

# Competition, Patent Law and the Canadian Digital Economy

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October 2, 2013

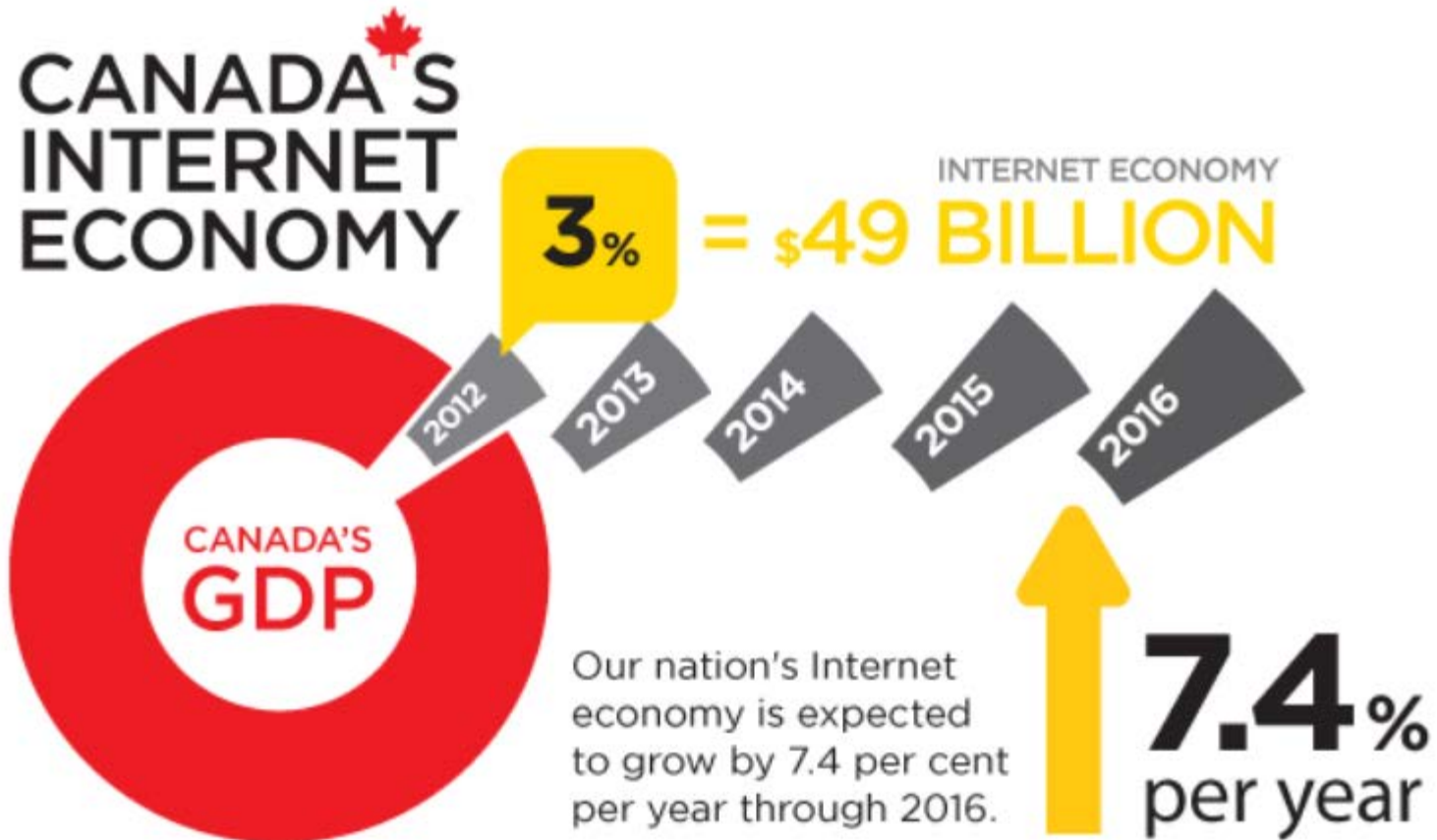
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DAVIES

# Outline

1. Canada's Digital Economy Shift: Internet, Mobile, Social Media, Advertising
2. The Innovation Intersection: Competition Law and Patent Law
3. What are Patent Assertion Entities (PAEs)?
4. Understanding the Hold-up Problem and the Innovation Impact of PAEs
5. How Serious is the PAE Problem?
6. The Canadian Perspective on PAE Impacts
7. Closing the Competition/Patent Gap in Canada

# The Digital Economy Shift



# The Digital Economy Shift

- Shift from traditional to digital media
  - Widespread adoption and use of wireless technologies for personal and business applications
  - Shift in mode of consumption onto mobile, tablets ("platform agnostic" Internet use)
  - Continual emergence of new areas of technology
    - Canadian over-the-top (OTT) services began operation in 2010 when Netflix launched and are anticipated to be worth \$614 million by 2017
    - New streaming video services such as iTunes, cineplex.com
- Accompanying economic shift now and in the future
  - Significance of e-commerce
  - New paradigms, challenges in advertising and marketing
  - Broader implications for productivity, innovation and competition

