

Wikimedia Developer Community

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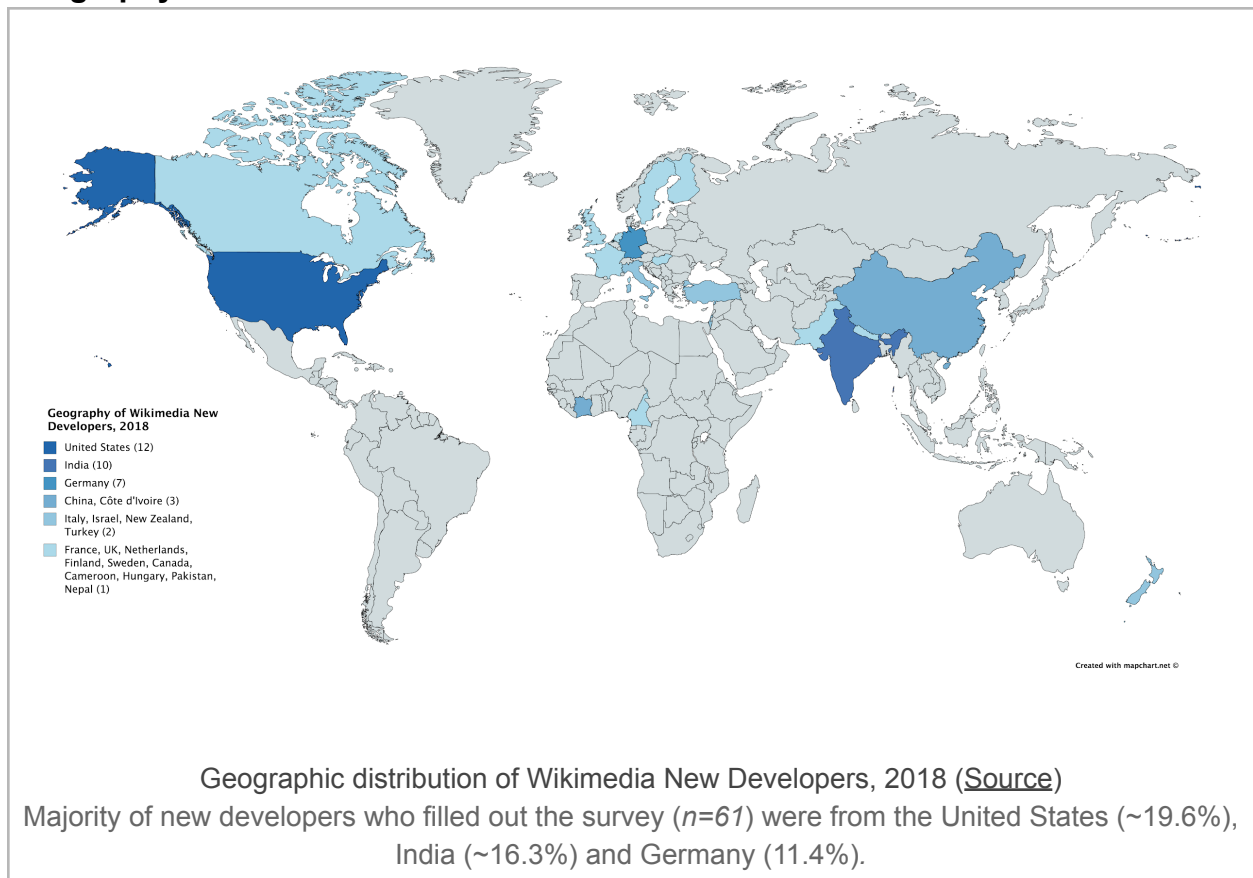
[Relevant links to annual programs](#)

