



WIKIPEDIA

What Motivates Users to Contribute
to Wiki Destination Content Online?

Liz Legg
Data Science
June 1, 2015

What's the Problem?

- People increasingly rely on the Internet to plan travel*
- People know the least about how destination information online is sourced and updated

<http://www.tnooz.com/article/travel-research-google-online-acitvity>



My Hypotheses

Page Discussion

Read Edit View history

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[dismiss]

- Growth vs. Decline in Tourism
 - Destinations where tourism is consistently growing will have more unique users, more content, and more total edits than those where tourism is declining.
- Most Visited vs. Least Visited
 - The most-visited destinations will have more unique users, more content, and more total edits than the least-visited destinations.
- “New” Destinations
 - Destinations recently open to tourism will see more content added by fewer unique users with fewer edits than the most-visited destinations.
- Negative Event
 - A significant negative event will motivate users to update content.

My Approach

MasterCard

2014 Global Destination Cities Index



TABLE 1 Global Top 20 Top Destination Cities by International Overnight Visitors (2014)

	Destination City	Country	Visitors (millions)						2014 Visitor Spend (US\$ bn)
			2010	2011	2012	2013	2014	%Δ 2013 & 2014	
1	London	United Kingdom	14.71	15.29	15.46	17.30	18.69	8.0%	\$19.3
2	Bangkok	Thailand	10.44	13.80	15.82	18.46	16.42	-11.0%	\$13.0
3	Paris	France	13.27	13.88	14.33	15.29	15.57	1.8%	\$17.0
4	Singapore	Singapore	8.80	10.14	11.11	12.10	12.47	3.1%	\$14.3
5	Dubai	UAE	8.41	9.20	10.16	11.12	11.95	7.5%	\$10.9
6	New York	USA	9.43	10.27	10.60	11.08	11.81	6.6%	\$18.6
7	Istanbul	Turkey	6.45	7.51	8.82	9.87	11.60	17.5%	\$9.4
8	Kuala Lumpur	Malaysia	8.90	8.99	9.26	9.56	10.81	13.1%	\$8.1
9	Hong Kong	China	8.13	8.43	8.37	8.26	8.84	7.0%	\$8.3
10	Seoul	South Korea	6.06	6.56	7.51	8.24	8.63	4.7%	\$11.5
11	Barcelona	Spain	6.18	6.89	6.91	7.18	7.37	2.7%	\$11.2
12	Amsterdam	Netherlands	5.86	6.07	6.10	6.74	7.23	7.2%	\$4.4
13	Milan	Italy	5.83	6.59	6.88	6.85	6.82	-0.4%	\$5.3
14	Rome	Italy	6.65	6.66	6.82	6.63	6.79	2.5%	\$5.6
15	Taipei	Chinese Taipei	3.52	3.96	4.70	5.80	6.29	8.4%	\$10.8
16	Shanghai	China	6.67	6.18	6.04	5.66	6.09	7.6%	\$5.3
17	Vienna	Austria	4.64	5.08	5.38	5.67	6.05	6.8%	\$5.6
18	Riyadh	Saudi Arabia	1.82	4.16	4.83	5.52	5.59	1.3%	\$4.1
19	Tokyo	Japan	4.47	2.94	4.07	5.05	5.38	6.5%	\$7.4
20	Lima	Peru	2.07	2.94	3.94	4.91	5.11	4.1%	\$1.8

My Approach

City	Decline	Growth	Natural Disaster	Political Unrest / Terrorism	New	Most Visited	Least Visited
Bangkok	x					x	
Istanbul		x				x	
London		x				x	
Hong Kong	x					x	
Shanghai	x						
Kathmandu			x				
New Orleans			x				
Tokyo	x		x				
New York City						x	
Cairo				x			
Nairobi				x			
Paris		x		x		x	
Havana					x		
Yangon					x		
Christchurch			x				
Ukraine				x			
Milan	x						
Ashgabat				x			x
Yaren District							x
Thimpu							x
Mogadishu				x			x

My Approach



WIKIPEDIA

Used MediaWiki API to pull the following data for each city since 2010:

- WikiVoyage sub-categories
- Revision size
- Revision user
- Revision date

Then categorized the data by the buckets originally outlined.

Decline

Growth

New

Least

Most

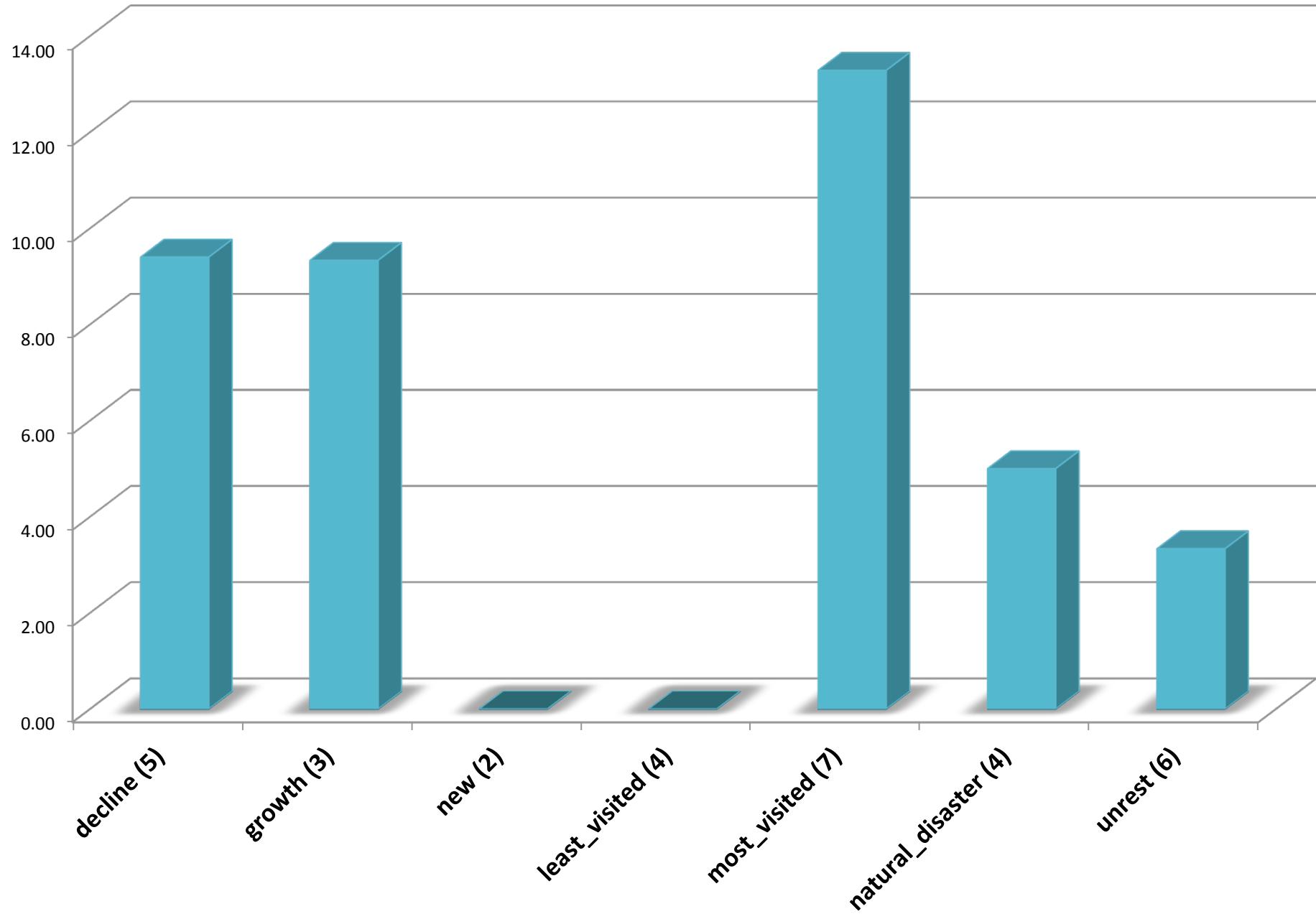
Disaster

Unrest

Findings

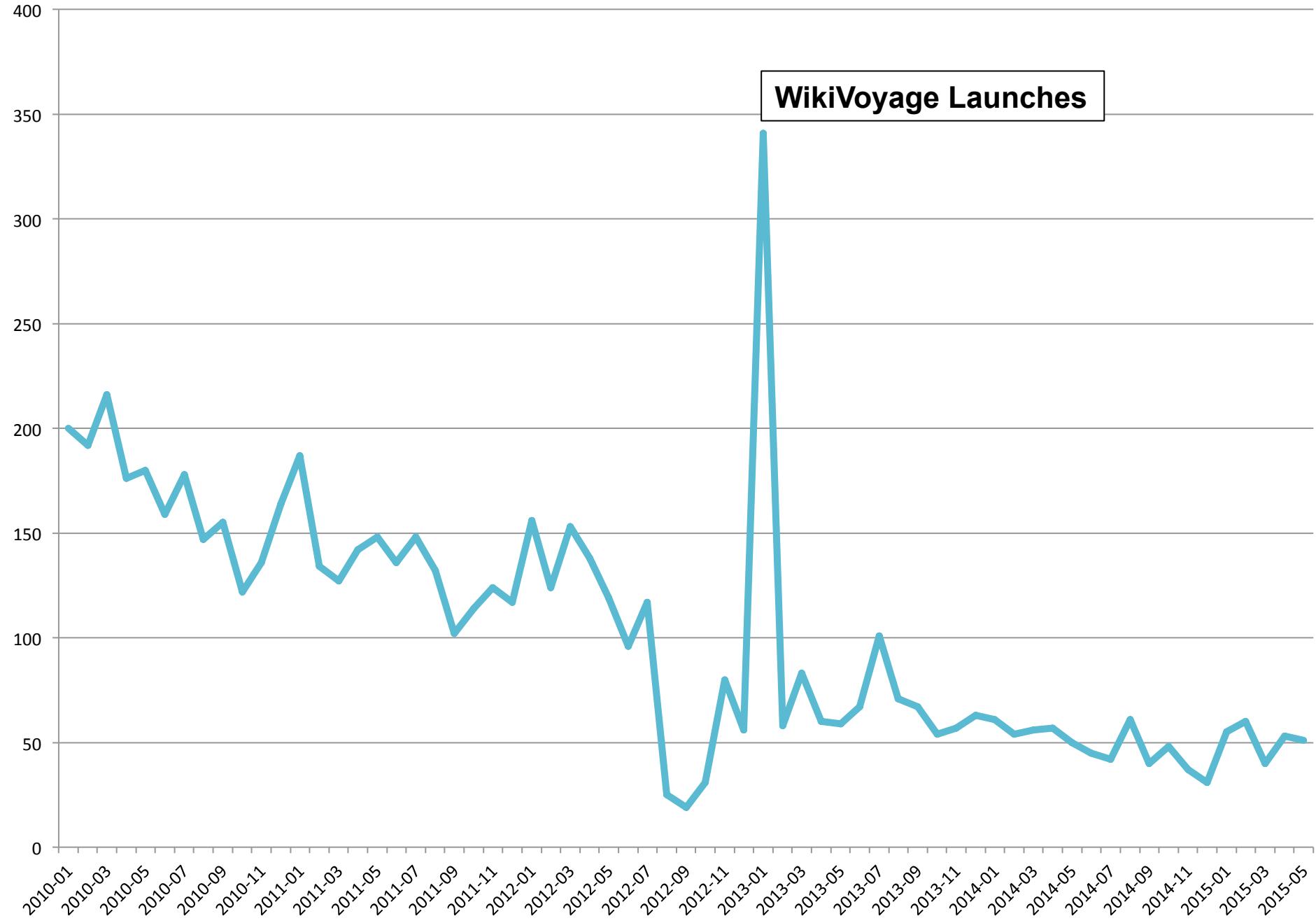


Average Sub-Cats



Unique Edits WikiVoyage

WikiVoyage Launches



My Findings – Unique Users

Page Discussion

Read Edit View history

Search



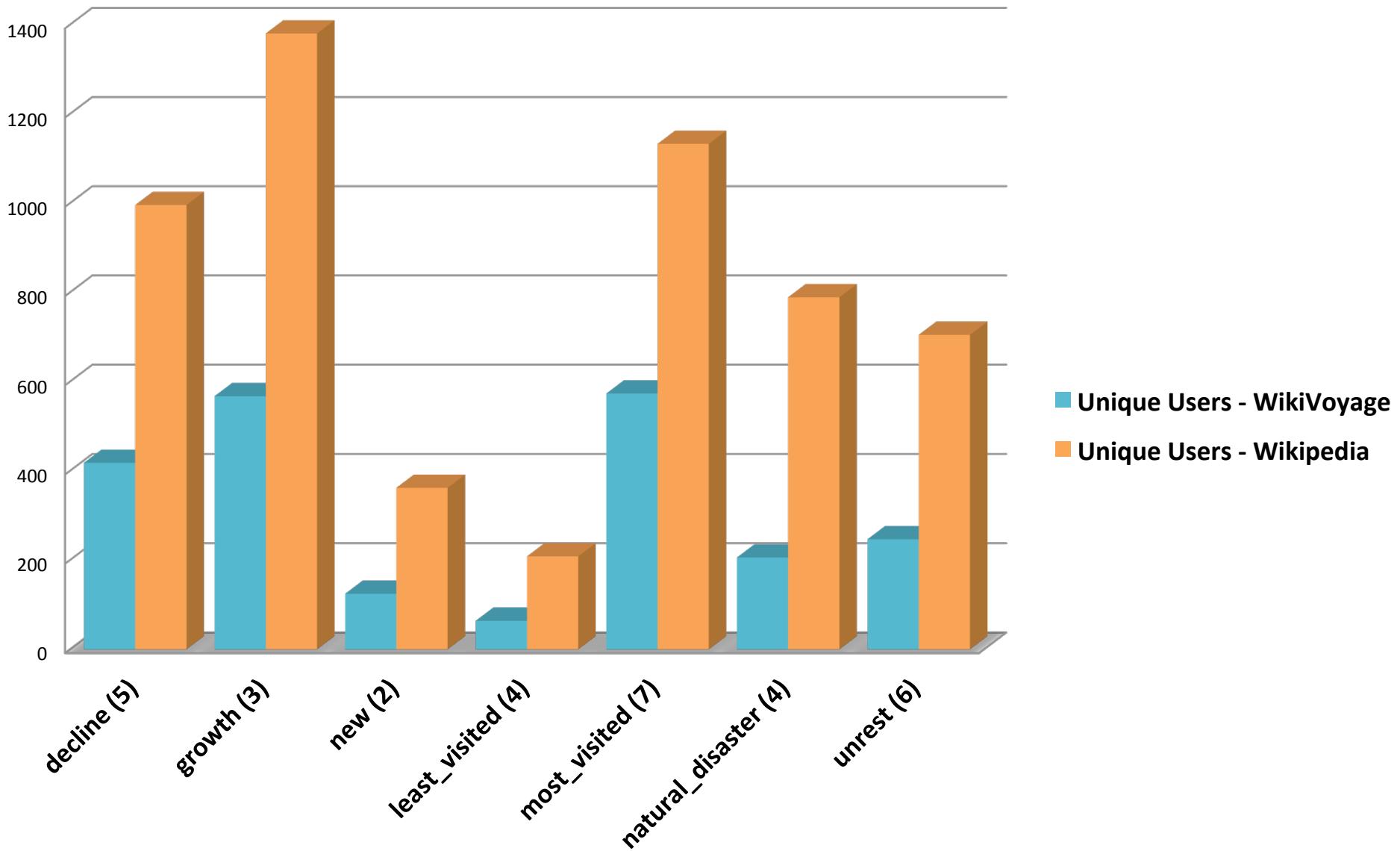
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[dismiss]

