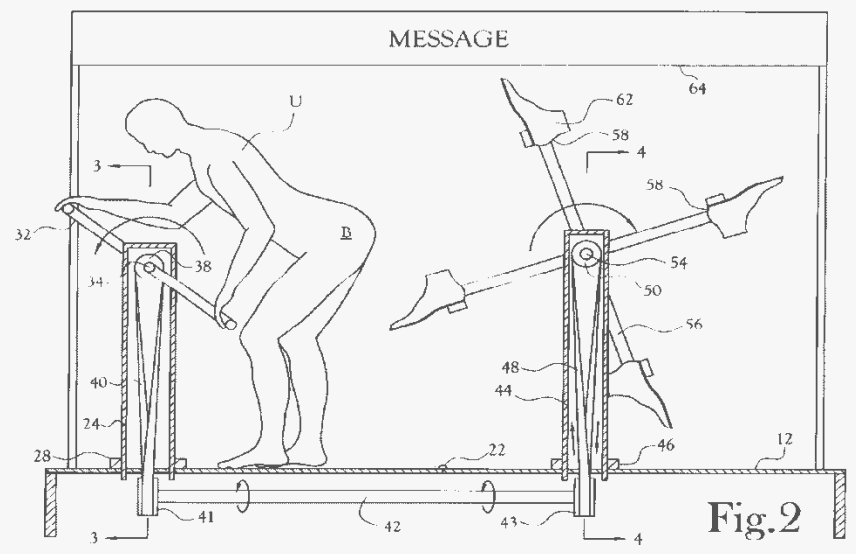


Patent Searching and Patent Landscapes

ECE 3991 – Fall 2014

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U.S. Patent Sep. 25, 2001 Sheet 2 of 7 US 6,293,874 B1

Prologue

- Please look at last year's Powerpoint for this class, available at:
 - <http://eng.utah.edu/~kstevens/3991/patent-searching.pdf>

What is Intellectual Property (IP)?!

Property rights for intellectual creations that
have been put into fixed, tangible format

Four types of intellectual property

- **Patents** – protects new inventions
- **Trademarks** – anything that identifies the source of a product or service offered in commerce
- **Copyrights** – protect the *specific expression of an idea* in text, music, choreography, graphic arts
- **Trade Secrets** – any secret formula, process, or business method that offers a commercial advantage to the holder



What is a patent?

A Patent is a property right granted by the United States to the original inventor(s) for a limited time in exchange for public disclosure of the invention.

The Patent gives the inventor the [*negative!*] right “to exclude others from making, using, offering for sale, or selling” the invention in the United States, or importing the invention into the United States.

Article I, Section 8, Clause 8 of the United States Constitution, known as the ‘Copyright Clause’

Three types of patents

- **Utility Patents** – Granted for a process; machine or manufacture; composition of matter; or an improvement thereof. Utility patents have sequential numbers.
- **Design Patents** – Protects the new, ornamental design (i.e. “outward appearance”) for an article of manufacture. Design patent numbers are preceded by the letter “D.”
- **Plant Patents** – granted on any distinct and new variety of an asexually reproduced plant. Plant patent numbers are preceded by “PP.”