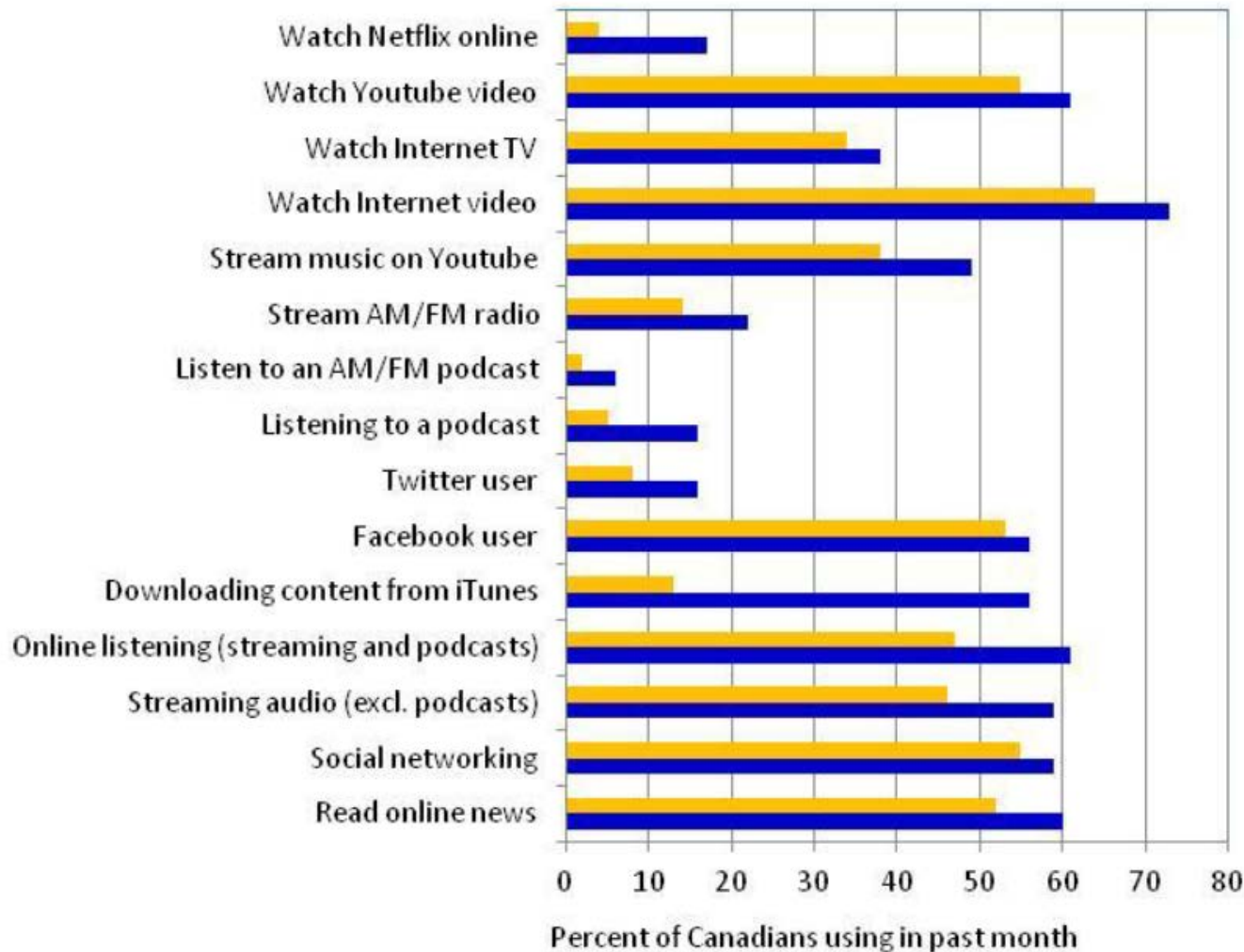
# Canadians on the Internet

- Canada has one of the highest Internet availability rates in the world at 99% of households
- Canadians are some of the world's heaviest Internet users:



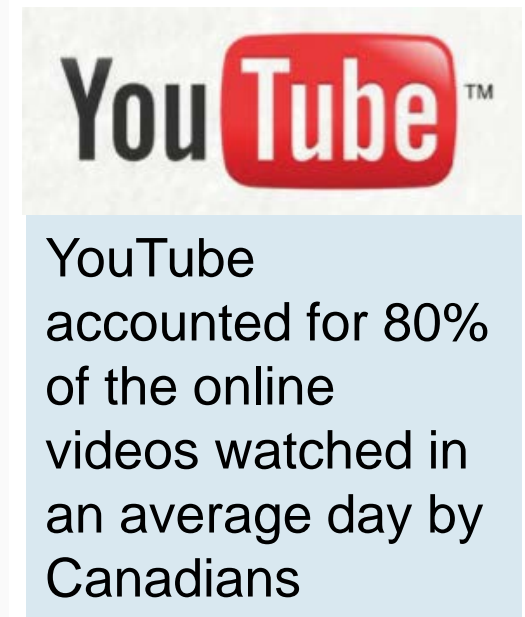
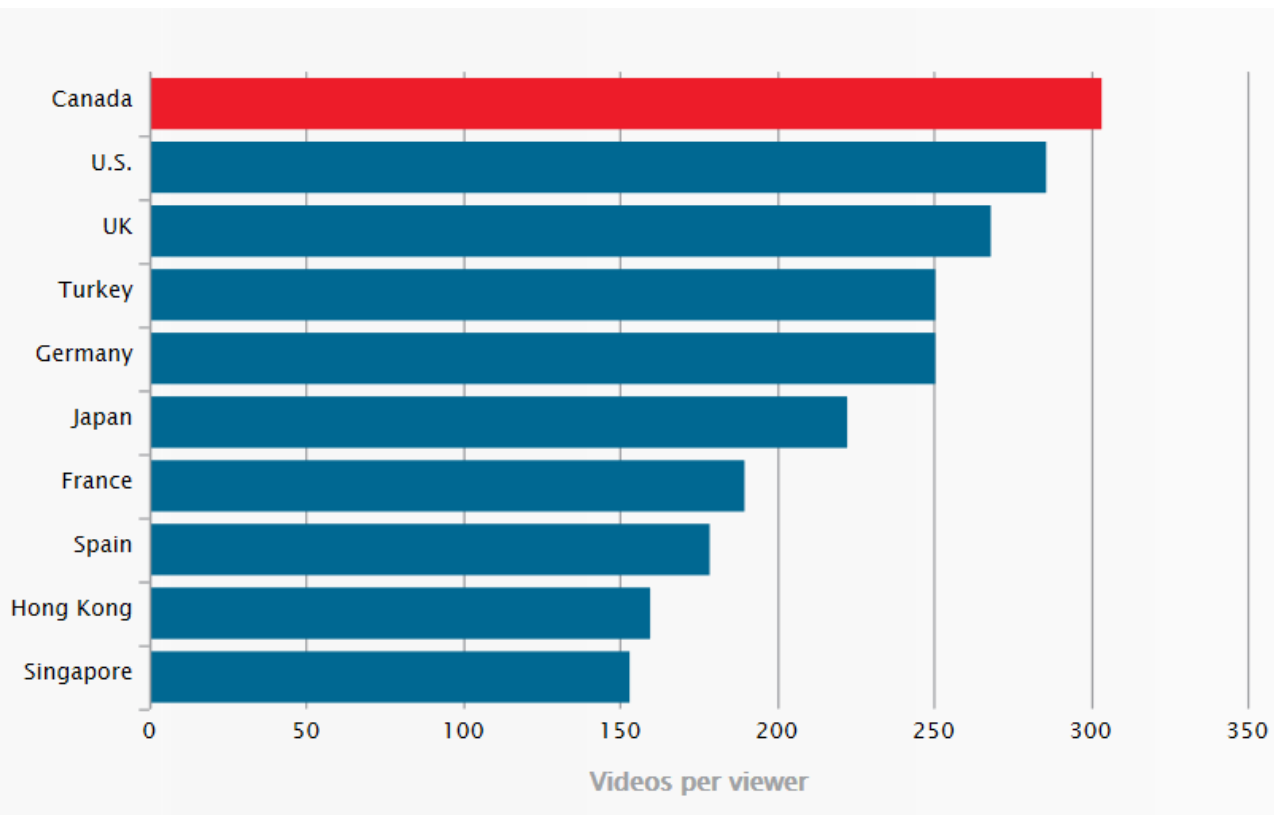
- The global average is 23 hours/month (2011) -- almost as much as Canadians consume in a week

