Wikimedia Foundation metrics & activities meeting 29 March 2018 WIKIMEDIA FOUNDATION



Theme: Wikimedia **Beyond Its** Beginnings

Agenda

- Welcome and theme introduction
- Movement update
- Wikivoyage: 5 years with Wikimedia
- Structured Data on Wikimedia Commons: GLAM research update
- VisualEditor: Past, Present & Future
- Questions and discussion
- Wikilove





Wikimedia Foundation highlights

- <u>Research on Wikipedia readers</u>. The first series of results from an analysis of 215,000 responses were released illustrating some of the reasons why people read Wikipedia.
- Auto-save edits. In case of software and connection crashes, auto-save edits has gone live. (Bugs and kinks are being addressed).
- <u>Transparency report.</u> The Legal team released the Foundation's latest Transparency Report, which covers requests received July to December 2017. The Foundation received 343 requests to alter or remove content, granted none.



Coming up in April

- <u>Wikimedia Conference 2018</u> (April 18 22), Berlin, Germany. The annual Wikimedia affiliates conference brings together representatives of movement chapters, user groups, and thematic organizations around the world.
- Wikimedia contributors and communities survey. This global survey, part of the Community Engagement Insights project, is launching this week. If you see an invitation to take the survey, please take 30 - 40 minutes to complete it. Your feedback helps Wikimedia Foundation teams offer the support that communities all over the world need to advance their work!
- <u>GLAM-Wiki 2018.</u> The conference, to be held in Tel-Aviv in November, is accepting submissions until April 30.



Wikivoyage: 5 years with Wikimedia





Wikivoyage: 5 years with Wikimedia Alexander Tsirlin

North America > United States of America > California > Bay Area > San Francisco > San Francisco/Fisherman's Wharf



GPX



WMF metrics and activities meeting, 29.03.2018



What is Wikivoyage?

Free travel guide

formerly Wikitravel, migrated in 2012

Practical aspects of travel

why to go? how to reach the destination? what to see? where to stay and eat?

Content organized into listings (POIs) geo-coded

template-based (separate fields for prices, opening hours, etc.) ==> well-structured content linked to photos

Traveler's perspective

written **by travelers and for travelers** *not* for package/cruise tourists *not* for hitchhikers and nomads *not* for long-term visitors / expats

Wikivoyage guide to San Francisco

- Maritime Museum (located in Aquatic Park at the western end of Wharf), 2 +1-415-561-7100. 10AM-4PM daily. Shaped like a ship, this served as the Maritime Museum for many years before a recent renov themed murals. Free. edit
- 19 Aquatic Park and Municipal Pier (located at the western end of now a complex for museums and artisans, and a great place to take a at the foot of the park where you'll see kayakers, kite fliers, swimmers the end of the park is Municipal Pier — the closest you can get to Alca
- 20 Ghirardelli Square 2, 900 North Point St (at the corner of Beach St info@ghirardellisq.com 2. It was officially declared a city landmark in 196! chocolate-making machinery there. Be sure to pop into the chocolate sho packed with boutiques, restaurants, specialty stores, and galleries. It also

Do [edit source][add listing]

- Pier 39 (at Beach St and the Embarcadero). Detailed information listed un section above. edit
 - Frequent Flyers Pier 39 (near the end of Pier 39), 2 +1-415-91 11AM-8PM, F-Sa 10AM-10PM. This is an exciting bungee/trampoline suitable for all ages, which allows you to experiment with the dare-dev of you. It's possible to reach heights of up to 20 feet in the air. \$10 per
 - Magowan's Infinite Mirror Maze P, Pier 39, 2 +1-415-835-0019.
 10AM. A fun house maze where you can lose yourself in infinite hallwarends, complete with psychedelic lighting. \$5, children 5 and under free

https://en.wikivoyage.org/wiki/San_Francisco/Fisherman's_Wharf



Wikimedia Statistics, January 2018

	en	de	fa	it	fr	pl	ru	nl	pt	es	zh	he	fi	vi	sv	el	ro	uk	hi
Articles (x1000)	28	16	8.5	7.3	7.1	5.8	5.1	3.7	3.6	2.5	2.5	2.0	1.8	1.6	1.5	1.3	0.9	0.8	0.1
Very active editors (>100 edits/month)	37	11	0	8	8	1	5	1	0	2	2	1	1	0	0	0	0	0	1

Number of edits per article

	en	de	fr	ru
Wikipedia	98	53	51	44
Wikivoyage	98	48	47	36

Most of the articles are about travel destinations

Limited number of destinations and limited number of articles

- Articles are regularly edited. The number of edits per article is much higher than in other sister projects and reaches the level of Wikipedia
- Only 5 out of 19 languages are visibly active

Many other languages may have 1-2 interested participants, but no active community



- 10 languages, duration: February 1-28, 2018
 Central notice (Wikipedia, Commons)
- Workflow: add new listings and update existing ones, no need to create new articles (unlike Asian Month)

Postcard for Edit-a-thon participants, WV-ru



Спасибо за участие в конкурсе!

Ч Викигид 2018



https://meta.wikimedia.org/wiki/CentralNotice/Request/2018_Wikivoyage_month

Motivation: mostly interest, 2 languages offered prizes
 ru: postcards to all + 1 printed travel guide
 uk: 1 weekend trip within Ukraine

Results:

increased number of edits and editors (x 1.5-2.0) larger language versions draw bigger audience, and enjoy a *much* higher editor retention

How to target active travelers???

