



Santa Clara
Engineering

What Good are Patents in the Real World?

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Why do we have patents?

- ▶ **Article I, Section 8, Clause 8**

- ▶ *The Congress shall have Power . . .] 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.*

- ▶ **35 USC §101. Inventions patentable**


- ▶ *Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.*

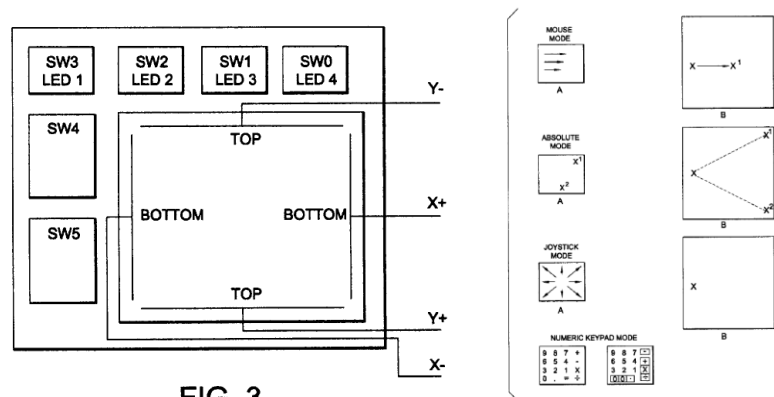
What is a patent?

- ▶ A government granted, limited duration monopoly on an invention
- ▶ Granted in exchange for disclosure to the public

▶ Or is it?

Why is an ECE professor telling us about them?

	
US006037930A	
United States Patent [19]	[11] Patent Number: 6,037,930
Wolfe et al.	[45] Date of Patent: Mar. 14, 2000
[54] MULTIMODAL TOUCH SENSITIVE PERIPHERAL DEVICE	
[75] Inventors: Andrew Lawrence Wolfe, Monroeville, Pa.; Gary Lloyd Barrett, Annapolis, Md.	
[73] Assignee: The Whitaker Corporation, Wilmington, Del.	
[21] Appl. No.: 08/839,081	
[22] Filed: Apr. 23, 1997	
Related U.S. Application Data	
[63] Continuation of application No. 08/539,269, Oct. 11, 1995, abandoned, which is a continuation of application No. 08/261,211, Jun. 15, 1994, abandoned, which is a continuation of application No. 07/614,022, Nov. 16, 1990, abandoned, which is a continuation of application No. 07/430,961, Nov. 1, 1989, abandoned, which is a continuation of application No. 07/056,300, Jun. 1, 1987, abandoned, which is a continuation of application No. 06/904,752, Sep. 5, 1986, abandoned, which is a continuation of application No. 06/675,658, Nov. 28, 1984, abandoned.	
[51] Int. Cl. G09G 5/00	
[52] U.S. Cl. 345/174; 178/18.05; 178/20.01	
[58] Field of Search 345/159, 160, 161, 163, 173, 174; 178/18, 18.01-20.04; 341/20, 26, 33; 273/148 B	
[56] References Cited	
U.S. PATENT DOCUMENTS	
Re. 28,238 11/1974 Koster 340/720	
FOREIGN PATENT DOCUMENTS	
0142132 12/1978 Japan 340/709	
0208641 11/1984 Japan 340/712	
2139762 11/1984 United Kingdom 340/709	
Primary Examiner —Richard A. Hjerpe	
Assistant Examiner —M. Fatahiyar	
Attorney, Agent, or Firm —Banner & Witcoff, Ltd.	
[57] ABSTRACT	
The present invention is to a touch sensitive intelligent multimodal peripheral device which includes a touch sensitive pad to which the operator applies a light pressure in a prescribed manner to effect cursor movement on a CRT screen or to input data to a computer. The device has four operating modes which are defined as the mouse mode, the absolute mode, the joystick mode and the numeric keypad mode.	



- ▶ 1984 – my first patent filing
- ▶ Took 16 years to issue – for irrelevant reasons.
- ▶ Named inventor on 93 additional patents

Why is an ECE professor telling us about them?

