# Wiki Loves…

## …in Numbers

Digging into the story of Wiki Loves photo competitions

Lodewijk Gelauff
Wikimania 2023
Singapore, 18 August 2023

Photo: Sheikh Lotfollah Mosque (WLM Iran) by Ara9979

# Overview

- Background: Wiki Loves
- Banners
- Images
- Image views
- Participants
  - New contributors
  - Retention

Photo: Banded demoiselle (WLE Germany) by Sven Damerow

# Wiki Loves …

**Wiki Loves Art**

First in the US, the in the Netherlands

**Wiki Loves Monuments Europe**

18 countries in Europe participating.
Guinness World Record!

**Wiki Loves Earth Ukraine**

Wiki Loves Earth first spinoff

2010

2012

2014

2009

**Wiki Loves Monuments NL**

September: First edition in the Netherlands

2011

**WLM world wide**

2013

**More spinning off**

Wiki Loves Earth expands worldwide
Wiki Loves Africa first edition

Photo: Hospital Life (WLAf) by Ewien van Bergeijk - Kwant

# Big Picture

2009: Wiki Loves Art

2010: Wiki Loves Monuments NL

2011: WLM Europe, increasing from there

2013: Wiki Loves Earth. First Ukraine, quickly a complementary success!

2014: Wiki Loves Africa: continent wide, differen themes each time


The name is used much more widely. We focus here on these three competitions for simlicity because they have so much in common.

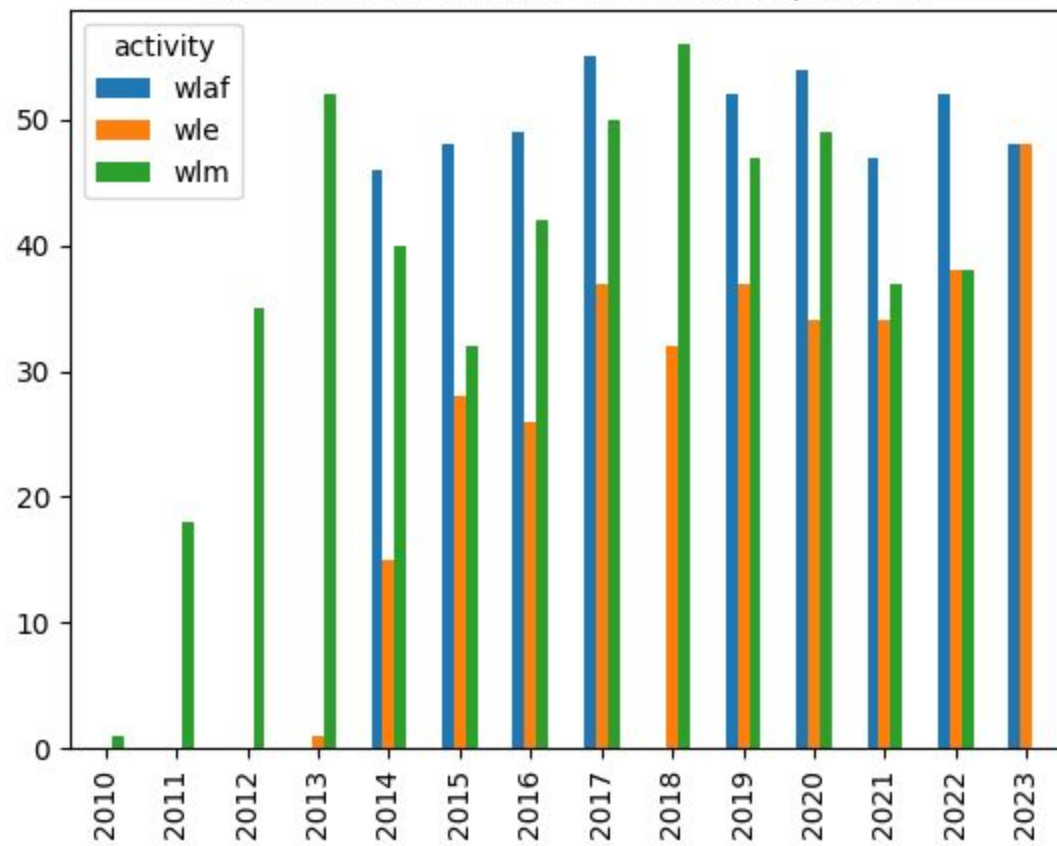Photo: … by …

Countries

WIKI loves monuments

2010–2022

Countries

2013–2023

wiki loves EARTH

Photo: WLE map by Cirdan, Yiyi, Effeietsanders, Jean-Fred, Ash_Crow

Wiki Loves ... Number of Countries per Year

# Goals

From surveys and conversations, we know goals range widely. As WLM international team, we identified these goals:

- Images: quantity
- Images: quality
- New contributors
- Organizational capacity building
- Improvement of heritage data

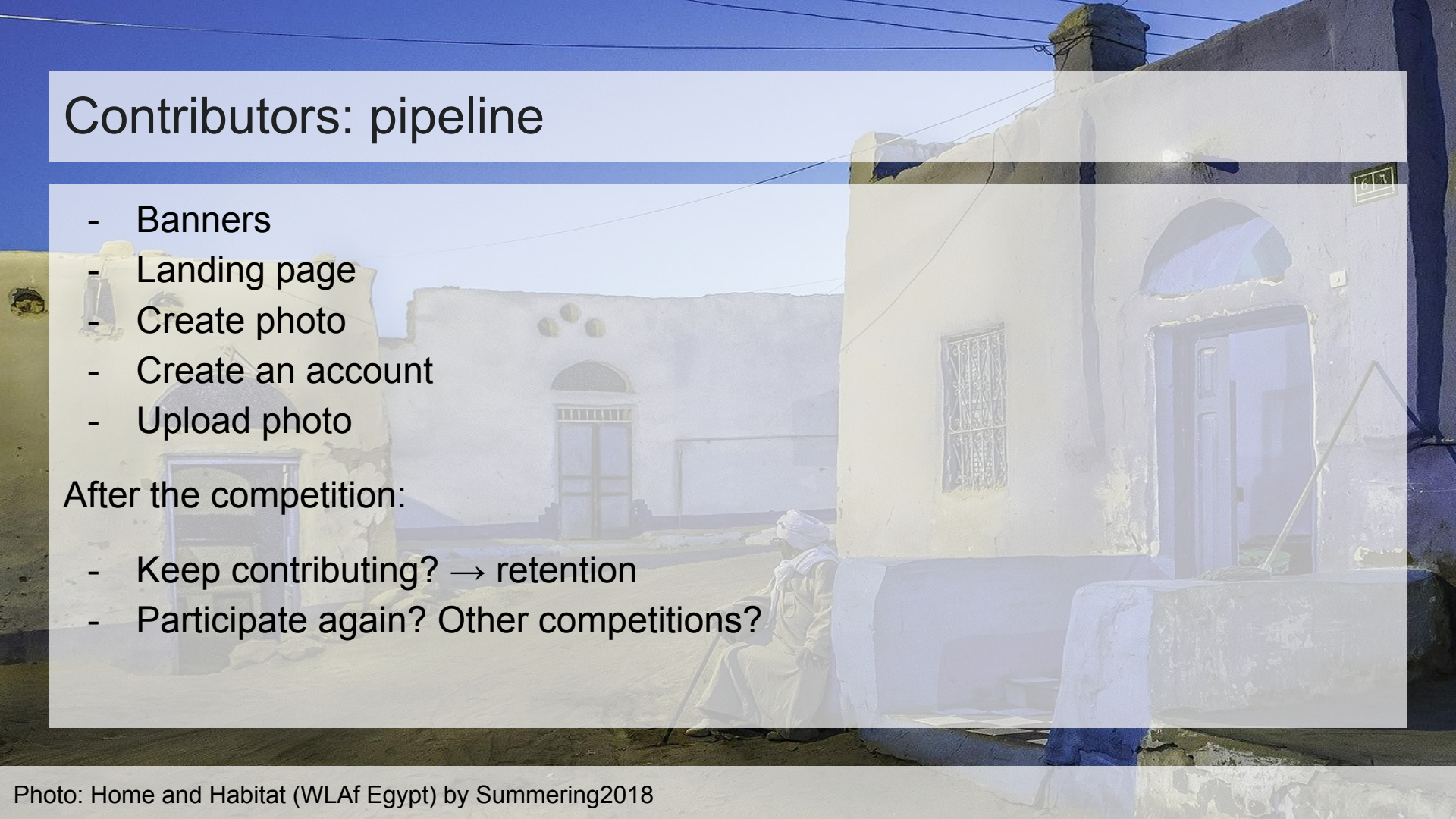Photo: Chiajna Monastery (WLM Romania) by Mihai Petre
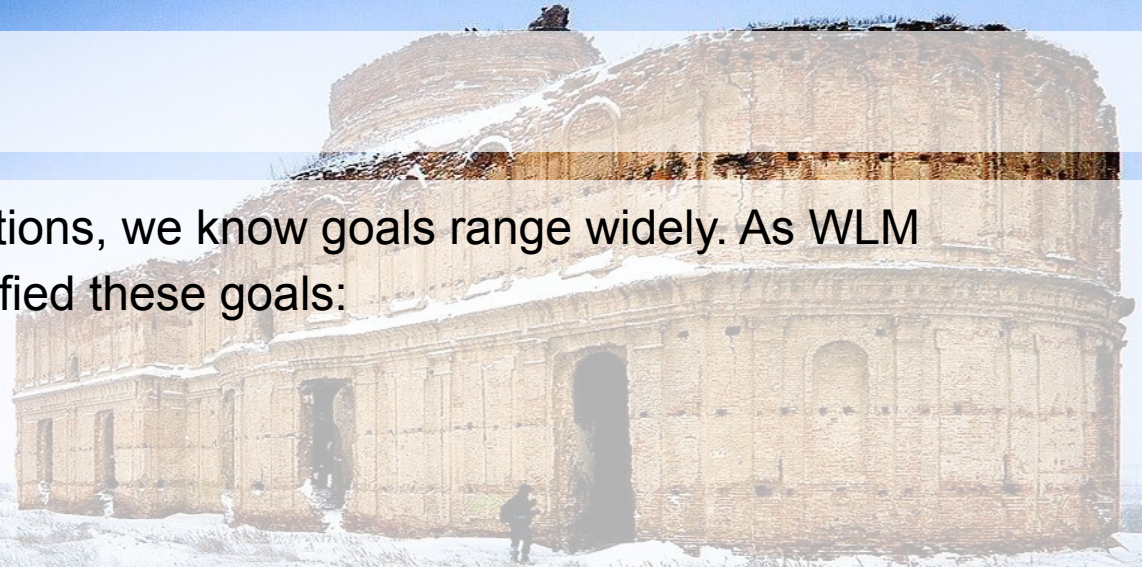
# Contributors: pipeline

