



Web Archives as Memoryware

Critical Reflections on Sources and Methods for Web History

IIPC WEB ARCHIVING CONFERENCE, June 7 2019

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@anatbd

2012:



"The Broad Value of Web Archives: Demonstrated Use"

2019:



"Web Archiving Community: Maturing Practice Together"

The SAGE Handbook of
Web History

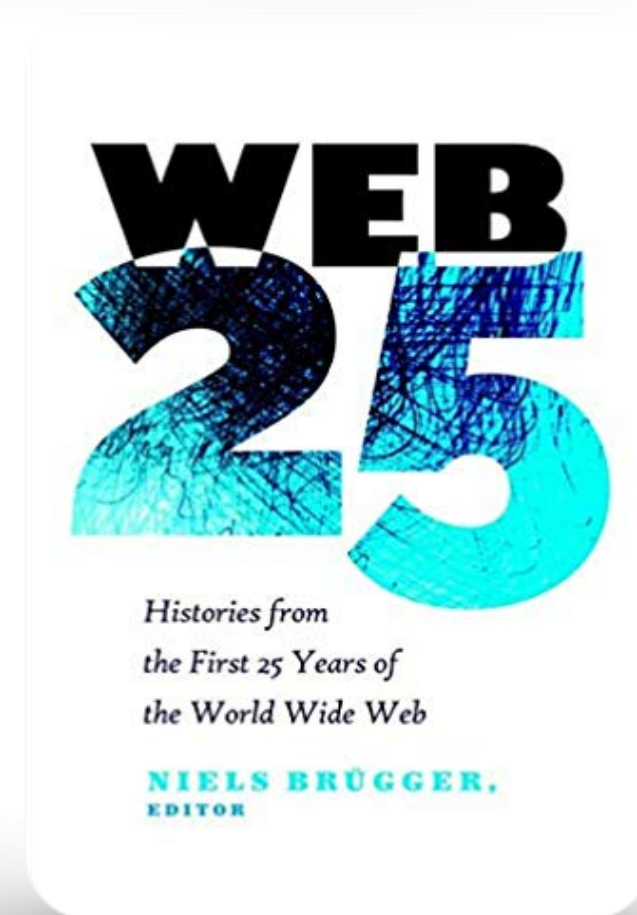
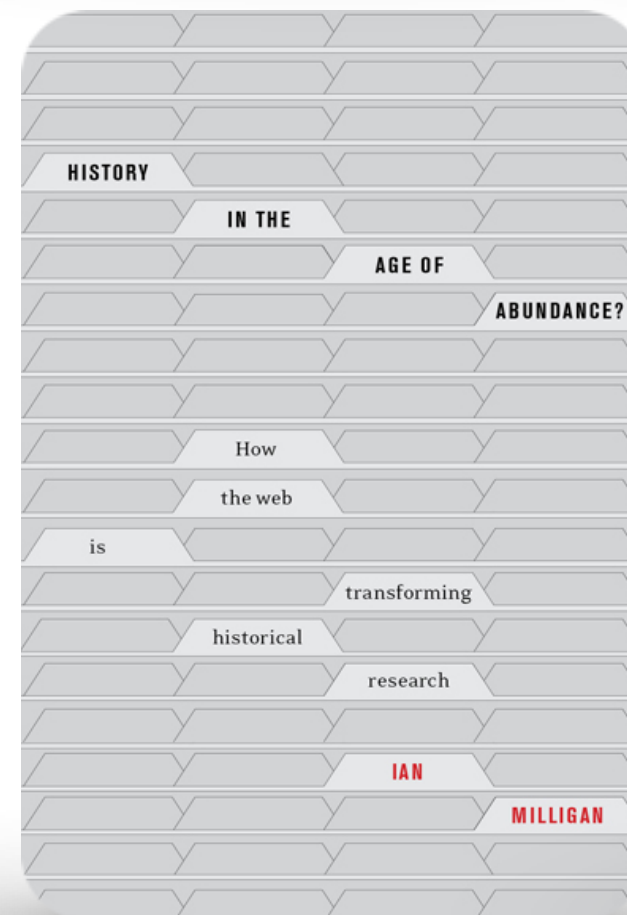
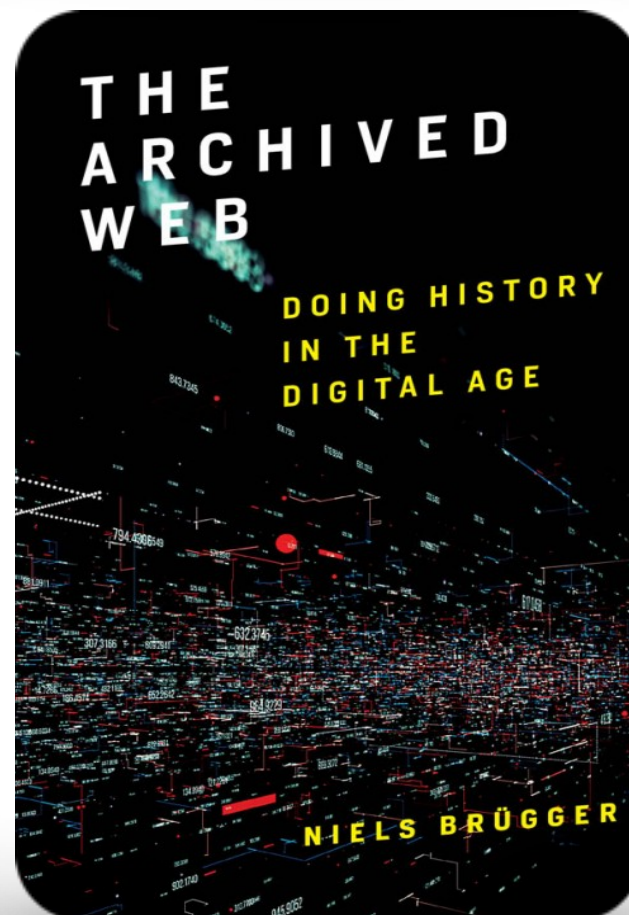
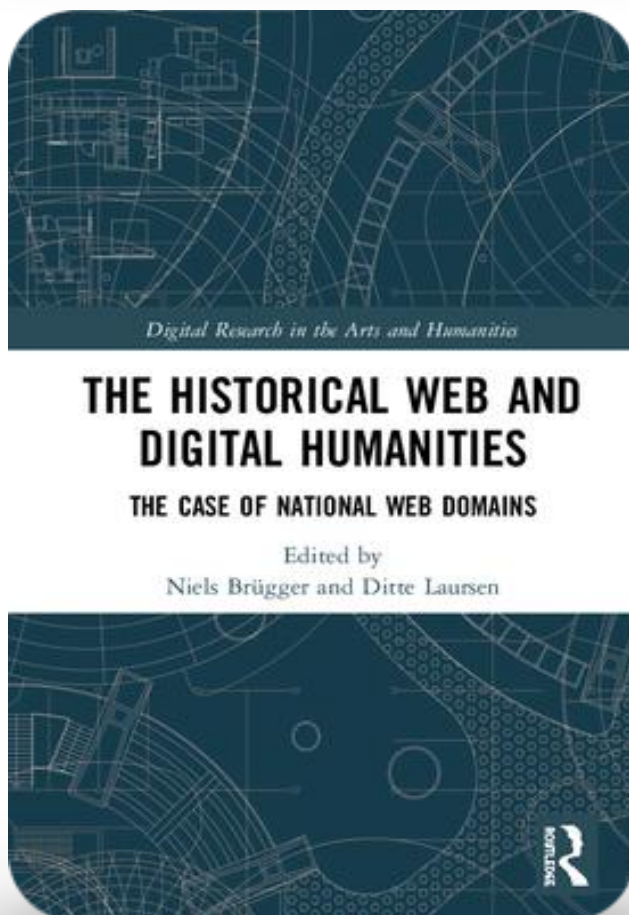
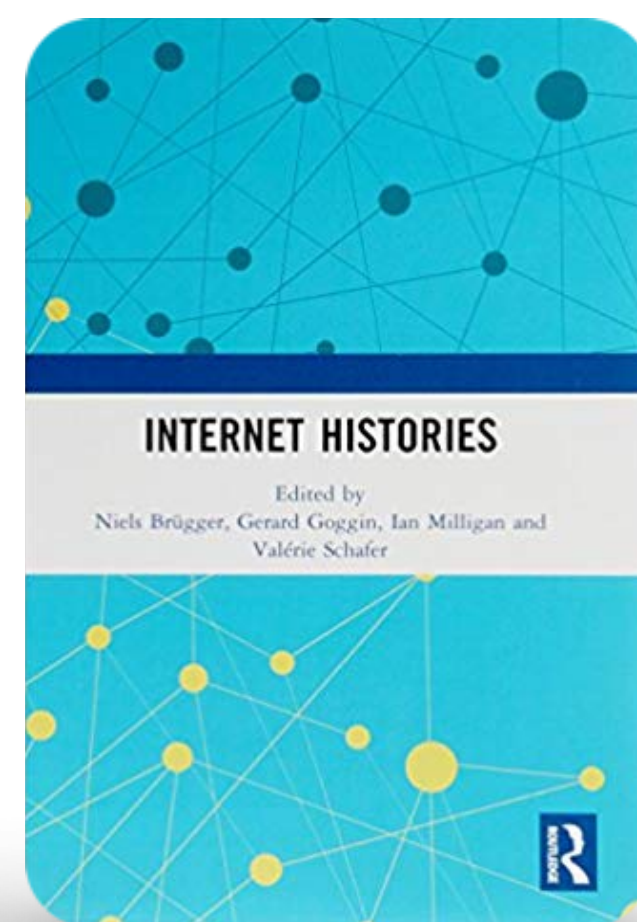
Edited by
Niels Brügger and
Ian Milligan



