Code's the Word: Growing Your Open Source Community through Blogging

Molly Vorwerck, Editorial Program Manager, Tech Brand eng.uber.com



Raise your hand if...

You are an engineer

You like writing





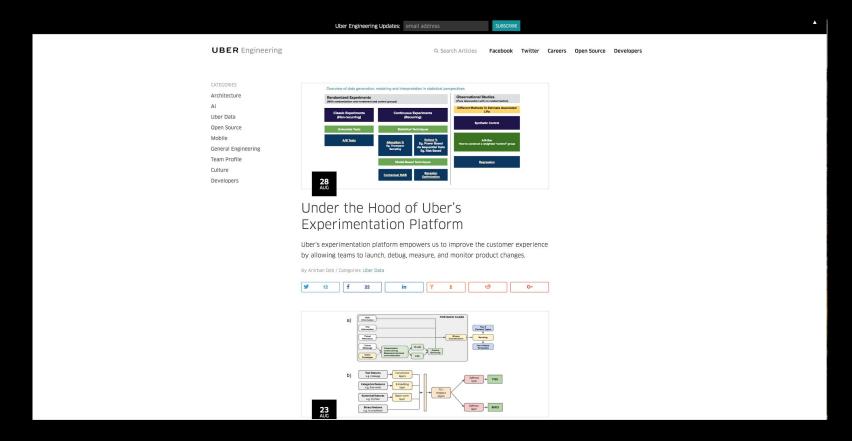
By the end of this presentation, you will be able to:

- Understand why blogging is an important part of open source advocacy
- Know what makes for a strong open source blog article
- Write high quality & interesting content
- Control and amplify your project's narrative

Greater engagement; bigger community; more open source love



What is an engineering/open source blog?





A dedicated venue to announce, highlight, discuss, and generally direct the conversation around a technical topic.



What Every Engineer Should Know About Open Source Software Licenses and IP

Uber's attorneys explain the intricacies of different types of open source software licenses and intellectual property.

By Wayne Cunningham / Categories: General Engineering



Why should you blog?

- Announce your project/update
- Share implementation details
- Provide context around your project
- Generate awareness/users
- Recruit for your company
- Shape your project's narrative





Shaping your project's narrative empowers you to:

- Avoid misconceptions
- Set expectations
- Become a domain expert
- Target a certain audience
- Ask for specific feedback
- Build your personal/project brand

Even the smartest engineer in the room can't read minds....

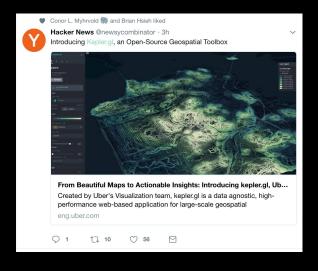


You are the captain of your content!



What are some additional benefits of blogging?

- Vehicle for social sharing
- Put a name to the face(s) behind your project
- Go beyond the immediate details
- Encourage discussion
 - Hacker News
 - Reddit
 - In-blog commenting





Understand your audience

Tech News

Example

Recode

Style

Standard, strict, short/snappy

Content

Godlike, superficially technical

Audience

Everyone who is literate and connected

Personal Eng Blog

Example

Dan Luu's blog

Style

Personal, niche

Content

Unregulated, spontaneous, free-form

Audience

Engineers within a specific discipline

Company Eng Blog

Example

Uber Eng Blog

Style

Uniform tone, unlimited length

Content

Angled, structured, deeply technical

Audience

Technologists of all backgrounds



Platform Pros & Cons

What's right for you?

WordPress (Open Source)

Pros

- More personalization
- Extensive plugin support
- Content ownership
- Personalized URLs
- User roles

Cons

- Self-hosted (can also be hosted on WordPress.com servers)
- Finicky
- Frequent version upgrades

Ghost (Open Source)

Pros

- Built-in social networking
- Supports markup
- Content ownership
- Personalized URLs
- Ease-of-use

Cons

- Limited design functionality
- Self-hosted (can also be hosted on Ghost servers)

Medium (Private)

Pros

- Built-in social networking
- Built-in community
- In-house support
- Fully hosted (secure)

Cons

- Limited design functionality
- Lack of content ownership (in the past)
- Walled garden of premium content



Types of Articles

How can your content help you achieve your goals?

