

# **Informational sovereignty:** Website infrastructure dependency and geopolitical risk in Latin America

Juan Ortiz Freuler  
Annenberg School for Communication,  
University of Southern California



@juanof9  
ortizfre@usc.edu

# **In the digital era there are new mechanisms to exert control over media & information**

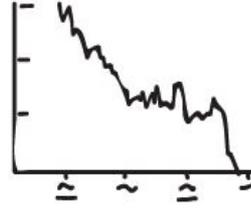
My research unveils the hidden infrastructure shaping:

1. Freedom of the press
2. Tech innovation
3. Geopolitical struggles

# BACKGROUND



**Historical North-South Inequality in Information Infrastructure**  
(UNESCO MacBride Report, 1980)



**Global Crisis for Newspapers:**  
Readership collapsing, revenue crashing, job cuts.



**Commercial Risk:** Growing reliance on Third-Party Tech, some providers compete for eyeballs



**Geopolitical risk:** US Treasury sanctions denominations increased by 933% since 9/11.



**Newspapers**, particularly in the global majority, face grave challenges to their **SUSTAINABILITY** and **AUTONOMY**.

## GOAL



TO MAP THE DEGREE OF DEPENDENCE OF LATIN AMERICAN NEWSPAPERS ON THIRD PARTY INFRASTRUCTURE.

## RESEARCH QUESTIONS



Does this reliance represent a **COMMERCIAL** risk?



Does this reliance represent a **GEOPOLITICAL** risk?



## SAMPLE



ARGENTINA  
BRAZIL  
COLOMBIA  
MEXICO  
PERU  
URUGUAY

# 18

Newspapers

## DATA COLLECTION

June 2024 Via Similar Tech + Background interviews with experts and practitioners.

# 6

Countries



## NEWSPAPERS

Infobae, La Nación, Clarín, Globo, UoL Brasil247, El Tiempo, Semana, El Espectador, El Universal, UnoTV, Record, RPP, La Republica, El Comercio, El País, El Observador, Montevideo Portal

## SELECTION

## CRITERIA

Geographic diversity, prominence

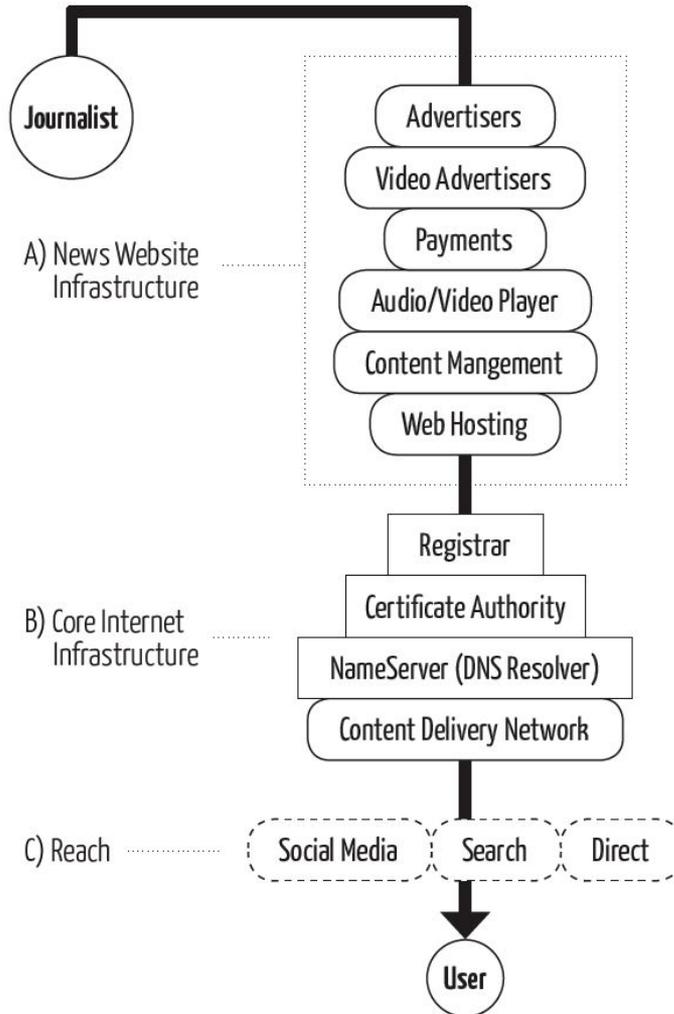
## METHOD

### CONTROL POINT ANALYSIS

Building on David Clark's TPRC paper (2012)



