DOI: https://doi.org/10.60923/issn.2532-8816/21718

Unlocking 18th- and 19th-century Playbills with AI: An Experiment in Qualitative Data Categorization

Deven Parker

University of Glasgow deven.parker@glasgow.ac.uk

Kaiwen Zheng

University of Glasgow Kaiwen.Zheng@glasgow.ac.uk

Michael Gamer

University of Pennsylvania mgamer@english.upenn.edu

Joemon M. Jose

University of Glasgow
Joemon.Jose@glasgow.ac.uk

Abstract

Recent advances in large language models (LLMs) have generated excitement from scholars in the humanities about the ways our research might be transformed with their successful integration, particularly for tasks that require multiclass classification or categorization. This paper offers an interdisciplinary exploration by researchers in the fields of theatre studies and computer science to use generative AI techniques to categorize, tag, and analyze qualitative information from eighteenth- and nineteenth-century British playbills. Our goal was to replicate the process of manually tagging playbills via categorization in a manner that preserves playbills' intricate nested data structures. Our results indicate that there is promising work to be done on



humanities data where there is already an underlying classification structure in place; at the same time, our attempts revealed unexpected layers of complexity and ambiguity in this dataset, particularly around genre categorization and nested performance data. Ultimately, we wish to highlight not just LLMs' capacity to categorize historical data at scale but also to shed new light on that data's existing intricacies.

Keywords: playbill; artificial intelligence; theatre; drama; Large Language Models; genre; performance.

I recenti progressi nei modelli linguistici di grandi dimensioni (LLM) hanno suscitato entusiasmo tra gli studiosi di discipline umanistiche sui modi in cui la nostra ricerca potrebbe essere trasformata con la loro efficace integrazione, in particolare per compiti che richiedono classificazione o categorizzazione multiclasse. Questo articolo offre un'esplorazione interdisciplinare da parte di ricercatori nei campi del teatro e dell'informatica per utilizzare ChatGPT-40 per classificare, etichettare e analizzare informazioni qualitative provenienti da locandine britanniche del XVIII e XIX secolo. Il nostro obiettivo era replicare il processo di etichettatura manuale delle locandine tramite la categorizzazione in modo da preservare l'intricata struttura dei dati nidificati delle locandine. I nostri risultati indicano che c'è un lavoro promettente da svolgere sui dati umanistici laddove esiste già una struttura di classificazione sottostante; allo stesso tempo, i nostri tentativi hanno rivelato livelli inaspettati di complessità e ambiguità in questo set di dati, in particolare riguardo alla categorizzazione dei generi e ai dati sulle prestazioni nidificati. Infine, desideriamo evidenziare non solo la capacità degli LLM di classificare i dati storici su larga scala, ma anche di gettare nuova luce sulle complessità esistenti di tali dati.

Parole chiave: intelligenza artificiale; teatro; grandi modelli linguistici; genere; la prestazione; dramma.

Recent advances in large language models (LLMs) have generated excitement from scholars in the humanities about the ways our research on historical texts and archives might be transformed with their successful integration, particularly for tasks that require multiclass classification or categorization [4]. The development of transformer architectures has enabled models such as OpenAI's ChatGPT to track interconnections between words when calculating text predictions or when assigning classifications to given texts ([1]: 291). Consequently, they have been put to use in extracting and analyzing features across a range of both literary archives and historical collections, promising to unlock digital repositories at unprecedented scales ([15], [11], [7]). However, a fundamental challenge for such studies has been identifying, isolating, and extracting the component "parts" of these historical and literary texts—whether individuals' names, poetic devices, or genre markers—without sacrificing the interpretive ambiguity and complexity that is fundamental to the text as a unified whole. As Salvatore Spina ([13]: 126) explains in his exploration of AI transcription of manuscript letters, "source texts require a certain degree of normalisation and correction in order to be usable in other computational contexts." Given this limitation and the potential for loss of complexity, do LLMs perform categorization tasks better on texts that are more easily broken down into their constitutive parts, or where those parts are more self-evident? In other words, is it easier to automate classification on literary and historical documents that already perform some version of that classification themselves?

Taking up these questions, this paper offers an interdisciplinary exploration by researchers in the fields of theatre studies and computer science to use LLMs to categorize, tag, and analyze qualitative information from a dataset that, we suggest, is uniquely suited to this mode of analysis because it is already structured into its component parts: eighteenth- and nineteenth-century British playbills. Akin to modern cinema posters, playbills were a ubiquitous form of printed ephemera for more than two hundred years; these documents announced a night's entertainment at a given theatre and remained recognizable thanks to long-established conventions in both formatting and discursive style. The fact of their a priori categorization—their structured presentation of information including date, theatre name, play title, performers, and roles—makes them particularly suited to LLM tagging and analysis. While this project's in-progress goal is the completion of a database that allows users to search and analyze roughly 500,000 playbills created between 1750 and 1850, in this paper we will describe our use of ChatGPT-40 to automate tagging on a sample set of 4,000 playbills. Our results indicate that there is promising work to be done on large corpora of historical and literary data where there is already an underlying classification structure in place; at the same time, our attempts revealed unexpected layers of complexity and ambiguity in this dataset, particularly regarding genre categorization. Ultimately, we wish to highlight not just LLMs' capacity to categorize historical data at scale but also to shed new light on that data's existing intricacies.

1. Background and Contexts

Playbills are one of our most enduring cultural media. Bills as early as the time of Shakespeare perform most of the functions still present in modern theatre programs, providing essential information regarding date, venue, and the bill of fare offered. Most fundamentally, they offer an evening of entertainment, usually of more than one play or performance. The most common format is a "mainpiece" (usually a five-act comedy or a tragedy) followed by a shorter afterpiece (often a farce or a pantomime), sometimes interspersed with what we now might call "special attractions" such as dances, songs, or acrobatic performances depending on the night. A night's "whole show", to use Jeffrey Cox's ([2]: 404) term, might last over five hours. Playbills present that show sequentially, beginning with announcements (if any), occasion (if necessary), venue, and date of the performance; followed by the genre and title of each play, its actors, and special attractions; and closing with information about ticket purchase. Figure 1 provides a sample playbill with its categories of information highlighted:

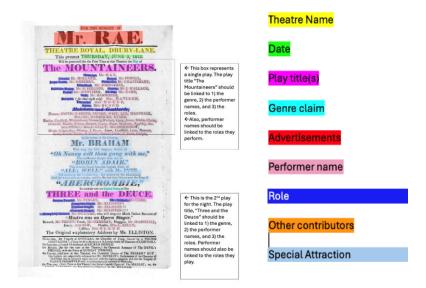


Figure 1. Sample playbill with highlighted data categories. Image courtesy of the British Library.

While they still follow this basic structure, extant playbills become increasingly elaborate after 1803, "thanks to innovations in typeface, making a verbal and visual assault upon the attention of the playgoers," as Gillian Russell ([12]: 161) reminds us. It is also around this time—owing to a boom in spectacular forms such as melodrama—that they begin to include lengthy descriptions of scenery, stage action, musical accompaniment, and even illustrations of pivotal scenes. Playbills grow longer to accommodate this wealth of information, with extant examples from the 1830s onwards sometimes reaching three feet or more in length.