- Banners
- Landing page
- Create photo
- Create an account
- Upload photo

After the competition:

- Keep contributing? → retention
- Participate again? Other competitions?

Photo: Home and Habitat (WLAf Egypt) by Summering2018

Banners

Photo: Arianta arbustorum (WLE Russia) by Мария Обидина

# Initial participation: banners

Research project based on data collected for September/October 2021

- Lots of caveats, see meta
- We did learn a few things!

# Banner findings

I promised some numbers:

- 0.2 - 0.8% click on the banner
- Less than 1% continues from landing page to upload page
    - Big range between countries! 0.08% - 1.7%

About the pipeline:

- If a reader visits a WLM landing page, they are > 25x more likely to visit account creation page
- If a reader visits a WLM landing page, they are > 100x more likely to visit upload page
- If an account creation page visitor visits also WLM landing page, they are around 10x more likely to visit upoad page

Photo: Another busy afternoon (WLAf Kenya) by Zuraj studio

# Banner findings

How many banners do we need?

- About half the visitors to WLM landing page saw more than 3 WLM banners in the 24h window. 24% had seen 10 or more banners.
- US introduced 'diet' in the middle of campaign: accidental experiment.
    - Significant drop in landing page visitors
    - Still see ~15% visitors that saw 10+ banners.
    - Not a clean experiment → Need properly designed experiment

# Banner findings: what did we learn?

- Every step of the pipeline we lose a lot of people
- Landing page design matters - a lot!
- WLM draws in people at higher rates than natural recruitment
- Showing banners multiple times does make a difference.
- Introducing a diet is probably not helpful for recruitment
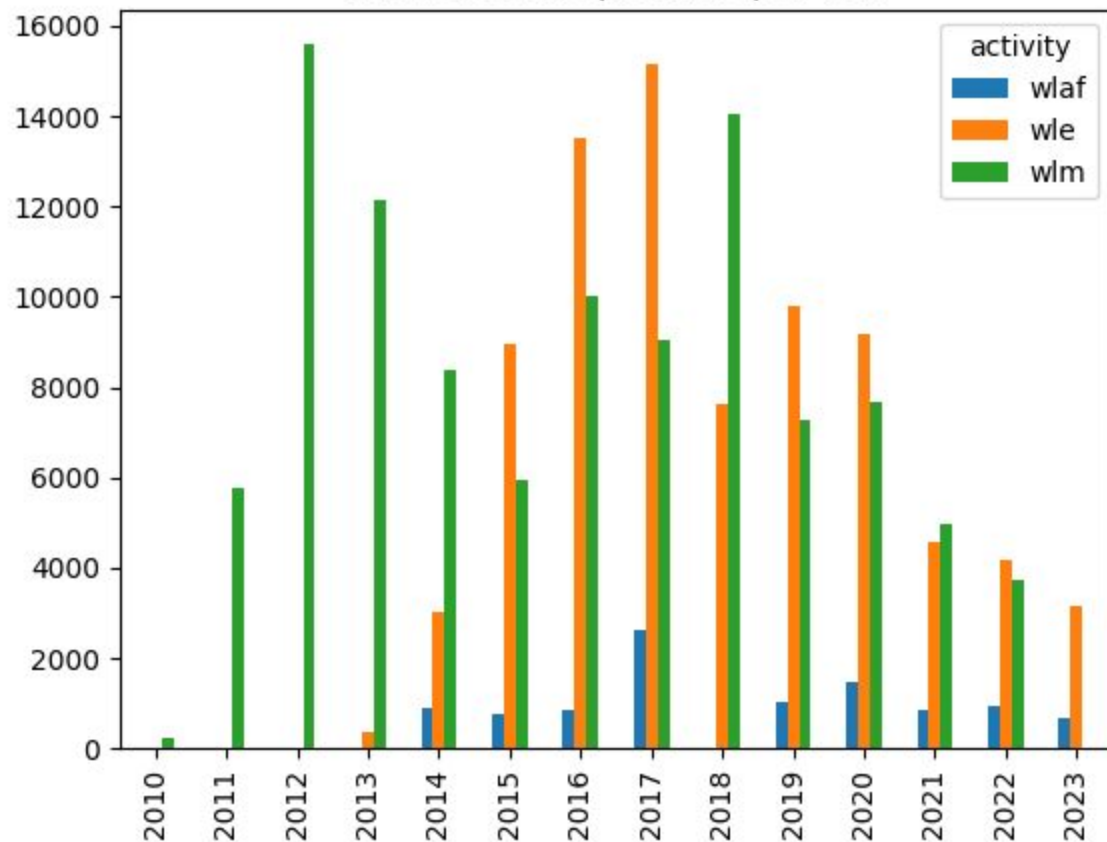
But what happens with these participants?