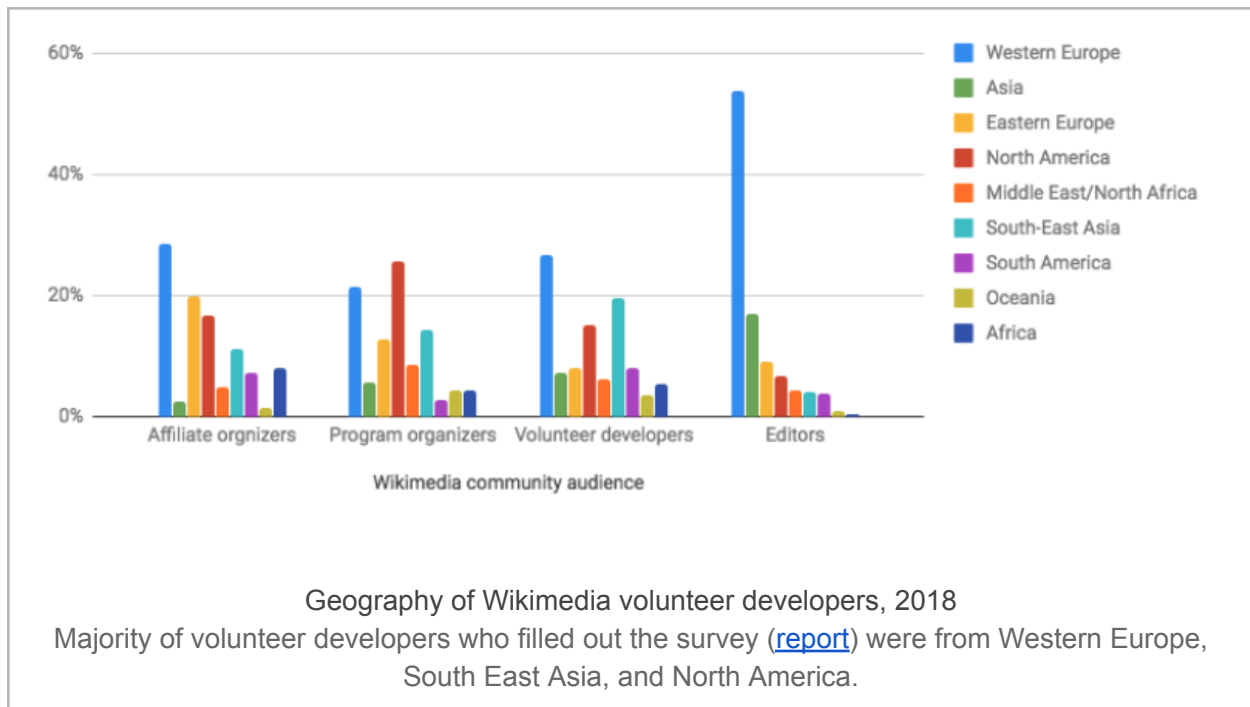
[References](#)

Demographics, behavior, and metrics

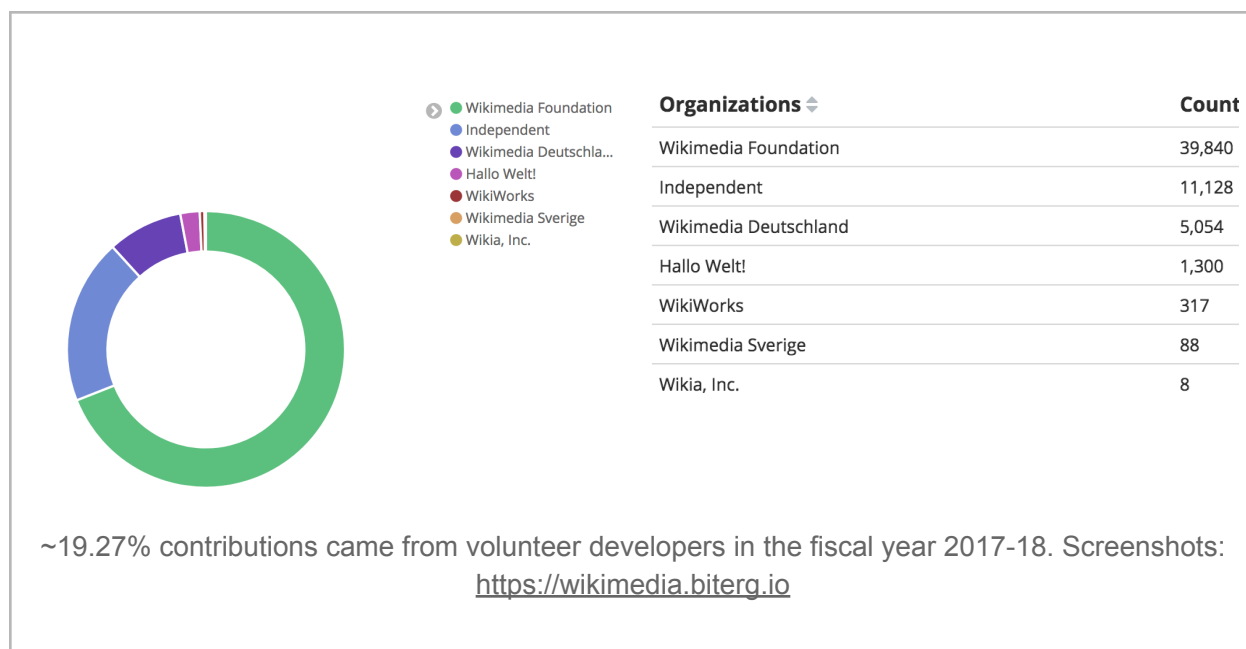
*Note: Results included in the section below are based on the data collection in the **fiscal year 2017-18***