As playbills offer compressed, structured information, researchers have regularly turned to them as a unique form of data that can offer insights into the broad historical and theatrical milieu. Russell ([12]: 175) calls them an early "form of data storage," collected and archived not just to memorialize performances but to construct theatrical histories and to document lives and careers. In their study of playbills from the Theatres Royal Covent Garden and Drury Lane held at Harvard University, Mark Vareschi and Mattie Burkert revealed the important "work" that playbills' genre labels—as when the bill terms a play a "comedy" —performed for theatregoing audiences. Their analysis of authorial attribution and genre designations revealed, as they put it, that "the inclusion of genre on playbills is a more powerful mode of categorization for eighteenth-century theatrical publics than the inclusion of a named author; in other words, genre does more work on its own to suggest the nature of a play than does the author's name" ([14]: 598). Building on such insights, we recently suggested that one of the affordances of playbills' structured metadata is to allow us to follow the movements of performers and repertoires, and to track the rise of new forms such as melodrama [5]. While playbills were notably excluded from largescale digitization projects such as Eighteenth-Century Collections Online (ECCO) due to their sheer volume, their recent emergence as a point of inquiry has shown, to quote Vareschi and Burkert ([14]: 599), that "they... evince a complexity and diversity of kinds of information that pose real questions for quantitative analysis."

With this prior research in mind, we have sought to use AI to extract and tag data from playbills according to the categories of information that remain consistent across them, replicating the process of hand-tagging that members of our team developed in 2017. At that time, Michael Gamer (University of Pennsylvania, Department of English) and Scott Enderle (University of Pennsylvania Library) began working with the Penn Library's considerable playbill holdings to explore whether the collection might be digitized and its data collected for analysis. They designed an online form so that undergraduate research assistants could input and tag playbill data. Students would manually input the data and the form would convert the information into YAML records, tagging each entry according to a set of designated labels. In constructing the form, Gamer and Enderle surveyed approximately 5,000 playbills from the Penn collection. They analyzed their formal structures, component parts, and the information they conveyed, designing a form that could accommodate a diverse range of entertainments, from Italian Opera and Shakespearean Tragedy to circus acts, historical reenactments, melodramas, oratorios, pantomimes, and travelling rodeos.

Gamer and Enderle began with the decision that each form should record all performances in a given evening, not just mainpieces. This required the form to be flexible and to nest information, mirroring the structures of playbills themselves. For each play beyond the first featured on the playbill, users could manually "add" additional ones. This same nesting feature would allow researchers to enter multiple actors, designers, playwrights, printers, or other contributors credited on the bill. For categories where there might be more than one entry-such as "actor" and "role," "announcements," "contributor," "genre," "special attractions," and of course "performance"-the form allows for as many entries to be made under that heading as are necessary. As a principle, Gamer and Enderle wished to record information that appeared verbatim rather than information inferred or implied with the important exception of genre. For genre, they chose to record both the playbill's generic description of a performance and their own designation. Their decision stemmed from the unstable nature of genre in the theatre, where the same play might take on several different generic identities as it moved from theatre to theatre. Adding the additional category of "Our Genre Attribution" would thus allow future researchers to search, for example, for every "burletta" performed in 1826, either as advertised on the playbill or as determined by historical consensus.

Between 2019 and 2022, members of this team created approximately 4,000 YAML records from playbills, primarily drawing from the Penn Library and the British Library. However, during this time we also located and photographed over 500,000 playbills in archives across the UK and the US, drawing on significant collections at York Minster Library, the National Library of Scotland, the University of Bristol, Harvard University, and many others. It quickly became clear that it would take many years to tag each record, given that the typical time to complete the YAML form is about twenty to forty-five minutes depending on playbill length and complexity (later playbills tend to take longer as they grow in length and detail). This problem led us to seek out solutions in the field of artificial intelligence, particularly when advances in transformer architecture post-2021 substantially enhanced the contextual learning abilities of large language models.

2. Methodology

Our goal was to extract text from the playbills with a high degree of accuracy, beginning with the sample set we had already hand tagged for sake of comparison, and to tag the extracted text according to the form's different categories (actor name, play title, genre, etc.) in a manner that preserves the playbill's nested data. Our methodology leveraged advanced LLMs (Llama-3.2-Vision, Mistral-OCR), specifically ChatGPT-40, to automate this extraction and nested categorization. It is important to note that our use of ChatGPT-40 was via the OpenAI API, rather than the interactive web interface, to enable programmatic batch processing and consistent output formatting. Given the structured yet intricate nature of these documents, we developed a tailored prompt engineering approach to systematically transform visual textual information into structured JSON data.

Our method involved designing structured prompts to instruct ChatGPT-40 to accurately parse and classify essential details from the playbills. Each prompt explicitly directed the model to extract metadata based on the original form categories. Replicating the structure of the form and the resulting outputs, the prompt effectively captures nuances such as multiple performances per show, distinct genre claims, and various performers along with their specific roles.

To ensure robustness and flexibility, our prompts also included instructions for handling unknown or ambiguous information by excluding it from the structured outputs rather than summarizing or guessing. This few-shot categorization approach eliminated the need for extensive pre-training [9], thus streamlining the processing of large historical datasets like ours. This method addresses previous manual transcription and tagging limitations, significantly enhancing scalability and efficiency, while also revealing deeper complexities and nuances within the data.

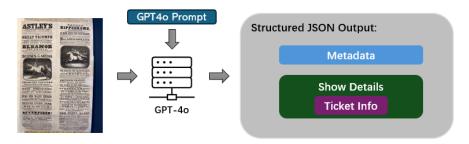


Figure 4. Automated extraction of structured show information from a playbill using GPT-4o. More details are provided in the appendix.

3. Dataset Description

Our data set for testing the first iteration of our prompt included 100 playbills from the Theatres Royal Bath, Birmingham, and Bristol between 1795 and 1843. These were selected because we were already in possession of hand-tagged YAMLs for these images. Thus, we were able to compare the test results with our manually created results. Following this initial test, we identified a number of consistent errors (described in more detail in the "results section") in the resulting YAMLs that caused us to modify the prompt before carrying out additional tests. First, the "date," "venue," and "label" tags were formatted inconsistently across the results—this was easily fixed in subsequent rounds of prompt engineering. We then undertook three subsequent rounds of prompt engineering after this initial experiment; in these rounds, we tested the prompt on a much smaller sample set of playbills selected for their relative rhetorical and visual complexity. These included a bill for the English Opera House on 21 September 1839 that does not list the year; a bill for same theatre on 17 July 1830 that has severe damage to the page; a bill for Astley's Royal Amphitheatre for 26 July 1813 that has handwritten corrections; and a bill for the Theatre Royal, Covent Garden for 10 June 1833 that includes a detailed list of songs and scenery descriptions. Several rounds of testing and prompt engineering focusing on this more complex selection of bills ensured that the prompt would suffice for tagging and nesting data from the most intricate and challenging samples.

4. Comparative Analysis of LLMs

In order to select the most appropriate LLM for our task, we conducted a comparative analysis of three candidate models—Llama 3.2 Vision, Mistral-OCR, and ChatGPT-40—using the initial set of 100 playbill images and the identical prompt, "Extract text information in the image." This standardized approach ensured a fair comparison of their performance.

- [1] **Llama 3.2 Vision:** Llama 3.2 Vision has demonstrated a solid performance in various visual tasks; however, its capacity to process large images is limited. When input images exceeded the model's optimal size, they had to be resized. Unfortunately, this resizing often led to the loss of critical details—especially in playbills with minute textual information—resulting in significant inaccuracies during text extraction.
- [2] Mistral-OCR: Mistral-OCR is specifically designed for optical character recognition, but it

struggled with certain nuances found in the playbills. In cases involving small or blurry text (a problem in playbills taken from microfilm), the model frequently failed to correctly recognize characters, including the "long s" common in playbills before the nineteenth century. Moreover, we found that it regularly produced erroneous outputs that did not match the image. For example, in results for a playbill from the Theatre, Birmingham for 1 July 1803, the Mistral-OCR output included an excessively repetitive block of text—listing song titles and credits multiple times—that did not reflect the true content of the playbill. The full extraction results obtained using Mistral-OCR are provided in the Appendix.

