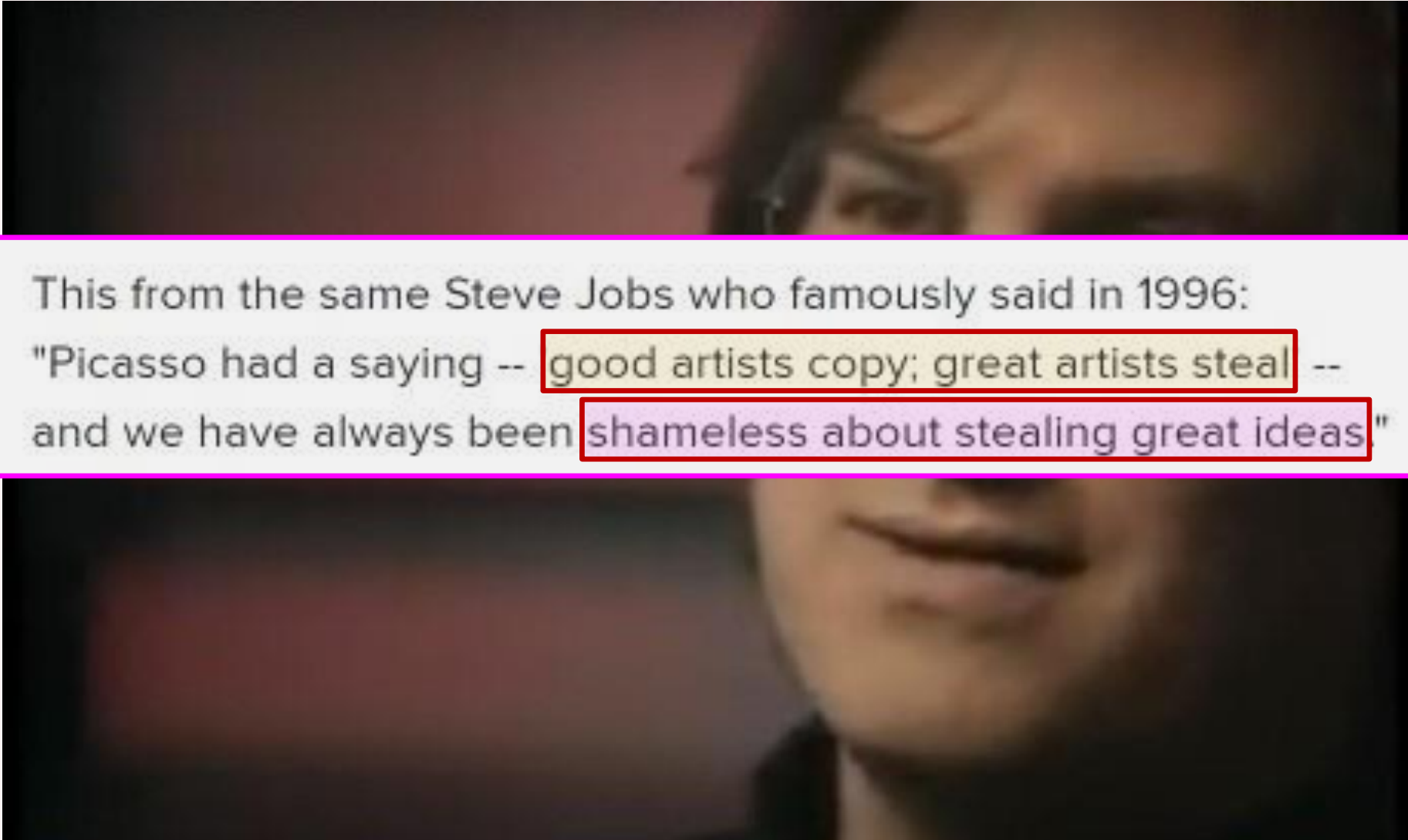
- Life cycle of IT is very short
- Injunction is almost meaningless
- Therefore, **Injunction** may not matter at all



## ■ Cost-Benefit Analysis :

- Every business decision is based on determination of **BENEFIT** and **COST**
- when **BENEFIT** > **COST**, then you DO THAT
- **It is all about MONEY!**

# EE: I do $\Pi$ , cause I like $\Pi$



This from the same Steve Jobs who famously said in 1996:  
"Picasso had a saying -- good artists copy; great artists steal --  
and we have always been shameless about stealing great ideas."

# EE: I do $\Pi$ , cause he did $\Pi$ [1]

**Mark Zuckerberg** ✓  
 2014년 3월 25일 · 미국 California 팔로앨토 · 🌐

I'm excited to announce that we've agreed to acquire **Oculus VR** the **leader** in virtual reality technology.

**ROAD TO VR** > **BOGO** Register for xchange now and bring a colleague for FREE! >>>  
 Nintex xchange Conference REGISTER NOW >>>

HEADSET REVIEWS ▾ VR GAMES ▾ VR INDUSTRY REPORT EXEMPLAR PC VORPX VR DRIVER DAILY ROUNDUP ▾

**Verdict Analysis: Why the Jury Awarded ZeniMax \$500 Million in Oculus Lawsuit**

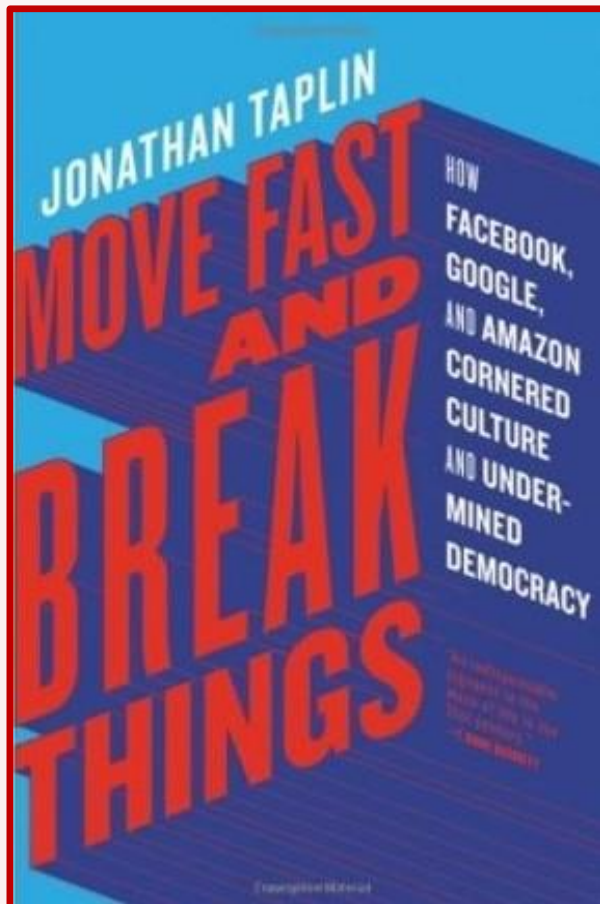
**John Carmack posts angry response to ZeniMax lawsuit loss on Facebook [Updated]**  
 By Andy Chalk February 02, 2017

Carmack says he never tried to "hide or wipe" evidence, and wanted to shout "You lie!"

**ZeniMax's lawsuit against Oculus VR did not end well for Oculus, which was yesterday slapped with a \$500 million judgment against it. The court ruled that Oculus co-founder Palmer Luckey had violated his NDA with ZeniMax when the two worked together in the early days of Oculus Rift development, and also that John Carmack, now Oculus CEO, had stolen documents and source code prior to joining the company, and destroyed evidence when he learned about the**

# EE: I do $\Pi$ , cause he did $\Pi$ [2]

- Taking Turns, Aggressively:



THERE'S A FAMOUS BILL GATES QUOTE. THEY ASKED HIM WHERE DOES HE WORRY ABOUT COMPETITION FROM. THEY'RE THINKING ALL THESE HIGH-TECH, YOU KNOW, AND HE SAYS, 'I WORRY ABOUT TWO GUYS IN A GARAGE.'