# Popular Activities for Canadians on the Internet



# Popular Activities for Canadians on the Internet

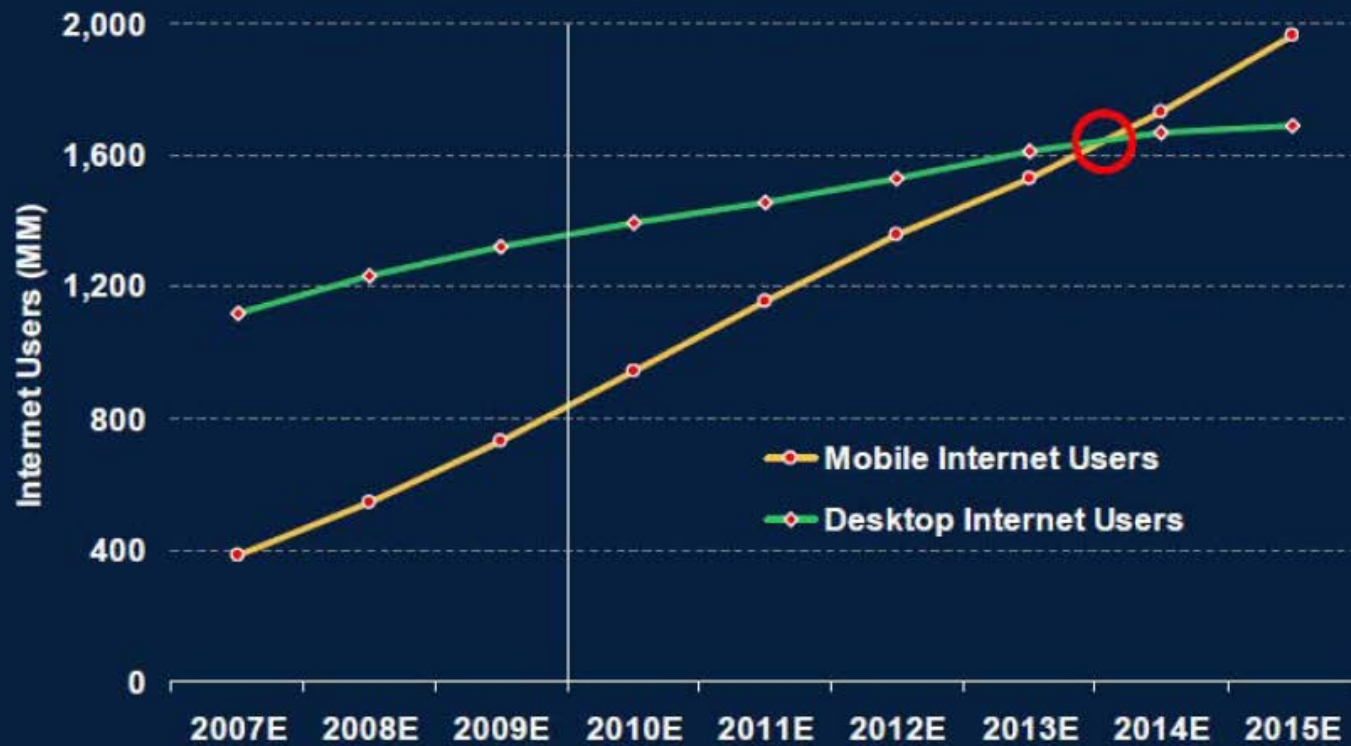
- Viewing video is a particularly popular activity for Canadians online with about 300 video views per Canadian per month, up 170% in 2011



# The Surge in Mobile Devices

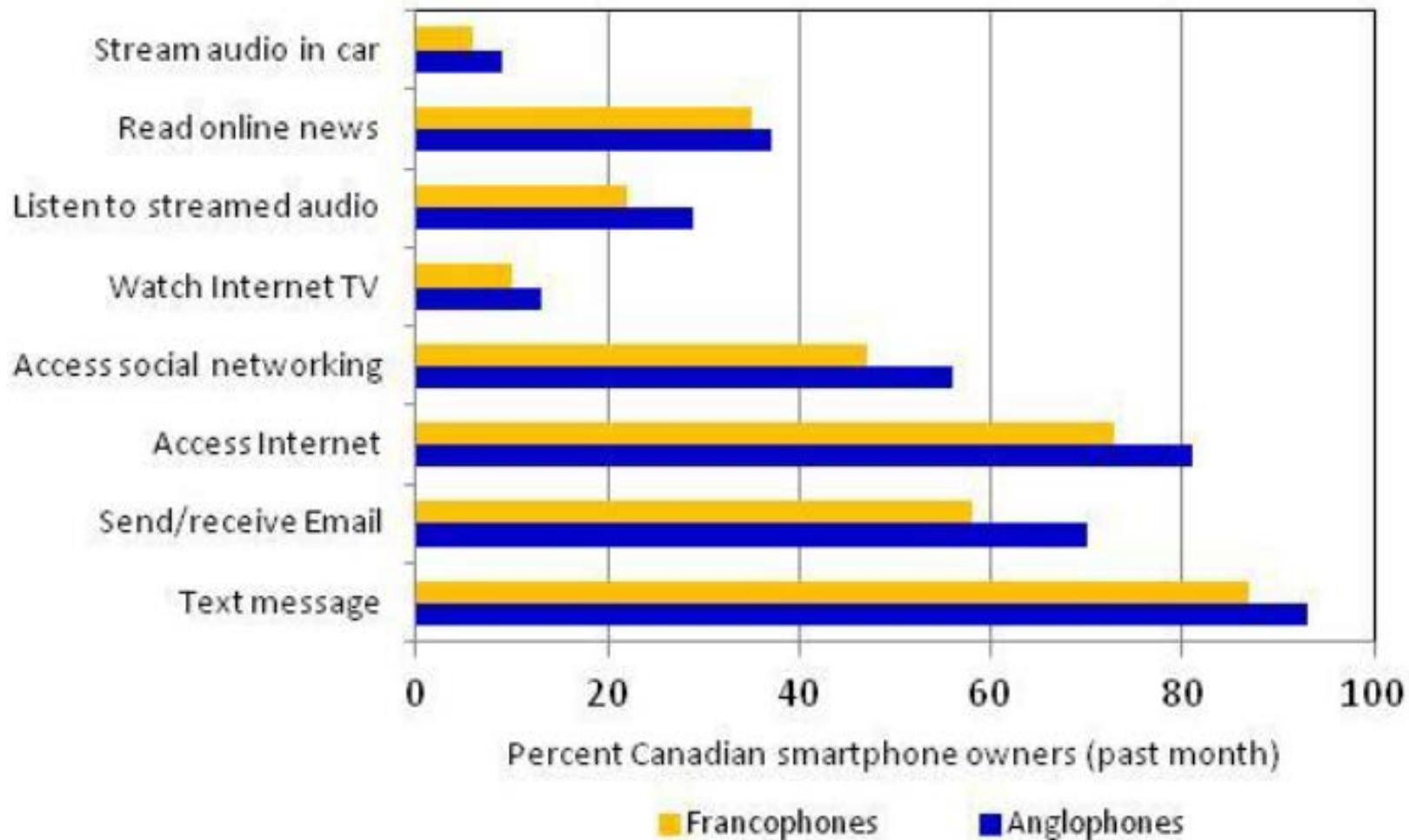
## Mobile Users > Desktop Internet Users Within 5 Years