Photo by Алексей Задонский (СС-ВҮ-4.0)



Why Wikivoyage?

Competitors: commercial ("printed") travel guides, review sites (TripAdvisor, etc.), travel blogs We have to fight for readers and editors...

What's good about Wikivoyage?

- **Swiftness:** information is updated within days/hours
- Coverage: Wikivoyage presents more travel destinations than any single source in the same language

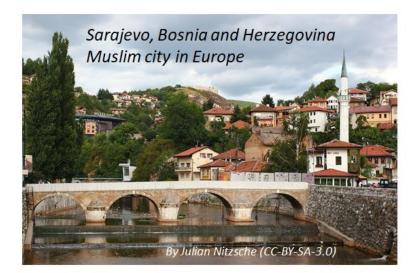
No space restrictions ample illustrations, off-the-beaten-path destinations

Direct links to encyclopedic content

Wikipedia articles cultural heritage lists (Wiki Loves Monuments)

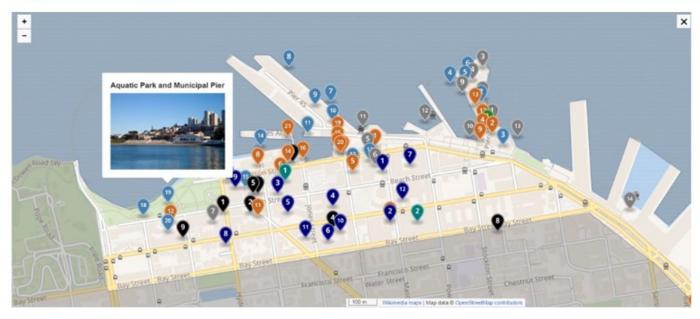
What needs to be improved?

Interactive maps (partly done, but still a lot to do...) Integration with Wikidata, Mobile app, and more...



Olympic Stadium (Željezničar Football Club), Olimpijski quality is low, it is interesting to follow a match in a stadium peacefully just a few years before war broke out **W III** upd

Technical challenges: Maps



Wikivoyage listings in San Francisco displayed on a map using Extension:Kartographer

Each Wikivoyage article is supplied with a map

Photos can be viewed by clicking on map markers

- 2013, poimap script by User:Mey2008 (WV-de): geo-data obtained by parsing article text
- 2015, Kartographer (Yuri Astrakhan acted as community liaison) open problems – map language, customization of map layers, public transport and lots of "minor" issues as well!

Technical challenges: Listing Editor and Wikidata

Bearbeitung ein	er vorhanden vCard	fields rea	ad from Wikidat	a
Name	Krabi Seabass Hotel	Тур 💷	Hotel	*
Alternative	Auch bekannt als	Typ-Gruppe	 (nur won) 	n nötig)
Kommontar	Hirweis zur Bezeichnung	Wikidata	Krabi Seabass Hotel	Q50413529 lbschen
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Telefon	+68-75-620026	+66 Checkin	Checkin-Zeit	
Gebührenfrei	Beispiel: +49 800 100-1000	+66 Checkout	Checkout-Zeit	
Handy	Beispiel: +55 123 555-555	+66 Preis	Eintritts- oder Dienstleistungspreis	THBBJESE¥₩
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Beschreibung (À Ô Ũ a o o 6.)	Neues Hotel noerdlich des Stadtzentrums mit Pool und gutem Preis-Leis	anga vennoe a sa		
Status	Diesen Eintrag löschen? Letzte Aktualisierung 2018-03-12	Diesen Eintrag als aktuell ma	rkieren?	

Listing Editor Visual tool for editing individual parameters of a listing

First version User:Torty3 (WV-en)

Wikidata support User:Wrh2 (WV-en) Roland Unger (WV-de)

Information like prices and opening hours could be stored in Wikidata and shared between languages

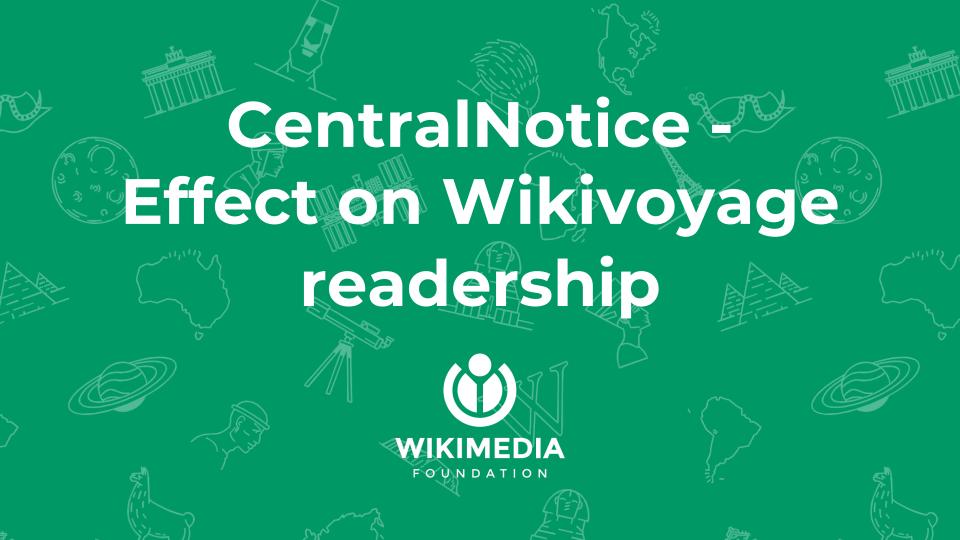
Problems: simple interface for editing Wikidata from Wikivoyage is needed tracking Wikivoyage-related changes on Wikidata via the watchlist (how?) integration with OpenStreetMap? (similar information is available there)