- ▶ Ran legal and IP licensing at a \$2B public company
- ▶ 15+ years as a corporate director
- ▶ 27 years as a litigation expert
 - ▶ ~300 litigation matters
 - ▶ Plaintiffs & Defendants
 - ▶ Large companies to individual inventors
 - ▶ >120 law firms
 - ▶ 20+ trials
 - ▶ >\$30B in claims

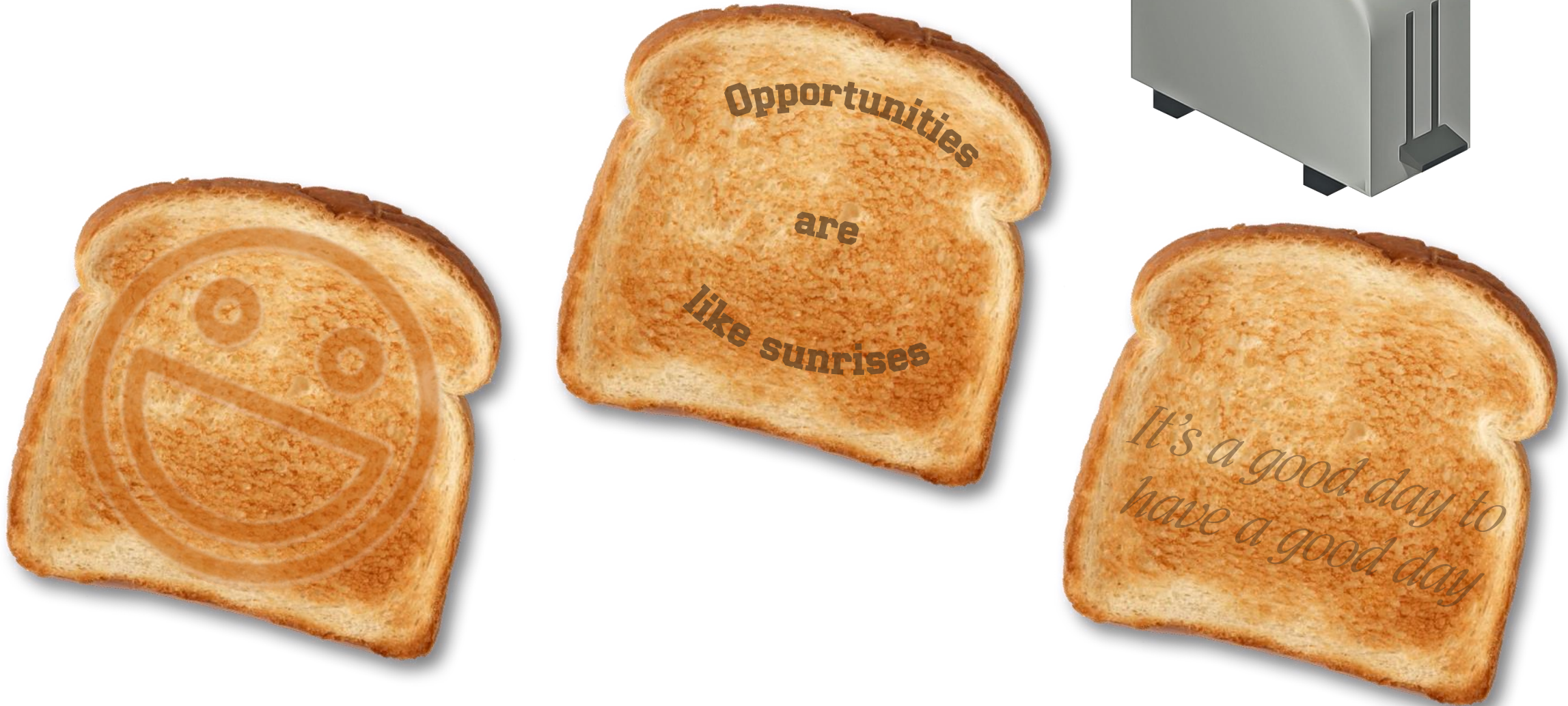


Summary – what I have learned

- ▶ There are many misconceptions about the value of patents
- ▶ Patent ownership (especially in technology) has become complicated
- ▶ There are many factors to consider in the modern world that Madison never thought of.

Let's explore an example

Morning Motivator Laser Toaster



Should I file a patent?

- ▶ Can I file a patent?
 - ▶ Is it a patentable medium? (Yes – an apparatus and perhaps a method)
 - ▶ Is it novel? (I think so)
- ▶ What will it cost?
- ▶ When do I need to do it?
 - ▶ Can I start selling the product first?
- ▶ Intangibles
 - ▶ Will it distract my engineers?
 - ▶ Is the money better spent elsewhere?
 - ▶ How will potential competitors react?
 - ▶ Do I want anyone to know how it works?