Photo: Fishers and small island (WLAf Egypt) by Myousry6666

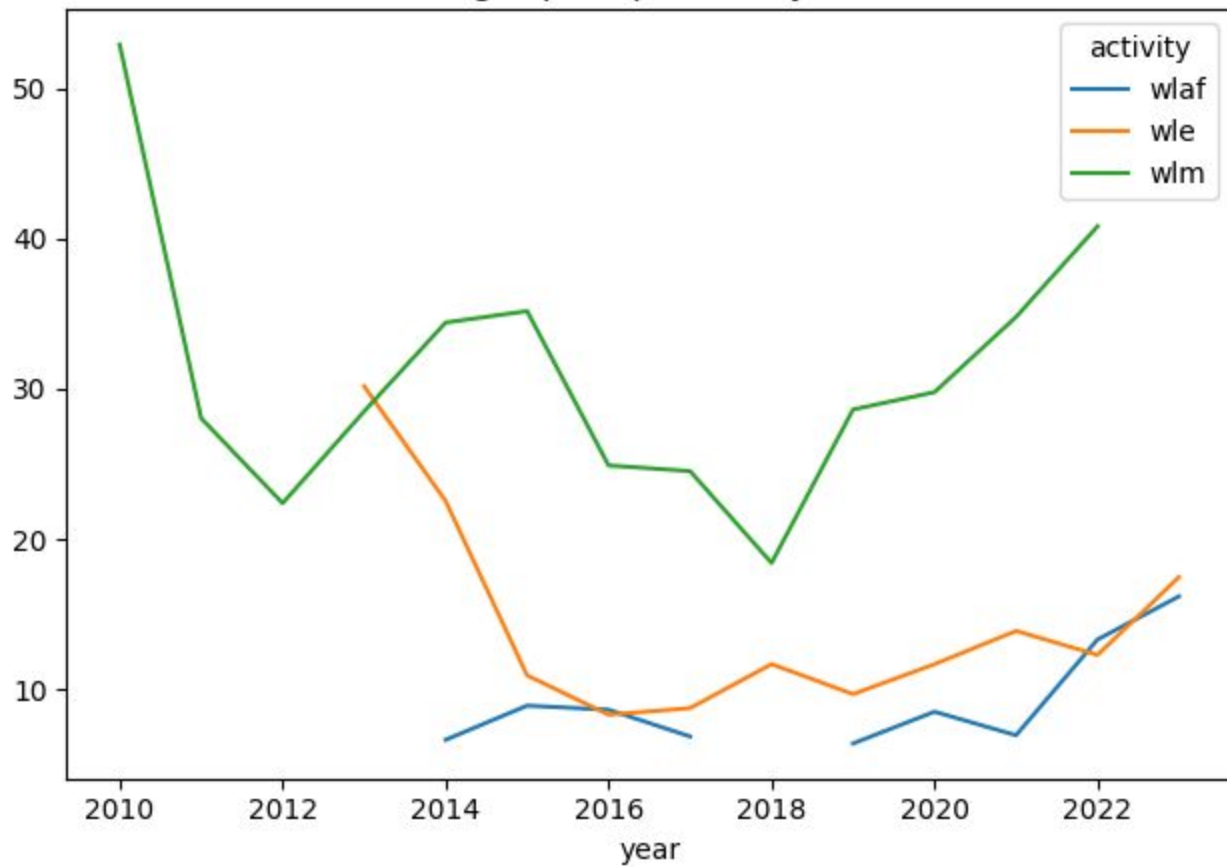# Uploaders

Wiki Loves ... Uploaders per Year
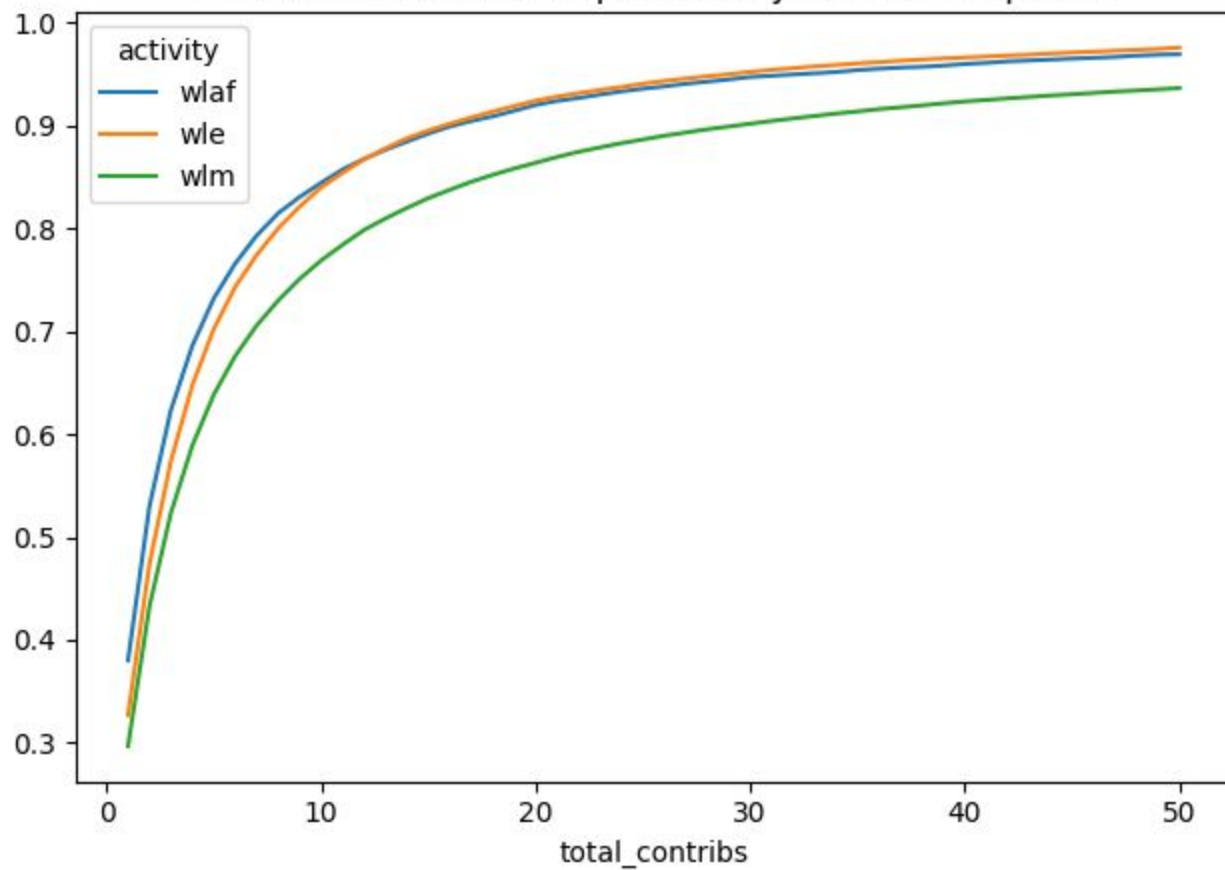
* There is a known bug in the 2019 wlaf data

Wiki Loves ... Uploaders per Country (top-15 total)
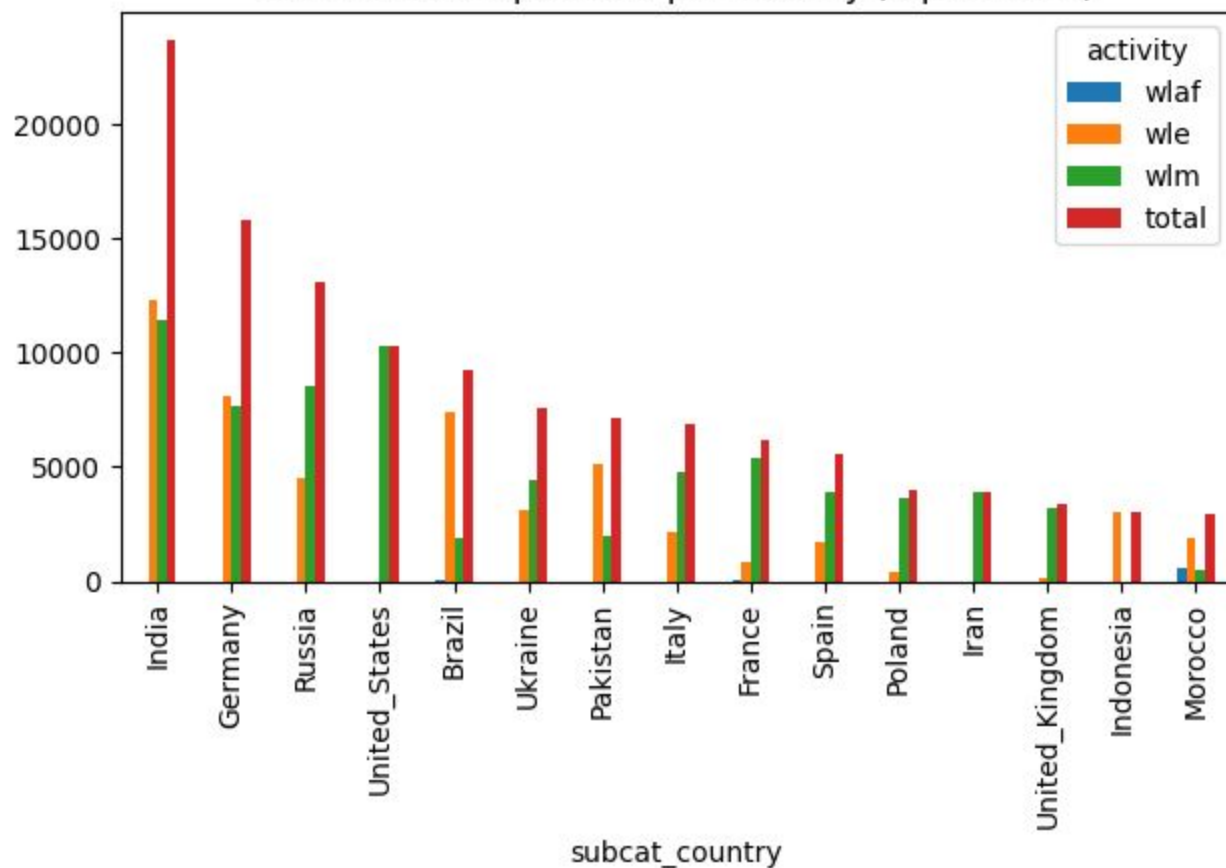
# Images per Uploader by Year

