# Welcome to Open Source!





**Bradly Alicea** R<sub>COMMUNITY</sub>



# Welcome to the Rokwire Community! COMMUNITY

#### **Visit our Community Navigator**

https://rokwirecommunity.web.illinois.edu/

#### **Github Repository**

http://www.github.com/rokwire/rokwire-community

# **Open Source**

Denoting software for which the original source code is made *freely available* and may be *redistributed and modified*.

Software is "free" or "libre" in accordance with the <u>Free</u> <u>Software Definition</u> and <u>Definition of Free Cultural Works</u>.

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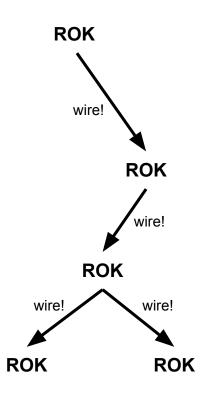
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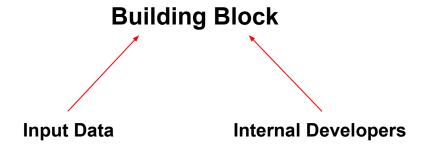
Rokwire is a series of "roks" (building blocks).



Connected by a series of "wires" (dependencies taking the form of data connectors).



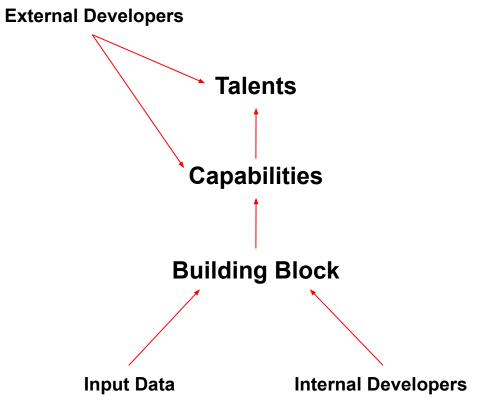
#### **Rokwire Architecture**

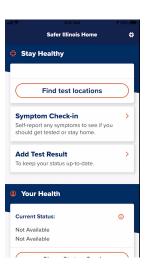


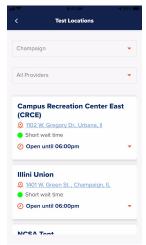
# Rokwire Platform Capability Backend Backend

#### **Rokwire Dictionary:**

 $\frac{https://github.com/rokwire/rokwire-community/wiki/Rokwire-}{Dictionary}$ 











#### **Illinois App**





#### **Campus-wide Response to COVID19**



It's Open Data Month in the Community!

Safer Community app has roots in University of Illinois testing program



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#### **Campus-wide Response to COVID19**



Five things make a software release "open source":

Publicly-available source code.



Workspace and archive for version-controlled, open-source computer code, formatted text, and editable data.

Five things make a software release "open source":

- 1) Publicly-available source code.
- Copyleft licensing.



#### Copyleft

https://www.copyleft.org/

A set of principles governing open content that protects creator's rights.

 opposite of copyright, which restricts use by the public).

Five things make a software release "open source":

- 1) Publicly-available source code.
- 2) Copyleft licensing.
- Free distribution and remixing.



#### **Creative Commons**

https://creativecommons.org/licenses/

Set of licenses for non-code open access materials (books, digital content) that specifies terms of use.

Five things make a software release "open source":

- 1) Publicly-available source code.
- 2) Copyleft licensing.
- 3) Free distribution and remixing.
- 4) Technology neutral.



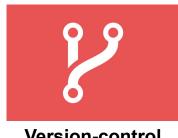
#### **Software Distribution**

Channels of distribution: FTP, CD-ROM, Web downloads.

Open-source must not come into conflict with distribution channels.

Five things make a software release "open source":

- 1) Publicly-available source code.
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- 3) Free distribution and remixing.
- Technology neutral.
- Versioning.