UCLPRESS



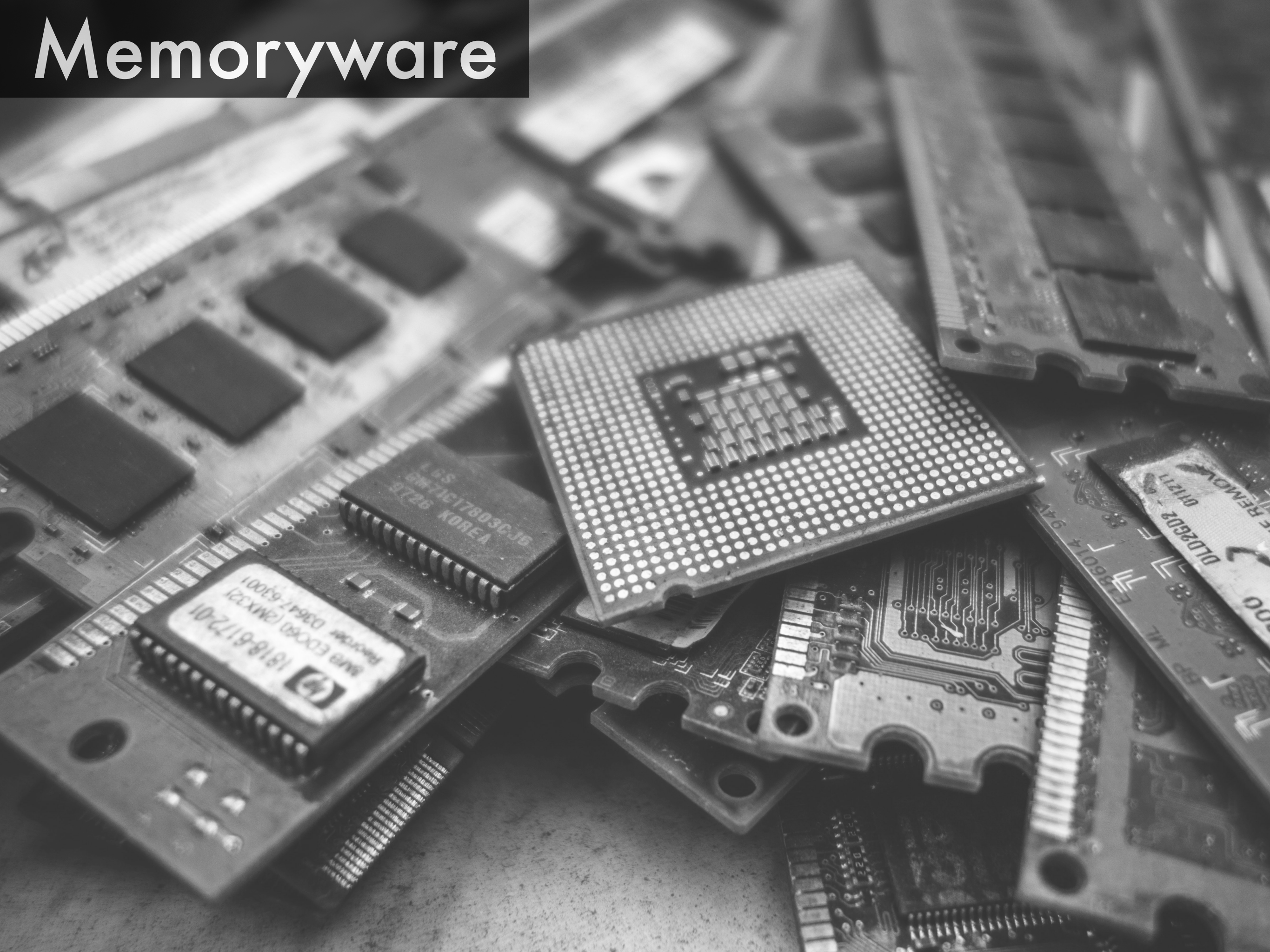
OpenEdition
press



Technological Closure



Memoryware







Memory.ware

Noun.

Specific forms of preservation techniques, involving both software and hardware, but also crawlers, bots, curators and users – through which the web's history is both documented, and constructed



Greenland

Sweden

Finland

Norway

Germany

Poland

Belarus

Ukraine

France

Italy

Spain

Turkey

Iraq

Iran

Pakistan

India

Saudi Arabia

Sudan

Yemen

Democratic Republic of Congo

Brazil

Russia

Mongolia

China

Japan

Australia

World ► Europe US Americas Asia Australia Middle East Africa Inequality Cities Global development

North Korea

North Korea only has 28 websites, according to leak of official data

Apparent error by a regime tech worker gave the world a rare glimpse into the few online sources of information available

