Geographic Differences in Third-Party Web Tracking Ecosystem

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Motivation

- Better understanding of current web traffic which is important for overall system design, e.g. proxies
- Privacy concerns due to the ability of some third-parties to record and analyse personal information.

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Goal

Examine regional differences of third-parties in terms of:

- Big services
- Small services
- Cross country services

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Political Map of the World, September 2008

Middle-East
1. IL
2. JO
3. QA
4. TR

North America
1. CA
2. US

Europe
1. BE
2. DE
3. FR
4. GB
5. GR
6. HU
7. IT

NL
NO
PO
RU
SI
SE

East-Asia
1. CN
2. HK
3. JP
4. KR
5. TW

South America
1. AR
2. BR
3. EC

1. AU
2. NZ

Oceania

- Top 500 popular websites, based on Alexa ranking
- 29 countries
- Firefox extension
- PlanetLab

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Dataset

- Visited 6497 websites; identified 6817 unique third-party websites
- Qatar, Korea and Hong Kong have the highest number of third-party websites (814, 769 and 726)
- North America, Oceania and Middle-East: highest average number of third-parties
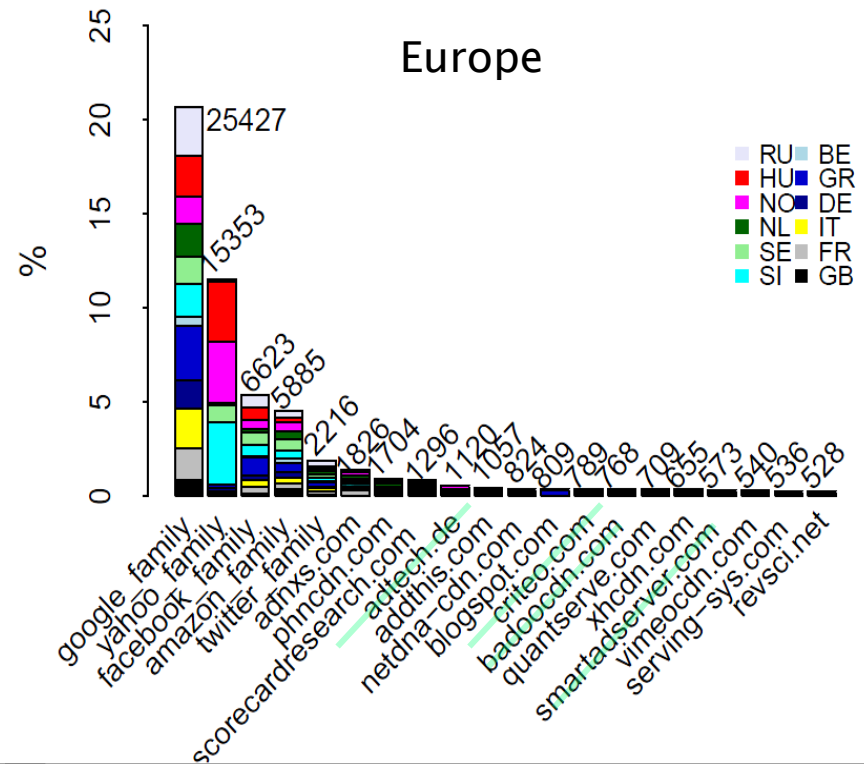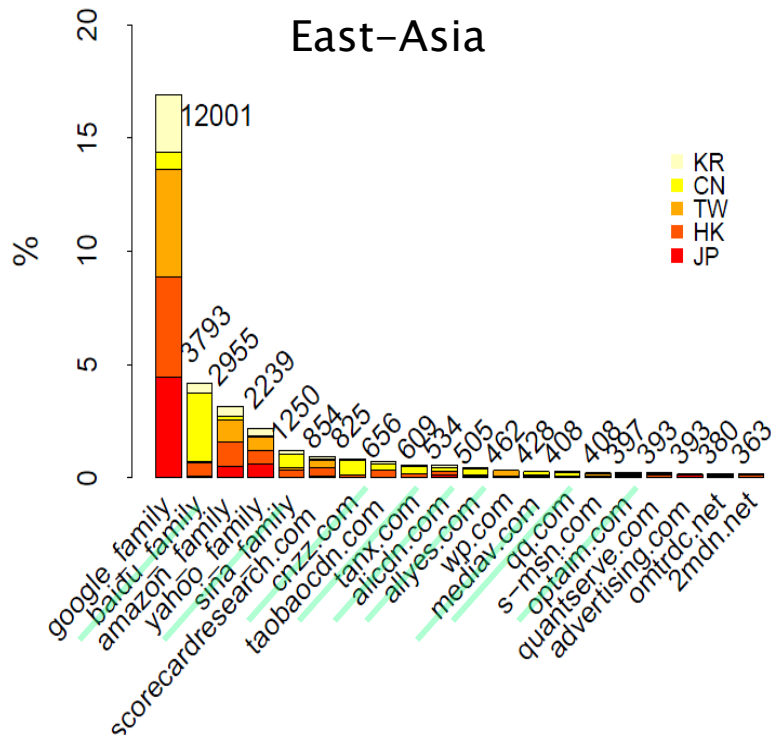
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Presence of Regional Third-Parties