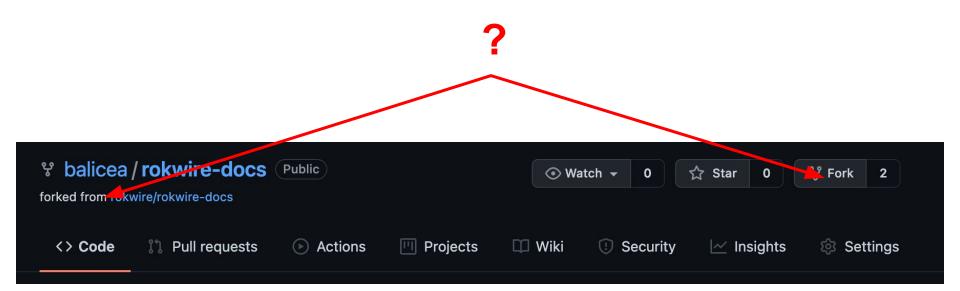


#### **Version-control**

Track and compare different document versions. Keeps contributions clear, allows for tracing faults (why things don't work).

diffs (line-oriented edit distance), version tracking (revisit previous versions).

# What does it mean to "fork" a project?

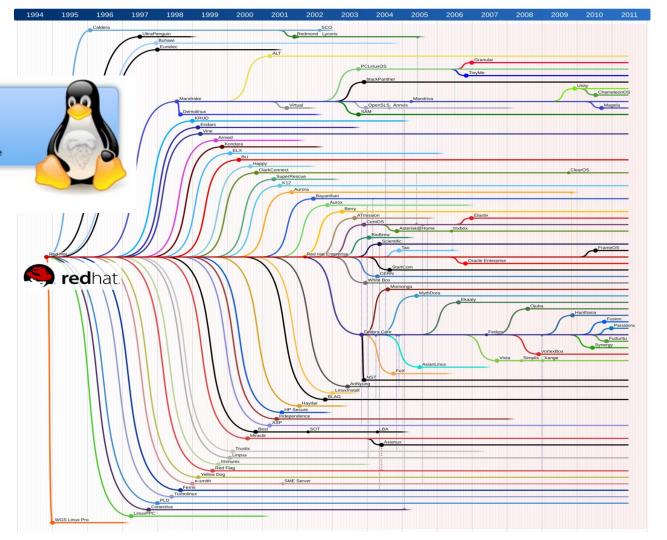


#### **Red Hat Family Tree**

based on GLDT version 11.6

A. Lundqvist, D. Rodic - **futurist.se/gldt**Published under the GNU Free Documentation License

Influence, developer switching
Rebasing, substantial code flow, project overtaking
Developer & code sharing, project merging









LibreOffice (Document Foundation) is a fork of OpenOffice (Apache Foundation)







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IceCat (Free Software Foundation) is a fork of Firefox (Mozilla Foundation)







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Ubuntu (Canonical, Ltd) is a fork of Debian (Debian Project)