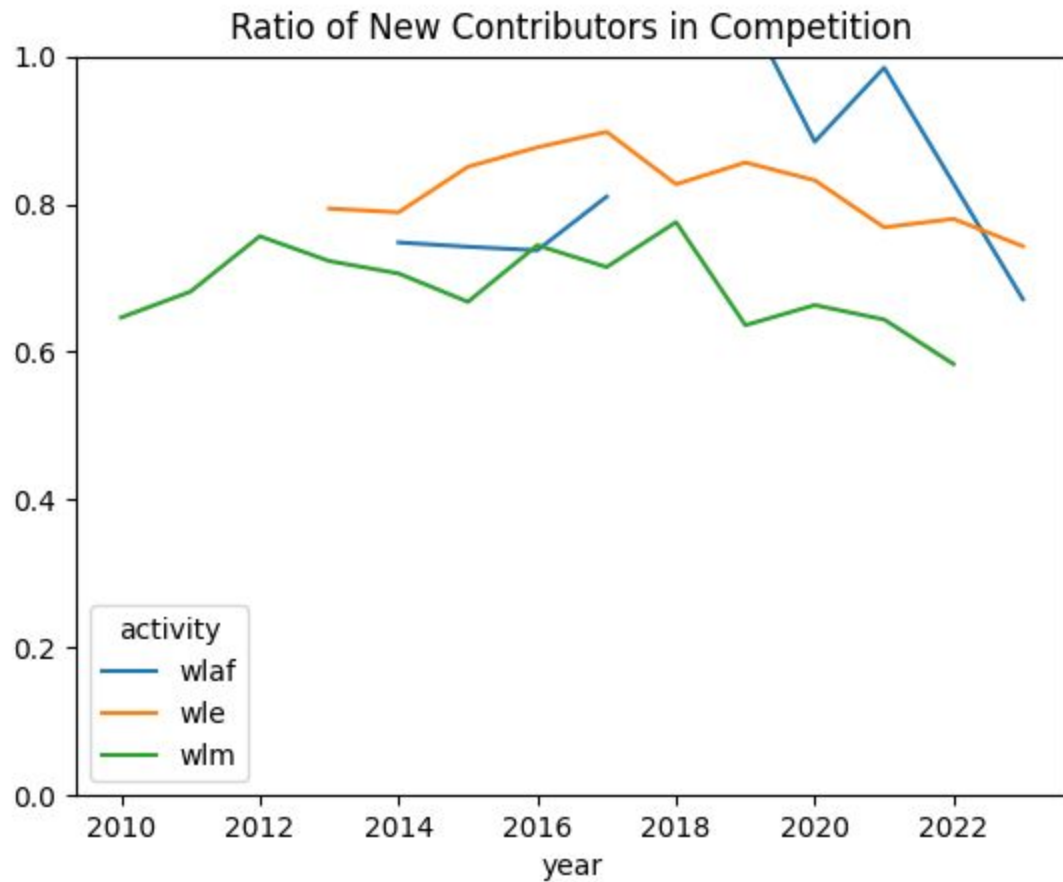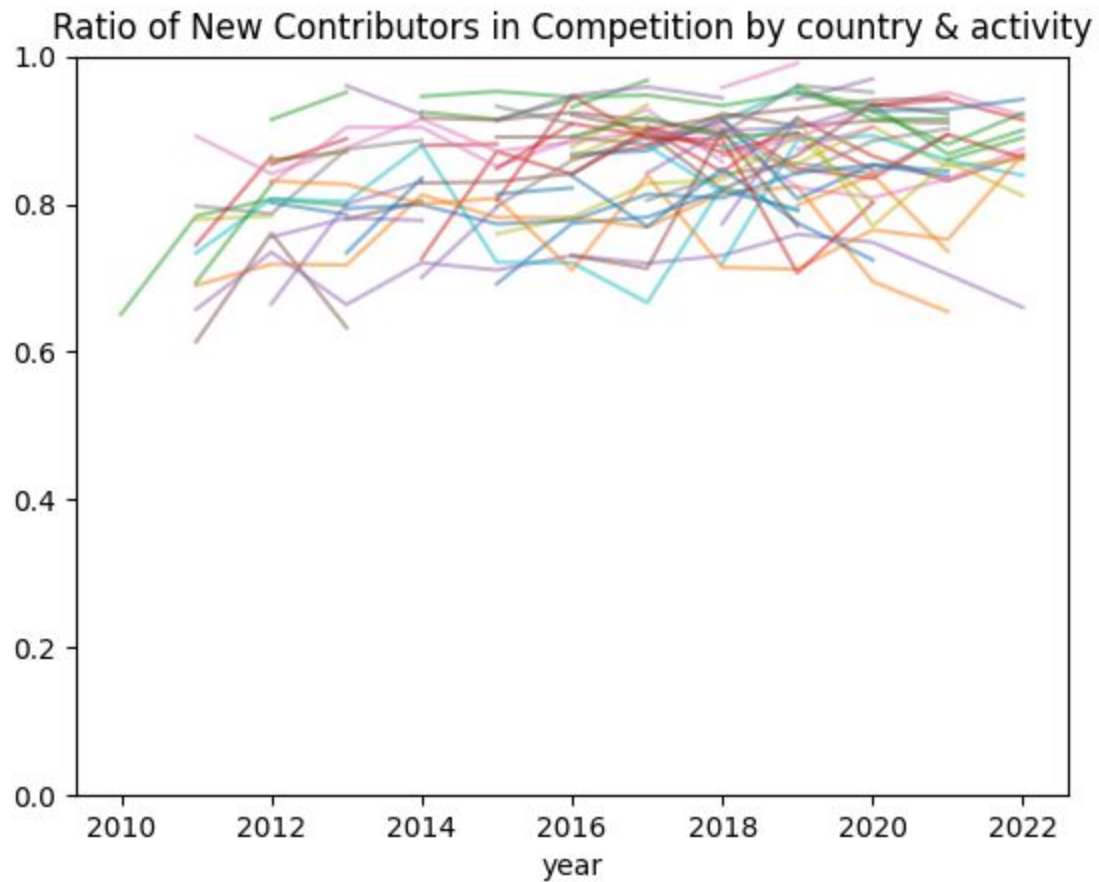Cumulative fraction of uploaders by number of uploads

# Retention

- What do the participants upload?
- How many are new editors?
- Do they stick around? Return?
- What do they do if they return?

I looked at the following data:

- Images in the "Images from Wiki Loves …" categories
- Collect their uploaders, and find out if their first edit (all wikis) was in the same month. If yes, we call them a 'new editor'.
- This is 'month 0'. How many edits in month 1, 2 etc?