Regional Third-Parties: appeared across popular websites of a specific region and their geo-location is in that region
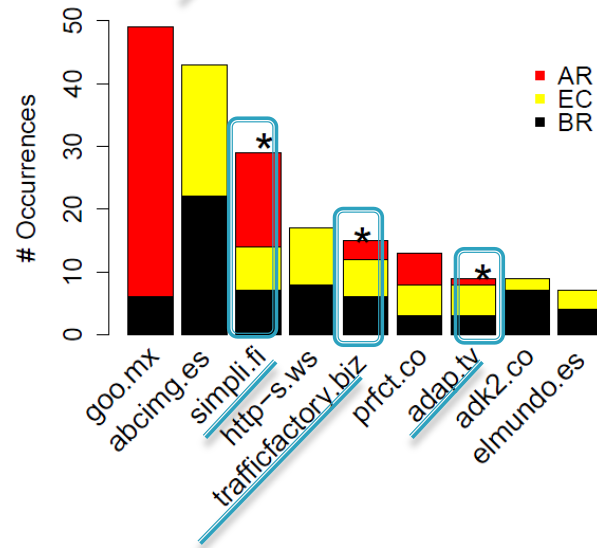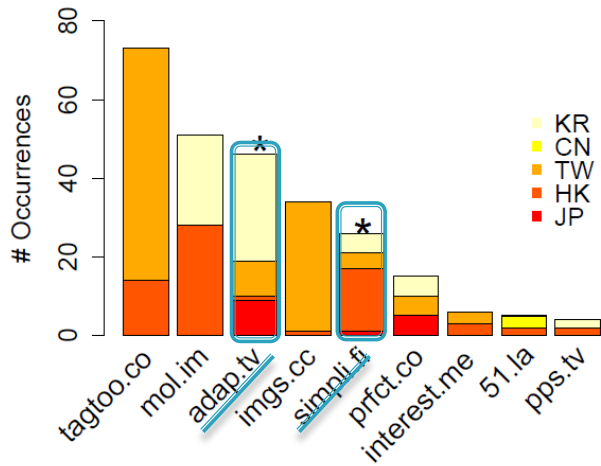