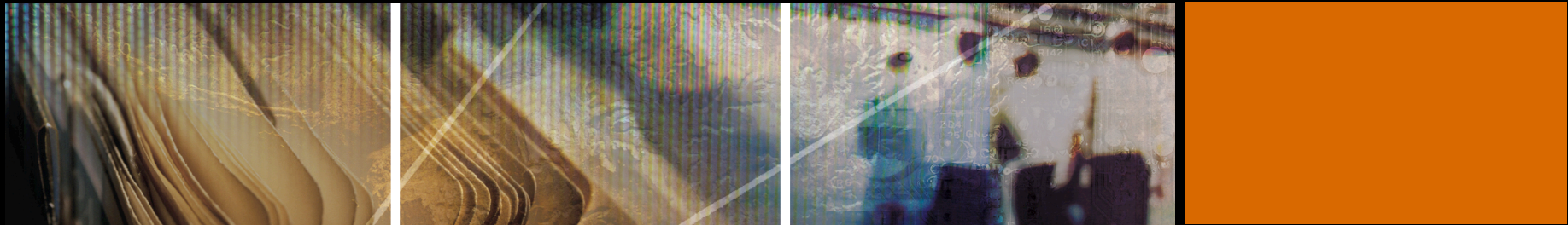


New coordination for IPRs and Standards



Looking beyond Ex Ante Disclosure Rules

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AT ISSUE

- IPRs and formal technical standardization can complement but also conflict with each other.
- Increasingly conflicts emerge, as a function of the 'co-evolution' of these institutions
- Current remedies for conflict prove insufficient
- New mechanisms are emerging, e.g. patent pools and non-assertion covenants
- The emergence of these mechanisms will affect the interaction between research and standardization

The interface between standards and research

- Factors aggravating the interface
 - Proliferation of patents, thickening of patent-thickets
 - Complexity of technologies
 - Prevalence of R&D collaboration
 - Internationalization of markets, politicalization of standards
- Some current challenges
 - Multi-rights and Multi-rights scenarios: cumulative licensing costs
 - Clearing third-party rights
 - Disclosure and hold-up scenarios
- Standards bodies have built their defense against around ex ante disclosure rules
- This approach is currently being questioned
 - The ongoing Rambus case: FTC and CCA
 - Qualcomm v Nokia, Nokia v Qualcomm
 - FTC/ JD Joint Hearings 2002



Ex ante disclosure remedy under strain

- Difficult decisions: what is ‘essential’, how to decide between alternatives, how to set equitable licensing prices.
- Commitments to license essential patent claims on RAND terms are inherently vague;
- Patent holders tend to raise licensing fees after a standard is set
- coordination costs and delays as each standard-implementer negotiates with the IPR-holder(s)
- IPR in a given standard, leading to high cumulative royalty fee or “royalty-stacking”.

Current search for resolution

■ Recent conflicts,

- JEDEC vs Rambus, FTC vs Rambus etc[<], Complaint against Qualcomm, etc

■ Recent initiatives and mechanisms

- Initiatives to adjust the quality and scope of patents, (supply-side)
- Changing IPR policies at standards-setting bodies, (demand side),

■ Stakeholder based mechanisms

- Clearing-houses in bio-chemicals (Graf & Zilberman, 2001)
- Use of Non-assertion Covenants with reciprocity clauses
- Patent-pooling (from Linux to MPEG-4)



Differentiating modes of coordination

Coordination to develop knowledge

Coordination to harmonise implementation

Coordination to gain access to (proprietary) knowledge

- R&D cooperation (internal funds)
- R&D cooperation (external funds)
- Alliance
- Joint Venture
- Merger or acquisition

- One-firm industry standard; limited access
- Standards forum
- Standards consortium
- Formal standards body
- (Compulsory opening of standard)

- Licensing
- Cross-licensing (bilateral)
- Cross-licensing (group-wise bilateral)
- Clearing house
- Sub-licensing agreements
- Patent platforms
- Patent pool
- (Compulsory licensing - essential facilities doctrine)

