

Building Bridges to Customer Needs in Open Source Documentation

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ABSTRACT

The Red Hat OpenShift documentation repository is situated in a unique open source environment in which anybody with a GitHub account can contribute directly to the documentation set. One of the primary contributors to the documentation repository are developers, which presents a challenge. The technical writers on the Red Hat OpenShift documentation team who collaboratively write, edit, and merge these contributions are faced with the challenge of maintaining user-centered rather than engineering-centered documentation. Furthermore, the technical writers lack direct interaction with external customers. Considering these challenges, this industry insight report discusses several methods that can be employed to maintain a customer-centric focus and improve the documentation set: focus on user stories, network with internal customers and stakeholders who work closest with external customers, and seek opportunities to work on customer cases.

CCS CONCEPTS

• **Information systems** → **Open source software**; *Digital libraries and archives*.

KEYWORDS

open source documentation, collaborative writing, user stories, agile software development

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1 INTRODUCTION

As a technical communicator, I work directly with the technology I am writing about and I strive to keep that content as user-focused as possible. I work in a unique environment in which the product documentation that I create is open source. This means that global customers, developers, partners, community members, and anybody else who wants to, can contribute to our product documentation repository. Beyond providing comments about the documentation, as seen in traditional documentation feedback mechanisms, these

contributors can fork the repository in GitHub and submit pull requests directly against the documentation set. These contributions can range from simple line edits to the addition of new topics. Technical writers on my team are situated directly within various Red Hat OpenShift development teams and are active participants on their respective development teams. Besides the technical writers on our team, the primary contributors to our documentation repositories are Red Hat software developers who are part of the development teams we are embedded with.

This collaborative approach to documentation is beneficial, as it helps keep our documentation up to date and we get direct and diverse feedback from many different user groups. The challenge in this writing environment is that my team must prevent our documentation from becoming engineering-focused and overly bloated with content. As technical communicators, we work as gate keepers trying to keep the content focused on use cases and focused on purpose. We do not want to just document what is dictated to us by subject matter experts and other contributors. Connecting directly to our customers and their needs greatly improves our documentation. Before applying the methods outlined in this paper, The Red Hat OpenShift documentation team would receive feedback from customers stating that they wanted the documentation to focus more on the "why", or the purpose, behind the tasks and procedures included in the documentation. With the documentation team's shift to a more user-centric approach, this issue was addressed, and the documentation set now has improved clarity.

This industry insight report explores the social conditions of open source documentation and how this shapes the way the OpenShift documentation team at Red Hat writes product documentation for open source communities and our enterprise customers. I examine the boundaries between technical writer and end user (our audience of customers, which includes developers and cluster administrators) and I discuss methods that I have taken to bring myself closer to the customer voice and their needs. Even though I do not typically work directly with our enterprise customers, I actively build bridges to our customers by connecting with internal teams that do work directly with our customers. This includes Red Hat support services representatives, solutions architects, technical account managers, and consultants in the field. This also includes teams within Red Hat that are internal customers our product, who serve as customer zero while they use the technology to host their applications. Out of these cross-disciplinary, cross-business-unit collaborations, new opportunities have emerged to improve our documentation.

2 THE SETTING AND SOCIAL CONDITIONS

In the open source environment of Red Hat OpenShift documentation, the documentation repository in GitHub is open for collaborative writing with global customers, developers,

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partners, and community members. All content, including work-in-progress drafted content, is accessible and not password protected. Any documentation changes are submitted via pull request, which is then reviewed by the Red Hat OpenShift documentation team. Red Hat OpenShift documentation team members have merge privileges and work as gatekeepers, ensuring that the submitted content is complete, accurate, and adhere to Red Hat brand standards. The content receives a technical review by Red Hat subject matter experts, a quality assurance review by Red Hat quality engineers, and a style review by the Red Hat documentation team before it is published to Red Hat enterprise documentation. Having an open discussion on the proposed content within the pull request in GitHub allows our team of technical writers to collaborate extensively with key stakeholders, spanning boundaries between organizations within our company [2] and individuals outside of the company. This environment also allows collaboration to occur asynchronously across geographies and time zones [6].

Technical writers on the Red Hat OpenShift documentation team are embedded within Red Hat OpenShift development teams as documentation liaisons and user advocates, ensuring that key features are properly documented and user focused. This collaborative approach to documentation is beneficial in that it removes internal organizational silos between Red Hat documentation, development, and quality assurance teams. Research suggests that when technical writers expand their role to participate in a wide variety of processes and teams, value is not only added to the text, it contributes value to process, development, and departmental and organizational goals [4]. This environment aligns all stakeholders and removes the "us versus them" mentalities between organizational teams, also known as "othering" [1]. The writer's active participation within the development teams, in attending their meetings and actively collaborating on content, evolves the writer's role [5] and writers become true members of those teams. Any hierarchies that could have existed in a siloed environment become flattened and the team is empowered to produce collaboratively written documents more efficiently [1]. Furthermore, while building interpersonal relationships with subject matter experts (SMEs), audience-oriented writers can gain insight into the perceptions and prejudices of SMEs toward writing and the role of documentation in the development process [3]. Writers can leverage these insights to influence positive organizational change and foster the idea that documentation is an important part of the software development process.