Justin McCurry in Tokyo

Wed 21 Sep 2016 09.29 BST



774 348

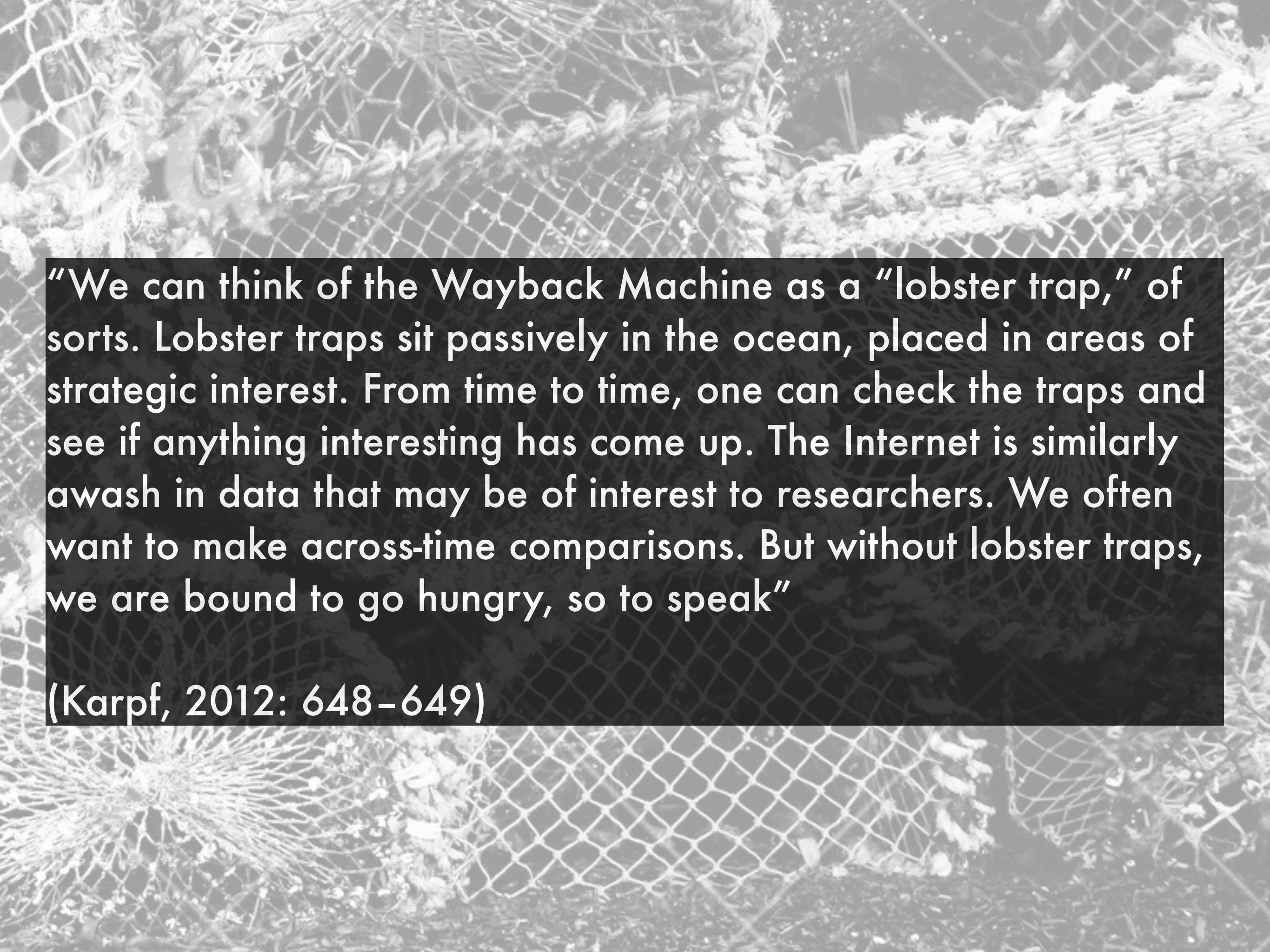
🕒 This article is over 1 year old



▲ The North Korean leader, Kim Jong-un, looks at a computer while flanked by military personnel. Photograph: KNS/AFP/Getty Images



Is the Wayback Machine a black box?



"We can think of the Wayback Machine as a "lobster trap," of sorts. Lobster traps sit passively in the ocean, placed in areas of strategic interest. From time to time, one can check the traps and see if anything interesting has come up. The Internet is similarly awash in data that may be of interest to researchers. We often want to make across-time comparisons. But without lobster traps, we are bound to go hungry, so to speak"

(Karpf, 2012: 648–649)

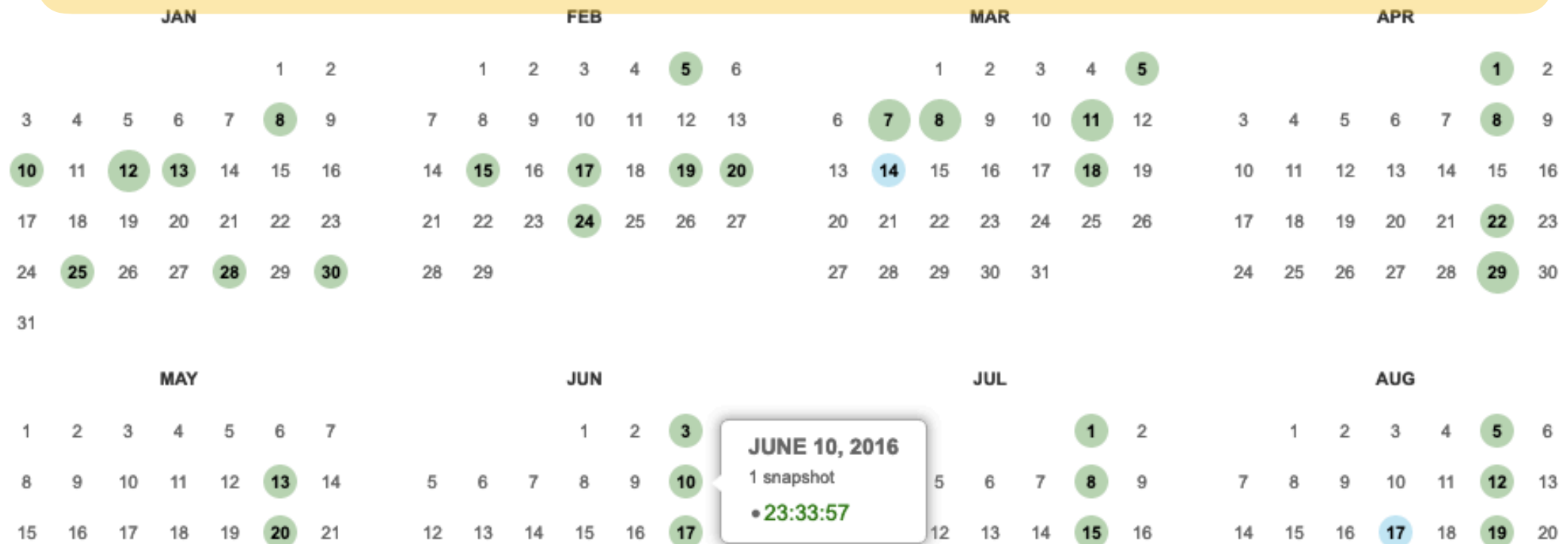
[www.rodong.rep.kp](#)

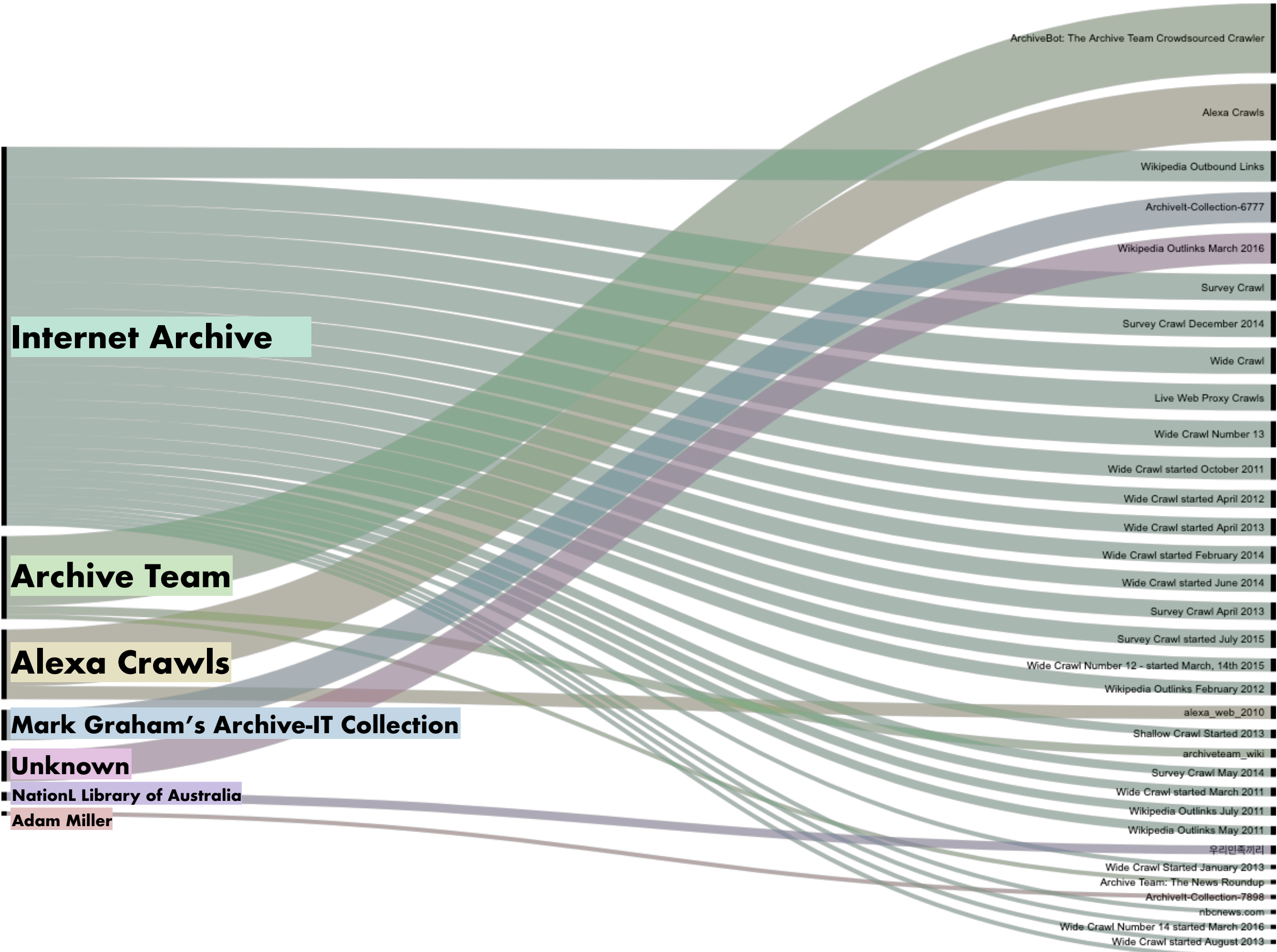
[Calendar](#) · [Collections](#) ^{beta} · [Summary](#) · [Site Map](#)

Saved **1,073 times** between [February 19, 2011](#) and [June 2, 2019](#).

