Quarterly review

EDITING

Q2 — 2015/16

Approximate team size during this quarter: 31 FTEs

Time spent: strengthen 40%, focus 40%, experiment 20%

Key performance indicator; * – N.B. data for Q2 is for the first two months only

| Monthly active editors on all wikis | 76.3k average in Q2* | +1.5% from Q1 (75.1k) | +1.0% YoY (75.5k) |

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The number of editors who made ≥5 edits to ≥1 wiki during the month. From Wikistats. Exponential moving avg. with α = 0.5.
The number of editors who both registered and made ≥5 edits across all wikis during the month. Calculated using an editor month dataset. Exponential moving avg. with α = 0.5.
Q2 – Editing Department

Metric: %age change in active editors

Year-on-year change in numbers from the previous slide. Exponential moving avg. with $\alpha = 0.5$
The number from the previous slide compared to the total number of editors who made ≥5 edits in the month, calculated using the same method. This differs from the number used by Wikistats. Exponential moving avg. with α = 0.5.
Q2 - Editing Department

Metric: Edits to Wikipedia articles

Monthly edits to content namespaces on all Wikipedias. From the Report Card. Includes bot edits. Exponential moving avg. with $\alpha = 0.3$.
The monthly number of edits made using mobile devices in content namespaces across all Wikipedias. From the Report Card.
Collaboration Team
### Q2 - Collaboration Team

**Objective:** Cross-wiki notifications

<table>
<thead>
<tr>
<th>Objective</th>
<th>Measure of success</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Focus:</strong> Improve awareness of activity by providing a cross-wiki notifications feature</td>
<td>Echo can deliver notifications between many wikis, allowing users to access their notifications from any content wiki on any other content wiki</td>
<td>Done. Roll-out is a Q3 goal.</td>
</tr>
<tr>
<td><strong>Team members involved:</strong> 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Cross-wiki notifications now available as a Beta Feature on Beta Cluster and on test.wikipedia.org.
- Further roll-out to all wikis over the coming quarter.
- Most of this awesome work done by Kunal, Moriel and Pau; thank you.

*Image is a screenshot of code in MediaWiki/OOUI/Echo licensed under MIT/GPL.*
## Objective: Flow opt-in beta feature

<table>
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</thead>
<tbody>
<tr>
<td>Strengthen: Increase access to Flow by deploying and supporting an opt-in system for it</td>
<td>Users have the ability enable Flow on their talk page</td>
<td>Beta Feature was deployed to Wikidata and to Chinese, Urdu, Bosnian and Catalan Wikipedias.</td>
</tr>
</tbody>
</table>

**Team members involved:** 6

- 462 users (~22%) opted in on the Chinese Wikipedia, 159 (~3%) on Wikidata, 31 (~6%) on Catalan, 10 (~23%) on Urdu, 6 (~22%) on Bosnian.
  - Rough percentages for scale only, expressed as a proportion of ‘active editors’ on each wiki.
- The Czech Wikipedia community asked for this, then changed their minds.
- The Chinese Wikipedia deployment exposed technical issues due to IP block exemptions.
- Spam attack early in the quarter required us to bring forward improved anti-spam measures.
### Q2 - Collaboration Team

**Objective: Notifications prototyping**

<table>
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<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Experiment</em>: Increase engagement with notifications by prototyping and researching improvements to the notifications page</td>
<td>We have an informed plan for the next steps for improving the notifications page</td>
<td>Delayed.</td>
</tr>
</tbody>
</table>

*Team members involved: 2*

- Completed one round of user testing, now refining design and planning second round in February.
- Research was delayed due to focus on cross-wiki notification research and delays on Design Research team’s side.
**Q2 - Collaboration Team**

**Updated Design, Format, Wording for Notifications**
- We revised the notification icons and created a more structured layout that introduced secondary links as well as excerpts of actual message and edit content.
- We reworded all notification types for improved clarity and consistency.