Why conduct a patent search

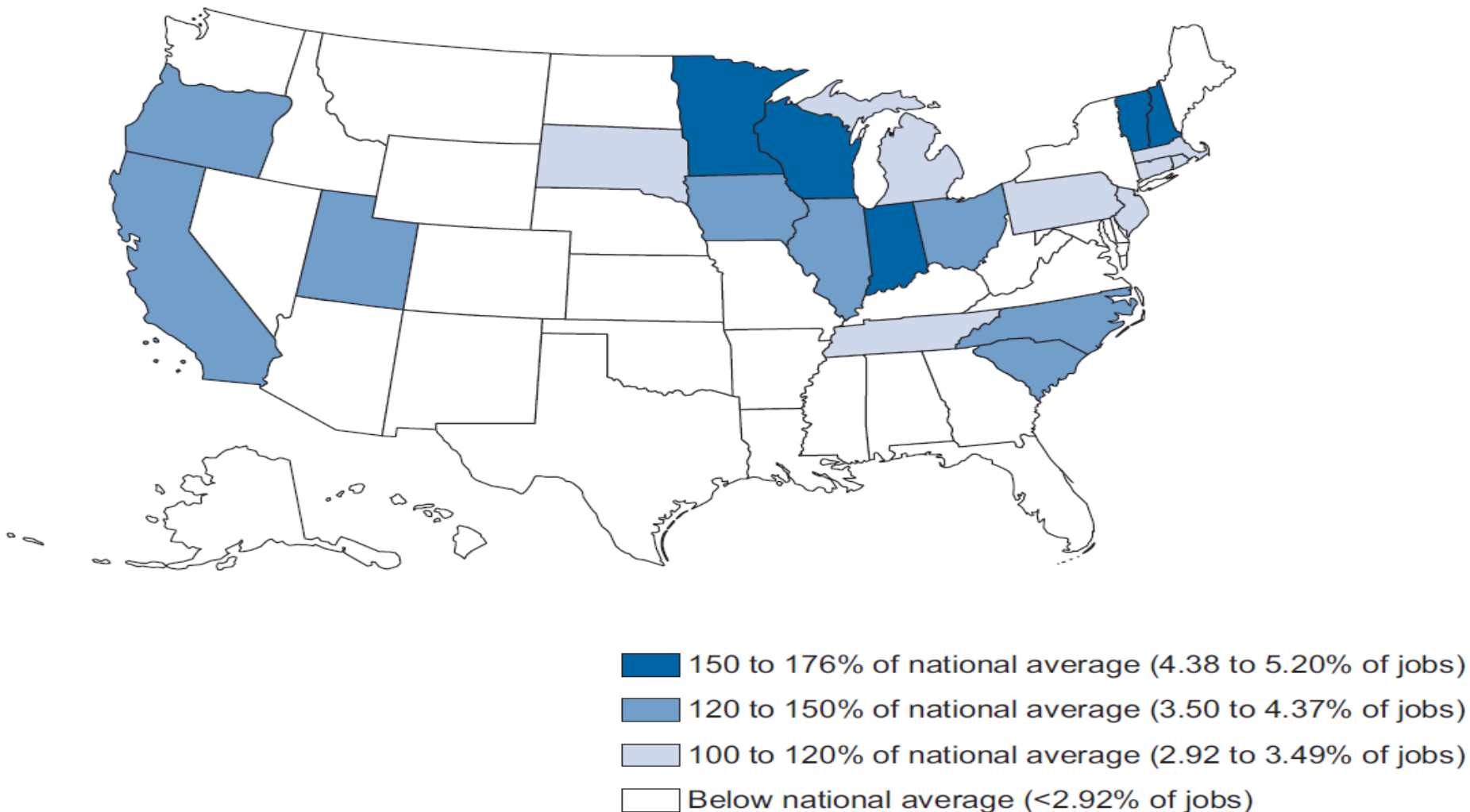
- Confirms the novelty of your invention
 - Identify the available IP ‘spaces’ between ‘footprints’
- Starts path to determine “Freedom to Operate”
 - Identify IP ‘footprint’ of competitors
- Better identify the competitive market space
- Identify companies for collaboration or marketing
- Save time and money by “not re-inventing the wheel!”

‘Show me the money!’ – 1

- “Apple Awarded \$1.049 Billion In Damages As Jury Finds Samsung Infringed On Design And Software Patents.” – (August 24, 2012)
- “Samsung And Google Bury The Apple Hatchet, Sign 10-Year Patent Agreement.” – (January 27, 2014)
 - “..Google continues to put the patents it gained from its \$12.5 billion Motorola acquisition to good use across the Android ecosystem..”

'Show me the money!' – 3

Map 3. Patent-Intensive Industries' Share of Covered Employment by State, 2010



Source: ESA calculations using data from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages.