March 1998



**IPWatchdog**<sup>®</sup>

**PLI** PRACTISING  
LAW  
INSTITUTE

Google, HTC, ZTE, Huawei gang up on small navigation software developer with IPR filing



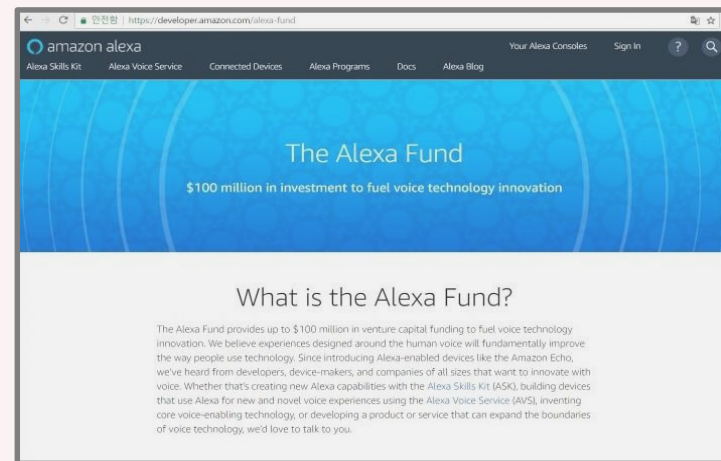
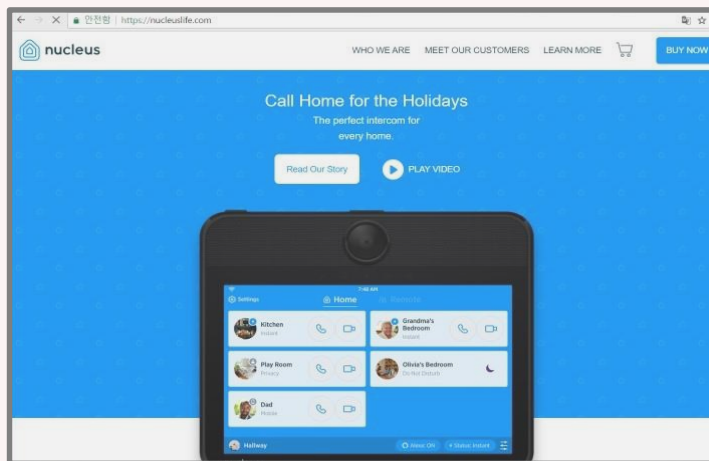
By **Steve Brachmann**  
February 19, 2017

[Print Article](#) 22

# EE: I do IT, **cause he did IT** [3]

## ■ Nucleus App:

- Nucleus developed an app for home intercom and video conference
- In Aug. 2016, Alexa Fund invested US \$5.6M in Nucleus



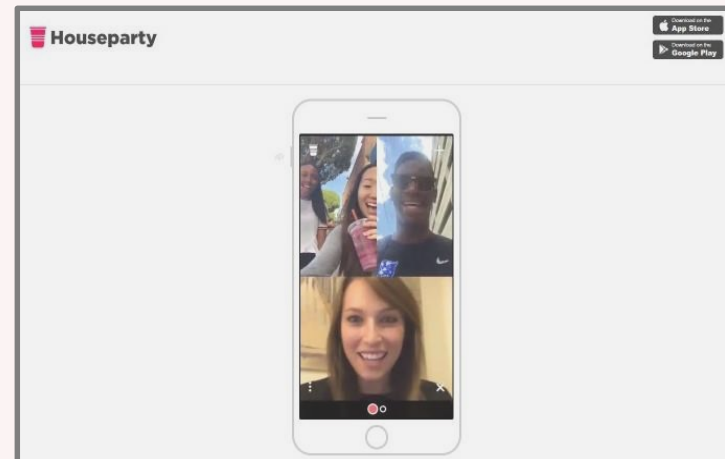
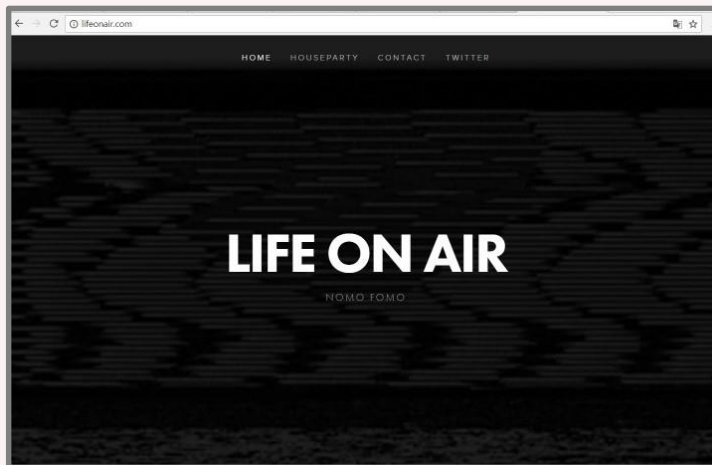
- What is the Alexa Fund? Alexa Funds finances companies looking to develop products which utilized Amazon's digital voice assistant technology
- In May 2017, Amazon launched Echo Show which is quite similar to the Nucleus's app
- As a result, Amazon became a direct competitor to Nucleus
- Nucleus's founder Jonathan Frankel said "I am **SHOCKED !!!**"



# EE: I do $\Pi$ , cause he did $\Pi$ [4-1]

## ■ App “Houseparty” by Life On Air:

- Life On Air developed Houseparty) (app) enabling many (up to 8) to engage in video chat
- Houseparty became particularly popular among the teens



- In the summer of 2016, Facebook invites Houseparty to Facebook in Menlo Park
- In Feb. 2017, Facebook offered \$275 Amazon card to teenager Houseparty users when they visited Facebook and participated in survey re Houseparty
- In Sep. 2017, Facebook launched the chat app Bonfire that is very similar to Houseparty
- Facebook also copied Houseparty’s brand, “Living Room”

# EE: I do $\Pi$ , cause he did $\Pi$ [4-2]



## Medium

Sig

which had built an app that secures users' privacy by routing their traffic through private servers.

### 2. Study the competition

Understand user acquisition, unique value proposition, what do people like about the experience?

Facebook in February launched a study of Houseparty, wooing its teenage users in a post that began: "Hi everyone!! Do you use Houseparty?"

In February, Facebook invited Houseparty users between the ages of 13 and 17 to come to its offices in Menlo Park, Calif., to participate in a study and keep a diary for a week afterward that they would share with Facebook, offering as an inducement \$275 Amazon gift cards.

### 3. Large company launches its own version(s) of the product or feature

Start with an internal prototype based on all the learnings from the competition.

## Medium

Sig

introduced itself as "the internet's living room" in November, Facebook's Messenger app said it would become a "virtual living room."

### 5. Give people permission to compete, even if it means copying

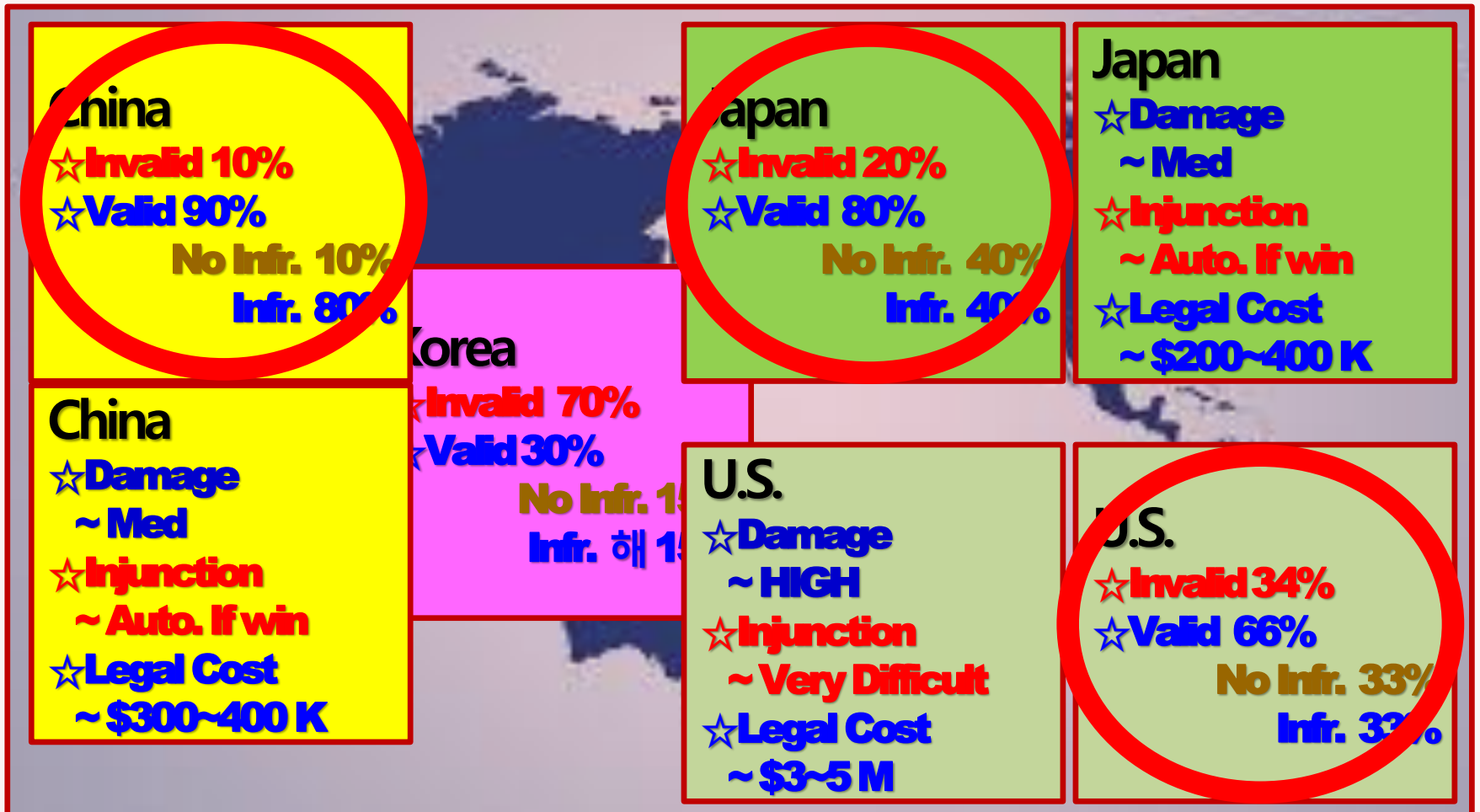
For truly mission driven companies like Facebook, principles like 'putting the user first', can trump over a decision to recreate a feature from a rival, as long as it's deemed as 'good for the user'.