How much does it cost?

- ▶ Lawyer fees
 - ▶ \$15K - \$150K depending on complexity
- ▶ Filing fees
 - ▶ \$64-\$1500 (complexity and entity size)
- ▶ Examination fees
 - ▶ \$300-\$1500
- ▶ Issue fees
 - ▶ \$240 - \$1200
- ▶ Late fees, Expediting fees
 - ▶ Can be many thousands more
- ▶ Employee time

**This only
covers the U.S.**

The process

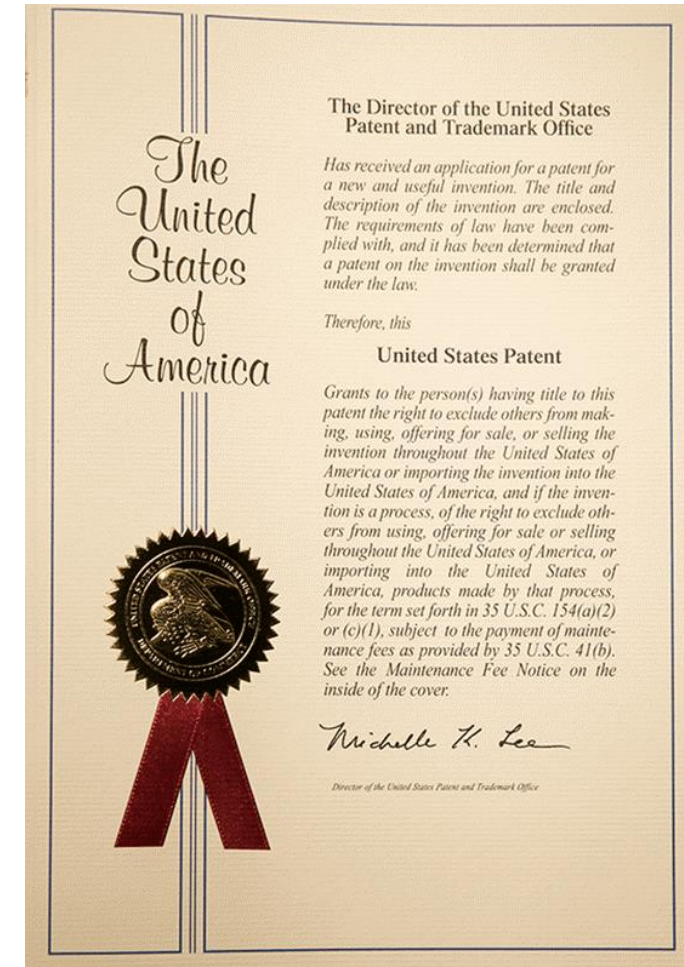
- ▶ Patent must be written and filed
 - ▶ Quality of the writing determines the long-term value
 - ▶ Enormous number of patents have serious errors
 - ▶ Technical and clerical
- ▶ Known prior art must be disclosed
- ▶ Examiner searches for additional art
- ▶ Generally, a series of rejections and responses
- ▶ Patent is finally allowed and issued or rejected
 - ▶ Appeals are possible
- ▶ 2-5 years is typical

The patent owner
has no rights until the
patent issues

Yay – you got a patent!