Global Mobile vs. Desktop Internet User Projection, 2007 – 2015E





# Popular Activities for Canadian Smartphone Owners



# Canadians on Social Media

- Canadian rates of social media usage:
  - Almost 2/3 are regular social media users (visit more than once per month)
  - 63% of social media users visit daily

19 million Canadian use social media regularly (>once/month)

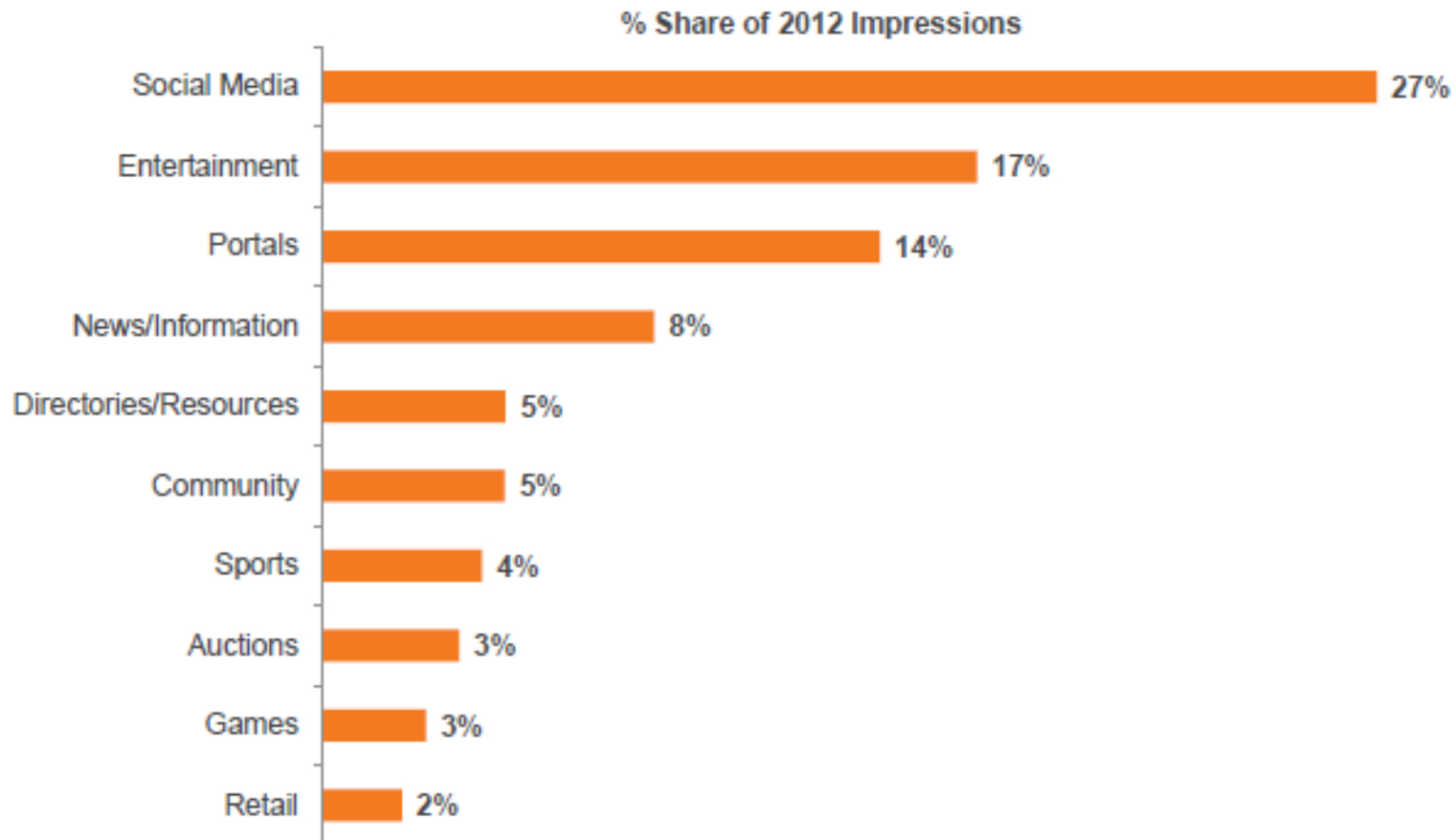
93% of social media users are on Facebook

