Two Meanings of "Open" Across Software & Standards

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Software Is Still Eating The World

- Hardware standards are increasingly dominated by software standards

- Interoperable software is best developed collaboratively with shared reference core code

- So standards increasingly need open source counterparts

- Open source software also leverages standards well

Open Source ≠ Open Standards

- "Open" is one of the most overloaded terms in our field

- Open Source and Open Standards do **not** have related methods or objectives

- They are at best **orthogonal domains**

- At worst they are incompatible

Where's the common ground?

Open source and open standards are obviously different, but the objectives of these communities are the same: interoperability, innovation and choice. The main difference is how they accomplish those goals, and by that I'm referring primarily to culture and pace.

From https://techcrunch.com/2021/06/09/a-revival-at-the-intersection-of-open-source-and-open-standards/

https://meshedinsights.com/2021/02/11/chalk-and-cheese/

Open Source

- Software **anyone can enjoy in any way without negotiating with its creators** because it is **licensed so that each user is self-sovereign**.

- Many consequences of the freedoms available, but open source is primarily about developer/user freedom and self-sovereignty

- Achieved by licensing by rights holders so anyone can Use, Improve, Share & Monetise without further negotiation

- Made scalable by an open community license review process and approved license list that reduces the need to study license terms

- "Open" is about the **work product**, not the process

Open Standards

- Standards are intended as patterns aimed at ensuring independently manufactured or implemented products remain interoperable and safe

- "Open" because they are developed using an inclusive processes

- Intended to control vendor monopolies transmitted through corporate dominance of specifications

- Work product may be paywalled, may be patent encumbered

- "Open" is about the **process**, not the work product

"Open" in Open Standards

Definition intended to avoid anti-trust action

- Anti-trust: use of dominance in a market to secure dominance in unrelated markets

- Among others, a significant mechanism for anti-trust is cartels

- SDOs all have rigorous rules to prevent the SDO becoming a cartel

- A cartel is "a group of independent market participants who collude with each other in order to improve their profits and dominate the market."

- Main avoidance mechanism is "open to all under the same terms" - same fees, same IP terms, same participation rules

- **Hence "open" here means "the process is available to all equally"**

Open Standards Funding Models

- Requirements-led

  - Industry agrees requirements, companies contribute IP, winner embeds SEPs
  - Monetised after standardisation through <u>royalty-due</u> patents (SEPs)

- Implementation-led

  - Industry harmonises implementations, mostly on a <u>royalty-waived</u> basis
  - Monetised through products in the market and by adjacent business

- Both leverage patents, just differently

  - *neither* involve abandoning IP

- Only one of these is compatible with open source...

Software Freedom & Negotiation

- OSI-approved licenses grant all rights necessary to enjoy the software **without negotiation** with the rights holders

  - Compliance ≠ Negotiation

- So **standards in the requirements-led model, with royalty-due patents that must be negotiated, are not implementable by true open source communities**

  - Some counter-examples appear to exist, but they turn out to have additional agreements to handle the patents

  - Recent research confirms patent licenses are not practically available to open source

Policy Issues

- Current policy favours royalty-due approaches for industrial innovation

- Current policy also promotes open source

- This discontinuity must be resolved for industrial leverage of open source

OSR - Open Standards Requirement for Software

- OSR addressed the difference in 2006 - https://opensource.org/osr

- Explains the minimum requirement for a standard to be implementable as open source

  - "An "open standard" must not prohibit conforming implementations in open source software."

- Widely referenced globally

- Settled the debate for most people for a decade

  - OASIS, for example, cites and adheres to OSR

Recommendations

1. Discussion of "standards" must identify if the anticipated model is requirements-led or implementation-led.

2. Clearly scope adoption expectations before setting IPR terms

3. Recognise that leveraging IPR can involve market growth and adjacent model enablement as well as royalty collection

4. If scope includes open source implementation, terms must be on a **royalty-waived** basis

5. If scope must include both requirements-led and implementation-led elements, **partition** them with their own IP regimes

6. Public policy must expressly accommodate **both** approaches

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