- Growth vs. Decline in Tourism (expected growth to have more unique users)
 - ✓ Wikipedia
 - ✓ WikiVoyage
- Most Visited vs. Least Visited (expected most-visited to have more unique users)
 - ✓ Wikipedia
 - ✓ WikiVoyage
- “New” Destinations (expected fewer unique users)
 - ✓ Wikipedia
 - ✓ WikiVoyage

Average Unique Users Since 2010

WikiVoyage vs. Wikipedia



My Findings – Total Edits

Page Discussion

Read Edit View history

Search

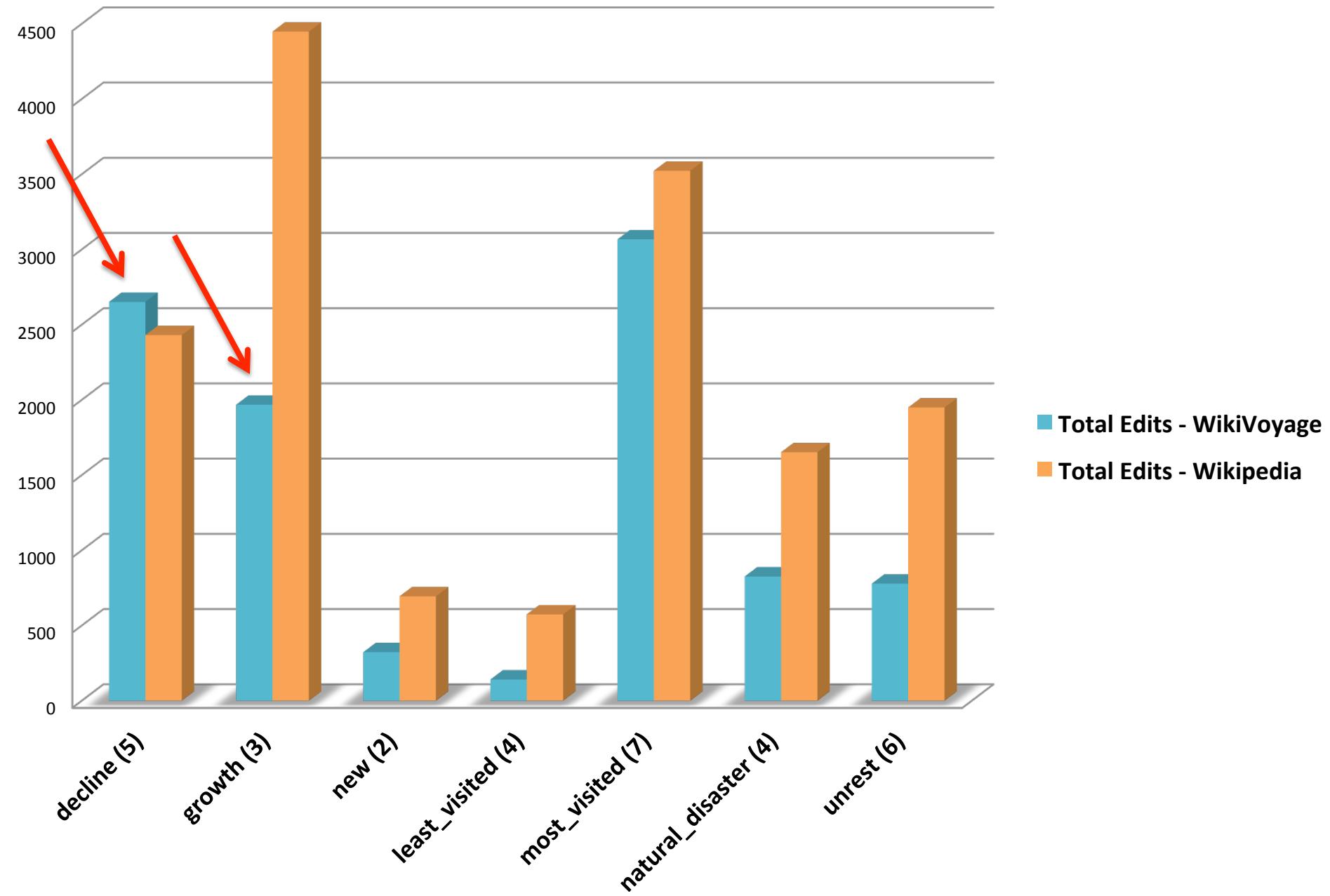


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[dismiss]

- Growth vs. Decline in Tourism (expected growth to have more edits)
 - ✓ Wikipedia
 - WikiVoyage
- Most Visited vs. Least Visited (expected most visited to have more edits)
 - ✓ Wikipedia
 - ✓ WikiVoyage
- “New” Destinations (expected fewer total edits)
 - ✓ Wikipedia
 - ✓ WikiVoyage

Average Total Edits Since 2010



My Findings – Max Content

Page Discussion

Read Edit View history

Search



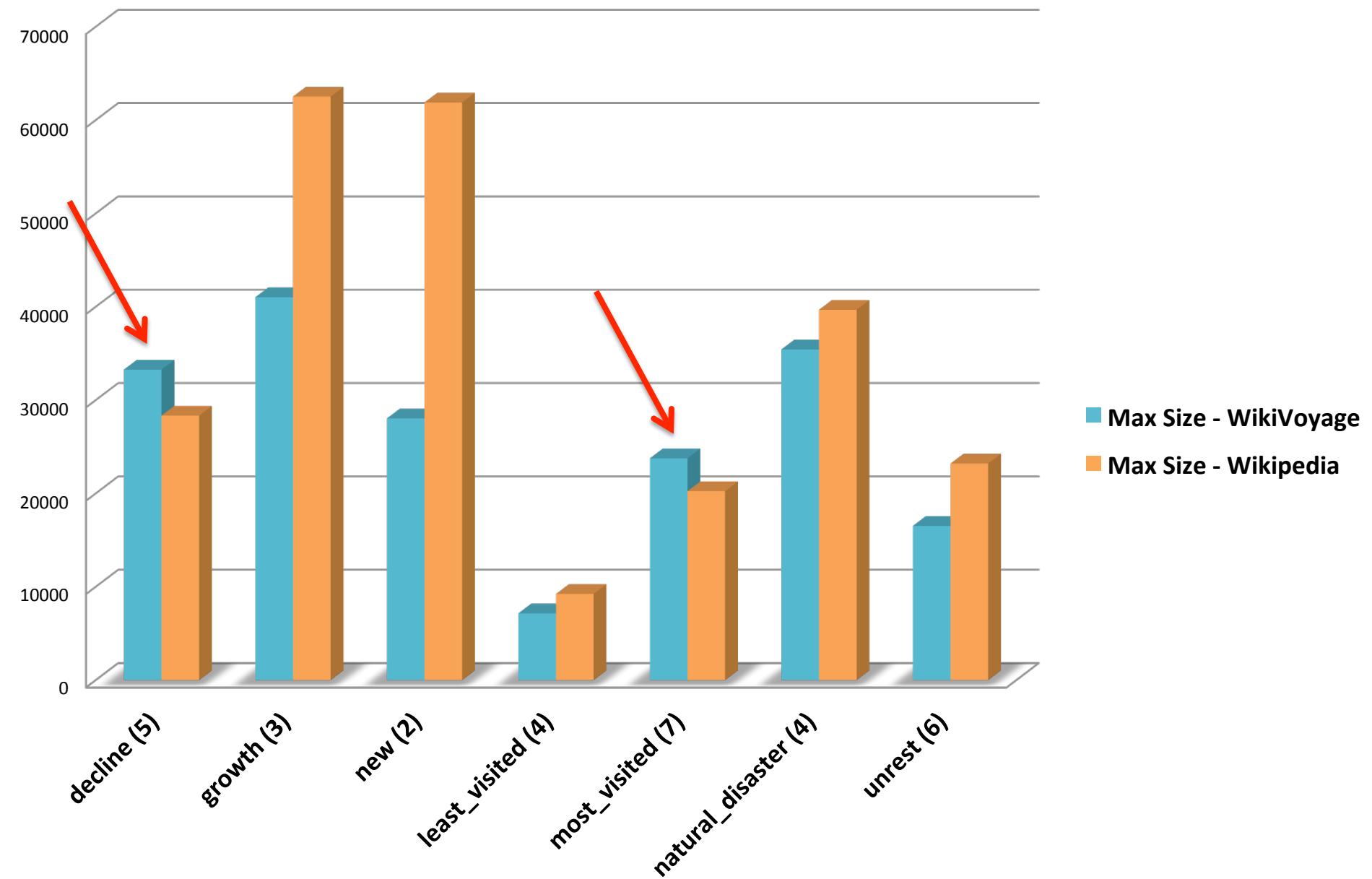
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[dismiss]

- Growth vs. Decline in Tourism (expected growth to have more content)
 - ✓ Wikipedia
 - ✓ WikiVoyage (decline longer than on average than Wikipedia)
- Most Visited vs. Least Visited (expected most-visited to have more content)
 - ✓ Wikipedia
 - ✓ WikiVoyage (most visited longer on average than Wikipedia)
- Not hypothesized: Most visited has shorter average article length than expected.
- “New” Destinations (expected more content added by fewer unique users)
 - ✓ Wikipedia (**more than expected!**)
 - ✓ WikiVoyage (**more than expected!**)
- Negative Event (expected more
 - Not hypothesized: Natural disaster content is, on average, longer than political unrest content.

Average Max Article Length (No Sub-Cats) Since 2010

WikiVoyage vs. Wikipedia



My Findings – Max Content Anomalies

Page Discussion

Read Edit View history

Search

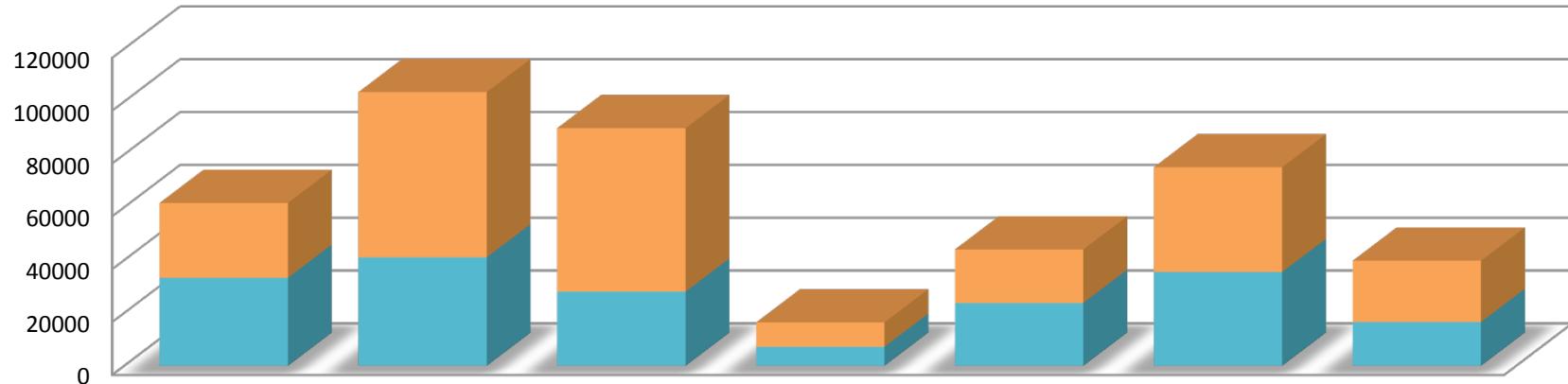


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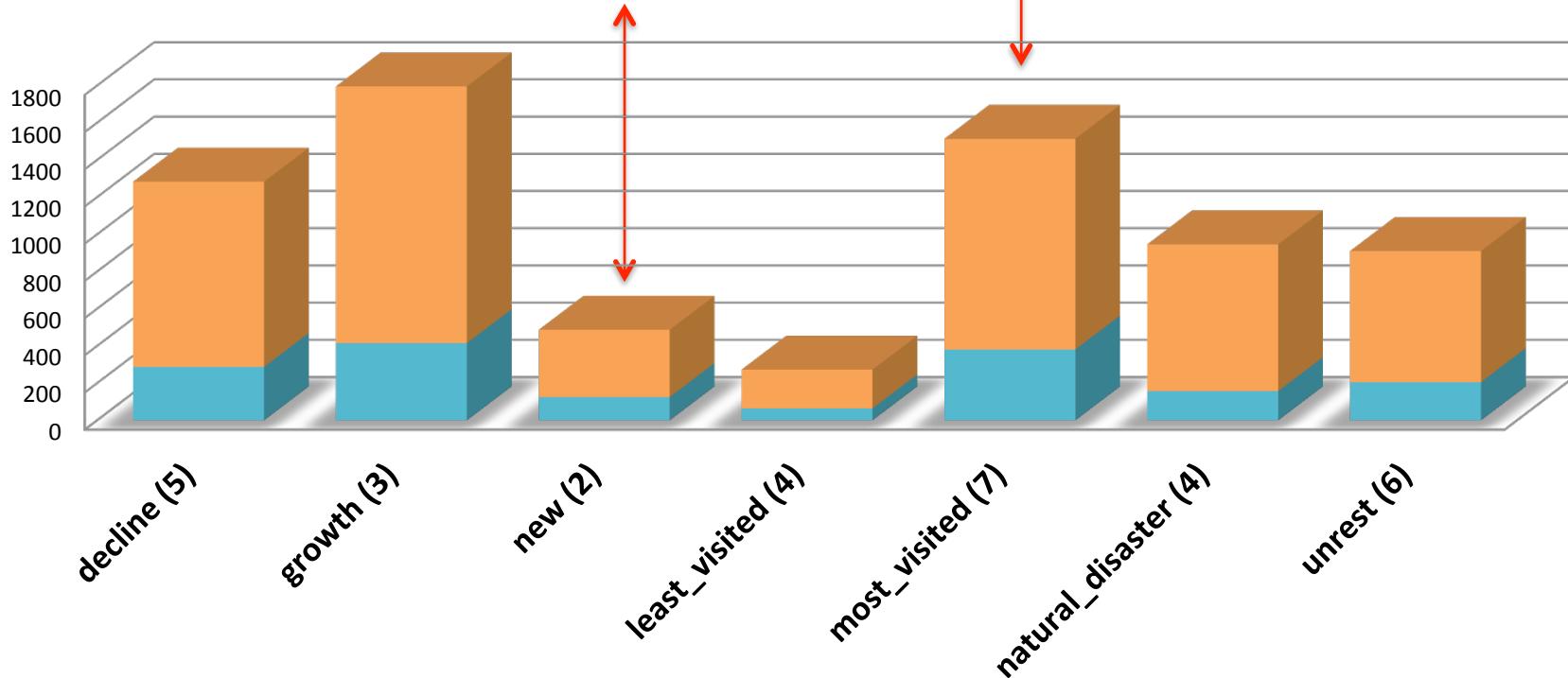
[dismiss]

- Most visited has shorter average article length than expected.
- “New” destinations have longer average article length than expected.