[3] **ChatGPT-4o:** Among the three, ChatGPT-4o stood out for its overall robustness and reliability. In most scenarios, it consistently extracted and accurately interpreted textual information, even when dealing with varied formatting and quality issues inherent to playbills. This superior performance made ChatGPT-4o the preferred choice for our subsequent prompt design efforts, where maintaining accuracy in data extraction was critical

By comparing these models, we can clearly see that while Llama 3.2 Vision and Mistral-OCR have their respective strengths, their limitations—especially regarding image size handling and text clarity—necessitated a more refined approach. Consequently, our prompt design for ChatGPT-40 was specifically tailored to leverage its capabilities while mitigating common pitfalls observed in the alternatives. This comparative analysis thus lays a solid foundation for the design decisions detailed in the following section.

Model	Large Image	Unclear Text OCR	Output Reliability	Overall
Llama3.2-vision	X	X	X	X
Mistral-OCR	√	X	X	X
Chatgpt-4o	1	V	V	V

Table 1. Comparing the performance of multiple LLM in their ability to extract information.

5. Prompt Design

Our structured prompt framework, specifically developed for extracting and categorizing detailed information from playbills, comprises three integral components: Initialization Setup, Output Formatting, and Semantic Guidance. The Initialization Setup explicitly defines the extraction context, specifying the exact type of metadata and detailed performance information to be retrieved. Output Formatting ensures the extracted data consistently adheres to a structured JSON schema, enhancing downstream processing efficiency. The final component, Semantic Guidance, provides precise linguistic cues and clarification directives, instructing the model to accurately handle textual ambiguities, omit unknown or unclear data, and maintain semantic integrity across diverse extraction scenarios. This three-part structure systematically guides the model toward nuanced comprehension, significantly enhancing extraction accuracy and consistency.

Initialization Setup: In the Initialization Setup step, the prompt model is assigned a clearly-defined expert Role Definition pertinent to its historical data extraction task. Specifically, the model is instructed to assume the identity of a researcher with "deep expertise in theatrical

playbills from the 18th and 19th centuries." This tailored role definition enables ChatGPT-40 to accurately contextualize the task within historical theatrical documentation, effectively clarifying the scope and desired outcome. Additionally, explicit Task Instructions are provided, clearly directing the model to analyze specific textual details and convert them into a structured JSON format. This precise directive helps the model maintain task focus and systematically extract relevant information. Moreover, Output Constraints are clearly outlined to specify the exact formatting requirements and handling instructions, explicitly instructing the model to directly print JSON content without summarizing or including any unknown or ambiguous information. Consequently, this combined approach significantly enhances the relevance, precision, and consistency of the generated structured outputs.

You are now an expert researcher with deep expertise in theatrical playbills from the 18th and 19th centuries. Please analyze the following details based on the provided texts into a Json file (Directly print Json content and don't summarise at all if you encounter any unknown information, just don't put it at all.).

Role Definition: Task Instruction: **Output Constraints:**

Figure 5. Playbill parsing initial prompt setup.

Output Formatting: In the Output Formatting step, we provide the model with a detailed example of the required JSON output structure, clearly illustrating how each extracted textual element should be organized. The format is encapsulated within a single primary component ephemeralRecord—which encodes performance-related metadata, including ticket information. Within ephemeralRecord, the structure is divided into four key subsections: basicInfo, containing the playbill identifier (pid), label, and announcements; documentPrinter, capturing the printer's name and location; shows, which include both show-level metadata (e.g., date, venue, city, and start time) and nested performance details; and ticketInformation, which presents admission logistics such as box office hours, seating categories, and pricing schemes. Each performance record, under shows, contains attributes such as title, order, genre, and featured attractions, along with lists of contributors (with both name and type) and performers (with names and corresponding roles).

By referencing this structured example, the model generates well-organized, hierarchically coherent outputs that enhance data reliability and downstream usability. Additional formatting specifications and field definitions are provided in the Appendix.

ephemeralRecord:

basicInfo: [pid, label, announcements]
documentPrinter: {location, name}
shows:

- showMetadata: [date, venue, location, performancestarttime]
 performances:
 - performanceInfo: [orderOfPerformance, title, genre, featuredattractions]
 contributors: {ContributorName, ContributorType}

performers: [{performerName, role}]

ticketInformation: <value>

Performance Details:

Figure 6. Playbill parsing output format setup.

Semantic Guidance: In the Semantic Guidance step, we incorporate domain-specific instructions that guide the model in interpreting and extracting historically grounded data with contextual fidelity. These instructions are organized into four distinct categories, each addressing a particular aspect of semantic interpretation. First, the metadataRules component instructs the model to extract structurally defined fields such as label, announcements, and showsAndPerformances. These fields are position-sensitive and rely on the model's ability to distinguish textual layout cues—for example, identifying announcements as any content that precedes the theatre name. Second, the contributorPolicy defines clear expectations for the extraction of non-performing personnel. Roles such as playwright, choreographer, painter, or musician must be explicitly labeled with both name and contributor type, ensuring accurate representation of non-performer creative labor. Third, the attractionPolicy requires the model to capture featured elements—such as songs, dances, or scenery descriptions—without summarization. This directive is designed to preserve the full expressive detail of the original playbill. Lastly, the locationRule enforces a strict geographical scope, specifying that only the city name should be extracted as the location of the performance, thereby eliminating unnecessary regional or venue-level data (adhering to the original form for hand-tagging described in the first section).

Together, these structured semantic policies enhance both the precision and interpretability of the extracted output, ensuring that intended meaning and playbill-specific context are faithfully preserved for downstream analysis.

SemanticGuidance:

metadataRules: [label, announcements, showsAndPerformances]
contributorPolicy: {playwright, choreographer, painter, musician, etc.}
attractionPolicy: [songs, dances, scenery; no summarization]
locationRule: [only city name]
Non-performer Tagging: Structure Extraction:
Detail Preservation: Location Limitation:

Figure 7. Playbill parsing semantic guidance setup.



In summary, the prompt design in this case study is structured into three interdependent modules—Initialization Setup, Output Formatting, and Semantic Guidance—that together form a robust framework for extracting detailed information from playbill images. The Initialization Setup establishes the model's role and task context. The Output Formatting module provides explicit JSON examples to ensure consistent, standardized data structures that facilitate smooth downstream processing. Finally, Semantic Guidance incorporates targeted linguistic cues and precise extraction rules to handle ambiguities and maintain semantic integrity. Collectively, this layered approach not only enhances extraction accuracy and efficiency but also lays a solid foundation for subsequent categorization and analysis. This framework sets the stage for the next phase of our study, where we delve into Evaluation and Case Studies to assess the performance of our methodology in practice.

Evaluation and Case Studies 6.

Our results were evaluated both quantitatively and qualitatively. First, we manually counted the number of correct and incorrect tags for the initial sample set of one hundred playbills for the following categories: date, theatre name, theatre location, play title, cast list, genre label, our genre attribution, and printer information. We deliberately did not evaluate the LLM's performance when it came to the "announcement" and "special attraction" tags because our own manuallycreated records contained a high degree of ambiguity regarding what constituted "correct" data for these two highly interpretative categories (ultimately, we decided to collapse them into a single category called "additional information" to mitigate such ambiguity). Table 2 shows the percentage rates for correctness across these tag categories:

Tag category	Number of correct tags	Number of incorrect tags	Percentage of correct tags
Date	100	0	100%
Theatre name	52	48	52%
Theatre location	100	0	100%
Play title	223	17	92.92%
Cast list	194	46	80.83%
Genre label	235	5	97.92%
Our genre attribution	106	134	44.17%
Printer information	88	12	88%

Table 2. Percentage of correct tags for 100 playbills.

