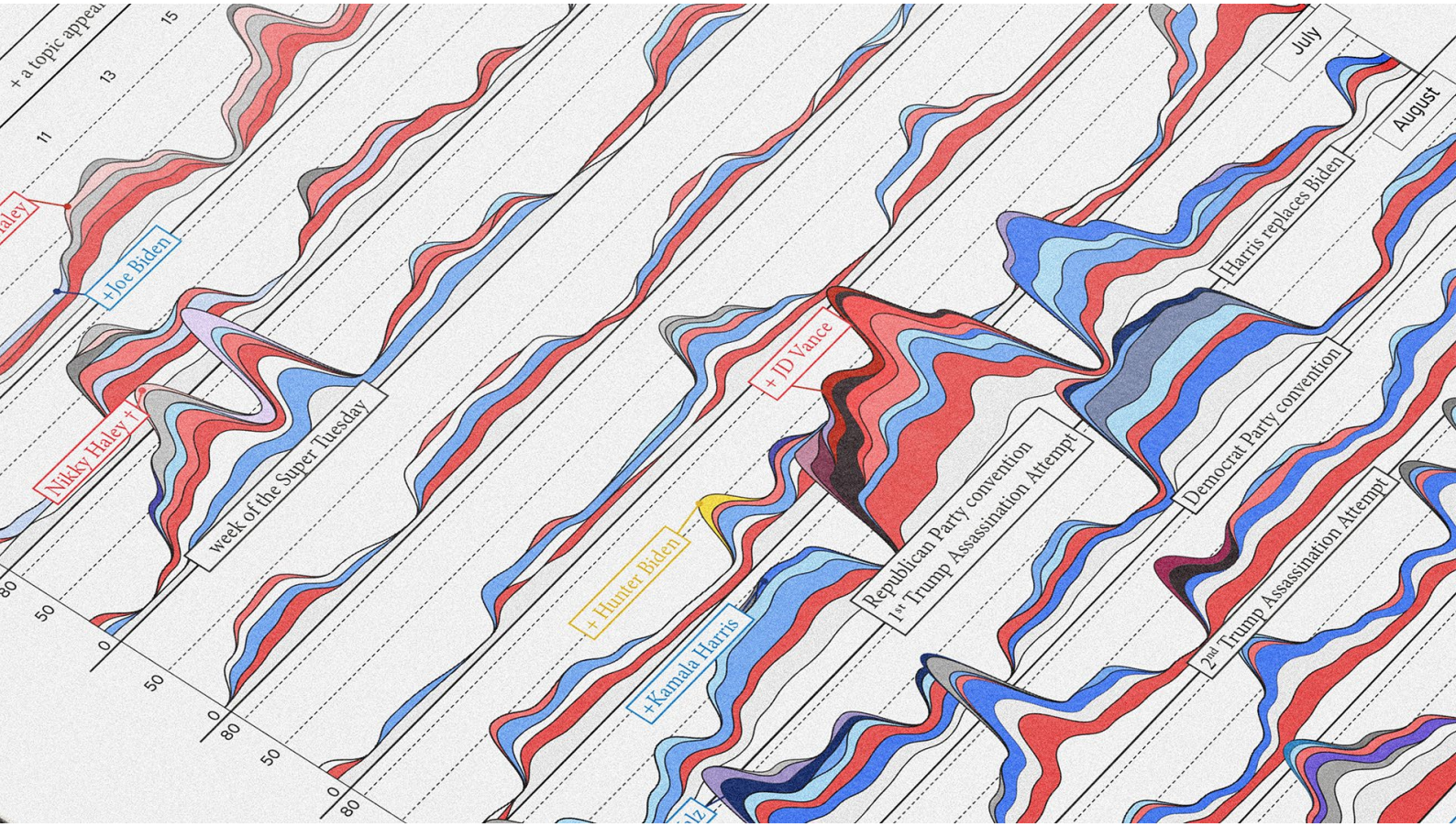
The Hyper-Visual Times

xCoAx 2025
13th Conference on Computation,
Communication, Aesthetics & X
Dundee, UK

