Do Docs Better

(or, how to deliver value to your business through better documentation)

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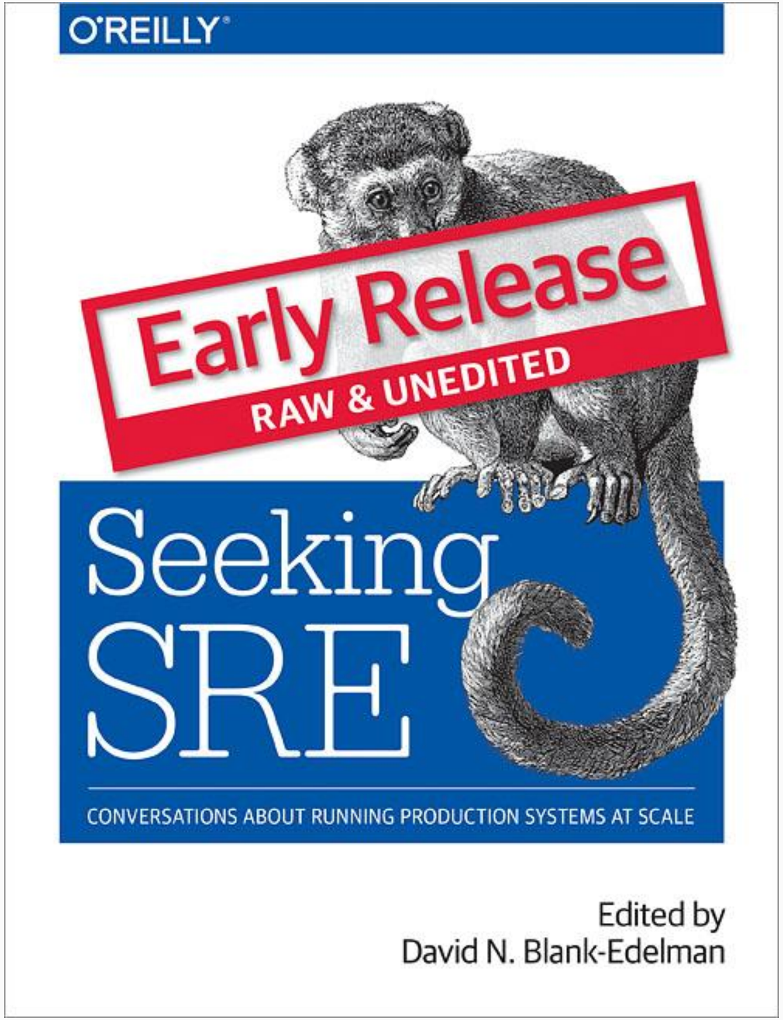

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Early Release

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Seeking SRE

CONVERSATIONS ABOUT RUNNING PRODUCTION SYSTEMS AT SCALE

Edited by
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Documentation is
core engineering work.