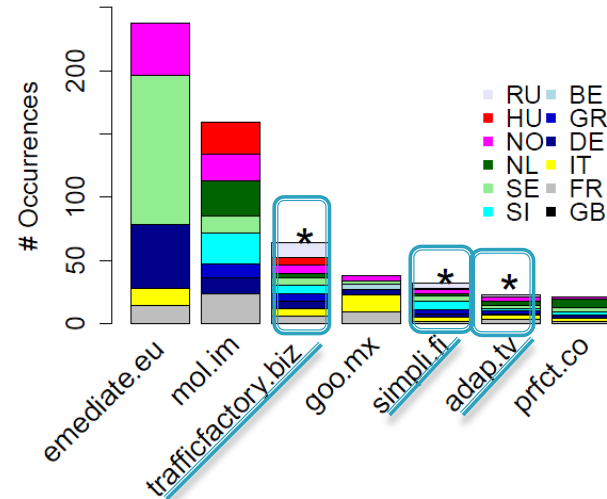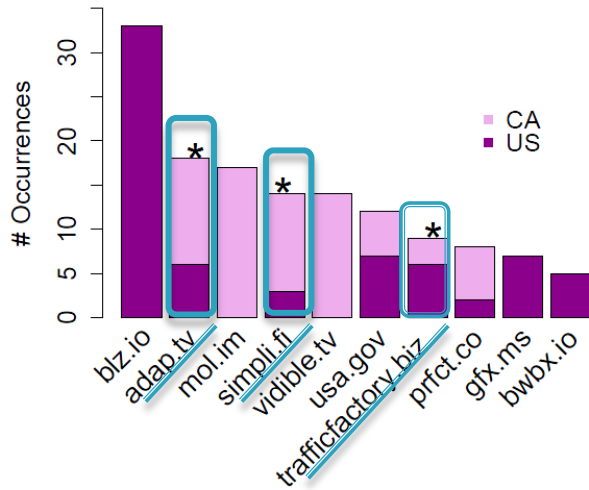
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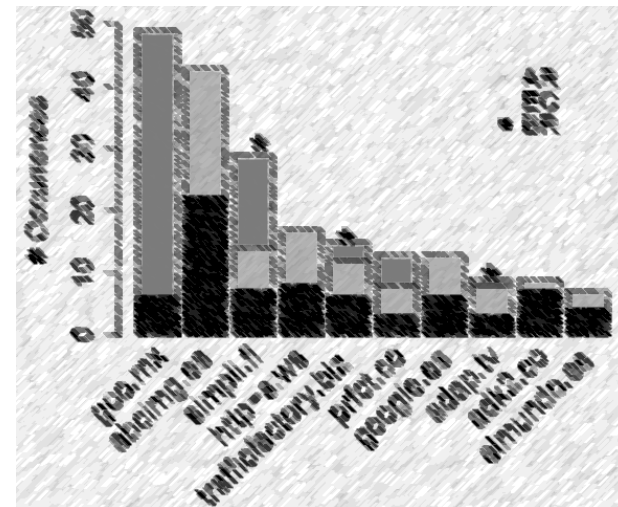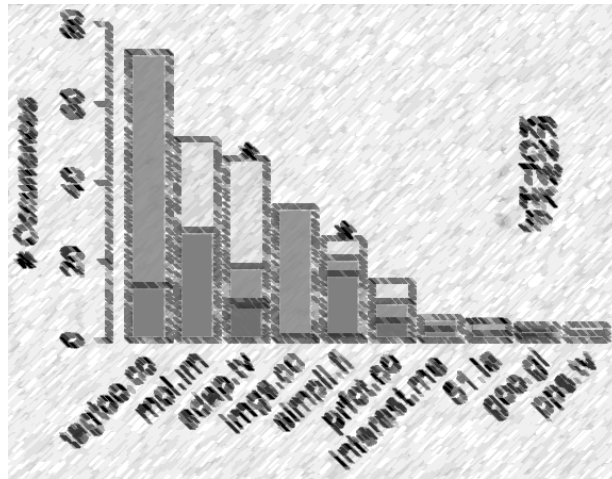# Regional