

Pervasive Technologies : Access to Knowledge in the Marketplace

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Pervasive Technologies?

- Mass marketed
- Networked
- Communication technologies
- [Capable of accessing the internet]
- Price point- sub hundred dollars (sub fifty dollars)

Questions

- What is the relationship between the production/deployment of pervasive technologies and intellectual property?
- What lessons does this hold for the future of both intellectual property and access to knowledge?
- What would it mean for these technologies to be produced and used in an intellectual property regime like that of the European Union, and indeed, would they have any future under the world's strictest copyright and patent laws?

(WHAT'S THE STORY) MORNING GLORY ?



[http://en.wikipedia.org/wiki/\(What's_the_Story\)_Morning_Glory%3F#mediaviewer/File:Oasis_-_What's_The_Story_Morning_Glory_album_cover.jpg](http://en.wikipedia.org/wiki/(What's_the_Story)_Morning_Glory%3F#mediaviewer/File:Oasis_-_What's_The_Story_Morning_Glory_album_cover.jpg)

The Mobile Device Story

- Meet our devices!
- An average of 350 essential patents (per device) from those granted in the US alone
- China- India

Initial Findings from China

- Why?
 - Study the mobile phone manufacturing system
- How?
 - The Global Sources Consumer Electronics Trade Fair at the Hong Kong airport (1-day)
 - HKTDC Hong Kong Electronics Fair (Autumn Edition) 2014 (2-days)
 - China import & export fair, Canton (1-day) (of no real use, did not attend day 2)
 - The Global Sources Mobile Electronics Trade Fair at the Hong Kong airport (1-day)
 - 6 manufacturers were visited and 4 production facilities were inspected and inspected
 - Visits were undertaken at two major wholesale markets (Shenzhen & Canton) where people from all over the World come to buy products in smaller quantities.
 - *“I carried visiting cards of a company I started for on-line sales. I indicated that there was huge potential for 5” dual-SIM Android phones in India, and wanted to sell these with my own branding in India.....After discussing specification, indicative prices & collecting brochures from several exhibitors, I shortlisted a few companies and my translator called up to fix appointments for factory visits.”*

...contd.

- Mobile phones in the 40\$ price bracket, with these features:
 - 5" touchscreen – capacitive
 - Dual core (at minimum)
 - Dual SIM, with 3G
 - 512 MB RAM
 - 4GB in-built storage
 - Expandable memory
 - > 1800 mAH battery
 - Android, with updates
 - OEM branding, packing
 - Headphone & charger
 - Dual camera
- Price Difference for changes in configuration
 - 512 MB > 1 GB
 - Better camera
 - Better screen
 - Better processor

....contd.

- Responses (factory visits)
 - Price- \$47 to \$51 (5000 pieces with the buyer's brand)
 - Expectation that the price would drop by 10-15% for 20,000 pieces or more
 - Configuration Changes
 - Dual Core > Quad Core +4\$
 - 512 MB > 1 GB +5\$
 - 2MP rear camera > 5MP +3.5\$
 - TN display > IPS display +2\$
 - WVGA > QHD resolution +3\$
 - Patents? – *“Not one of the people we spoke with appeared to have come across this question before”*

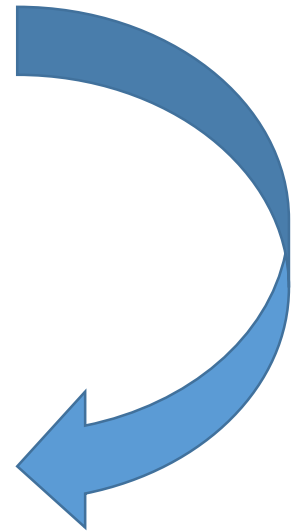
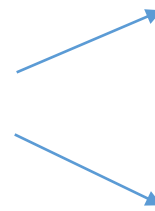
...contd.

- Have you paid royalties?
 - Not specifically paid for by the phone manufacturer, importer must pay
 - One paid to QUALCOMM
 - This is a new question- let me get back to you
 - I don't know
 - One undertaking in writing – large manufacturer- *“For royalty or patent issue, I consulted with other India customers and other EU customers. All don't get the 3G patent.”*
 - Other refused to give undertakings in writing
- How do you sell to countries with strict IP laws (in Europe for instance)?
 - *“We sell to Europe. We don't know how this is managed.”*

...contd.

- Largely assembly shops procuring components to make phones
- Private tooling in some cases – on the phone body- for differentiation
- Specification, features and prices are largely the same
- No vendor with Windows phones!
- No one spoke of intellectual property
- Manufacturers unaware of intellectual property
 - Responsibility of the chip manufacturer
 - Buyer in the country of import

SEP litigation comes to India



Early 2013 –
till date



Competition Commission of India

What do we want to do?

- What are the legal and policy levers that we could use to ensure the continued availability of sub hundred dollar mobile devices in India?
 - Digital India Project?
 - Who are the stake-holders? How does the industry react to intellectual property protection?
 - The Regulatory environment : Multiplicity of actors + Multiplicity of regulators
 - Competition Commission of India, Reserve Bank of India, Indian Patent Office, Telecom Regulatory Authority of India
 - Can we set up a patent pool for Standard Essential Patents in India?
 - Challenges from FTAs