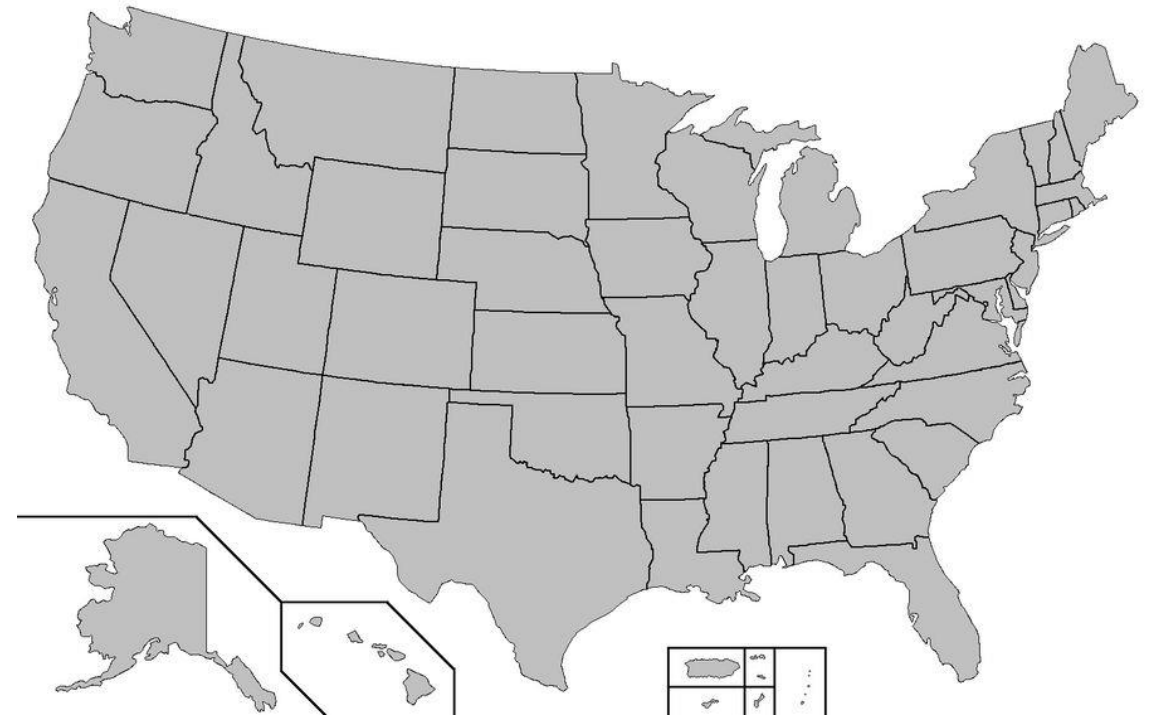
The patent grant confers “the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States.”

The patent does not grant you the right to make your product.



Where do I have these rights

- ▶ U.S. States and territories
- ▶ Worldwide filings are possible
 - ▶ But detailed legal work in each country is required.
 - ▶ Per country fees as well
- ▶ U.S. Protection may be enough
 - ▶ Many products are not economically feasible without the U.S. market



Did I deserve my patent?

Probably not.

- ▶ Most patents are invalid
- ▶ Nobody can find all the prior art
 - ▶ Too expensive and time consuming
- ▶ Patent drafters make mistakes
- ▶ Examiners do a poor job
 - ▶ They only get ~1.5 days per patent
 - ▶ Search the art
 - ▶ Read and understand
 - ▶ Write their opinion with legal justifications
- ▶ Not true subject matter experts
- ▶ Seldom find papers or product art

Can I assert my patent rights?

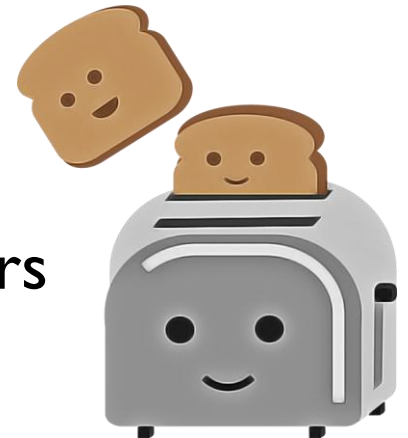
- ▶ Does my patent have economic value?
- ▶ Can I afford litigation?
- ▶ Am I vulnerable to retaliation?

Who am I and who is infringing?

- ▶ The market leader
- ▶ A large corporation with many products?
- ▶ A small company or startup
- ▶ An individual inventor or NPE

Examining a Scenario

- ▶ Morning Motivator Laser Toaster is selling like hotcakes (mixed metaphor?)
- ▶ MMco has invested heavily in R&D, marketing, and distribution
- ▶ After 5 years, our first patent has issued, broadly protecting the category
- ▶ Inspirational Imprint has launched a similar product - \$10 cheaper
- ▶ They are buying the top spot on Amazon and taking some customers



What should we do?

Can I stop them?

- ▶ Can I sue them and make them stop using my patent?
 - ▶ Maybe
- ▶ To stop them – I need a court-ordered injunction
 - ▶ A legal order that stops them from making, using, selling, or offering to sell an infringing product
 - ▶ Under current law – it is nearly impossible

(Preliminary) Injunction Standard

A plaintiff must show (1) that it has suffered irreparable injury, (2) that remedies at law (e.g., monetary damages) are inadequate, (3) that a balancing of hardships favors a grant of injunction, and (4) that the public interest would "not be disserved" by the grant of a preliminary injunction.

