



# Funding Free Blockchain Software projects

*A novel way to fund the digital commons*

By Marc Lijour

January 25, 2018

*The world-first Free/Libre Open Source and Crowdfunded R&Hub  
focusing on Blockchain and related technologies*

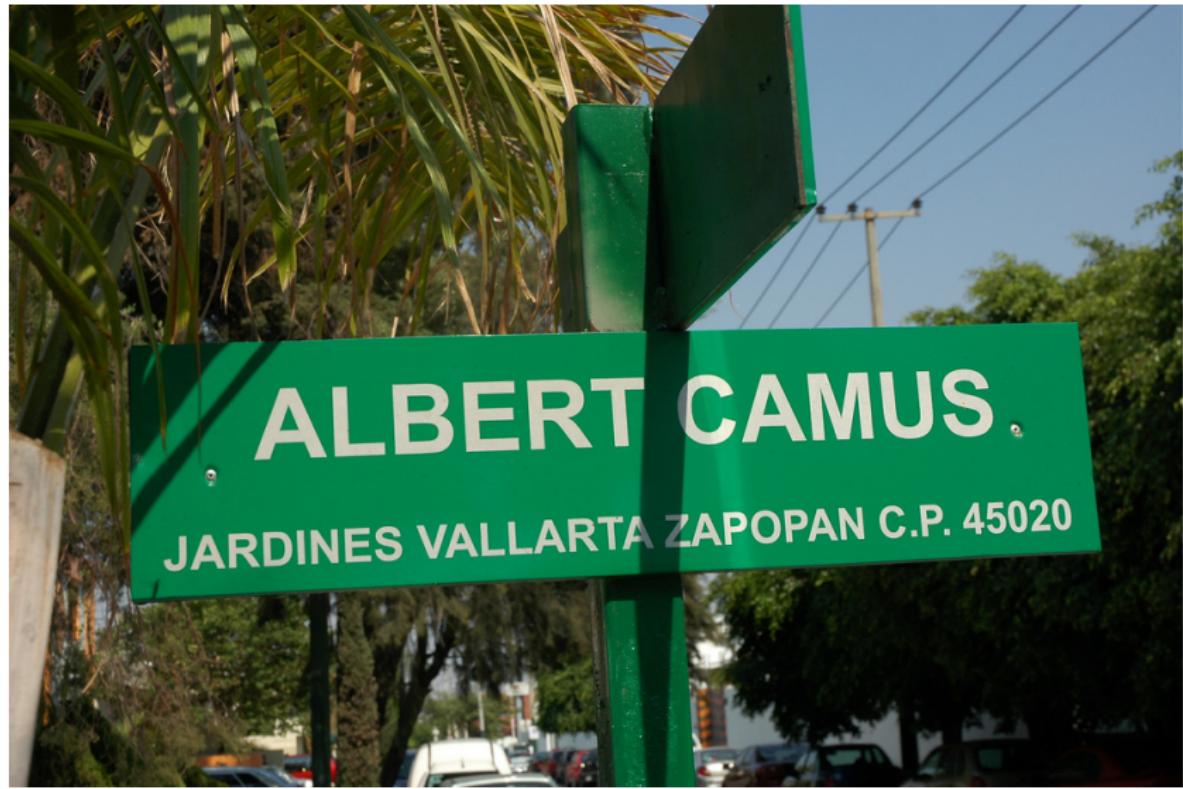


# Table of Contents

- 1 The Freedom Gene
- 2 The Tragedy of the Commons
- 3 ColliderX: the world-first crowdfunded R&D Hub focusing on Blockchain and related technologies



# Settling in the New World



# Short History of Software

## The birth of UNIX



**Figure:** Ken Thompson (sitting) and Dennis Ritchie at PDP-11

# The Four Freedoms

## Freedom 0

"The freedom to run the program, for any purpose"

## Freedom 1

"The freedom to study how the program works, and adapt it to your needs"

## Freedom 2

"The freedom to redistribute copies so you can help your neighbor"

## Freedom 3

"The freedom to improve the program, and release your improvements to the public, so that the whole community benefits"



# Free Software and Open Source Software

An introduction to Free/Libre Open Source Software (Intel, 2014)