- Announcement
 - o TL;DR
 - O What is it?
 - o How do you implement it?
- Profile
 - Why did you build it?
 - O How did you build it?
 - O What's next?
- Specific use case
 - o How do YOU use it?
 - O How has it benefited your tech stack?
- Interview
 - Get to know the team/individual behind the project
 - O How did your experiences lead you to develop/open source this project?



Deep Probabilistic Programming Language

Pyro is an open source probabilistic programming language that unites moder deep learning with Bayesian modeling for a tool-first approach to AI.

By Noah Goodman, on behalf of the Pyro Development Team / Categories: Announcem



Uber's Ride with the Sun: Tracking the 2017 Solar Eclipse

Uber Engineering's Data Visualization team uses their deck.gl and Voyager visualization platforms to map rider behavior during the August 21, 2017 solar eclipse.

v Shan He / Categories: Uber Data



Open Source at Uber: A Conversation with Nicolas Garcia Belmonte, Head of Visualization

Nicolas Garcia Belmonte, head of visualization, talks about his experience getting started in open source and the role it plays in his work at Uber.

By Wayne Cunningham / Categories: Culture, General Engineering



Writing strategies

- Defining your topic: like a funnel, start broad & go small, specific
- Consider the who, what, where, when, why of your project:
 - Ask the questions:
 - O What is it?
 - Why did you build it?
 - Why did you open source it?
 - How did you build it?
 - How did your roadmap/architecture differ from existing solutions?
 - What were some challenges?
 - O How does this improve the end user experience?
 - O What's next?



Other best practices

- Don't disparage other projects
- Get at least 2 people close to the source to copy edit/fact check your article
- Get at least 1-2 others to give it a final read from an outside perspective
 - That being said... too many cooks spoil the broth
- Get to the point fast and early
 - You can elaborate later on
- Don't get discouraged!
 - Just get everything out on the page; looks come later
 - Substance > polish



What should you discuss?

What would YOU want to know?

- Motivation
- Challenges
- Design & architecture considerations
- Implementation details
- Current/future use cases
- What's coming next



Year in Review: 2017 Highlights from Uber Open Source

As we approach the New Year, Uber Open Source revisits some of Uber Engineering's most popular projects from 2017.

By Brian Hsieh / Categories: General Engineering



Four keys to a successful blog article

- Aligned objectives
 - Contributors, managers, company (PR, legal, etc.)
- Attention to detail
 - You may know all about your project, but your reader won't
- Revision, revision, and more revision
 - Rome wasn't built in a day; neither is your article
- Execution strategy
 - Timelines, social push, reviews, etc.
 - Great writing doesn't appear out of thin air
 - Set time limits for each stage of process



Which tells you more... M3

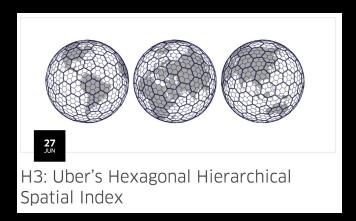
- "Distributed TSDB and Query Engine, Prometheus Sidecar, Metrics Aggregator, and more."
- "M3, Uber's open source metrics platform for Prometheus, facilitates scalable and configurable multi-tenant storage for large-scale metrics."





Which tells you more... H3

- "A hexagonal hierarchical geospatial indexing system.."
- "Uber developed H3, our open source grid system for optimizing ride pricing and dispatch, to make geospatial data visualization and exploration easier and more efficient."





Which tells you more... Fusion.js

- "A plugin-based universal web framework."
- "Fusion.js, Uber's new open source web framework, supports modern features and integrations that make it easy to build lightweight, high-performing apps for the web."



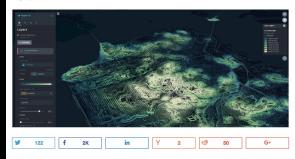


Case Study 1

Uber's Data Visualization Suite



By Shan He



Maps are based on our physical world. We create maps using abstract shapes and colors to reveal geographic patterns and tell stories about human existence.