At an all-hands meeting last summer, Facebook Chief Executive Mark Zuckerberg told employees they shouldn't let pride get in the way of serving users, another way of saying they shouldn't be afraid to copy rivals, according to someone who was at the meeting. The message became an informal internal slogan: "Don't be too proud to copy."

Interestingly, even the startups understand it's part of the game:

"I have no problem with the copying," Mr. Rubin (co-founder of Houseparty) says. "It's just business. It's just a distraction."

# WE do IT because or when ...



# 4<sup>th</sup> Weakness of Patents

Pitfalls of **Friendly** Licensing  
Inevitable **Hostile** Licensing

# Why Friendly? Why Hostile? [1]

- Can They Make It as a Friendly Licensing?



Friendly  
Licensing?



Hostile  
Licensing?

# Why Friendly? Why Hostile? [2]

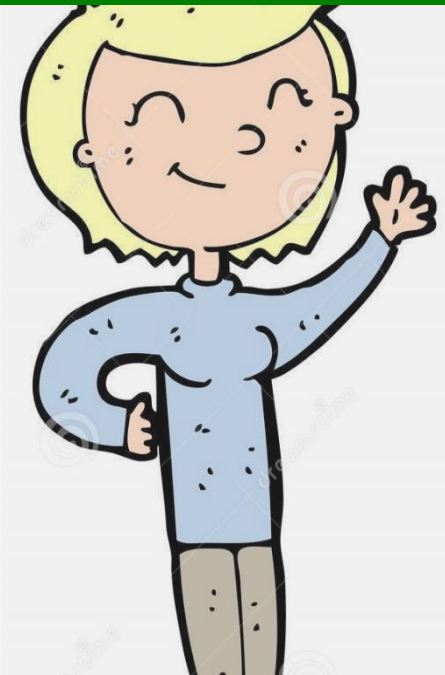
- Purpose-Dependent !!!

Hostile Purpose ???



Hostile Licensing !!!

Friendly Purpose ???



Friendly Licensing !!!

# Why Friendly? Why Hostile? [3]

- How Can you Tell?

Just Look at the Patent !!!



Pat. No. 21,321  
Date of Patent: Jun. 11, 2019

**1,321**

**Friendly**

Patent?

**Probably Not !!!**

**Not Enough Time !!!**

**Issue Date**

**June 11, 2019**



**US Patent**

(12) United States Patent  
Jung et al.

(54) METHOD, SYSTEM, AND MOBILE COMMUNICATION APPARATUS FOR PERFORMING SITE RESELECTION AND MOBILE COMMUNICATIONS ACTIVATED

(75) Inventors: Jae Lark Jung, Gwangju (KR); Kyoung Duck Bae, Seoul (KR)

**8,831**

**Hostile**

**This Patent**

**Maybe !!!**

**Enough Time !!!**

**Issue Date**

**Sep. 9, 2014**

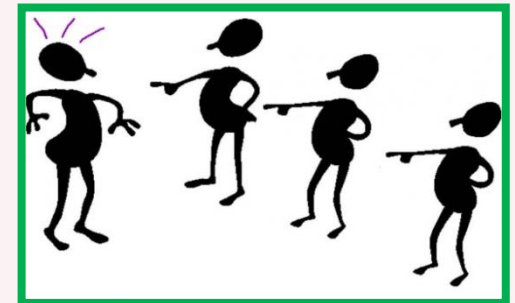
# Licensing Officer's Dilemma [1]

## ■ Licensee's Officer May not Want Licensing:

- Licensing Officer is in charge of purchasing or licensing a patent or technology
- But there are so many **Problems** and **Uncertainties**

## ■ Dilemma No. 1 = **Price**:

- Patent which we may have been **Infringing**?
  - Predict win ratio or damages
  - Can get a ball-park figure (*i.e.*, not impossible)
  - Can argue that we can mitigate litigation risk
- Patents that are **Too New** to **Infringe**?
  - No price tag on technology, patent, ...
- Price of a patent on good technologies?
  - If I happen to pay too much?
  - If an **axx-hxxx** tattler-tale tells my boss that I **paid too much**?
- What if I pretend I do not know and do **NOTHING**?
- I can evade my responsibility





# Licensing Officer's Dilemma [2]

- **Dilemma No. 2 = Potential Commercialization:**
  - If I try to **commercialize** the technology of the 21<sup>st</sup> Century:
    - I have to assess the **technical value** (but **how?**)
    - I have to assess the **marketability** (but **how?**)
    - I have to make a proto-type
    - I have to **Scale-up**
    - I have to build a **production line** (buy land, build a factory, hire employees ...)
    - I have to **mass-produce** the products
    - I have to **market** the products
    - I have to **advertise**
  - What if I **miss** only **one step**?
    - Above steps are all in series
    - If I fail **one** step, I **fail**
  - Are you sure you can succeed in **all steps**?
  - You are a **patent expert** who knows nothing about manufacturing, marketing, advertising ...?



# Licensing Officer's Dilemma [3]

## ■ Dilemma No. 3 = **Unpredictability:**

- **Technical Merit** ~ **Not Clear:**
  - First in the world, First in the human history ...
  - **No guarantee** that a crazy inventor may invent a better one?
- **Marketability** ~ **Even More Unclear:**
  - Consultant or marketing firm may say anything
  - But **do they really know?**
  - If they do, why are they only writing and talking, instead of ... ?
- **Patentability** ~ **Can Predict a Bit:**
  - Once you file a patent application, then you know the prior art
  - Thus, more predictable than Technical Merit, Marketability, etc.



