Understanding developer advocacy in Wikipedia’s technology landscape

Presented by Srishti Sethi
What is developer advocacy?
Developer Advocacy

User → Contributor → Maintainer
Contribution vs. Adoption

Goal: Better Software for Wikimedia
<?php

$is_contributor_happy = true;
$is_contributor_lost = false;
$contributor = array();

if ( $is_contributor_happy ) {
    array_push( $contributor, "significant contributions", "sense of belonging", "identity", "long term contributor" );
    echo "Contributor is happy 😊";
}
if ( $is_contributor_lost ) {
    $i = 0;
    while ($i < count( $contributor ) ) {
        array_pop( $contributor );
        $i++;
        echo "Oops! Contributor is lost 😞";
    }
?

Good ROI: Happy Contributor 😊
Why developer advocacy?
Over **870 Wikipedia and umbrella sites** available in other languages.
Mediawiki, the software behind Wikipedia

A **free and open source** collaboration and documentation software used by thousands of orgs and individuals. Many extensions are available:

- VisualEditor (a WYSIWYG editor)
- Wikibase (structured content)
Wikipedia’s technology ecosystem is vast

Even NASA uses the software behind Wikipedia - MediaWiki for organizing content around their space missions!

400,000+ MediaWiki uses exist
Community bots & tools

1/3rd of edits made to over 800 Wikimedia wikis contributed by bots and tools using our cloud infra
Desktop & mobile apps

Kiwix - Wikipedia offline reader in schools
Provides access to Wikipedia in limited internet access regions, particularly in educational settings.

Android app for Wikimedia Commons
Allows editors to contribute audio, video, media files from their smartphone devices.
2004: One lead developer
2023: >700 people, remote-first, global org
Wikimedia’s technical community
48.52% code contributions from outside of the Wikimedia Foundation

Received by independent volunteers and other organizations (July 21–June 22)

→ 514 contributors
→ 1,225 repositories
→ 45,621 commits
How developer advocacy operates?
Day in the life of a Developer Advocate at Wikimedia

Is there anything remaining in this task before it can be marked as resolved?

Would you be interested in mentoring this project via the upcoming round of GSoC / Outreachy?

Could you please review & leave your feedback on this patch at your earliest? It really needs your attention.

Technical workshops are coming up! Interested in participating? Please sign-up on this wiki page.
Developer Advocacy and its role in Wikimedia

I need help with my patch!!

No worries, I'll get someone to help you!
Srishti Sethi
@Srish_Aka_Tux

I'm reading an @Outreachy intern's bi-weekly report. She is a mother of two, highlights her struggles of raising kids as an immigrant in the US, and writes about the front-end development skills she picked up while working on the internship project:

```
lalitha711.home.blog
In Search Of Next Opportunity
It is almost the end of my first Outreachy internship and I am looking for another internship or apprenticeship ...
```

3:44 PM · Feb 25, 2020
1. Outreach and mentoring programs
2. **Grants enabling cultural heritage**

“An 85 years old man had the opportunity to share an old Alsatian poem through the Lingua Libre project. This man, had the opportunity to express himself with his own language in a public place. For many years, speaking Alsatian or other mother languages was repressed. This man felt pride to share but also that someone in Japan could listen to him speak in his mother tongue.”

~ LinguaLibre developer
2. Grants

unlocking free knowledge

Files uploaded via the Commons Android app are in use at 100,000+ places on Wikipedia.
3. Hackathons & events
Villupuram-based software company gets Silicon Valley call

The Wikimedia grant will help these youngsters set higher targets in life and through them, this ‘most backward’ district stands to gain a great deal.

Published: 05th June 2022 04:27 AM | Last Updated: 05th June 2022 04:27 AM

Volunteers of the Villupuram GNU/Linux Users Group (V-GLUG). (Photo: EPS)

By Krithika Srinivasan
Express News Service
“I made a switch from editing as there were fewer technical contributors in my Hindi Wikipedia community.”

~ Jayprakash, a Wikimedia dev from India
5. Community recognition

WIKIMEDIA '21 COOLEST TOOL AWARD

PAWS: A Web Shell (PAWS) is a Jupyter notebook deployment hosted by Wikimedia.
6. Technical support for Wikimedia cloud services

Thousands of tools leverage Wikimedia’s cloud services infrastructure built upon Openstack, GridEngine, Kubernetes to host, run and maintain their tools.
Hey Alexa, Can you find me some information about Alaska?

Reads from Wikipedia: “Alaska is a U.S. state on the northwest extremity of North America.”

Ms Kate

Request

Response

Amazon Alexa

Request

Response

Wikipedia

6. Technical support for Wikimedia APIs
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Sample code

```php
<?php

    // geocoordinates.php

    MediaWiki API Demos
    Demo of `Geosearch` module: Obtain coordinates for wiki pages nearby

    MIT License

    /*
     $sendPoint = "https://en.wikipedia.org/w/api.php";
     $params = [
      "action" => "query",
      "prop" => "coordinates",
      "titles" => "Wikimedia Foundation",
      "format" => "json"
    ];
    
    // Example 1: Obtain coordinates
```
7. Community metrics and health
[Wikitech-l] Patchsets by new Gerrit contributors waiting for code review and/or merge

Summary of repos with more than one patch waiting:
5x WikiPEG. 4x Parsoid. 3x UnblockMe. 2x Cargo. 2x PageForms. 2x MW Core.

CR0: Please review and provide guidance if you are familiar with the code, and decide (CR±1 or CR±2):

* https://gerrit.wikimedia.org/r/#/c/mediawiki/extensions/Cargo/+480039/
** Added new feature: order virtual fields by the order they inserted to list on cargo store
** 2018-December-17
** Maintainers/Stewards: ???
Summary

1. Focusing on new contributors through outreach & mentoring programs
2. Sustaining impactful projects with limited resources through grants
3. Bringing the community together through hackathons & events
4. Building technical capacity to improve equity in communities
5. Cultivating a culture of celebration through community awards
6. Providing technical support in various areas (cloud services, APIs)
7. Assessing community metrics & health to take informed decisions
Key questions

→ How do you **assess impact** of community engagement & outreach initiatives?

→ How do you develop technical support initiatives that are **scalable & sustainable** for a multilingual, global community?

→ How do you design for turning “casual” into “**long-term**” contributions?
Developer Resources

Interested in contributing to Wikimedia projects?

https://developer.wikimedia.org
Thank you for listening!

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