



Promoting Intellectual
Property Rights in the
ASEAN Region

How do big companies leverage from their IP in open innovation settings?

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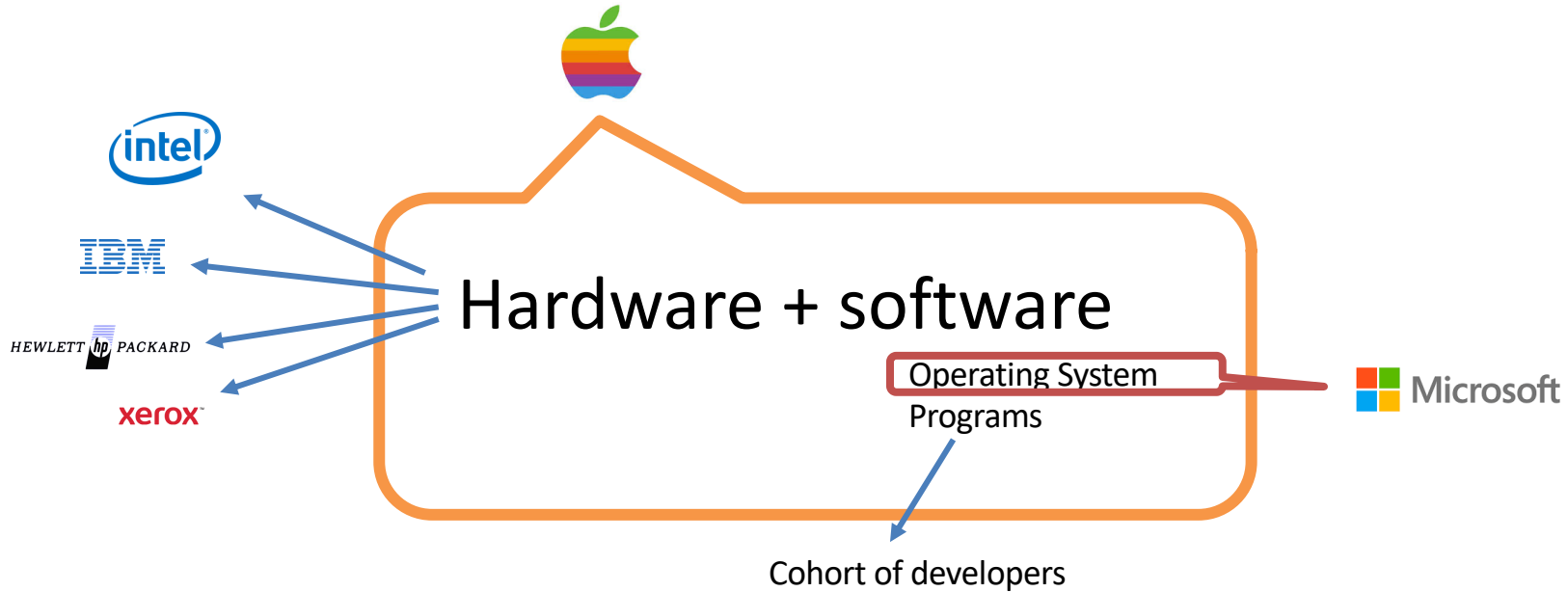
Overview

1. Some traits of technology development in complex sectors
2. Business (and tech) models in PC sector (80's and 90's)
3. Network effects
4. Intel's take on the patent system
5. Google Android pseudo-open approach
6. Removing obstacles

1. Some traits of technology development in complex sectors

- Network effects are key
- Growing business and technological interdependences
- Some technologies operate as a precondition for others
- Business which control those techs become gatekeepers
- Not even big tech keep the pace of technological development
- Ambivalence of the role of IP
 - Appropriability of intangibles → needed to incentivise creation
 - Appropriability of intangibles → “obstacle” to creation

2. Business (and tech) models in PC sector (80's and 90's)



3. Network effects

Key concept in complex, interoperable sectors

- The more users the more attractive for developers of complementary products and services
- The more complementary products and services, the more attractive for users

4. Bill Gates' decision at the light of network effects

Apple required Microsoft to licence the OS in exclusive:

- Apple's tech is good – IBM, Intel or Hewlett Packard are good too
- Requiring exclusivity will dissuade developers
- Exclusivity will merge Apple's and Microsoft destiny

Let's do a "hardware-agnostic" operating system and simplify the development of programs.