Mapping the points of control present in website infrastructures as they pertain to the journalist's ability to reach their audience



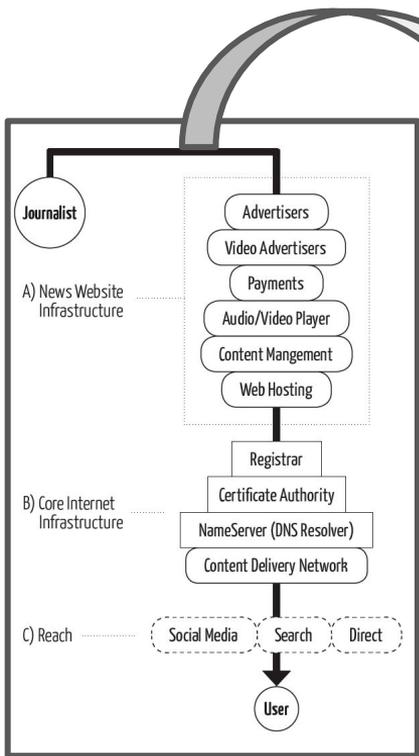
## Key dimensions:

-Market power

-Switching costs

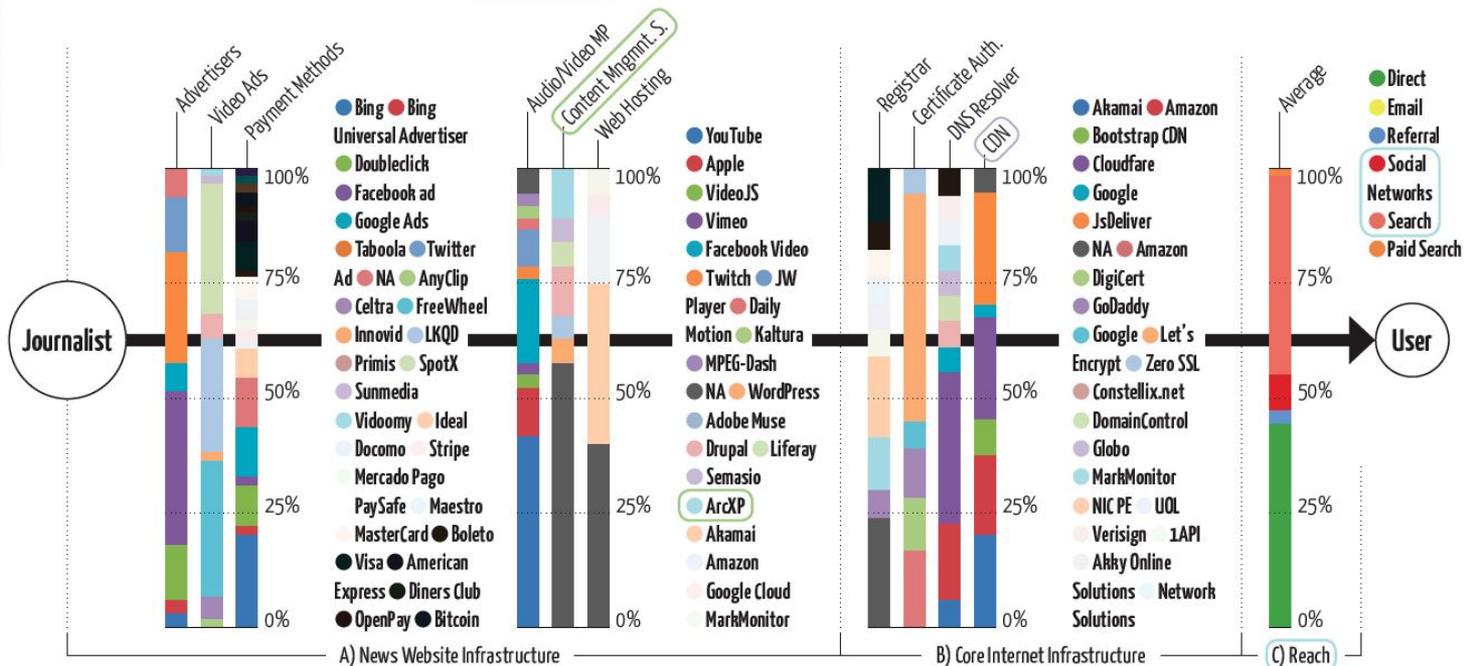
-Governance model

# Big picture overview of the media stack



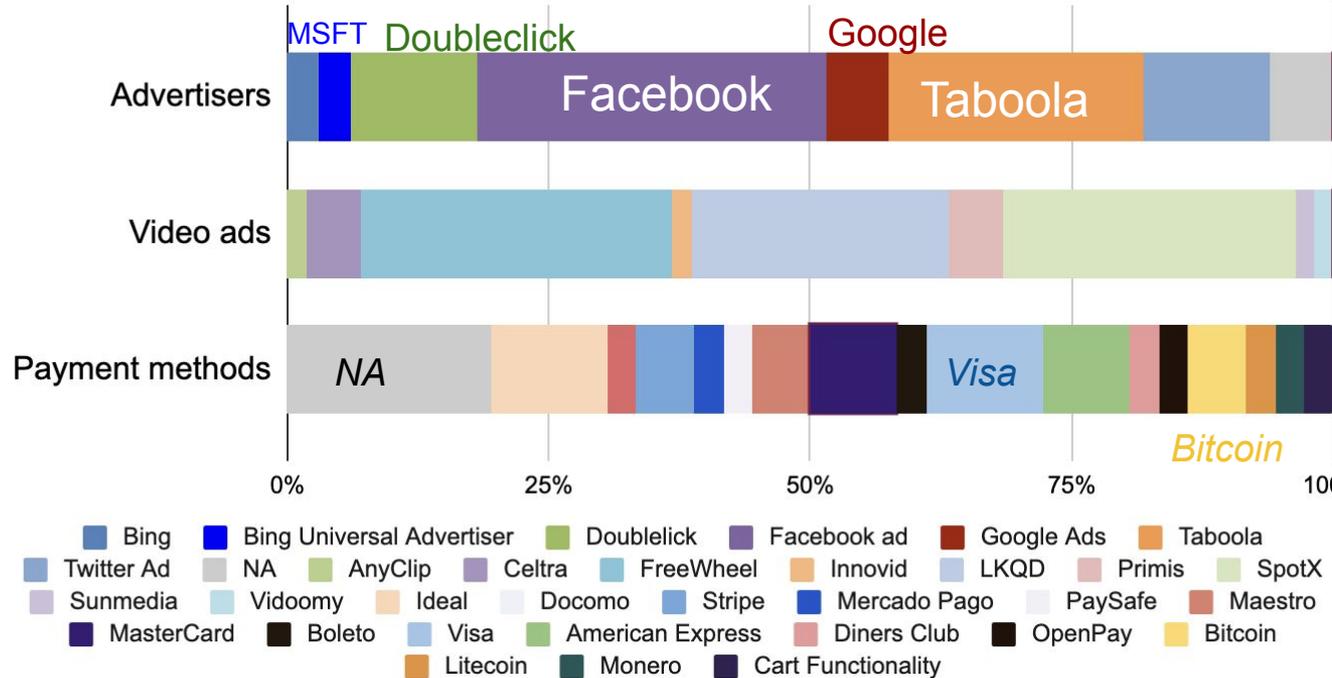
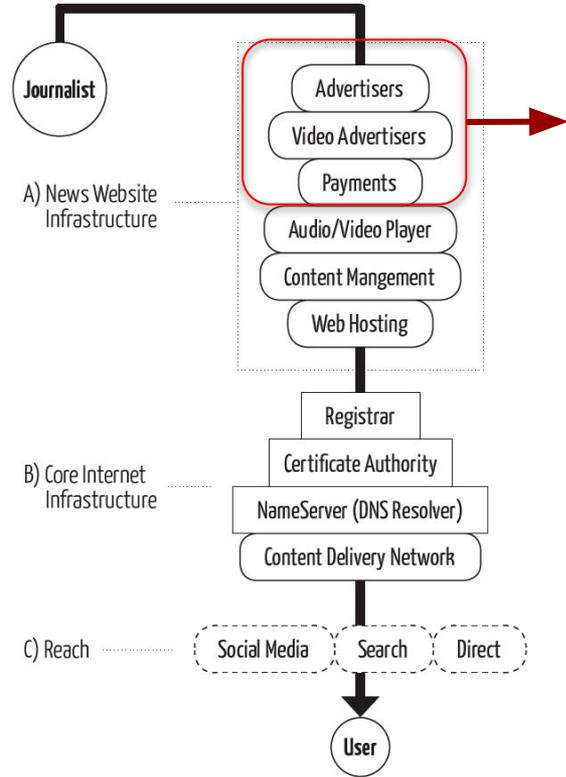
## RESULTS