- ▶ Extremely hard to prove
- ▶ Money is usually the best you can do
- ▶ I can't remember the last time one was successful
- ▶ Takes a long time and generally stayed until appeal

Back Door Injunctions

- ▶ Bankrupt the infringer
- ▶ The International Trade Commission (ITC) - section 337 hearing
 - ▶ The ITC can hold a Trial in an administrative court
 - ▶ U.S. government regulators can take sides
 - ▶ Domestic Industry requirement
 - ▶ ALJ makes a recommendation
 - ▶ ITC can request an exclusion order to stop importation
 - ▶ President must approve
- ▶ Relatively fast-moving
- ▶ Occasionally political

Section 337 of the Tariff Act of 1930, which declares unlawful "[t]he importation into the United States, the sale for importation, or the sale within the United States after importation by the owner, importer, or consignee, of articles that (i) *infringe a valid and enforceable United States patent. . . or (ii) are made, produced, or mined under, or by means of, a process covered by the claims of a valid and enforceable United States patent.*"

What action should I take?

- ▶ Ask them to license my patent and pay a royalty.
 - ▶ They will tell me to pound sand (in less polite terms)
- ▶ Send a cease-and-desist letter
 - ▶ Risk of declaratory judgement action
- ▶ File a lawsuit
 - ▶ Federal District Court or ITC
- ▶ Let it go and compete in the marketplace



Once you fire the first shot – it's war

What can go wrong if I sue?

- ▶ The largest risk of litigating is that you lose control and can't back out.
- ▶ Risk I – Patent Invalidation
 - ▶ Other party can file an inter-partes reexamination (IPR)
 - ▶ Challenges validity of the patent
 - ▶ More often than not, the patent is cancelled
 - ▶ Can be withdrawn in a settlement
 - ▶ Moderately expensive to defend
 - ▶ Other party can file an ex-parte reexamination
 - ▶ Cannot be withdrawn
 - ▶ Can drag on for a long time

What can go wrong if I sue?

- ▶ Countersuit
 - ▶ You get sued on patents the other party has
 - ▶ Even meritless suits cost millions to defend
 - ▶ Massively distracting for your company
 - ▶ There may be liability on your end

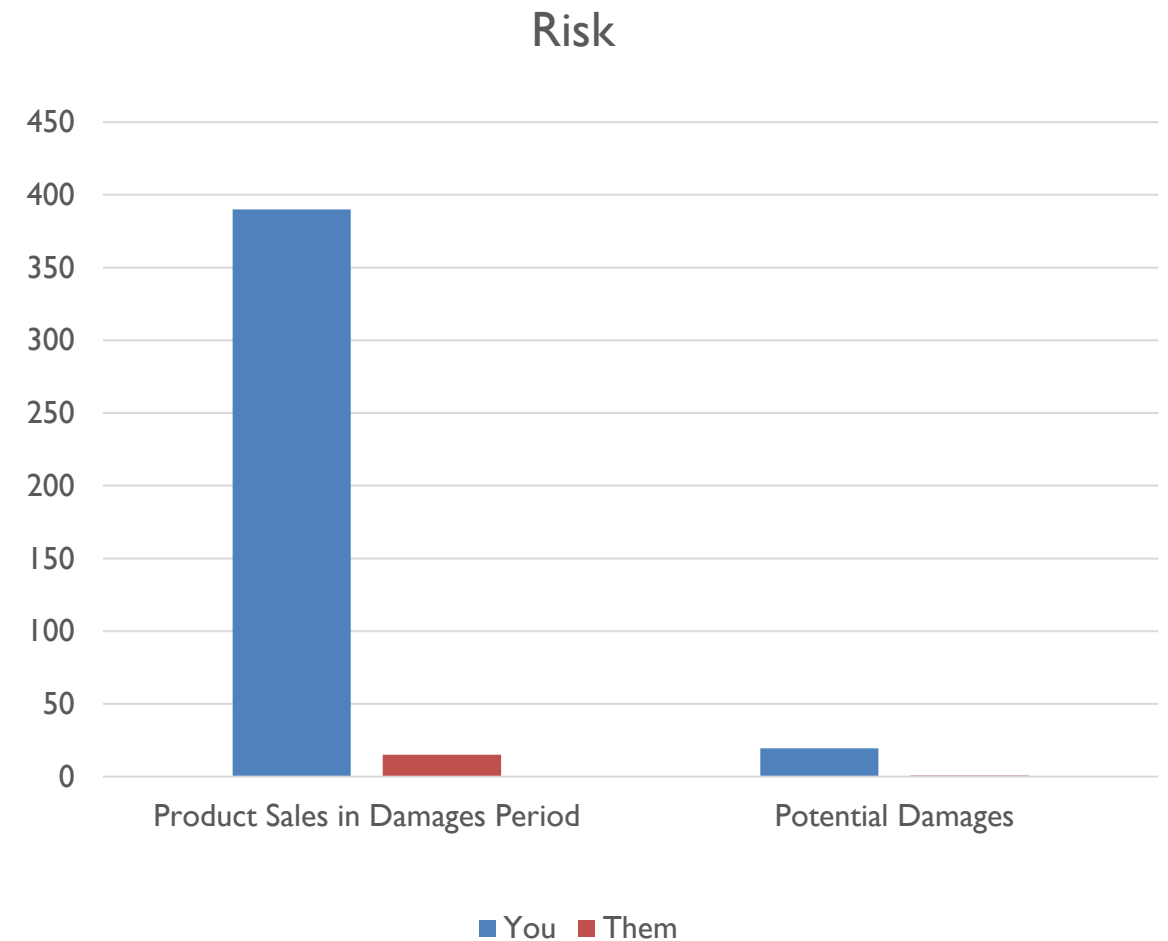
- ▶ What if they have no patents?
 - ▶ They can buy some and sue you
 - ▶ Might be better for them than settling