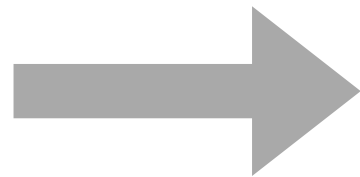


Fri, 10 Jun 2016 23:33:57 GMT (why: [ArchiveIt-Collection-6777](#), [archiveitpartners](#), [ArchiveIt-Partner-1028](#), [archiveitdigitalcollection](#))

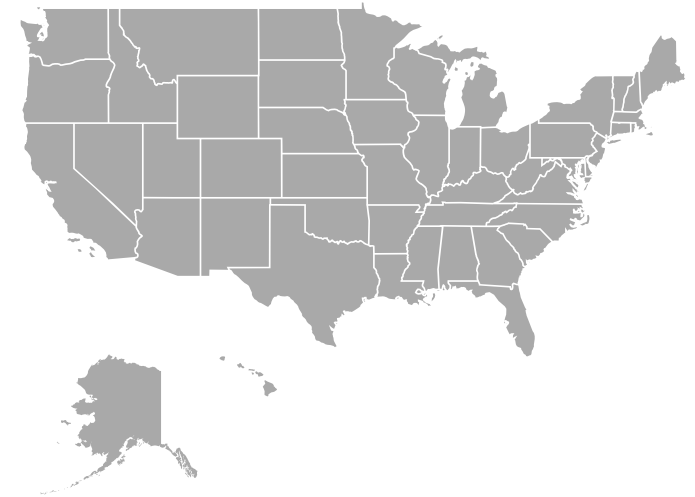




Dittributed Content Contribution

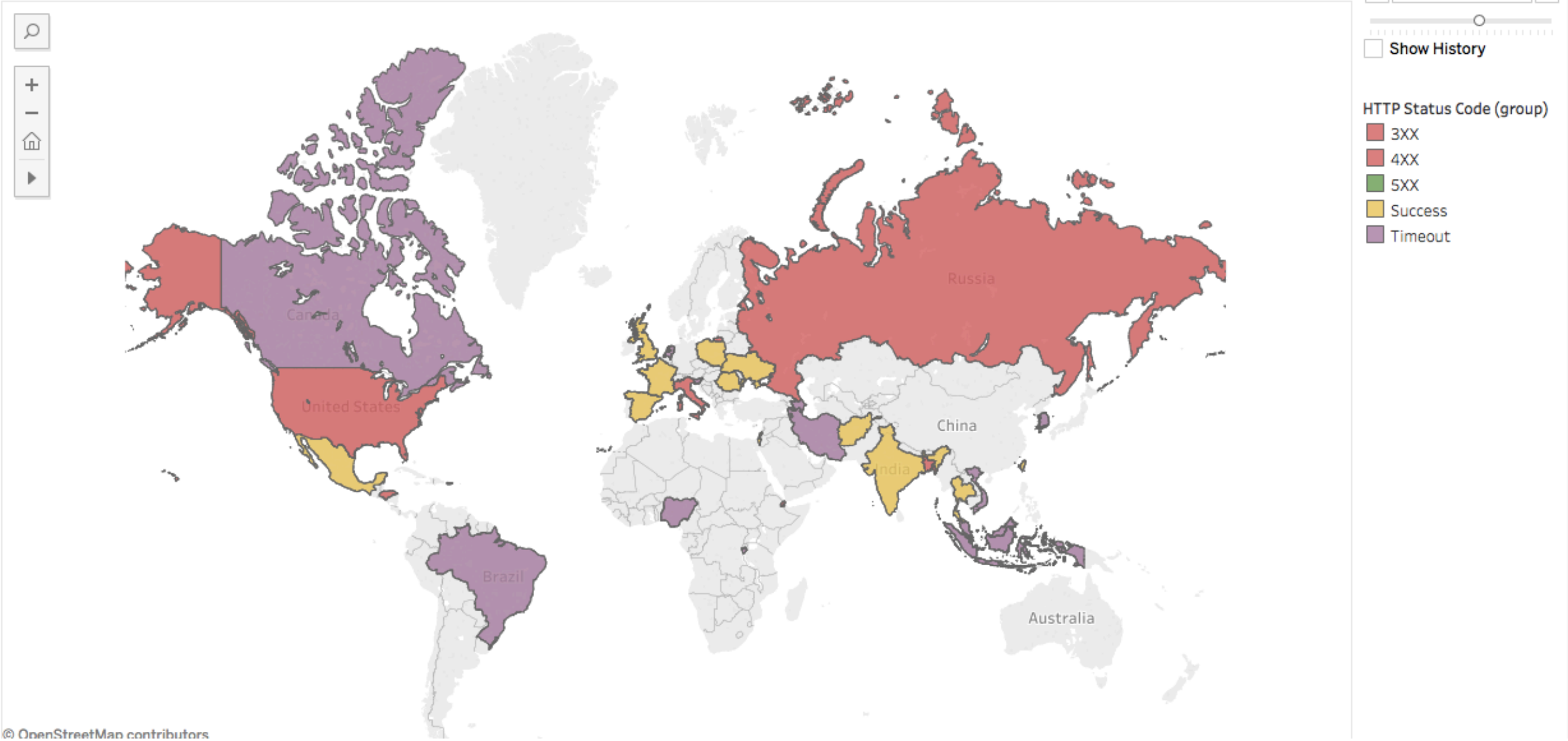


Localised Content Capture



US-centric facts?