<table>
<thead>
<tr>
<th>Old</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Old Notification" /></td>
<td><img src="image2" alt="New Notification" /></td>
</tr>
</tbody>
</table>

*Image is a screenshot of code in MediaWiki/OOUI/Echo licensed under MIT/GPL.*
Language Team
**Objective:** Improve user retention by adding additional 'suggestion' features such as customised lists and adding additional relevant notifications

**Measure of success:** Increase in the number of translations per user

**Status:** Personalized suggestions integrated. Many enhancements for suggestions in Content Translation dashboard

- New users have increased; percentage of returning users has also increased
- Translators can create ‘Favorite list’ and discard suggestions
- A campaign can be created using scripts
- Suggestions are based on the previous translations
- Teams involved: Language, Research
- Tool is still a beta feature.

*Blog post*
## Q2 - Language Team

### Objective: Infrastructure improvements

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</thead>
<tbody>
<tr>
<td><strong>Strengthen: Improve reliability by complying with WMF infrastructure requirements as defined by Services, Tech Ops and Security teams</strong></td>
<td>Content Translation complies with WMF infrastructure requirements</td>
<td>cxserver successfully <strong>migrated</strong> to service-runner. Uses uniform service architecture to make the maintenance, logging, monitoring, analytics easy.</td>
</tr>
</tbody>
</table>

- API documented at [https://cxserver.wikimedia.org/v1?doc](https://cxserver.wikimedia.org/v1?doc)
- Teams involved: Language, Services, Ops

*Image is a screenshot of code in RESTbase/cxserver licensed under MIT.*
## Q2 - Language Team

**Objective:** Reliability

<table>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengthen: Improve reliability by fixing high-priority bugs that affect basic functionality</strong></td>
<td>Users can use Content Translation without interruption</td>
<td>High priority bugs fixed for saving and publishing errors. AbuseFilter related errors are displayed nicely so that users can fix and retry publishing.</td>
</tr>
</tbody>
</table>

- AbuseFilter-related errors are displayed nicely so that users can fix and retry publishing.
- Comprehensive logging of errors and daily analysis
- The reliability of auto save and translation restore improved - compressed data and restore algorithm improvements

![Publishing failures chart](chart.png)

*Image is licensed under [CC-Zero](https://creativecommons.org/publicdomain/zero/1.0/) and available on [Wikimedia Commons](https://commons.wikimedia.org/).*
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</thead>
<tbody>
<tr>
<td><em>Experiment: Increase visibility for third parties by collecting and sharing parallel corpora of translation modifications</em></td>
<td>API will be able to access the parallel corpora</td>
<td>Development completed, pending deployment</td>
</tr>
</tbody>
</table>

- Published translations API improved. Now lists revision ids, published date and unique id.
- Parallel corpora (source-translation pair) API developed.
- Deployment set to happen in late January 2016 on account of DBA scheduling.
- Infrastructure also makes saving translations more reliable in long run.
- Team involved: Language, Ops
Q2 - Language Team

- All goals completed in spite of major and unprecedented time-off required by individual team members. However, work on projects other than Content Translation still halted and cannot be realistically planned even with full capacity.

- Content generated through Content Translation may need extra attention to avoid unnecessary markups. Working with Parsoid team on this. Using VE as editor is being planned for long term improvement.

- Yandex machine translation system integrated as per community request. Significant increase in the number of translations on Russian Wikipedia. More language pairs requested.

- There were two major service outages for several hours each. Better services monitoring is needed.

*Image is a screenshot of [Content Translation statistics page on Russian Wikipedia](https://example.com), licensed under GPL.*
Weekly number of articles published; highlighted section represents Q2


Image is a screenshot of Content Translation statistics page on English Wikipedia licensed under GPL.
Appendix: User distribution

Distribution of translators per number of translations

<table>
<thead>
<tr>
<th>Number of articles</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 - 20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Image is Commons file Cx-user-distribution-2016q2.png and licensed under CC-Zero.
Translators using the personalized translation suggestions
Q2 - Language Team

Note
Original version created with Content Translation (Link to article)
Translation of “Patterns in nature” from English to Hebrew
User’s first edit

Screenshot removed for copyright reasons
Multimedia Team
**Q2 - Multimedia Team**

<table>
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<tr>
<th>Objective</th>
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</thead>
<tbody>
<tr>
<td><em>Focus</em>: Increase media contribution by integrating media upload into VisualEditor's media dialog and drag-and-drop system</td>
<td>Users can upload media files directly within VisualEditor by browsing or dragging-and-dropping</td>
<td>Done.</td>
</tr>
</tbody>
</table>