2025.xCoAx.org



How can news be visualized to contextualize and structure subjective experiences of contemporary social and political discourse? *The Hyper-visual Times* is a mixed print and digital artwork, a reflection on the contemporary making and consumption of online news. Taking the New York Times online coverage from 2024 as source data, the installation reconfigures individual articles into a series of views, proposing tentative visual and aesthetic models as a site for collective scrutiny and interpretation. Starting from images and descriptive keywords – two important and at times controversial features of contemporary news making – the project focuses on untangling the ambiguous identity of online news, moving in between their ephemeral nature and universal significance.

Francesca Morini
Konrad Wolf Film University of Babelsberg, Potsdam, Germany
metaLAB (at) Harvard & Berlin
f.morini@filmuniversitaet.de

Kim Frederic Albrecht
Folkwang University of the Arts, Essen, Germany
metaLAB (at) Harvard & Berlin, Berlin, Germany
kim.albrecht@folkwang-uni.de

Keywords Data Visualization, News Consumption, Image Analysis, Machine Learning, Mixed Media

DOI 10.34626/2025_xcoax_025

Fig. 1. A close-up of the first poster in *The Hyper-visual Times* artwork.

Introduction

The Hyper-visual Times is a project that deals with journalism epistemology, an experiment with the extensiveness and pervasiveness of digital-native news coverage, informed and molded by the logic of the internet. As we pause to reflect on our personal encounters and consumption rituals with digital news, we immediately have to confront its double identity – the existing tension between its ephemeral yet universal nature. News articles are ephemeral, they traverse (cyber-) space and time on their own. At any point, they can be encountered and read, they can go viral, or simply fall into oblivion, archived, and then forgotten. At the same time, news articles are universal, as part of a wider corpus of knowledge that feeds on and multiplies contemporary discourses about society, politics, and so on. Their collective significance extends beyond the restricted perimeters of a single webpage and its URL. This double identity is not idle or devoid of cultural and social significance.

If we understand discourse as anything that constrains writing, speaking, and thinking within a specific historical context (McHoul and Grace 2015), then the textual and visual rhetorics of digital news become the material conditions that define our ability as humans for socially productive "imagination". Every encounter with digital news has the potential to shape our shared understanding of the world. However, as immediacy has become a staple characteristic in the remediation of online news (Omar 2012), the increasing pace of pro-

duction and publication of online content renders individual articles transitory and quickly disposable items. In other words, the logic of immediacy makes news content available and valuable primarily *en masse*, similarly to any other form of digital content (Hartelius 2020). This logic rigs the consumption of online news, turning it into an increasingly alienating and anxious experience – as if we, the readers, find ourselves conscripted to a confused and endless digital *flânerie,* ever so common in the contemporary consumption of information within the paradigm of capitalist networked societies (ibid. 2020, 379). Arguably, it is this fragmented and two-faced experience with news that creates feelings of displacement, confusion, and alienation. Similarly to what happens in other domains of knowledge and science (Latour et al. 2012), we treat digital news according to two distinct layers: the micro-level of individual articles and the macro-level of information aggregates. However, also for online journalism "[...] the whole is always smaller than its parts" (ibid., 591) and these two layers of understanding are not independent from one another – but how to reconcile the ephemeral with the universal? The individual article with its overarching discourse?

More precisely, how can news be visualized to contextualize and structure subjective experiences of contemporary social and political discourse? To even start addressing this question, the project treats news articles as unique data points in a large collection of socially and culturally relevant artifacts. Practically, articles are excavated from the bottom of newsrooms' archives. Their main features – headlines, keywords, bylines, images, etc. – are harvested, analyzed, and finally visualized both digitally and in print. As a result, news is transformed through a mix of hypervisual, quantitative, and qualitative approaches resulting in two layers of information that constitute parts of the artwork: visuality and textuality. Taking the move from Lev Manovich's *Seeing Time* (2009) and Geoffry Farmer's *Leaves of Grass* (2012), as well as Colombo and Gray's *Everything at the Forest Park* (2023; 2024) and Crawford and Paglen's *Excavating AI* (2020), *The Hyper-visual Times* mixes a quantitative approach to the visualization of news to qualitative and slow-paced findings, offering the viewer a space to scrutinize and reflect upon the logics of digital news production and consumption.