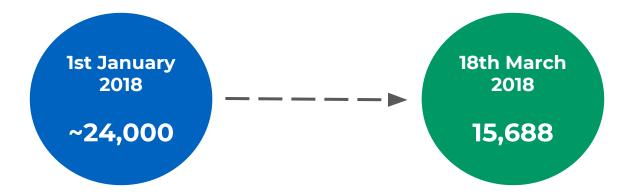
- Mobile app: as travelers, we dream of downloading map + travel guide in a smartphone nobody has such a solution, especially world-wide; this could easily rival printed travel guides and spur the usage of Wikivoyage
- Interaction with Wikimedia chapters: many of them do not appreciate the existence of Wikivoyage, so it is fairly difficult to get financial support for edit-a-thons, contests, souvenirs, etc.

- Content: Wikivoyage accumulates travel-related content and covers practical, non-encyclopedic aspects of travel that do not find their place in Wikipedia
- Readership needs to be expanded; currently, only 5 languages have active and growing communities
- Technical developments are essential and can be of interest for all Wikimedians *Previous:* Extension:WikidataPageBanner, Extension:Kartographer *Current:* Listing Editor integrated with Wikidata

Thanks to: Maxim (User:GMM), Igor Dorofeev (Digr), Yaroslav Blanter (Ymblanter), and all Wikivoyagers

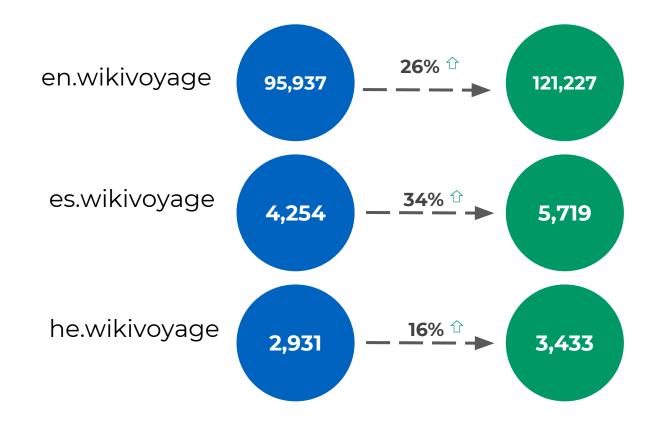


Alexa Rank - Increase



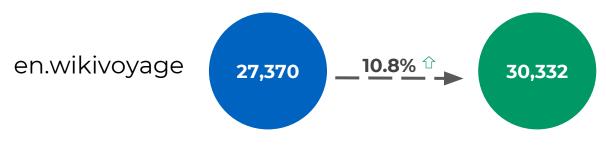
Source: https://www.alexa.com/siteinfo/wikivoyage.org

Daily PageViews - Post Campaign Increase

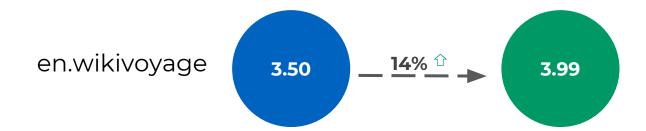


Source: https://stats.wikimedia.org/v2/#/en.wikivoyage.org/reading/total-pageviews





Reader Site Engagement - Pageviews / Unique Devices

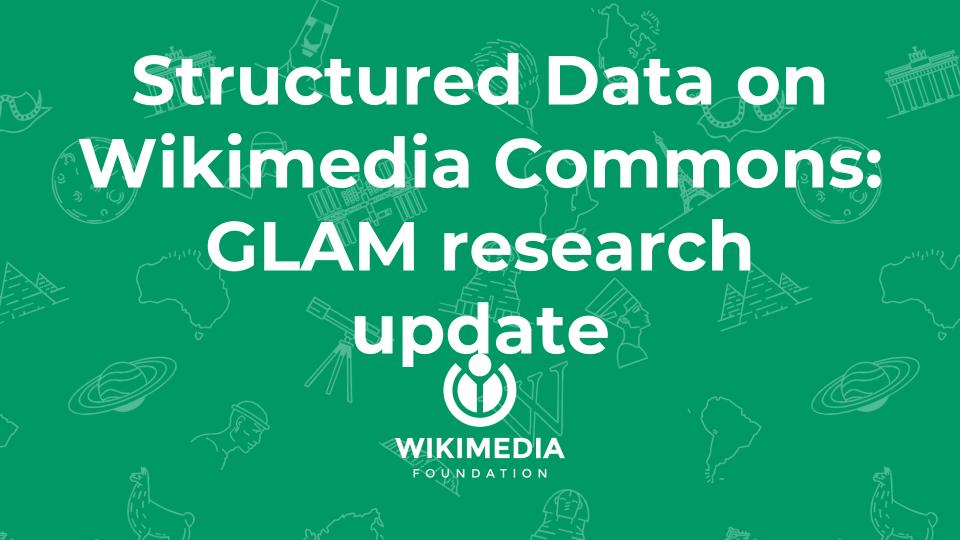


Source: https://stats.wikimedia.org/v2/#/en.wikivoyage.org/reading/total-pageviews

Next Steps

- Many questions:
 - Persistent? Cumulative? Lapsed readers? Ceiling effect?
- Re-run with a more focused controlled experiment
 - Focus on reader engagement
 - Reproducibility 2 cohorts. 2 experiments.
 - Other projects? Bringing smaller projects into the mainstream.