Average Max Article Length Since 2010 Combined



Average Unique Users Since 2010 Combined



My Findings – Negative Event

Page Discussion

Read Edit View history

Search



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- **Negative Event**

- ✓ A significant negative event will motivate users to update content.

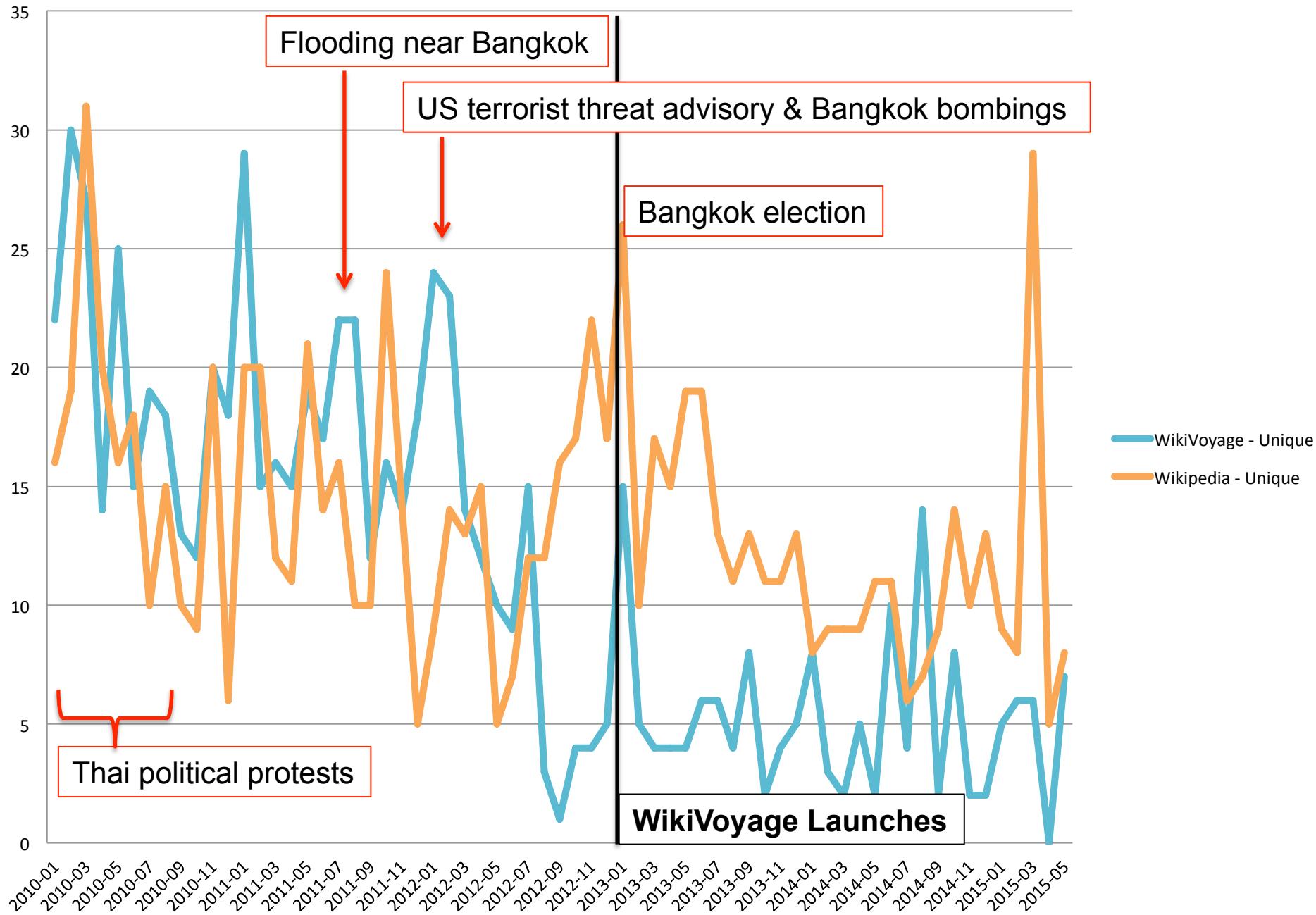
- WikiVoyage

- Natural Disaster: fewer users make more edits
 - Political Unrest: more users make fewer edits

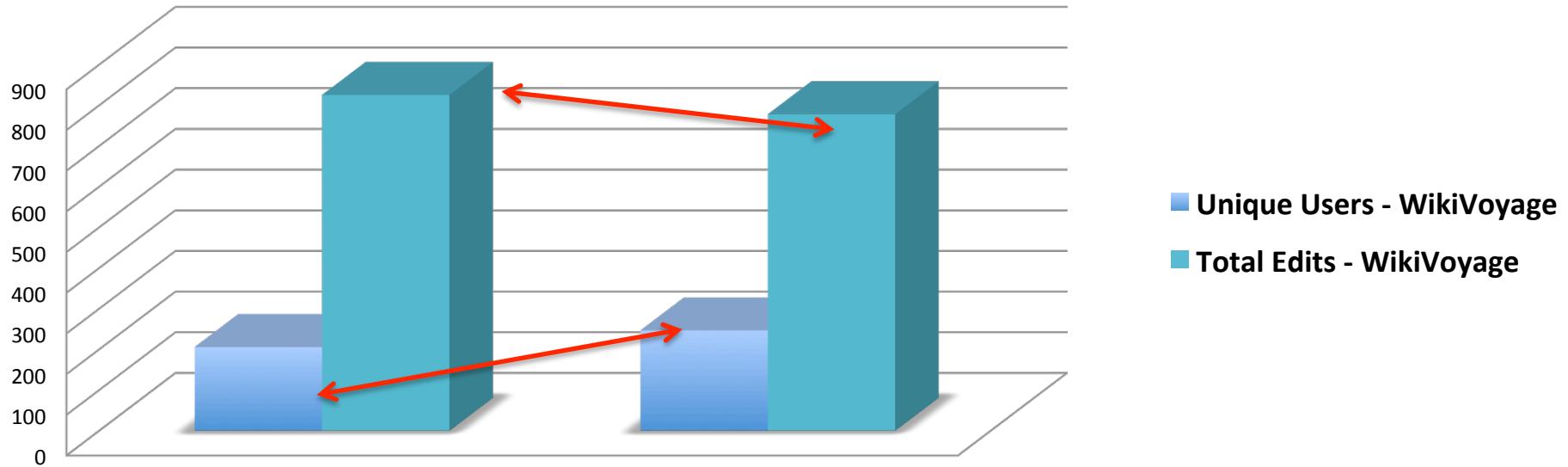
- Wikipedia

- Natural Disaster: more users make fewer edits
 - Political Unrest: fewer users make more edits

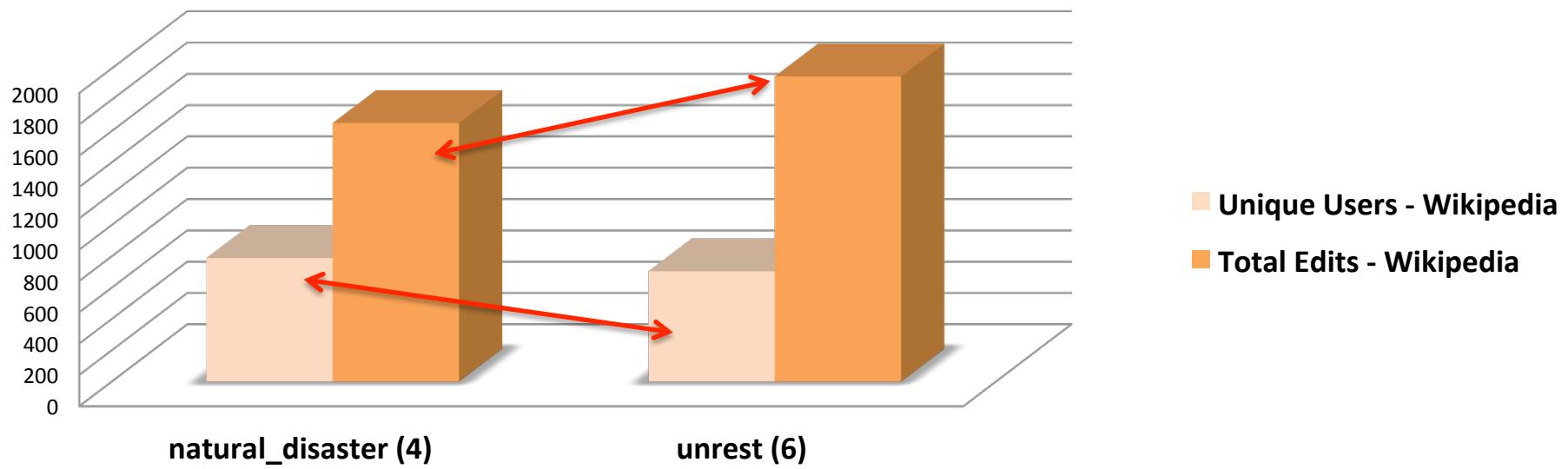
Bangkok Edits by Month



Wiki Voyage



Wikipedia



Mogadishu

Unrest

Understand • Get in • Get around • See • Do • Learn • Buy • Eat • Drink • Sleep • Stay safe



WARNING: Scene of urban warfare for two decades and after many months of intense urban warfare between the government/AU troops and Islamic extremist faction al Shabab (which once controlled the majority of the city), Mogadishu is now under the control of the internationally-recognized Transitional Government & AU peacekeepers. Since the ousting of al Shabab in August 2011, the city has seen an intense period of reconstruction funded by the Somali diaspora and the international community. In fact the city is now safe enough for flights by Turkish Airlines. However, Mogadishu still remains very dangerous due to high petty and violent crime rates. Although a fair amount of improvements have been made, there are still problems with basic services, like water, electricity, and law enforcement as well as a lack of facilities like hotels, restaurants, etc. **The city is also remains in great danger of suicide bombings and other terrorist attacks** carried out by extremists who manage to get past the security checkpoints around the city. Walking the streets of Mogadishu remains very dangerous, even with armed guards. Tourists are **emphatically discouraged** from visiting Mogadishu for the time being, while business travelers should take **extreme caution** and make thorough plans for your trip!!! Travel outside Mogadishu remains **extremely dangerous** and should not be done for ANY reason! Those working for aid agencies should consult the security plans/advice of your organization. (Updated July 2012)

Christchurch

Natural Disaster

Understand • Get in • Get around • See • Do • Buy • Eat • Drink • Sleep • Stay safe • Cope • Go next

- **Earthquake tourism.** Tours of affected sites are available. Visitors can also make their own way to sites of particular significance such as Christchurch Cathedral (viewed from Cathedral Square); the Catholic Basilica (South Barbadoes St, just north of Moorhouse Ave) and the Cardboard Cathedral (Madras/Hereford). Memorial sites include the 185 white chair memorial (Madras/Cashel) and the site of the CTV building (Madras/Cashel). A group [campaigning to save](#) Christchurch Cathedral from demolition have a small exhibition in the Cathderal Junction shopping mall which shows some of the historic buildings which have been demolished.
- **6 Quake City** [edit](#), 99 Cashel St, Re:Start Mall. Daily 10:00-17:00. Coordinated by Canterbury Museum, it has exhibits about earthquakes in Christchurch, particularly the quakes of 2010-11. Adult \$20. [edit](#)

Limitations

- It's very difficult to isolate destinations into a single bucket
- There may be other, more influential factors than the ones I've opted to analyze
- Quantifying each factor difficult
- There is significantly less data available for smaller and lesser-visited destinations



Limitations

The screenshot shows a CNN Travel article titled "Wikimedia's massive free online resource is written and edited by travelers for travelers. Guidebooks be warned". It includes social sharing buttons for Facebook, Twitter, and Google+, and a sidebar with travel statistics.

The screenshot shows the Wikivoyage homepage with sections for "Destination of the month" (Walt Disney World), "Off the beaten path" (Staraya Russa), and "Featured travel topic" (Yaowarat and Phahurat Tour). It also includes a "Discover" section and a "Getting involved" section.

WIKIVOYAGE SCREEN GRAB

Though online since last year, the Wikimedia Foundation's newest site launched officially this week.

The latest free online resource by the Wikimedia Foundation, [Wikivoyage.org](#), officially launched on January 15 and already the site is attracting plenty of attention for the potential impact it will have on the travel content industry.

Limitations



Content API

[API Description](#)

Request API Access

[Terms and Conditions](#)

[Display Requirements](#)

[Technical Overview](#)

[Documentation](#)

[Mapping Individual Properties](#)

[Locations](#)

[Business Content](#)

[Destination Content](#)

[Supported Languages](#)

[FAQs](#)

[Support](#)

[Home](#) / [Content API](#) / [Request API Access](#)

Request API Access

TripAdvisor DOES NOT grant access to the Content API for purposes of:

- Data analysis
- Academic research
- Any use not associated with a consumer-facing (B2C) travel website or application

To request access to the TripAdvisor API, please fill out the [Request API Access](#) form.

