Winners and Losers in FOSS

Open Source Has "Won" - Have We?

Mike Nolan (he/him)
mpnopen@rit.edu
Rochester Institute of Technology
Assoc. Director, Open@RIT
Director, Federation of Humanitarian Technologists
Board Member, Organization for Ethical Source
Scholar of Political Economy of Science and Technology

Agenda

Today's topics are...

1. A(nother) quick history of FOSS
2. Are we building the same software?
3. The state of FOSS today
4. What do we do about it?

Disclaimer

This talk does not seek to analyze the morality of who you work for.

This talk does not seek to analyze the morality of technology companies of any kind.

FOSS

A Quick Timeline

From the Stone Age to the Space Age in one afternoon.

Having CBS Software for your home computer is like having a time machine.

One minute, your kids can enjoy exploring the prehistoric world with "Sesame Street®". The next minute, they can be prowling intergalactic space with "The Space Chase". And all the while, they'll be picking up valuable hints about science or geometrical thinking.

You see, CBS Software believes that—and all our programs—should encourage thinking and cooperation. So all of them are developed by experts in their fields—people like "Children's Television Workshop", "Lewis Carroll", "The Electric Company", and "Bill2Contact". For example, "Door to Door" allows kids to race from century to century in a race against time. And every step of the way, they gain insight into the past, present and future. For children whose direction is more musical, we have programs like "Music Magic Masters" and "Coco-Nuts". Where players create their own jazz tunes.

In fact, CBS Software has so many other exciting programs you'll want to write for our catalog (Write to CBS Software, One Forest Place, Greensboro, CT 06107). You'll find your kids discovering wonderful new worlds. And having tons of fun!

Available for Apple II, IBM PC, Amstrad CPC 2600 +4, and PC-800.

CBS SOFTWARE
Making you the best.

SPECIAL SECTION:
Choosing and Using Business Forecasting Software.

Four Freedoms

1. The freedom to run the program as you wish, for any purpose (freedom 0).
2. The freedom to study how the program works, and change it so it does your computing as you wish (freedom 1). Access to the source code is a precondition for this.
3. The freedom to redistribute copies so you can help others (freedom 2).
4. The freedom to distribute copies of your modified versions to others (freedom 3). By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition for this.

"There are some new modern-day sort of communists [Free software activists] who want to get rid of the incentive for musicians and moviemakers and software makers under various guises. They don't think that those incentives should exist."

- Bill Gates, News Corp Interview 2005


1970 - 2000

Graphs are thanks to: *The Coproduction of Open Source Software by Volunteers and Big Tech Firms* by The Digital Commons Policy Council

https://dcpc.info/

**Slides:** https://bit.ly/3HuJ5QL
IT firms are paying developers to contribute to open source. Microsoft purchased the GitHub code repository in 2018 for US$7.5 billion. It is maximising this investment: commits or code changes using the @microsoft email domain were by far the most numerous in top GitHub repositories in 2015-2019.

