



# MediaWiki's big code & usability push

And other fun stories for the internet age

# MediaWiki summary



- Created in 2002 as custom backend for Wikipedia
- Developed as FOSS from the start (GPLv2)
- Standard LAMP base
- Scalable from home installs to giant Wikipedia-style farms

# Wikipedia



- Open-content encyclopedia
- Volunteer-directed, volunteer-driven content
- Runs on open-source stack
- All custom software is open-source and community-developed



# Wikimedia Foundation



- Non-profit org created in 2003 to support and operate Wikipedia and its sister projects
- Currently employs 5 developers, 2 sysadmins, several contract projects, and some folks who do non-tech stuff :)
- FY 2008-2009 budget about \$6M, supported largely by many community donations (thanks!) and a few large donors and grants

# UseMod



- Wikipedia started in 2001 running on existing UseModWiki
- Our markup syntax derives from UseMod's, with additions and tweaks over the years
- Quirky UI, backend failed to scale well at 10-20k pages and many users...

# Phase II



- Volunteer developer Magnus Manske took on task of creating a custom wiki engine with PHP frontend and MySQL storage
- This was the first big LAMP project of most of the people working on it, and it went through many growing pains...
- Deployed February 2002

# Phase III



- Phase II codebase was rewritten by Lee Daniel Crocker along with other volunteer devs based on our experience with the phase II rollout.
- Deployed July 2002
- This codebase has continued to evolve, becoming less Wikipedia-centric and easier to install and use in other situations.
- MediaWiki name and stable software releases start in 2003.