Data and analysis

The New York Times (NYT, shortened) is a well-regarded source of news delivered in the English language, both in print and as a digital issue. The NYT is also one of the few news outlets that offer programmatic access to their news archive through an Application Program-

ming Interface (API). By querying the API, it is possible to obtain the complete descriptive metadata of all NYT articles published over the years. Due to copyright reasons, the publisher does not distribute the full textual content of articles. However, these metadata already include the title of the article, publication date, a short abstract, bylines, the URL pointing to a header image, a list of descriptive keywords, and further information on the article type (e.g. commentary, long-read) and its position within the website. For 2024, the dataset comprises 59.028 articles. This initial corpus has been analyzed to obtain two separate datasets that constitute the sources for the various visual models of the artwork.

Categories dataset

The first dataset has been compiled by extracting the descriptive keywords from individual articles and organizing them over time. Using the Python library pandas, a list of categories belonging to one article is exploded into single rows of a data frame. Then, each category is counted based on the date of publication of the article it belongs to. The result is a dataset with aggregated categories, showing the amount of articles published with a given category at a certain moment in time. An example of the resulting dataset's structure is shown in Table 1.

Keyword	Date	Count
Presidential Election of 2024	2024-12-01	45

Table 1. The structure of the categories dataset.

People of Interest dataset

The second dataset comprises a selection of articles where the main subject of the header image is a person of public interest. Figure 2 provides a diagram illustrating the complete data preparation pipeline. Using the image URL, all header images related to the articles are downloaded and saved to a local folder. For each article included in the filtered dataset, the corresponding image is extracted, to restrict the number of images to analyze. Automated facial recognition using Convolutional Neural Network (CNN) models is performed on the selection. The script makes use of Python modules pandas (for data management), Pillow, cv2 (for image manipulation) and FaceNet125 (Schroff, Kalenichenko and Philbin 2015), used through the DeepFace interface. The result is a dataset of images labeled according to the detected person.