Third-Parties
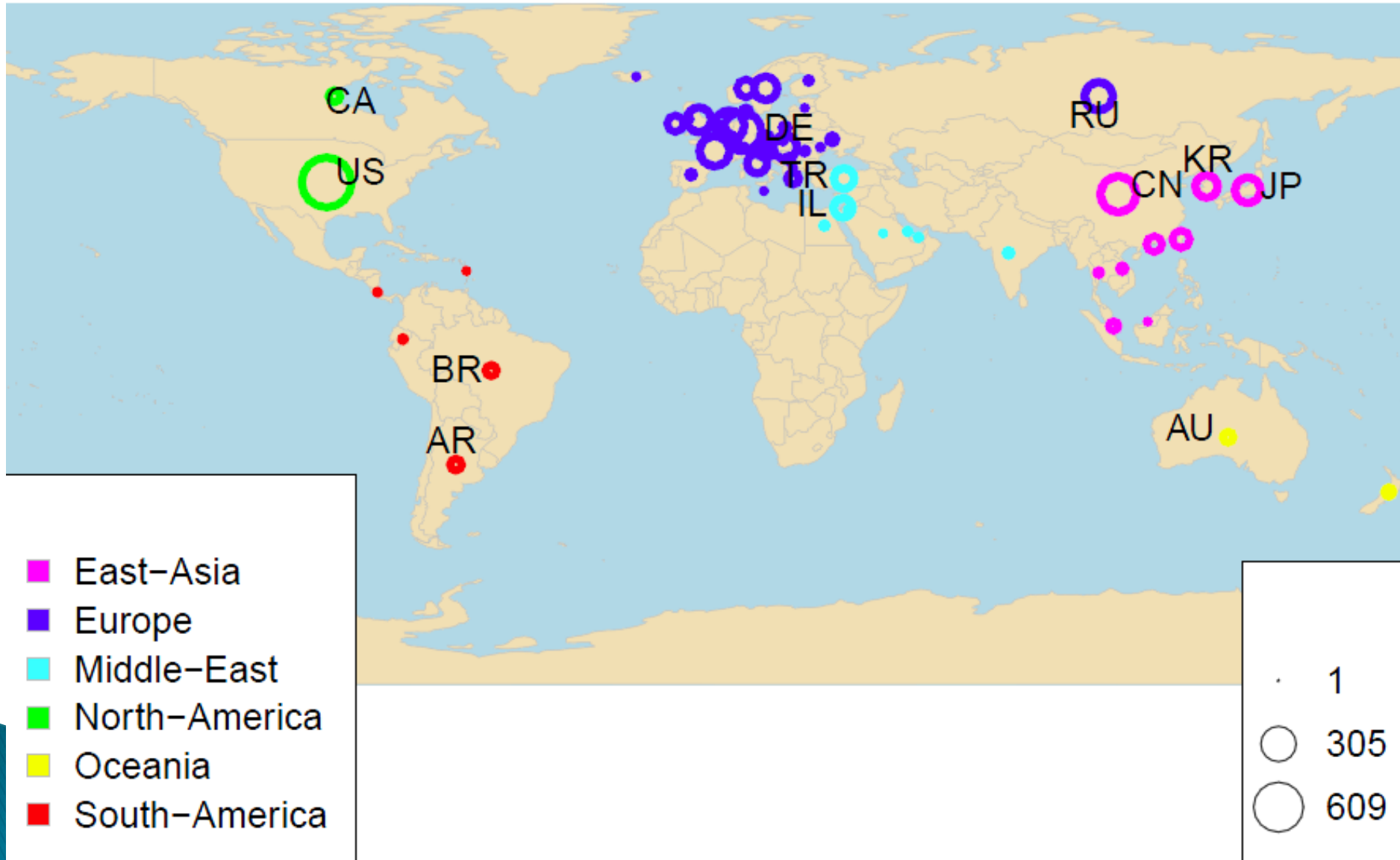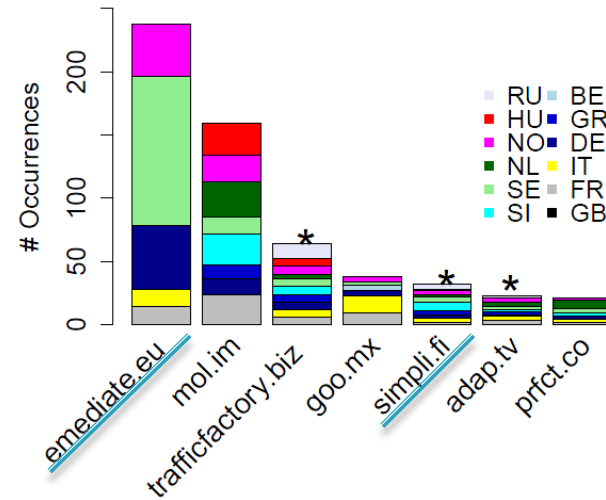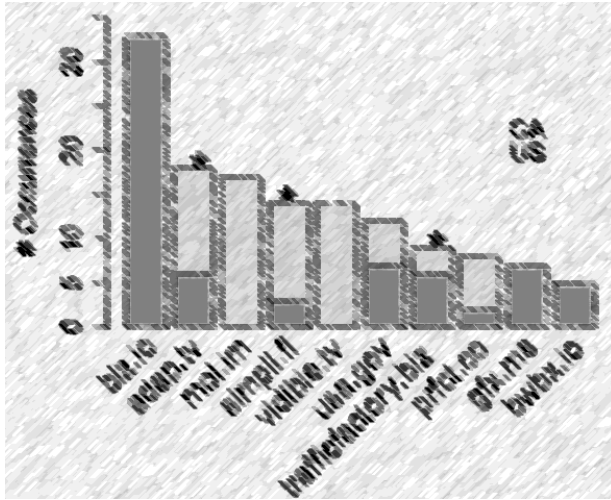
Are Regional Third-Parties Dominant?