Make Commons more used by making it machine readable

Make media and metadata easier to **upload, edit, find,** and **reuse**



5 outcomes

(and one corollary outcome)

- 1. Make editing metadata easier (and enable multilingual statements)
- 2. Make search more effective
- 3. Satisfy GLAM use case
- 4. Allow license compliant reuse
- 5. Support tool development



Research

- Focus group @ 2017 European GLAMwiki coordinators meeting
- Interviews w/ GLAMers from 5 continents
- Survey through GLAM monthly newsletter

meta:Research:GLAM and Commons



Wikimedian in Residence

Sammy



Tech skills: Intermediate Wikimedian: No People involved: Sammy, GLAM Lawyer (for licensing) Type of media: Historical books and pictures Location: Canada

Problems

S

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<u>م</u>

Limited knowledge of different templates and template syntax

Needs to manually correct errors after batch uploads

How to show impact of uploads?

"I don't understand Commons well and have a hard time optimizing my uploads."

Rights arrangements	+	Media selection	+	Metadata fields mapping	+	Source metadata cleanup	+	Metadata adjustments (Wikimedia side)	•	Metadata values matching (reconciliation)	+	Check for potential duplicates	+	Data ur
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At the same time, we mapped out the typical **workflows** for GLAM uploads on Commons



And translated the research findings into tasks for the project teams

 Preparing for upload. The setup process can be complex, especially for large batches with complex metadata. Tools generally required metadata in a specific format, which often differed significantly from the way the metadata was represented in the institution's repository, requiring significant (manual or programmatic) data-munging. Beyond limitations particular to upload tools themselves, challenges related to mapping existing metadata to the current metadata structures on Commons (templates and categories) is discussed under "Preparing Media Items for Upload" and "Preserving Important Metadata about Media Items".

https://meta.wikimedia.org/wiki/Research:Supporting Commons contribution by GLAM institutions/Prese rving_important_metadata_about_media items

#	Gap or pain point for a GLAM contributor to Commons	Place in workflow	Ŧ	Research link (where is this mentioned in GLAM on Commons research?)	Category	Ŧ	Product or = Outreach?	Project Priority (5=high)	Point 	In Structured Data on Commons scope? $ arr$	SDC fix (if in scope) $=$
16	Preparing GLAM metadata for a batch Commons upload is complex and requires advanced data wrangling to "If the source data into the specific formats required by upload tools	data upload	*	2.1 Functionality and usability # Limitations of current upload tools	Technology		Both	4	Amanda (to find Product solution)	In Scope (Partially)	Chology mapping of GLAM metadata standards (GLAM team), improvements to processes and interfaces; anticipate metadata mapping needs (in APIs etc) so that volunteersfunded affiliates can more easily build "mappable" upload software. Product team can perhaps guide this process, but developing this cursetives is out of SDC scope

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🔥 Maniphest > T190	675		Create Task
standards/sch	emas and Structured Data o	ng around mapping between GLAM metadata on Commons	
Open, Normal	O Public		

In April-June 2018 (Q4 of fiscal year 2017-18), we start with the first community conversations around how to map GLAM metadata standards/schemas to structured data on Wikimedia Commons.

By the end of this quarter, we have a good idea about the Wikimedia community's and GLAM partners' interest in working on this topic, and we have a plan in place on what to work on during the next guarters.

1	Edit lask	

- .t. Edit Related Tasks...
- % Edit Related Objects...
- Derotect as security issue
- Automatically Subscribed
- Mute Notifications
- Award Token
- Flag For Later

Related Object	s		Q Search 🔻	Tags
Task Graph				🕈 Wiki
Status	Assigned	Task		🖨 Struc
🛛 🕴 😶 Open	SandraF_WMF	T189500 [Story] Encourage and	document map	GLA
• Open	SandraF_WMF	T190675 Initiate conversations	and start planni	Subscrib
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	7			🔝 Sar

🕈 Wikida	ta	(incoming)	
Structu	urec	I-Data-Commons	(Backlog)
GLAM	(G	LAM - Backlog (ur	ncategorized)

andraF_WMF



#	Gap or pain point for a GLAM contributor to Commons	Category =	Product or ╤ Outreach?	Project Priority = (5=high)	Point Person	In Structured Data = on Commons scope?	SDC fix (if in scope) 👳
1	Many GLAM metadata standards (vocabularies and ontologies) are not properly mapped on Wikidata yet	Social processes/Tech nology	Outreach	3	Sandra / Alex / CL (Developer relations)	In scope	Stimulate ontology mapping; inform tool builders about the usage of the mappings and how to do that
2	End-user documentation of monitoring tools is inadequate.	Documentation	Outreach, depending on Product	3	Sandra / Alex, dependance on Ramsey	In scope	Provide both better API / re-use data + we can probably build also some kind of reporting tools. Document those.
3	Some GLAM contributors to Commons experience unexpected file deletions, even when they believe they are following proper procedures	Social processes (copyright)	Both	2	(Ramsey)	Notifiying users that OTRS exists = in scope. Facilitating the process of deletion and notification of deletion = out of scope.	Notify people that OTRS exists. Potentially in UploadWizard; deletion notifications
4	External reuse of Commons doesn't actually maintain connection between original files, attribution, and institutional metadata	Technology	Product	5	Ramsey	In scope	IIIF integration will address this.