18% on Twitter regularly

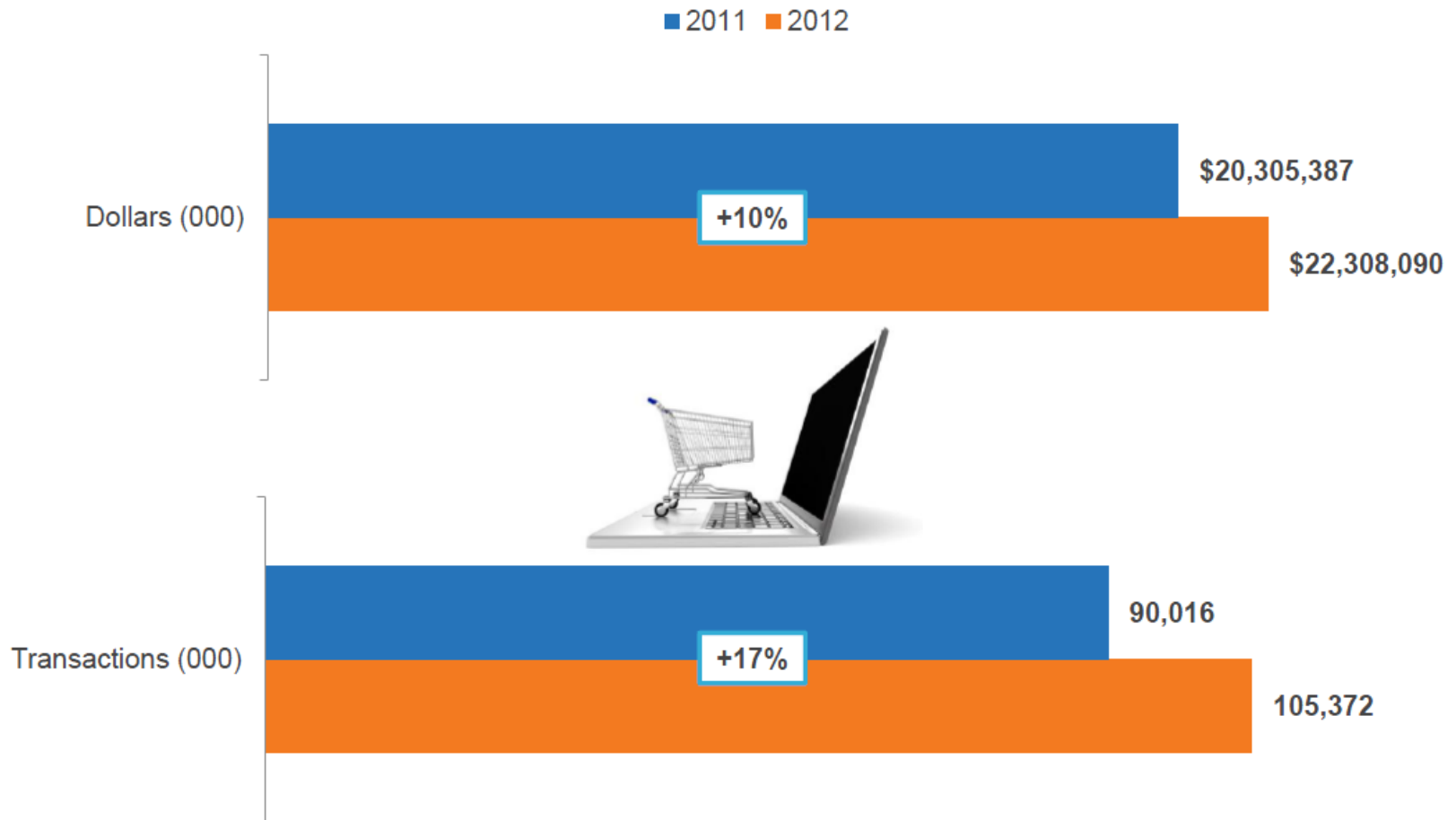
18% on Linked-In regularly

# Canadians on Social Media

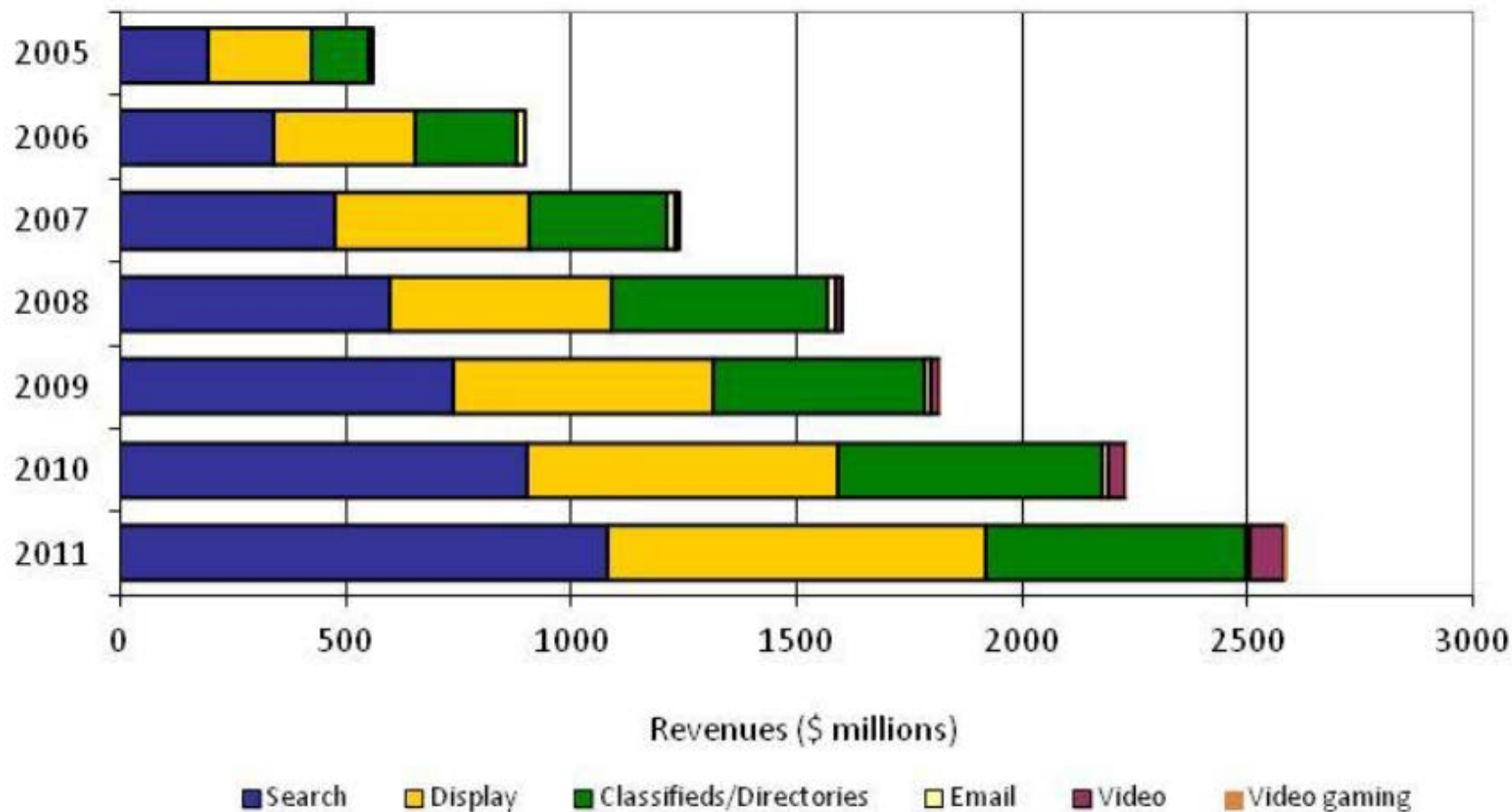
- Social media leads in online advertising impressions
- Major conduit to consumers and platform for brands