Due to the high volume of requests, **we are unable to respond to applications that are incomplete or include insufficient information.**



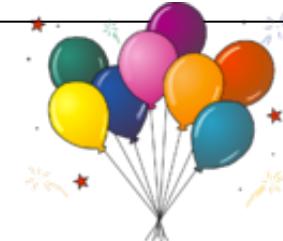
WIKIPEDIA



The End



Bonus - Usernames



Wikipedia

Kathmandu200000
Kathmandu2007
Marcy de Bangkok
Istanbul123
AusLondonder
LondonNano
Shanghai88
Cook In Shanghai
Tokyoship
Tokyofan234
Tokyo67
Cairo987cairo
Nairobi123
Nairobitraffic
ParisNicole
Paris 16
Paristouch

Milan2009
Milanvenice
Happytravels
Hikingbhutantravels
Peaceworld111
Iamthe56thbestpersonintheworld
Justice4theworld
Medicworld
Thukusa
Musamies
Susanonline87
Spnepal
Longlivethekingofthailand
Bournechina
Sachinagarwal25
Kibet kenya
Uthantofburma

Wikipedia

Egypt Cairo Hostel
Cairodowntown
Easy-Kiev
Easy-Kiev.com
TaxiAeroportParis
Paristrikkes
Istanbultravelbook
Tattooedbuddhisttravelers
Joytraveller
Yeahtravel
Mariakanotravels
Roundtheworld

Ashgabat Edits by Month

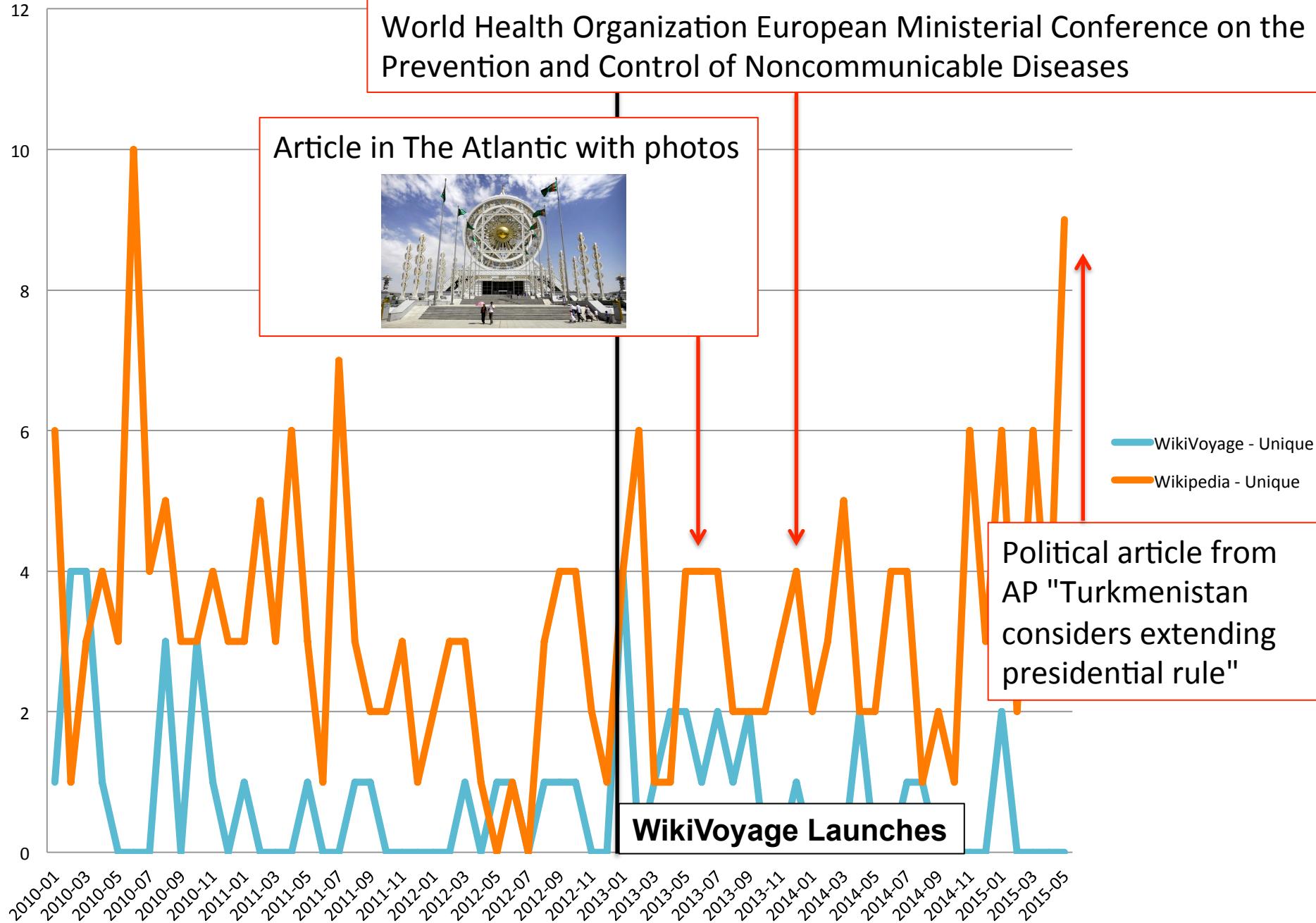
World Health Organization European Ministerial Conference on the Prevention and Control of Noncommunicable Diseases

Article in The Atlantic with photos

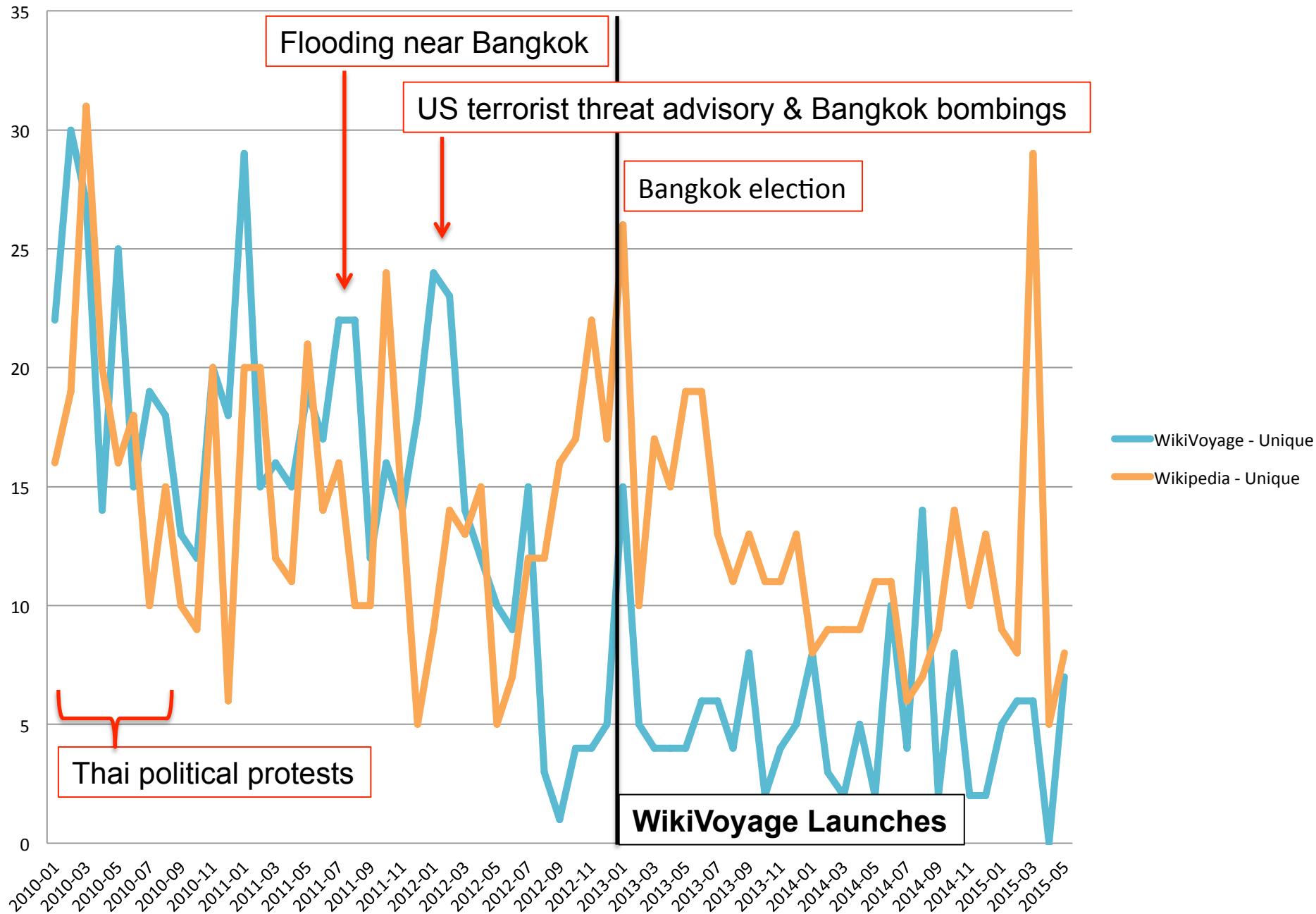


Political article from AP "Turkmenistan considers extending presidential rule"