Research findings breakdown, in large spreadsheet of 49 pain points around GLAM contributions to Commons (the 'List of Pain')



Example 1: GLAMs and Wikimedians need good documentation

→ <u>Embark on GLAM pilot projects</u>, starting April 2018

- to be well documented

<u>Second 'Fram' expedition</u>, 1899, National Library of Norway, from Flickr the Commons (no known copyright restrictions)

Map of the bay, city and fortifications of Colombo, ca. 1655, Koninklijke Bibliotheek, Public Domain

Example 2: **Data wrangling before uploads is hard!** → Work on <u>mapping GLAM metadata schemes</u> to Wikidata and Commons

Commons:Structured data

Newsletter

<u>Reliéf Bretschneidrovo ucho</u>, photo by Jarda 75, Public Domain



"I look back with bemusement to the days when I created references from scratch..."





Trevor Parscal Lead Designer and Engineer Wikimedia



Roan Kattouw Data Model Engineer Wikimedia



Rob Moen User Interface Engineer Wikimedia



Gabriel Wicke Lead Parser Engineer Wikimedia



Inez Korczynski Edit Surface Engineer



Christian Williams Edit Surface Engineer Wikia

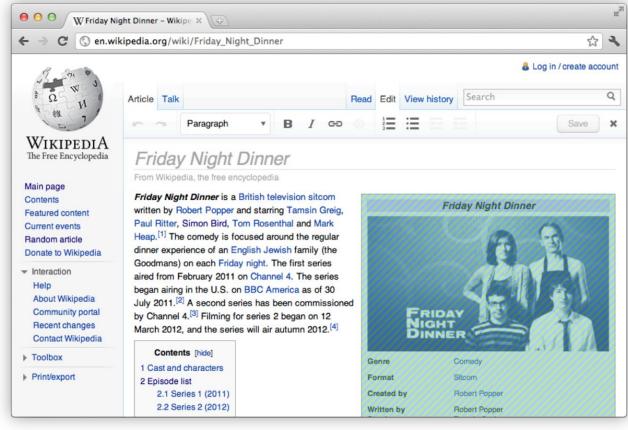


James Forrester Product Analyst Wikimedia



Subbu Sastry Parser Engineer Wikimedia









Hauptseite Themenportale Von A bis Z Zufälliger Artikel

Mitmachen

Artikel verbessem Neuen Artikel anlegen Autorenportal Hilfe Letzte Änderungen Kontakt Spenden

Werkzeuge

Links auf diese Seite Änderungen an verlinkten Seiten Benutzerbeiträge

Benutzer:Gnom/VisualEditor Appreciation Society

Lesen

Bearbeiten Quelltext bearbeiten Versionsgeschichte

< Benutzer:Gnom

Diskussion

Benutzerseite

Die **VisualEditor Appreciation Society** ist eine lose Gruppe von Wikipedianern, die sich für die Verbreitung des VisualEditor in der deutschsprachigen Wikipedia einsetzen. Die Idee ist, den VisualEditor als voreingestellte Bearbeitungsoberfläche für nicht eingeloggte und neu angemeldete Benutzer einzuführen. Wir glauben, dass unsere Community auf diese Weise viele engagierte und fähige Autoren dazu gewinnen kann, die bisher vor den technischen Hürden des Bearbeitens zurückschreckten.



Q

Nicht angemeldet Diskussionsseite Beiträge Benutzerkonto erstellen Anmelden

Wikipedia durchsuchen

Dabei ist uns bewusst, dass der bisherige Wikitext-Editor für viele Benutzer ein lieb gewonnenes Werkzeug und für manche Aufgaben nach wie vor unverzichtbar ist. Es sollte daher weiterhin möglich sein, auf Wunsch entweder ausschließlich den Wikitext-Editor zu verwenden oder nach Belieben hin und her zu wechseln.

Nicht eingeloggte Benutzer haben über eine Schaltfläche bereits jetzt die Möglichkeit, zum VisualEditor zu wechseln. Wir möchten jedoch, dass der VisualEditor hier zum Standardwerkzeug wird.

Der VisualEditor wurde 2013 in der deutschsprachigen Wikipedia eingeführt, jedoch nach einer Umfrage, die viele Mängel aufzeigte, zur Beta-Funktion. Seitdem hat ein Entwicklerteam der Wikipedia Entwicklerteam der Einsteinen Einstei

Sete Deuxeron Lese Beschein Gutter bescheine Veruongeschone Lehannen Claubero Aktuell in den Benutzereinstellungen wählbar: Die Aktionsleiste mit zwei wählbaren Editoren.

Contra Andronogen werden wingstangt sakkeld ein geschlich sorden, halfog De transmitt dass blev werdgenstell. Hore is dass Androng spectral, wird sow placket Publissen als de sondargenstell. Hore is dass Androng spectral, wird sow werden wird bestellt and als and als and all dass de dass de sond werden van de sondargenstellen werden als dasses Typesteren har tilde same besterenden als. Dette states ein seiner bijerenaen.





user page discussion

Read To edit Edit source code

de history Wik

Wikipedia durchsuchen

Not logged in talk page posts create Account Log In

Q

User: Gnome / VisualEditor Appreciation Society

< User: Gnome

The **VisualEditor Appreciation Society** is a loose group of Wikipedians who work for the distribution of the VisualEditor in the German-speaking Wikipedia. The idea is to introduce the VisualEditor as the default editing interface for users who are not logged in and newly logged in. We believe that in this way, our community can attract many dedicated and capable writers who have previously shied away from the technical hurdles of editing.