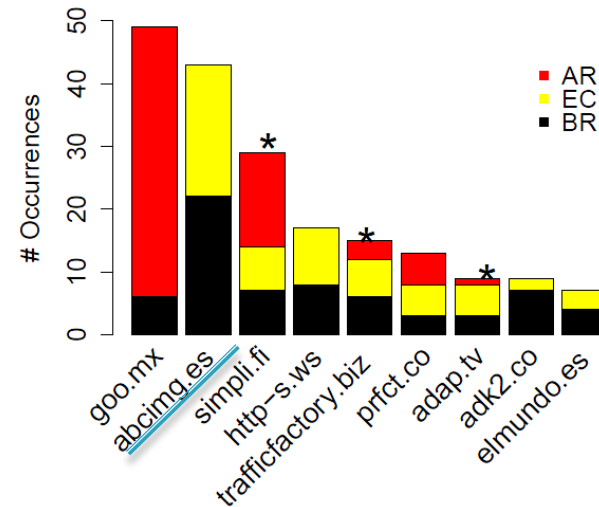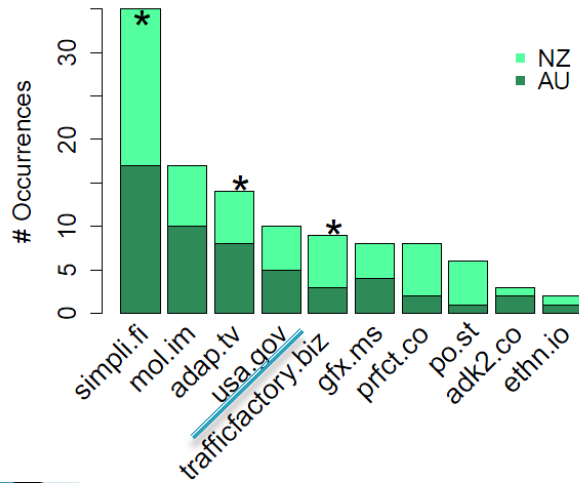East-Asia and Europe have the most number of regional third-parties among top 20 third-parties