## ■ Dilemma No. 4 = **Why the Heck NOW?**

- I will get promoted if I do not screw up big time ...
- What if I mess up with this invention (e.g., marketing, price, etc.)?
- Wait and wait until I get promoted, then this is going to be the task of my successor (Mr. Shim)

# Licensing Officer's Dilemma [4]

- **Dilemma No. 5 = Even if I get Sued ...**
  - Argue that his patent is **invalid** or even valid, I did **not infringe**
  - The probability the manufacturer may **LOSE**?
    - US: about a 1/3 of issued patents found invalid, about a 1/3 no infringement, thus **33%**
    - EU: no available data, but may be similar to the US or less
    - CN: about 10% of issued patents found invalid, about 10% no infringement, thus **80%**
    - JP: about 20% of issued patents found invalid, about 40% no infringement, thus **40%**
    - Korea: about 70% invalid, about 15% no infringement, thus **15%**
  - **Embrace for Impact:**
    - While infringing others' patents, save some profit for the worst (*i.e.*, damages)
    - Anyway, **damages** are **only a portion** of the **profit**, thus earn as much as you can
  - Coping with **Preliminary Injunction** or **Permanent Injunction** :
    - Brick & Mortar Industry or infringing product is the main product?
    - Losing a suit may be a **BIG BLOW** but still room for licensing
    - But in the **IT Industry**?
    - Short life span, Lots of alternatives, thus **NO PROBLEM**

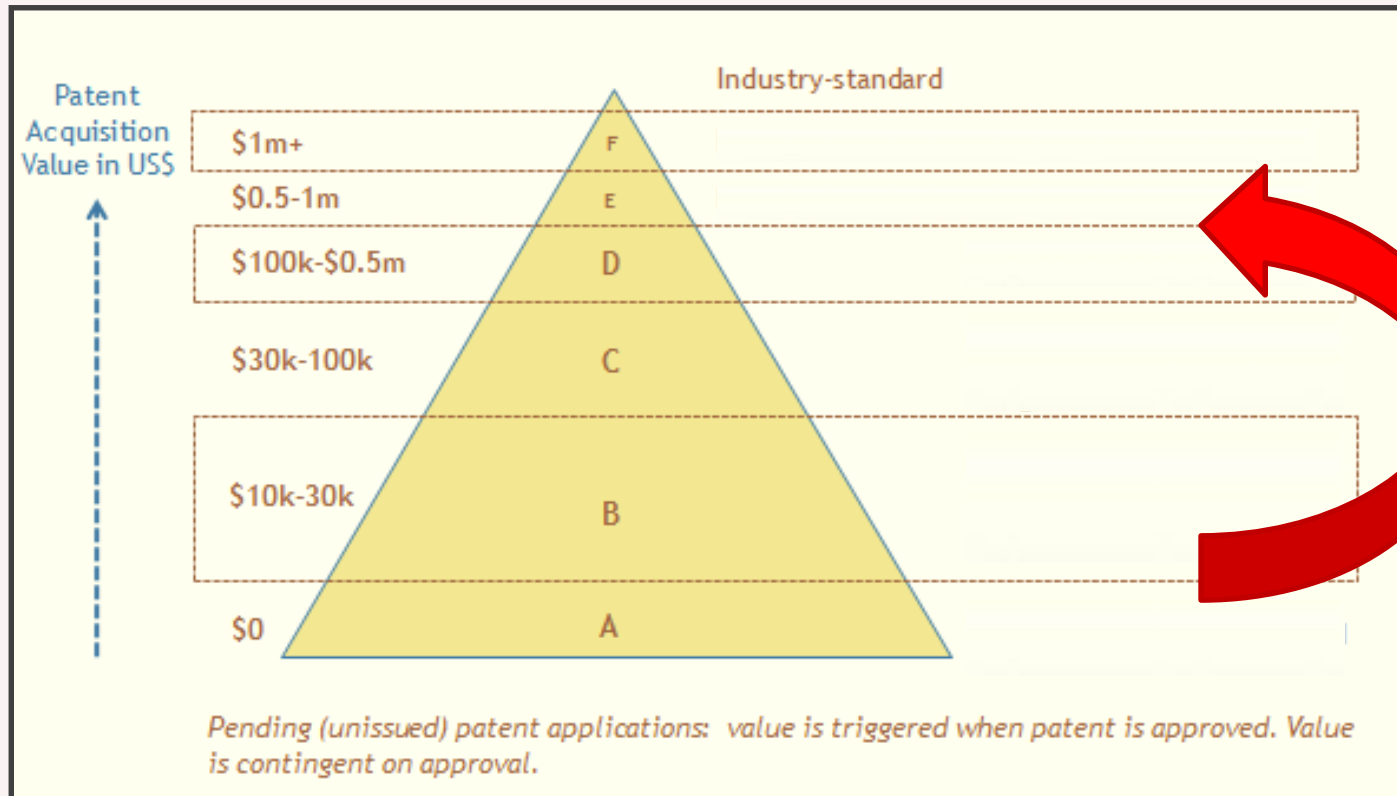
# How Valuable?

- Patent Broker's Perspective:

Issued Patents

Valid Patents

Infringed Patents



Infringement

# Inventor's Strategy [1]

- As to patents which have not been infringed, an Inventor may have to advertise his or her Inventions vigorously (but One-Way Process)
- Heuristically,  $\$P_{\text{No INF}} \equiv 1/10 \sim 1/20$  of  $\$P_{\text{INF}}$
- But remember. To make one deal happen, you may have to meet 10 different potential buyers, with several meeting for each of the potential buyers

MSNBC Democratic Presidential Debate  
D-New York



# Inventor's Strategy [2]

- Pray that Your **THREE** Wishes Come True !!!



# What to Do with Patents? Which Strategy to Choose?

## Individual Strategy

# How **Good** is Korean Patent?

- What if You only file Korean Patents?

**Stupid  
Disclosure**



# Where to File Your Patents?

**Patent Value in Each Country  
Must Depend Upon?**

\$10,000,000

**[1] Size of the Economy,  
*e.g.*, GDP!**

**[2] Extent of Protection,  
*e.g.*, Invalidation/Winning Ratio**

# Patent Value and IP 4 or IP 5? [1]

## ■ Where to File?



더 다양해진 통화로 모시겠습니다

※ 자세한 사항은 영업점에 문의하시기 바랍니다



미국



일본



유럽



중국



캐나다



호주



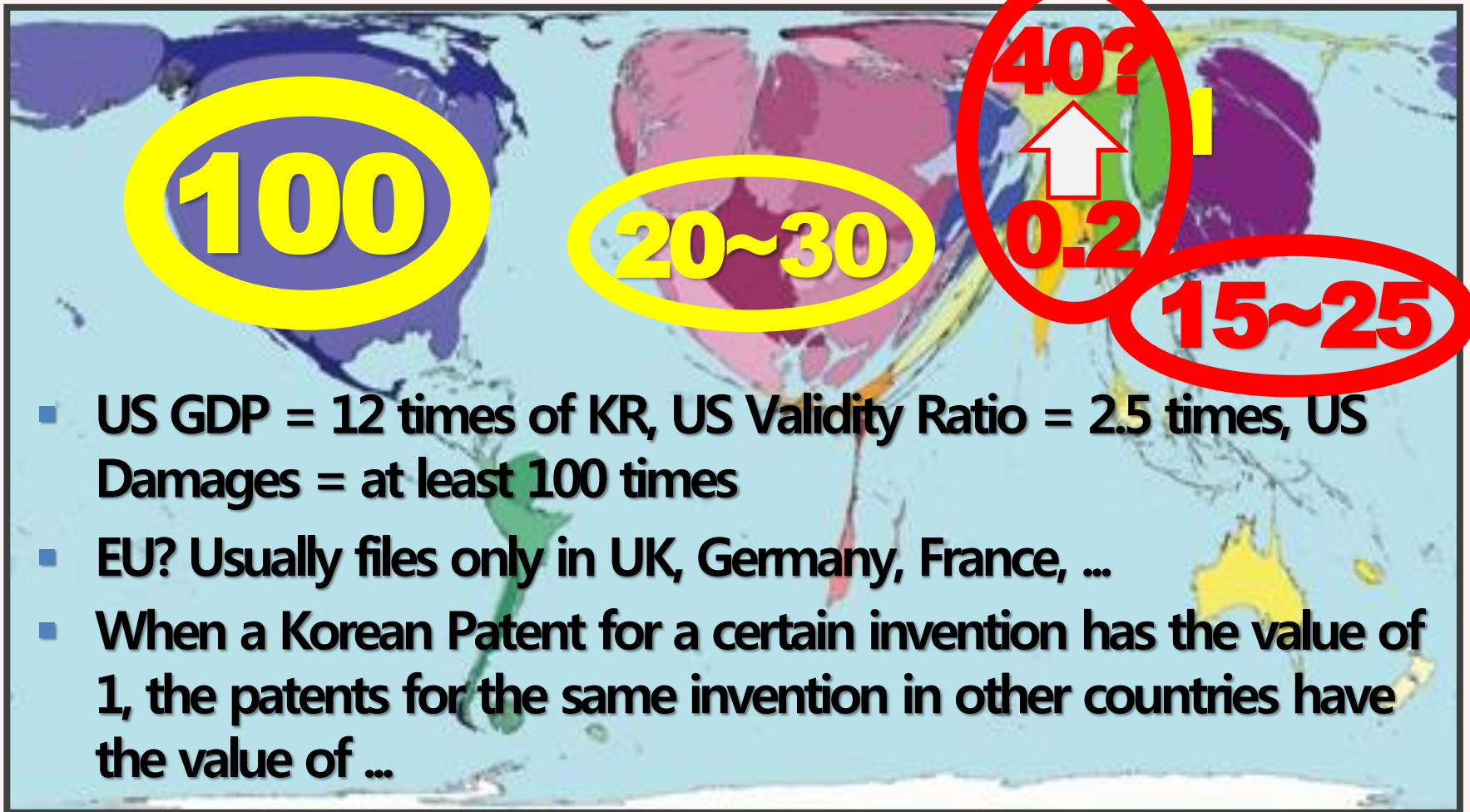
싱가폴



홍콩

## ■ Common-sense?

# Patent Value and IP 4 or IP 5? [2]



# Patent Value in Other Countries?

- Where to File?