We are aware that the old wikitext editor is a beloved tool for many users and indispensable for some tasks. It should therefore still be possible to use either exclusively the Wikitext editor or switch back and forth at will.

Non-logged-in users already have the option to switch to the VisualEditor via a button. However, we want VisualEditor to become the standard tool here.

The VisualEditor was introduced in 2013 in the German-language Wikipedia, but after a survey that showed many shortcomings, the beta function. Since then, a Wikimedia Foundation development team has fixed many bugs and introduced new features. In the meantime, the VisualEditor seems to be suitable for large-scale use. Small opinions & in social media showed support for this view.





Tools

Help

Home

Theme portals

From A to Z Random article

Participate

Improve articles

Author portal

last changes

Contact

donate

Create a new article

Links to this page Changes to linked pages user contributions

Language	Edits	Articles
English	828,665,889	5,599,590
German	174,640,966	2,167,518
French	146,496,186	1,969,341
Spanish	106,193,128	1,399,549
Italian	95,503,373	1,427,081
Russian	91,475,282	1,462,728
Japanese	67,768,737	1,100,798
Polish	52,856,723	1,272,176
Portuguese	51,473,349	996,104
Dutch	51,224,983	1,927,165
Chinese	48,600,028	5,345,644
Swedish	42,577,855	7,651,415
Serbo-Croatian	40,792,316	4,592,858
Vietnamese	38,429,756	13,050,443
Arabic	27,897,257	3,469,196
Hebrew	22,674,916	924,212
Persian	22,496,063	3,933,343
Ukrainian	22,258,281	2,349,885
Cebuano	21,719,684	8,964,171
Korean	20,937,990	1,603,909



تم تقدير عينة فك سفلي كبيرة بشكل خاص من الـ(''D. riograndensis'') أنها جاءت من فرد بلغ طوله حوالي {{حول/5.[tom|ft|abbr=on]}}، هذا الطول تم استخدامه بالتزامن مع معادلة الانحدار باقتران طول الجمجمة مع الطول الكلبي [[قاطور أمريكي|للقاطور الأمريكي]] لتقدير الطول الكلبي للـ {حول|m|ft|10.6}} لهذه العينة الخاصة.<ref name=Farlowetal2005>{{cite journal|العنوان=ref name=Farlowetal2005}} dimensions and body size of Alligator mississippiensis: estimating the size of extinct volume=25|issue=2|2005=السنة|mesoeucrocodylians|journal=Journal of Vertebrate Paleontology http://www.tandfonline.com/doi/abs/10.1671/0272-= المسار Farlow | doi=10.1671/0272 - المؤلف - 4634%282005%29025%5B0354%3AFDABS0%5D2.0.C0%3B2#.UpPCEDN3vIU ref/>{{369-354=الصفحات=4634(2005)025[0354:FDABS0]2.0.C0;2|display-authors=etal وهذا ليس سوى أقل قليلًا من التقديرات السابقة لهذه الأنواع، غالبًا ما كان يوصف الدينوسوكس بأنه أكبر [[تمساحيات الشكل]] في كل العصور، ولكن بعض [[أشباه التمساحيات]] الأخرى مثل ال[[بيوروصور|ييوروصور]] وال[[رامفوسوكس]] وال[[ساركوسوكس]] ريما تساوت معه أو تجاوزته في الحجم.<-ref name="brochu



"Nah. Nah. I haven't a clue how to do that. Toolbox? Templates? <scrolls through templates used> Oh look at all that! I don't wanna know about that.

No. I can't do it."

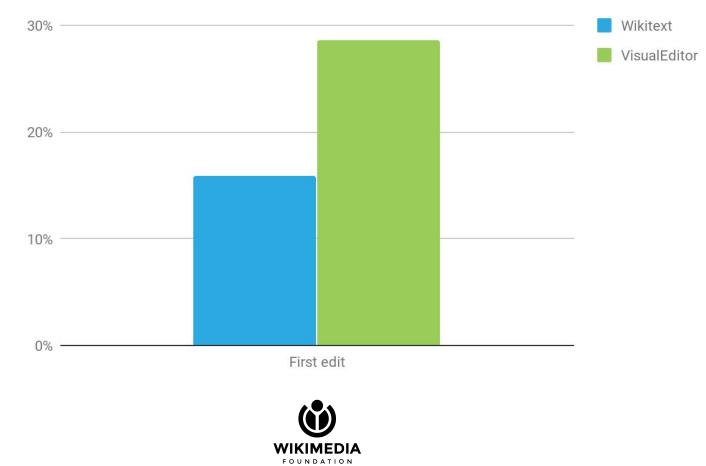
...