Map - <http://rodong.rep.kp>





The formal history of the .yu ccTLD

■ *Slovenia and Croatia declare independence*

■ Breakup of Yugoslavia

Croatian War

Sarajevo Siege

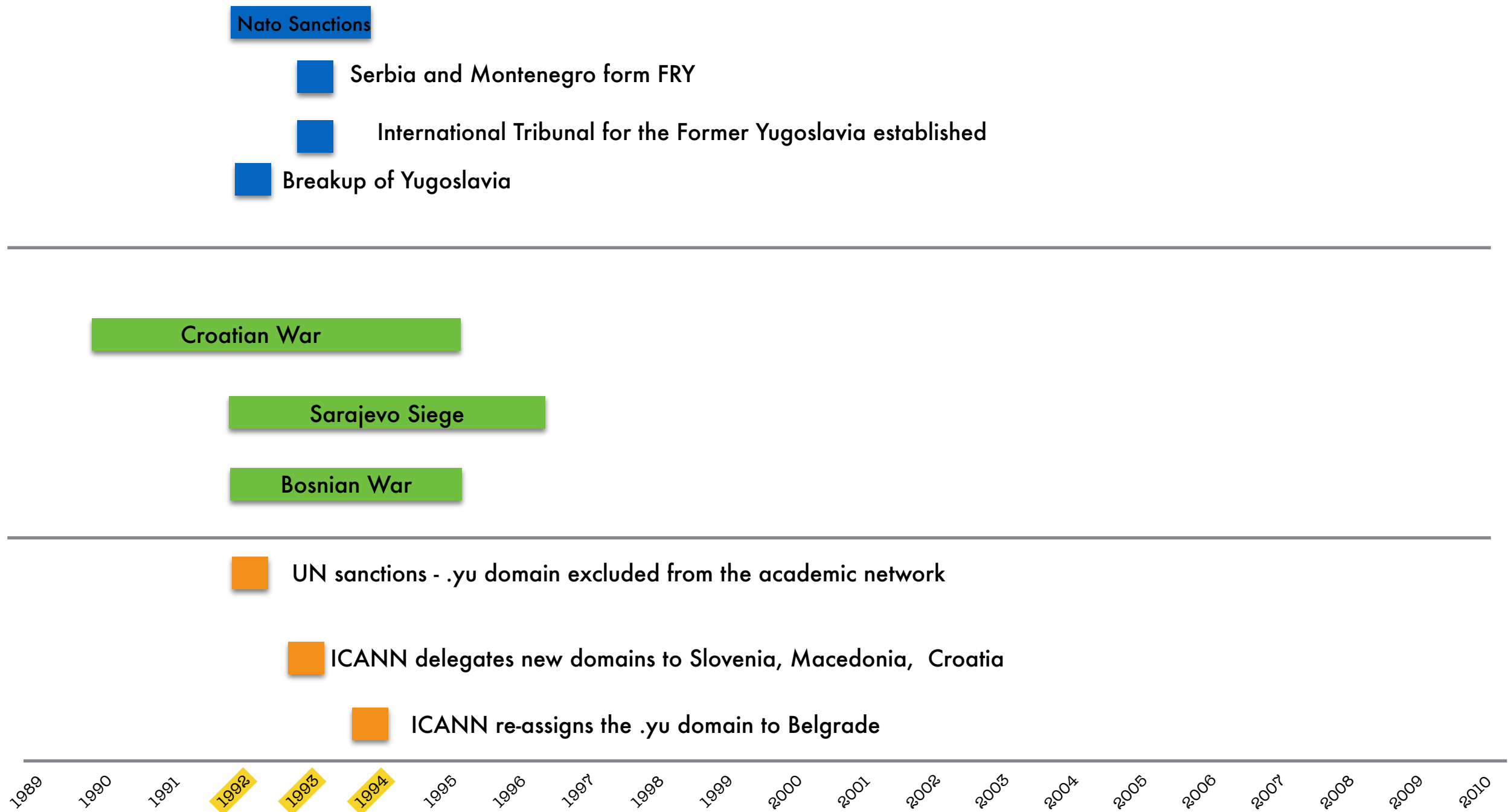
Bosnian War

■ .yu domain delegated, maintained in Ljubljana

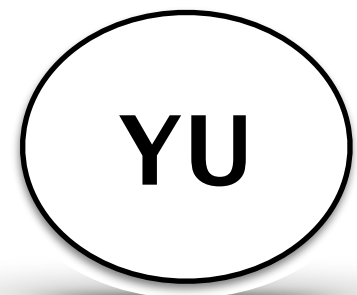
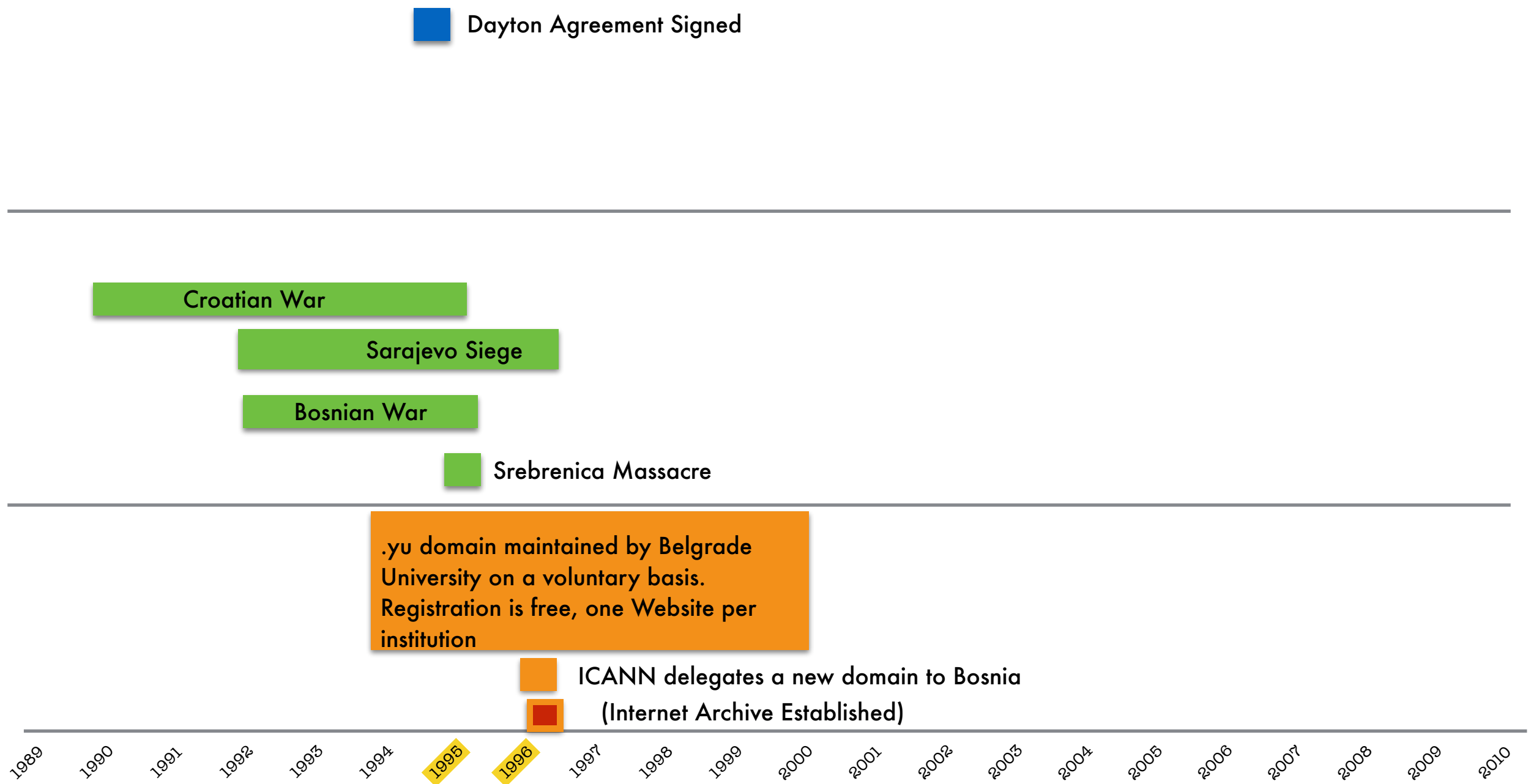
1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010

YU

The formal history of the .yu ccTLD



The formal history of the .yu ccTLD



The formal history of the .yu ccTLD

EU freezes funds for FRY

Overthrow of Milosevic

Kosovo War

NATO bombing of Yugoslavia

.yu domain maintained by Belgrade University on a voluntary basis.
Registration is free, one Website per institution.

"First Internet War"

1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010

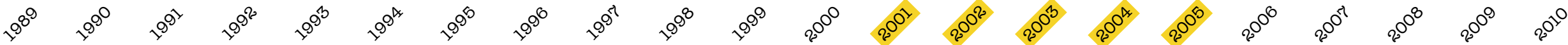
YU

The formal history of the .yu ccTLD

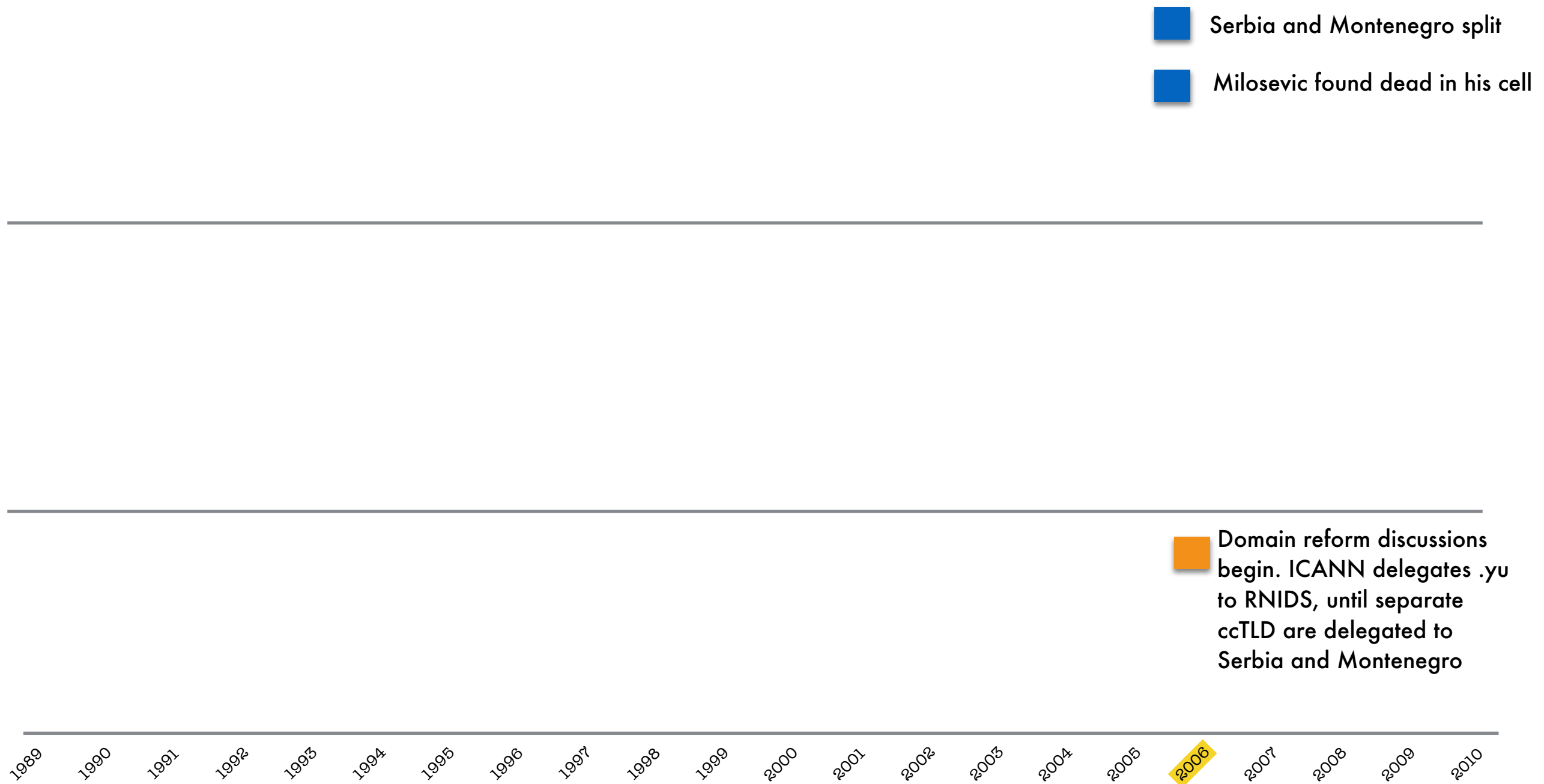
- EC economic sanctions on FRY
- Milosevic arrested
- Serbia and Montenegro form a Union State