Though the documentation process is open and anyone is welcome to contribute to the repository, writers do not always work directly with customers. The primary contributors to our documentation repository are Red Hat software developers who are part of the development teams we are embedded with. Therefore, writers must actively work to ensure that the documentation set remains user-focused and not engineering-focused. Writers are exposed to customer voice and needs when responding to documentation bugs. However, responding to documentation bugs is a reactive documentation support method. To proactively tap into customer needs, I present several methods.

3 METHODS

3.1 Focus on user stories

Red Hat OpenShift technical writers function as user advocates embedded on their respective development teams. To maintain a customer-centric focus and not an engineering focus in our documentation, writers work with their development teams to create and workshop user stories for each feature requiring documentation during sprint planning sessions. These user stories are structured as:

As a <role> I want to do <task> in order to accomplish <goal>.

If there is no clear user story for the feature or if a user story cannot be successfully redrafted to retain a user focus, then the documentation for that feature is omitted. By taking this approach, our documentation now has a renewed focus on customer needs. By work-shopping user stories directly with development teams, writers further their role as user advocates. Instead of documenting all product features, the team focuses on what the customer needs to know, what their goals are, and why they should complete a task. This creates a more usable documentation set and reduces redundant, unnecessary content.

3.2 Network with internal customers and internal stakeholders closest to our external customers

By actively networking with teams within Red Hat who use our product technology to host their applications, our documentation team can better understand what their documentation needs are, where our documentation can be improved, and work with these internal stakeholders to improve the documentation set. By functioning as customer zero, these internal teams help us proactively discover and resolve documentation issues before they become issues for our external customers. In one month-long collaboration with a particular internal team, I was able to learn extensively about how our internal customers are using our technology, which mirrored real-world use cases, in exchange for my services in helping that team evaluate and redesign their team's internal documentation set.

It is also beneficial to build bridges to our customers by connecting with internal teams that work directly with our customers on a daily basis. This includes Red Hat support services representatives, solutions architects, technical account managers, and consultants in the field. I actively seek opportunities to work with these internal stakeholders to better understand our customers' needs and how our documentation set can be improved to serve those needs. As part of this initiative, members of our documentation team attended Red Hat Tech Exchange, an annual gathering that provides insights on industry trends and opportunities to exchange deep technical experiences, to network with these key stakeholders. We delivered a presentation that invited those stakeholders to participate in our open source documentation, collaborate with our team, and give feedback on our documentation sets. Though our documentation is open source, not all of these stakeholders realize that their

collaboration is welcome, so we must be intentional about engaging with these groups to improve the documentation and removing the boundaries between writer and end user. These types of networking opportunities are incredibly valuable in helping our documentation team understand how the documentation we write is used and how it can be improved.

3.3 Seek opportunities to work on customer cases

As writers, we must advocate for involvement in consumer cases and seek other opportunities to work directly with customers. When customers do directly contribute to our documentation repository, we must be responsive, engaging with them in a timely manner and opening a dialogue of collaboration and customer-centric service. For example, when a customer submits a pull request through GitHub against our repository, we can engage directly with them through general comments in the pull request or by addressing specific line edits or new content that they suggest. However, as with the internal customers we work with, not all customers realize that they are invited to collaborate and contribute to our documentation. As writers, we must delicately traverse organizational boundaries. We do not want to disrupt existing relationships that our customers have with support services representatives, solutions architects, technical account managers, and consultants in the field, so we cannot always directly contact customers without first asking for permission from internal stakeholders. In my personal career development plan, I state my desire to work directly with customers. I actively work with my manager and leadership to seek out these opportunities allowing me to get closer to our customers and better understand their needs.

4 CONCLUSION

In building documentation around concrete user stories and shifting focus away from an engineering perspective, writers can improve focus on customer needs. In intentionally networking with internal customers and internal stakeholders closest to external customers, writers can build bridges to our customers and remove the boundaries between writer and end user. In seeking opportunities to work on customer cases, writers can navigate organizational boundaries to connect directly with customers without disrupting existing corporate relationships. Writers can apply these three simple methods to overcome challenges associated with writing in a technical, engineering-driven environment. These methods are especially useful in environments in which documentation is created collaboratively, across organizational business units, where writers can effectively assert themselves as user advocates.

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