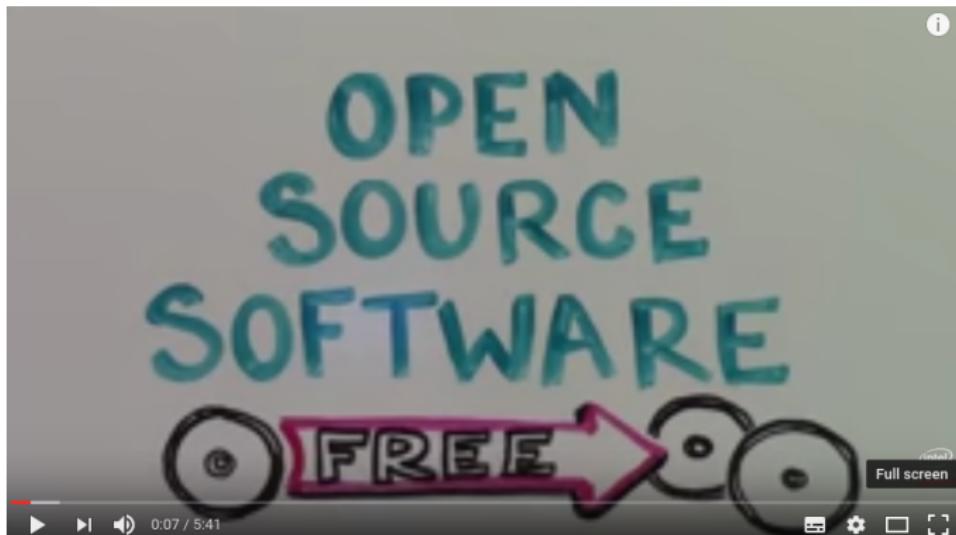


Figure: <https://www.youtube.com/watch?v=Tyd0FO0tko8>

©Intel Software (2014)



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# Open Source runs (almost) Everything

2015 was an inflection point

<https://www.blackducksoftware.com/future-of-open-source>

**WIRED**

Open Source Software Went Nuclear This Year

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# OPEN SOURCE SOFTWARE WENT NUCLEAR THIS YEAR

OVER THE NEXT 2 – 3 YEARS...

**88%** TO INCREASE OPEN SOURCE CONTRIBUTIONS      **61%** EXPECT SECURITY OF OPEN SOURCE TO RISE

EXPECTED TO BE IMPACTED MOST:

| Technology         | Percentage |
|--------------------|------------|
| CLOUD COMPUTING    | 39%        |
| BIG DATA           | 35%        |
| OPERATING SYSTEMS  | 33%        |
| INTERNET OF THINGS | 31%        |

**66%** OF COMPANIES BUILD CUSTOMER SOFTWARE ON OPEN SOURCE

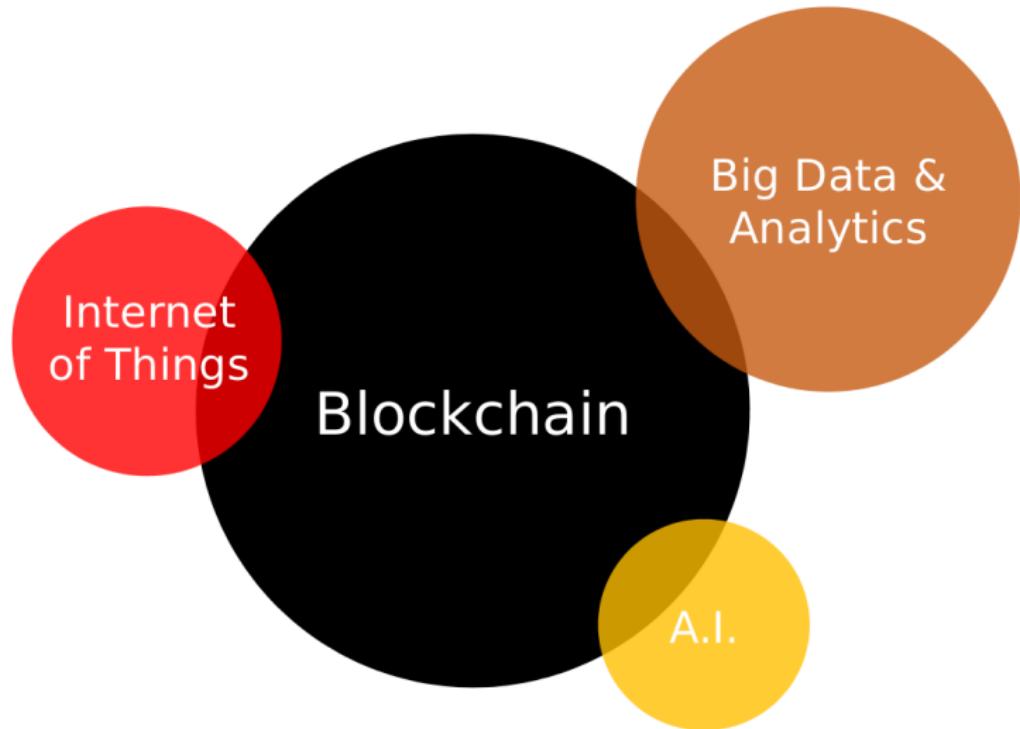
**78% OF COMPANIES RUN ON OPEN SOURCE**  
(nearly double since 2010) &  
**64% PARTICIPATE IN OPEN SOURCE PROJECTS.**  
yet many still lack formal policies and processes to manage potential open source-related security, operational, and legal risks.