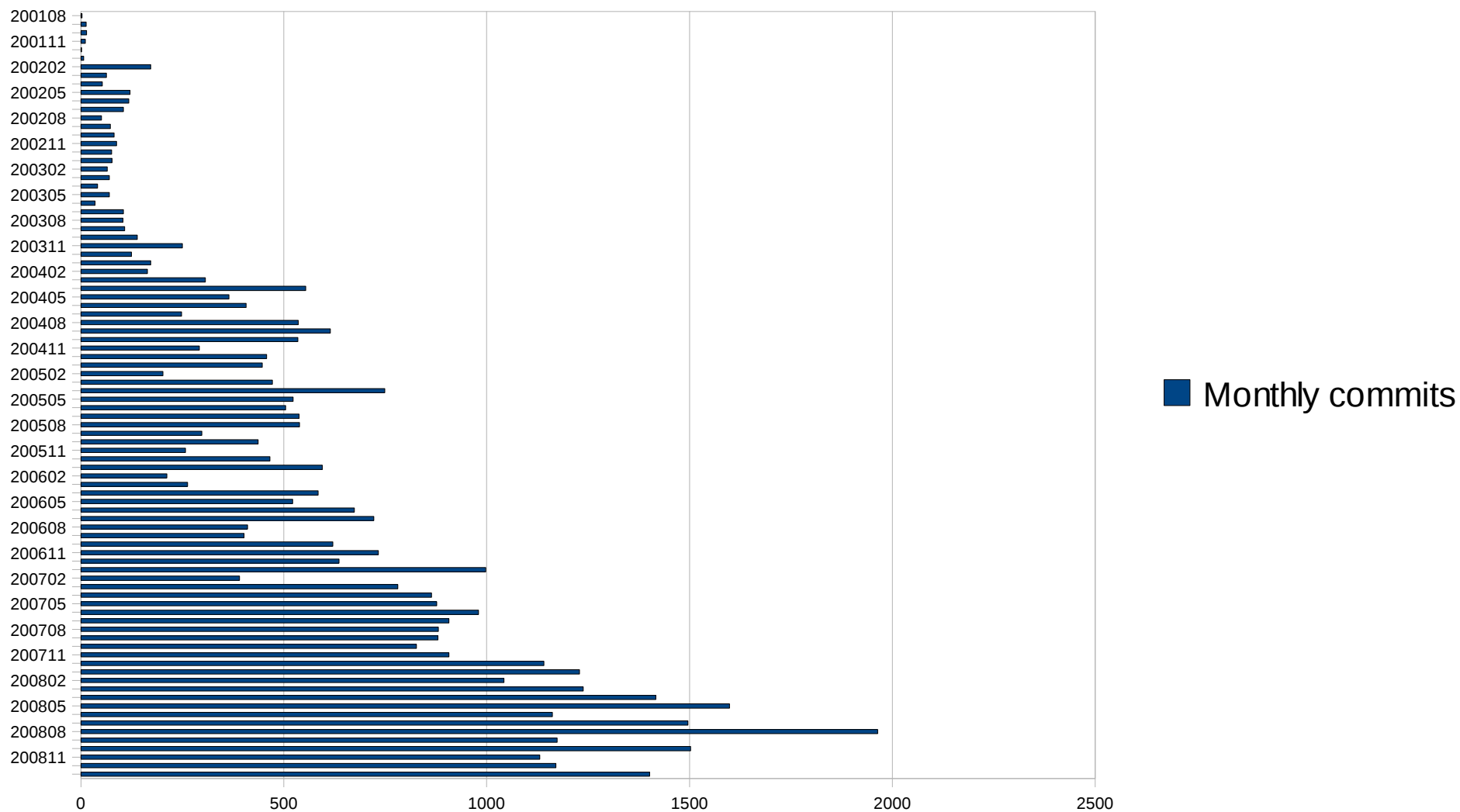
# MediaWiki evolution



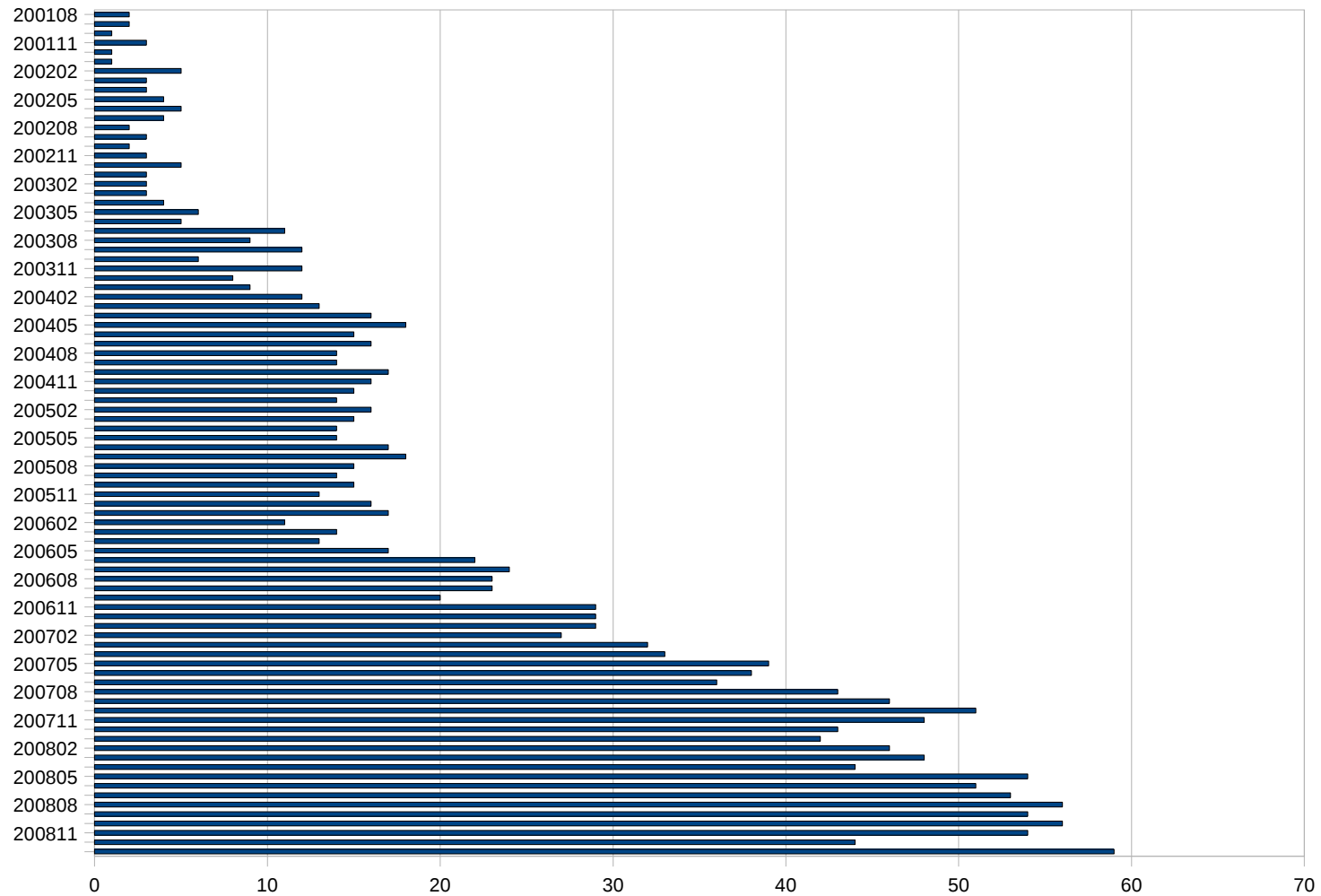
- Installer helps 3rd-party use, leading to more code contributions
- New UI skin
- New DB schema
- “De-Wikipedification” of UI messages
- Lots of internal tweaks for scaling, configurability, etc over time...