With lack of governmental support - domain stagnated

ISO decides to keep the YU suffix for Serbia and Montenegro until a new suffix is found



The formal history of the .yu ccTLD



The formal history of the .yu ccTLD

Kosovo unilaterally declares independence from Serbia



.rs and .me delegated.
Transitional period begins



1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010



The formal history of the .yu ccTLD



HEADLINE NEWS

THE TANJUG INTERNET TEAM WILL TRY TO UPDATE THIS SITE AT LEAST THREE TIMES A DAY DURING THE NATO AGGRESSION AGAINST YUGOSLAVIA. WE WILL ALSO TRY TO UPDATE THE SITE WITH REPORTS OF ATTACKS AND THE CONSEQUENCES OF THOSE ATTACKS BY NATO AS SOON AS WE GET NEW INFORMATION.

3

NATO BOMBS BRIDGE, RESIDENTIAL AREAS IN NIS

NIS - Commander of the Nis civilian defense headquarters Jovan Zlatic confirmed to Tanjug that NATO had targeted the northwestern section of the city in its attack just after 4 p.m. Saturday.

The attack, which started at 4:05 p.m., targeted the bridge on the Nisava river, in the neighborhood of the Greek consulate, which was damaged.

NATO also targeted the Rudo company which manufactures artificial limbs.

Fuel depots of Energogas and Jugopetrol, a highway overpass and residential buildings in the area were also targeted, Zlatic said.

NATO AGAIN ATTACKS BOGUTOVAC VILLAGE

KRALJEVO - The NATO air force again attacked the village of Bogutovac, 20 km southwest of Kraljevo, central Serbia, at 2:30 p.m. Saturday, the Tanjug correspondent reported.

The railway bridge on the Lopatnica was hit, a target completely destroyed in a NATO attack at 2:30 a.m. today.

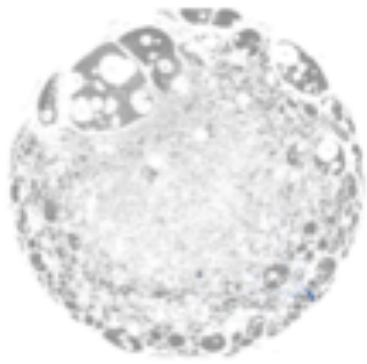
A missile also hit the railway station in Bogutovac, which was completely razed. Initial reports indicate that there are no casualties.

A grayscale world map is shown in the background. A solid black horizontal band spans across the middle of the map, from the Atlantic Ocean to the Pacific Ocean. Centered within this band is the text "What does the web remember of its deleted past?" in a white, sans-serif font. The map shows the outlines of continents and countries, with some countries labeled in a small, dark font. Labeled countries include Greenland, Sweden, Norway, Finland, Russia, Poland, Belarus, Germany, France, Italy, Spain, Turkey, Iraq, Iran, Pakistan, India, China, Mongolia, Saudi Arabia, Yemen, Sudan, Democratic Republic of Congo, Algeria, Libya, Egypt, Peru, and Brazil.

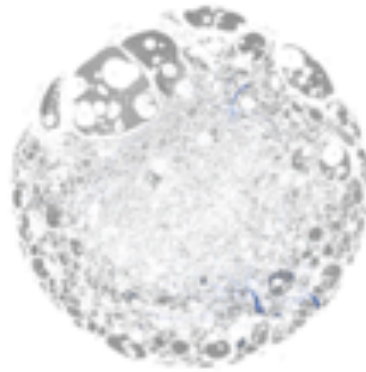
What does the web remember
of its deleted past?