더 다양한 통화로 모시겠습니다

※ 자세한 사항은 영업점에 문의하시기 바랍니다

 미국	 일본	 유럽	 중국
 캐나다	 호주	 싱가폴	 홍콩

- Common-sense?

# What to Do with Patents? Which Strategy to Choose?

## National Strategy

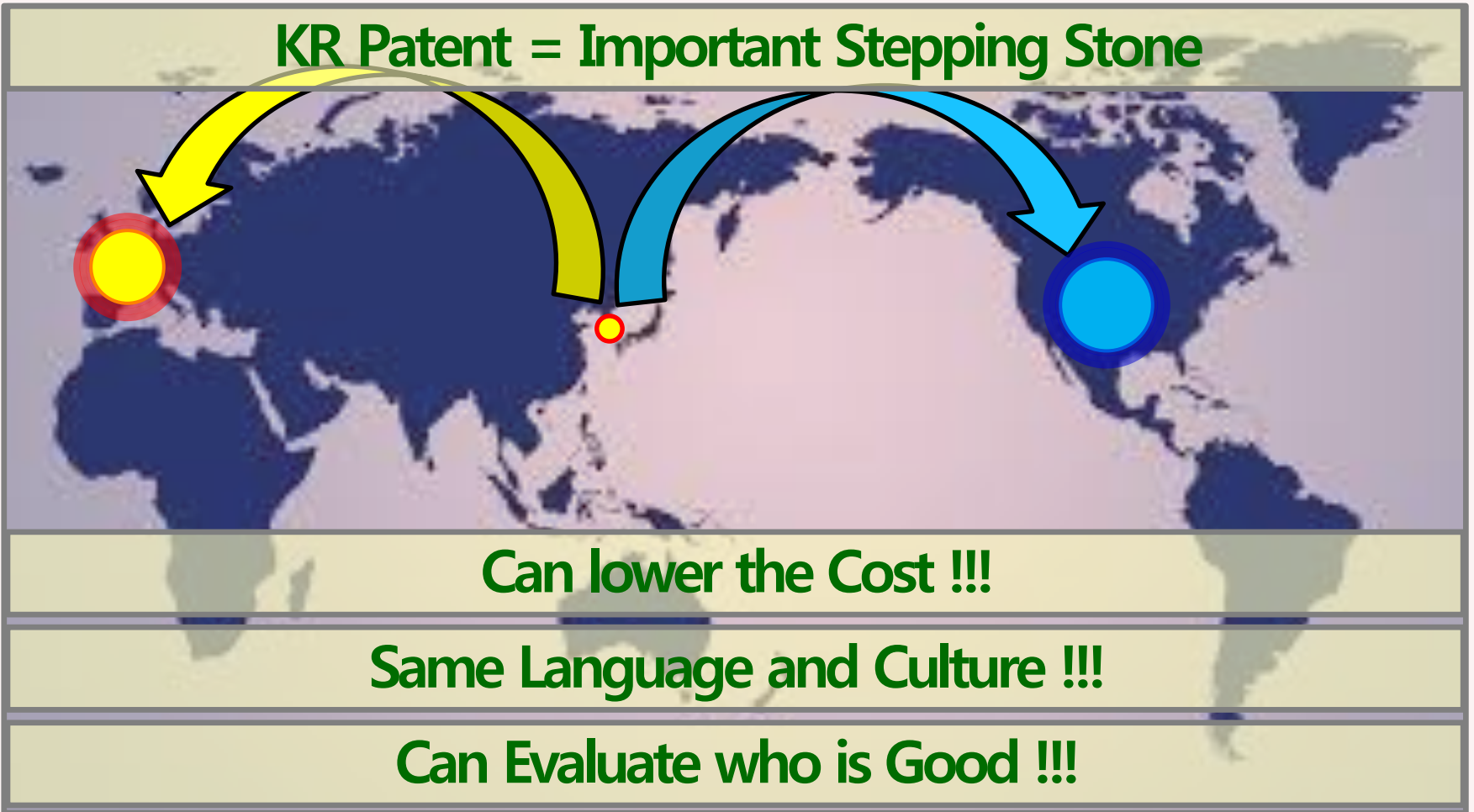
# 1<sup>st</sup> ~ Only a Stepping Stone? [1]

- **Direct Filing in Those Countries~ Expensive!**
  - **And which Firms to Hire?**
- 

- **And Which Attorney to Hire?**
- **And how to review their Work Product?**
- **And how are you going to handle their Fees?**

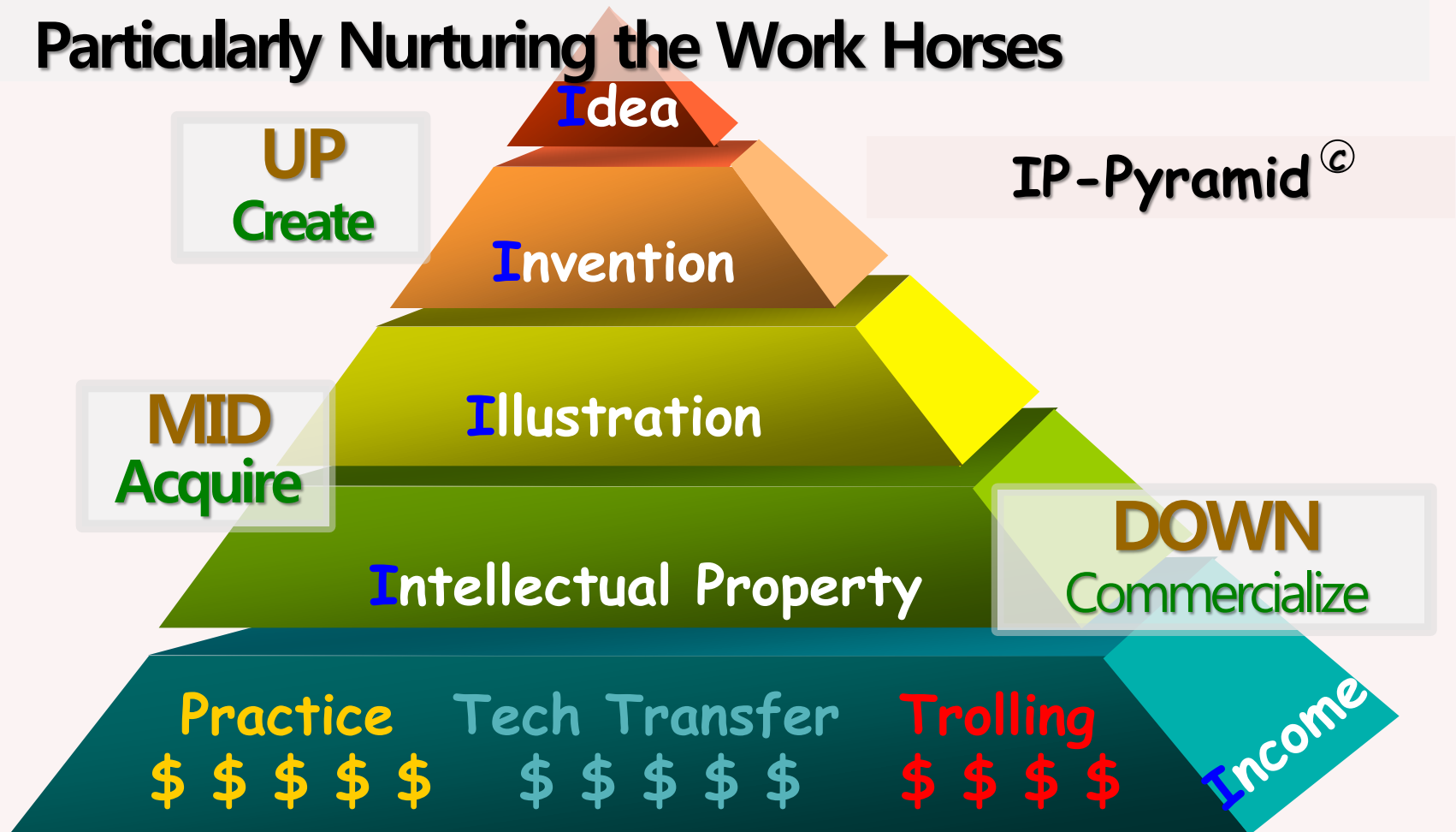
# 1<sup>st</sup> ~ Only a Stepping Stone? [2]