# Rise in activity...



# Rise in comitters...



# What have you done for me lately?



- Much core dev attention in last couple years has been on internal scaling issues or a few high-profile features like login unification
- Starting to pull on more staff to handle day-to-day and project work, and contract work with community devs on big projects

# What's going on now?



- Code Review extension helping to make code review process more collaborative – scaling the core devs
- MW 1.14 release imminent!
- Nice little things coming online soon – edit drafts, AbuseFilter to help halt or tag common problem edits

# What's coming up?



- Wikipedia Usability Project
  - hiring...
  - Starting environmental scan of existing tools to adapt or learn from... extensions, customizations, work other MediaWiki users have done, stuff in other software we can use as inspiration
- Media projects – MetaVid and Kaltura work
  - Michael Dale & friends
    - Better ogg player
    - Media picker, integration w/ archive.org and other offsite sources

# What else is out there?



- Trying to improve the development, testing, and deployment process for awesome technologies
  - Semantic MediaWiki
  - TranslateWiki, localization issues
  - Form editors
  - RDF?, metadata...
  - And many more!

# Cf WordPress



- WordPress has put a lot of effort into improving the usability and functionality of their admin console in the last few versions.
  - Mockups and surveys
  - Community involvement
  - User testing
  - Lots of progress!

# At the home office



- Hiring more devs to do “dirty work” and strategic projects
- Usability project... want active community involvement there
- Intern-style programs?



# Wikimedia's goals



- Organizational maturity
- Financial stability
- Increase quality and perception of quality
- Increase distribution beyond the wikis
- Encourage and broaden participation

# Reach



- We want to broaden participation – make it easy for people to pop in and use Wikipedia
- And we want people to be able to participate interactively, whether as an editor or in other ways such as providing feedback on article quality or tagging problems that need attention from editors

# Reach strategies



- Improving search backend and UI – making sure readers can find what they want
- Easier, less scary editing
- Reduce negative effects of problem edits
- Provide other ways to contribute
  - Quality feedback “I found this article useful”
  - Problem tagging “Flag this page as inappropriate”

# Quality goals



- Provide cleaner work flows and ways to identify and fix problems
- Make the experience of fixing a problem friendlier so people aren't scared off
- Will need “people fixes” as well as tech fixes...

# Semantic MediaWiki



- Can provide better ways to organize and update data – dates, amounts, times, relations
- Mature project
- Needs final eval of deployment issues

# Flagged Revisions



- Contract work by puroda (check?), Aaron Schulz
- Live deployment on German Wikipedia, English Wikinews, and other sites
- English Wikipedia currently examining deployment options
  - considering selective use, workflow improvements

# Abuse Filter



- In testing on [test.wikipedia.org](https://test.wikipedia.org)
- New tagging features to go up next week...
- Help bring some of the quality-control workflow back inside the site from external bots; allow more control on-wiki and more “soft security” techniques with tagging for human review
- Volunteer and contract development by Andrew Garrett, and many other hands helping