# Growth in Canadian eCommerce Spending



# Canadian Online Advertising Revenues



Source: CRTC Communications Monitoring Report 2013

# Canadian Online Advertising

- 724 billion display ad impressions served on the Internet in Canada in 2012 (up 17%)
- Major growth in online advertising
  - Expected to be worth over \$6.4 billion by 2017
- High smartphone penetration and use contributing to growth in mobile advertising
  - Mobile advertising alone is forecasted to increase from about \$113 million in 2012 to \$311 million in 2017
- Online ads are becoming a larger piece of the ad spending "pie"
  - Digital advertising is expected to constitute 44% of all ad spending in mature markets like Canada by 2017
- Innovative ways of advertising online: location-based services, virtual wallet features, in-store mobile advertising, social media advertising

Source: PwC's 14th annual Global Entertainment and Media Outlook

[http://www.pwc.com/ca/en/entertainment-media/outlook/index.jhtml?utm\\_source=press-release&utm\\_medium=email&utm\\_campaign=emoutlook](http://www.pwc.com/ca/en/entertainment-media/outlook/index.jhtml?utm_source=press-release&utm_medium=email&utm_campaign=emoutlook) (figures converted from USD) and comScore 2013

Canada Digital Future in Focus Report

# Canada's Innovation Gap



**"Innovation is to Canada  
what the Stanley Cup is to  
the Leafs"**

**- Canadian International Council**

# The Innovation Intersection: Competition Law and Patent Law



# Competition Law, Patent Law and Innovation

- In theory: promotion of innovation is a shared goal of competition law and patent law
- Competition law and policy maintain competitive markets, prohibiting restraints that could act as innovation barriers
- Patent law and policy foster long-term dynamic efficiency by providing incentives to invest and innovate over time
- In practice: How to address the exploitation of intellectual property rights when it harms competition?



# OTTAWA: We have a problem

- Time to reconsider interaction of patent/competition law and policy
- Significant and permanent shift on company balance sheets from tangible to intangible assets
- Intellectual property is a major source of company value
- Explosion in high-tech communications and computing devices
- Ongoing "gap" between law/policy and the market is costly

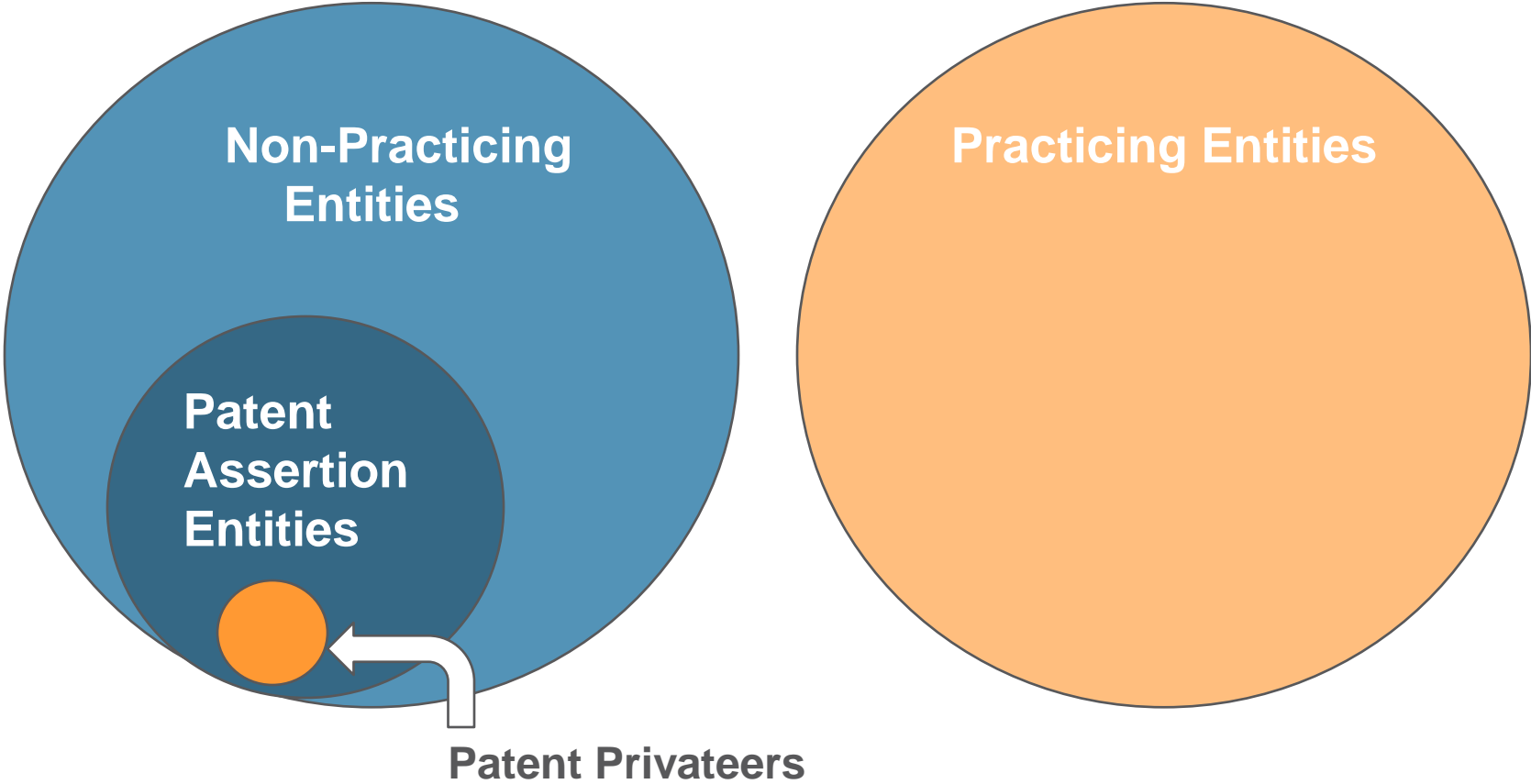
# What are Patent Assertion Entities?