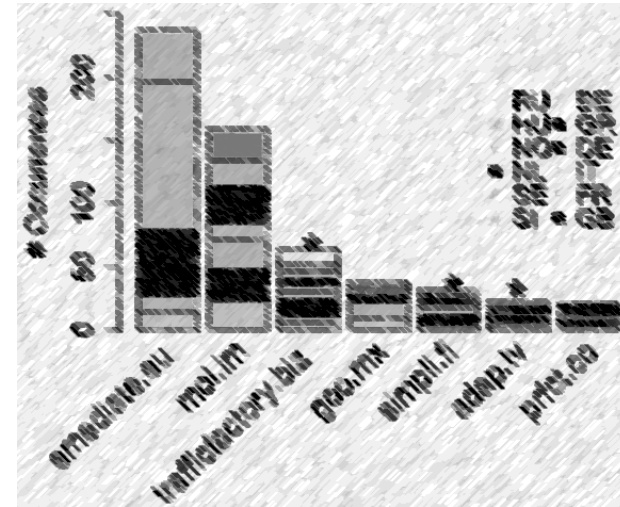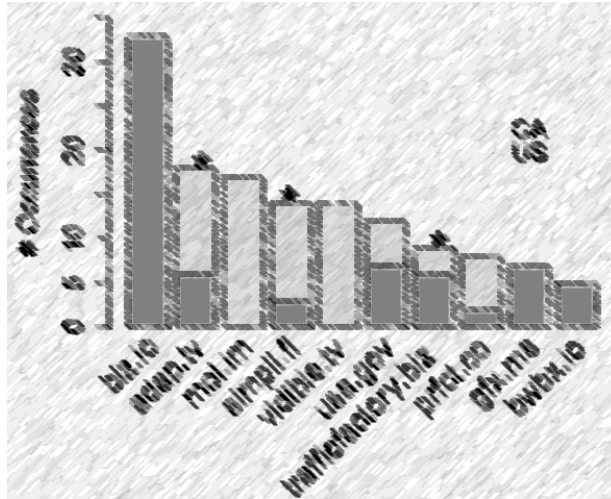
Small Global Third-Parties
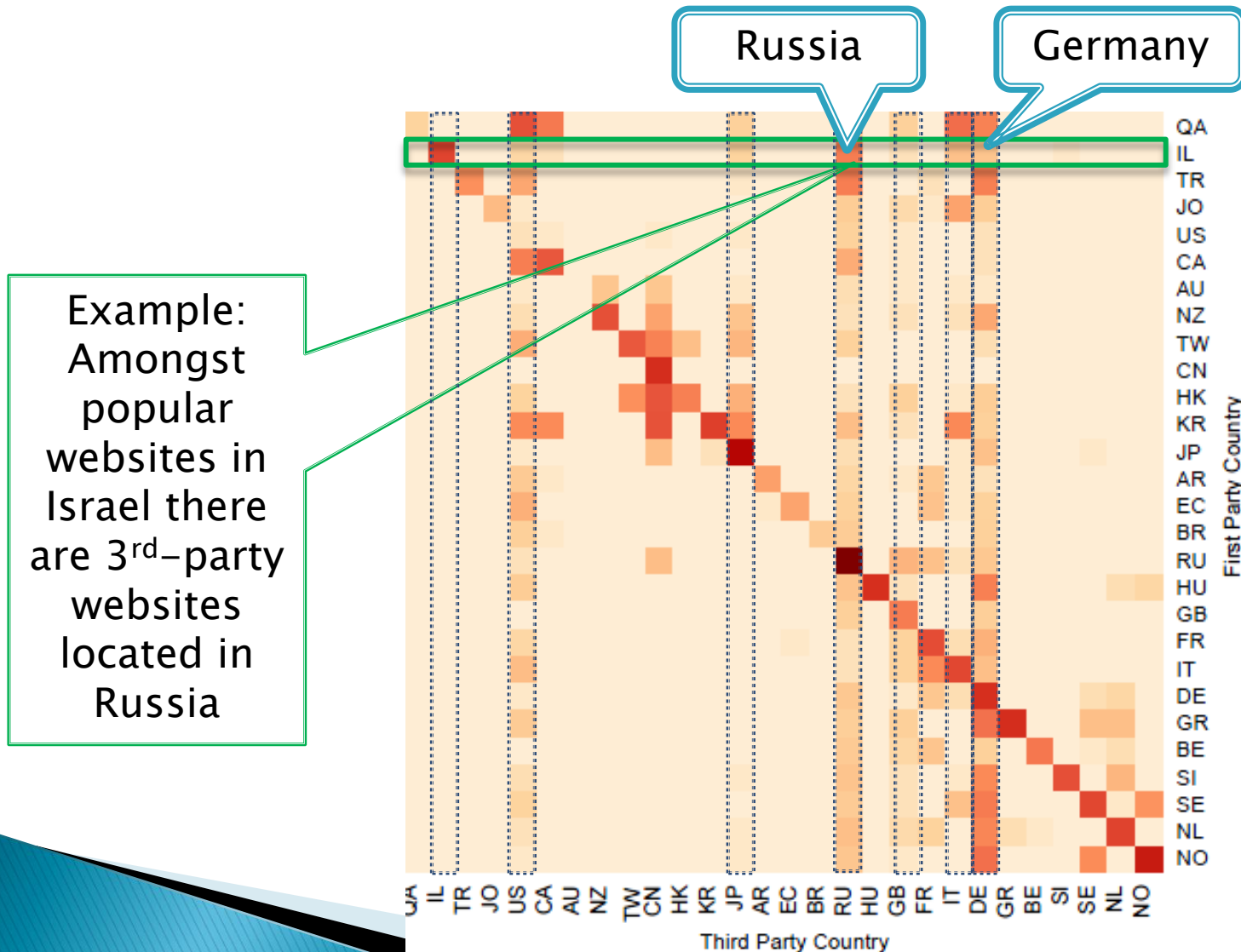
Small Regional Third-Parties