Documentation is as **fundamental** to software engineering as **testing.**

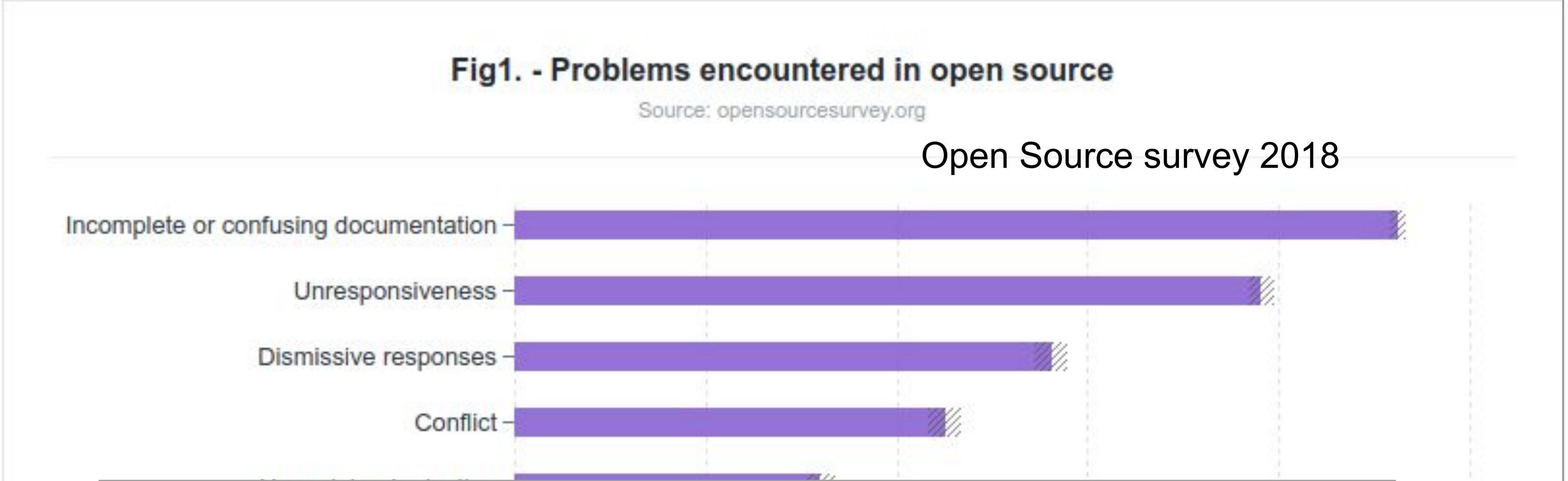
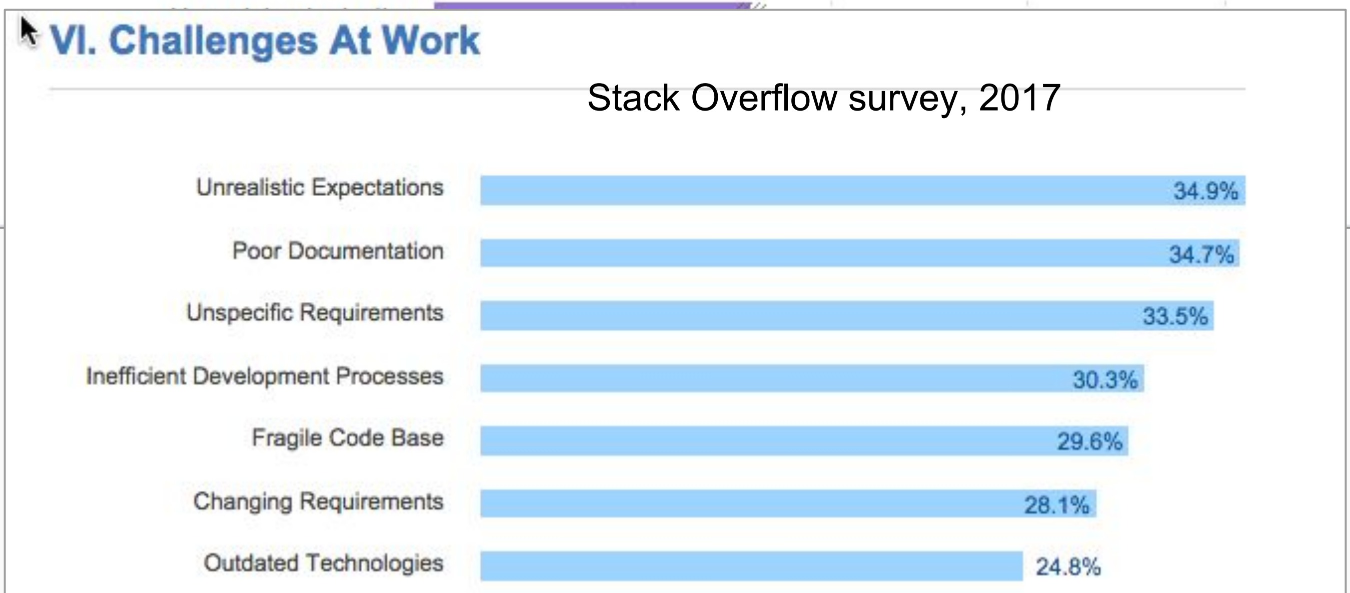


Fig1. - Problems encountered in open source

Source: opensourcesurvey.org

Open Source survey 2018



VI. Challenges At Work

Stack Overflow survey, 2017

Documentation is everybody's **problem**, but nobody's **job**.