*Team members involved: 4*

- Building on the work from the previous quarter and with support from the VisualEditor team, this additional feature was completed relatively early in the quarter.
- The cross-wiki upload tool to Commons is now used for approximately 1000 files by 527 users each day; this includes roughly doubling the number of uploads by first-time uploaders to Commons.
- The tool has roughly the same deletion rate for new users as other upload tools (see later slide).
- Thanks to the whole team – Mark, Prateek, and Bartosz – and to Ed from the VisualEditor team and Stephen from Legal for making this possible.
# Q2 - Multimedia Team

**Objective:** Improve upload funnel drop-offs

<table>
<thead>
<tr>
<th>Objective</th>
<th>Measure of success</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Strengthen:</em> Improve reliability by resolving UploadWizard bugs that cause users to start over</td>
<td>Users can use UploadWizard to mass-upload without interruption.</td>
<td>Done. Further improvements to come.</td>
</tr>
</tbody>
</table>

*Team members involved: 2*

- Over the quarter we substantially reduced technical debt, refreshing the UI and fixing outdated code there, improving the error/warning system, and modernising archaic server code.
- The new user error/warning system means fewer unrecoverable errors, and provides us with much better contextual information to fix rare cases where they occur.
- These changes will help us continue work towards our longer-term goal of allowing users to resume old uploads and go back and forth between steps.
**Q2 - Multimedia Team**

**Objective: Image editing prototype**

<table>
<thead>
<tr>
<th>Objective</th>
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<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment: Improve multimedia editing workflow by prototyping non-destructive image editing</td>
<td>Users can make basic changes to images such as crop, rotation, etc. directly on the wiki.</td>
<td>Done. Additional work forthcoming.</td>
</tr>
</tbody>
</table>

- **Team members involved: 2**

- We showed off a demonstration version of the prototype image editor to a lot of positive feedback.
- Our next step will be to make it available on Commons. We will assess real-world usage and needs, get feedback, and decide what next should be done.
- Many thanks to Prateek and Mark for their work on this.
### Q2 - Multimedia Team

**Objective: Future content type research**

<table>
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</thead>
<tbody>
<tr>
<td><em>Experiment: Improve value of content by researching the learnability of content to inform future prioritisation of feature development</em></td>
<td>We have an informed plan for next steps for multimedia contribution features.</td>
<td>Delayed.</td>
</tr>
</tbody>
</table>

*Team members involved: 0*

- We continued our lightweight engagement with Design Research to collaborate with academia to consider possible options, but no substantive work was completed in this quarter.
Towards the end of the quarter, we worked to respond to concerns expressed by several Commons community members about the proportion of out-of-scope and otherwise inappropriate images uploaded using the new cross-wiki upload tool, though analysis showed its successful use by new up loaders is roughly comparably terrible to other tools. We undertook unplanned development to trial an A/B test of three additional interface designs (see below) over the end of the quarter. See T120867. Many thanks for the whole team for their work and leadership to promptly address this feedback.
First-time uploaders to Wikimedia Commons using the new cross-wiki upload tools:

- 3,885 in December, 8,855 in (part of) January - 12,740 total in two months
- 68% of new uploaders to date in January
Appendix: Various Metrics (fairly raw)
Q2 - Multimedia Team

Appendix: Various Metrics (fairly raw)

Uploaders

Averaging: [ ] day(s)

Uploads

Images are screenshots of Dashiki graphs - Dashiki instance for Multimedia
Q2 - Multimedia Team

Appendix: Various Metrics (fairly raw)

Images are screenshots of Dashiki graphs - Dashiki instance for Multimedia
Parsing Team
<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Focus: Improve editing experience and draw closer to Parsoid HTML for read views by implementing support for native Parsoid extensions</td>
<td>Parsoid has an extension registration mechanism and native support for galleries</td>
<td>Native extension registration mechanism in place. Support for <code>&lt;translate&gt;</code>, <code>&lt;tvar&gt;</code>, and other tags used in testing. <code>&lt;gallery&gt;</code> deferred to next quarter (but have a prototype implementation from Wikia).</td>
</tr>
</tbody>
</table>

Team members involved: 2

Required for supporting extensions that:

- … use wikitext internally (T110909)
- … need custom editing support in VE

Arlo did most of the work on this goal.
## Q2 - Parsing Team

**Objective:** Replace Tidy with a HTML5 parser

<table>
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</thead>
<tbody>
<tr>
<td><em>Strengthen:</em> Modernise parsing infrastructure to use modern Web standards by replacing Tidy with a HTML5 parser in MW core</td>
<td>MediaWiki has an HTML5-compliant parser for fixing PHP parser output</td>
<td>HTML5 parser in place. Reliance on Tidy bugs/features means incremental fixes. Last step will replace Tidy. Working on visual diff testing to enable this rollout.</td>
</tr>
</tbody>
</table>

Parsing changes (Tim has been working on a lot of this with input from rest of the team):
- Done: Empty `<li>` items no longer stripped; rendering diffs hidden using CSS styles.
- TODO: More CSS fixes needed and will be rolled out incrementally after testing.
- TODO: Potentially some changes to parsing of wikitext - needs testing to identify impact on pages.
- TODO: Enable editors to fix pages and templates that might break when Tidy is replaced.

Testing infrastructure (Tim and Subbu have been working on different pieces of this):
- DONE: Generalizations to visual diffing test framework to support mass visual diff tests.
- DONE: *uprightdiff*: image diffs based on (video) motion detection to get actionable diff metrics.
- IN PROGRESS: Puppetization and test mediawiki install
## Q2 - Parsing Team

**Objective: Prototype for balanced templates**

<table>
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<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Experiment:</em> Improve editing experience and take advantage of perf. opt. opportunities by prototyping some form of opt-in / opt-out system for balanced template output</td>
<td>MediaWiki has a mechanism for templates to specify their output as balanced or not.</td>
<td>Implementation sketch and RFC in place (T114445) Prototyping not yet begun. Proposal needs to go through the RFC process.</td>
</tr>
</tbody>
</table>

*Team members involved: 3*

- Prototyping required in both the PHP parser as well as Parsoid.
- Will benefit from the visual diff testing framework.
- Replacing Tidy with a HTML5 parser will help with the PHP parser prototype.
- C.Scott has been driving this work with input from rest of the parsing team.
<table>
<thead>
<tr>
<th>Objective</th>
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<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Strengthen:</em> Improve mobile reading experience and draw closer to Parsoid HTML for read views by improving multimedia support in Parsoid</td>
<td>Parsoid’s HTML5 DOM spec and HTML generation have been updated for audio and video</td>
<td>No progress beyond some discussions.</td>
</tr>
</tbody>
</table>

- Got de-prioritized over all the other work since it turned out that mobile content services didn’t need it right away (compared to other requests)
- More progress expected this quarter
Lots of **performance fixes** (Subbu, Tim, Arlo):

- Ran into pathological cases (large input pages, large lists / tables, large output DOMs, $O(n^2)$ computation scenarios in our DOM passes) that resulted in load spikes on the cluster
- Implemented resource limits in Parsoid to return a HTTP 413 (request too large) response when those limits are exceeded

**Wikimedia Developer Summit** related experiments and discussions (C.Scott and Tim):

- `npm install mediawiki-express`: Experiment to install mediawiki in a node.js environment
- Participation in dev summit discussions and planning; Lots of dev summit proposals

Work related to the **Dutch Wikipedia** looking at VisualEditor (Arlo, C.Scott, Subbu):

- Convert html -> wt to be asynchronous to support TemplateData lookup for nlwiki blockers
- Performance impacts discovered => upstream library performance work

**Mobile services** related requests:

- Re-focused work to identify / implement tasks that were important to their work
Q2 - Parsing Team

Reasons:
- We had to refocus on demand to work on unplanned / under-resourced tasks
- Tidy replacement task proved to be a rabbit-hole of dependent tasks that need to be done; more complexity than we anticipated
- Did not account for holiday season or mediawiki summit related participation
- Continue to pay down technical debt -- Arlo is the primary driver of this

Lessons learned:
- Fewer goal commitments to give us more room to re-orient work as needed
- Improve inter-team co-ordination while picking goals – there are a lot more requests / demands of Parsoid with more uses of Parsoid HTML
VisualEditor Team
<table>
<thead>
<tr>
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<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focus</strong>: Increase use of the visual editor by releasing it to more accounts and anonymous users on English Wikipedia</td>
<td>More editors use the visual editor.</td>
<td>Goal changed after quarter start. In-edit switching work complete. Single edit tab development work still on-going, expected early Q3.</td>
</tr>
</tbody>
</table>

- Goal changed after quarter start for quality reasons: brought forward work from Q4 as new blockers.
- Overall uptake is roughly the same as the previous quarter at around 16% (now ~**10.5k edits/day**).
- Gradually increasing on the English Wikipedia; now at ~**4.5%**, up from ~3.9% last quarter.