The rest is history

5. Intel's catch-me-if-you-can patent strategy

- Huge reliance on frontier technologies by funding top-notch research at universities



What does Intel do with the result of such research?

5. Intel's catch-me-if-you-can patent strategy

- Intel only **patents a fistful of such technologies**, which monetises and litigates strategically (usually not for obtaining royalties but to secure its leading position).
- The rest of patentable technologies are **made available to the public** why?
 - Setting the starting point for third parties' follow-up innovation – more efficient innovative process.
 - Saves money in patent protection of ancillary technologies
 - Increases density of state of the art preventing competitors from obtaining exclusivity over such developments
 - Intel Technical Journal

5. Intel's catch-me-if-you-can patent strategy

This logic of 'publish-versus-patent' floods the system with cutting edge research which is freely available, versus:

- Patenting everything – may slowdown the development of technology
- Keeping confidential substantial research – a competitor can obtain a patent over it, thwarting Intel's innovation pace.

Catch me if you can: the only way to beat Intel is to apply for a patent over a key technology before Intel publishes anything about it:

- Publishing is easier than patenting
- Sustained position (and investment thereof) to be ahead of the state-of-the-art.

6. Google Android pseudo-open approach

The operating system battle for the smartphone:

- The PC OS battle showed that being the leading OS was critical for incumbents.
- The competitors:
 - **Apple:** iOS – dedicated software
 - **RIM:** Black Berry - dedicated software
 - **Nokia:** Symbian – “Hardware agnostic” proprietary exploitation
 - **Microsoft:** Windows Mobile/Phone – “Hardware agnostic” proprietary exploitation



6. Google Android pseudo-open approach

Google **opted for a pseudo-open** strategy:

- Free access to users to Android
- “Open” terms to app developers and
- Favourable conditions to those handset manufacturers which comply with certain conditions

Attracted **critical mass at a fast pace** thanks to **network effects** – Apple iOS coupled with iPhone is the only *resistance*

Critical difference with Windows: Google did not need to charge a price per licence – monetises data

7. Tesla patent pledge

In 2014, Tesla announced its patent pledge:

All Our Patent Are Belong To You

Elon Musk, CEO • junio 12, 2014



Yesterday, there was a wall of Tesla patents in the lobby of our Palo Alto headquarters. That is no longer the case. They have been removed, in the spirit of the open source movement, for the advancement of electric vehicle technology.

Tesla Motors was created to accelerate the advent of sustainable transport. If we clear a path to the creation of compelling electric vehicles, but then lay intellectual property landmines behind us to inhibit others, we are acting in a manner contrary to that goal. Tesla will not initiate patent lawsuits against anyone who, in good faith, wants to use our technology.

7. Tesla patent pledge

Strategic reasons:

- 1) **Control** who and how are using them
- 2) Use them as a **defensive weapon**
- 3) Ticket to **collaborative innovation**

7. Tesla patent pledge

Strategic reasons:

- 1) Exploit signalling function of patents (**informational and reputational**)
- 2) Defensive use (**traditional litigation**)
- 3) Enabling the development of complementary technologies → growth of a richer ecosystem and a bigger market – where Tesla is the leading company (**open innovation as ecosystem enabler**)
- 4) A bigger ecosystem is likely to gain more traction when advocating for legal and infrastructure changes (**pure lobbying purposes**)

Some further reading...

- ASEAN (2020) Handbook on IP Commercialisation – Strategies for managing IPRs and maximizing value : <https://aanzfta.asean.org/uploads/2020/12/IPPEA-FINAL-HANDBOOK-ON-IP-COMMERCIALISATION.pdf>
- WIPO (2015) Guide on Intellectual Property Commercialization : https://www.wipo.int/meetings/en/doc_details.jsp?doc_id=316830
- Wang, J. and Peng, X. (2020) A Study of Patent Open Source Strategies Based on Open Innovation: The Case of Tesla. *Open Journal of Social Sciences*, **8**, 386-394: <https://www.scirp.org/journal/paperinformation.aspx?paperid=101900>
- ZAFRILLA DÍAZ-MARTA, Vicente; MUÑOZ FERRANDIS, Carlos. Open Source, ICT Standards and Softwarisation: Hybridisation Dynamics and Competition Law Concerns. *Journal of Law, Market and Innovation* (Forthcoming)
- ZAFRILLA DÍAZ-MARTA, Vicente; Open intellectual property and cooperation in complex technologies

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THANK YOU

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