

Debian in the Dark Ages of Free Software

My journey through software freedom

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Outline

- 1 Everything is fine
- 2 Dark ages
- 3 A role for Debian

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Why (oh, why) am I doing this?

- open source

May 1997 *The Cathedral and the Bazaar*

Sep 1997 my first exposure to FOSS

Jan 1998 Netscape Open Sourcing

- ▶ *“better software development methodology”*
- ▶ *“if you open source it, they will come”*

- Free Software

- ▶ the 4 freedoms

- ▶ resonates with various me-s: hacker, student, teacher

- control (over my computing)

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Control

Lester picked up a screwdriver. “You see this? It’s a tool. You can pick it up and you can unscrew stuff or screw stuff in. You can use the handle for a hammer. You can use the blade to open paint cans. You can throw it away, loan it out, or paint it purple and frame it.”

He thumped the printer. “This [Disney in a Box] thing is a tool, too, but it’s not your tool. *It belongs to someone else* — Disney. It isn’t interested in listening to you or obeying you. It doesn’t want to give you more control over your life.” [...]

*“If you don’t control your life, you’re miserable. Think of the people who don’t get to run their own lives: prisoners, reform-school kids, mental patients. There’s something inherently awful about living like that. *Autonomy makes us happy.*”*

— Cory Doctorow, *Makers* (2009)



[https://en.wikipedia.org/wiki/File:Makers_\(Cory_Doctorow_novel\).jpg](https://en.wikipedia.org/wiki/File:Makers_(Cory_Doctorow_novel).jpg)

(my own) Computing, in the 90s

- **hardware**: desktops, some local servers; later: laptop
- **producing content**
 - ▶ office suite / desktop publishing
 - ▶ federated communication
 - * asynchronous (e.g., email, newsgroups)
 - * synchronous (e.g., IRC)
 - ▶ software development
- **consuming content**
 - ▶ gaming
 - ▶ web browsing



road to software freedom was long, but clear: (re)implement proprietary sw, follow RFCs to interoperate, deploy

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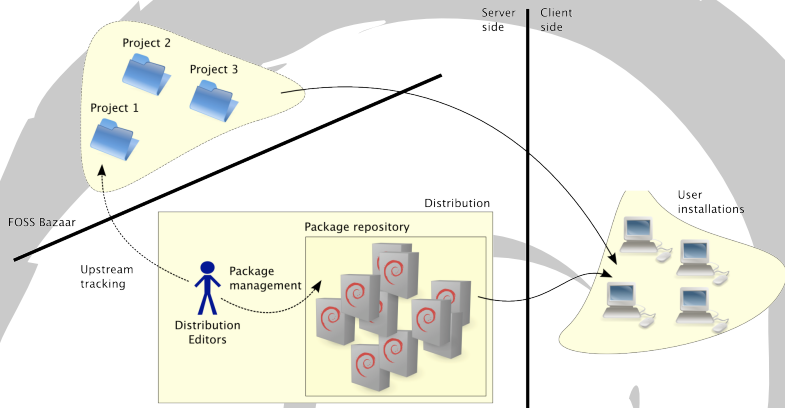


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foo is cool, let's install it!

- 1 download foo-1.0.tar.gz
 - ▶ checksum mismatch, missing public key, etc.
- 2 ./configure
 - ▶ error: missing bar, baz, ...
- 3 foreach (bar, baz, ...) go to 1 until (recursive) success
- 4 make
 - ▶ error: symbol not found
- 5 make install
 - ▶ error: cp: cannot create regular file /some/weird/path

Free Software, à point: distributions



distro mission: liberate users, bringing Free Software to them

historically: the only way to liberate non-dev., non-sysadm users

Debian: once upon a time

- 1998: my first exposure to Debian

Fellow Linuxers,

This is just to announce the imminent completion of a brand-new Linux release, which I'm calling the Debian Linux Release. [...]

*Ian A Murdock, 16/08/1993
comp.os.linux.development*



Important things I've learned in Debian



<https://loldebian.wordpress.com/2008/08/03/rejecting-w-procexing-gnu/>

- being principled
 - ▶ DFSG, main
- the relevance of legal geeks / legal knowledge
 - ▶ the beauty of copyleft
 - ▶ law, when hacked around, can become a powerful anti-oppression device



Fast forward to the present...

We are winning

- “open source” is everywhere in the industry
- web server market share: 67.5% (*nix) \supseteq 56.3% (GNU/Linux)
 \supseteq 30.7% (Debian), 55.6% (Debian+Ubuntu) — W3Techs, Aug 2014
- web browser market share of FOSS browsers: 58%
— StatCounter, Jul 2014
- Google's Android seizes *smartphone* market — WSJ, Aug 2013
AOSP hits 20% of the smartphone market — ABIresearch, Aug 2014
- in education:
about 2.5 million [RaspberryPi] boards have been sold — Feb 2014
- desktops — Ubuntu (most popular GNU/Linux desktop): 20 million users in 2011 (estimate), recurrent large scale migrations to both Debian/Ubuntu, Debian on the ISS, ...
- privacy: Tails

Free Software, distros, and Debian are finally becoming trendy!