**Research Question 01:** Does the degree of reliance on third-party tech providers represent a **COMMERCIAL** risk for Latin American newspapers? **A: Yes**

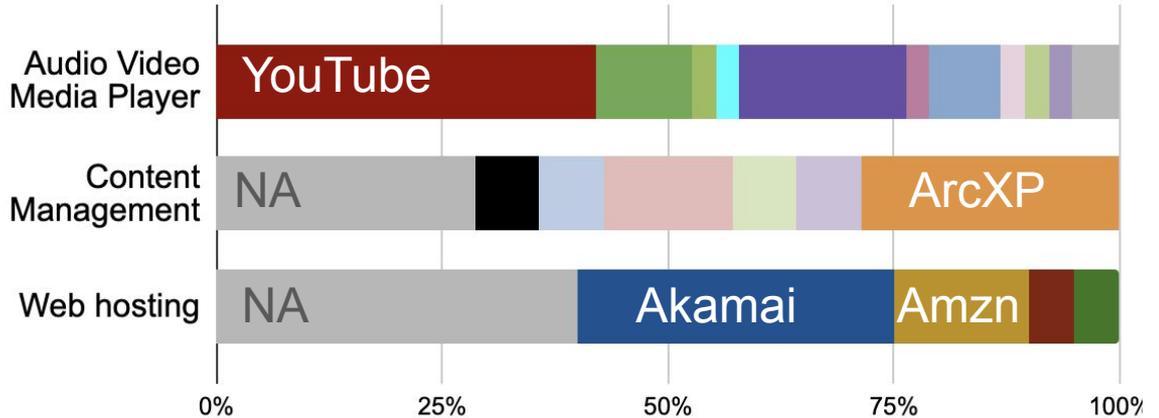
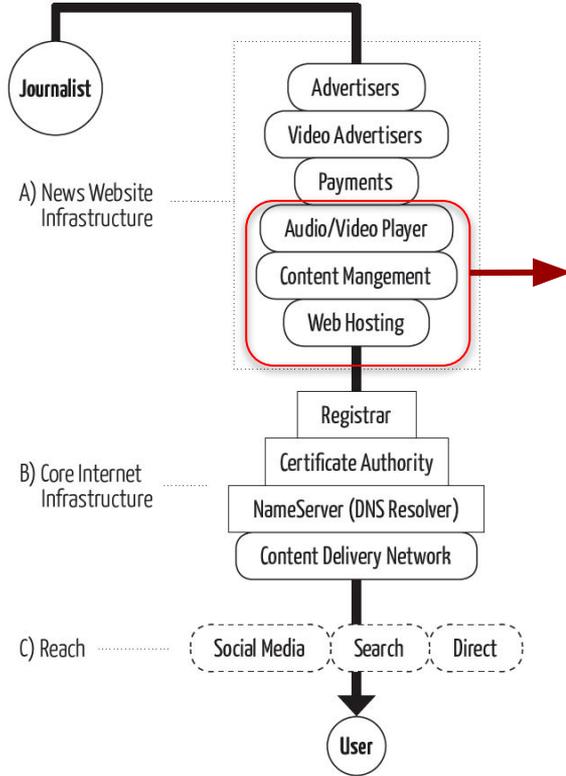


