

Why and How Companies Should Pay Open Source Maintainers

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vlad.website

with thanks to Barry Maguire, Carl Mildenerger, Chad Whitacre

Software & philosophy for the public good

→ Open Source Pledge (maintainer)

→ thanks.dev (maintainer)

→ University of Edinburgh (PhD researcher,
Philosophy department)

→ Catsitter



What I'm talking about:

Some ideas + technologies we can use to make Open Source sustainable

I don't have all the answers, but we have to get started with this stuff

96% of codebases contain Open Source components

Back-of-the-napkin: Open Source community creates \$853B of value yearly

*(Chad Whitacre. “Open Source Captures 0.02% of the Value it Creates, Leaving \$852B/yr on the Table”;
Konstantin Vinogradov. “What Open Source can learn from universities to fix its funding”;
Fred Bals. “2024 Open Source Security and Risk Analysis Report”)*

Without critical Open Source software:

→ Can't watch YouTube videos

→ Can't use your phone

→ Can't get medical records

→ Can't go to Mars

(U.S. Department of Health and Human Services. “Open-Source Software (OSS) Risks in the Health Sector”)

And yet...

Critical software is kept going by unpaid maintainers



FFmpeg
@FFmpeg



Yet we receive essentially no support from these enterprises relative to the value we provide



mok  @mokshith_v · Oct 19

Replying to @dbenjamin @sievedata and @FFmpeg

ffmpeg has created more enterprise value than we can fathom 🤔

6:29 AM · Oct 20, 2024 · **420K** Views

Critical Open Source software is threatened

Disastrous international security issues

Close calls:

→ XZ Utils backdoor

→ Log4Shell vulnerability

Maintainers can't pay the rent if they don't get paid

Maintainers not getting paid puts the projects they maintain at risk

Why don't maintainers get paid?

Money gets exchanged on the market — exclusionary

But Open Source is not part of the market — non-exclusionary

*(Waheed Hussain.
“Living with the Invisible Hand: Markets, Corporations, and Human Freedom”. Sec A.2.5)*

So what is Open Source?

Gift economy?

Not right now:

→ Missing directedness

→ Missing personalisation, emotional engagement

→ Missing reciprocity

→ Not based on esteem (just like Wikipedia)

*(Erik Olin Wright. “Envisioning Real Utopias”. p 201;
Arnould et al. “Mutuality: Critique and substitute for Belk’s ‘sharing’”, p 3)*

But what benefit do producers of Open Source get?

“It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest”

— Adam Smith

(“The Wealth of Nations”, I.II.2)

You get a benefit, just not from an exchange

Idea: Open Source production is solidary meaningful work

→ Solidary: “I want this thing to exist for all of us; we're in it together”

→ Meaningful: autonomy, self-development, contribution, purpose, recognition

(Terkel 1974; Schwartz 1982; Roessler 2012; Walsh 1994; Althorpe 2022; Veltman 2016; Elster 1986)

Some might say:

“Okay, solidary meaningful work is cool...

...but it economically means you just won't get paid!”

But there are good reasons for Open Source production, eg:

→ Much larger base of contributors

→ More specialised contributors

→ More efficient production via massive de-duplication of work

→ More responsive to user needs (because co-managed by users)

“commercial quality can be achieved / exceeded by OSS projects”

— Vinod Valloppillil, Microsoft Program Manager, 1998

(Steven Weber. “The Success of Open Source”. p 126)

Why should companies pay maintainers?

№ 1: Moral argument

Open Source software is a digital public good

— United Nations Secretary-General

Everyone benefits from an improvement to curl

I can't stop you from using curl (non-exclusionary)

If I use curl, there isn't less curl for you (non-rivalrous)

But: those whose business is based on curl benefit more

*(United Nations. “Roadmap for Digital Cooperation”;
Julian Reiss. “Public Goods”. In the Stanford Encyclopedia of Philosophy;
Waheed Hussain and Margaret Kohn. “The Common Good”. In the SEP;
Richard Cornes and Todd Sandler. “Easy Riders, Joint Production, and Public Goods”)*

Dear CEO,

...all these critical maintainers/contributors generate significant value

...that you profit most from

...and they do not profit at all from

...don't you think it would be good to pay them something back?

It is difficult to reach a thorough moral argument

But does this argument have emotional force for you?

“emotions are suffused with intelligence and discernment[, with] judgments about important things”

— Martha Nussbaum

Do you empathise with the maintainer?