Photo: Temple dedicated to Khanderaya (WLM India) by PKharote

Ratio of New Contributors in Competition

* There is a known bug in the 2019 wlaf data

Ratio of New Contributors in Competition by country & activity

* There is a known bug in the 2019 wlaf data

# Retention over time

<insert graph of retention rate of 1+ edit: plot over time, per year WLM.>

<do the same for WLE, WLAf>

<can we make the same graph for activity/country combinations with sufficient participants?>

- m0 is month of competition
- Annual spike
- Another peak for WLE in May
- 2010/2011 higher, but stable after that



Retention by Month after Competition for wlm

Very similar patterns if we look at 5 edits per month



Retention (5+ edits) by Month after Competition for wlm

Legend: 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023

Retention by Month after Competition for wle

Retention by Month after Competition for wlaf

Retention (5+ edits) by Month after Competition for wle

Retention (5+ edits) by Month after Competition for wlaf
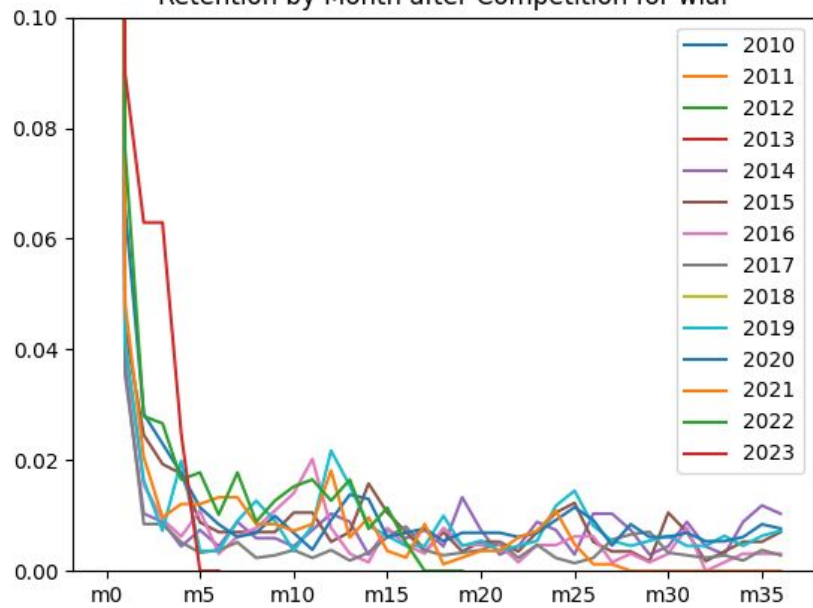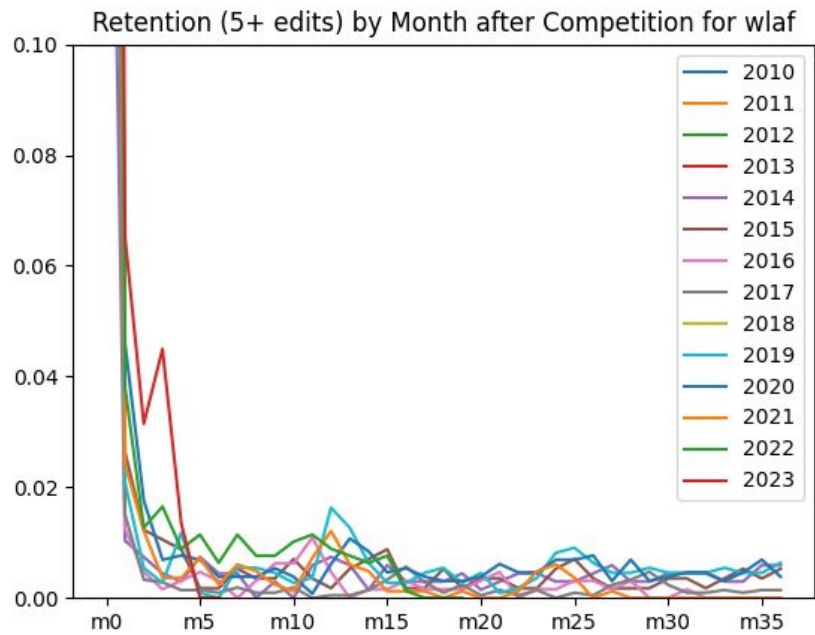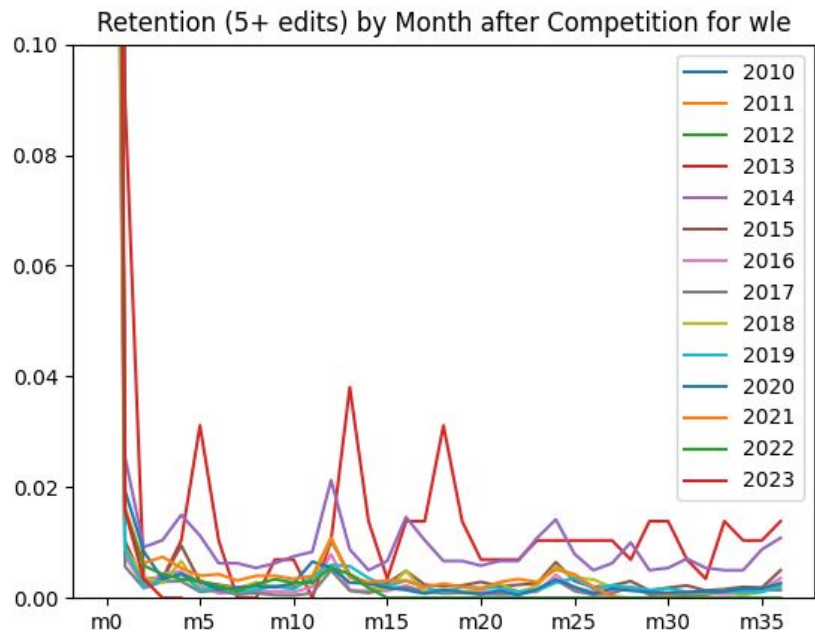
# Any edits across months

We see higher retentions across multiple months.

Some reactivation!

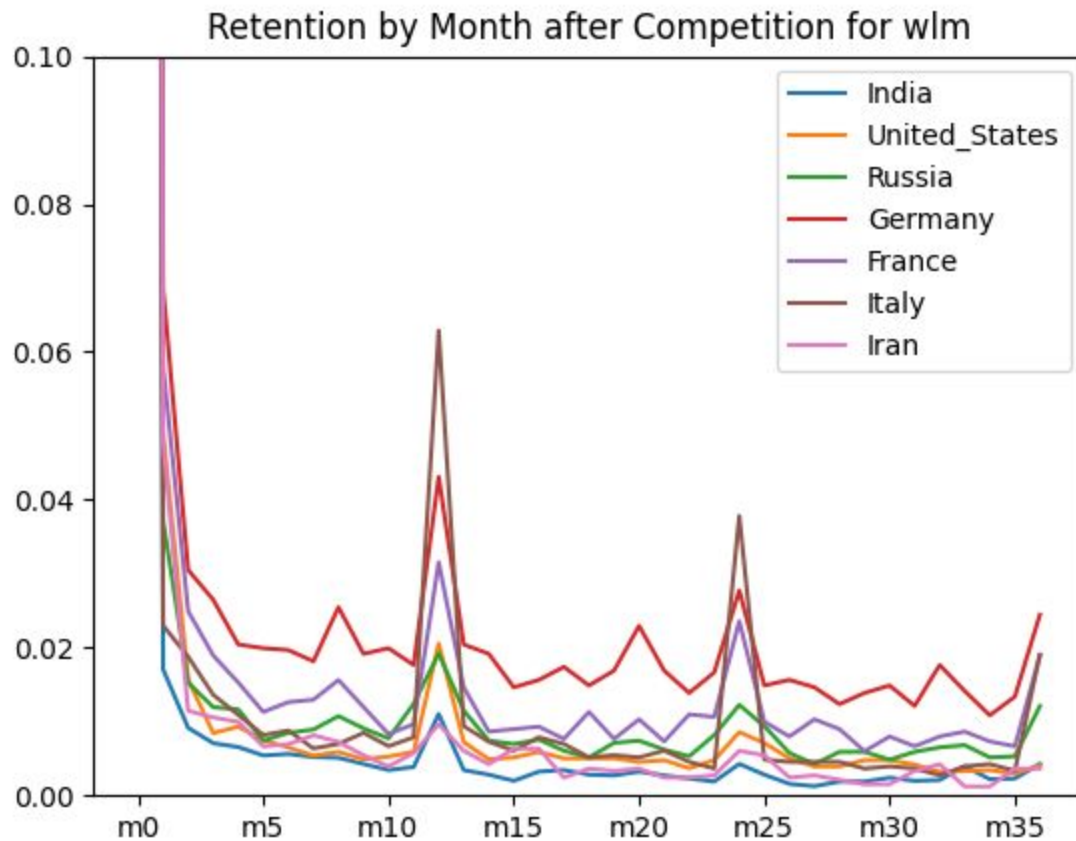If they don't return in the first few months, we don't have to give up.

Cumulative contributions retained users:

- WLM: 5.7 M
- WLE: 1.7 M
- WLAf: 138 k

| | New editors | m 2-11 retention | m 2+ retention |
|---|---|---|---|
| WLM | 74 k | 5.4 % ( 2.5 % ) | 11.6 % ( 6.8 % ) |
| WLE | 67 k | 3.5 % ( 1.7 % ) | 6.9 % ( 3.8 % ) |
| WLAf | 8.5 k | 6.0 % ( 3.0 % ) | 9.7 % ( 5.4 % ) |

Photo: Ogoy Island in winter (WLE Russia) by Sergey Pesterev

Showing the countries with most new users

- Big differences between countries
- What's up Germany?