KR Patent = Important Stepping Stone



# 2<sup>nd</sup> ~ Build an IP Ecosystem [1]

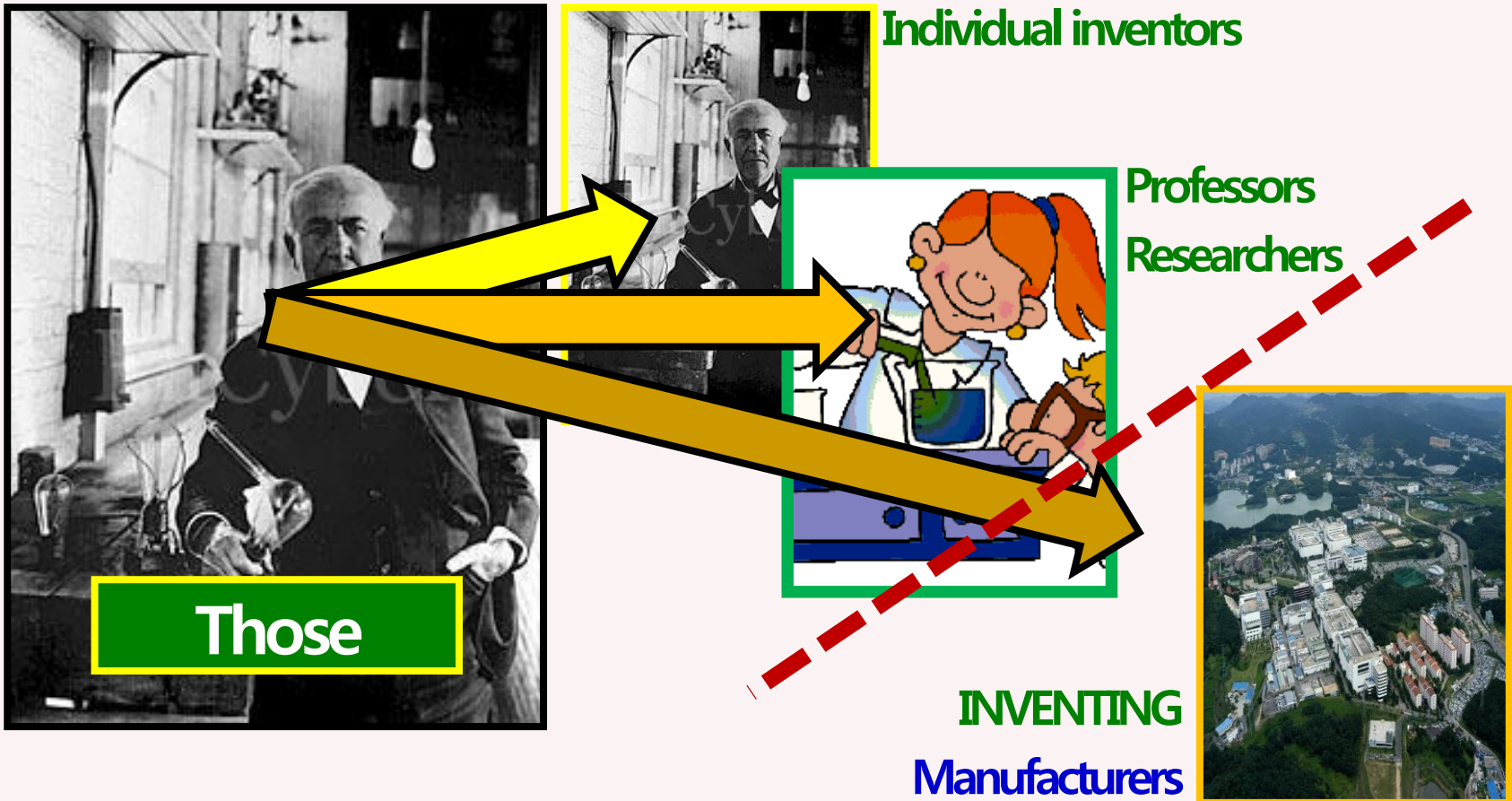
- Particularly Nurturing the Work Horses





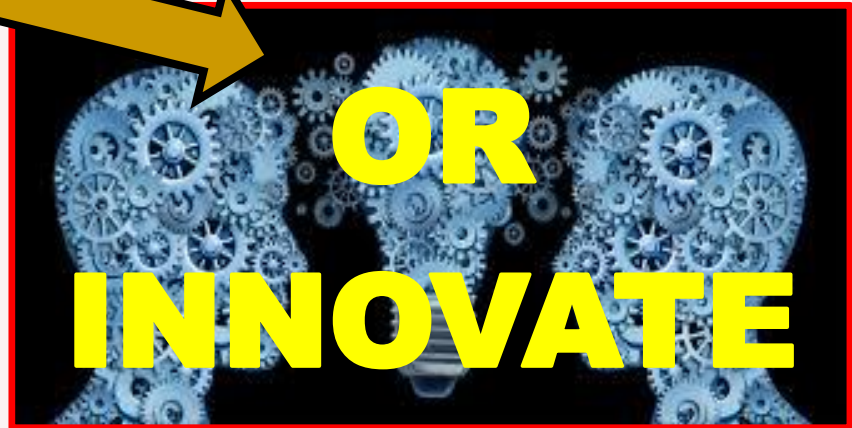
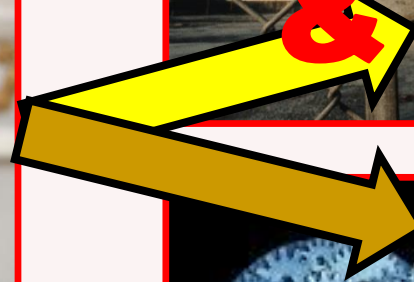
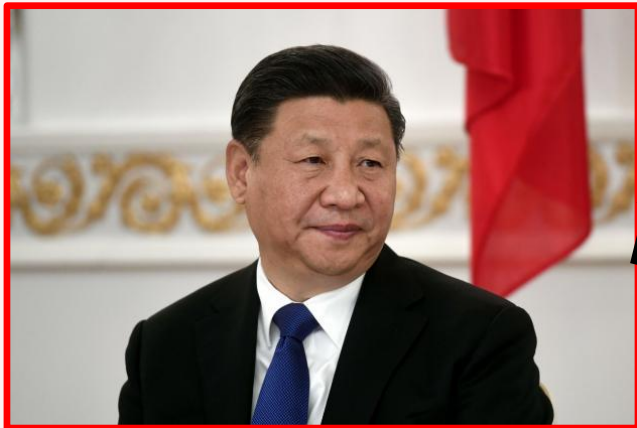
# 2<sup>nd</sup> ~ Build an IP Ecosystem [2]

- Who are **IP Producers**?



# 3<sup>rd</sup> ~ Chinese Way?

Ensure rewards to the Work Horses



# To Protect or Not ... [1]

## ■ Empirical Study:

- Yongmin Chen and Thitima Puttitanun, "Intellectual property rights and innovation in developing countries," Journal of Development Economics 78 (2005)..