**93%** OPEN SOURCE USE INCREASED OR STAYED THE SAME

| Trend     | Percentage |
|-----------|------------|
| UNSURE    | 5%         |
| SAME      | 28%        |
| INCREASED | 65%        |
| DECREASED | 2%         |

BLACKDUCK NORTH BRIDGE

# From IoT to Cloud and AI, and of course Blockchain



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# The Milenials



©State Farm (CC-BY license)

Marc Lijour

ColliderX

January 25, 2018



*20% of the world's economy  
will be digital by 2020.*

—Accenture #techvision2016



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# The Tragedy of the Commons



# Nadia Eghbal's report (2016)

Roads and Bridges: The Unseen Labor Behind Our Digital Infrastructure

## Roads and Bridges:

The Unseen Labor Behind  
Our Digital Infrastructure

Marc Lijour  
Nadia Eghbal

- Open Source Software runs core infrastructure services
- It is poorly funded (e.g. OpenSSL)
- Who should fund roads and bridges?



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# Other issues

- Ability (and need) to run software to open archived files



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- Deletion or lack of back-ups  
*(in 1999, 40% of companies had lost or thrown away the source code of their systems)*



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- Repository taken hostage (e.g. Code Spaces)



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- Project shutdown (e.g. Google Code circa 2014)
- Repository taken hostage (e.g. Code Spaces)
- The half-life of an URL is about 4 years



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# The universal software archive

<https://www.softwareheritage.org>

## Software Heritage

preserves software source  
code for present and future  
generations



### We are building the universal software archive



Collect  
Preserve  
Share

We **collect** and **preserve** software in source code form, because software embodies our technical and scientific knowledge and humanity cannot afford the risk of losing it.

Software is a precious part of our cultural heritage. We curate and make accessible all the software we collect, because only by **sharing** it we can guarantee its preservation in the very long term.

[Discover our mission](#)



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# Basic Tips to fund Free/Libre Open Source Software

see also Nadia Eghbal (2018)

- Individual Time



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- Community support (tee-shirt sales, ads, DVD burning, donations)



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- Sales (licensing)



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see also Nadia Eghbal (2018)

- Individual Time
- Community support (tee-shirt sales, ads, DVD burning, donations)
- Corporate investment
- Sales (licensing)
- Large Donations and Grants



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# ColliderX

<https://www.collider-x.org>

- World-first Open Source Crowdfunded R&D Hub focusing on Blockchain and related technologies (AI, IoT, ...)



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- World-first Open Source Crowdfunded R&D Hub focusing on Blockchain and related technologies (AI, IoT, ...)
- Building **the digital infrastructure of tomorrow**



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- Building **the digital infrastructure of tomorrow**
- Now building a Blockchain **Innovation Supercluster** in Canada



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- World-first Open Source Crowdfunded R&D Hub focusing on Blockchain and related technologies (AI, IoT, ...)
- Building **the digital infrastructure of tomorrow**
- Now building a Blockchain **Innovation Supercluster** in Canada
- Open to all researchers/developers/tinkerers and backers in the world



# Starting your own Free/Libre Open Source Software project

Nicely summarized by Roberto Di Cosmo (2015)

- Identify a need



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- Grow a community



# Starting your own Free/Libre Open Source Software project

Nicely summarized by Roberto Di Cosmo (2015)

- Identify a need
- Build a prototype
- Grow a community
- Set up an ecosystem (users, developers, architects, designers, service providers...)



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# How to engage with ColliderX?

- Backers
- Researchers/Developers



# Thank you!

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