.YU Networked Space 1996–2010

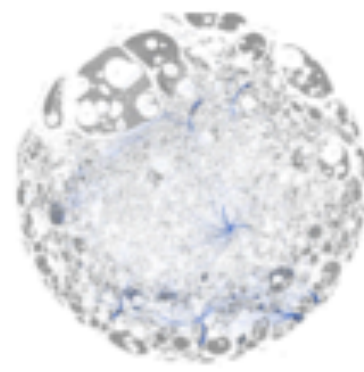
1996



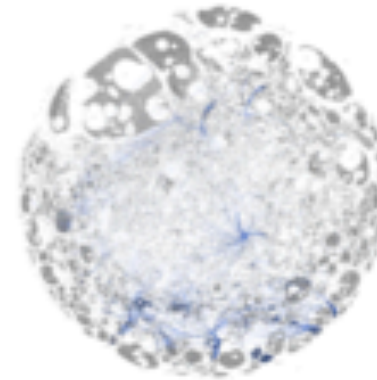
1997



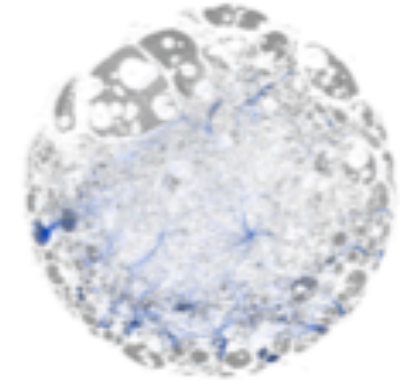
1998



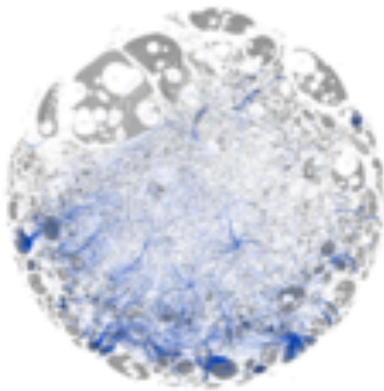
1999



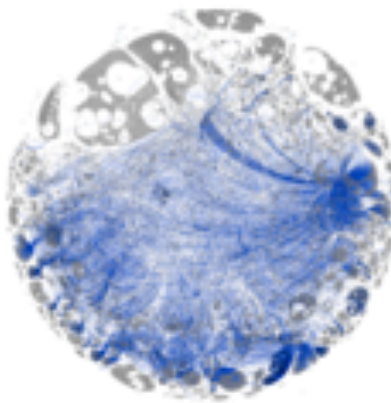
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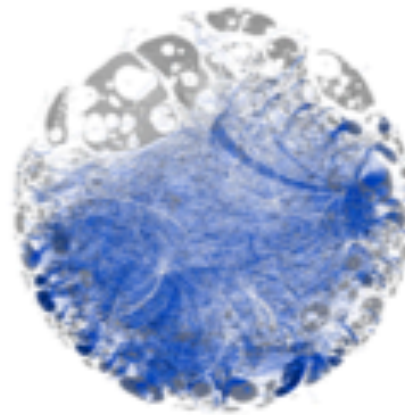
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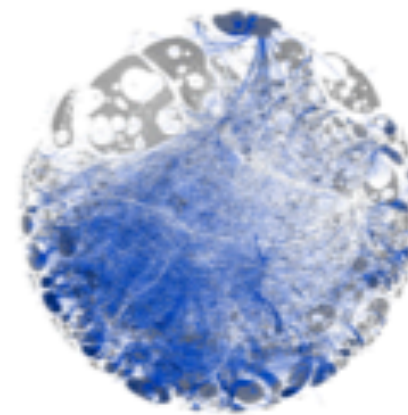
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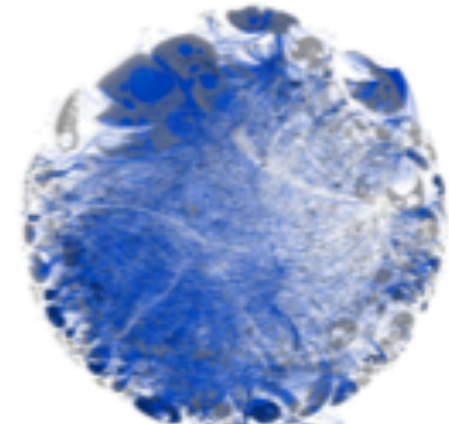
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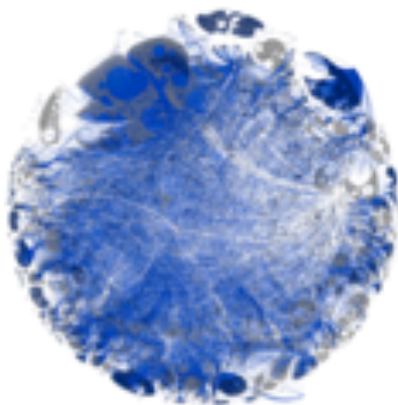
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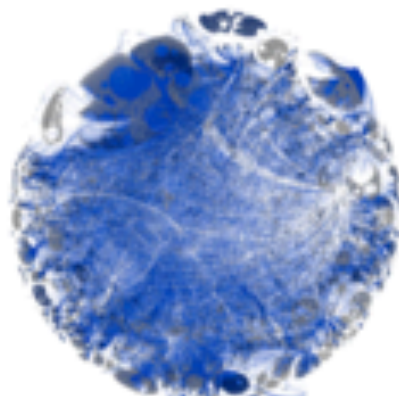
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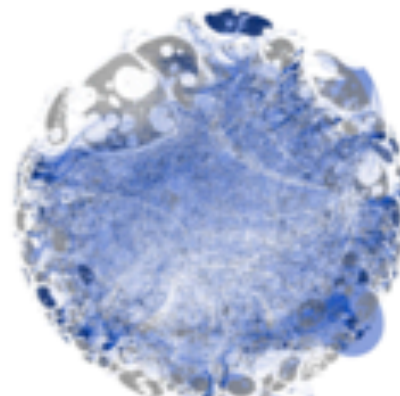
2006



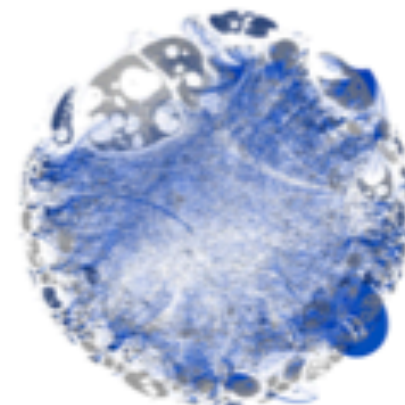
2007



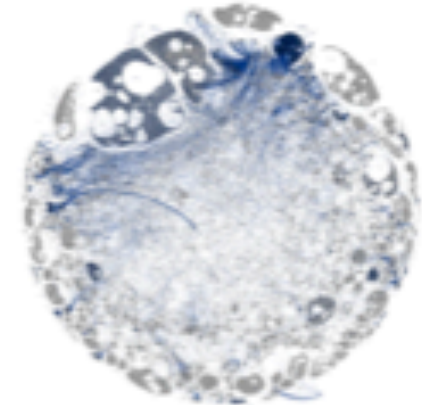
2008



2009

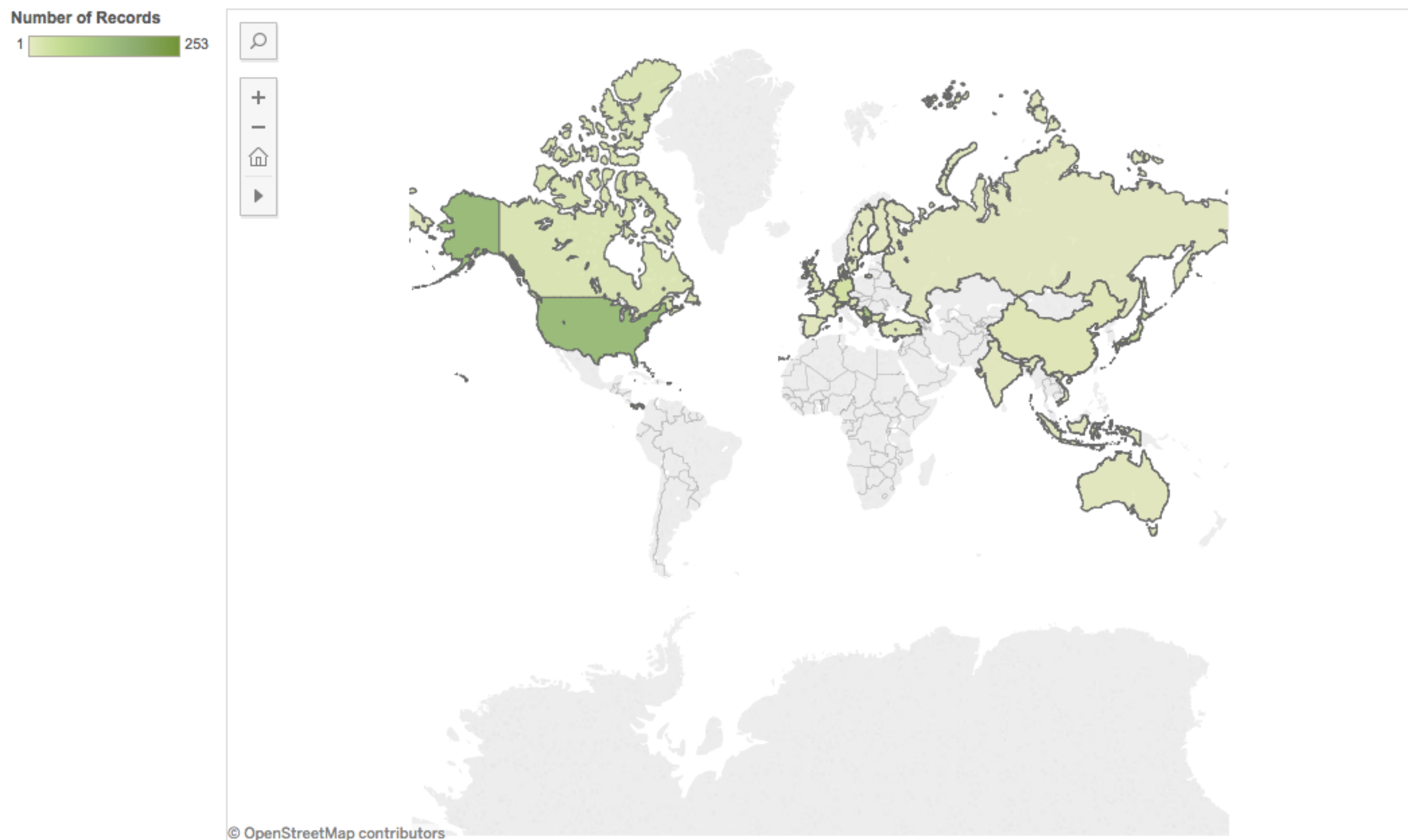


2010



Where is Kosovo?

Whois Geo-Location of Kosovar URLs







What informs web archives?