*Proportion numbers reflect edits using the visual editor out of all article edits made by accounts & IPs, excluding registered bots, in the last week of December. Other tools (e.g. rollback, AWB) not excluded.*

- In November we switched the Spanish Wikipedia back to default-on for accounts per their request.
- Particular thanks to Alex for his work on edit switching and single edit tab integration features.
**Q2 - VisualEditor Team**

<table>
<thead>
<tr>
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<th><strong>Status</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Strengthen:</em> Improve support for math editing by improving the UX of the Math extension and researching its usability</td>
<td>It’s easier to create and edit formulæ from within the visual editor.</td>
<td>Done. Deployed in pieces through over the quarter.</td>
</tr>
</tbody>
</table>

*Team members involved: 3*

- We brought on Thalia Chan to simplify formula editing for users.
- We now syntax highlight the LaTeX, show a rendering preview, and provide a clickable browsable tray of all fragments to insert.
- Particular thanks to the volunteer extension maintainer, Moritz, whose advice has been invaluable, and of course also to Thalia.

*Image is a screenshot of code in VisualEditor/OOUI/Math licensed under MIT.*
# Q2 - VisualEditor Team

**Objective: Chart editing**

<table>
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</tr>
</thead>
<tbody>
<tr>
<td><em>Strengthen:</em> Improve support for chart editing by improving the UX of the Graph extension and researching its usability</td>
<td>It's possible to create and easier to edit charts from within the visual editor.</td>
<td>Done. Deployed in pieces through over the quarter.</td>
</tr>
</tbody>
</table>

- We brought on Frédéric Bolduc from GSoC to continue their work improving chart editing for users.
- We now let users create new charts, syntax highlight the JSON, make it possible to resize charts, and support a new version of the ‘Vega’ back-end for additional forthcoming features.
- Particular thanks to the extension maintainer, Yuri Astrakhan of Discovery, for their helpful support and vision, and to Frédéric for their drive.
### Objective: Link suggestion experiment

<table>
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</thead>
<tbody>
<tr>
<td><em>Experiment:</em> Increase value of contributions by prototyping and researching integrating edit recommendations</td>
<td>We have an informed plan for next steps for integrating edit recommendations.</td>
<td>Development work done but late; deployment not yet undertaken, and so results not yet supplied.</td>
</tr>
</tbody>
</table>

*Team members involved: 1*

- We worked with Research and Data to prototype a user tool to prompt adding cross-article links that were identified from reader behaviour but missing from the article copy. However, the work stalled and was not completed before the end of the quarter, which meant results to inform next steps are waiting.
- *Lesson learnt:* It was unclear who was leading this initiative, and so the drive to undertake the work was confused. Clarity on cross-team leadership should be established at the start of the work.
- Particular thanks for their design leadership to Nirzar, & to Ed for their rapid responsive prototyping of engineering solutions.
# Q2 - VisualEditor Team

**Objective:** Mobile macro-design prototyping

<table>
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</thead>
<tbody>
<tr>
<td><em>Experiment:</em> Improve the visual editor on mobile devices by prototyping and researching using visual editor on mobile devices</td>
<td>We have an informed plan for next steps for using the visual editor on mobile devices.</td>
<td>Some product market research done, but the bulk of product and design research work was delayed due to more pressing other issues.</td>
</tr>
<tr>
<td><em>Team members involved:</em> 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- We worked with Design Research to consider mobile editing editor concepts and how they match with the user archetypes.
- A wider market analysis for design research and prototyping of possible designs for user testing based on this was delayed due to competing priorities during the quarter.
- Particular thanks to Nirzar for their design leadership, and to the Design Research team.
Questions?