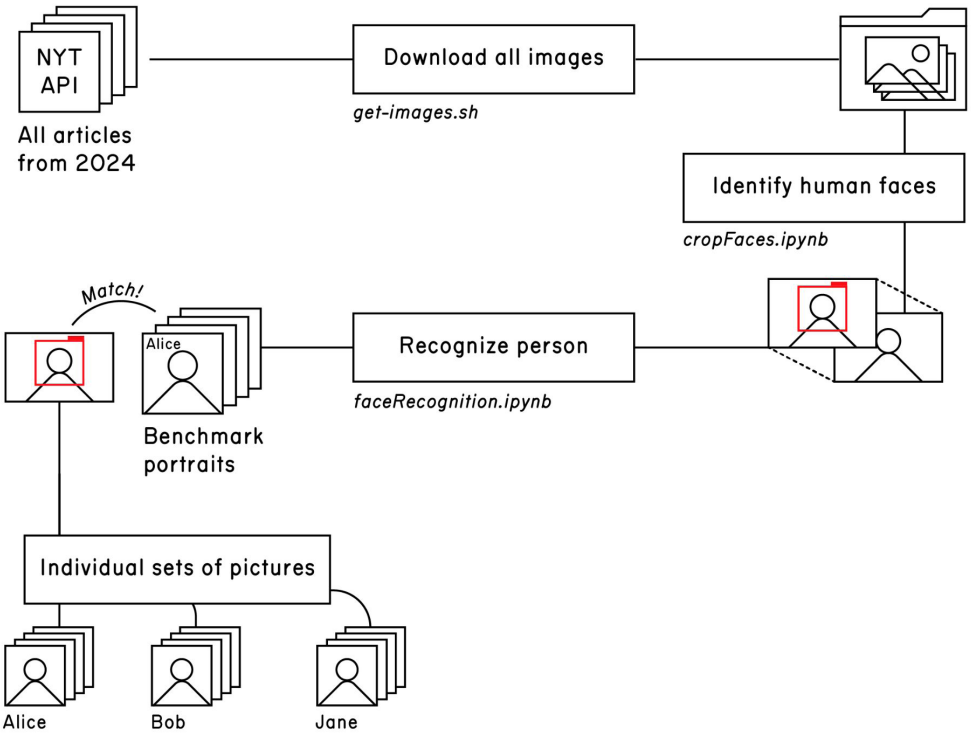


Fig. 2. The pipeline for the creation of the “people of interest” dataset.

Fig. 3. Three artwork posters. Left: “Visuality” – NYT political figures. Center & Right: “Textuality” – geo-categories and political topics.

The Hyper-visual Times

The artwork will include three A0 data visualization posters focusing on specific topics. Additionally, one tablet device will allow the visitor to navigate through the entire dataset and read through the different methodological choices and empirical findings encountered in working with news data from a historical perspective.

The posters

The A0 posters (figure 3) show different visual representations, combining and slicing the two main datasets along two main dimensions: visuality and textuality.

Visuality

Figure 1 shows a close-up of the first visualization poster. The poster belongs to the first layer, the one dealing with visuality: namely images and their fundamental role in shaping our news consumption. News images influence our understanding of reality (e.g. Martikainen and Sakki 2021). More precisely, they do so by constructing mythical representations of individuals, using long-established conventions of visual depiction (Griffin 1999). The first chapter focuses on imagery of politically and socially relevant people, as they are represented throughout the NYT news coverage. The visualization brings forward the interpretative flexibility of images within the news context. On the one hand, images are objective data – representing reality and its events. On the other hand, they are "items of psychological science-fiction" (Sontag 1977, 163). They are emotionally and subjectively charged, capturing the attention of potential readers – with "celebrity" being a decisive factor (Rössler et al. 2011). Hence, the individual faces are repeated, stripped of their context – both textual and visual. "Celebrity" is the only dimension that matters, echoing the loud aesthetic of tabloid publications. The poster shows each individual cut-out face of a person, bringing their facial mimic and pose to the front. The subjects are organized based on their popularity: the percentage distribution of their face throughout the dataset. The viewer can retrieve extended context about each cut-out only through the digital interface. By digging through individual images, the viewer obtains the necessary information to make sense of every individual item within the collage (figure 6).