# Media picker stuff



- Get some screenshots from michael
- Easier import of video material from external sources
  - Working with Internet Archive to set up Ogg Theora transcoding, snippet grabbing via oggzchop
- Subsection selection of long video clips
- In-browser video sequencer using HTML 5 video tag and CSS effects – pure open standards, no Flash



# Theora dev grants



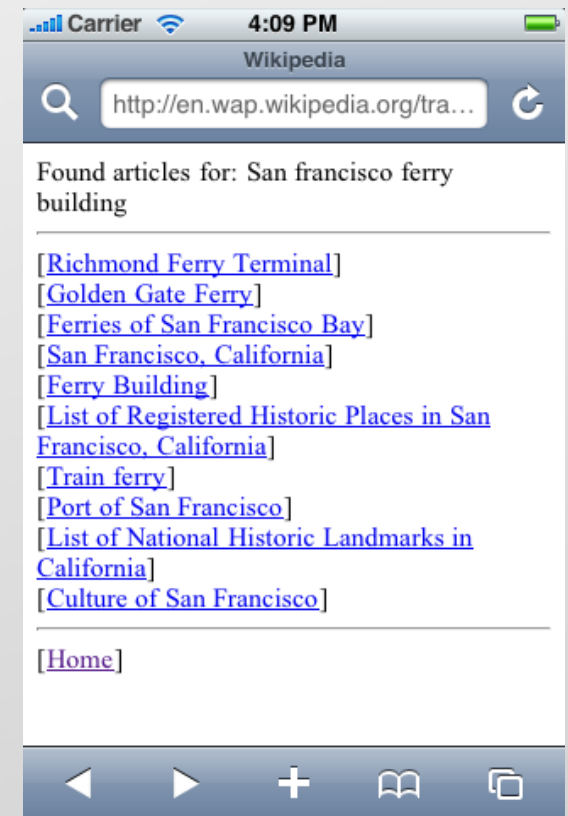
- With Mozilla
- Improving Firefox 3.1's support for ogg vorbis/theora video, yay!
- Improving advanced theora encoder
- Improving support for enhanced time-based jumping in files

# It's a mobile, mobile world



- Most common lunchtime phrase:

“If only there were some kind of web site we could look that up on”



# Mobile gateway



- We've had an experimental gateway at <http://mobile.wikipedia.org/> for a while, based on HawHaw/HawPedia code
  - Targets lowest-common denominator
  - Limited support for advanced wiki markup
- Now rolling out a new gateway targeting more capable mobile internet devices, currently serving at <http://m.wikipedia.org/>

# Mmmmm, iPhone



- Native iPhone client in the works wrapping the new gateway with a native UI
  - Android, other platforms planned to follow...
- Based on iPedia/iWik app by Hampton Catlin, now open-sourced (MIT) and under community development (github)
- #wikimedia-mobile on irc.freenode.net

# Mobile future



- We plan to make the mobile-optimized interface a default for visitors on mobile devices, while keeping the full interface available as an option
- Mobile users are currently second-class citizens, stuck in a read-only ghetto
- Provide feedback, basic editing, media upload capabilities?

# Lessons to learn



- Mozilla Dev Center transitioned from MediaWiki to Mindtouch Deki last year. What can we learn from the needs that drove them and the problems they encountered in the transition?
  - Likes and dislikes about wysiwyg-style editing
  - Problems and advantages of multilingual integration
  - Other details...

# Lines of communication



- To few, or too many?
  - Wiki
  - Bugzilla
  - Mailing lists
  - IRC
  - Unofficial forums
  - Blogs / microblogging / etc
  - Conferences
  - Direct mail/contact

# Need for clear process



- Volunteer developers or potential developers need a clear “go/no go” on whether their idea will be accepted in **any** implementation
  - In MediaWiki in general, or on Wikimedia sites specifically...
- Could we use something like Python's PEP process?
- How to handle needed features without a coder advocate?



# More organization?



- A MediaWiki dev conf is being organized in Berlin in April...
- Considering options for an event in San Francisco in the summer...
- And of course at Wikimania
- How can we get folks more involved? What needs to be fixed to make things happen?

# You!



- Don't stop bugging us if we forgot your patch so far :)
- If you're using MediaWiki and want improvements, get involved!

# Questions?



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