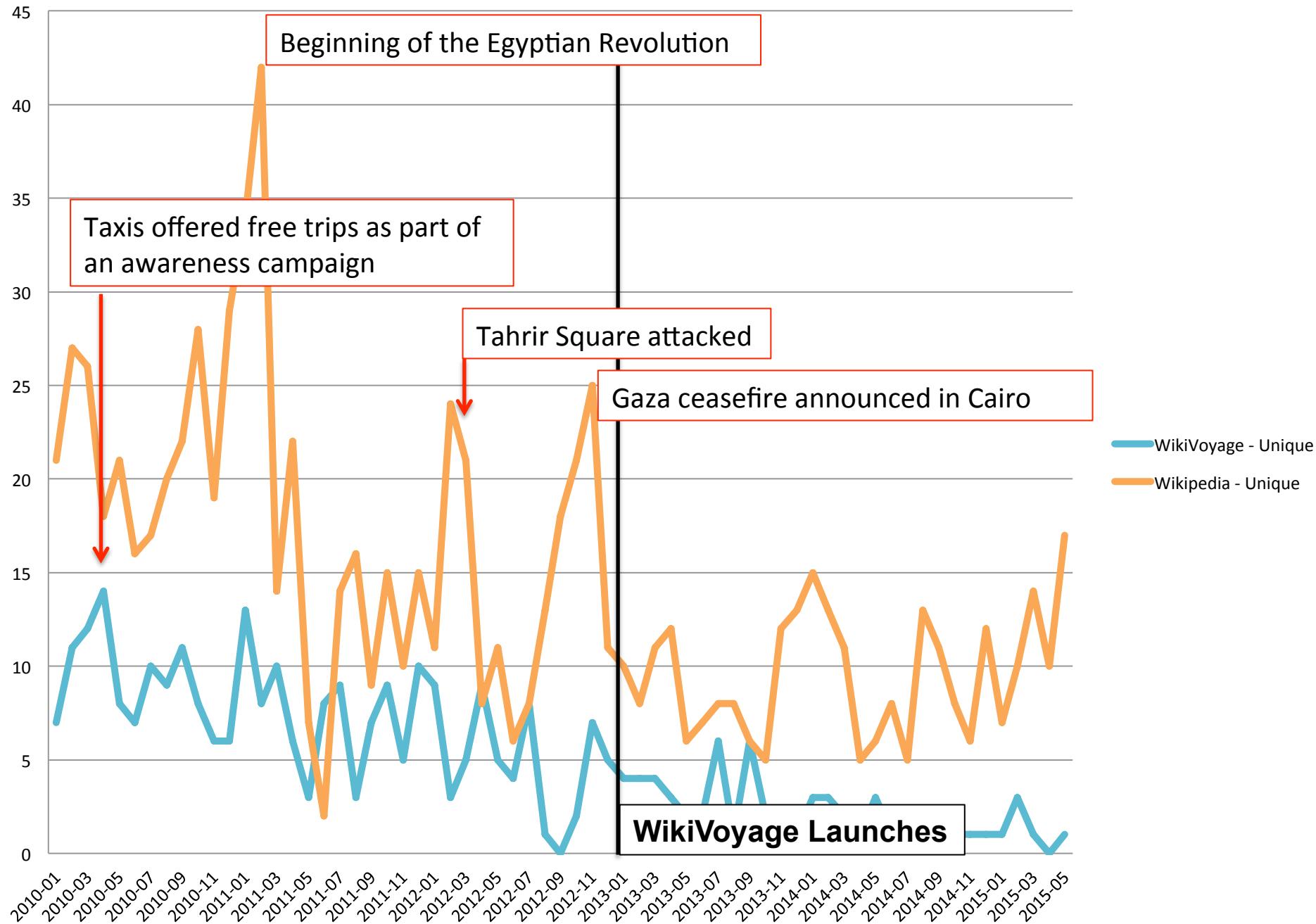
WikiVoyage Launches



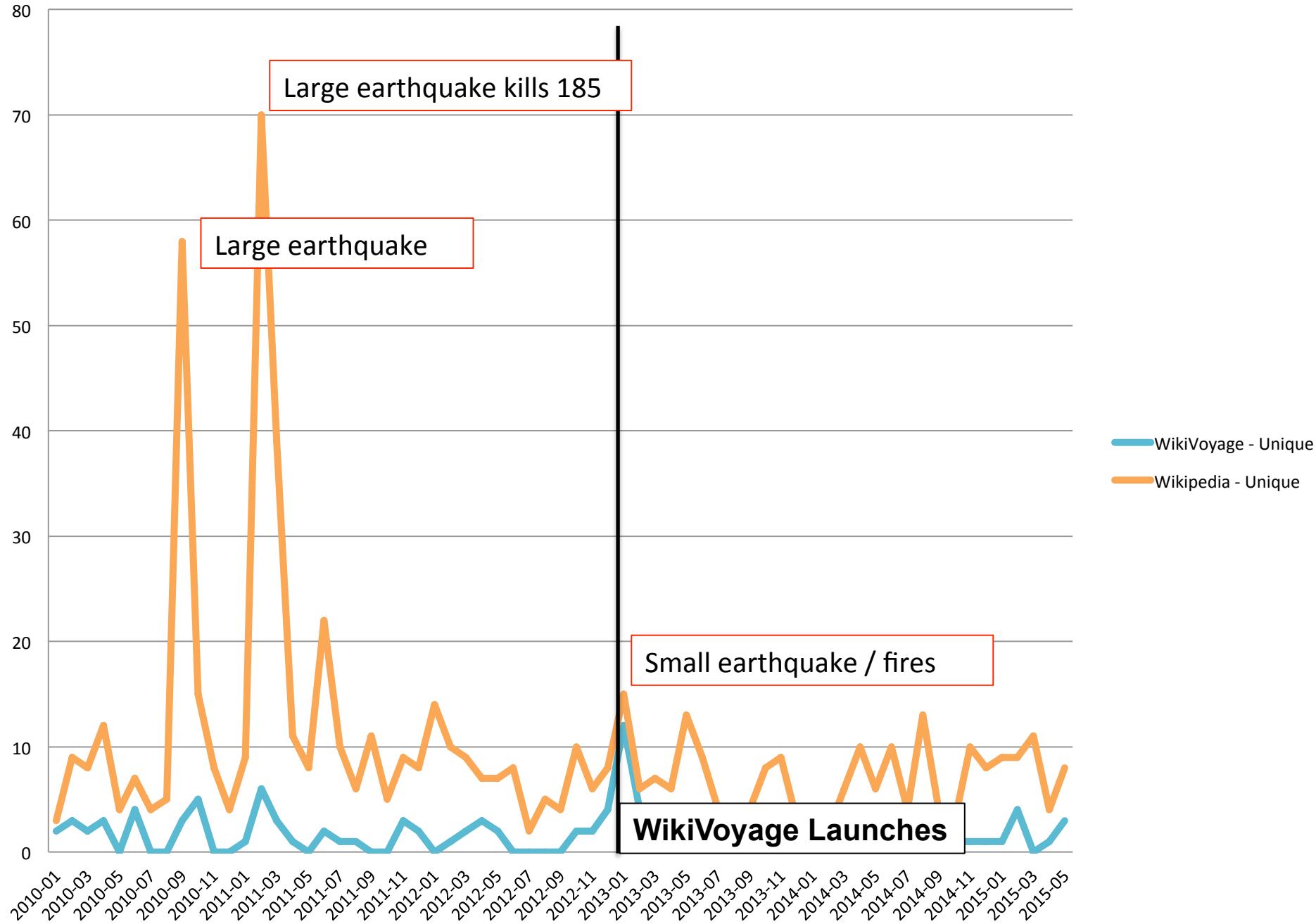
Bangkok Edits by Month



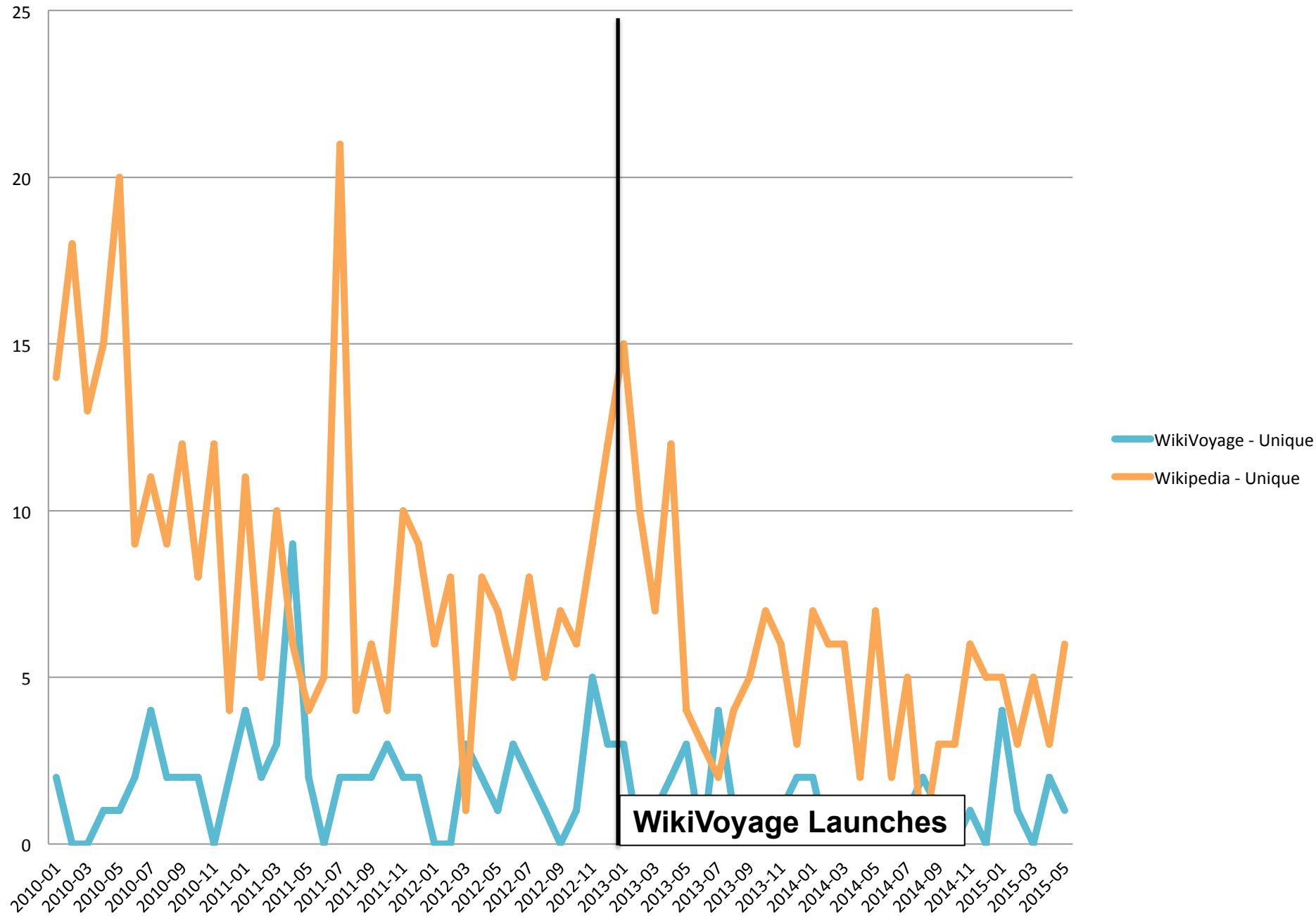
Cairo Edits by Month



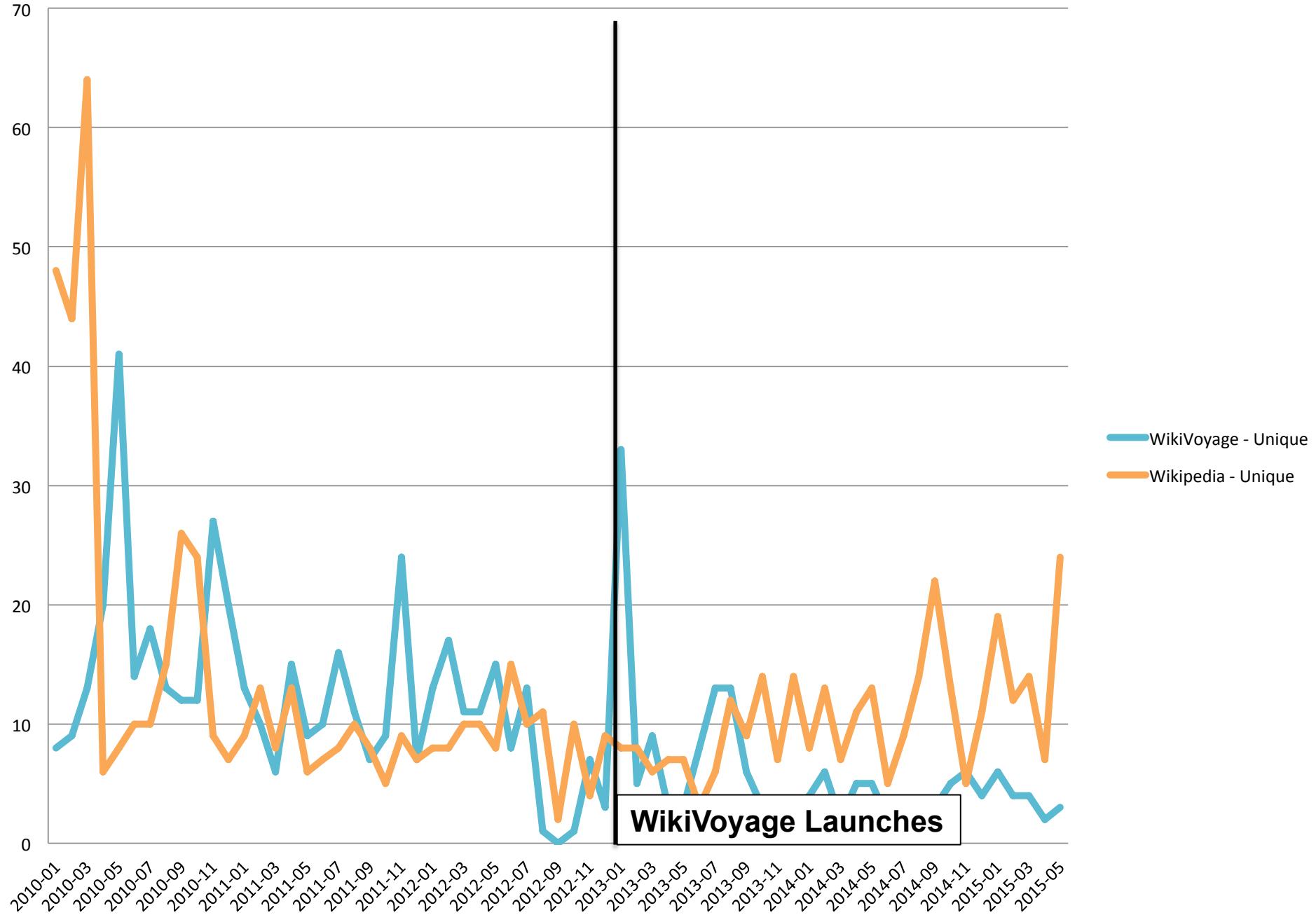
Christchurch Edits by Month



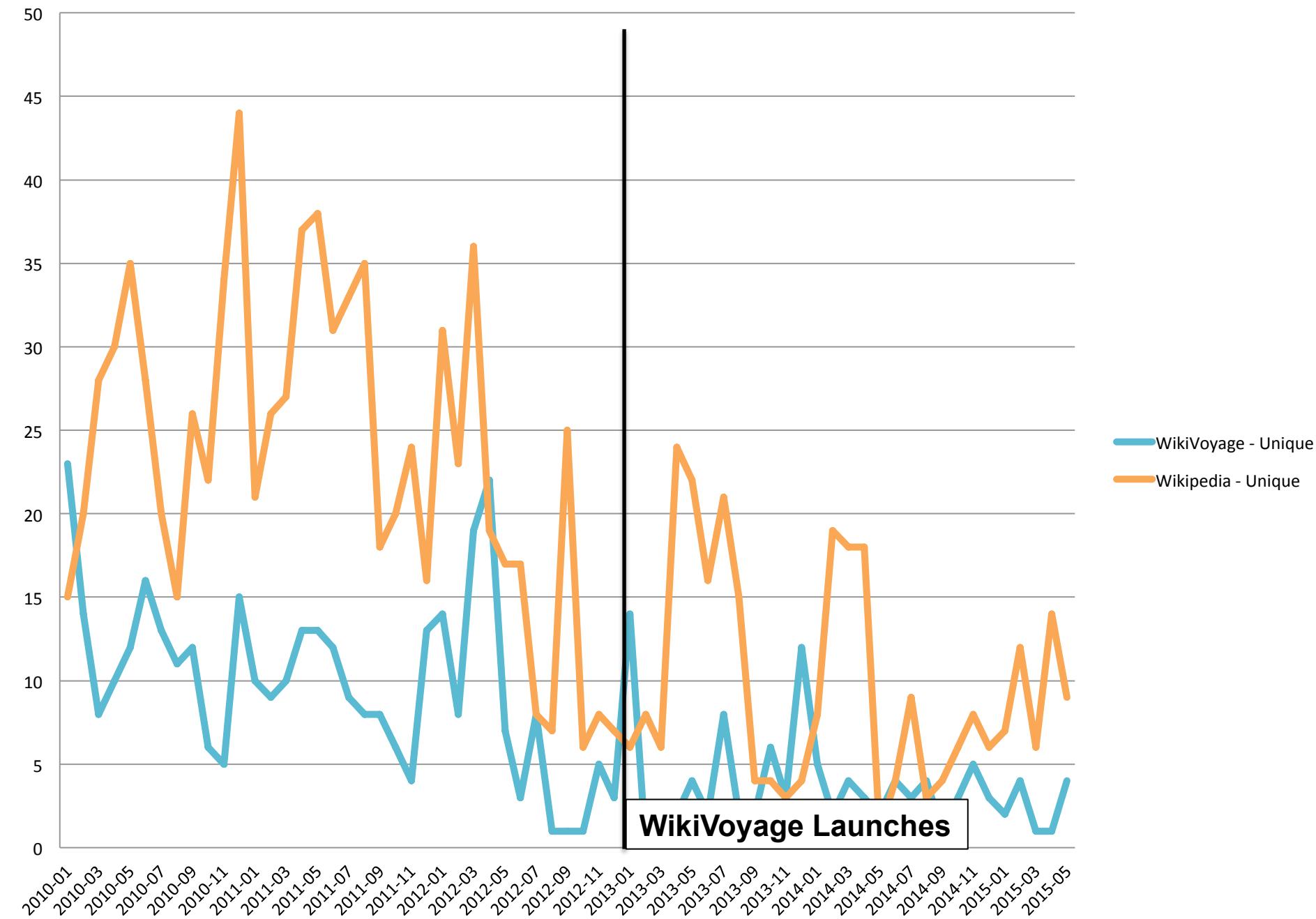
Havana Edits by Month