# What are Patent Assertion Entities? (a.k.a. Patent Trolls)



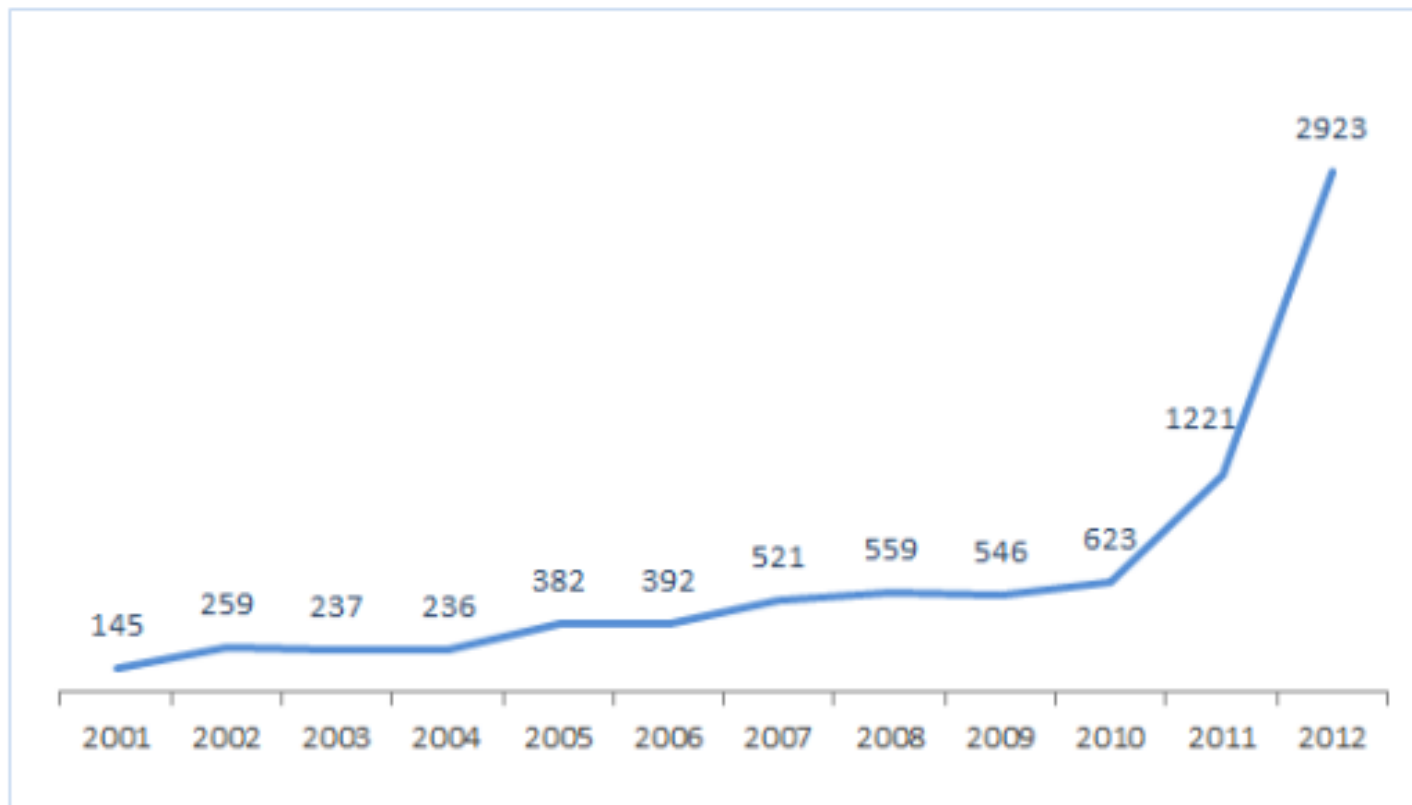
- Firms whose business is the acquisition and assertion of patents against parties who are already using the patented technology
- Distinct from "producing entities" who turn their inventions into useful innovations

# The PAE Map



# Skyrocketing PAE Patent Litigation

Patent Lawsuits Involving NPEs Over Time



Source: PatentFreedom © 2013. Data captured as of January 18, 2013.

# Characteristics of PAE litigation

## Research suggests PAE litigation:

- Targets firms that have already commercialized the technology
  - Litigation tends to be at the end of the patent term, in contrast with litigation by practicing entities
- Frequently involves software patents
- Has lower success rates than litigation by practicing entities



# Who is being targeted?

No.	Company Name	2009	2010	2011	2012
1	Apple	26	34	43	44
2	Hewlett Packard	27	36	34	19
3	Samsung	10	21	43	37
4	Dell	28	23	36	19
5	Sony	22	20	32	22
6	AT&T	16	22	31	22
7	HTC	11	23	31	23
8	LG	10	23	29	24
9	Microsoft	22	12	30	16
10	Amazon	13	20	35	20
11	Verizon	13	17	25	24
12	Google	16	10	30	22
13	Research In Motion	11	13	28	20

# Why Has PAE Activity Skyrocketed?

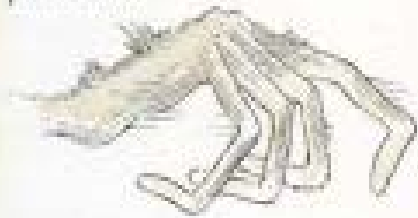


- A rise in multiple patent products
  - Smartphones with 250,000 patent claims
- Systemic problems with patent quality and notice
  - making path for follow-on innovation unclear and litigation more likely
- Extensive "inventory" of U.S. patents
- Design of the U.S. litigation system
  - Significant damage awards
  - Availability of injunctions
  - Contingency fee system
  - Own costs born by winner in the U.S.
- Asymmetry of litigation risk

# Understanding the Hold-up Problem and the Innovation Impact of PAEs

# Systemic Attributes Enable Hold-up

The troll attacks businesses using an arsenal of attorneys and vague software patents.



It has an immunity to patent lawsuits because it makes no products.



## PATENT TROLL

*Nonpracticing Entity  
(It doesn't actually make anything)*



The troll's primary weapon is the threat of massive legal fees.

# Then: Symmetry of Litigation Risk

- Litigation between practicing companies historically constrained by risk symmetry
  - Mutually assured destruction fosters settlement and reduces litigation
- Patent litigation is very expensive
  - Estimated median of direct costs of patent litigation fees alone of \$5.5 million per suit (U.S., 2008)
  - Plus indirect costs to business productivity, innovation and reputation
- Patent settlements may be significant
  - Median damage award of \$4.0 million between 2006-2011
- Risk of injunction blocking sale of products

# Now: Asymmetry of Litigation Risk

- PAE litigation characterized by risk asymmetry
  - PAE has no disincentive to make a threat or to sue
  - No business or reputation risk
- PAE benefits from a reputation as a fierce litigator
- Defendants face threat of:
  - Litigation costs
  - Design-around costs
  - Injunctions shutting out markets
  - Disproportionate royalties/damage awards
  - Opponent with nothing to lose

# Patent Hold-Up

- Once a firm has integrated a patented technology into its product, threat of infringement litigation is significant
  - Poor negotiating position when troll seeks ex-post licensing fees
- PAE may obtain injunction barring sales of product
- Defendant pays to avoid cost of litigation and/or risk of injunction, not because of the economic value of patent
- Enables PAE to extract royalties greater than economic value of the patented technology to the overall product