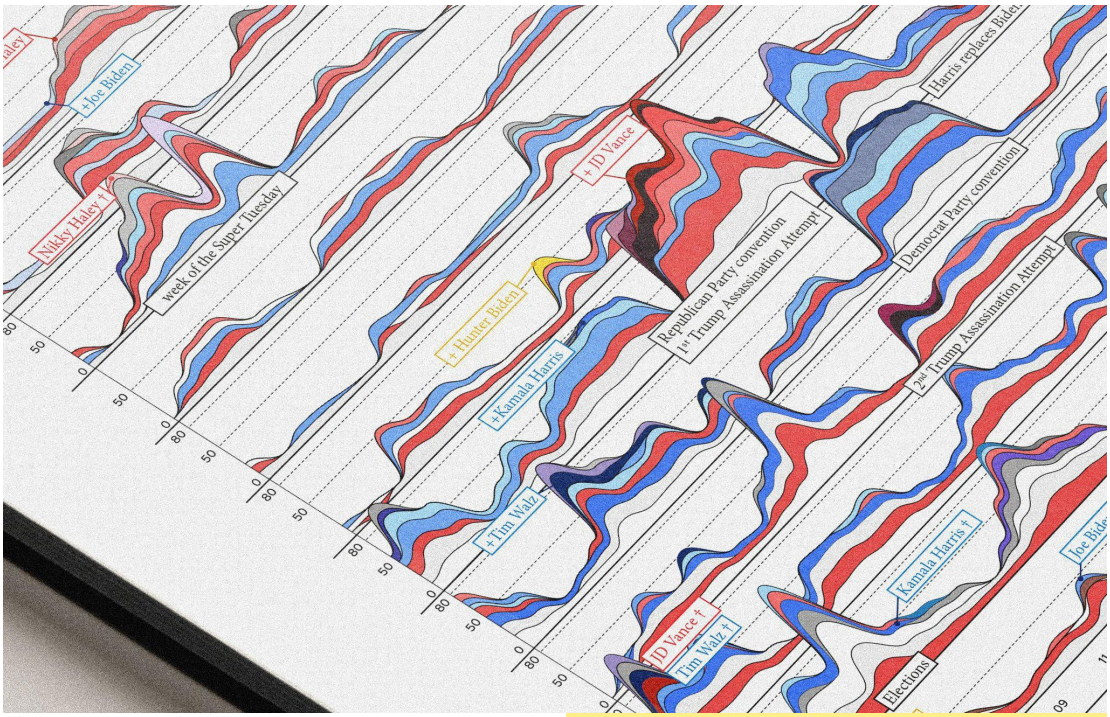


Fig. 4. Detail of a "Textuality" poster showing political topic recurrence across 2024. Political events are marked to support interpretation of publication patterns.

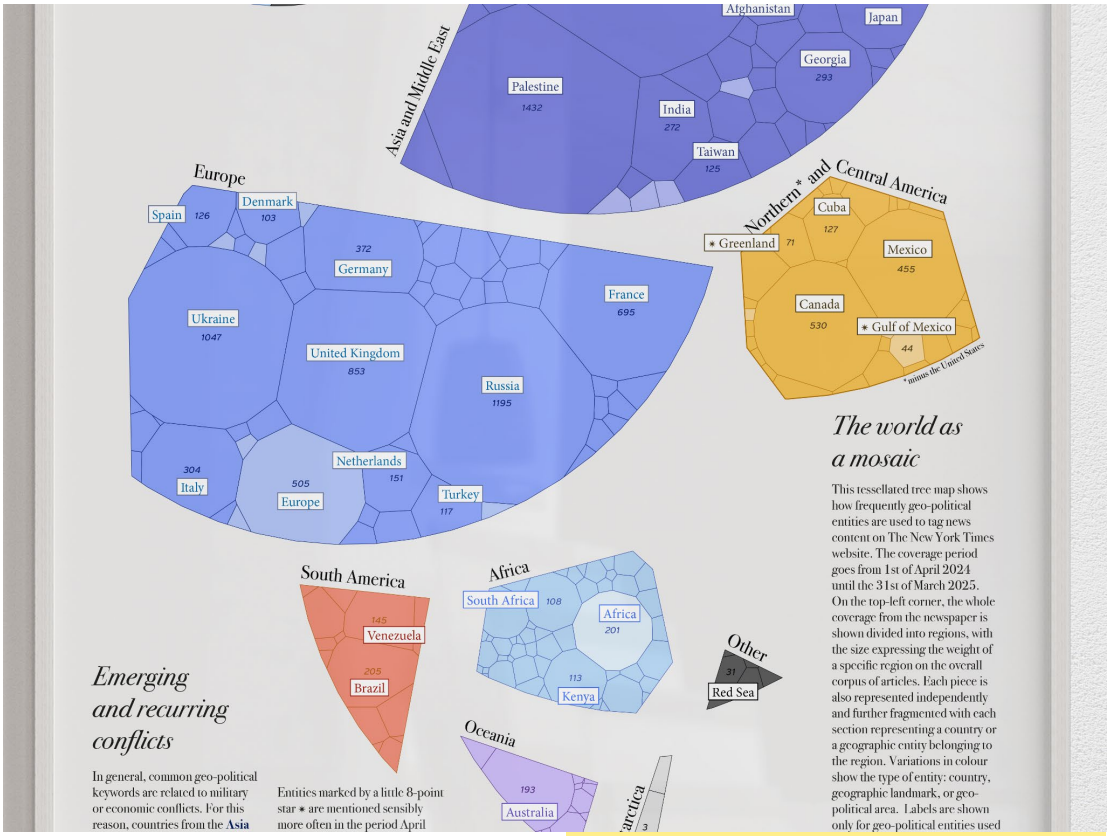


Fig. 5. Detail of the second "Textuality" poster. Geo-political coverage is visualized, showing disparities in attention given to various locations.