*(Martha Nussbaum. “Upheavals of Thought”;
Antti Kauppinen. “Moral Sentimentalism”. In the SEP;
Adam Smith. “The Theory of Moral Sentiments”;
David Hume. “An Enquiry Concerning the Principles of Morals”. p 15, 75)*

№ 2: Business argument

If you do X

→ you will profit; and/or

→ you will avoid loss

If your company pays the maintainers it depends on:

→ Much larger base of contributors

→ More specialised contributors

→ More efficient production via massive de-duplication of work

→ **All of that, with a more sustainable and secure software stack**

→ **You can keep relying on the packages you depend on**

→ Nifty marketing bonus: you get to be a thought leader

How should companies pay maintainers?

Who are the recipients?

Big difference between:

→ Aggregate funding: ecosyste.ms + Sovereign Tech Fund

→ Company funding: Open Source Pledge + thanks.dev




→ \$2000 / dev / year

→ Payments go directly to maintainers; we do not handle funds



NASDAQ
CONGRATULATES
THE COMPANIES
LAUNCHING THE
OPEN SOURCE PLEDGE

- Colider
- {*} anthesis
- SENTRY
- STRAL
- PREFECT
- merge
- frontends
- Mastata
- Scalar
- val town
- heroku
- Chief Tools
- keygen
- StackBlitz
- HTTP Toolkit
- RECTOR
- Picoo
- PRIVATE PACKAGIST
- Laravel
- Browserbase
- Substack

 [OPENSOURCEPLEDGE.COM](https://opensourcepledge.com)


 Nasdaq

BUT WITH MY
VA

NO BODY
ITS WHATS

H&M

**CHIEF
FREELOAD
OFFICER**

 [OSSPLEGE.COM](https://osspledge.com)



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Our members have paid maintainers

\$2,489,246

over the last year.

Some Member Companies



GitButler



ASTRAL



SANITY



pydantic
LOGFIRE

Frontend *Masters*



keygen



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Pay your share

Whether you're a CEO, CFO, CTO,
or just a dev, your company surely
depends on Open Source software.
It's time to pay the maintainers.

[JOIN THE PLEDGE](#)



If I'm a company...

which projects should I fund?

The ones I depend on the most

There are “criticality metrics”, but they just approximate use

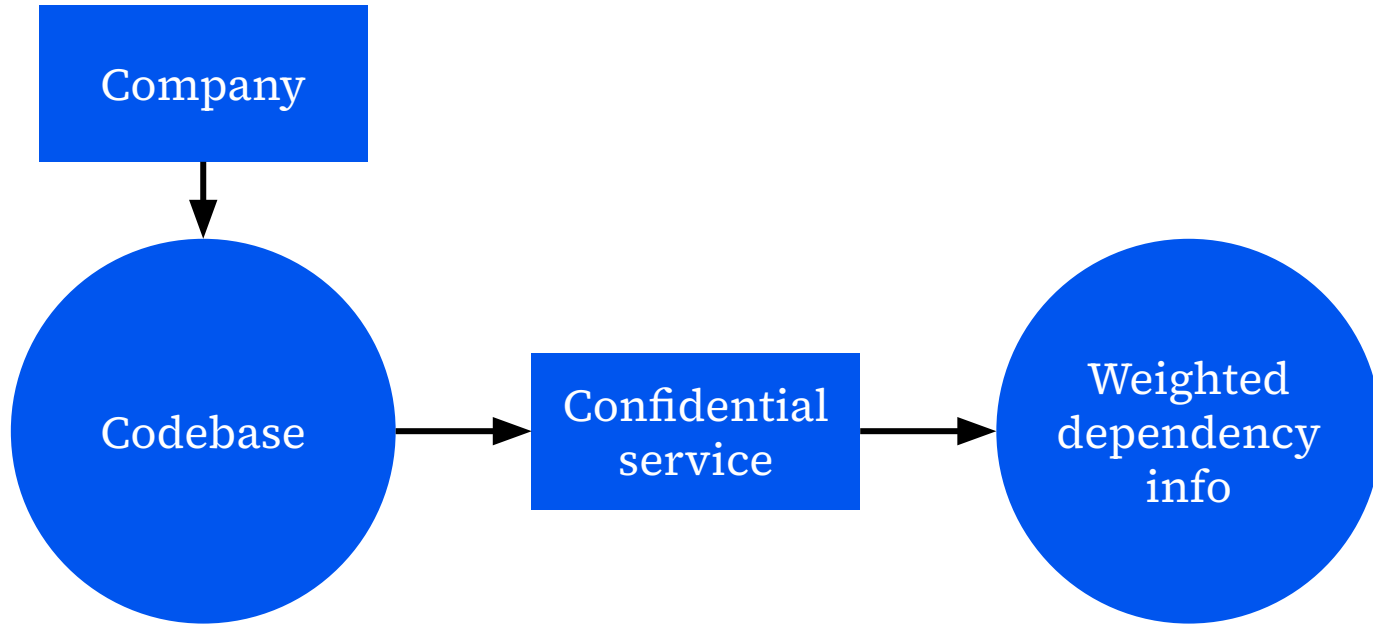
(A Arya, C Brown, R Pike, The Open Source Security Foundation. “Open Source Project Criticality Score”)