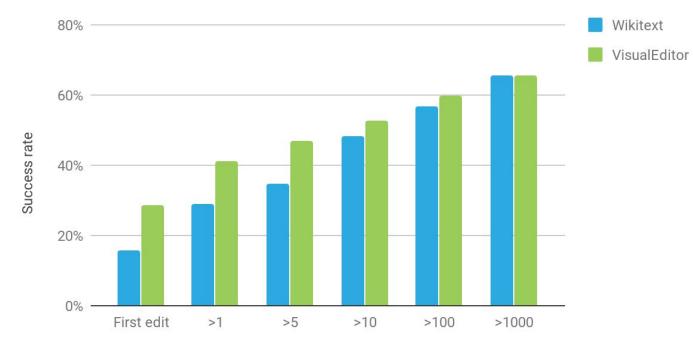
"It's hard to read ... there's all these brackets, and the reference website is here ... just look at it, you've no idea what this is!"



First edit success rate



VisualEditor vs Wikitext success rate



Previous edits



" I find that VE has cut my Editathon training time in half: you don't have to explain, and reinforce the skills of adding things like references or bolding."

"As a volunteer in Ecuador, I only recommend using VE to the newbies that attend our events. It's just inconceivable to me to even try to train people to learn code in 2018."

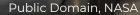
"In each workshop that I have given lately, there has been at least one participant who has picked up Wikipedia editing with VE without needing much feedback at all, producing a very polished new or improved article in a very short period of time. VE has become really intuitive and smooth for that."

"In the last few years, I've always recommended new editors to immediately turn on the VE in their preferences"



Technology & research

FOUNDATION



Search Wikipedia

Read

Edit View history

Q



Article Talk

WIKIPEDIA The Free Encyclopedia

Main page Contents Featured content Current events Random article Donate to Wikipedia Wikipedia store

Interaction

Help About Wikipedia Community portal Recent changes Contact page

Tools

What links here Related changes Upload file Special pages Permanent lin

NASA spinoff technologies

From Wikipedia, the free encyclopedia

NASA spinoff technologies are commercial products and services which have been developed with the help of NASA, through research and development contracts, such as Small Business Innovation Research (SBIR) or STTR awards, licensing of NASA patents, use of NASA facilities, technical assistance from NASA personnel, or data from NASA research. Information on new NASA technology that may be useful to industry is available in periodical and website form in "NASA Tech Briefs", while successful examples of commercialization are reported annually in the NASA publication "Spinoffs".

In 1979, notable science fiction author Robert A. Heinlein helped bring awareness to the spinoffs when he was asked to appear before Congress after recovering from one of the earliest known vascular bypass operations to correct a blocked artery; in his testimony, reprinted in the book *Expanded Universe*, he claimed that four NASA spinoff technologies made the surgery possible, and it was a few from a long list of NASA spinoff technologies from space development.^[1]

For more than 50 years, the NASA Technology Transfer Program^[2] has connected NASA resources to private industry, referring to the commercial products as spinoffs. Well-known products that NASA claims as spinoffs include memory foam (originally named temper foam), freeze-dried food, firefighting equipment, emergency "space blankets", DustBusters, cochlear implants, LZR Racer swimsuits, and CMOS image sensors. As of 2016, NASA claims that there are nearly 2,000 other spinoffs in the fields of computer technology, environment and agriculture, health and medicine, public safety, transportation, recreation, and industrial productivity. Contrary to common belief, NASA did not invent Tang, Velcro or Teflon.^[3]



This article is part of a series on the

Contrary to common belief, NASA did not invent Tang, Velcro or Teflon.^[3]



Health and medicine

3D food printing Infrared ear thermometers Ventricular assist device Artificial limbs Light-emitting diodes in medical therapies Invisible braces Scratch-resistant lenses Space blanket Transportation Aircraft anti-icing systems Highway safety Improved radial tires

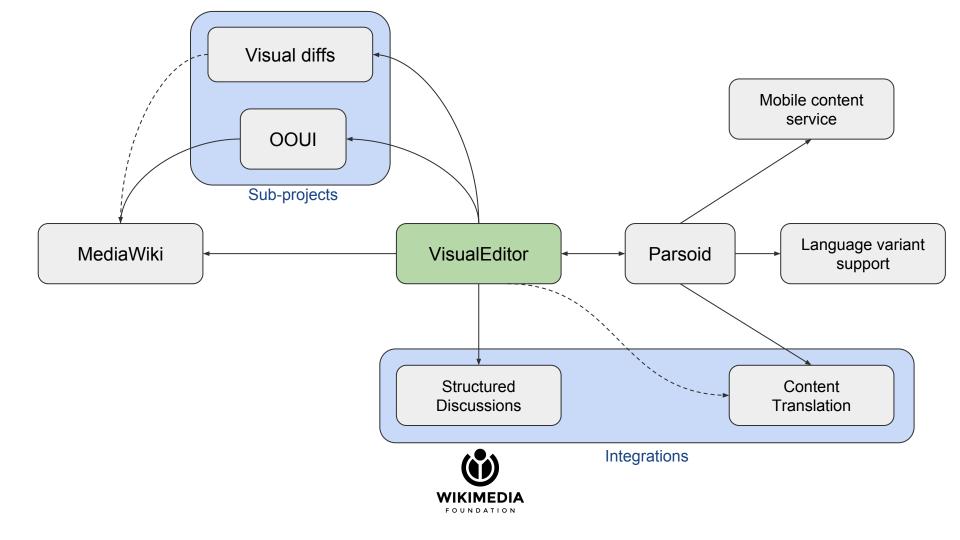
Chemical detection

Public safety Video enhancing and analysis systems Landmine Removal Fire-resistant reinforcement Firefighting equipment Consumer, home, and recreation Temper foam Enriched baby food Portable cordless vacuums Freeze drying Space age swimsuit Digital image sensor