Geography





- Wikimedia attracts very few female and non-binary developers to the technical projects ~22% annually. Overall, ~12 % of our volunteer developers are female.
- The median age of volunteer developers who contribute is 25-34.
- ~70% developers who contribute hold a first university degree or higher.
- Most new developers who get attracted to Wikimedia projects are working professionals. However, through targeted outreach efforts, such as by participating in mentoring programs, helps Wikimedia bring new contributors.
- Volunteer developers participate in supporting software for Wikimedia projects by contributing to Wikimedia APIs, templates, gadgets, bots, and extensions.
- Most developers prefer Javascript, PHP and Python as their programming language of choice.
- Developers prefer Mediawiki.org and Phabricator the most for receiving developer support.
- Volunteer developers contribute to Wikimedia because they want to support the mission, help editors, support free software, learn and acquire experience, and improve readers' experience.



Technical engagement ecosystem

Volunteer developers are engaged in various product development processes such as user research, feature requests, discussion, and analysis. But there isn't a unified process that all projects or teams follow to attract developers to contribute to Wikimedia.

The majority of contribution to the development of products, owned by the Foundation comes through paid staff. [Learn more here](#).

Read below for our current structures around volunteer developers led/coordinated/contributed by various WMF/WMDE teams:

Community Wishlist - WMF runs Community Wishlist every year since 2015. Technical requests received are primarily developed and coordinated by the [Community Tech](#) team, but feature requests are submitted, prioritized and decided by the Wikimedia community. There have been attempts in engaging developers through Outreach programs and international hackathons in developing these featured requests, but this hasn't worked well in the past ([more details](#)). WMDE runs a [German community wishlist](#) too. A similar list for developers called the [Developer Wishlist](#) was coordinated in 2017. There weren't any resources formally allocated to develop prioritized requests from this wishlist and attempts to engage developers in contributing to requests didn't work well. [Learn more here](#).

WMF Product Development Process - A framework developed by the Technical Collaboration (*currently Community Relations*) team for Wikimedia Foundation teams to follow an iterative cycle for product development: Understand > Concept > Plan > Develop > Release > Maintain and engage various stakeholders both within and outside WMF at every stage of this process. This framework wasn't adopted well within WMF, but the framework might be promoted as a set of guidelines in the near future. [Learn more here](#).

Code of Conduct Committee - Initially set up with support from Developer Relations (*currently Developer Advocacy*) team, currently consists of a good mix of staff and volunteer developers that oversee the enforcement of [Code of conduct for Wikimedia technical spaces](#).

Wikimedia Technical Committee - All staff committee that coordinates the process of RFCs and advises on technical issues related to the official software that serves Wikimedia users. [Learn more here](#).

Code Health Group - An all-staff committee that focuses on enabling both experienced and new contributors to make high-quality code contributions to Wikimedia projects. Two of their current active projects are: a) identifying technical debt and a process to manage it, b) defining and implementing code health metrics. [Learn more here](#).

Project Grants Program - Supports Wikimedia community members by providing them funding for their projects that broadly fit any of these four categories: Software, Research, Offline Outreach, and Online Organizing. [Learn more here](#). [Example of projects that received funding through the Grants program in 2016](#).

Wikimedia Cloud Services team - Provide hosting environment to developers interested in leveraging Wikimedia's computing infrastructure for their tools that benefit Wikimedia's ecosystem. Also support them in creating, operating and maintaining their tools and providing technical support while they use Wikimedia's cloud services. [Learn more about the team](#) and [audiences](#) they serve.

Developer Advocacy - Supports volunteer developers who contribute to Wikimedia projects with a goal to grow our technical community. The team's work fall primarily under three buckets ([learn more here](#)):

- Documentation - Improve existing docs, write tutorials and sample code for easy onboarding of new developers. Example: [New developers guide](#).
- [Outreach programs](#) and events - Coordinate Wikimedia's participation in mentoring programs like Google Summer of Code, Outreachy, Google Code-in, and events both external and internal to our community. Collaborate with external organizations to engage more contributors in open source (Example: [Wikimedia's collaboration with Mozilla's OSSN and TeachingOpenSource's POSSE](#)).
- Community management - Support new developers in various support channels IRC/Phabricator/Gerrit, enable developers interested in building local communities (Example: [Africa Wikimedia Developers Project](#)), and keep track of community metrics.

Season of Revision Slider - A project/team-based approach to drawing volunteer developers to implement version 2.0 of [Extension:RevisionSlider](#) with support and guidance of project maintainers. It didn't work well primarily due to ... ([more here](#)).

