Building a Collaborative Open Source Program

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Consume open source projects
M&A

Contribute to existing projects
Create new open source projects
Collaboration:
The Nature of an Open Source Program

- Complex
- Many areas of expertise
- Multiple teams
Program Structure

it decides your collaboration type

internal
external

coordinated PMO
centralized PMO
matrix
Collaboration Type: Control Level

decide your process

low  ➔  high

process

process is the key to organizing and managing work
processes driven by the culture for the people
it’s complicated
the challenges

Uber’s open source program
the structure

interconnected matrix
both internal and external
centralized governance
coordinated project execution
Our mission is to enable, educate, champion, and foster open source development, adoption, and culture.
inclusive, everyone can contribute committee based, meritocracy decision making process
just enough process for planning and execution
the teams at Uber

passionate, vibrant, diverse, & energetic culture for innovation
transparent
adaptive
The Principals

empowerment and ability to tackle problems.

- support vs. direct
- facilitate vs. govern
- enable vs. block
- adapt vs. enforce
- distributed vs. centralized
“the attorneys at Uber value partnerships and collaboration”

~ What Every Engineer Should Know About Open Source Software Licenses and IP
(eng.uber.com/oss-ip/)
the north star; vision and goal are important
you need the believers
tools to collaborate
don’t forget to reward your teams
form the community
Safe Environment to Collaborate

Communication
Transparency
Meritocracy
Inclusion
Agile and Adaptive
“Opinions are a dime a dozen and nearly everyone will share theirs with you. Many will state them as if they are facts. Don’t mistake opinions for facts.”

Ray Dalio
fact: data and analytics
Understanding Open Source Development

Software Development Analytics for Your Peace of Mind
“data visualization speaks louder than words”
French invasion of Russia

From Wikipedia, the free encyclopedia

**Russian Campaign** redirects here. For other uses, see **Russian Campaign** (disambiguation).

**Patriotic War of 1812** redirects here. Not to be confused with the **Great Patriotic War**, the Russian name for the Eastern European theater of World War II, or with the Anglo-American War of 1812.

The French invasion of Russia, known in Russia as the **Patriotic War of 1812** (Русская Отечественная война 1812 года Отечественная война 1812 года Отечествовныя войны 1812 года) and in France as the **Russian Campaign** (French: Campagne de Russie), began on 24 June 1812 when Napoleon's Grande Armée crossed the Nieman River in an attempt to engage and defeat the Russian army. [1][2][3][4] Napoleon hoped to contain Tsar Alexander I of Russia to cease trading with British merchants through proxies in an effort to pressure the United Kingdom to sue for peace. [5] The official political aim of the campaign was to liberate Poland from the threat of Russia. Napoleon named the campaign the **Second Polish War** to gain favor with the Poles and provide a political pretext for his actions. [6]

At the start of the invasion, the Grande Armée numbered 680,000 soldiers (including 300,000 soldiers from France). It was the largest army ever known to have been assembled in the history of warfare up to that point. [7] Through a series of long marches Napoleon pushed the army rapidly through Western Russia in an attempt to engage and destroy the Russian army, winning a number of minor engagements and a major battle at Smolensk in August. Napoleon hoped the battle would win the war for him, but the Russian army slipped away and continued the retreat, leaving Smolensk to burn. [8] As the Russian army fell back, scoured-earth tactics were employed, resulting in villages, towns and crop being destroyed and forcing the French to rely on a supply system that was incapable of feeding their large army in the field. [9][10] On 7 September, the French caught up with the Russian army which had dug itself in on heights before a small town called Borodino, seventy miles west of Moscow. The battle that followed was the Battle of Borodino, a single-day action of the Napoleonic Wars, with 72,000 casualties, and a narrow French victory. The Russian army withdrew the following day, leaving the French again without the decisive victory Napoleon sought. [11] A week later, Napoleon entered Moscow, which the Russians had abandoned and burned. [12]