We did not count a tag as incorrect if it included a minor spelling error; rather, to be considered incorrect a tag had to record false information or simply not include the information at all. For example, an incorrect cast list is one that does not include all performer names listed on the playbill (or one that misattributes roles), while incorrect printer information might include

^{*}Note: there were 240 performances across 100 playbills, as each playbill contains between 2-4 listed performances.

mistakenly listing an actor's name for the printer, or listing a printer's name when none is present. The LLM performed particularly well when the information for a given tag was listed on the playbill in a relatively straightforward manner, such as the date (100% accurate), theatre location (100% accurate), play titles (92.92% accurate), and printer information (88% accurate). It did slightly less well with cast lists (80.83%), for which it occasionally neglected to include performers who were listed on the playbill simply as "chorus" or "vocal parts" (rather than named roles), or mixed up a performer's name with his or her role. The two tag categories with the lowest percentages of correct information were those for "Theatre name" (52% correct) and "our genre attribution" (44.17% correct). The theatre name tag was considered incorrect if it was recorded only as "Theatre Royal" rather than the full "Theatre Royal, Bath"; the LLM often interpreted the listed city not as part of the theatre's full name. "Our genre attribution" was frequently incorrect because it is a highly interpretative tag. The LLM was tasked with deciding which modern genre label to assign to a given play, even if it differed from the genre label printed on the playbill. More often than not, the LLM simply printed the same genre label that appeared on the bill, mistakenly assuming it could take the text at face value. We treat this problem at length in our discussion section below.

Next, we present three case studies (two standard cases and one challenging case) demonstrating the results of our attempts at extracting and evaluating playbill data. Although the evaluation component remains tentative and the sample size limited at this time, the case studies reveal broader insights regarding data accuracy, extraction challenges, and subsequent categorization. Each case is divided into three parts:

- [1] Metadata & Record Identification
- [2] Performance Overview and Individual Performances
- [3] Ticketing and Audience Strategy

Additional Notes on Markings:

In our analysis, we have employed a color-coding system to further clarify the data:

Blue Markings: In the "Categories" sections, text marked in blue represents newly added categories that were not originally present in the playbill. These additions help standardize and enhance our data schema for subsequent analysis.

Red Markings: In the "GPT-40 Analyze" sections, text marked in red indicates additional information. Some red-marked details are accurate enhancements (for instance, simplifying "A New Melo Drame, Consisting of MUSIC, DIALOGUE, DANCING, and PANTOMIME" to "Melo Drame"), while others may include errors caused by unclear or degraded source material.

These annotations serve as a visual guide to distinguish between the original extracted data and our interpretative modifications. Detailed explanations for these markings are provided in each individual case study. Due to limitations imposed by image size and clarity, all high-resolution playbill visual annotations in their original size have been provided in the appendix.

7. Case Study 1: Playbill for Theatre, Birmingham, 1 July 1803 (original from the British Library)

1. Metadata & Record Identification

A. Description:

This section displays the essential metadata of the playbill, including the unique record identifier (PID), the label (which combines theatre name, weekday, date, and year), announcements, and the document printer's information. This data forms the backbone of our dataset and provides insights into the document's formal structure and provenance.

B. GPT-40 Playbill Visualization Analysis

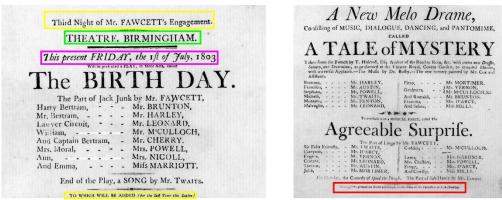


Figure 8. Case 1 Metadata & Record Identification Visualization.

Categories	GPT-40 Analysis	Manually-created Tagged Sets
PID	Birmingham_1803-07-01	_
Label	Theatre, Birmingham, Friday, July 1, 1803	Theatre, Birmingham, 1 July 1803
Announcements	"Third Night of Mr. FAWCETT's Engagement.", "TO WHICH WILL BE ADDED (for the last Time this Season)"	"Third Night of Mr. FAWCETT's Engagement" "for the last Time this Season"
Printer Location	Birmingham	Birmingham
Printer Name	Printed for Stone and Lloyd,	Knott and Lloyd,

at the Office of the Facetious T. A. the Office of the E of I. A. Pearson

Table 3. Case 1: Metadata & Record Identification Analysis.

C. Evaluation for Metadata and Record Identification

The metadata section in Case 1 is relatively well-preserved, providing clear identification elements such as the PID ("Birmingham_1803-07-01") and label ("Theatre, Birmingham, Friday, July 1, 1803"). The announcements are consistent and offer additional contextual details (e.g., "Third Night of Mr. FAWCETT's Engagement" and its additive note). Printer information—detailing both the location (Birmingham) and the printer's name ("Printed for Stone and Lloyd, at the Office of the Facetious T. A. Pearson")—is present and serves as a crucial provenance marker. However, minor inconsistencies (such as variations in announcement phrasing) highlight the inherent challenges of OCR extraction from aged documents. Overall, the metadata extraction proves reliable, yet careful manual review remains necessary to ensure uniformity.

2. Performance Overview and Individual Performances

A. Description

This section details the performance information contained in the playbill. It includes the show date, venue, performance start time (if available), and the sequence of performances, along with titles, playbill genre claims, our normalized genre attributions, and specific performance features. In addition, it provides a breakdown of contributors (e.g., composers, directors, scene designers) and performers with their respective roles.

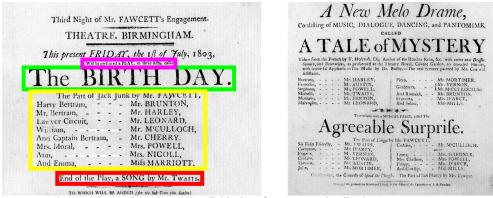


Figure 9. Case 1 Overview and Individual Performance 1 Visualization.

B. GPT-40 Playbill Visualization Analysis (Performance 1)

	Categories	GPT-40 Analyze	Manually-created Tagged Sets
	Title	The BIRTH DAY	The BIRTH DAY
	playbillGenreClaim	a PLAY, in three Acts	PLAY
_	ourGenreAttribution	comedy	Comedy
	featuredattractions	End of the Play, a SONG by Mr. TWAITS.	_
_	ContributorsName1/Type	_	_
	performerName1/role	Mr. FAWCETT / Jack Junk	Mr. FAWCETT / Jack Junk
	performerName2/role	Mr. BRUNTON / Harry Bertram	Mr. BRUNTON / Harry Bertram
	performerName3/role	Mr. HARLEY / Mr. Bertram	Mr. HARLEY / Mr. Bertram
	performerName4/role	Mr. LEONARD / Lawyer Circuit	Mr. LEONARD / Lawyer Circuit
	performerName5/role	Mr. M'CULLOCH / William	Mr. McCULLOCH / William
	performerName6/role	Mr. CHERRY / Captain Bertram	Mr. CHERRY / Captain Bertram
	performerName7/role	Mrs. POWELL / Mrs. Moral	Mrs. POWELL / Mrs. Moral
	performerName8/role	Mrs. NICOLL / Ann	Mrs. NICOLL / Ann
	performerName9/role	Miss MARRIOTT / Emma	Miss MARRIOTT / Emma
	performerName10/role	Mr. TWAITS / Song performer	Mr. TWAITs / Song Performer

Table 2 Case 1 Overview and Individual Performance 1 Analysis.

C. GPT-40 Playbill Visualization Analysis (Performance 2)

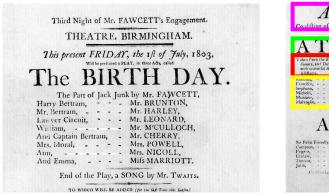




Figure 10. Case 1 Overview and Individual Performance 2 Visualization.