Retention by Month after Competition for wlm

Retention (5+ edits) by Month after Competition for wlm

Pattern changes for WLE



Retention by Month after Competition for wle
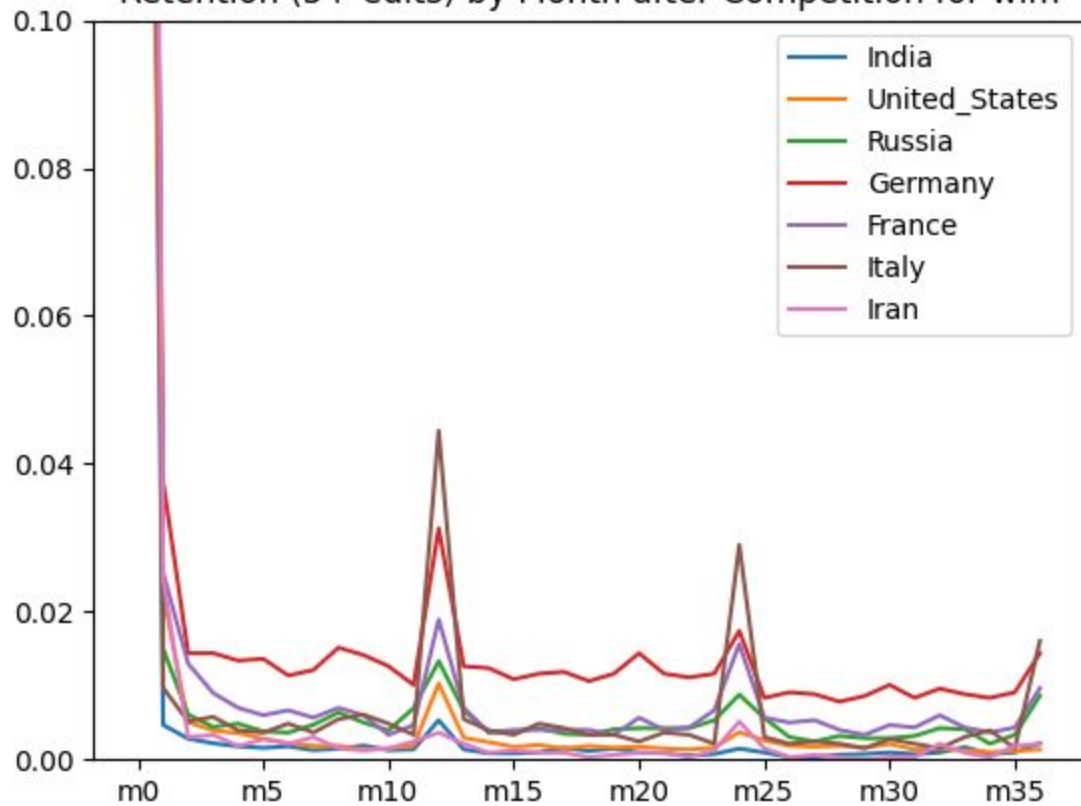
Retention (5+ edits) by Month after Competition for wle
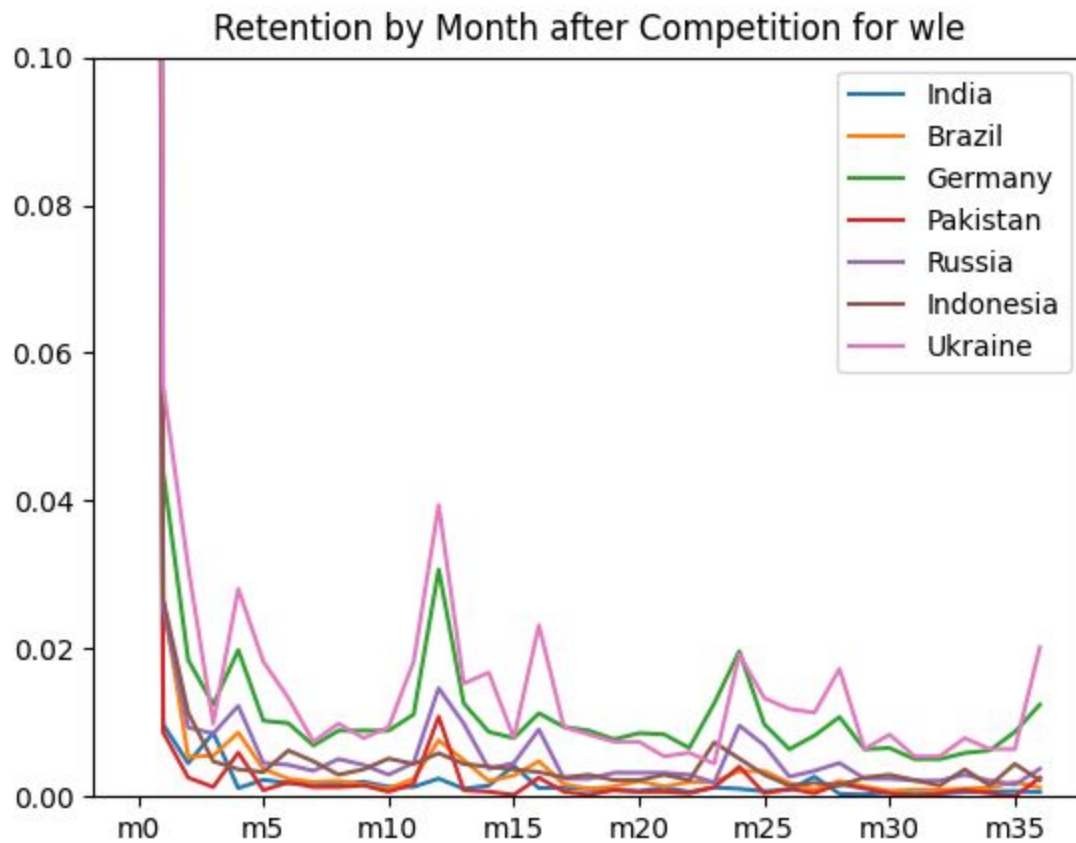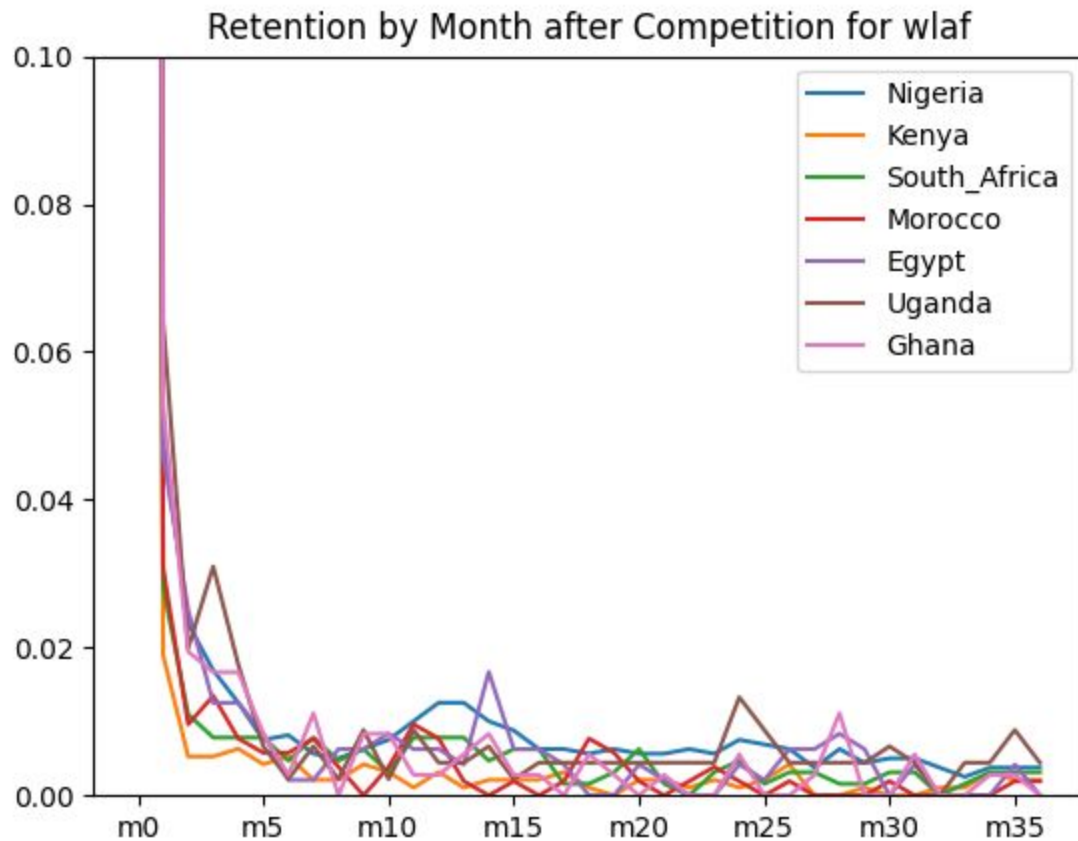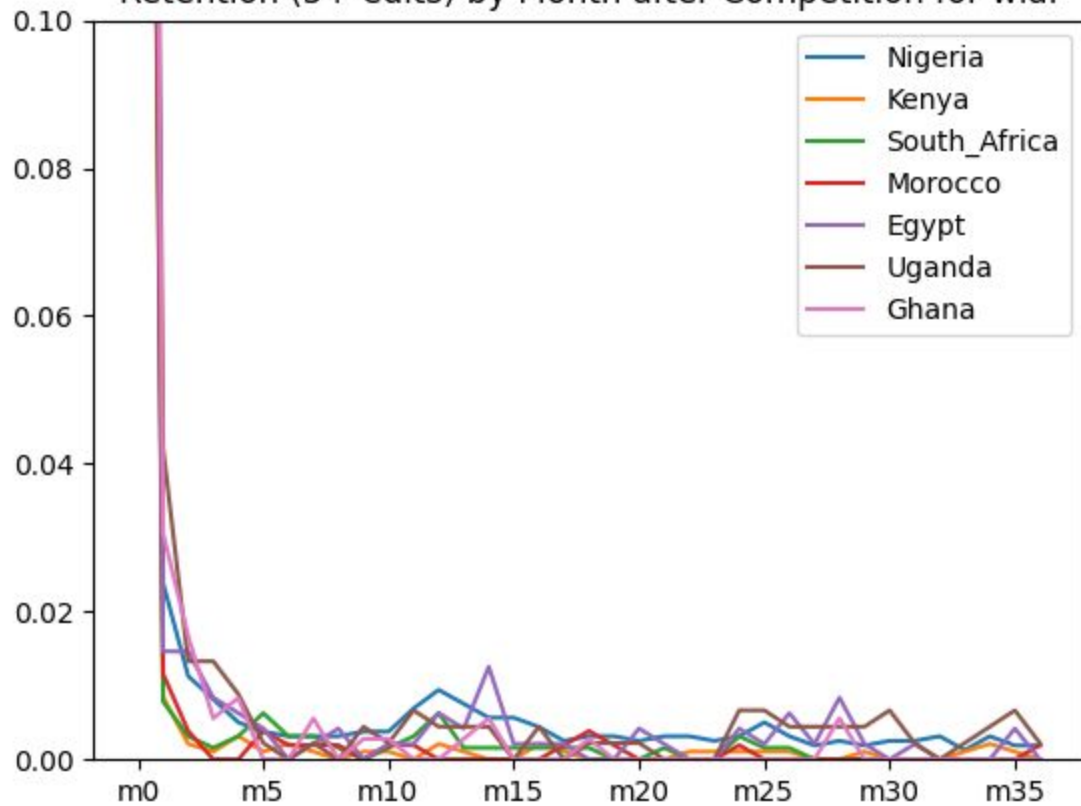
Wiki Loves Africa is more noisy data.