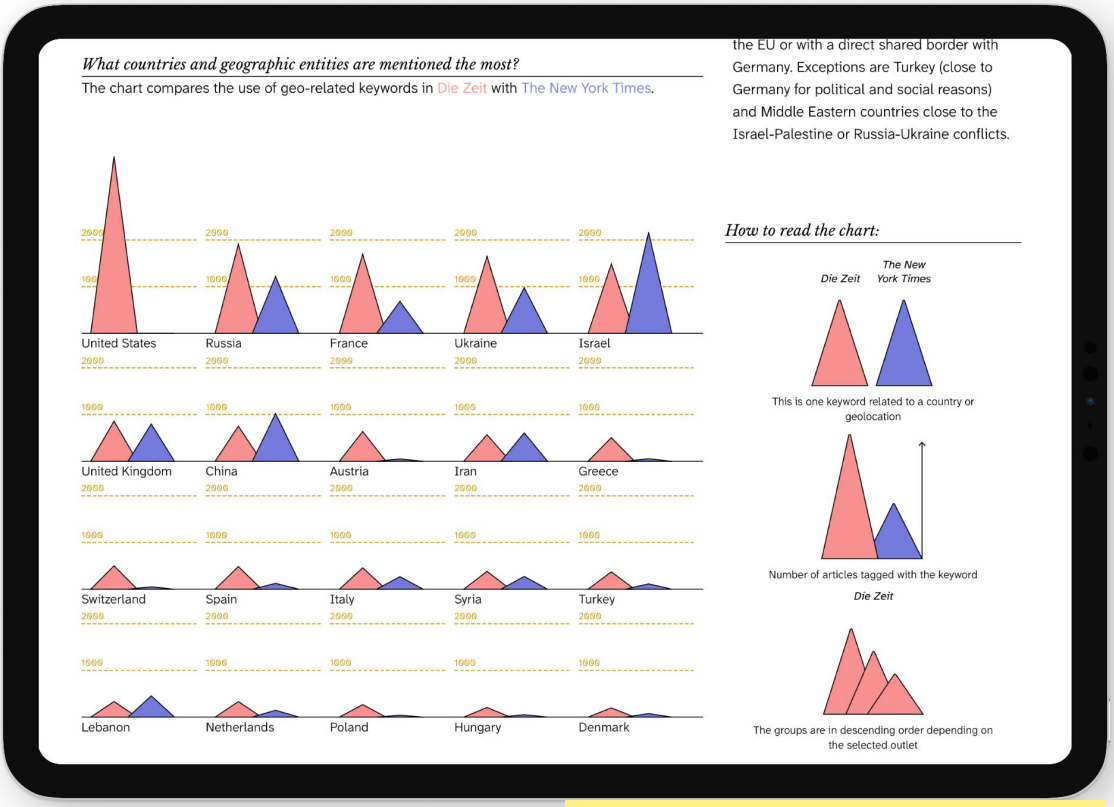


Fig. 6. Screenshot showing the web version of *The Hyper-visual Times*.

Textuality

Figure 4 shows a detail of the second poster. The visualization uses the categories dataset to create a timeline of politically relevant topics according to the NYT 2024 coverage. The keywords used to determine categories are a tool for the internal disambiguation of articles. They are used to differentiate among individual stories within the archive and, as such, they are not necessarily meant to be visible to the public. In this sense, the layer concerned with textuality is at direct odds with the first one. Individual articles are aggregated, using a hidden feature (descriptive keywords) that summarizes the content of an entire story. Whereas the visuality layer is composed using portions of the original images, in this view the individual articles have the sole function to magnify and expand the temporal and discursive context around particular topics, in this case politics. By unfolding this timeline, patterns of publication and editorial choices become tangible to the viewer.