Will I get justice?

- ▶ Maybe
- ▶ Juries seldom understand the technical issues
 - ▶ They may just pick the taller lawyer
 - ▶ They may just “split the baby”
 - ▶ They may do something completely irrational
- ▶ Juries often have good intuitions
 - ▶ But there is a large probability they get it wrong
 - ▶ Appellate courts will not fix errors of fact

Balance of Liability

- ▶ Who has more at risk?
- ▶ You have up to 6 years past liability
- ▶ You had 100% market share for years
- ▶ You still have 90% market share
- ▶ You are way more at risk



Legal (or illegal) external pressure

- ▶ Does the infringer have power?
 - ▶ Can they influence retailers/customers?
 - ▶ Can they influence supply chains?
 - ▶ Can they influence regulators or legislators?
 - ▶ Can they cut you off from information or coalitions?
 - ▶ Can they damage your reputation?

What is this going to cost me?

- ▶ Preparing the case - \$500K+
- ▶ Discovery, Motion Practice, Trial Prep, Experts, Mandatory Mediation - \$3-5M
- ▶ Trial - \$2-4M
- ▶ Appeals - \$500K+

- ▶ Countersuit – double everything + potential damages
- ▶ IPR defense - \$250K per patent

- ▶ What if I lose?
 - ▶ Costs

What could I recover?

- ▶ I can't get an injunction – how much can I get in cash?
- ▶ Reasonable Royalty at the time of the Hypothetical Negotiation
 - ▶ How do we know how much that is?
- ▶ Old rule of thumb – 25% of profits
 - ▶ Never had any legal or factual basis
 - ▶ Made sense for a new drug. Made no sense for an iPhone.
 - ▶ Eliminated in 2011 - *Uniloc USA Inc v Microsoft Corp*

Apportionment

- ▶ Patent royalties should represent the incremental value
 - ▶ How much more is the product worth than if the patent were not practiced
 - ▶ This can be very difficult to calculate
- ▶ The Entire Market Value Rule
 - ▶ Is the patented feature “the basis” of demand for that product.
 - ▶ If the evidence shows that the patented feature creates the entire value of the product, it is sensible to use all product revenues to calculate damages.
 - ▶ A narrow exception to the general rule that apportionment is required.
 - ▶ Seldom the case in electronics

Apportionment

- ▶ Problem – a cell phone or laptop may practice 250K+ patents
 - ▶ There are over 60K “necessary” patent families for 5G alone
- ▶ Patent royalties should be based on the “smallest saleable patent-practicing unit” (“SSPPU”) to reduce speculation as to value.
- ▶ Profits must be apportioned among patentable features.
- ▶ Royalties should be tied to marginal value.
- ▶ In practice – Jury awards far exceed proper apportionment.
 - ▶ This is cultural – not statutory. Punishment for “taking property.”
 - ▶ Could be limited by the courts at any time

What happens when I sue and win?

