SAILING THE SEAS OF OPEN SOURCE

A CONVERSATION ABOUT AVOIDING DRAGONS (& DUNGEONS) AND SAILING OVER THE EDGE OF THE FLAT EARTH

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AVAST!

Here be Cap’n CRob

Scurvy dog that be herd’n cats for a large Commercial OSS vendor

Most of what he says are solely his thoughts…..ish

CRob does NOT represent all of THE OPEN SOURCE….please be kind
1. **What is Open Source?**

I am one with the FOSS

and the FOSS is with me.
Open Source refers to works that the original source code is made freely available for redistribution and reuse, they are typically written by communities of developers.
2. Why iz tha Open Sources so Awesome?

WHAT IF THE MATRIX
IS JUST A POWERSHELL SCRIPT?
25,300,000

*Number of repositories with activity in the last year on GitHub Oct2017*

What are clouds made of?
Why

- The best ideas win (aka Meritocracy)
- Speed and agility
- Collaboration
- Fast innovation
- No lock-in
- The source code is publicly available for review
- You are (normally) able to edit/augment the code
Nice People You’ll Meet in OSS

Uses Gentoo Linux

On a 128 core cray machine with a 24 node ZFS cluster for storage.
HERE

WE ARE

YOU AND WE KNOW IT

Awesome OSS People!

This is shit
So many beards...
Individuals
OSS is driven by the innovation and creativity of little people with BIG ideas

Small Communities
Oftentimes these individuals will find each other and collaborate on these ideas

Large Communities
Certain ideas have so much interest that a formal group sometimes develop, with

Commercial Vendors
OSS always is free and available to use, but some end-users want a higher level of support; There are many vendors that provide commercial support (with documentation, support, training, ...and package updates)

These groups all have different goals and different ways to communicate. They are all unified by a passion for Open source ideals!
Open Source is “free” like my kid’s Free fish
CROB'S “FREE FISH” BILL:

>$200 USD
The moral

Open Source is kinda like a free fish

You generally have extra work to do around the fish.

It can be pretty cool (that bubbly pirate chest was tha awesomes)!

If you leave a 12 yr old to oversee it it's going to die. <--Fact

...in other words, with a little bit of effort, it can be beautiful, but it takes work!
5.

To be successful you must do some stuff...
(I know, this free software is a real drag, man!)

YOU KNOW
YOU LIKE LINUX!
Stuff and Things to Think About

In general, there is little to no formal organization around most OSS.

There are several larger projects (kernel, Apache Foundation, OpenSSL) that are more mature and structured.

When using open source packages you need to decide how you want support: Free (aka “Dr. Google”), Fee (commercial), or Community (build your reputation).
## Several Important Concepts

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Upstream</th>
<th>Downstream</th>
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<tbody>
<tr>
<td>This (typically) refers to someone offering a “boxed” Linux flavour. It is generally (but not always) is based off of a commercial or very large community-curated set of packages</td>
<td>This is the source of some software package or collection of packages. E.g.- kernel.org is a group of developers (headed up by my Linus) that maintains the Linux kernel. It is not directly affiliated with any commercial entity (although “corporate” engineers do contribute)</td>
<td>This is the consumer of some upstream package/project. If you embed the Tomcat webserver in your products, you’re considered “downstream”. This is rarely a formal arrangement</td>
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Some other terms you should be aware of

Backporting
This is when *specific* patches are brought into some form of downstream offering. This is not the exact code released from upstream.

Rebasing
When the whole upstream package is used and delivered via some downstream offering.
Big Concept

**Big Concept**

♫ ṭaʟƙ...yɛs aсtually tαlƙ tό the mαintαiner
of tαt pαckαгε (OSS is cооl lіке tαt tαt
you cαn aсtually dο tαt...wε dοn't
bιtε....Hαrd.)
Cap’n CRob’s Guide to #winning tha Open Sources

KNOW what you’re putting into your products (If you don’t have a manifest of packages and dependencies you are NOT tall enough to ride this ride)
UNDERSTAND how those packages are developed and maintained
The Sandwich Paradox
SCHRODINGER'S SAMMICH

It is both delicious and not delicious. You cannot know until you take a bite.
What’s in the sammich and how it was made matter

- Chain of custody/package ancestry matter
- Trusted builds by trusted maintainers on protected infrastructure
- Changes documented and tracked
- Signed with authorized_keys
More #winning....

CONTRIBUTE to projects you care about (or get support from nice people that do such things)

- "Contributing" can mean many things - adding patches to make the project better, peer code reviews, compute/storage resources, training/guidance, and so many other ways...... (so many)
6.

So how do I find these open source people?

**How to Spot a Linux User:**

**Step 1:** Make eye contact

**Step 2:** They’d have told you by now
Open source is everywhere...here's how to learn more....

Github
Mailing Lists....so many mailing lists (so many)
Forums/Communities
Project Pages
The Linux Foundation or other groups
Conferences
Most likely, get up and walk around your office...odds are SOMEONE at your company codes in their spare time....CRob likes hugs too
STOP TRYING TO MAKE LINUX DESKTOP A THING

EVERYBODY IS WORRIED ABOUT THE RANSOMWARE

WE HEARD YOU LIKE DOCKER

IT'S NOT GOING TO HAPPEN

YOU INSTALLED LINUX?

I RESTARTED MY WEB SERVER

YOUR JOURNEY TO THE DARKSIDE IS ALMOST COMPLETE.

ONCE, 10 YEARS AGO.

HAS TO REINSTALL LINUX

LINUX UPTIME: 627 DAYS.

LINUX UPTIME: 3 DAYS.
Thanks!

Any questions?

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