[bit.ly/SharkMedia](https://bit.ly/SharkMedia)

# Website Infrastructure: REVENUE enabling tech & service provision



# Website Infrastructure: **COST** defining platforms & service provision



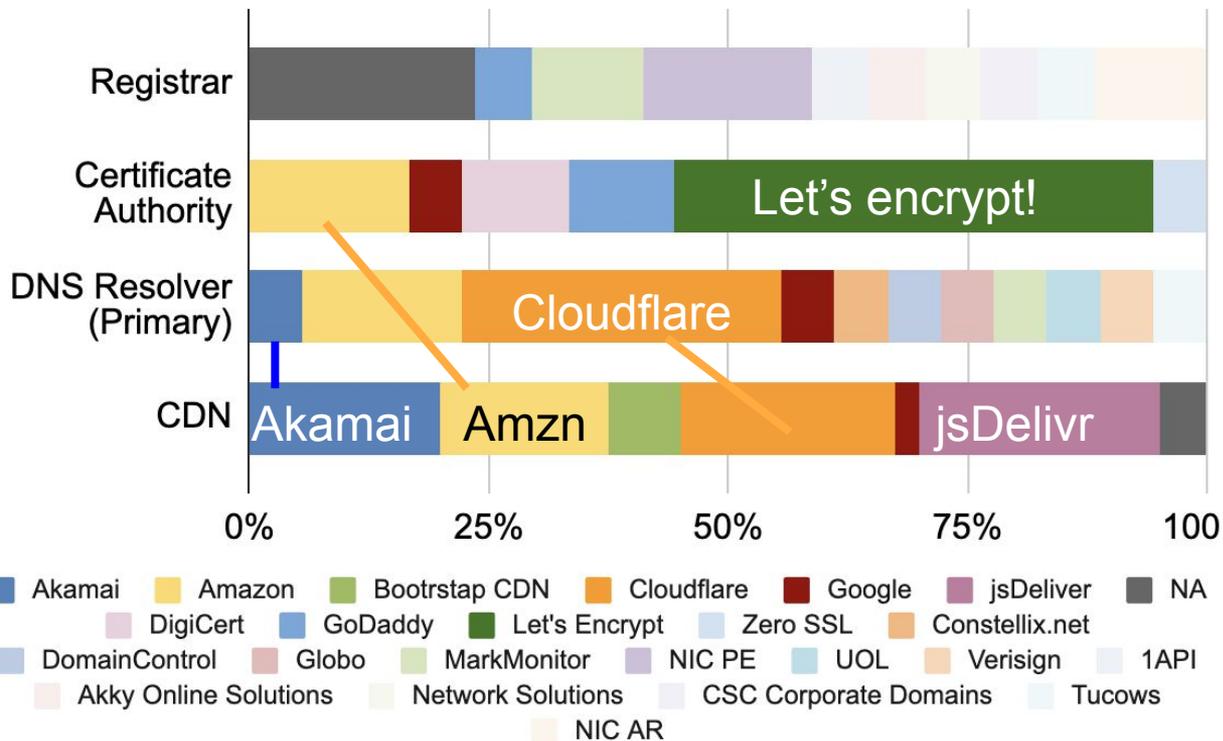
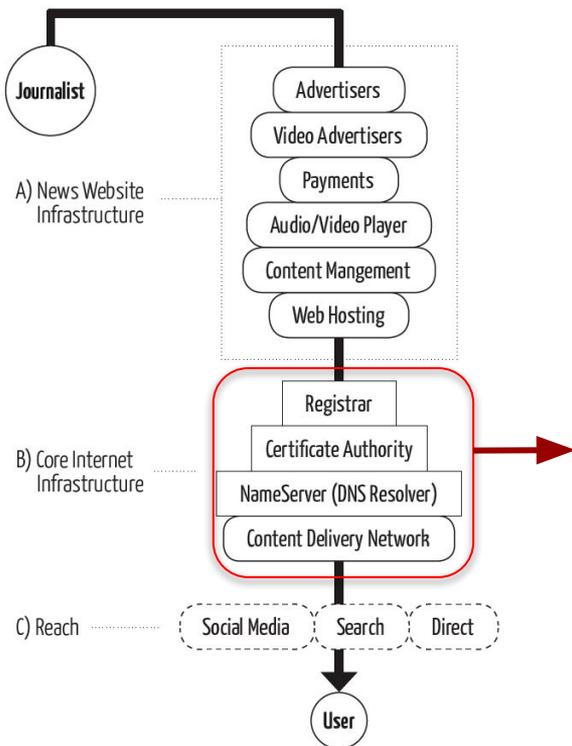
- YouTube
- Apple
- VideoJS
- Vimeo
- Facebook Video
- Twitch
- JW Player
- Daily Motion
- Kaltura
- MPEG-Dash
- NA
- WordPress
- Adobe Muse
- Drupal
- Liferay
- Semasio
- ArcXP
- Akamai
- Amazon
- Google Cloud
- MarkMonitor

