Saving Democracy with the Web's Infrastructure

Danny Haidar
Vice President for Product & Development,
FreedomBox Foundation
We are at a decisive point in the history of democracy.
Our technological prowess can defend democracy or destroy it.
A brief history of representative democracy (i.e. republicanism)
Aristotle (4th century B.C.E.): political communities are supposed to help citizens flourish as humans and develop “civic virtue”
Machiavelli (c. 1517): conflict is good, but republics need institutions to help people channel discontent productively
James Madison (1788): republics derive their power from the people through elections
Phillip Pettit (2012): republics need a contestatory citizenry in order to create laws that reflect our shared interests.
Components of democracy:
- civic virtue
- participation in politics
- contestation
- legitimacy through representation
2,000+ years of collective effort created the representative democracies we have today.
In the 21st century information society, we need to be the stewards of democracy.
Democracies are shaped by the flow of information
Information is important to each component:
- civic virtue
- participation in politics
- contestation
- legitimacy through representation
The democratic tradition is being tested by our information technology.
Protest Intimidation in the U.S.

Facebook, Instagram, and Twitter Provided Data Access for a Surveillance Product Marketed to Target Activists of Color

October 11, 2016

By: Matt Cagle  follow @Matt_Cagle

The ACLU of California has obtained records showing that Twitter, Facebook, and Instagram provided user data access to Geofeedia, a developer of a social media monitoring product that we have seen marketed to law enforcement as a tool to monitor activists and protesters.

We are pleased that after we reported our findings to the companies, Instagram cut off Geofeedia’s access to public user posts, and Facebook has cut its access to a topic-based feed of public user posts. Twitter has also taken some recent steps to rein in Geofeedia though it has not ended the data relationship.
Voter Manipulation in the UK

What Brexit should have taught us about voter manipulation

Paul Flynn

The EU referendum was won by the side with the means to distribute the most plausible lies through social media

▲ The crash of the voter registration site last June had indications of a botnet attack, according to MPs.

Photograph: Toby Melville/Reuters
Encyclopedia Censorship in Turkey

Turkish court backs censorship of Wikipedia

The country continues to crack down on free speech with this rejected appeal.

Rob LeFebvre, @roblef
05.05.17 in Politics

15 Comments
375 Shares
Anti-Corruption Suppression in Mexico

Opinion

EDITORIAL

Spyware That Governments Can’t Resist

By The Editorial Board

July 11, 2017

Leer en español

First came the revelation that prominent Mexican anti-corruption fighters, human rights activists and other government critics were targeted for surveillance with sophisticated spyware sold to the
Voter Manipulation in the U.S.

How Trump Consultants Exploited the Facebook Data of Millions

Christopher Wylie, who helped found the data firm Cambridge Analytica and worked there until 2014, has described the company as an “arsenal of weapons” in a culture war. Andrew Testa for The New York Times

By Matthew Rosenberg, Nicholas Confessore and Carlotta Carruca

March 17, 2018

FreedomBox
Misinformation on WhatsApp in India
Gaming elections in India

How to game elections: Social media provide a costless platform for political parties to spread disinformation

November 29, 2018, 2:00 AM IST

By Mishi Choudhary and Eben Moglen
Acknowledging what happened in New Zealand

A Mass Murder of, and for, the Internet

A prayer after leaving a tribute near Al Noor mosque in Christchurch, New Zealand, on Saturday. Forty-one people died there, the authorities said.  Cornell Tukiri for The New York Times

By Kevin Roose

March 15, 2019
The internet democratized information access but not production.
Information transmission and production are controlled at the center of the network.
Two Parts to Computing: Clients and Servers
Servers are at the center of the web.

centralised
But you don’t control the servers at the center.
To regain control, we need to re-decentralize the web.
But why did the web centralize in the first place?
Looking back: PC’s created a revolution and displaced mainframes.
IBM 5150 running MS-DOS 5.0, released in 1981\textsuperscript{15}
Macintosh 128K running Finder 5.2, released in 1984
Personal computers caused a revolution in computing.

IBM System/360 Model 30 processor unit Mainframe, 1964

IBM Personal Computer with IBM CGA monitor (model 5153), 1988
This never happened for personal servers.
Why did client devices enter the home but not servers?
Two explanations:
1. Inaccessible hardware
2. Opaque user interfaces
Enter FreedomBox: a simple private server.