Hong Kong Edits by Month

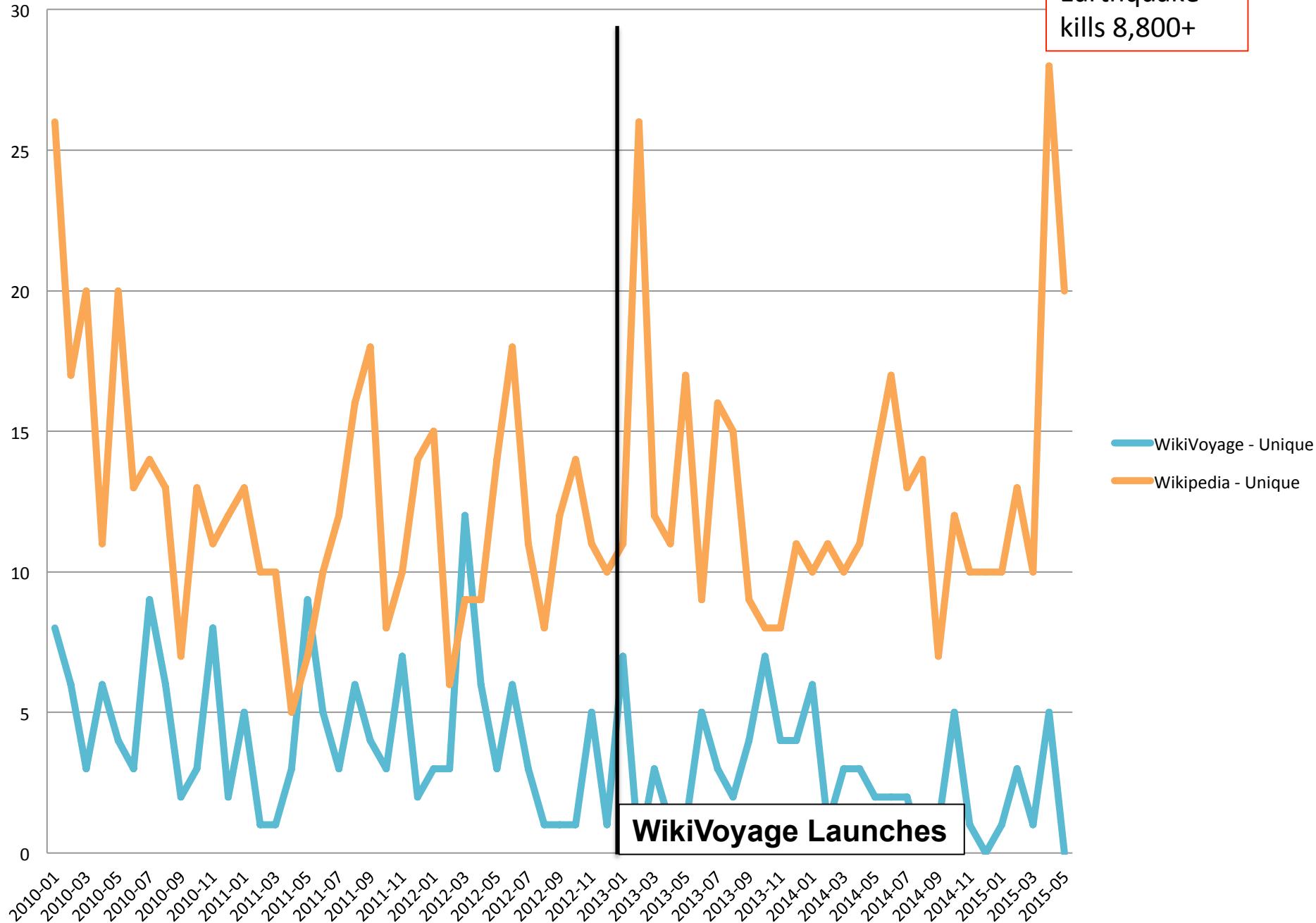


Istanbul Edits by Month

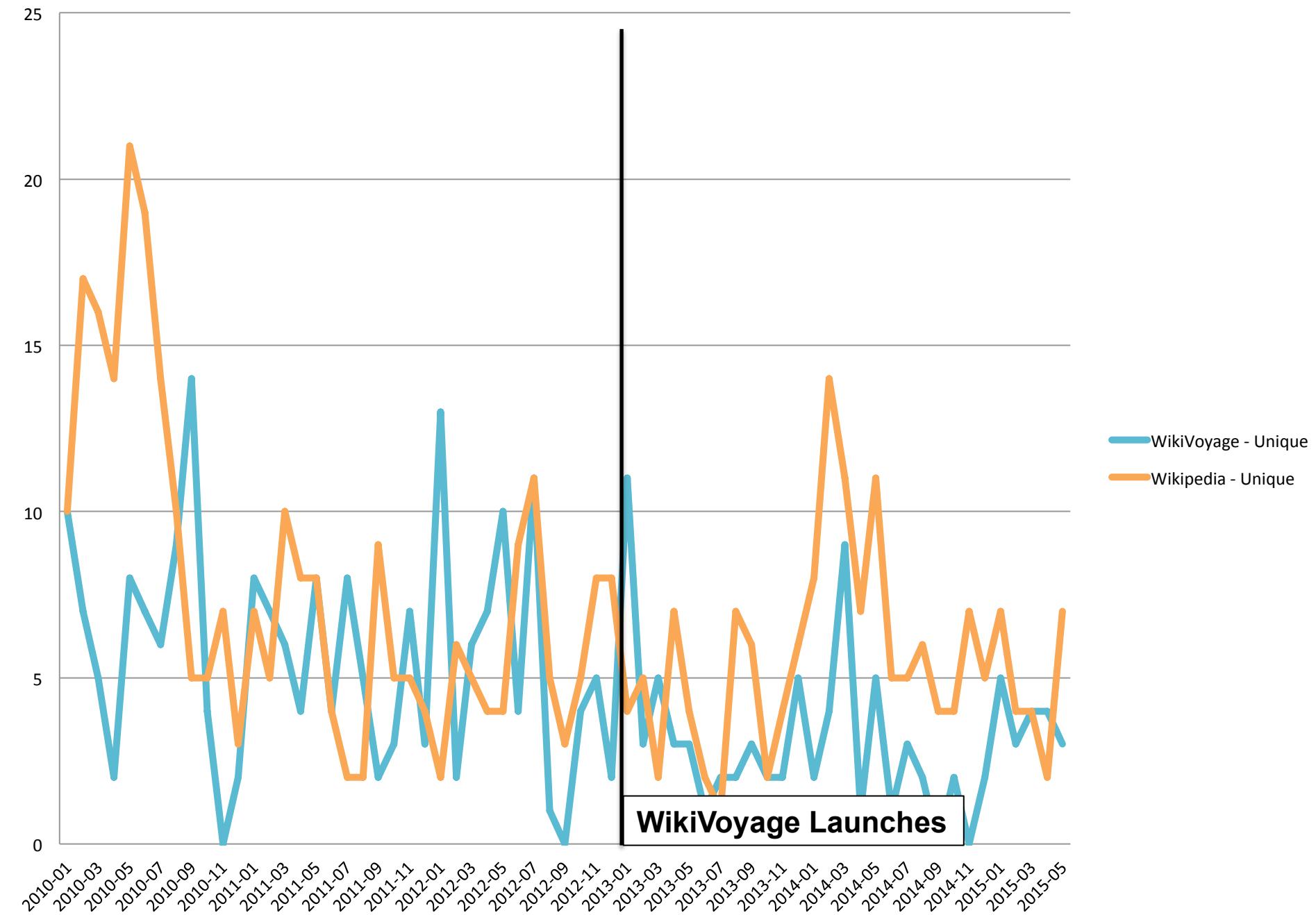


Kathmandu Edits by Month

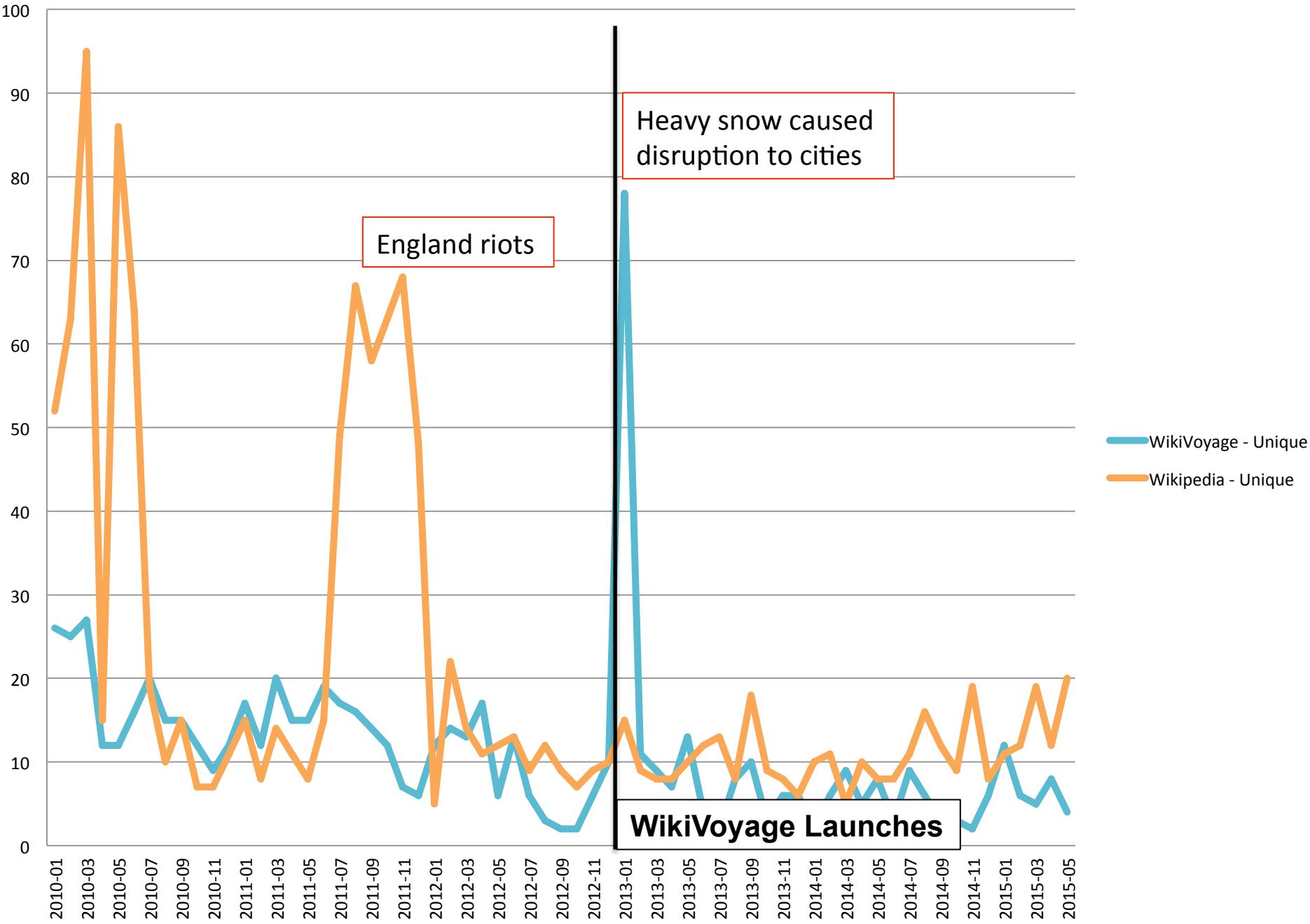
Earthquake
kills 8,800+



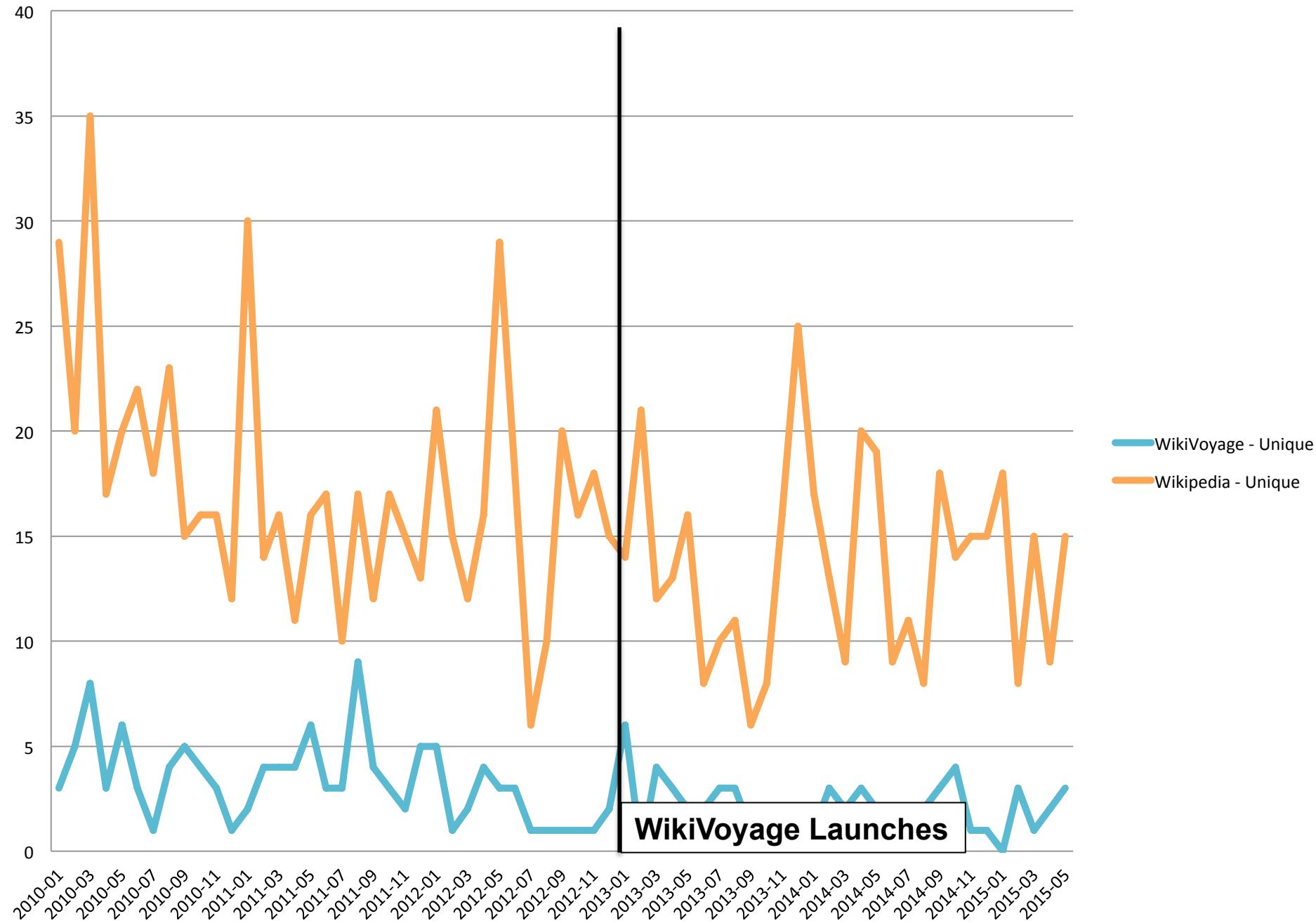
Kiev Edits by Month



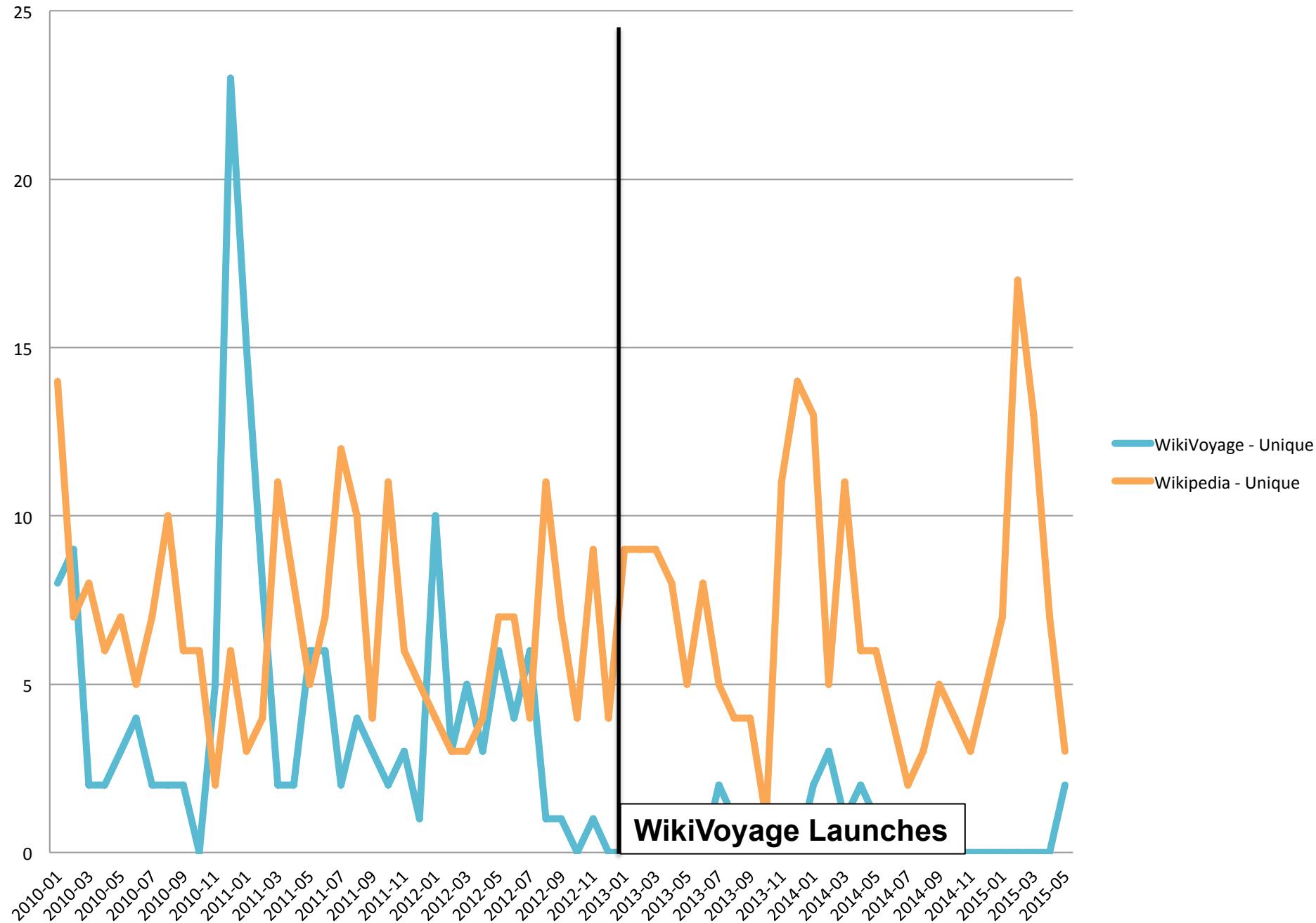