	Categories	GPT-40 Analyze	Manually-created Tagged Sets
	Title	A TALE of MYSTERY	A TALE of MYSTERY
•	playbillGenreClaim	A New Melo Drame, Consisting of MUSIC, DIALOGUE, DANCING, and PANTOMIME	Melo Drame
_	ourGenreAttribution	melodrama	Melodrama
	featuredattractions	with entire new Dresses, Scenery, and Decorations, as performed at the Theatre Royal, Covent Garden, to crowded Houses, with universal Applause.—The Music by Dr. Busby.—The new Scenery painted by Mr. Cox and Assistants.	
	ContributorsName1/Type	T. Holcroft / Playwright	_
	ContributorsName2/Type	Dr. Busby / Composer	_

ContributorsName3/Type	Mr. Cox / Scene designer	_
performerName1/role	Mr. HARLEY/ Romano	Mr. HARLEY / Romano
performerName2/role	Mr. AUSTIN / Francisco	Mr. AUSTIN / Francisco
performerName3/role	Mr. POWELL / Stephano	Mr. POWELL / Stephano
performerName4/role	Mr. TWAITS / Micheli	Mr. TWAITS / Micheli
performerName5/role	Mr. KENTON / Montano	Mr. HENTON / Montano
performerName6/role	Mr. LEONARD / Malvogho	Mr. LEONARD / Malvoglio
performerName7/role	Mr. MORTIMER / Piero	Mr. MORTIMER / Piero
performerName8/role	Mr. VERNON / Gardener	Mr. VERNON / Gondrres
performerName9/role	Mr. M'CULLOCH / Gardener	Mr. McCULLOCH / Gondrres
performerName10/role	Mr. BRUNTON / Romaldi	Mr. BRUNTON / Romaldi
performerName11/role	Mrs. D'ARCY / Himietta	Mrs. D'ARCY / Hmumtta
performerName12/role	Miss MILLS / Selina	Miss MILLS / Selina

Table 3 Case 1 Overview and Individual Performance 2 Analysis.

D. GPT-40 Playbill Visualization Analysis (Performance 3)

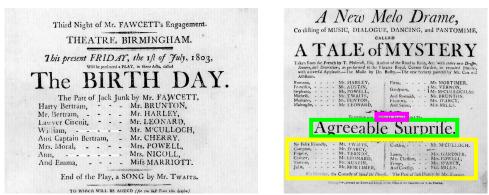


Figure 11. Case 1 Overview and Individual Performance 3 Visualization.

	Categories	GPT-40 Analyze	Manually-created Tagged Sets
	Title	Agreeable Surprize	The Agreeable Surprise
	playbillGenreClaim	MUSICAL FARCE	MUSICAL FARCE
-	ourGenreAttribution	Farce, comedy	Farce
-	featuredattractions	_	
-	ContributorsName1/Type	_	
	performerName1/role	Mr. FAWCETT / Lingo	Mr. FAWCETT / Lingo
	performerName2/role	Mr. TWAITS / Sir Felix Friendly	Mr. TWAITs / Sir Felix Friendly
	performerName3/role	Mr. D'ARCY / Compton	Mr. D'ARCY / Compton
	performerName4/role	Mr. VERNON / Fugene	Mr. VERNON / Fugene
	performerName5/role	Mr. LEONARD / Chicane	Mr. LEONARD / Cuncate

	/	$\overline{}$
- /	١.	ω,
- 1	\smile	그.

performerName6/role	Mr. AUSTIN / Thomas	Mr. AUSTIN / Thomas
performerName7/role	Mr. MORTIMER / John	Mr. MORTIMER / John
performerName8/role	Mr. M'CULLOCH / Cudden	Mr. McCULLOCH / Cudden
performerName9/role	Mrs. GARDNER / Laura	Miss GARDNER / Laura
performerName10/role	Mrs. POWELL / Mrs. Cheshire	Mrs. POWELL / Mrs. Cheshire
performerName11/role	Mrs. D'ARCY / Fringe	Mrs. D'ARCY / Fringe
performerName12/role	Miss MILLS / Cowslip	Miss MILLS / Cowslip

Table 4 Case 1 Overview and Individual Performance 3 Analysis.

E. Evaluation for Performance Overview and Individual Performances

The performance section in Case 1 contains multiple detailed entries, each presenting the play title, genre claims, normalized genre attributions, and performance-specific attractions. For instance, "The BIRTH DAY" is classified as a play in three acts with a genre claim of "PLAY" and normalized as "comedy," while "A TALE of MYSTERY" shows an extended genre description that was condensed to "Melo Drame" in our normalized output. Here, the blue markings indicate newly added categories that standardize the data schema, and the red markings flag instances where additional information was included or where OCR errors occurred—such as with the extended genre descriptions. Although most performance data are captured effectively, occasional misinterpretations and missing contributor details underscore the limitations of automatic extraction from degraded or low-contrast texts. This section demonstrates that while overall performance details are extractable, manual validation is essential for accurate categorization.

3. Ticketing and Audience Strategy

A. Description

This section focuses on ticketing details, revealing the pricing structure for various seating categories (e.g., Boxes, Pit). These data provide insights into the revenue models and audience segmentation strategies of the period, and they help illustrate socio-economic stratification within the theatre-going public.

B. GPT-40 Playbill Visualization Analysis

	Categories	GPT-40 Analyze	Manually-created Tagged Sets
_	ticket information	_	_

Table 5 Case 1 Ticketing and Audience Strategy Analysis.

C. Evaluation for Ticketing and Audience Strategy

In Case 1, the ticketing section is notably absent—not due to extraction errors or image degradation, but because the playbill does not contain any ticket information. This absence highlights an important aspect of historical ephemera: not all documents were designed to provide comprehensive pricing details or audience segmentation data. Consequently, while the structured extraction framework anticipates a ticketing component, its omission in this case underscores the variability in archival content and the necessity of adapting our evaluation criteria to the source material.

8. Case Study 2: Theatre Royal, Covent Garden, 10 June 1833 (original from the British Library)

Note: The structure for Case Study 2 is identical to Case Study 1. Replace the content with corresponding data extracted from *Theatre Royal, Covent Garden, 10 June 1833*.

1. Metadata & Record Identification

A. GPT-40 Playbill Visualization Analysis

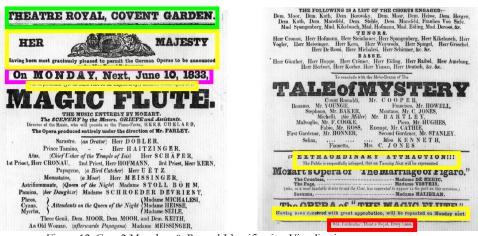


Figure 12. Case 2 Metadata & Record Identification Visualization.

	Categories	GPT-4o Analyze	Manually-created Tagged Sets
	PID	CoventGarden_1833-06-10	CoventGarden_1833-06-10
	Label	Theatre Royal, Covent Garden, Monday, June 10, 1833	Covent Garden, 10 June 1833
•	Announcements	"HER MAJESTY", "Having been most graciously pleased to permit the German Operas to be announced under Her Royal Patronage,", "Will be performed (for the Sixth Time on the English Stage)", "To conclude with the Melo-Drama of The", "EXTRAORDINARY ATTRACTION!!! The Public is respectfully informed, that on Tuesday Next will be represented Mozart's Opera of \"The Marriage of Figaro.\"". "Having been received with great approbation, will be repeated on Monday next; and three times a week until further notice."	"Her Majesty Having been most graciously pleased to permit the German Operas to be announced under Her Royal Patronage," EXTRAORDINARY ATTRACTION!!! The Public is respectfully informed, that on Tuesday Next will be represented Mozart's Opera of "The Marriage of Figaro." The Countess, Madame DE MERIC. The Page, Madame VESTRIS (who, in a most laudable desireto aid the Cast, has consented to appear in the part on this occasion.) Susanna, Madame MALIBRAN.
	Printer Location	London, Theatre Royal, Drury Lane	London, Theatre Royal, Drury Lane
	Printer Name	S.G. Fairbrother	S. G. Fairbrother

Table 6 Case 2 Metadata & Record Identification Analysis.