## ■ Low GDP:

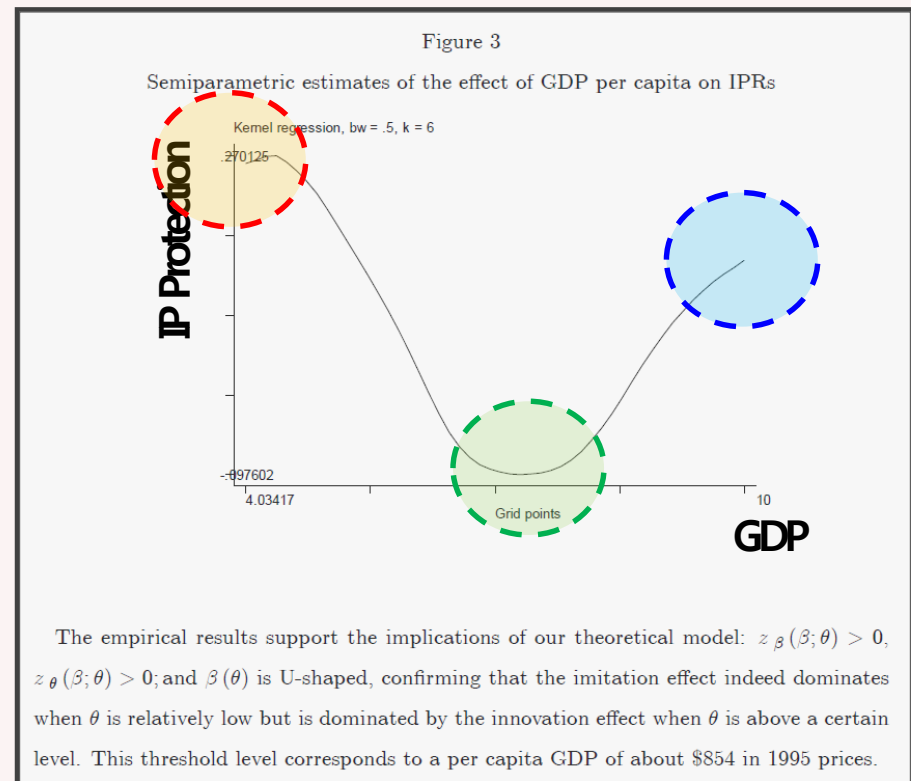
- little domestic industry
- need foreign investment
- vigorous IP protection

## ■ Mid GDP:

- need to protect domestic copiers
- thus, low IP protection

## ■ High GDP:

- now have industry to protect
- IP protection is getting stronger



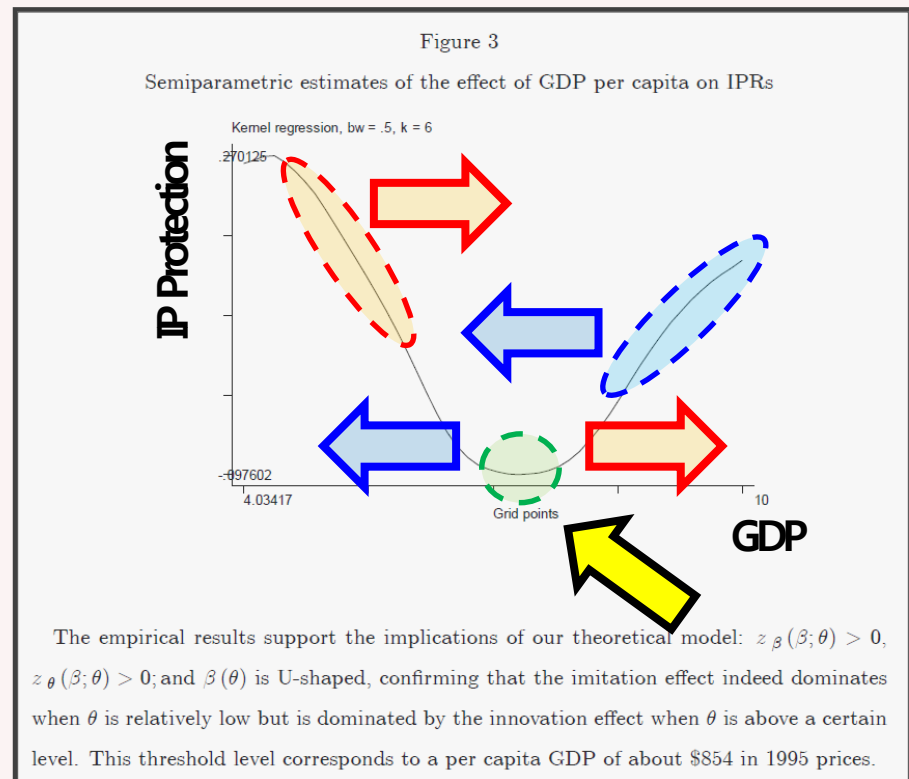
# To Protect or Not ... [2]

## ■ But When?

- inflexion point is less than USD 1,000
- but the study used data up to 2000

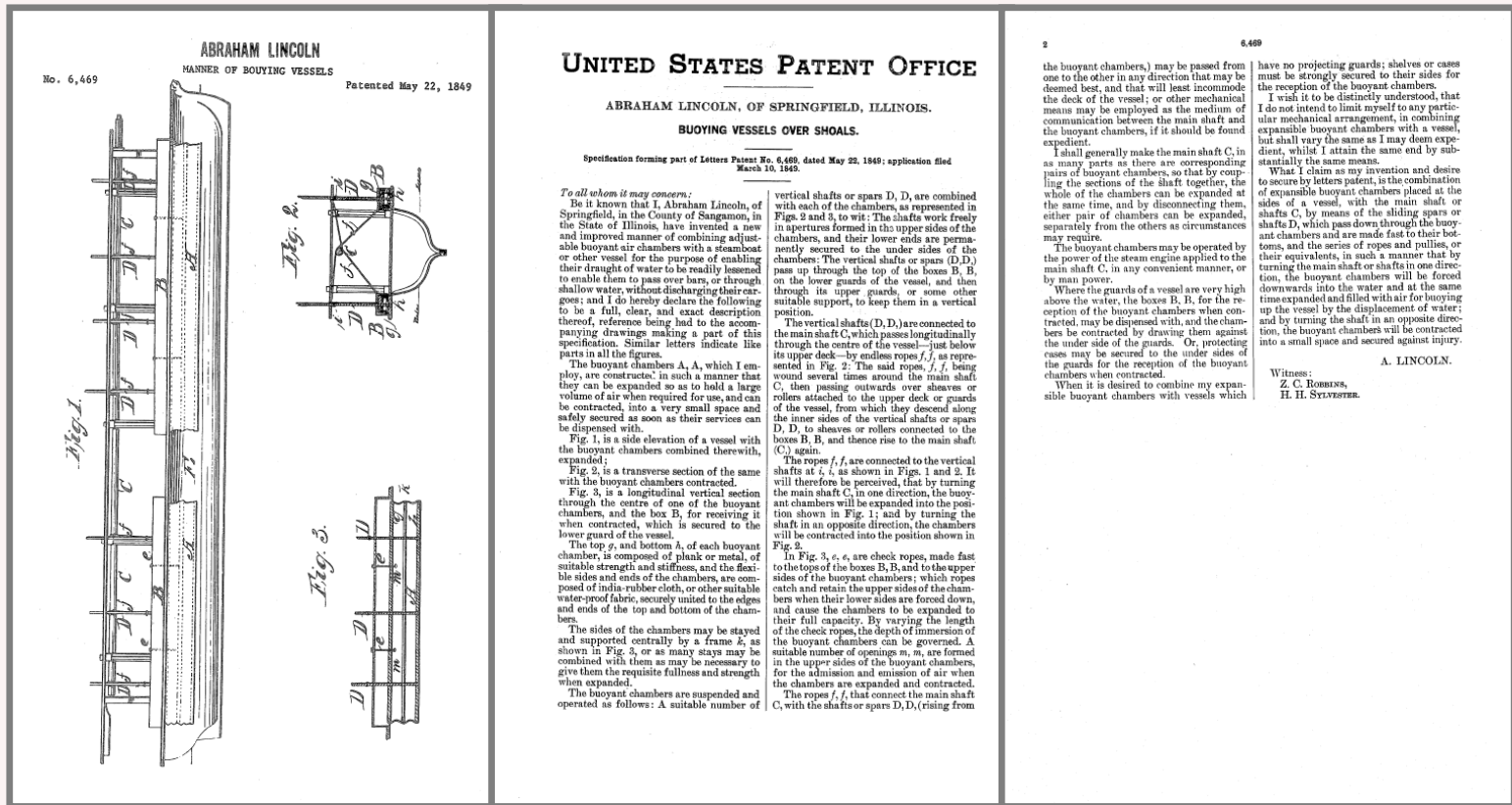
## ■ When to Shift?