Moving forward

Following its creation as an internal product two years ago, kepler.gl has evolved from a single page app to a powerful geo-analytics and visualization framework. It creates an all-in-one geospatial data exploration and visualization environment, and has been widely used inside Uber to power advanced geospatial analytics by engineers, analysts, and data scientists.

By open sourcing kepler.gl, users of different experience and technical skill levels now have access to free software that helps them build and customize impactful, data-driven maps. More importantly, giving back the software enables us to foster a developer community that can support kepler.gl's future development.

Over the next several months, we envision two major enhancements for kepler.gl:

- More robust exploration functionality: To generate deeper insights, we plan
 to build out the framework to support additional customized charts and
 widgets on the visualization dashboard. This added functionality will
 facilitate tableau-like exploration, linking interactions between maps and
 charts.
- Expand its geo-analytics capabilities: By adding geospatial data operations such as joining, buffering, intersecting, and unioning; supporting layer operations like point aggregation by polygon; and filtering features by

Open Source at Uber: Meet Shan He, the Architect Behind kepler.gl

By Molly Vorwerck



When did you first get interested in computer science?

My background is actually in architecture. In architecture school, there's this practice called parametric design where you can build 3D building models based on algorithms and parameters. Rhino, a 3D modeling program, includes plugins to generate shapes using parametric design. With just a couple of lines of code, I was able to create complex structures and geometries. This experience got me interested in coding and computer science because I learned that you can actually use code to assist in the design process. This type of 3D modeling opened the door to a completely new domain for me.

How did you transition from computer science to data visualization?



Starting with architecture and then transitioning to computer science, I realized that I wanted to do something with design that combined my love for both these areas. I didn't want to put design away just because I was also interested in computer science. So when I started taking classes in computer science, I tried to look for opportunities where I could apply both of my passions. Data visualization became a natural fit. I became a researcher in data visualization at the MIT Senseable City Lab. After graduating from MIT, I got



Case Study 2

Jaeger Distributed Tracing

THE LINUX FOUNDATION

As a CNCF hosted project, Jaeger will be part of a neutral foundation aligned with technical interests, receive help with project governance and be provided conference space to reach a wider audience. CNCF will also assist with Jaeger marketing and documentation efforts.

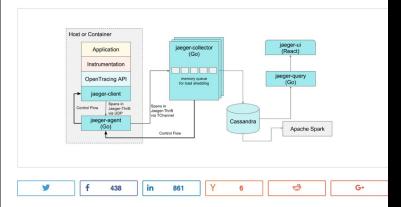
For more on Jaeger, read Evolving Distributed Tracing at Uber by Shkuro, where he explains the history and reasons for the architectural choices made in Jaeger. Also check out Shkuro's Monitorama PDX 2017 talk or this video of his briefing on Distributed Tracing with Jaeger & Prometheus on Kubernetes at Red Hat's OpenShift Commons. Jaeger will also have a technical salon at KubeCon + CloudNativeCon North America 2017 in Austin on December 6.



Evolving Distributed Tracing at Uber Engineering

By Yuri Shkuro

February 2, 2017



Distributed tracing is quickly becoming a must-have component in the tools that organizations use to monitor their complex, microservice-based architectures. At Uber Engineering, our open source distributed tracing system Jaeger saw large-scale internal adoption throughout 2016, integrated into hundreds of microservices and now recording thousands of traces every second. As we start the new year, here is the story of how we got here, from investigating off-the-shelf solutions like Zipkin, to why we switched from pull to push architecture, and how distributed tracing will continue to evolve in 2017.



Exercise

Shape your narrative; build your community!

You're writing a blog article about your new open source framework for generating unique image filters on your smartphone.

What narrative will you build around this tool?



Summary

TL;DR

- Blogging is an important part of growing your project's open source community
- Define and align on your objectives before setting cursor to WordPress
- Context, specificity, and planning are key to writing a great article
- Content can help shape your project's narrative and give it brand awareness



Questions: email ospo@uber.com

Thank you

@mkvorwerck

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