The loss of Moscow did not compel Alexander I to enter into negotiations, and Napoleon stayed on in Moscow for a month, waiting for a peace offer that never came. On 19 October, Napoleon and his army left Moscow and marched southwest toward Kaluga, where Field Marshal Mikhl Kuchuk was encamped with the Russian army. After an inconclusive battle at Berezina, Napoleon began to retreat back to the Polish border. In the following weeks, the Grande Armée suffered from the onset of the Russian Winter. Lack of food and fodder for the horses, hypothermia from the bitter cold and persistent attacks upon isolated troops from Russian partisans and Cossacks led to great losses in men, and a breakdown of discipline and cohesion in the army. More fighting at Vyazma and Krasnoe resulted in further losses for the French. When the remnants of Napoleon's male army crossed the Berezina River in late November, only 27,000 soldiers remained; the Grande Armée had lost some 300,000 men dead and 100,000 captured during the campaign. [13] Following the crossing of the Berezina, Napoleon left the army after much urging from his advisors and with the unanimous approval of his Marshals. [14] He returned to Paris to protect his position as Emperor and to raise more forces to resist the advancing Russians. The campaign effectively ended after nearly six months on 14 December 1812, with the last French troops leaving Russian soil. The campaign was a turning point in the Napoleonic Wars; it was the greatest and bloodiest of the Napoleonic campaigns, involving more than 1.5 million soldiers, with over 500,000 French and 400,000 Russian casualties. [15] The reputation of Napoleon was severely shaken, and French hegemony in Europe was dramatically weakened. The Grande Armée, made up of French and allied invader forces, was reduced to a fraction of its initial strength. These events triggered a major shift in European politics. France's ally Prussia, soon followed by Austria, broke their imposed alliance with France and switched
Carte Figurative des pérégrinations en hommes de l'Armée Française dans la Campagne de Russie 1812-1813.

Le plan est conçu par M. Minard, Ingénieur, General des Ponts et Chaussées à son exécution.

Paris, le 20 Novembre 1869.

Les nombres d'hommes présentés sont représentés par les longueur des lignes colorées à raison d'un millimètre pour dix mille hommes; ils sont plus lourds en tenant des zones; le rouge désigne les homms qui mirent en Russie, le noir ceux qui en sortirent. Les entablements qui ont servi à tracer la carte on été puisés dans les ouvrages de M. Chéri, de Charras, de Jousset, de Chambray et le journal intime du J Crétin, pharmacien de l'Armée depuis le 23 Octobre.

Pour mieux faire juger à l'œil la diminution de l'armée, j'ai reporté que les corps de Prince Réveine et du Marshal Davour qui avaient été détachés sur Moscou à Moulov eau-remier vers Octoba et Wèlez, avaient toujours marché avec l'armée.

TABLEAU GRAPHIQUE de la température en degrés du thermomètre de Réaumer au dessus de zéro.

“Napoleon’s Russian campaign of 1812”, Charles Joseph Minard
“collecting data is only the first step toward wisdom ...”

Henry Louis Gates Jr.
Data Sources

Source Code
- Git, Baazar*, Mercurial*
  (*exporting to git)

Tickets / issues
- Bugzilla, GitHub Issues, GitLab Issues, JIRA, Launchpad, Phabricator
- Maniphest, Redmine

Code Review
- Gerrit, GitHub Pull Requests, GitLab Merge Requests

Continuous Integration
- Jenkins

Mailing lists / Forums
- Askbot, Discourse, Gmane, Hyperkitty, mbox files, NNTP, Pipemal, Stack Exchange

Chat
- IRC (Supybot), Slack, Telegram

Downloads
- Apache http logs

Wiki
- Confluence, MediaWiki

Meetings
- Meetup, Mozilla Reps events

Others
- crates.io, Docker Hub, RSS, Twitter

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data sources supported by **CHAOSS/GrimoireLab** project and **Bitergia Analytics**
“collecting data is only the first step toward wisdom, but sharing data is the first step toward community”

Henry Louis Gates Jr.
What do I do with all this data?
“Without a strategy, there is no ROI”

Goals - Questions - Metrics as key methodology for Open Source Program Office (OSPO) Management
Goals

Transparency

Self-Awareness
Goals

Transparency

Self-Awareness

Governance
Goals

Transparency
Self Awareness
Governance
Motivational
...

...
Questions | Activity
--- | ---
How much... | (code, tests, communication, review...)
When... | (patterns, time zones, trends...)
Where... | (by module, by company, by activity...)
Deviations... | (differential analysis, gaps...)
Organization... | (sequences of activity...)
...
Questions

Activity

How many...
(by role, by company, by experience...)

Community

How important...
(bus factor, core/regular/casual...)

Where are they working...
(by activity, by code area...)

How skilled...
(experience, mentoring, efficiency....)

How long...
(attraction, retention, patterns...)

...
Questions

- Activity
  - How are people doing...
    - (fix bugs, code review...)

- Community
  - How long is it taking...
    - (fix bugs, attend contributions...)

- Processes
  - What is missing...
    - (backlog of open code reviews...)
  - How is performance...
    - (test coverage, bug density, issue throughput...)
  - Where are there problems...
    - (bottlenecks, process technical debt...)

...
Metrics

Activity

Community

Processes

GitHub Pull Requests Median Open Days

Uber: 4h  Non Uber: 1d
Community Health Analytics for Open Source Software

chaoss.community

GrimoireLab is one of CHA OSS software projects

chaoss.github.io/grimoirelab

CHA OSS Con Europe - Brussels - Feb, 1st, 2019
Let us know how we can collaborate. Let’s have fun and make an impact.
Thank you

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