

# Funding Free & Open Source software development

## *Licensing & Economic models*

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# The Free Software Universe

- Already a “working model”
- Second biggest form of public domain, monopoly-free information production
- (Elements of publicly funded science are the largest)
- If measured in dollars, well over AU \$10 billion

# What drives free software?

Business plays a large role, but in *collaboration* with a wider community. According to Lakhani and Wolf (2004), FS developers:

- ~25% are paid by firms
- ~25% are making tools for themselves
- ~25% are are having fun or educating themselves
- ~25% are motivated by principle or ideology

# Today's Question:

- This is a very large and successful mode of production
- Not going to talk about the bits that work
- What is lacking?

*There is no direct economic connection between consumer's needs for particular programs or features, and the developers who can provide them.*

# Funding models

- Can we preserve the benefits of FS (production, distribution, autonomy)
- ... incorporate an element of market incentives ...
- without re-locking the code?

*Three (imperfect) ways to attempt this...*

Public funding, bounty markets, dual licensing.

# Public funding?

- Already occurs when universities (occasionally) produce free software
- Could it be done in a market-like way?
- Public lending rights and private copying levies?
- No way to work out who to pay
- Not politically feasible
- Topic for another talk!

# Users pooling their money

- Some huge successes: Apache powers two-thirds of the web
- Works for medium-to-large sized firms
- For smaller users, transaction costs are problematic
- “Ransom” licenses are one way to avoid those costs
- Small successes like Blender 3D
- But, the informational link between producers + consumers is poor

# Bounty Markets / Wall St. Performer Protocol

- Someone describes a feature
- A user can pledge, “I’d pay \$ $X$  for that”!
- These pledges are cumulative
- Until a coder somewhere decides the reward is big enough



# Bounty Markets (messy details)

- Synchronisation / collaboration amongst programmers
- Quality control and peer review
- Trust, trusted third parties and escrow payments
- Time horizons for pledges (a money-back guarantee)

There are some partial examples and small-scale successes

# Free Amongst Friends?

- “Dual” or “two tiered” licensing
- Some users pay in cash, others in kind:
- Free for users accepting copyleft (or other) terms
- Others can buy a commercial license
- Only works straightforwardly for libraries or other *components*
- MySQL and Trolltech/QT

# “Free World” type licenses

- Free software for users running free OSes
- Others must purchase a license
- No applicable exclusive rights: requires a clickwrap EULA
- Does not fit free/open source software definitions
- Problematic for those who'd *rather* use a free OS
- Might still have some narrow applications?

# A verdict?

- FS will continue to be very successful in many IT sectors
- Market-like, consumer-driven funding models would still help
- Systematic public funding: theoretically tricky, politically impossible
- Bounty markets: promising on paper. Are the transaction costs simply too high, or is there a lack of infrastructure?
- Dual licensing: nice if it works for you. But not an option in many cases.