**CMS Concerns**  
over growing  
role of Jeff  
Bezos' ArcXP

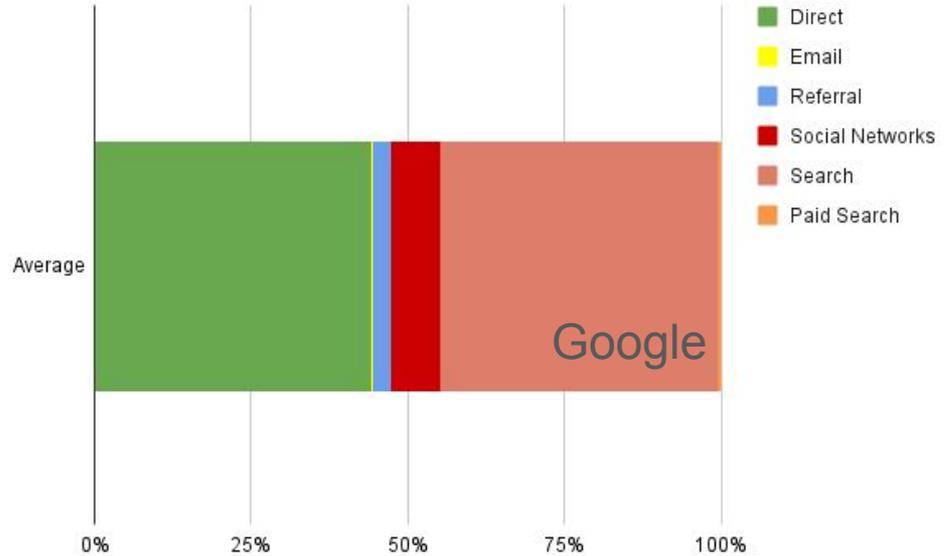
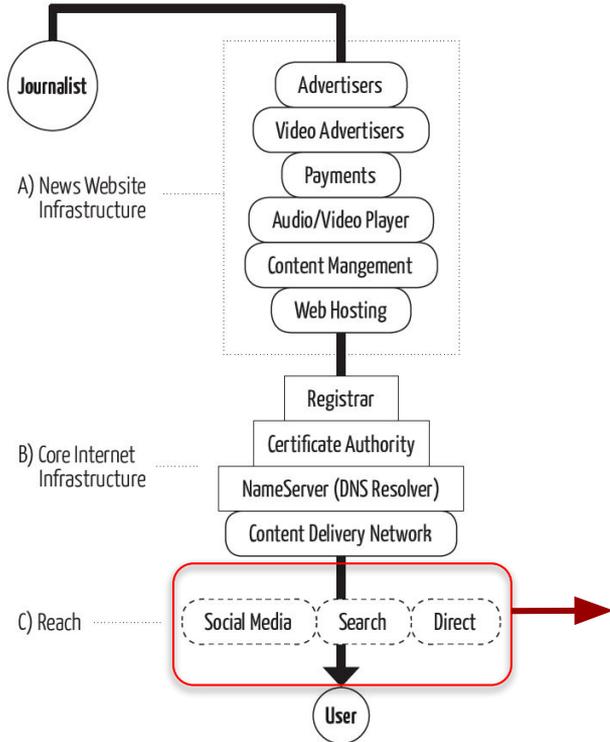