Individual control



Level of coordination

Regulatory scrutiny

I. Case 1: Patent Pools

- *What: (from (Merges, 1999): 'An arrangement among multiple patent holders to aggregate their patents;*
 - *A typical pool makes all pooled patents available to each member of the pool. (open versus closed pools)*
 - *Pools also usually offer standard licensing terms to licensees who are not members of the pool.*
 - *A typical pool allocates a portion of the licensing fees to each member according to a pre-set formula or procedure.*
- **Why: Patent pools may serve as a mechanism**
 - to reduce the transaction costs especially information costs
 - to control the total (cumulative) license fees
 - to improve access to patents, thereby overcoming anti-commons tragedy
- **But requires regulatory clearance due to the risk of cartelization**

I. Selected coordination mechanisms: Patent Pools

- More than 60 patent pools noted since the late 1800s (Lerner, Stojwas, & Tirole, 2003).
 - Diverse technologies and markets
 - Strong regulatory interest
 - Market-based patent pools
 - Standard-based patent pools
 - Pools established and administered by involved parties
 - Pools established/administered by outside 'licensing authorities'.
- Elaboration of the history and effect of two current pools
 - the Consumer Electronic area: DVD Patent Pool
 - Mobile communications Patent Pool: transition 2G to 3G

Standard-based patent pools (including

Application area	Pools patents for the following standard	Pool administrator	Number of licensors and licensees
Wireless communications	IEEE 802.11 family (including 'WiFi')	ViaLicensing	6 licensors
Video coding	AVC (ITU H.264)	ViaLicensing	5 licensors
Video coding	AVC (ITU H.264)	MPEG-LA	18 licensors 68 licensees
Video coding	MPEG-2 (the pool itself is often called MPEG-LA, although this organisation now administers other pools too)	MPEG-LA	25 licensors, 134 unique patents 1021 licensees
Video coding (audio part)	MPEG-2 AAC audio	ViaLicensing	5 licensors 126 licensees
video coding (audio part)	MPEG 4 audio standard (also known as MPEG-4 Part 2 and ISO/IEC 14496-3); includes MPEG 4 AAC	ViaLicensing	14 licensors 132 licensees
Video coding	MPEG 4 visual	MPEG-LA	26 licensors 292 licensees
Video coding	MPEG-4 Systems	MPEG-LA	8 licensors 67 licensees
Radio Frequency Identification (RFID)	Electronic Product Code (EPC), 2 nd generation (also known as 'GEN2')	A consortium of RFID product providers ¹	Still in the establishment phase. Around 20 firms are involved in setting up the pool
Mobile communications	Third generation mobile standards, including the UMTS/3GPP standard	3Gpatents (formerly 3G3P)	7 licensors

Case 2: Non-Assertion Covenants


‘Non-assertion covenants’ are familiar agreements whereby the issuer agrees not to assert a defined set of rights.

- Typically multilateral agreement fx among participants in an R&D joint-venture
- When used as unilateral agreements initiated by dominant players with large IPR holdings, they can significantly affect the licensing dynamics of a technology
- Key element is a ‘defensive suspension’ term or reciprocity clause where novel use turns large IPR holders into ‘patent police’ for purposes of the standard (cf. Updegrave).

Non-Assertion Covenants in ODF and Standards Rivalry

- Agreement stems from the open source environment
 - e.g. IBM issued a "Statement of Non-Assertion of Named Patents against OSS"
- Standards rivalry and NAC use
 - the Open Document Format for Office Applications drafted in OASIS (now ISO standard)
 - Sun Microsystems, IBM, Adobe, etc (large patent portfolios).
 - Covenant based on Sun's membership in Oasis.
- Open XML launched under ECMA, fast-tracked to ISO)
 - Microsoft central
 - a Covenant Regarding Office 2003 XML Reference Schemas

II. Non-Assertion Covenants in ODF

- The ODF NAC represents a commitment by Sun to the standards consortium and to potential adopters
 - not to enforce any of its patent claims, provided other parties don't enforce theirs for the standard,.
 - Also, its defensive clause protects not just Sun, but any other developer, whether open source or not.
- The standard's outward presentation as unequivocally 'royalty-free'.
 - reduces the uncertainty of potential adopters for current and future versions
 - Signals to regulators that the standard addresses the requirement for 'openness'
 - It also caters to open source developers, who hate the idea of having to obtain licenses (royalty-free or not)
-  Contested: What would happen in case of breach? How would a court interpret the NAC?