Small Third-Party Services

Cross-Country Third-Parties

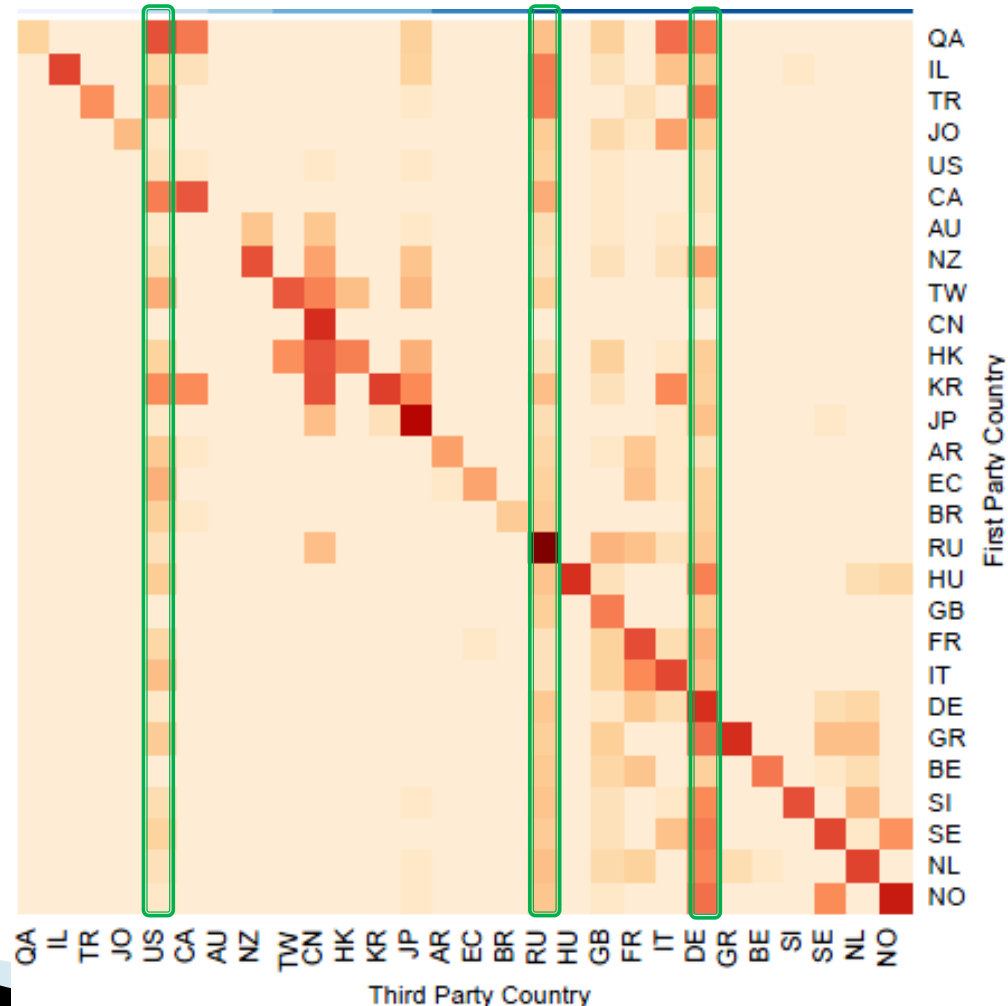We focused on third-parties which their TLD is a country code.

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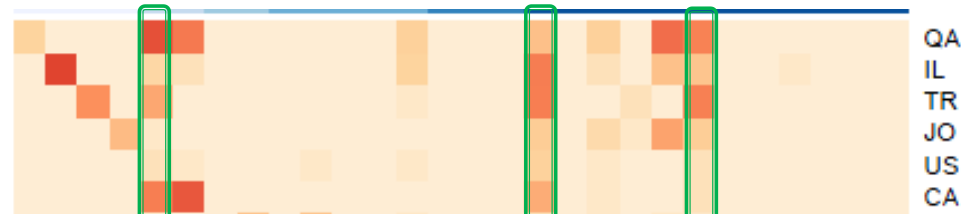University of London