But how can a company know which projects they depend on the most,

→ at scale









→ with minimum effort?

What if we had this?





thanks.dev

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sponsor the open source projects you depend on.

trusted by



200+ dependencies



600+ dependencies



900+ dependencies



750+ dependencies

meet our generous community

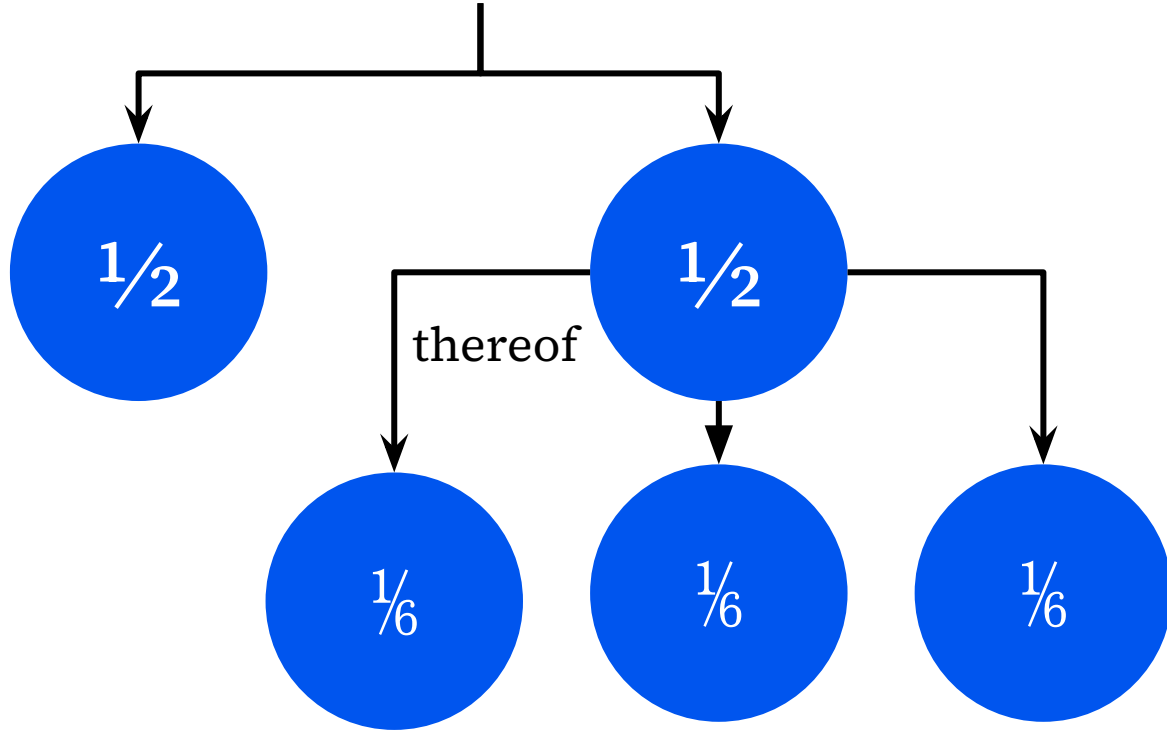
latest donors

gh/cashapp	12 days ago	\$294.69
gh/square	12 days ago	\$832.68
gh/block	12 days ago	\$455.64
gh/getsentry	last year	\$18,485.41
gh/codecov	last year	\$6,188.92
gh/syntaxfm	last year	\$4,617.66
gh/frontendmasters	last year	\$3,125.00

