

WIPO Advanced Research Seminar 2012

Legal Pluralism in Patenting
- A more pluralistic regulation of
cloud computing patents?-

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Background



- » Technological Changes
- » New Types of Economies and business models: "Service"
 - » Cloud Computing/ Cloud Service
 - » Search
 - » Adword used in the search
 - » eBooks (availability of contents as a service)
 - » Game items / "virtual ownership"

→ New types of claims for protection for the values generated by the new business models

→ Extra-territorial reach of businesses



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Reaction in IP Law & Theory



- » **First Regulate**/Internalize "values" into IP law/ (Harmonize into international law)
 - » Provide IPR protections
 - » When, and which IPR
 - » How
 - : which doctrines of IP law need adjustment (i.e. subject matter? patentability?)
- » **Then justify** with theory
 - » incentive /utilitarian thesis, or natural rights
- » **Finally, Recalibrate** with more regulation (harmonize)
 - » a new limitation and exception? user rights?
 - » a new infringement liability
 - » A uniform/harmonized cross border litigation



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Research question (a claim)
- Vertical Order Pluralism and patents

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1. Regulation of conducts (innovation/invented) need to take plurality of alternative ordering into consideration.
 - » One size does not fit all (cf. Lee, Nari , Toward a Pluralistic Theory on an Efficacious Patent Institution. John Marshall Review of Intellectual Property Law, Vol. 6, p. 224, 2007)
 - » A more realistic approach (theory) acknowledging multiple layers of ordering
 - » Using IP law proper may not always be the suitable
2. Applicable of the thesis of “vertical legal pluralism”: cloud computing inventions
 - » Is it possible to regulate cloud computing/service inventions not thru patent law but thru other means of ordering/ regulation?

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Vertical Order Pluralism
- Cloud computing invention

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1. Public Ordering
 - » Constitution, TRIPs, National Patent Law (**patentability & enforceability**)
 - » Case laws, Examination Guidelines
2. Private Ordering
 - » Programmer Ethics
 - » Open initiatives (open source, open data, open standard
 - » Industry strategies (ICT- patent war or defend freedom of action)
 - » **PATENT CLAIM**
3. Facts
 - » Cloud computing facts (technical and geographical scope)
 - » **PATENT CLAIM (description of invention in tech.terms : may be made location specific?)**
4. Personal & individual skills and preferences
 - » Inventor/Patent Lawyer specificity (**of claim format**)
 - » Provider/User preferences of a business model

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Cloud computing

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Cloud Computing Inventions

- » Inventions of means, methods, system, apparatus, devices of, on, using ubiquitous media/ communication possibility and infrastructure
 - computer programs (for server)
 - computer, programmable devices (both for users, server, client)
 - internet, telecommunication connection
 - application program (user interface) : allowing transfer of data
- » In essence, computer program product/methods claims
- » Combination invention using “Cloud”

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Cloud computing inventions

Country A (Grant) | Cloud Computing Services Process | The Cloud | Hosting Computing Devices | Users' Computing Devices | Countries B,C,D,E

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1. Public ordering – patentability?

» Are cloud computing invention patentable? Yes more or less

- » SW patent eligibility : still debated yet somewhat settled in trilateral case laws
 - » Europe "Any Hardware approach" (G03/07)
 - » Japan "hardware resources": technical means supporting mental process (IP High Court 2007 bilateral dental treatment network)
 - » US – something more than just a description of abstract mental step? (Benson/Bilski/Mayo)
- » Novelty/Non-obviousness/Inventive step : a prima facie known/ obvious?
 - » Individual elements or steps used in the claimed in the invention likely to be known; combination may be new
 - » inventiveness likely to lie in the combination of all the steps
- » Sufficiency of Disclosure

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1. Public ordering – enforceable?

» Are they enforceable? Unsettled (see next slide)

» (Direct) Patent infringement requires working (i.e. prohibited conduct) of the invention in entirety (in principle) in the country of grant (who, what, and where)

- » Working of an invention: Is end-user transferring data into the cloud working of an invention? (i.e. exporting parts or components?)
- » Geographic scope: in the country of grant or in the country of effect of invention (harm/benefit)
- » Technical scope: Is using part of the claimed cloud computing invention an infringement?
- » Divided Joint Patent Infringement Liability (?) Theory
 - » partial use of a claimed invention should impute direct infringement liability
 - » multiple actors performing steps in an invention, each (or some) of these actions in the country of grant should be sufficient to form a direct patent infringement liability.

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Trilateral Cases Examples

1. UK: Menasche v William Hill (2002/2003)
2. UK: RIM v Motorola (2010)
3. DE: Prepaid Calling Card (2009)*
4. US: NTP v RIM (2005/settled 2006)
5. US: MS v AT&T (2007) Supreme Court
6. US: Akamai/MIT v Limelight (2010)**
7. US: McKesson v Epic (2011)**
8. JP: Hoya KK. v Tokai Optical KK. (2007)
9. JP: Pioneer KK v Navitime Japan KK(2010)

(*appealed, **pending en banc hearing)




2. Private ordering thru Patent claim?

- » Why grant such patents → why claim such patents?
- » Why divide the conduct of use
 - » economy of scale
- » Why divide the steps/technical scope? Is it unavoidable? (benefit of the invention):
 - » business model offering computer program as service ("the cloud")
- » Patent Claim has a choice over
 - » Who (is using the invention): single person perspective of the invention
 - » What
 - » method/product claim
 - » components or steps of an invention
 - » But not Where: embodiment issue: difficult to control the location where the invention will take effect ("the cloud service": a business decision")




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3. The Cloud? Tech.& Business Facts

- » Characterized by technical and geographic(?) facts
 - » Platform/ App
 - » Computing as a service/performance concept
 - » Distribution of elements of computing
 - » Enabling transfer between locations (moving data from local machine to the cloud)
 - » Systems composed of readily divisible steps (with pre-and post invention process) → scalability and modularity of tasks
 - » End-User/Multiple actors' participation in working the invention or in making invention to take effect
 - » **Location and device independence**




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4. Individual skills & Preference

Why draft such unenforceable patent claims?

- » Patent drafter inexperience?
- » Inventor preference?
- » *Nature of invention forces claims drafter*
 - » Invention lies at the combination of steps
 - unless the claim is directed to the entire combination, it is likely not to pass the patentability standard

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Concluding remark

- » "A patent that cannot be enforced on any theory of infringement is not a statutory patent right" (J. Neuman)
 - Why grant such patents that cannot be enforced?
- » However, before making a big public ordering move (i.e. joint tort liability to cloud invention), or start reading "essence" into the claim elements for partial protection
 - » an evidence based assessment is necessary
 - » How many of these patents are actually "out" there
 - » WHO enforces them (genuine market innovator or a NPE?)
 - » Can claim drafting save the enforceability of an patented invention
 - claim drafting guideline by the PTOs?
- » A policy choice- do we need to give special consideration to cloud invention patents in general? Maybe no.

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