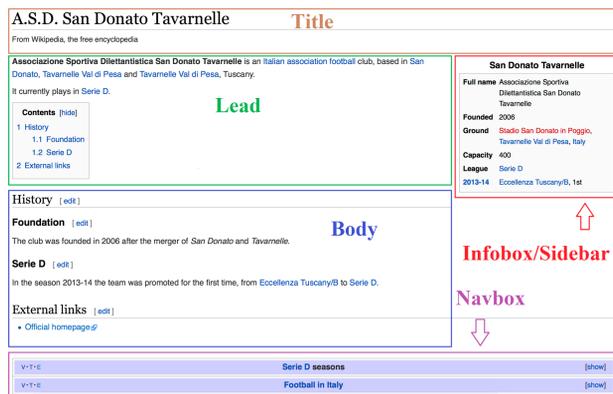


# Visual Positions of Links and Clicks on Wikipedia

Dimitar Dimitrov<sup>1)</sup>, Philipp Singer<sup>1)</sup>, Florian Lemmerich<sup>1),2)</sup>, Markus Strohmaier<sup>1),2)</sup>  
<sup>1)</sup>GESIS - Leibniz Institute for the Social Sciences, <sup>2)</sup>University of Koblenz-Landau

## Wikipedia page structure:



## Research questions:

- Where are links positioned?
- Where do users click on links?
- Which regions expose more (or less) clicks per links?

## Datasets:

- Link dataset
  - English Wikipedia from March 4th, 2015
  - Contains ~4.8 million articles connected by ~430 million links (340 million unique links)
  - Redirects are resolved
- Click dataset
  - About 22 million (referrer, resource) pairs and their respective request count ( $\geq 10$ )
  - 13.6 million distinct pairs featuring 1435 million user transitions between articles

## Method:

- Screen coordinates for each link
- Heatmaps dividing the screen into  $100 \times 100$  bins
  - Number of times a link exists in a bin
  - Number of times a link is clicked in a bin
  - Element-wise division of the corresponding bin counts
- Resolution:  $1920 \times 1080$  pixels
- Normalized for screen height and width
- Multiple links with same target get equal attention

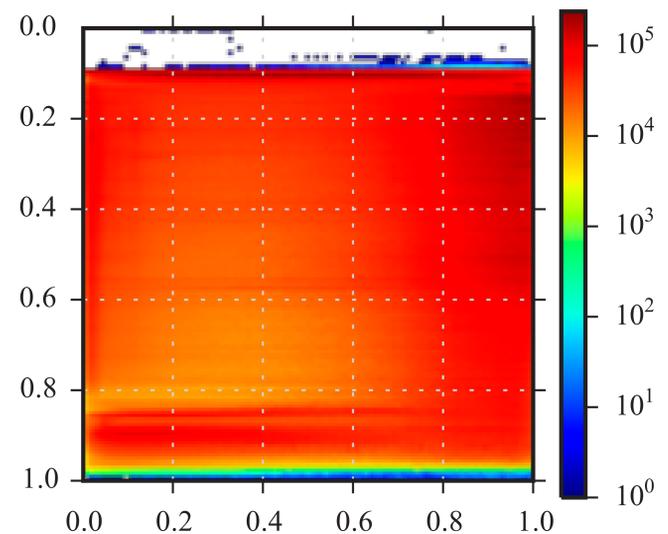
## Main finding:

Links on Wikipedia pages are not created and consumed equally

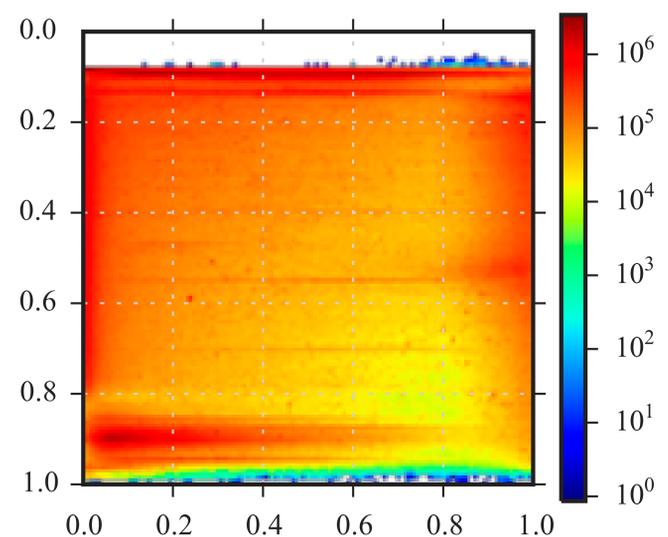
## Contributions:

- Novel dataset capturing the visual position of all links between articles on Wikipedia
- First empirical insights into the visual positions of links and clicks

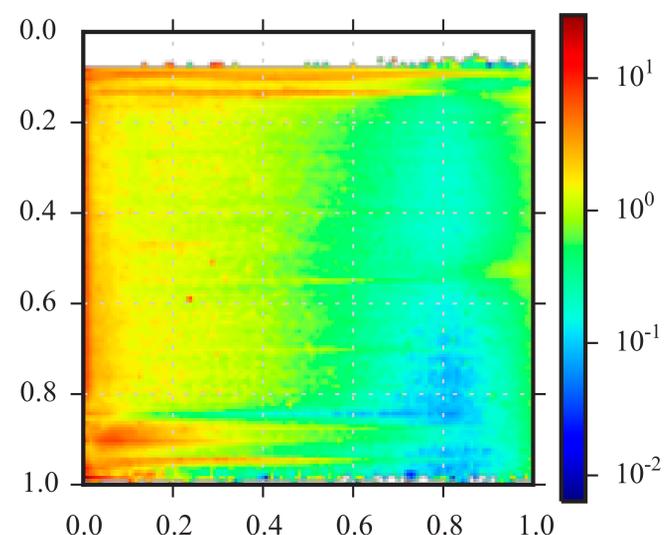
## Results:



a) Links: Indicates high link density in the lead, the infobox/sidebar, and the navbox regions.



b) Clicks: Shows the regions with high click frequency in the lead, the infobox/sidebar, navbox and left body.



c) Clicks/Links: The preference of users clicking on the left side of the screen, exceeding expectations implied by the presence of links.



dimitar.dimitrov@gesis.org  
@trovdimi



philipp.singer@gesis.org  
@ph\_singer



florian.lemmerich@gesis.org



markus.strohmaier@gesis.org  
@mstrohm



Member of the  
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