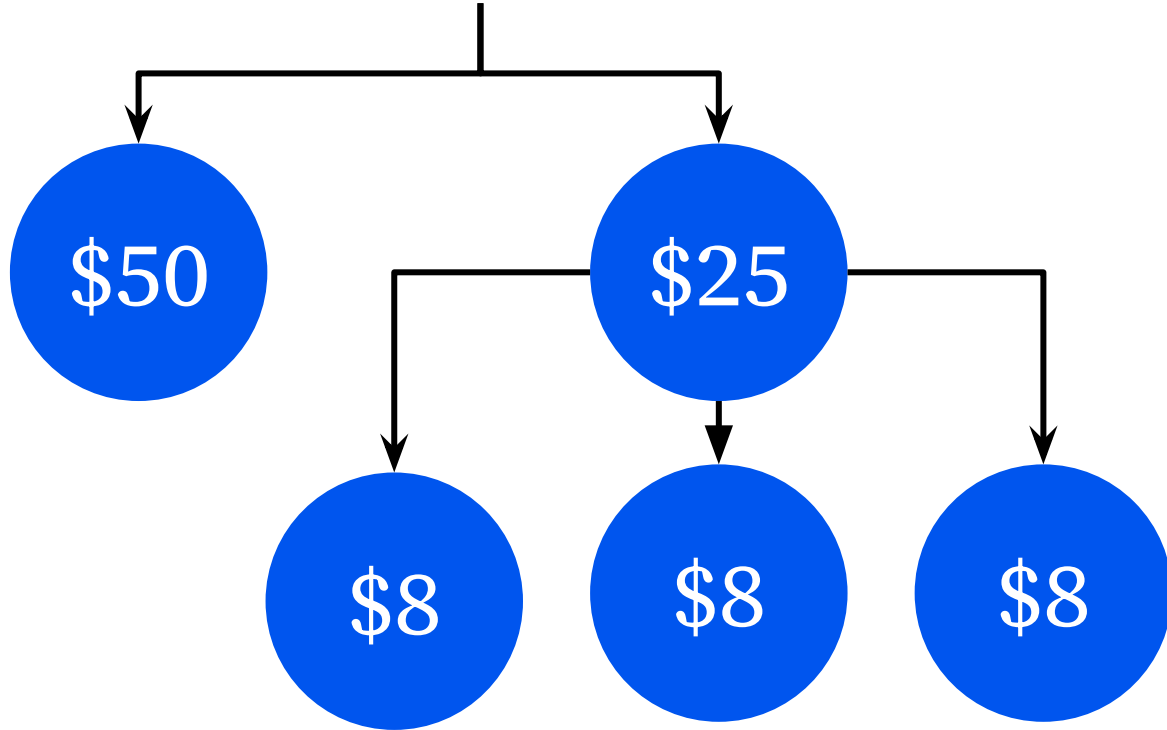
top donors

gh/getsentry	\$140,455.03
gh/codecov	\$54,834.27
gh/syntaxfm	\$46,611.70
gh/frontendmasters	\$37,500.00
gh/sourcegraph	\$11,595.28
gh/scientianl	\$995.88
gh/keygen-sh	\$921.31
gh/square	\$832.68
gh/gitbutlerapp	\$537.79
gh/teacherfund	\$504.21