B. Evaluation for Metadate & Record Identification

In Case 2, the metadata extraction is strong and consistent. The PID ("CoventGarden_1833-06-10") and label (e.g., "Theatre Royal, Covent Garden, Monday, June 10, 1833") are clearly delineated, providing essential information regarding the playbill's origin and date. Multiple announcements—ranging from royal patronage endorsements to performance repeat notices—are captured, demonstrating the model's capacity to handle multi-line, complex textual inputs. The printer information, listing the location as "London, Theatre Royal, Drury Lane" and the printer's name as "S.G. Fairbrother," is also reliably extracted. Minor variations in the phrasing of announcements underscore the challenges of processing historical documents with inconsistent formatting; nevertheless, the overall metadata extraction proves robust and forms a solid foundation for subsequent analysis.

2. Performance Overview and Individual Performances

A. GPT-40 Playbill Visualization Analysis (Performance 1)

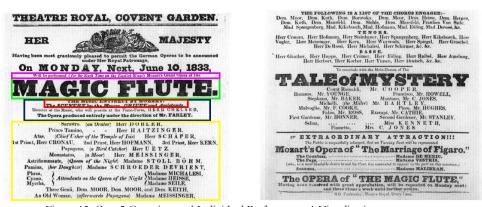


Figure 13. Case 2 Overview and Individual Performance 1 Visualization.

	Categories	GPT-4o Analyze	Manually-created Tagged Sets
	Title	The Magic Flute	The Magic Flute
	playbillGenreClaim	Mozart's Grand Opera	Grand Opera
_	ourGenreAttribution	opera	Opera
	featuredattractions	THE MUSIC ENTIRELY BY MOZART.\n The SCENERY by the Messrs. GRIEVE and Assistants.	_
	ContributorsName1/Type	Mozart / Composer	Mozart / Composer
	ContributorsName2/Type	Messrs. Grieve and Assistants / Scene Designer	Mr. Grieve / Scenery
	ContributorsName3/Type	Herr Chelard / Music Director	Herr Chelard / Director of Music
	ContributorsName4/Type	Mr. Farley / Director	Mr. Farley / Director
	performerName1/role	Herr Dobler/ Sarastro (an Orator)	Herr Dobler / Sarastro (an Orator)
	performerName2/role	Herr Haitzinger / Prince Tamino	Herr Haitzinger / Prince Tamino
	performerName3/role	Herr Schäfer / Atas (Chief Usher of the Temple of Isis)	Herr Schäfer / Atas (Chief Usher of the Temple of Isis)
	performerName4/role	Herr Cronau / 1st Priest	Herr Cronau / 1st Priest
	performerName5/role	Herr Hofmann / 2nd Priest	Herr Hofmann / 2nd Priest
	performerName6/role	Herr Kern / 3rd Priest	Herr Kern / 3rd Priest
	performerName7/role	Herr Uetz / Papageno (a Bird Catcher)	Herr Uëtz / Papageno (a Bird Catcher)

performerName8/role	Herr Meissinger / Monostatos (a Moor)	Herr Meissinger / Monastatos (a Moor)
performerName9/role	Madame Stoll Böhm / Astrifiammante (Queen of the Night)	Madam Stollböhm / Astrifiammante (Queen of the Night)
performerName10/role	Madame Schroeder Devrient / Pamina (her Daughter)	Madame Schoeder Devrient / Pamina (her Daughter)
performerName11/role	Madame Michaelesi / Phrea	Madame Michalesi / Phrea, Attendant on the Queen of the Night
performerName12/role	Madame Heisse / Cyana (Attendants on the Queen of the Night)	Madame Heisse / Cyana, Attendant on the Queen of the Night
performerName13/role	Madame Seile / Myrrha	Madame Seile / Myrrha, Attendant on the Queen of the Night
performerName14/role	Dem. Moor / One of the Three Genii	Dem Moor / Genii
performerName15/role	Dem. Moor / One of the Three Genii	Dem Moor / Genii
performerName16/role	Dem. Keith / One of the Three Genii	Dem. Keith / Genii
performerName17/role	Madame Meissinger / An Old Woman (afterwards Papagena)	Madame Meissinger / An Old Woman (afterwards Papagena)

Table 7 Case 2 Overview and Individual Performance 1 Analysis.

B. GPT-40 Playbill Visualization Analysis (Performance 2)



Figure 14. Case 2 Overview and Individual Performance 2 Visualization.

	Categories	GPT-4o Analyze	Manually-created Tagged Sets
	Title	The Tale of Mystery	A Tale of Mystery
	playbillGenreClaim	Melo-Drama	Melo-Drama
_	ourGenreAttribution	melodrama	Melodrama
	featuredattractions	To conclude with the Melo-Drama of The	
_	ContributorsName1/Type		
	performerName1/role	Mr. Cooper / Count Romaldi	Mr. Cooper / Count Romaldi
	performerName2/role	Mr. Younge / Bonamo	Mr. Younge / Bonamo
	performerName3/role	Mr. Howell / Francisco	Mr. Howell / Francisco
	performerName4/role	Mr. Baker / Stephano	Mr. Baker / Stephano
	performerName5/role	Mr. C. Jones / Montano	Mr. C. Jones / Montano
	performerName6/role	Mr. Bartley / Michelli (the Miller)	Mr. Bartley / Michelli (the Miller)
	performerName7/role	Mr. F. Cooke / Malvoglio	Mr. F. Cooke / Malvolio
	performerName8/role	Mr. Hughes / Piero	Mr. Hughes / Piero
	performerName9/role	Mr. Ross / Fabio	Mr. Ross / Fabio
	performerName10/role	Mr. Cathie / Exempt	Mr. Cathie / Exempt
	performerName11/role	Mr. Honner / First Gardener	Mr. Honner / First Gardener
	performerName12/role	Mr. Stanley / Second Gardener	Mr. Stanley / Second Gardener
	performerName13/role	Miss Kenneth / Selina	Miss Kenneth / Selina
	performerName14/role	Mrs. C. Jones / Fiametta	Mrs. C. Jones / Fiametta

Table 8 Case 2 Overview and Individual Performance 2 Analysis.

C. Evaluation for Performance Overview and Individual Performances

The performance section in Case 2 successfully distinguishes between multiple shows, with detailed extraction for both "The Magic Flute" and "The Tale of Mystery." For "The Magic Flute," the genre claim ("Mozart's Grand Opera") is correctly normalized to "opera," and key elements such as the featured attractions (e.g., "THE MUSIC ENTIRELY BY MOZART" and the scenery by Messrs. Grieve and Assistants), contributor roles (including Mozart as Composer and Herr Chelard as Music Director), and the complete list of performers with specific roles are accurately captured. Similarly, the extraction for "The Tale of Mystery" preserves the playbill's original classification as "Melo-Drama" (normalized to "melodrama") along with its associated

performance details. Although some textual segments in this section (for example, parts of the feature attractions) show signs of truncation or ambiguity, the overall extraction quality demonstrates the method's capability to parse nested, multi-layered performance data with reasonable accuracy.

3. Ticketing and Audience Strategy

A. GPT-40 Playbill Visualization Analysis

		Categories	GPT-4o Analyze	Manually-created Tagged Sets
-	_	ticket information		_

Table 9 Case 2 Ticketing and Audience Strategy Analysis.

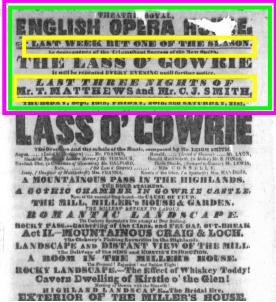
B. Evaluation for Ticketing and Audience Strategy

In Case 2, as in Case 1, no ticketing information is present.