London Edits by Month



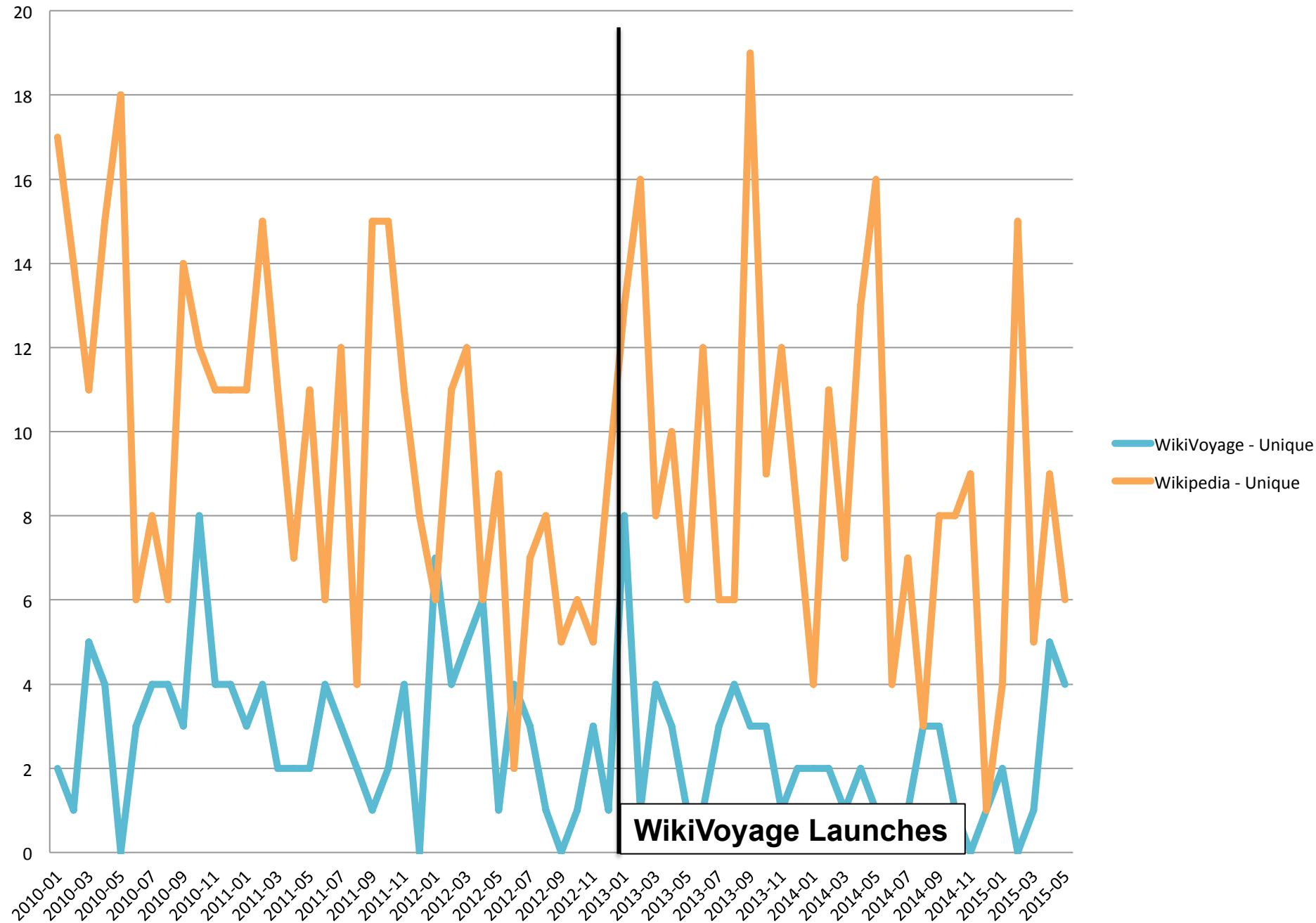
Milan Edits by Month



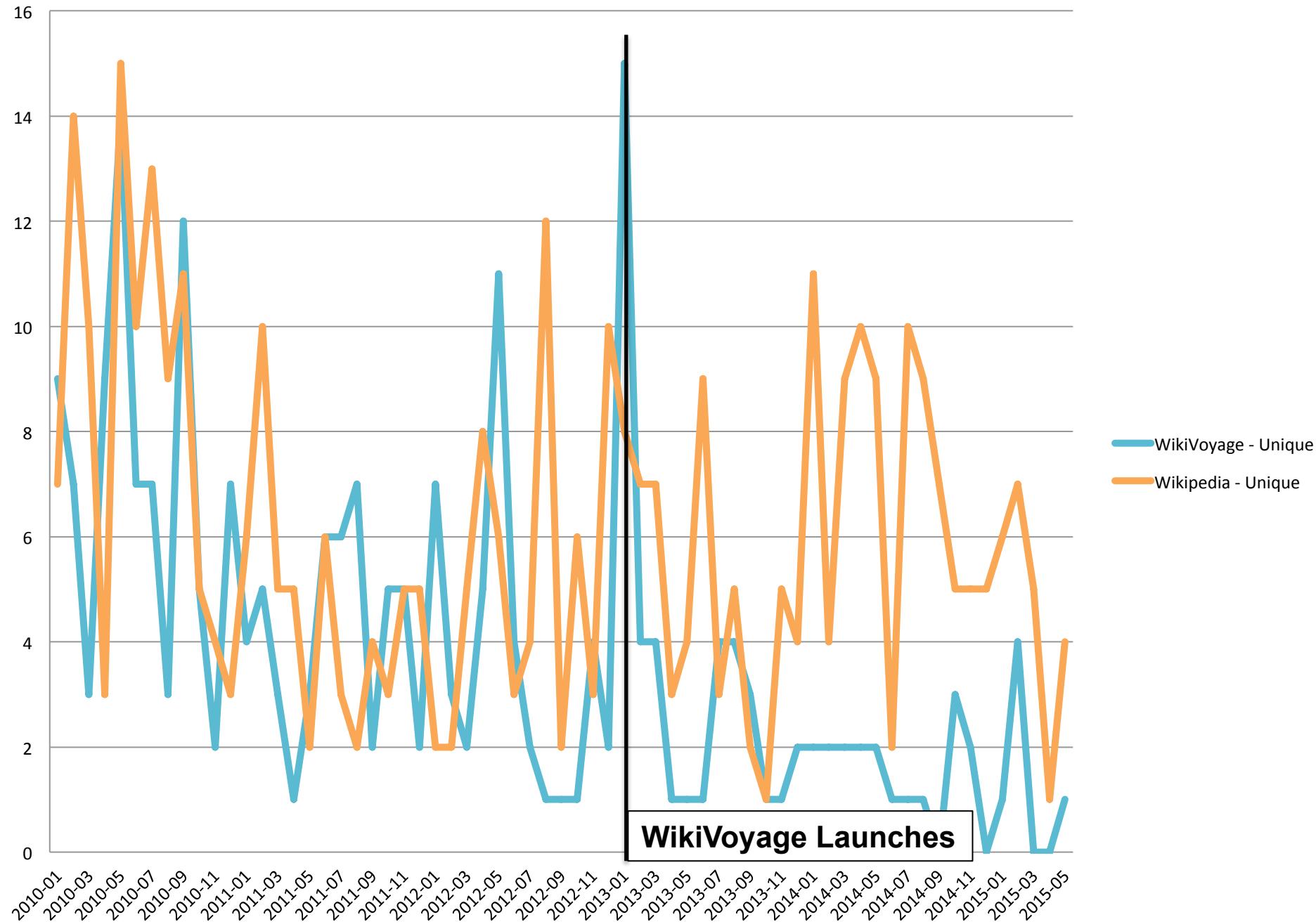
Mogadishu Edits by Month



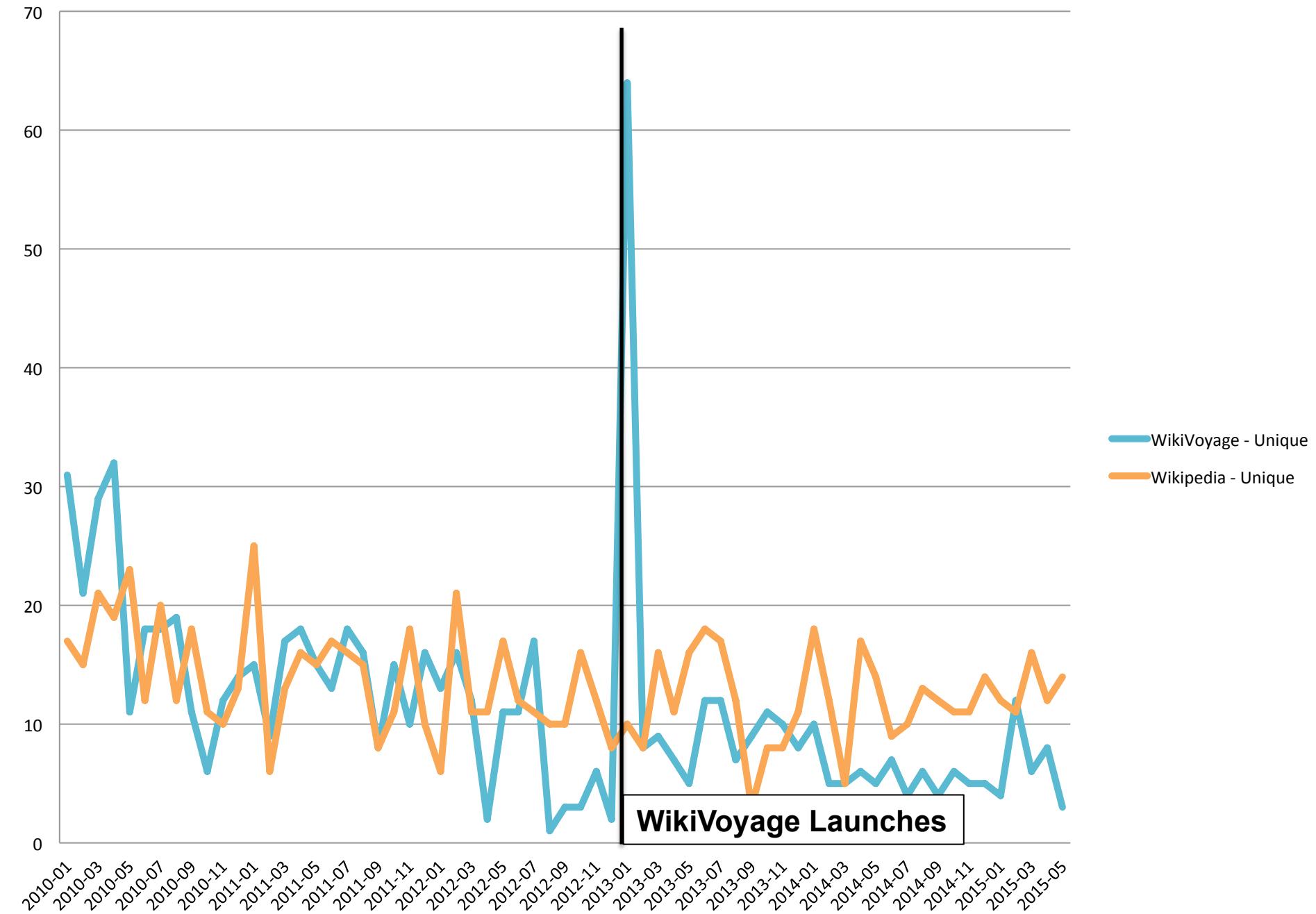
Nairobi Edits by Month



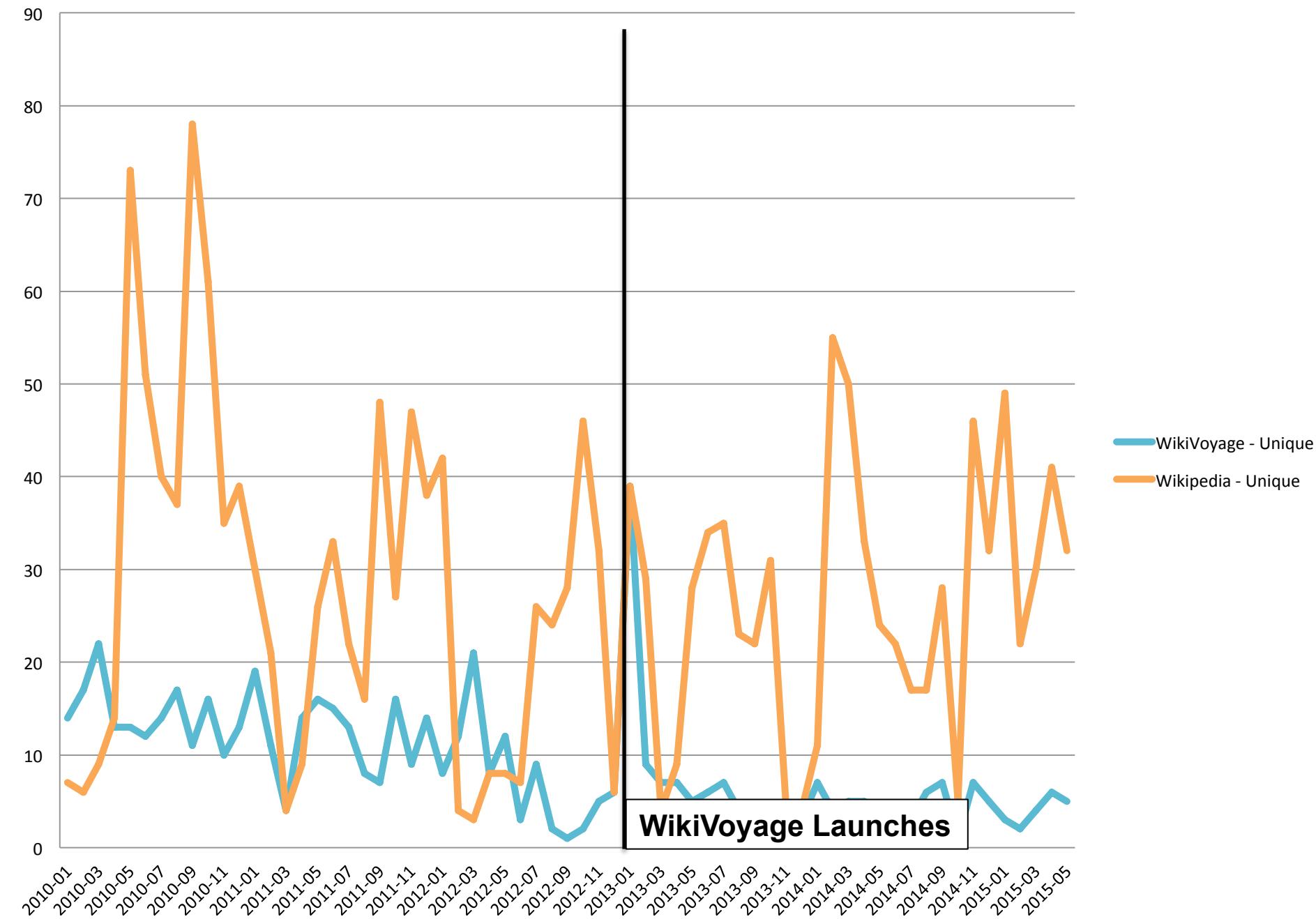
New Orleans Edits by Month



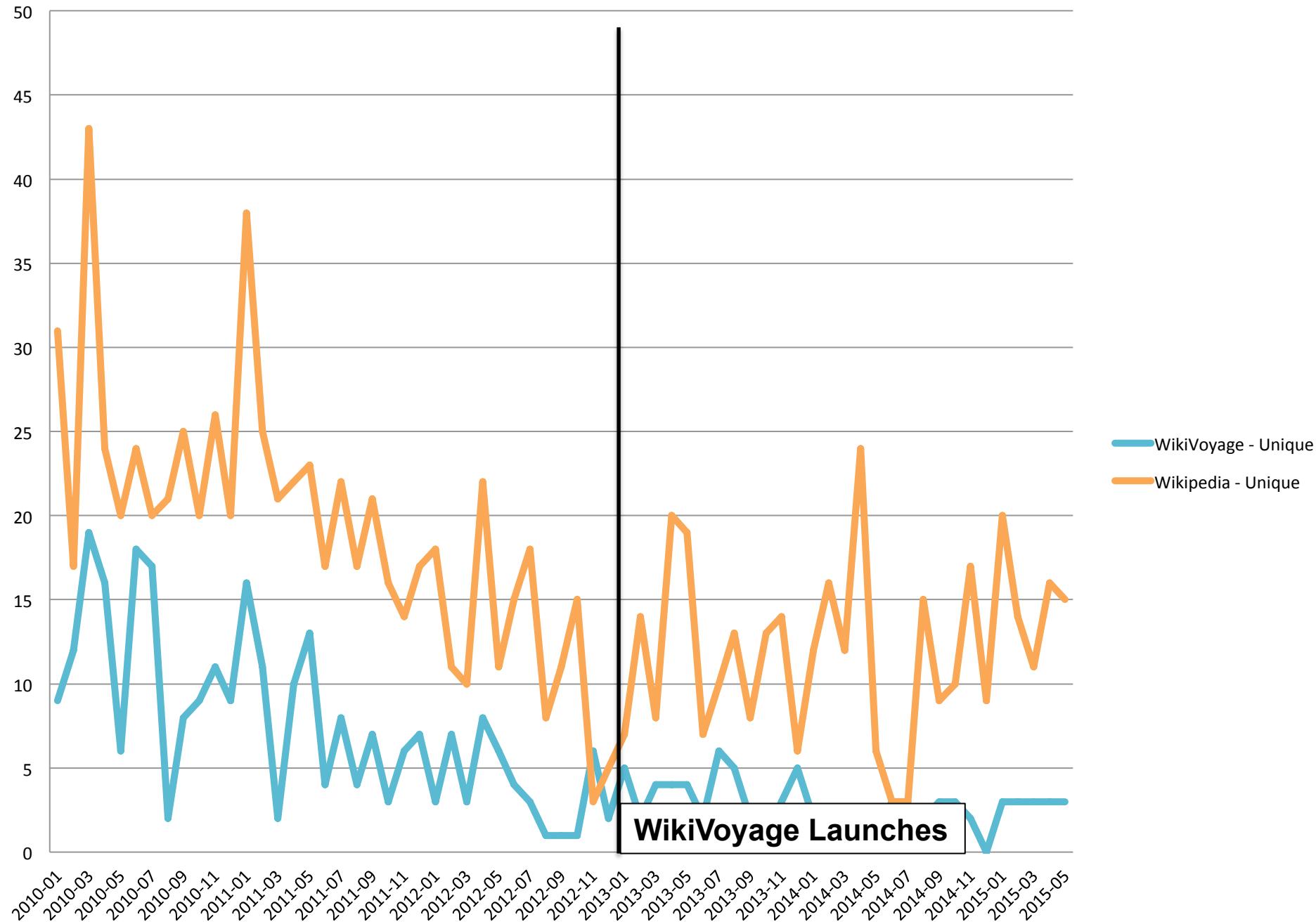