# PAE Impact on Innovation

	Producing Entity	PAE
Basis of patent value	Economic value of the underlying invention	Right to exclude
Activities	Commercialization/ Stockpiling	Threatened or actual litigation
Incentive	Innovation/ Defense	Monetization/ Prospect of supra-competitive returns



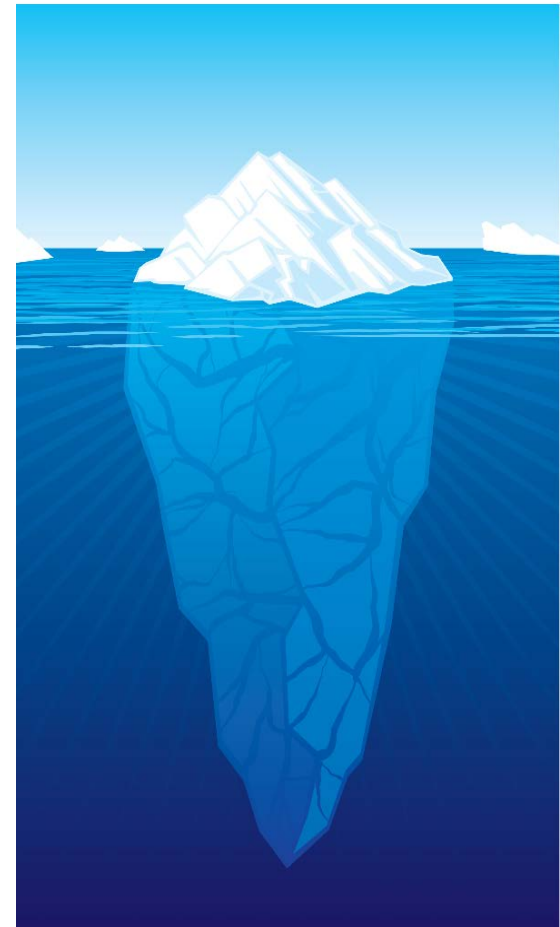
# How Serious is the PAE Problem?

# Quantifying PAE Costs

- NPEs (including PAEs) cost defendants and licensees \$29 billion in 2011 *alone* in the U.S., a 400% increase from 2005
- Includes:
  - 82 public and private companies surveyed
  - Totalling 1,184 defences against NPEs
  - Indirect costs to defendant's businesses (diversion of resources, delays in new products, loss of market share)
  - Cases resolved before litigation

# Quantifying PAE Costs

- Private settlements unknown
- Estimated ratio of demands in the U.S. per patent infringement suit:
  - 25 (patent broker estimate) demands for every suit filed
  - 307 (Cisco estimate) demands for every suit filed
- Difficult to quantify costs of not pursuing R&D or development (in face of unclear patent landscape)



# Privateering: Non-Practicing Corporate Monetizers

- Producing entities work with PAEs, explicitly or implicitly, to attack their rivals
- Example:
  - Company A licenses patents to allies
  - Company A then transfers the patent to a PAE in exchange for a portion of royalties collected by PAE
  - Company A retains a license to use the patented technology
  - PAE then pursues litigation and threats against Company A's rivals
  - Risk to Company A's reputation and business of litigation is eliminated

# Privateering Example: Mosaid

- MOSAID acquired (but licensed back to the original owners) approximately 2,000 Nokia/Microsoft patents
- MOSAID pays two-thirds of the collected royalties to Microsoft and Nokia
- If MOSAID does not meet royalty collection milestones, Nokia can sell the patents to someone else
- MOSAID has since launched a suit against Apple in the U.S., alleging infringement of eight of the acquired wireless patents, which are used in iPads and iPhones
- No direct impact on Microsoft or Nokia from this suit, but they benefit:
  - Royalties
  - Litigation against a competitor

# The Canadian Perspective on PAE Impacts

# PAEs and the Canadian Economy

- Canadian companies have been targets of PAE litigation in the U.S. and increasingly in Canada
  - Dovden
- Acquisition of Canadian companies' patents by PAEs
  - Nortel
- Major Canadian PAEs
  - MOSAID
  - Rockstar
  - Wi-Lan
- Hold-up of U.S. companies by PAEs imposes disproportionate rents that are exported to Canadian consumers

# PAEs and the Canadian Economy



- Beneficial or harmful overall?
- No quantification of the innovation impact
  - R&D or commercialization not pursued due to risk/uncertainty of patent landscape
- No sense of the defensive costs companies in Canada may be incurring to fend off PAE-type activities
  - Unnecessary costs to acquire patent stockpiles
  - Settlements in response to litigation threats



# What we know but can't quantify about PAEs...



- Increasing likelihood that the U.S. issues could occur in Canada
- Injunctions or excessive royalties obtained by PAEs causing higher prices, reducing output and/or stifling innovation in Canada already?
- Amount of locked-in costs from excessive royalties/settlements passed on to Canadian consumers?
- R&D not undertaken because of uncertain risk?
- Defensive costs incurred to fend off PAEs?
- PAEs as a vehicle for practicing entities to raise rivals' costs?
- Role of competition law where patent laws may be sheltering conduct that does not promote innovation?

# What we **do** know about PAEs...

- Potentially serious impact on innovation
- Implications for the Canadian digital economy
- Not just an "American problem"
- Raises inter-agency issues and implications
  - Require collaborative efforts to address complex issue
- U.S. agencies are already looking at the PAE issues in-depth
- **CANADA IS BEHIND**

# Closing the Competition/Patent Gap in Canada

# Solving the PAE Issue

- Patent Law and Administration Reform
  - Pre-grant of the patent
    - Improving the quality of patents issued
  - Post-grant
    - Post-grant challenge system as litigation alternative
  - Litigation
    - Availability of injunctions
    - Demand letter publication
    - Disclosure of real party-in-interest in litigation
- Competition Law Reforms
  - Conduct challenges
  - Administrative penalties, injunctions, cease and desist...
  - Damages and class actions

# Potential Reforms

- Focusing section 32 on adverse effect on competition
- Enabling the Commissioner of Competition to bring an action pursuant to section 32
- Private rights under section 32
- Granting the Competition Tribunal jurisdiction over section 32 actions
  - Expertise in adjudication of competition issues, even those related to IP
- Damages, administrative monetary penalties from section 32 actions
- Officer and director liability
- Repeal of section 79(5)

# Potential Reforms

- Section 32 and section 79(5) proposals raise other considerations
  - international laws and agreements that could constrain the amendments
  - Federal jurisdiction over intellectual property
- Not a perfect stand-alone solution
  - Patent reform likely also needed
    - "inventory" of vague patents, as in the U.S.?

# The original patent troll?

**U.S. Patent**

**Mar. 4, 1997**

**Sheet 1 of 4**

**Des. 378,308**