The final poster on textuality, shown in figure 5, visualizes geopolitical coverage using a Voronoï tessellation. It focuses on geo-categories (countries, regions, political locations). Articles, collected between April 2024 and March 2025, are aggregated to show the relative weight of geographic coverage, revealing editorial emphasis on specific areas.

The essay

A tablet displays an interactive essay[1], letting users browse the full dataset. The essay provides findings and methods, acting as a methodological exploration of quantitative and qualitative media analysis. While the posters are snapshots, the essay provides broader context, including comparisons with other news outlets. It follows the same visuality/textuality structure, presenting smaller visualizations with explanations of the analytic process.

Note

1. Archived version of the essay: https://hvts.francescamorini.com/

References

Colombo, Gabriele, and Jonathan Gray. 2023. *Everything at the Forest Park – Place Names*. The Internet Archive. https://archive.org/details/eatfp-placenames/page/14/mode/2up.

Colombo, Gabriele, and Jonathan W.Y. Gray. 2024. "Un-Indexing Forest Media: Repurposing Search Query Results to Reconsider Forest-Society Relations." *Cultural Geographies* 31 (4): 569–76. https://doi.org/10.1177/14744740231181566.

Crawford, Kate, and Trevor Paglen. 2020. *Excavating AI.* https://excavating.ai/.

Farmer, Geoffrey. 2012. Leaves of Grass. https://frameweb.com/article/leaves-of-grass-by-geoffrey-farmer.

Griffin, Michael. 1999. "The Great War Photographs: Constructing Myths of History and Photojournalism." *In Picturing the Past: Media, History & Photography*, edited by Bonnie Brennen and Hanno Hardt, pp.122-157. University of Illinois Press.

Hartelius, E. Johanna. 2020. "The Anxious *Flâneur*: Digital Archiving and the Wayback Machine." *Quarterly Journal of Speech* 106 (4): 377–98. https://doi.org/10.1080/00335630.2020.1828604.

Latour, Bruno, Pablo Jensen, Tommaso Venturini, Sébastian Grauwin, and Dominique Boullier. 2012. "'The Whole is Always Smaller than its Parts' – a Digital Test of G Abriel T Ardes' Monads." *The British Journal of Sociology* 63 (4): 590–615. https://doi.org/10.1111/j.1468-4446.2012.01428.x.

Manovich, Lev. 2009. Seeing Time. https://medium.com/@manovich/visualizing-4535-covers-of-all-time-magazine-issues-over-86-years-1923-2009-6aec458cde10.

Martikainen, Jari, and Inari Sakki. 2021. "How Newspaper Images Position Different Groups of People in Relation to the COVID-19 Pandemic: A Social Representations Approach." *Journal of Community & Applied Social Psychology* 31 (4): 465–94. https://doi.org/10.1002/casp.2515.

McHoul, Alec W., and Wendy Grace. 2015. *A Foucault Primer Discourse, Power, and the Subject.* London; New York: Routledge.

Omar, Bahiyah. 2012. "Remediation: Understanding the Relationship between Print and Online News Media." *The International Journal of the Humanities: Annual Review* 9 (6): 219–32. https://doi.org/10.18848/1447-9508/CGP/v09i06/43240.

Rössler, Patrick, Jana Bomhoff, Josef Ferdinand Haschke, Jan Kersten, and Rüdiger Müller. 2011. "Selection and Impact of Press Photography. An Empirical Study on the Basis of Photo News Factors." *Communications* 36 (4). https://doi.org/10.1515/comm.2011.021.

Schroff, Florian, Dmitry Kalenichenko, and James Philbin. 2015. "FaceNet: A Unified Embedding for Face Recognition and Clustering." In *2015 IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 815–23. Boston, MA, USA: IEEE. https://doi.org/10.1109/CVPR.2015.7298682.

Sontag, Susan. 1977. *On Photography*. New York: Farrar, Straus and Giroux.