- TOO LATE?
  - failure of domestic industry?
- TOO EARLY?
  - always safe?
  - moral hazard?
  - complacency?
  - Inventors extinct?



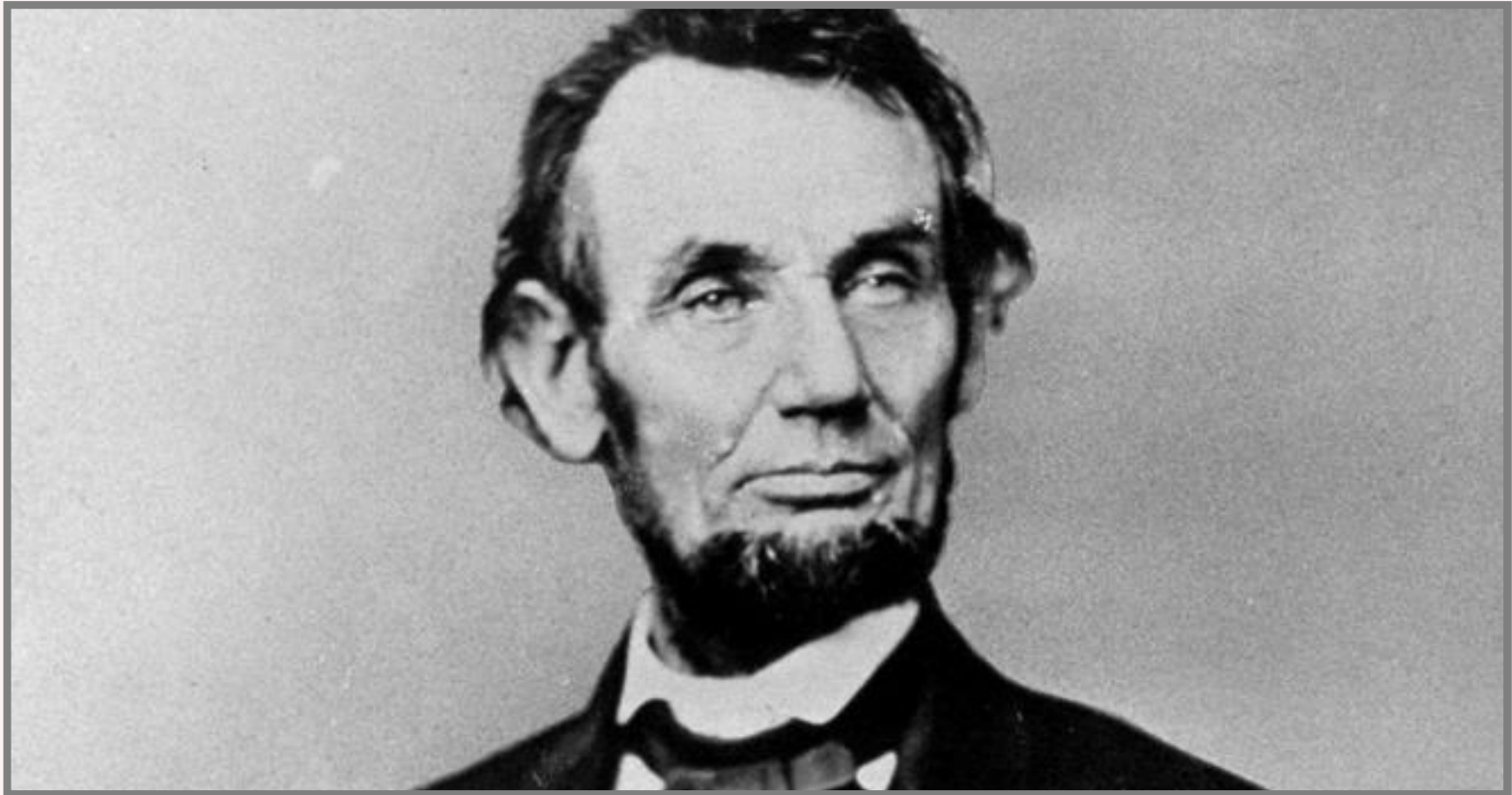
# What is This?

## Guess What:



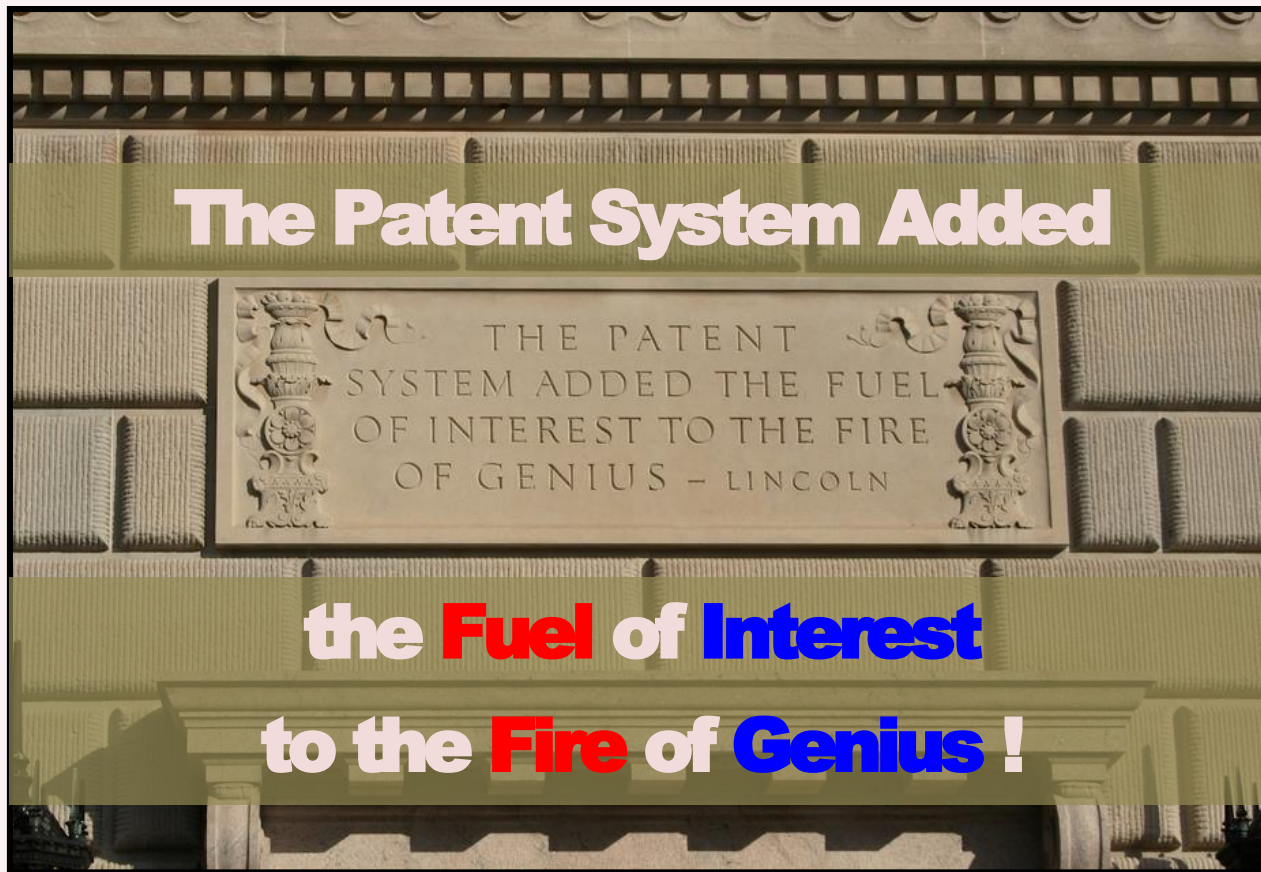
# Who is This?

- It is Abraham ... :



# And Mr. Lincoln Said!

- Engraved on the U.S. Dept. of Commerce:



**THANKS**

ขอบคุณ

**감사합니다**

**Youngtack Shim, Ph.D.**

**yshim@snu.ac.kr**

**82-10-4841-9900**