Environmental and agricultural resources

Water purification Solar Cells Pollution remediation Correcting for GPS signal errors Water location Computer technology Structural analysis software Remotely controlled ovens NASA Visualization Explorer OpenStack Software catalog Industrial productivity Powdered lubricants Improved mine safety Food safety





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The stadium is connected to two London Underground stations: <u>wemple</u> services) and <u>Wembley</u> Stadium railway station (<u>Chiltern</u> Railways servic

Stations near by: × Service Station Lines ⊖ Jubilee line Wembley Park & Metropolitan line > London Underground + Bakerloo line London Overground + Watford DC Line Wembley Central & Southern Railways London Midland National Rail * Wembley Stadium Chiltern Railways Table Delete Properties EE Merge cells Unmerge

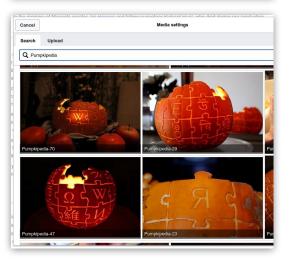
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£87.9 million in 1997 because of Old Trafford's expansion.^[21] uring houses.^[22] It later became problematic once the East Stand of the st rsenal then investigated the possibility of relocating to Wembley Stadium er, claiming it harmed England's bid^[16] for the 2006 FIFA World Cup, whic for ermi Add a citation Cancel 998-Automatic Manual Re-use URL, DOI, ISBN or PMC/PMID http://news.bbc.co.uk/1/hi/sport/football/64881.s Generate a new-build 60,000 seater stadium in November 2000.^{[24][32]} This included

a new-build 60,000 seater stadium in November 2000, Philod This included me, Arsenal intended to create 1,800 new jobs for the community and 2,30 m matchday crowds.^[22]

dents and businesses, was set up in January 2000 as a body against the r the area, but in its detail the plan is awful. We blame the council; the foot c, adding "that is a consequence which most Arsenal fans would never se



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California Screamin' is a wood-mimicking steel roller coaster located at Dishey California Adventure in Anabeim, Carmia. Opened on February 8, 2001, California Screamin' is one of

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Editing The Muppet Christmas Carol

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The Muppet Christmas Carol is a 1992 American musical fantasy comedy-drama film and an adaptation of Charles Dickens's 1843 novel A Christmas Carol. It is the fourth in a series of live-action musical films featuring The Muppets, with Michael Caine starring as Ebenezer Scrooge. Although it is a comedic film with contemporary songs, The Muppet

Christmas Carol otherwise follows Dickens's original story closely.^[2] The fi Henson for Jim Henson Productions and released by Walt Disney Pictures.

The Muppet Christmas Carol was dedicated to the memory of <u>Muppets</u> cre Richard Hunt, who died during <u>pre</u>-production.

Plot

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The Muppet Christmas Carol [edit | edit source]

From Wikipedia, the free encyclopedia

''''The Muppet Christmas Carol'''' is a 1992 American [[Musical film|musical]] [[Fantasy film|fantasy]] [[comedy-drama]]
film and an [[Film adaptation|adaptation]] of [[Charles Dickens]]'s 1843 novel ''[[A Christmas Carol]]''. It is the fourth
in a series of live-action musical films featuring [[The Muppets]], with [[Michael Caine]] starring as [[Ebenezer
Scrooge]]. Although it is a comedic film with contemporary songs, 'The Muppet Christmas Carol'' otherwise follows
Dickens's original story closely.<ref>{[cite news | title= The Muppets Take On Dickens' 'Carol' |work=[[Los Angeles Times]]
|date=1996-03-10 |wrl= http://articles.latimes.com/1996-03-10/news/ty-45104_1_muppets-tonight|accessdate=2010-1018]first=Susan[Last=King]}

''The Muppet Christmas Carol'' was dedicated to the memory of Muppets creator [[<u>Jim Henson</u>]] and fellow puppeteer [[<u>Richard</u> <u>Hunt (puppeteer)</u>|Richard Hunt]], who died during pre-production.



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One new edit by WayneMilk

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274301 Wikipedia

274301 Wikipedia (provisional designations: 2008 QH_{3et} 2007 FK_{3et} 1997 RO₂) is a main belt asteroid. It was discovered by the Andrushivka Astronomical Observatory in August 2008. The asteroid was named after the online encyclopedia Wikipedia in January 2013.

Discovery

The asteroid was discovered by astronomers from the Andrushivka Astronomical Observatory (A50) in Ukraine.

It was also observed on the next night and it received provisional designation 2008 QH24 | < Carl

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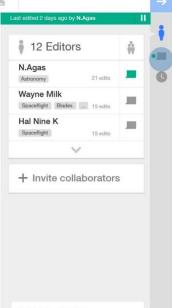
74301 Wikipedia

Ya301 Wikipedia (provisional designations: 2008 QH₂₄, 2007 FK₃₄, 1997
 Q) is a main belt asteroid. It was discovered by the Andrushivka Astromical Observatory in August 2008. The asteroid was named after the line encyclopedia Wikipedia in January 2013.

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Quick conversation



Summary

- We've come a long way
- VE is now the primary editor for many
- Working really well for new users
- An extensible platform for the future
- Tech benefits across MediaWiki
- Plenty still to do!



Questions and discussion



Submit your ideas!

Meta: Wikimedia Foundation metrics and activities meetings/Future meetings