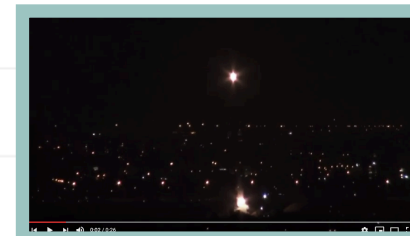
Twitter



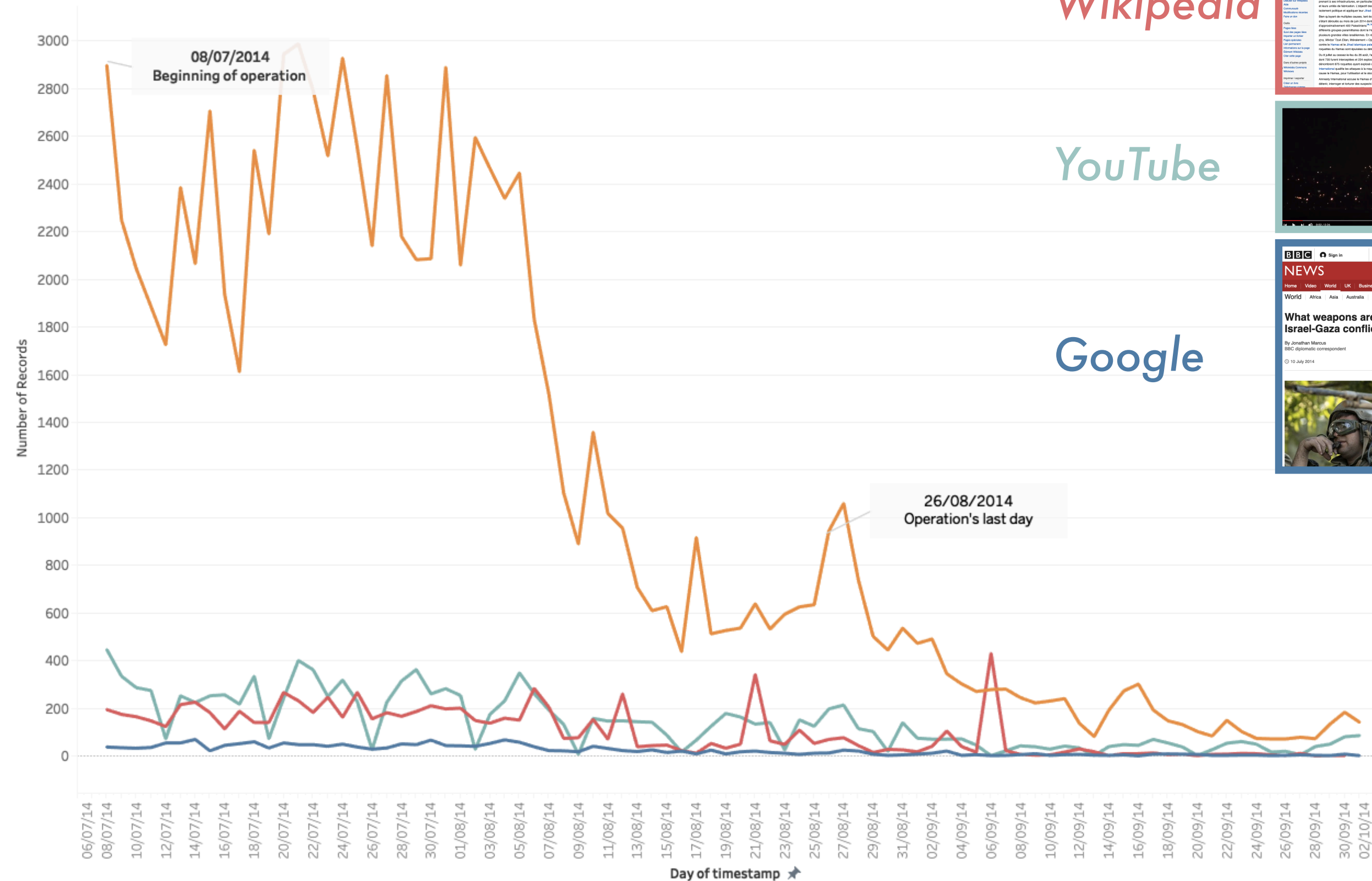
Wikipedia



YouTube

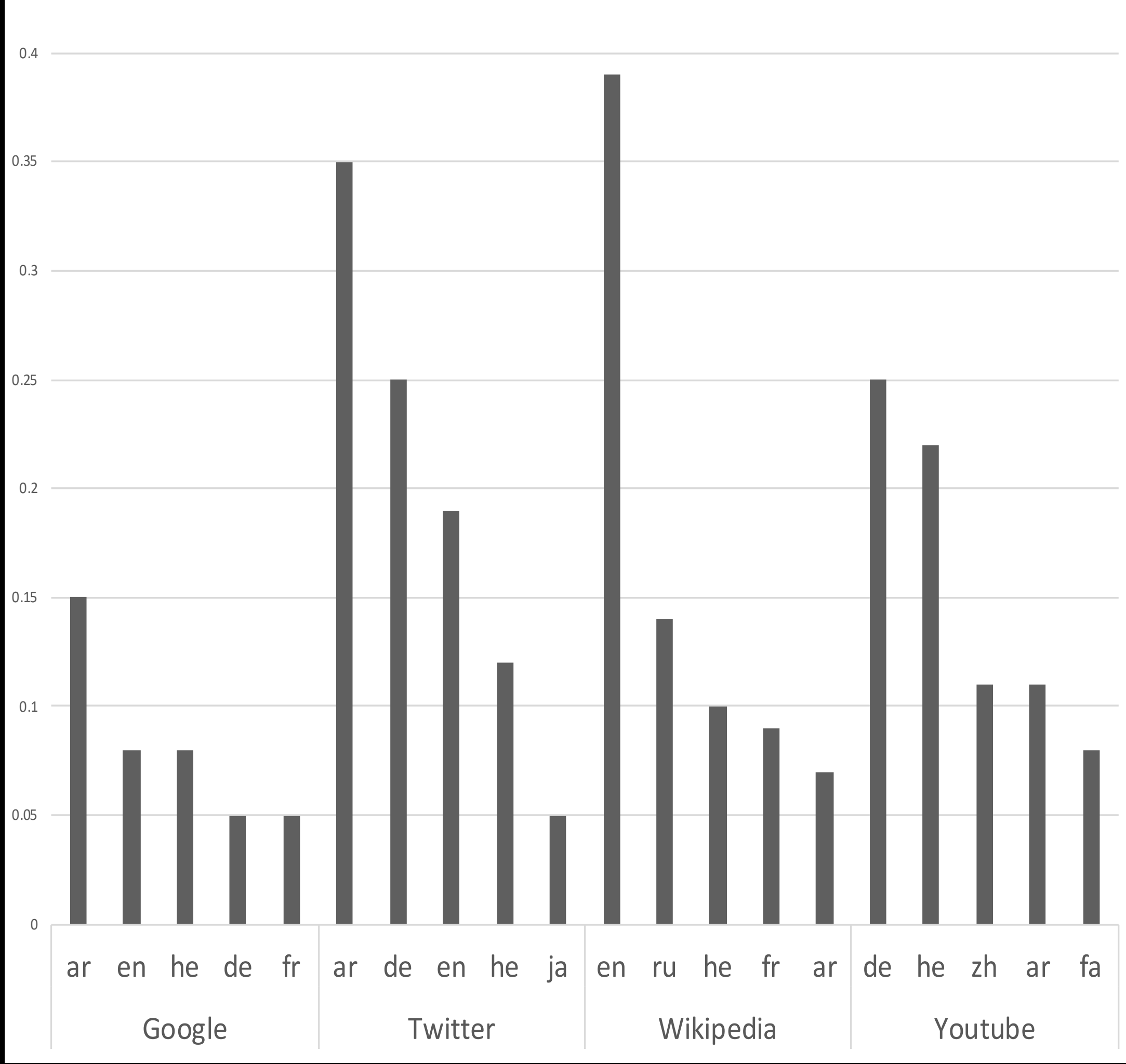


Google



Snapshots







Where next?

Thank you

Ben-David, A. & Amram, A. (2018). The Internet Archive and the socio-technical construction of historical facts . *Internet Histories*.

DOI: 10.1080/24701475.2018.1455412 ([Free access during #IIPCWAC19](#))

Ben-David, A. (2016). What does the Web remember of its deleted past? An archival reconstruction of the former Yugoslav Top Level Domain. *New Media & Society*, 18(7), 1103–1119.

Ben-David, A. (2019). National web histories at the fringe of the Web: Palestine, Kosovo, and the quest for online self-determination. In in N. Brügger, D. Laursen (Eds.), *The historical web and Digital Humanities: The case of national web domains* (pp. 89–109). Abingdon: Routledge.

Ben-David, A. and Amram, A.. (2018). Computational Methods for Web History. In Brügger, Niels and Ian Milligan (Eds.), *SAGE Handbook of Web History* (pp. 152–167). London: Sage.