INTELLECTUAL PROPERTY AND THE U.S. ECONOMY: **INDUSTRIES IN FOCUS**

PREPARED BY
ECONOMICS AND STATISTICS ADMINISTRATION
AND
UNITED STATES PATENT AND TRADEMARK OFFICE

MARCH 2012

[http://www.uspto.gov/
news/publications/
IP_Report_March_2012.pdf](http://www.uspto.gov/news/publications/IP_Report_March_2012.pdf)

How long does patent protection last?

- Utility patent – twenty years from the non-provisional patent filing date
- Design patent – fourteen years from issue date
- Plant patent – twenty years from filing date

Once these terms expire, the invention is now 'public domain,' and may be made, used or sold by anyone without licensing!

Which Online Tools to Use?

- Google Patent
 - <http://www.google.com/patents>
- USPTO Website
 - <http://www.uspto.gov>
- Esp@cenet
 - <http://worldwide.espacenet.com>
- Freepatentsonline
 - <http://www.freepatentsonline.com>

Google Patents

Identify keywords and enter search.



Got 1000+ hits?!



'Too many hits' – add keywords, which will reduce numbers of results.



Examine titles – look at full-text for most relevant patents and examine in detail..



Click on Google 'prior art' button for closest related patents, and examine results.



Repeat, using different keywords.

USPTO Website

Identify key words and search in USPTO website.



Got 1000+ hits?!



'Too many hits' – add more keywords, or search for keywords only in 'Title' or 'Abstract' fields of patents.



When you have a browsable number of results – maybe less than 200 - read titles and select most closely related patents to examine in detail.



Look up classifications and 'Definitions' for most closely-related patents.



Re-do search by most relevant classification(s), add keywords if helpful, and select patents and published applications most similar to your invention.



Examine 'prior art' and 'referenced by' patents for those most similar to your new invention.

Pros and Cons to each?

- Google Patent
 - Fast!
 - Links to non-patent journal literature;
 - Links to USPTO Classification and Definitions Manuals;
 - Searching through OCR for keywords goes back further than USPTO;
 - Uses Google search algorithm;
 - Unknown numbers of patents missing;
 - Less authoritative;
 - More results to look through!
- USPTO Website
 - Technologies defined by subject experts;
 - Almost all patents back to 1790 are available;
 - Links to earlier 'prior art' and later 'referred by' patents;
 - PDF copies for download and display;
 - Response time can be slower.

Also – Esp@cenet, Freepatentsonline (next slide).

Pros and Cons to each? (cont.)

- Esp@cenet
 - More than 80+ million patents and applications from 80+ countries!
 - Patents from all countries grouped into and searchable by patent 'families';
 - Machine translation to and from 21 languages!
 - PDF copies for download;
 - Links to USPTO Classification and Definition Manuals;
 - Uses Google search algorithm;
 - Uses IPC and CPC systems, not USPC;
 - Coverage not as complete;
 - Not as authoritative.
- FreepatentsOnline
 - Uses same search language as USPTO 'Advanced' searching;
 - Save search results into individual 'portfolios';
 - Export results to .xls (spreadsheet) files for easier sorting and analysis!;
 - Limits of 20 'portfolios' and 10,000 individual documents total may be saved in 'Free' subscriptions.

*Searching U.S. and
Foreign Patents –
Let's go live!*

Start with a Google Patent or USPTO patent search..

- www.google.com/patents or
patents.google.com

OR

- uspto.gov

Search for

USPTO Web Sites

- USPTO Patents Main Page
[www.uspto.gov/main/patents.htm]
- USPTO Resources and Guidance
[<http://uspto.gov/patents/resources/index.jsp>]
- *General Information Concerning Patents*
“The best introduction to patents and trademarks I’ve ever found! Originally about 87 pages in print, plus a handy list of FAQs.”
[http://www.uspto.gov/patents/resources/general_info_concerning_patents.jsp]

USPTO Web Sites, cont.

- *Pro Se and Pro Bono*

“The page for those inventors either filing on their own behalf (pro se) or are seeking free or greatly reduced services (pro bono) from patent professionals.”

