C+J 2019 Philippe Laban, Marti Hearst and John Canny

NewsLens: Navigating Complex News Stories

Our definitions

<u>News article:</u> Text written by journalist(s), published by a news source on a specific day.

<u>News story:</u> A group of news articles that discuss a set of related events over time.



Scope of NewsLens

Concepts NewsLens does **not** focus on:

- Investigative journalism. Focus on large stories (> 5 news articles).
- Local journalism.
- Multi-lingual news. Limited to English news articles.
- **Fake news.** We select a short list of news sources to limit amount of data, while maintaining diversity.

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In short: we limit our scope, to focus on helping users navigate major news stories.

A text-centric interface

Other projects focus on visual elements: timelines, maps, graphs. Limiting text to keywords, entities, and headlines. Article content is not shown.

We propose a **text-centric** interface: enabling the user to explore the wealth of textual content.



Metromaps: Shahaf et al. 2013

I I I I 2009 01/2010 02/2010 03/2010 1 1 1 04/2010 05/2010 06/2010

Multiple levels-of-detail

Challenge: How do you help a user navigate 9000+ news articles about Brexit?

We propose: automatically organizing the story into multiple levels-of-detail.

Story name Latest update Story overview Detailed event view

Bob's first visit to NewsLens

2019-01-28



Story name Latest update

Story overview Detailed event view

When Bob comes back

- Some stories are updated
- Some stories are new
- Some stories are unchanged

Story name Latest update

Story overview Detailed event view

2019-01-29

World Affairs

- > Venezuela Crisis 9 new highlights
- > Brexit Deal 9 new highlights
- > Samarco Dam Disaster 5 new highlights
- > Huawei Executive's Arrest 6 new highlights
- > Northern Syria 3 new highlights
- > Israeli Troops 2 new highlights
- > Taliban Attack 2 new highlights

🖘 Business

- > Khashoggi Murder 1 new highlights
- > PG & E Bankruptcy
- > Renault-Nissan Alliance
- > Qatar Lawsuit new
- > Longer-Term Guidance new
- > Paris Air Show new
- > Former Malaysian PM Najib new

- > Trump Campaign 5 new highlights
- > US Shutdown
- > Nigeria's Chief Justice Trial 2 new highlights
- > US Intelligence Chiefs new
- > Three Oleg Deripaska Companies 1 new highlights
- > Independent 2020 Run 1 new highlights
- > PGA Championship 1 new highlights

2019-01-30

World Affairs

- > Venezuela Crisis 5 new highlights
- > Brexit Deal 1 new highlights
- > Samarco Dam Disaster
- > Polar Vortex Cold Snap 2 new highlights
- > Huawei Executive's Arrest 2 new highlights
- > Northern Syria 1 new highlights
- > Israeli Troops 1 new highlights

🔊 Business

- > Renault-Nissan Alliance 1 new highlights
- > Khashoggi Murder
- > PG & E Bankruptcy
- > \$ 10bn Wisconsin Factory Plan
- > Qatar Lawsuit
- > Spain's ' Anti-Uber ' Strike new
- > Facebook's Market Research App 1 new highlights

≜ Politics

- > Trump Campaign 2 new highlights
- > US Intelligence Chiefs 1 new highlights
- > US Shutdown
- > Nigeria's Chief Justice Trial
- > Three Oleg Deripaska Companies
- > Independent 2020 Run
- > Netanyahu's Toughest Ballot Rival

Opening the story



Opening the story leads to the next level-of-detail

Story name

Latest update

Story overview

Detailed event view



Story name Latest update **Story overview** Detailed event view



Story name Latest update Story overview

Detailed event view

Try NewsLens yourself: <u>https://newslens.berkeley.edu</u>

Thank you for listening. phillab@berkeley.edu