9. Case Study 3 (Challenging Incorrect Case): Theatre Royal, English Opera House, 21 September 1839 (original from the British Library)

Note: The structure for Case Study 3 is identical to Case Study 1. Replace the content with corresponding data extracted from Theatre Royal, English Opera, 21 September 1839.

1. Metadata & Record Identification



A. GPT-40 Playbill Visualization Analysis

Figure 15. Case 3 Metadata & Record Identification Visualization.

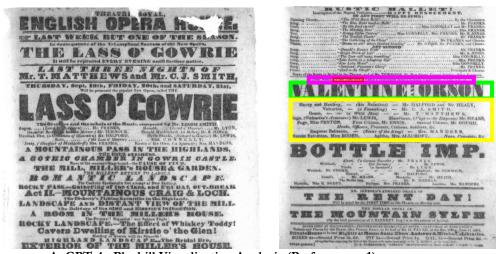
Categories	GPT-4o Analyze	Manually-created Tagged Sets
PID	Strand _1839-09-21	EnglishOpera_1839_09-21
Label	English Opera House, Saturday, September 21, 1839	English Opera House, 21 September 1839
Announcements	"LAST WEEK BUT ONE OF THE SEASON.", "In consequence of the triumphant Success of the New Opera, THE LASS O'GOWRIE, it will be repeated EVERY EVENING until further notice.", "LAST THREE NIGHTS OF Mr. T. MATTHEWS and Mr. C. J. SMITH."	"LAST WEEK BUT ONE OF THE SEASON.", "In consequence of the Triumphant Success of the New Opera, THE LASS O' GOWRIE It will be repeated EVERY EVENING until further notice. LAST THREE NIGHTS OF Mr. T. MATTHEWS and Mr. C. J. SMITH.", "MR. JERROLD'S ADMIRED DRAMA OF THE RENT DAY! will be acted for the FIRST TIME at this Theatre on Monday next.", "THE POPULAR OPERA OF THE MOUNTAIN SYLPH (By the kind permission of J. BARNETT, Exe) is in the course of revival."
Printer Location	London, Bow Street	London, "GARRICK" PRINTING OFFICE, BOW STREET, COVENT-GARDEN.
Printer Name	G. Fairbrother	S. G. Fairbrother

Table 10 Case 3 Metadata & Record Identification Analysis.

B. Evaluation for Metadata & Record Identification

The metadata extraction in Case 3 reveals essential elements—such as the PID (displayed as both "Strand_1839-09-21" and "EnglishOpera_1839-09-21") and the label ("English Opera House, Saturday, September 21, 1839")—which provide fundamental provenance and dating information. However, the overall quality of the source image, which is blurry and marked by scratches and smudges, poses significant challenges. These image degradations have led to discrepancies and inconsistencies in formatting—particularly in the announcements and printer details—when compared to the data derived from the image. Such variations highlight the limitations of automated extraction on poorly preserved ephemera, underscoring the need for careful human review and possibly enhanced pre-processing techniques to improve the accuracy of metadata capture.

2. Performance Overview and Individual Performances



A. GPT-40 Playbill Visualization Analysis (Performance 1)

Figure 16. Case 3 Overview and Individual Performance 1 Visualization.

	Categories	GPT-4o Analyze	Manually-created Tagged Sets
	Title	The Lass O'Gowrie	Lass o' Gowrie
	playbillGenreClaim	New Opera	Opera
_	ourGenreAttribution	opera	Opera
-	featuredattractions	A MOUNTAINOUS PASS in the HIGHLANDS. A GOTHIC CHAMBER in GOMER CASTLE HOUSE AND GARDEN. THE MILLROMAN CAMP. ROCKY PASS. MOUNTAINOUS CRAIG & LOCH. LANDSCAPE AND DISTANT VIEW OF THE MILL. A ROOM IN THE MILLER'S HOUSE. ROCKY LANDSCAPE. Cavern Dwelling of Kirsie o' the Glen. EXTERIOR OF THE MILLER'S HOUSE. Interruption of the Nuptial Festivities. HAPPY DENOUEMENT.	AMOUNTANCIP RASS IN THE MURIL MUST DER STAUERS A GOTHEC CHAMBER IN GOWINE CASTIE. New of the wounded stap-lound— the CLUEG F FERD. THE MULILIES HOUSE AGRENT THE MILES RETURN TO LARGUE ROMANTIC LANDSCAPE THE Ockeys Spotsterant first attempt at Des SINING DECENT PASS.— Generating of the Disse and FEURDAL COT. LESER ACT. MOUNTANCIS CRAFG & SIRRING DECENT PASS.— Generating of the Disse and FEURDAL COT. LESER ACT. MOUNTANCIS CRAFG (A) LICCH THE OCKNING FARING DISSEAS IN THE HE BEST AND STATE AND DISTANT VEW OT THE MULILITY STATE AND STATE AND STATE AND STATE AND DISTANT VEW OT THE MULILITY STATE AND STATE AND STATE AND STATE AND DISTANT VEW OT THE MULILITY STATE AND STATE AND STATE AND STATE AND DISTANT VEW OT THE MULILITY STATE AND STATE A
	ContributorsName1/Type	Mr. Leigh Smith/ Composer	Mr. Leigh Smith / Composer
	performerName1/role	Mr. FRANKS/ Angus (a Laird of Gowrie)	Mr. Franks / Angus
	performerName2/role	Mr. TUNNOL/ Hannibal Sprat (a London Mercer)	Mr. Turnour / Hannibal Spinks (a London Mercer)
	performerName3/role	Mr. JONES/ Donald Mucklewraith (a Miller)	Mr. S. Jones / Donald Mucklethrift (a Miller)
	performerName4/role	Mr. HALFORD/ Murdock Dhu (an Outlaw)	Mr. Halford / Mardock Dhu (a Clansman of Glencairn)
	performerName5/role	Mr. LEWIS / Callum Beg (Attendant of the Lass o' Gowrie)	Mr. Lewis / Davie Shanks, (Steward to Gowrie)
	performerName6/role	Mrs. FRANKS / Jessy (Daughter of Mucklewraith)	Miss Connelly / Kate (the Lass o' Gowrie)
	performerName7/role	Mrs. MANDERS / Kirstie o' the Glen (a Spaewife)	Mrs. Franks / Jessy (Daughter of Mucklethrift)
	performerName8/role	Miss CONNELLY / Song: "By His fond caress	Mrs. Manders / Kirstie o' the Glen (a Spaewife)
	performerName9/role	Mr. JONES / Scene at the cliff where Murdock is slain	Mr. Lyon / Ronald (Laird o' Gowrie)

Table 11 Case 3 Overview and Individual Performance 1 Analysis.

B. GPT-40 Playbill Visualization Analysis (Performance 2)

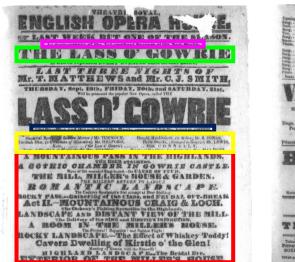




Figure 17. Case 3 Overview and Individual Performance 2 Visualization.