What's happening in Nigeria?



Retention by Month after Competition for wlaf

Retention (5+ edits) by Month after Competition for wlaf

# Some observations

- For a non-competition month, we see ~ 1% of the new editors make at least 1 edit (WLE: 0.6%, WLAf 1%)
- Across months 2-11 we see 5.4% for WLM, 3.5% for WLE, 6% for WLAf
- Lifetime retention (any edit 2+ months after competition) is 11.6, 6.9 and 9.7%
- There is a retention bump around month 12: returning participants!
- We see a bump when other competitions happen: cross-participation!

Most of the retention happens on Commons (estimated 50-60% off cycle)

There's a few smaller countries who have even higher retention off-cycle than Germany! (cheers to Austria, the Netherlands and Norway!)

Photo: Ai-Petri Yaila nature reserve (WLE Ukraine) by Krasnickaja Katya

# Some observations 2

- It is worthwhile considering contributions across all projects
- Big differences between countries: what can we learn?
- Reactivation is a big factor, how can we leverage this?

Photo: Tomb of Safdarjung (WLM India) by Pranav Singh

# Future work? So many questions!

- What happened to the images (BaGLAMa)
- Which projects did people end up?
- What activities are successful at re-activating people
- How many users have an active email?
- Can we predict at all who remains active?
- What is a good benchmark?

Thanks to:

- WLM international team, WLx organizers and participants!
- Banner work: Martin Gerlach, Andrew Green
- Retention: Martin Urbanec, Danilo.mac and Bozzy

Photo: Yida refugee camp (WLAf South Sudan) by Marco Gualazzini

# More pretty images?

https://commons.wikimedia.org/wiki/Commons:Wiki_Loves_Africa

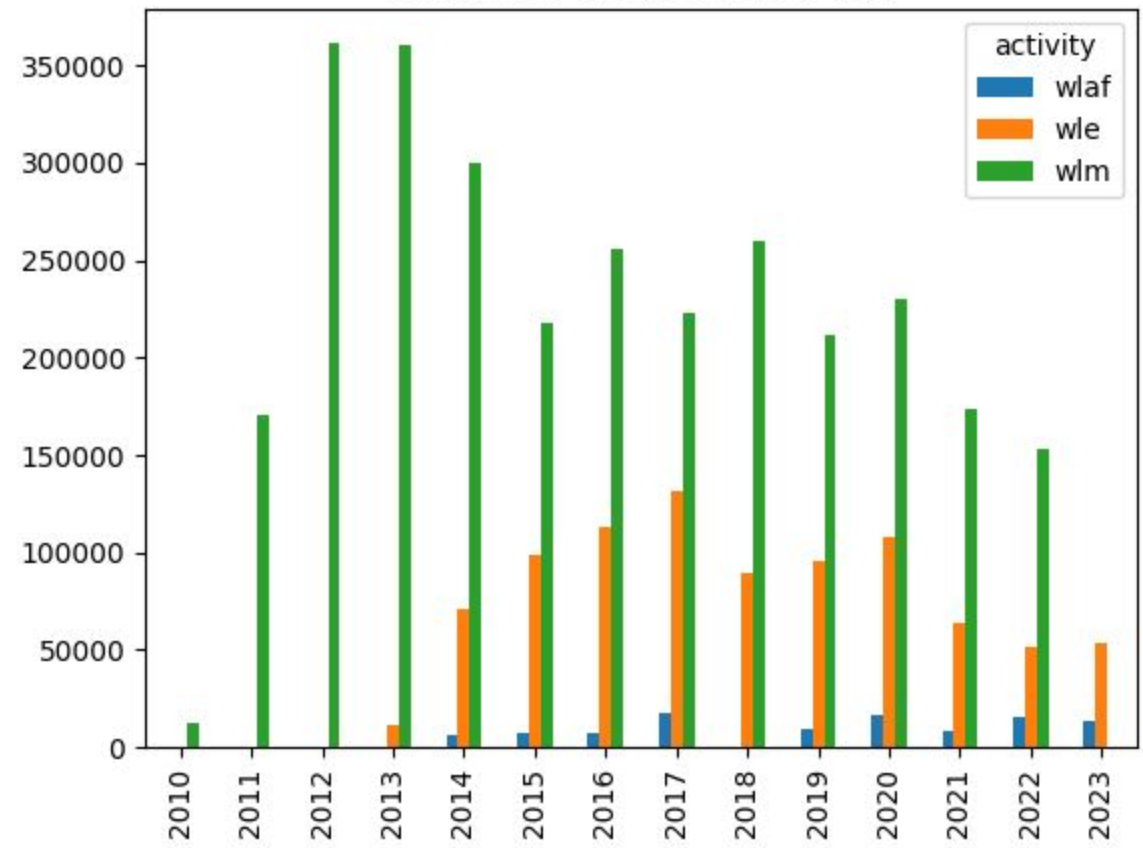https://commons.wikimedia.org/wiki/Commons:Wiki_Loves_Earth