FreedomBox Personal Server (Cubietruck hardware), 2017
FreedomBox: The Basics

How It’s Made
Software System (free) + Hardware ($30 - $100)

What It Does
Offers 20+ built-in apps and digital services, like a messenger, voice calls, a blog, a VPN, and more

Who It’s For
Anyone who wants to control their data and digital life, regardless of technical expertise
Hardware: Overview

“Universal”: Compatible with most old laptops and desktops (because we are Debian-based)

Inexpensive: Built for Single-Board Computers ($30 - $100)
FreedomBox is Built for 10 SBC’s

download FreedomBox

- 32-bit x86 (i386)
  latest i386 testing free

- 64-bit x86 (amd64)
  latest amd64 testing free

- A20 OLinuXino LIME
  latest armhf testing free

- A20 OLinuXino LIME2
  latest armhf testing free

- A20 OLinuXino MICRO
  latest armhf testing free

- BeagleBone Black
  latest armhf testing free

- Cubieboard2
  latest armhf testing free

- Cubietruck
  latest armhf testing free

- pcDuino3
  latest armhf testing free

- Qemu 32-bit
  latest i386 testing free

- Qemu 64-bit
  latest amd64 testing free

- Raspberry Pi 2
  latest armhf testing nonfree

- Raspberry Pi 3 Model B
  latest armhf testing nonfree

- Raspberry Pi 3 Model B+
  latest armhf testing nonfree

- VirtualBox 32-bit
  latest i386 testing free

- VirtualBox 64-bit
  latest amd64 testing free
The Hardware that You Need

Single-board computer
~$35*

SD Card
~$10

SD-USB adapter
~$5
(optional)

Ethernet cord
~$5

Power cord
~$5

*Raspberry Pi 2 + case, others supported
User Interface on FreedomBox

Democratized
Designed for Non-Experts

Simple
Point and Click

Streamlined
Automates What Can Be Automated
User Interface: First Boot

FreedomBox

Start Setup

JavaScript license information
User Interface: First Boot

Administrator Account

Choose a username and password to access this web interface. The password can be changed later. This user will be granted administrative privileges. Other users can be added later.

Username

Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only.

Password

- Your password can't be too similar to your other personal information.
- Your password must contain at least 8 characters.
- Your password can't be a commonly used password.
- Your password can't be entirely numeric.

Password confirmation

Enter the same password as before, for verification.

Create Account
User Interface: First Boot

Setup Complete!
Without any apps, your FreedomBox cannot do very much.

Install Apps

You may want to check the network setup and modify it if necessary.
User Interface: App Page
User Interface: System Options
User Interface: Single-Click Installs

Installation: IRC Client (Quassel)

Quassel is an IRC application that is split into two parts, a "core" and a "client". This allows the core to remain connected to IRC servers, and to continue receiving messages, even when the client is disconnected. FreedomBox can run the Quassel core service keeping you always online and one or more Quassel clients from a desktop or a mobile can be used to connect and disconnect from it.

You can connect to your Quassel core on the default Quassel port 4242. Clients to connect to Quassel from your desktop and mobile devices are available.

Learn more...

Install this application?
FreedomBox + Matrix
Can Replace Whatsapp
Demo: libreplanet.freedombox.rocks
Demo: libreplanet.freedombox.rocks
Demo: libreplanet.freedombbox.rocks
But can I buy it?
What if there was an all-inclusive kit that you could buy and plug in?
What if there was an all-inclusive kit that you could buy and plug in?
Pioneer-FreedomBox-HSK

**PIONEER FREEDOMBOX HOME SERVER KIT** is your own home private server which respects your privacy.

**Price:** 82.00 EUR

Out of stock

Pioneer-FreedomBox-HSK is based on A20-OLinuXino-LIME2 REV2 Open Source Hardware Linux computer. It comes with metal enclosure, LiPo 1400 mAh battery, which allows up to 4-5 hours of stand alone operation even if no
Coming soon: Pioneer FreedomBox Home Server Kits by Olimex
Pioneer FreedomBox Home Server Kits, by Olimex

- LIME2 Open Source Hardware computer (1GHz processor, 1GB RAM)
  - In a metal enclosure with the FreedomBox logo
  - Lipo 1400 mAh battery (4-5 hours of stand alone operation)
  - native Gigabit Ethernet interface
  - native SATA drive support
  - two USB 2.0 hosts
  - USB-OTG
- 32GB micro SD-card (speed grade Class 10, Read 20MB/s and Write 17MB/s)
- Ethernet cable
- Power supply
- Cost: 82 EUR, ~$93
How to order: https://www.olimex.com/Products/OLinuXino/Home-Server/Pioneer-FreedomBox-HSK/
Thanks to our core team, volunteers, partners, and community
What is the achievement of the post-2016 global interest in data and privacy?
Our challenge: capturing this moment and turning belief in an ideal into collective action
FreedomBox in 12 Villages in Rural India
FreedomBox is just a tool. It’s important. But it won’t save democracy.
You will.
Raffle!
Consider donating: https://freedomboxfoundation.org/donate/
Questions & Contact

• Press inquiries: press@freedomboxfoundation.org
• Me: haidar@freedomboxfoundation.org
• Download: freedombox.org
• Learn: freedomboxfoundation.org
• Mastodon & Twitter: @FreedomBoxFndn