# Core internet infrastructure tech providers

CDNs Understudied segment where goals of Net Neutrality are at risk



# Reach



**Conflict Of Interest & Abuses 2020:** Zero-clicks amount to +60% Google searches  
Google News ejecting Spain; Facebook Pages blocks media in Australia

# COMMERCIAL RISK

**Conflict of interest:**  
Zero-click searches  
+60% (2024)



**History of  
coercive  
practices**



**Opacity:**  
Algorithmic  
curation  
vs audits



**PROBLEM**



Google News ejected  
Spanish media

FB blocked Australian  
media

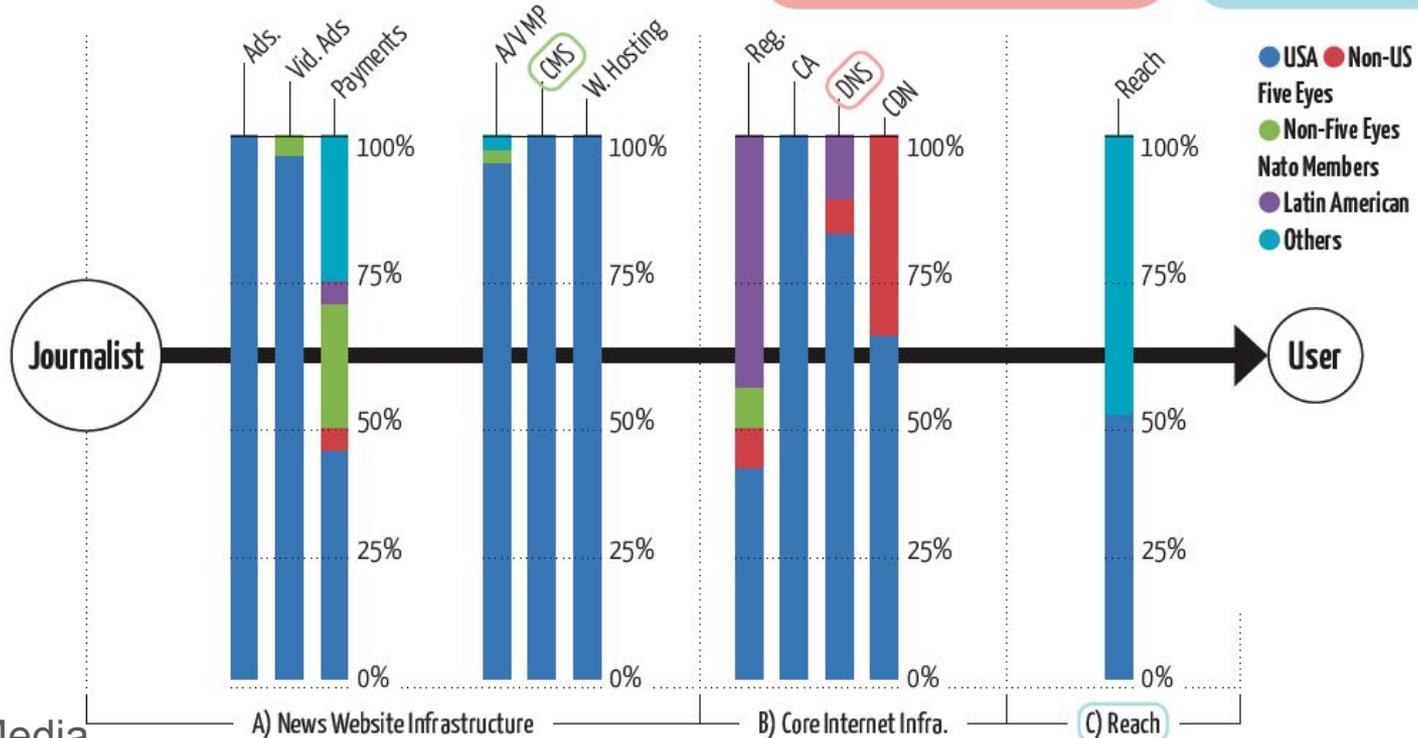
**RQ 02:** Does the degree of reliance on third-party tech providers represent a **GEOPOLITICAL** risk? **A: Yes**