# practices I need to be familiar with?

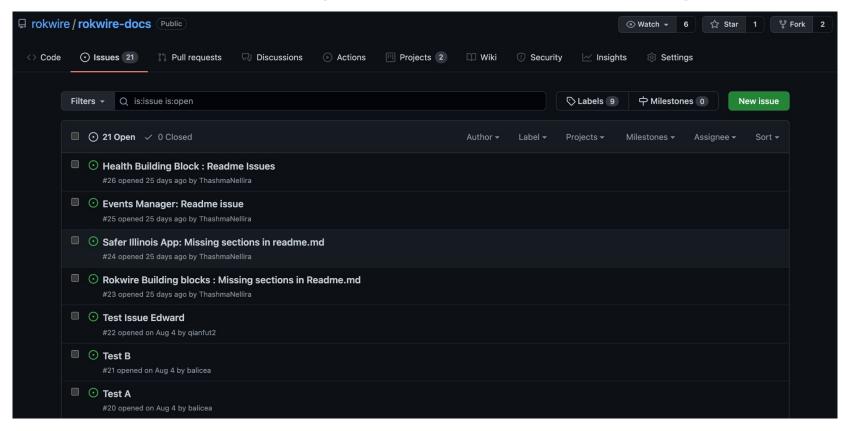
What are some other open-source

## Version Control and Rapid Prototyping

**Diffs:** line-oriented edit distance. Can use this to compare changes in a pull request, previous versions.



# Using issues to assign tasks and organize related resources (example: /rokwire-docs)



# Stewardship of open resources

Open-source communities are an opportunity to maintain the software commons:

- many necessary components to making software platforms both relevant and usable.
- contributors can also help to keep platforms relevant over time (as technology and social needs change).

# Why should I contribute?

Professional advancement

- Be part of an organization (put work in portfolio, on CV).
- Build up expertise and network with same, other specialties.

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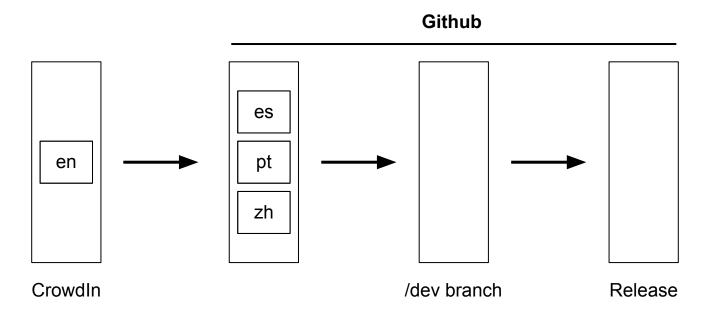
#### Social Capital

• build resources used by others, attribution and academic citation.

#### Collective Maintenance

 make an initial contribution, others will collectively edit and update (pooled expertise).

## **Contribute Translations**



Safer Illinois and Illinois App

# Join our Community!

Our <u>Onboarding Guide</u> tells you how to make **coding** and **building** contributions.

**Coding:** contribute a pull request or contribute via our documentation platform Swagger.

**Building:** contribute your ideas, your non-coding technical skills, or your skills at resource maintenance.

# **Typical Beginner Issues**

**Submitting a Bug Fix** 

**Maintain our Resources** 

Add a New Feature

**Documentation** 

Issue a Coding Contribution
Pull Request

**Answer Questions** 

# **Contribution Badges**

#### **Contributors**



Contributor badges inspired by the **CRediT** taxonomy.

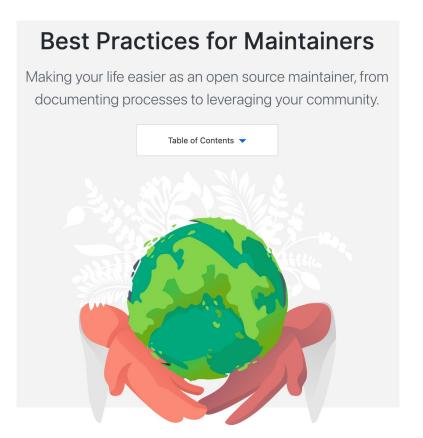


http://rokwirecommunity.web.illinois.edu/onboarding.html

Worked on a series of translations and had them merged into the /rokwire/safer-illinois-app repository (Summer 2021).

Kamya Krishnan, Open-source Contributor

What happens if my translation falls out of step with the current version of the app?



https://opensource.guide/best-practices/

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You can check for new versions of the app, and check the translation *talents* (GUI interface, specialized for a certain audience) by updating to the latest release.

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Future courses will be engaged with Safer Illinois and the Illinois App.



Slack: <a href="https://launchpass.com/rokwirecommunity">https://launchpass.com/rokwirecommunity</a>

**Discord**: <a href="https://launchpass.com/rokwire-community">https://launchpass.com/rokwire-community</a>

Questions? Contact balicea@illinois.edu