Other [Special Interest Groups](#)

- [Sunsetting Working Group](#) (closed, resulted in [Code stewardship reviews](#) process)
- [Front-end standards group](#) (active)
- [Technical Document Re-working Group](#) (active)
- [Quality Assurance SIG](#) (inactive?)
- [Wiki Replicas Special Interest Group](#) (inactive?)

Other related user groups

- [MediaWiki Stakeholders' Group](#) (active)
- [MediaWiki Farmers user group](#) (2015-2016 - [expired](#))

Challenges and areas for improvement

Note: These are my personal observations and learnings

1. Lack of long-term strategic direction to grow our technical community.
2. Decision making is time-consuming and cumbersome in our community. Piloting new ideas isn't that easy!
3. We lack good conflict management methods. The code of conduct was an attempt to address this but has not been effective so far.
4. Code contribution process is quite a bit of learning curve (likely due to complex infrastructure) and slow code review process - these are two of the crucial factors that demotivate new developers to contribute further.
5. We lack a systemic process to onboard new developers, track their progress, and retain them. New developers whom we have attracted to Wikimedia in the last few years has seen a stagnant trend. Retention rate is poor.
6. Some concerns about the MediaWiki ecosystem:
 - a. It is almost entirely reliant on the WMF financially, which is surprising as MediaWiki is fairly successful software.
 - b. We haven't paid much attention to supporting or growing projects not owned by the Foundation like the "3rd party wikis". There have been arguments in the past around it that any requirements or code contributions not directly intended for the Wikimedia projects are a mis-use of resources/donor funds.
7. We are not embedded fully in the broader open source ecosystem.
 - a. We have little connection with the projects that reuse MediaWiki (e.g., Wikia), the projects we use, the relevant standards groups, etc.
 - b. There is a lot that we could do to collaborate with external open source organizations to engage new contributors and learn from their methods and experiments.
8. We've got way too much outdated and unstructured documentation. We like to do everything the wiki way, and that's a problem!
9. We've got way too many [communication channels](#) (IRC/Phabricator/Discourse/Talk pages, Mailing lists, etc.) to follow.

10. Lack gender diversity. There have been quite a lot of efforts done internally to increase staff diversity through enhanced recruitment strategies such as participation in job fairs, leading training for hiring managers, supporting employee-led resource groups, etc ([more details](#)). We also participate in [Outreachy](#) to draw diverse contributors to Wikimedia tech.
11. There isn't a dedicated structure in place to support local developer event organizers (like the [Community Capacity Development](#) initiative for editors). These events happen more organically. But, whenever organizers approach the Developer Advocacy team for help, they provide ad-hoc support. We also do little to keep track of these events, who is in it, understand their impact, etc.
12. Lack of interest in mentoring newcomers and good mentors both within and outside WMF. The pattern most observed while coordinating Outreach programs. Also, there seems to be less interest in drawing newcomers to contribute to product development.
13. There aren't any, or not well-documented and followed, community governance processes for MediaWiki and FOSS projects under the stewardship of the WMF. Ownership of core projects, technical steering committees, etc. are led by WMF.
14. To address any of the challenges listed above, we need more resources, and we currently are limited.

Research questions

- How can we make Wikimedia a welcoming place for new contributors?
 - How do we empower Wikimedia members to be good mentors?
 - Which of Wikimedia's projects or FOSS communities are healthier than others? What can we learn from them?
 - How do we make Wikimedia a welcoming place for experimenting with new ideas?
 - How do we bring a new wave of developers to Wikimedia and retain them?
 - In which areas, topics or projects should we engage Wikimedia future developers?
 - What are some online outreach formats we could experiment with to support some of this work?
- How might we help build and support local developer communities?
- How do we best collaborate with external open source organizations?
- How can we serve our existing volunteer community better?
- How can we better support the third-party MediaWiki community?

References

Relevant WMF programs, past and present

- [FY2019/TEC10:Build Technical Community](#)
- [FY2019/TEC13:Code Health](#)
- [FY2017/Community Engagement:Onboarding new developers](#)

Relevant groups

- [TechCom](#)
- [WMF Technical Engagement team](#)

Research / Reports

- [Community Engagement Insights 2018 Report](#)
- [Community Engagement Insights/2018_Report/Technical_Collaboration](#)
- [New Developers Quarterly Reports](#)
- [Community metrics](#)

Past discussions / notes

- [Wikimedia Developer Summit 2018 Session: Growing the MediaWiki Technical Community](#)
- [Tentative plan for improving outreach and increasing retention of new Wikimedia developers](#)
- [WMF Audiences perspective: Tools for Developers](#)