**CMS:** Past lockouts by GitHub (Iran) and Adobe (Venezuela) suggest high risk

**DNS Res.**  
85% under US jurisdiction.

**E.g. 2021**  
Verisign seized Iranian media domains .com .net, .tv

Eg. YouTube deplatformed RT & Sputnik; Facebook removed their Page

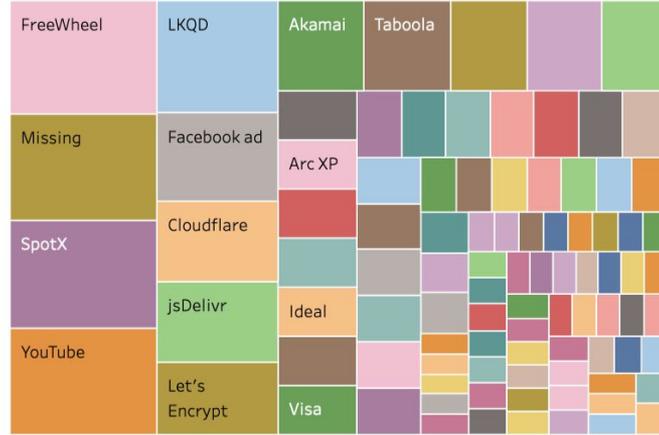


Manuscript + Annex



# Interactive Tableau Public

Competition: A look into market dominance



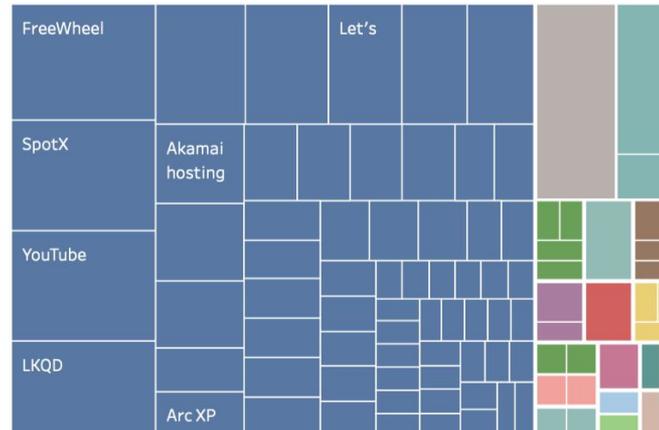
Role

- (All)
- Advertisers
- Audio Video M...
- Certificate Au...
- Content Deliv...
- Content Mana...
- DNS resolver (...)
- ISP
- Nameserver S...
- Payment meth...
- Registrar
- Video Ads
- Web hosting

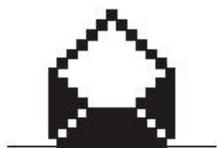
Media Outlet

- (All)
- Brasil 247
- Clarin
- El Comercio
- El Espectador
- El Observador
- El Pais
- El Tiempo
- El Universal
- Globo
- Infobae
- La Nacion
- La Republica
- Montevideo P...
- Record
- RPP
- Semana
- Uno TV
- UOL

Geopolitics: Technology by country of origin



## CONCLUSION



1. Across the 11 elements analyzed I identify several points of control

a) **COMMERCIALY**, REACH cross-section emerged as the most problematic: high degree of market consolidation + conflict of interest + opacity.

b) **GEOPOLITICALLY**, 50-100 % of service providers are subject to U.S. law. Latin American newspapers are heavily exposed to the U.S. government decisions.

2. **Non-Aligned Movement** as a focal point around which to coordinate to neutralize points of control?



## FUTURE DIRECTIONS

A dedicated observatory



**Sample** Increase sample size to 150 across 10 countries

**Time** Regular annual measurements

**Scope Of Analysis** Add apps and territorial dimension of infrastructure @juanof9 ortizfre@usc.edu