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Control as a benchmark

OK, we made good progress.
Or did we?

Several issues with status quo:

- most recent platforms are **not 100% Free Software**
- more and more **proprietary JavaScript**
- ...

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-  **the “cloud”** (I'll be more precise in a bit)

Computing, today (for most people)

- **hardware**: desktops, laptop, phone, tablets, “clouds”
- **producing content**
 - ▶ office suite → Google Docs
 - ▶ email → GMail
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- **consuming content**
 - ▶ gaming → browser-/mobile-games, Steam
 - ▶ web browsing, social networks → walled gardens



computing is moving away from users, control is lost

road to software freedom is not as clear as it was

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What about distros?

We are **winning**:

- market share
- infrastructure

But we are also **losing**:

- empowering/liberating users



https://en.wikipedia.org/wiki/File:Petrarch_by_Bargilla.jpg

Free Software dark ages

Users have 100% Free Software thin client at their fingertips. All their **relevant computations** happen elsewhere, on remote systems they do **not control**.

We are winning a war that is becoming increasingly pointless.

Cultural problems (#1)

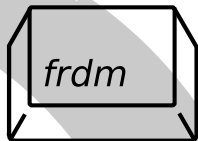
Hackers/developers seem to be more **tolerant to the lack of control** than in the past.

- widespread use of **non-free tools/infra** to develop Free Software
 - 📄 **Benjamin Mako Hill**
Free Software Needs Free Tools
http://mako.cc/writing/hill-free_tools.html
- technically: back to the **cage problem** being locked inside undebuggable layers of the software stack



Cultural problems (#2)

Our trust in, and understanding of, **legal devices** seem to be diminishing.



E.g.:

- **POSS** (Post-Open Source Software) debate

“younger devs today are about POSS - Post open source software. fuck the license and governance, just commit to github”
— James Governor

<https://twitter.com/monkchips/status/247584170967175169>

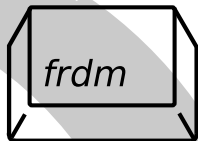
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<https://commons.wikimedia.org/wiki/File:Sf1c.svg>

This situation is not gonna fix itself. But, we can help.

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Embrace and extend... the “cloud”

- Common “cloud” trend: **increase user↔computing** distance
- Technically, we are in a sweet spot to fight back.

IaaS

- *potentially* good, but we need to push for private/shared deployments
- what's the best deploy experience we can offer?

PaaS

- orthogonal to distros; but also a symptom of the dependency-hell problem
- better synergies distro↔containers to be found

SaaS

- the worst software freedom offender
- need better Free, federated services (upstream)
- what can we do about this?

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Click-button installation of Free, federated services

We have:



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We lack:

click-button installation of Free, federated services that people need to interact with their peers without the mediation of centralized, non-free software services

Out of the box:

- anonymous browsing
- mail handling
- web hosting
- storage, calendar, etc.
- encrypted P2P backup
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FreedomBox

<http://www.freedomboxfoundation.org/>

.o0(make it a 1st class Debian citizen?)

Step in the “free service” debate

That **users are losing control** is uncontroversial, but the meaning of **being Free in the “cloud”** is unclear yet.

- Franklin St. Statement (2008)

“we have not yet formally defined what might constitute a Free Service”

- Who does that server really serve? (RMS, 2010)

“Don’t use SaaS! Don’t use someone else’s server to do your own computing”

- Network Services Aren’t Free or Nonfree [...] (RMS, 2012)

“Non-SaaS services can mistreat their users in other ways [...] we don’t have a firm position on them as yet”

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- we master sw distr. & deployment

what’s Debian take on liberating users, today?

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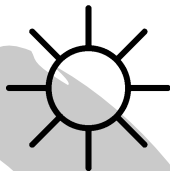
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Thanks!

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VV.AA.

Franklin Street Statement on Freedom and Network Services
<http://autonomo.us/2008/07/14/franklin-street-statement/>, 2008.



Benjamin Mako Hill

Free Software Needs Free Tools
http://mako.cc/writing/hill-free_tools.html, 2010.



Richard Stallman

Who does that server really serve?
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Network Services Aren't Free or Nonfree; They Raise Other Issues
<https://www.gnu.org/philosophy/network-services-arent-free-or-nonfree.html>, 2012.

about the slides:

available at <https://gitorious.org/zacchiro/talks/trees/master/2014/20140823-dc14-darkages>
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