Documentation is **expensive.**

Before we can do docs better, we need a **vocabulary** to describe documentation quality.

Structural quality: What does this doc look like?

- Are spelling and grammar correct?
- Does it comply with style and usage guidelines?
- Does it use proper voice and tone?
- Is it well-organized?
- Is it easy to navigate?

Functional quality: Is this doc effective?

- Does it **do what it's supposed to do?**

High structural quality

+ Low functional quality

= Poor overall quality

Okay structural quality

+ High functional quality

= Good overall quality

To deliver value,
functional quality **must**
be our primary goal.

1. Establish functional requirements:

Core SRE functions

- Monitoring and metrics
- Emergency response
- Capacity planning
- Service turn-up and turn-down
- Change management
- Performance

Docs that support core SRE functions:

- Service overviews
- Playbooks
- Postmortems
- Policies
- SLAs

Functional reqs: Playbooks

- Does it provide 100% coverage of alerts?
- Can the team rely on it to perform oncall duties?
- Is the playbook reliable (highly available)?
- Is it easy to create and update entries?
- Is each alert description accurate and complete?
- Does each entry give enough information to understand and resolve the alert?
- Does the entry give guidance on escalation?

2. Execute on those requirements!
(Write the docs)

Doing docs better requires changes to **tooling** and **culture.**

Documentation will never be part of engineering culture until it is integrated into our **codebase** and **workflow**.

Meet engineers where they are

Keep documentation in source, next to its associated code.

- Simple Markdown easily readable in source
- Docs rendered at a predictable URL
- Engineers maintain docs as part of their regular workflow, using their standard toolset

Automate what you can

- **EngPlay**: Playbook server
- Alert manager integration
- Support for variables: doc pages adjusted with information from monitoring, such as the ID of the job that generated the alert, and ID of affected cluster

Better > Best

Set realistic standards for quality

Perception is not the goal

Set an **appropriate** quality bar

What matters: Key information exists and is clearly conveyed

Use your power

Require docs as part of code review or launch

Rule of thumb: If an SRE, SWE, or user needs to change behavior after a change, the change should include docs

Docs updates scale with the size of the change

If it's doc'd, **users can access it *without bothering you*.**

Delete old docs!

Obsolete docs are positively harmful

Like code, every line of docs should serve a purpose.

A small set of fresh and accurate docs is better than a large assembly of "documentation" in various states of disrepair.

Recognize and reward docs

Documentation is **engineering work!**

Measuring and demonstrating business value:

Focus on functional quality

Gather data that demonstrates the **quality**, **effectiveness**, and **business value** of your documentation

- Measurable success
- User behavior
- Sentiment data

Goal: Decrease time for a new engineer to go oncall.

- I pitched a proposal to create a playbook with complete documentation for all alerts.
- I worked with the engineers to revamp the playbook so that each entry clearly conveyed what the alert meant and provided ways to address and mitigate any negative effect.
- As the result, the playbook received 5X more visits.
- Engineers reported that they could rely on the playbook during oncall.
- A follow-up study indicated that there was an x% decrease in the time it takes for a new engineer to go for oncall.

Share the data!

- With other SREs and SWEs
- With managers
- At promo and perf
- With partner teams

Call to action: Do docs better

Call to action:

- Focus on **functional** requirements and quality
- Reduce the **cultural and tooling barriers** to creating and maintaining documentation
- Gather data that demonstrates the **business value** of your docs
- **Use** that data to advocate for documentation

Doc work is core engineering work that is worthy of **support**, **funding**, **recognition**, and **reward**.

Questions?