New York City Edits by Month



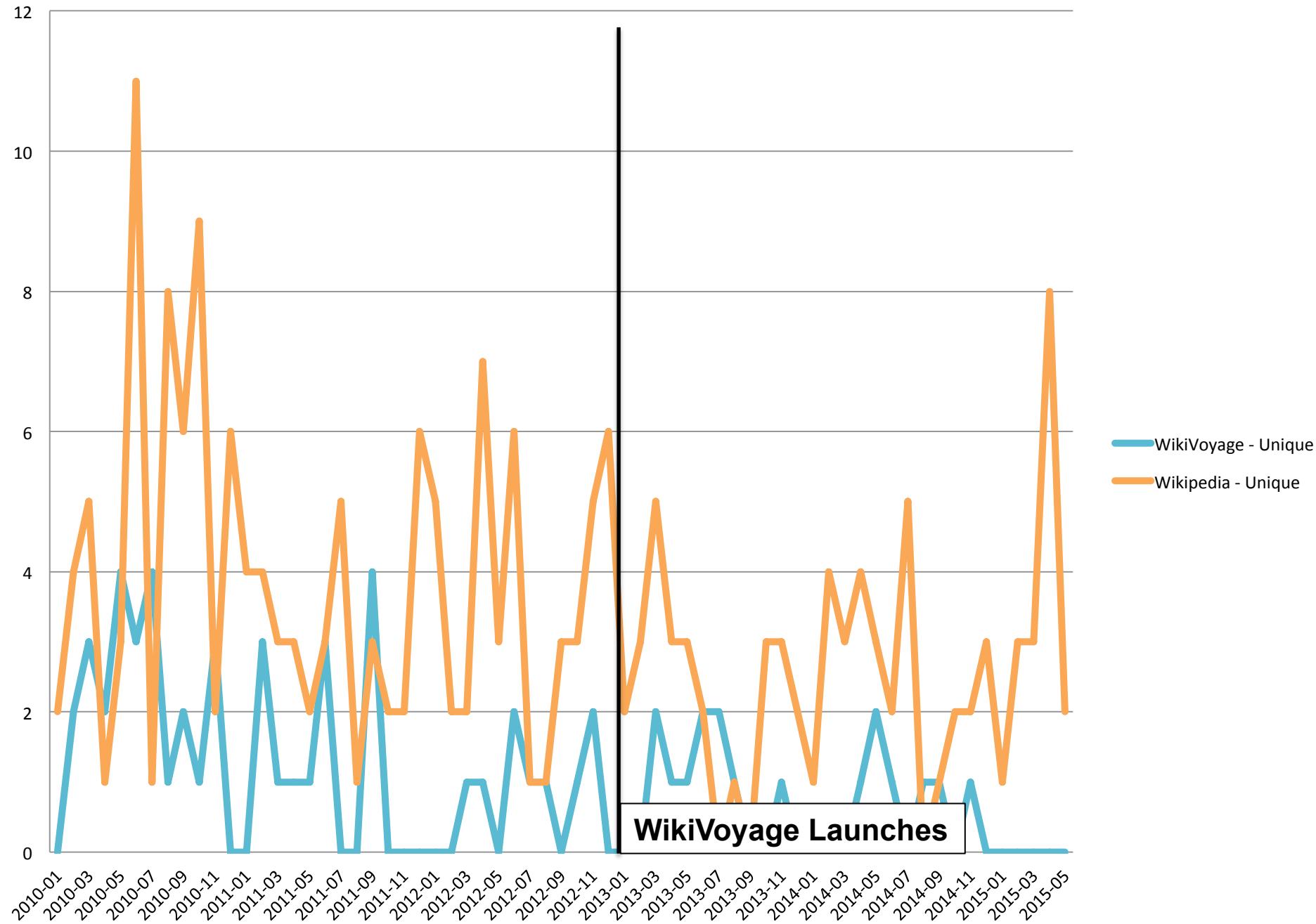
Paris Edits by Month



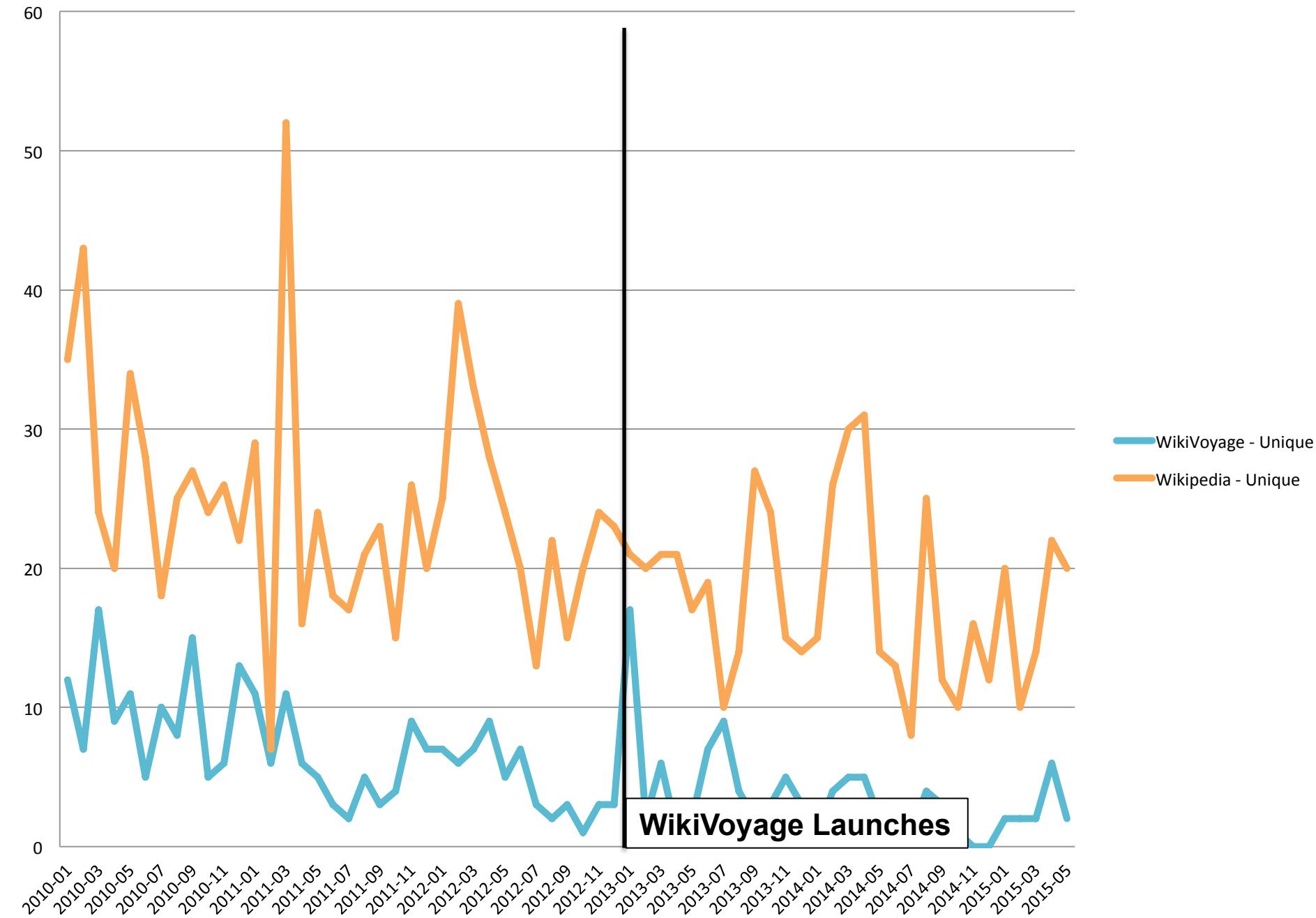
Shanghai Edits by Month



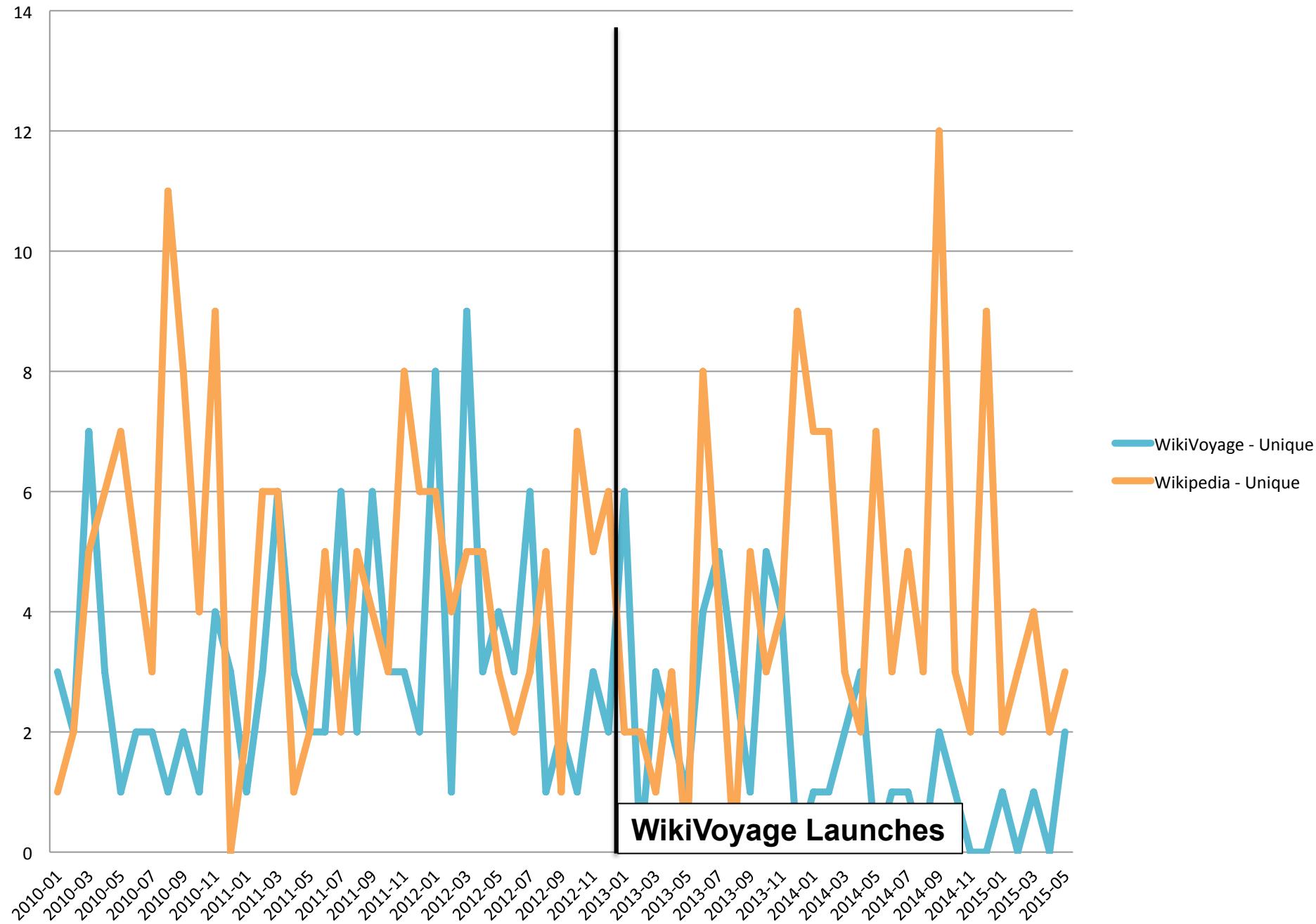
Thimphu Edits by Month



Tokyo Edits by Month



Yangon Edits by Month



Yaren District Edits by Month