[<http://www.uspto.gov/inventors/proseprobono/index.jsp>]

- *The Inventors Eye*

“The USPTO's bimonthly publication for the independent inventor community”

[<http://www.uspto.gov/inventors/independent/eye/index.jsp>]

- *Trademark Information Network (TMIN) Videos*

[<http://www.uspto.gov/trademarks/process/TMIN.jsp>]

Selected PTRCs (Patent and Trademark Resource Centers) on the Web

- University of Utah
<http://campusguides.lib.utah.edu/content.php?pid=71473>
- Georgia Tech (Atlanta)
http://www.library.gatech.edu/research_help/subject/index.php?/patents
- University of Maryland, College Park
<https://secure.utah.gov/trademark/index.html>
- University of Michigan (Ann Arbor)
<http://guides.lib.umich.edu/content.php?pid=35640>
- Oklahoma State University (Stillwater)
www.library.okstate.edu/patents/index.htm
- University of Texas (Austin)
<http://www.lib.utexas.edu/engin/patent/index.html>

Selected Patent Search Tutorials Available On the Web

- 'Basic Patent Training for the Independent Inventor and Small Businesses' (USPTO)
 - <https://uspto.connectsolutions.com/certificationpackage/>
- 'Patent Searching' video (Auburn PTRC)
<http://diglib.auburn.edu/tutorials/uspto6.htm>
- Preliminary Patent Searching on the Web (Stillwater PTRC)
<http://www.library.okstate.edu/patents/services.htm>
- University of Central Florida Patent Tutorial (Orlando PTRC)
<http://library.ucf.edu/GovDocs/PatentsTrademarks/default.asp>
- Patent Searching Using the Esp@cenet Patent Database
<http://www.european-patent-office.org/wbt/espacenet/>

Selected International Patent Sites

- Esp@cenet
<http://worldwide.espacenet.com/>
- Japanese Patent Office
www.jpo.go.jp
- European Patent Office
www.european-patent-office.org/index.htm
- World Intellectual Property Office (WIPO)
www.wipo.org
 - WIPO Patentscope
<http://www.wipo.int/patentscope/search/en/search.jsf>
 - Search WIPO's Intellectual Property Digital Library
<http://ipdl.wipo.int/>

Highly recommended!



Trademark Websites

- Search Federal trademarks at the USPTO Web Pages:
<http://www.uspto.gov/trademarks/index.jsp>
- Apply for a Federal trademark online:
<http://www.uspto.gov/teas/e-TEAS/index.html>
- Selected commercial trademark search services:
<http://compumark.thomson.com/jsp/index.jsp>
www.trademark.com

Other Selected Web Sites

- U.S. Copyright Office (www.copyright.gov/)
 - Especially see Circular 1, “[Copyright Basics](#)”
- Lemelson-MIT’s Handbook for Inventors
 - <http://web.mit.edu/invent/h-main.html>
- Intellectual Property Basics (U. of New Hampshire School of Law, formerly Franklin Pierce Law Center)
 - <http://law.unh.edu/thomasfield/ipbasics/index.php>
- Google Patent Search
 - <http://www.google.com/patents>
- Inventors Network
 - www.inventnet.com

Current Favorite Web Tools!

- United States Patent & Trademark Office

<http://uspto.gov>

- Google Patents

<http://google.com/patents>

- Esp@cenet

<http://worldwide.espacenet.com/>

- freepatentsonline.com

www.freepatentsonline.com

My favorite non-USPTO website, along with the Esp@cenet database!
Export U.S. patents and applications into .xls files for easier sorting and analysis.

- Pat2PDF

www.pat2pdf.org

Free full-text U.S. Patent copies downloadable as PDF files; excellent for printing or sharing by email!

For Further Information ..



- USPTO Information Line
800-PTO-9199
- Dave Morrison, Marriott Library,
University of Utah
801-585-6802

<http://campusguides.lib.utah.edu/content.php?pid=71473> or
<http://campusguides.lib.utah.edu/patents>

Questions?!



Thanks!



THE PATENT
SYSTEM ADDED THE FUEL
OF INTEREST TO THE FIRE
OF GENIUS - LINCOLN