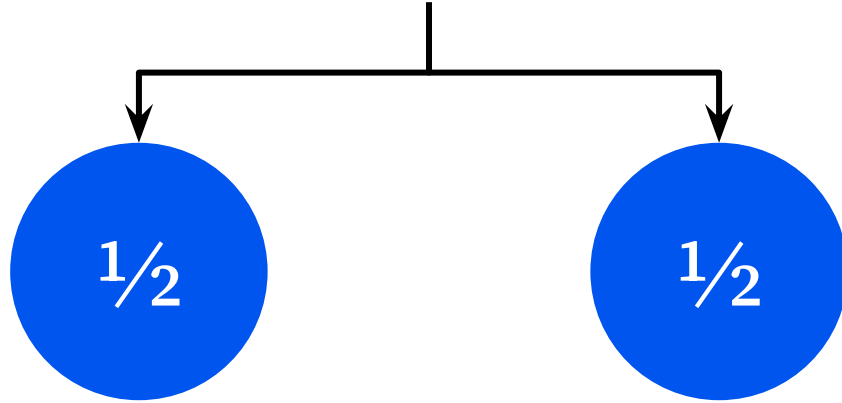
\$100



\$100



\$100

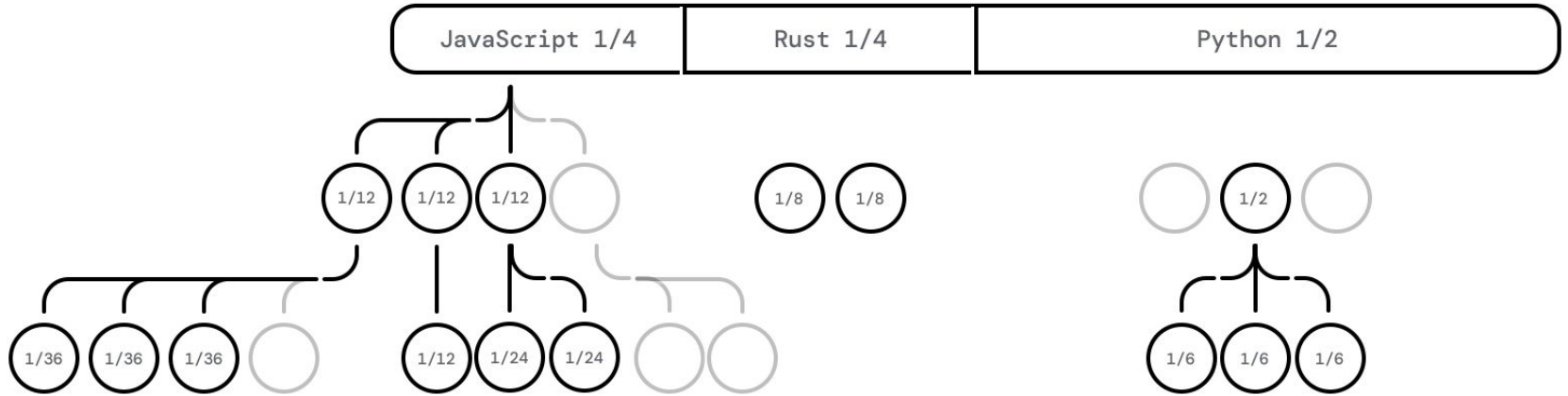


left-pad

node-postgres



\$1,000 donation



Instead of relying on a codebase's manifests...

We could actually statically analyse our codebase to calculate the criticality of each package

We want to measure the coupling between each dependency and our code

(Fregnan et al. “A survey on software coupling relations and tools”)

```
import postgres
import leftpad
db = postgres.new()
q = db.query(...)
stmt = q.prepare(...)
row = stmt.execute()
formatted = leftpad.pad(row)
print(formatted)
```

node-postgres

7/8 statements (87.5%)

```
import postgres
```

```
import leftpad
```

```
db = postgres.new()
```

```
q = db.query(...)
```

```
stmt = q.prepare(...)
```

```
row = stmt.execute()
```

```
formatted = leftpad.pad(row)
```

```
print(formatted)
```

leftpad

3/8 statements (37.5%)

```
import postgres
```

```
import leftpad
```

```
db = postgres.new()
```

```
q = db.query(...)
```

```
stmt = q.prepare(...)
```

```
row = stmt.execute()
```

```
formatted = leftpad.pad(row)
```

```
print(formatted)
```

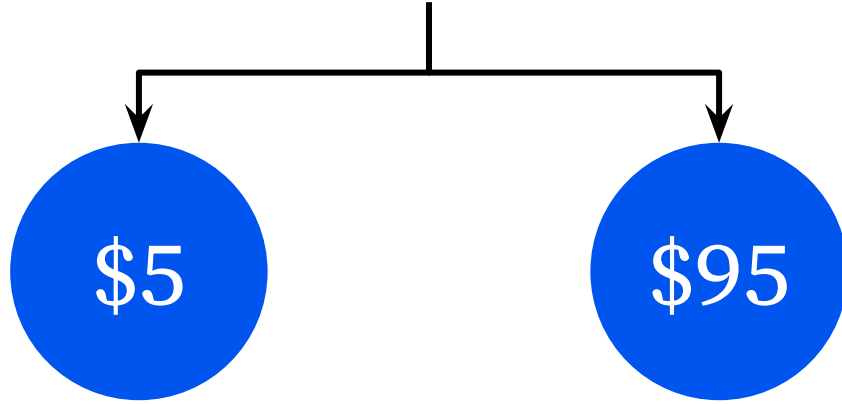
We now calculate the complexity of each package

Could use any metric — let's imagine we have one

We scale the complexity to be between 0 and 1 — perhaps by dividing by the complexity of the most complex dependency

	node-postgres	leftpad
Coupling	0.875	0.375
Complexity	0.800	0.100
Score (coupling × complexity)	0.700	0.038
Proportional score	0.950	0.050
Funding	\$95	\$5

\$100



left-pad

node-postgres

Let's keep this conversation going

vlad.website/fosdem25

Also, get your stickers!

✨ Thank you! ✨

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