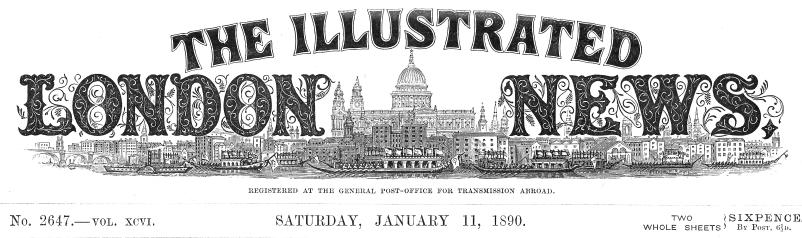


EuroMCM Sample Problem γ : Empire on Paper



The Illustrated London News, Newspaper title in 1890

1 Background

On 14 May 1842, Herbert Ingram and Mark Lemon launched The Illustrated London News (ILN). Priced at sixpence, the first issue contained 16 pages and 32 woodcut illustrations and proved an immediate commercial success. The paper continued as a weekly publication, with circulation rising from 60,000 in 1842 to a peak of around 300,000 in the 1860s.

Long before television or the internet, the world's first illustrated weekly news magazine used intricate wood engravings to bring the distant thunder of the Crimean War, the industrial marvels of the Great Exhibition, and the exotic landscapes of British India into the parlours of ordinary families. Wars, machines, science, disasters, and even royal gossip were all mediated through carefully designed compositions that guided readers' attention, constructed meaning, and reflected the cultural priorities of the age. Understanding how this visual language evolved across the latter half of the nineteenth century relied largely on qualitative interpretation by historians – until recently. The creation of large-scale multimodal datasets now permits a more rigorous, quantitative interrogation of this archive.

2 Requirements

Your solution should explore and address the following aspects:

- Trace the evolution of the ILN page layout (e.g., illustration placement, count, scale) and discuss whether these align with broader social, economic, or monetary trends.
- Examine how the rise and decline of themes and elements (e.g. across topical, geographical, event-based, or person-centred dimensions) relate to these trends.
- Assess whether semantic change and layout evolution can be jointly explained within a unified modelling framework.
- Propose and formalise at least one socio-psychological factor that could help explain cases where visual representation diverges from real-economy indicators.
- Suggest, using your model, how layout conventions and semantic emphasis are likely to have evolved between 1890 and 1920.

3 Newspaper Page

Reconstruct a plausible ILN page prediction for a selected issue date after 1900 by:

1. identifying several major historical events occurring around that date,
2. producing a schematic mock-up of the page, and
3. providing quantitative justification for your choices.
4. Ensure that the internal logic of the page inherits and extends the principles evolved through time.

Present the reconstructed newspaper page for your selected date appended to the end. The page does not need to be content-complete, since the purpose of this page is to demonstrate the implications of the model, rather than to reproduce historical content in full.

4 Datasets

Download the complete datasets at [Sample_Problem_Gamma_Datasets.zip](#).

The primary datasets are mandatory inputs specified by the problem, while the auxiliary datasets are optional and may be selected as needed. There is no restriction on incorporating external data to augment and validate the solution, provided sources and assumptions are stated clearly.

4.1 Primary

[ILN_Text_Data_Volume_Issue_Page_1842-1890.csv](#)

Comprehensive metadata for 72,081 illustrations extracted from the ILN between 1842-1890:

- Publication date (YYYY-MM-DD format)
- Volume and issue number
- Page number within issue
- Bounding box coordinates (in YOLO format)
- Model confidence score from the detection model
- Illustration sequence number on page (indicating reading order)
- OCR-extracted caption text
- Original Internet Archive item identifier
- Page URL for accessing the original scan

[OpenClipILNfull.pt](#)

Multimodal embeddings for illustrations. The .pt file can be converted to .csv format if needed.

Please cite the source dataset:

Smits, T. (2024). Illustrated London News Illustration Dataset (1842-1890) (1.0.0) [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.14169699>

4.2 Auxiliary

[World_Event_Dates_1800-1920.csv](#)

177 major historical events worldwide (1800-1920), recording their dates, locations, types, key actors, affected populations, and outcomes.

[BoE_Balance_Assets_1800-1920.csv](#)

[BoE_Balance_Liabilities_1800-1920.csv](#)

BoE_Banking_Department_Monthly_1844-1920.csv

BoE_Issue_Department_Monthly_1844-1920.csv

Bank of England Balance Sheets (£ millions; Annual 1800–1920, Monthly 1844–1920).

Employment_1855-1920.csv

GDP_1800-1870.csv

Immigration_1850-1920.csv

Industry_1800-1870.csv

Population_1800-1920.csv

Trade_Exports_by_Country_1846-1920.csv

Trade_Imports_by_Country_1846-1920.csv

These datasets provide a long-run view of Britain's economy and society, combining monetary variables expressed in £ millions (GDP, trade flows), population and flow measures reported in thousands or millions of persons (population, employment, migration), rates and ratios given in percentages or index form (unemployment, reserve ratios, industrial output indices, price indices), and derived per-capita measures in £ where applicable.

5 Submission

Your PDF solution (≤25 pages) should include:

- One-page Summary Sheet
- Table of Contents
- Complete Solution
- One-page Newspaper Mock-up
- References
- Report on Use of AI Tools (if applicable; excluded from the 25-page limit)

There is no mandatory minimum length. Teams may submit incomplete solutions. The use of AI tools is allowed but optional; compliance with [EuroMCM AI usage policy](#) is required.

6 Links

[Persistent Archives of Complete Issues, The Illustrated London News](#)

[The Victorian Web](#)

[Charles Booth's London](#)

7 Glossary

Wood Engravings (Woodcut): A relief printing technique where images are carved into end-grain wood blocks to the exact height of metal type, enabling illustrations and text to be locked into a single frame and mass-produced simultaneously on the same page.