https://commons.wikimedia.org/wiki/Commons:Wiki_Loves_Monuments


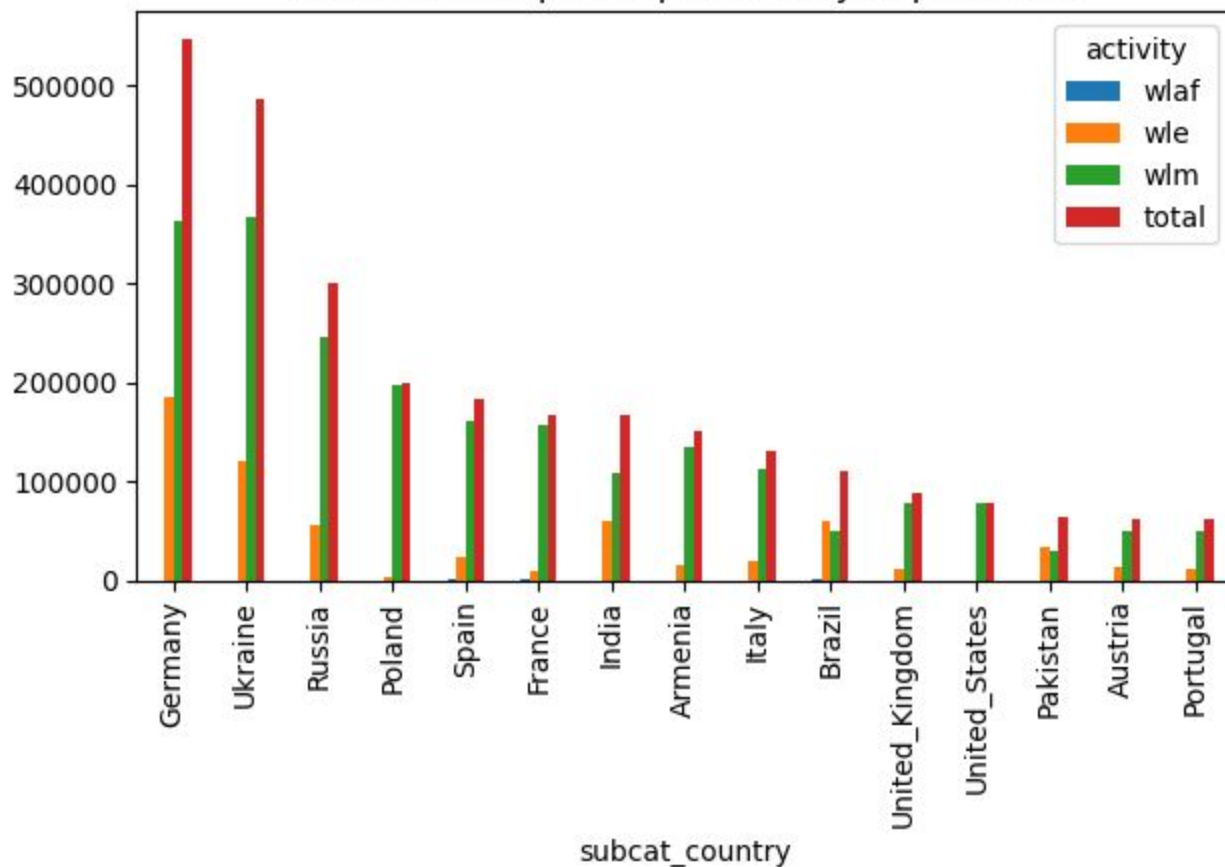More detailed images: https://public-paws.wmcloud.org/409/output/figs/

Questions?

Photo: Saint John Church of Sohrol (WLM Iran) by Farzin Izaddoust dar
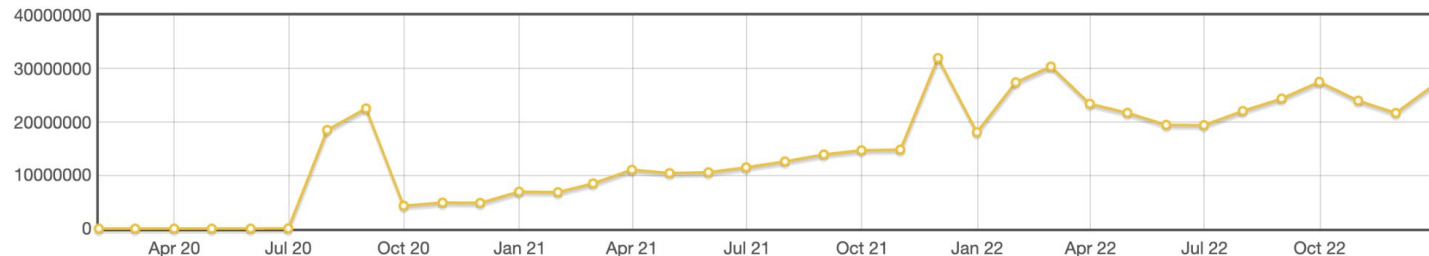
# Images

Wiki Loves ... Uploads per Year

Wiki Loves ... Uploads per Country (top-15 total)

# How are the images used?



## Category details for Images from Wiki Loves Monuments 2020

36 months have a data point, with 515,731,569 page views in total. Click on individual time points in the graph to see monthly data.



## Category details for Images from Wiki Loves Africa 2020

33 months have a data point, with 160,955,827 page views in total. Click on individual time points in the graph to see monthly data.
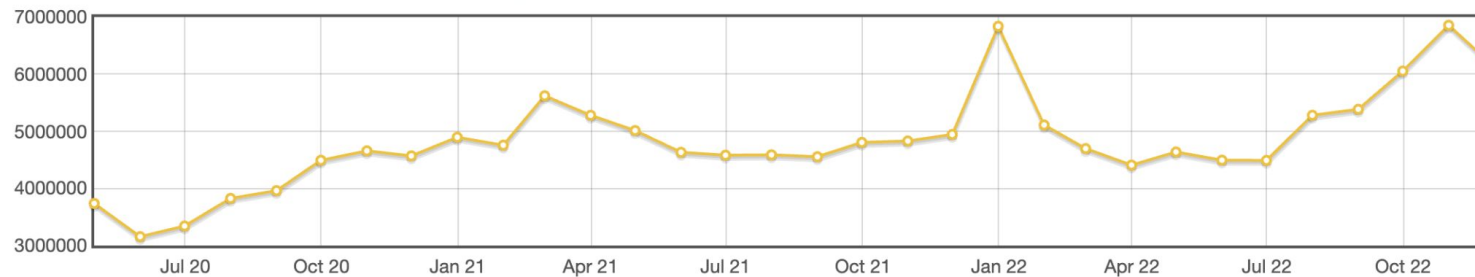
# How are the images used?

## Page views in 2023-01

Total monthly page views: 27,069,048.
Download this table.

| Site | | Pages | Views |
|---|---|---|---|
| English Wikipedia | Details | 3,571 | 11,895,634 |
| Persian Wikipedia | Details | 962 | 3,992,963 |
| Russian Wikipedia | Details | 1,667 | 3,260,281 |
| French Wikipedia | Details | 1,770 | 1,387,238 |
| German Wikipedia | Details | 1,877 | 1,132,308 |
| Ukrainian Wikipedia | Details | 3,250 | 976,897 |
| Italian Wikipedia | Details | 1,095 | 774,237 |
| Spanish Wikipedia | Details | 714 | 715,081 |
| Arabic Wikipedia | Details | 372 | 510,972 |

## Page views in 2023-01

Total monthly page views: 6,293,521. Download this table.

| Site | | Pages | Views |
|---|---|---|---|
| English Wikipedia | Details | 724 | 3,564,966 |
| French Wikipedia | Details | 1,257 | 1,849,685 |
| Spanish Wikipedia | Details | 151 | 194,894 |
| Arabic Wikipedia | Details | 138 | 122,240 |
| German Wikipedia | Details | 175 | 110,048 |
| en.Wikivoyage | Details | 81 | 53,787 |
| Italian Wikipedia | Details | 102 | 48,069 |
| Portuguese Wikipedia | Details | 87 | 27,005 |
| fr.Wiktionary | Details | 66 | 25,175 |
| Japanese Wikipedia | Details | 36 | 22,816 |
| Russian Wikipedia | Details | 59 | 21,741 |