---


**Slides:** https://bit.ly/3HuJ5QL
2000-Present

2000-Present

<table>
<thead>
<tr>
<th>Project</th>
<th>Total</th>
<th>Firm-made commits</th>
<th>Proportion firm-made</th>
<th>Leading firm by commits</th>
<th>Proportion leading firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>torvalds/Linux</td>
<td>340710</td>
<td>247864</td>
<td>0.73</td>
<td>Intel</td>
<td>0.07</td>
</tr>
<tr>
<td>NixOS/nixpkgs</td>
<td>125205</td>
<td>63042</td>
<td>0.50</td>
<td>LogicBlox</td>
<td>0.01</td>
</tr>
<tr>
<td>Homebrew/homebrew-core</td>
<td>108709</td>
<td>54352</td>
<td>0.50</td>
<td>Charcoal Design</td>
<td>0.001</td>
</tr>
<tr>
<td>apple/swift</td>
<td>67197</td>
<td>40351</td>
<td>0.60</td>
<td>Apple</td>
<td>0.56</td>
</tr>
<tr>
<td>kubernetes/kubernetes</td>
<td>74201</td>
<td>40041</td>
<td>0.54</td>
<td>Google</td>
<td>0.30</td>
</tr>
<tr>
<td>Microsoft/vscode</td>
<td>49418</td>
<td>37366</td>
<td>0.76</td>
<td>Microsoft</td>
<td>0.72</td>
</tr>
<tr>
<td>tensorflow/tensorflow</td>
<td>56656</td>
<td>29515</td>
<td>0.52</td>
<td>Google</td>
<td>0.46</td>
</tr>
<tr>
<td>dotnet/corefx</td>
<td>32884</td>
<td>25660</td>
<td>0.78</td>
<td>Microsoft</td>
<td>0.71</td>
</tr>
<tr>
<td>DefinitelyTyped</td>
<td>54801</td>
<td>17920</td>
<td>0.33</td>
<td>Microsoft</td>
<td>0.10</td>
</tr>
<tr>
<td>aspnet/AspNetCore</td>
<td>34946</td>
<td>16486</td>
<td>0.47</td>
<td>Microsoft</td>
<td>0.39</td>
</tr>
<tr>
<td>spring-projects/spring-boot</td>
<td>17855</td>
<td>16357</td>
<td>0.92</td>
<td>Pivotal</td>
<td>0.89</td>
</tr>
<tr>
<td>ansible/ansible</td>
<td>31544</td>
<td>16252</td>
<td>0.52</td>
<td>Red Hat</td>
<td>0.06</td>
</tr>
<tr>
<td>elastic/elasticsearch</td>
<td>33983</td>
<td>16051</td>
<td>0.47</td>
<td>Elastic</td>
<td>0.23</td>
</tr>
<tr>
<td>rust-lang/rust</td>
<td>57790</td>
<td>15897</td>
<td>0.28</td>
<td>Red Hat</td>
<td>0.003</td>
</tr>
<tr>
<td>facebook/react-native</td>
<td>16908</td>
<td>12704</td>
<td>0.75</td>
<td>Facebook</td>
<td>0.63</td>
</tr>
<tr>
<td>moby/moby</td>
<td>24472</td>
<td>11743</td>
<td>0.48</td>
<td>Docker</td>
<td>0.16</td>
</tr>
<tr>
<td>home-assistant/home-assistant</td>
<td>18876</td>
<td>10756</td>
<td>0.57</td>
<td>Affolter Engineering</td>
<td>0.04</td>
</tr>
<tr>
<td>pytorch/pytorch</td>
<td>17717</td>
<td>10492</td>
<td>0.59</td>
<td>Facebook</td>
<td>0.49</td>
</tr>
<tr>
<td>apache/spark</td>
<td>15180</td>
<td>8584</td>
<td>0.57</td>
<td>Databricks</td>
<td>0.30</td>
</tr>
<tr>
<td>storybooks/storybook</td>
<td>18968</td>
<td>7297</td>
<td>0.38</td>
<td>Dependencies</td>
<td>0.12</td>
</tr>
</tbody>
</table>

What are we building?

*Platforms!*
Platforms

Demand  Multi-sided Platform  Supply

Reduce search costs
Reduce transaction costs
Making audiences

Source: Cambrai Labs

The state of FOSS today

Has FOSS “Won”?

Not really. After all, Google and Twitter just fired most of their OSPO staff and that’s why I got my speaking slot

What is to be done?

Let’s Review

- FOSS no longer *competes* with proprietary software
- Our labor is increasingly *dictated by firms*
- FOSS contributors are *precarious* in the *workplace*
- Software is no longer *discrete*

*Slides: https://bit.ly/3HuJ5QL*
The New FOSS Politics?

- Not all contributions are equal
- Organize within the workplace
- Organize ourselves politically
- Find/develop new workplaces

When you program open source, you're not programming communism.

But you could be.

Recommended Reading

- **DCPC**: The coproduction of open source software by volunteers and big tech firms
- **Wendy Liu**: Freedom isn’t Free
- **Yasha Levine**: Surveillance Valley
- **Handbook of Peer Production**
- **Evgeny Morozov**: Meme Hustler
- **Me**: The Evolution of FOSS (2021)

Winners and Losers in FOSS

Open Source Has "Won" - Have We?

Mike Nolan (he/him)
mpnopen@rit.edu
Rochester Institute of Technology
Assoc. Director, Open@RIT
Director, Federation of Humanitarian Technologists
Board Member, Organization for Ethical Source
Scholar of Political Economy of Science and Technology