Cross-Country Third parties

Cross-Country Third parties

Strong presence of the 3-parties located in:
*Germany
*Russia
*North America

Cross-Country Third parties

	DE	US	RU
Privacy Regulation	Standardized Regulations	Self regulatory	Comprehensive Regulation
Coverage	general	sectoral	general
Enforcement of law	strong	complicated	complicated
Tracking-related regulation	Opt-out	Site Policy	None
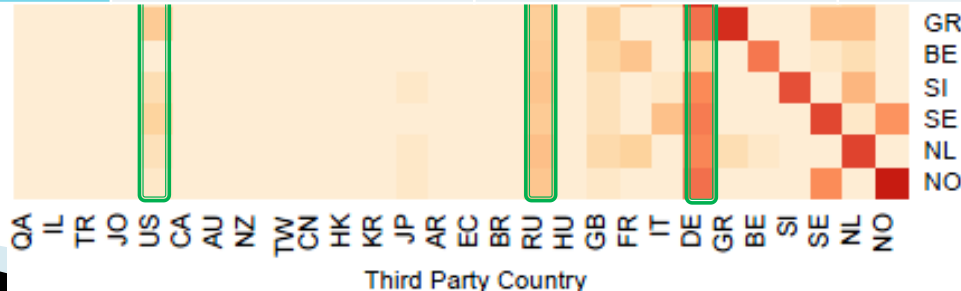
Cross-Country Third parties
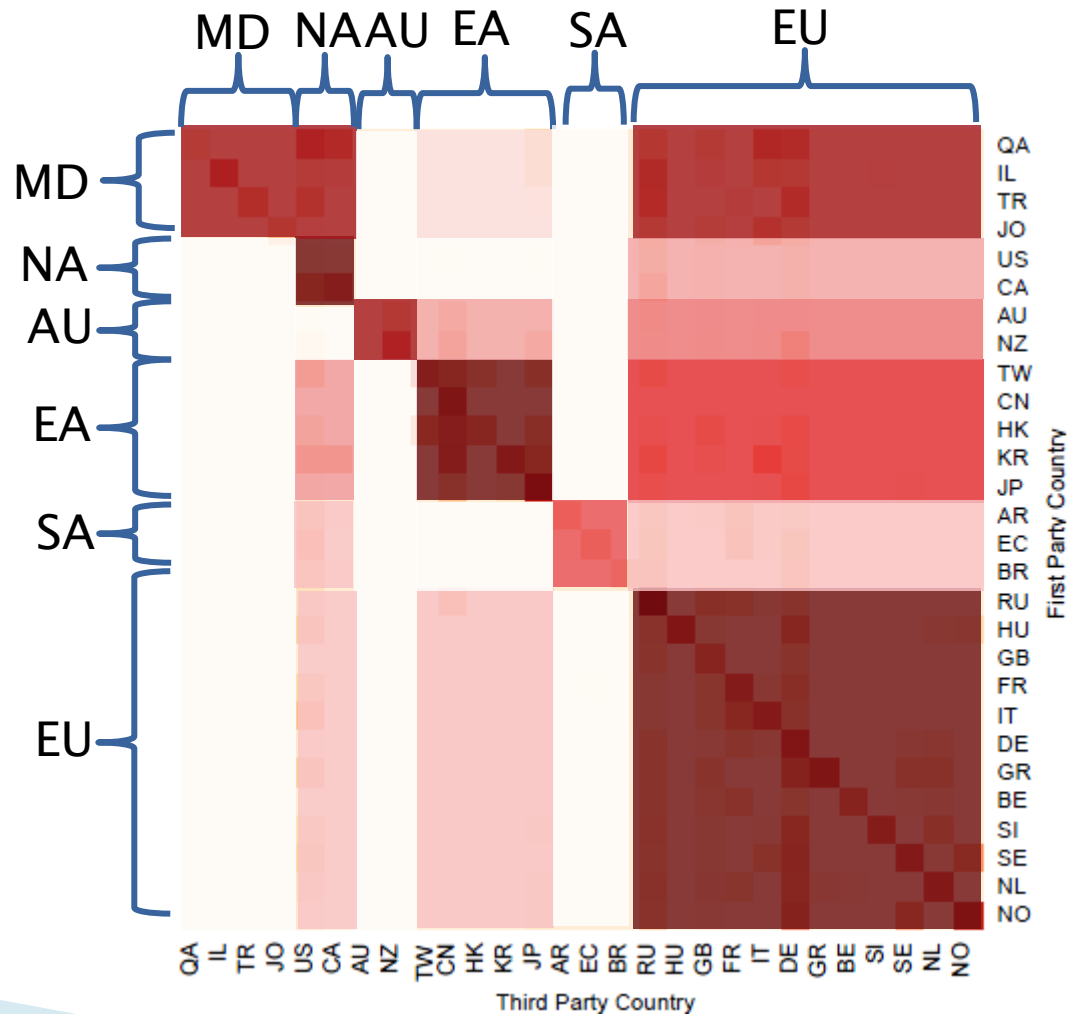
Conclusion

- Identified key countries in each region in terms of number of local third-parties; We found strong presence of local third-parties in East-Asia and Europe

- We found similar global presence of big and small third-parties.

- Identified US, Russia, and Germany as countries with the highest number of third-parties embedded in popular websites all around the world

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