- ▶ It may have already taken 3+ years.
 - ▶ There will then be appeals – another year or two and the win may be reversed or remanded for another trial.
 - ▶ If there is no appeal – I need to collect on the judgement. How?
 - ▶ Since there is no injunction – do I need to sue again next year?
-
- ▶ Many cases settle after a verdict to avoid all this.

So – what good are patents?

- ▶ Proving you invented it first
 - ▶ This prevents others from patenting what you are making
 - ▶ You can publish instead – but peer-reviewed publications are harder to control
 - ▶ Large companies used to publish technical journals
 - ▶ The publication must be provably available to the public (usually libraries)
- ▶ Defensive positions – mutual assured destruction
 - ▶ High-revenue, profitable companies cannot afford to sue me due to countersuit risks

So – what good are patents?

- ▶ **Status**

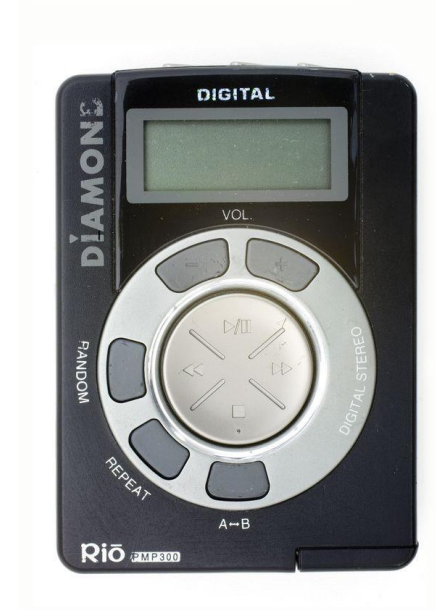
- ▶ Your company's reputation as an innovator
- ▶ Your employee's desire for recognition

- ▶ **Enterprise value**

- ▶ Patents are an asset
- ▶ Sometimes can be collateral

Sometimes the economics work out

- ▶ Another company can have market dominance
- ▶ Potential damages can outweigh risks
 - ▶ Transmeta v Intel
 - ▶ Sonos v Denon



Alternate Monetization Strategies



Freedom is just another word for nothin' left to lose

- ▶ Non-Practicing Entities (NPE) – i.e. patent trolls
 - ▶ Have no products or services
 - ▶ Essentially immune to retaliation
 - ▶ Can assert patents without fear

But I'm not an NPE

- ▶ Sell your patents to one
 - ▶ You get the cash up front
 - ▶ You don't own the patent any more
 - ▶ It is harder (and less productive) to retaliate against you
- ▶ Where do NPE's get the money
 - ▶ Profits from the last deal (unusual)
 - ▶ Syndication (sell shares to investors)
 - ▶ You slip them some cash
 - ▶ Backend deal with you
 - ▶ Makes it more likely you will get retaliated against – if anyone can find out

Portfolio Management

- ▶ Medium and large companies tend to overpatent
 - ▶ Hard to decide which ones are valuable
 - ▶ Tendency to file in every country where they do business
- ▶ Ongoing costs are a problem
 - ▶ Filing fees
 - ▶ Maintenance fees – up to \$13K per U.S. patent
 - ▶ Additional fees for each country
- ▶ Enforcement outside the U.S. is difficult
 - ▶ National courts
 - ▶ Limited per-country revenue in many cases
 - ▶ Unified Patent Court (UPC) may change that – 24 EU countries

Portfolio Management Strategies

▶ Divestment

- ▶ Sell off a portion of the portfolio
- ▶ Very common in semiconductors the last 5-7 years – often from mergers

▶ Pruning

- ▶ Dropping less-valuable patents or reducing national coverage
- ▶ Saves fees
- ▶ Very hard decision process – should be done more

What if I get sued first?

- ▶ Evaluate the risks and power dynamics in reverse
 - ▶ Who is suing me?
 - ▶ Why are they suing me?
 - ▶ What do they really want?
 - ▶ What are their pain points?
 - ▶ What is their potential countersuit liability?
 - ▶ What are my defense costs? Is it cheaper to settle?
 - ▶ Am I setting a precedent by fighting or settling?

Takeaways

- ▶ War is hell. Usually everyone gets hurt.
- ▶ Litigation is expensive
- ▶ Patents can be powerful – but litigation carries risks and can become uncontrollable
- ▶ Patents can also be an expense – watch the budget
- ▶ Patents are primarily defensive – don't operate unarmed
- ▶ Nothing can protect against NPE litigation.