	Categories	GPT-4o Analyze	Manually-created Tagged Sets
	Title	Valentine and Orson	Valentine and Orson
	playbillGenreClaim	celebrated Melo-Dramatic Pantomime	Melo-Dramatic Pantomime, in One Act
_	ourGenreAttribution	melodrama, pantomime	Melodrama
	featuredattractions	For the First Time here	
_	ContributorsName1/Type		Dibdin / Playwright
	performerName1/role	Mr. COOKE / Pepin (King of France)	Mr. Cooke / Pepin (King of France)
	performerName2/role	Mr. HALFORD / Henry (his Relation)	Mr. Halford / Henry (his Relation)
	performerName3/role	Mr. HEALY / <mark>Haufroy</mark> (his Relation)	Mr. Healy / Haufrey (his Relation)
	performerName4/role	Mr. C. J. SMITH / Valentine (the Foundling)	Mr. C. J. Smith / Valentine (a Foundling)
	performerName5/role	Mr. T. MATTHEWS / Orson (a Wild Man)	Mr. T. Matthews / Orson (a Wild Man)
	performerName6/role	Mr. LEWIS / Hugo (Valentine's Armourer)	Mr. Lewis / Hugo
	performerName7/role	Mr. MEARS / Blandiman (Page to the Empress)	Mr. Mears / Blandiman

	performerName8/role	Miss FENTON / Page	Miss Fenton / Page
	performerName9/role	Mr. ENNIS / First Citizen	Mr. Ennis / First Citizen
	performerName10/role	Mr. GOUGH / Second Citizen	Mr. Gough / Second Citizen
	performerName11/role	Mrs. MANDERS / Empress Bellisanta (Sister of the King)	Mrs. Manders / Empress Belisanta (Sister to the King)
	performerName12/role	Miss BODEN / Princess Eglantine	Miss Boden / Princess Eglantine
	performerName13/role	Mrs. ALLCROFT / Agatha	Mrs. Allcroft / Agatha

Table 12 Case 3 Overview and Individual Performance 2 Analysis.

C. GPT-40 Playbill Visualization Analysis (Performance 3)

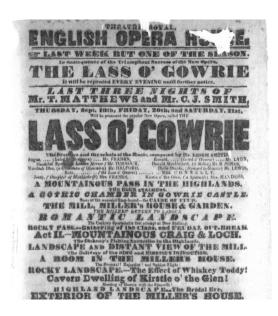




Figure 18. Case 3 Overview and Individual Performance 3 Visualization.

	Categories	GPT-4o Analyze	Manually-created Tagged Sets
	Title	The Bottle Imp	The Bottle Imp
	playbillGenreClaim	Melo-Drama	Melo-Drama
_	ourGenreAttribution	melodrama	Melodrama
	featuredattractions	To conclude with the Melo-Drama of THE BOTTLE IMP.	_
_	ContributorsName1/Type	_	

performerName1/role	Mr. FRANKS / Albert (a German Traveller)	Mr. Franks / Albert, (a German Traveller)
performerName2/role	Mr. LEWIS / Willibald	Mr. Lewis / Willibald (his Servant)
performerName3/role	M. LYON / Nicola (the Servant)	Mr. Lyon / Nicola (a Spaniard)
performerName4/role	Mr. TURNOUR / Conrad	Mr. Turnour / Shadrack
performerName5/role	Mr. HALFORD / Waldeck	Mr. Halford / Conrad
performerName6/role	Mr. MEARS / Joselli	Mr. Mears / Jamelli
performerName7/role	Mr. NORMAN / The Bottle Imp	Mr. R. Norman / The Bottle Imp
performerName8/role	Mrs. FRANKS / Philippa	Mrs. Franks / Philippa
performerName9/role	Mrs. MANDERS / Lucretia	Mrs. Manders / Lucretia
performerName10/role	Miss R. BODEN / Marcella	Miss R. Boden / Marcella
performerName11/role		Mr. Heath / Montorio
performerName12/role		Mr. Cooke / Waldeck

Table 13 Case 3 Overview and Individual Performance 3 Analysis.

D. Evaluation for Performance Overview and Individual Performances

In the performance section, multiple show entries are extracted from the image, including detailed information for pieces such as "The Lass O'Gowrie," "Valentine and Orson," and "The Bottle Imp." The extraction manages to capture genre claims, featured attractions, and nested data for contributors and performers. However, the extraction is hampered by the degraded quality of the associated image—its blurriness, low resolution, and visible wear lead to truncations, repetitive segments, and formatting irregularities. While some performance details (like the normalization of "New Opera" to "opera" or "Melo-Dramatic Pantomime" to a standardized label) are correctly rendered, the overall reliability of the extracted nested performance data is diminished. This emphasizes that, for such challenging sources, automated processes must be supplemented by robust image enhancement and manual validation to ensure accurate categorization.

3. Ticketing and Audience Strategy

A. GPT-40 Playbill Visualization Analysis

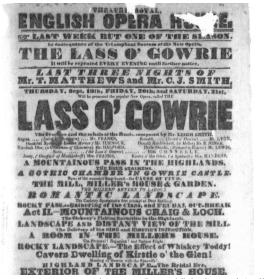




Figure 19. Case 3 Ticketing and Audience Strategy Visualization.

Categories	GPT-4o Analyze	Manually-created Tagged Sets
ticket information	Doors open at half-past six—performances commence at seven, and terminate at nine o'clock. Tickets and places for the Boxes, also Private Boxes, to be had of Mr. G. PAYNE, at the Box Office, from 11 till 5. Private Boxes to be had Nightly. Private Boxes: Sams, Deprez, Andrews, & Mitchel, at their establishments. BOXES 4s.—Second Price 2s. 6d. PIT 2s.—Second Price 1s. 6d. GALLERY 1s.—Second Price 6d. All applications respecting the Bills of this Theatre to be made (post-paid) to Mr. E. HARRIS, at the Stage Door.	Tickets and Places for the Boxes, also Private Boxes, to be had of Mr. G. PAYNE, at the Box Ofice from 11 till 4. Private Boxes to be had Nightly at Messes Sams Ebers, Andrews & Mitchell's Libraries. Half-price at Nine o'clock. All applications respecting the Bills of this Theatre to be mute (post-paid) to Mr. E. HARRIS, at the Stage Door.

Table 14 Case 3 Ticketing and Audience Strategy Analysis

B. Evaluation for Ticketing and Audience Strategy

Unlike Cases 1 and 2, Case 3 includes detailed ticketing information. The image extraction reveals details such as box office hours, pricing tiers for boxes, pit, and gallery, as well as instructions regarding ticket procurement. However, due to the poor image quality, the clarity of the ticketing text is compromised. This results in formatting inconsistencies and minor OCR-induced errors in the pricing values and contact details. Although the overall structure of the ticketing section is preserved, the degraded visual quality demands additional image processing and human verification to ensure the ticketing data are accurately captured for reliable analysis.

4. Challenges Case Study 3 Overall

Case Study 3 illustrates the limitations of automated data extraction when dealing with damaged, blurry, and scratched images. Although some key metadata and performance details were still captured, image quality issues led to inconsistencies and formatting errors, significantly reducing the accuracy and completeness of the automated extraction. This case highlights the importance of preprocessing and manual verification when working with low-quality historical materials and provides valuable insights for further optimizing automated methods.

10. Challenges and Limitations

While our methodology relies heavily on tailored prompt engineering to achieve high accuracy in text extraction and structured categorization, we recognize that maintaining and adapting these prompts over time—or extending them to different document types—may introduce new challenges. Our experience with the playbill dataset suggests that, thanks to the underlying structural consistency of these documents, the core prompts developed in this project are largely reusable, and most required adjustments are incremental rather than wholesale redesigns. For example, after several rounds of refinement on playbills of varying length and complexity, subsequent prompt modifications typically involved only targeted updates to accommodate specific edge cases or new tagging requirements (such as new contributor types or performance start times).

Nevertheless, we acknowledge that significant changes in document layout or the introduction of entirely new categories could necessitate expert intervention to redesign or substantially update the prompt templates. To mitigate this, our prompt framework is modular: the separation between initialization, formatting, and semantic guidance means that updates can be efficiently localized to components. In addition, we recommend regular expert review and manual validation as part of the workflow, ensuring both ongoing accuracy and adaptability as project requirements evolve. As LLMs continue to improve in their ability to generalize and interpret complex instructions, we anticipate that the burden of prompt maintenance will decrease, further enhancing scalability for future work.

Beyond the adaptability limitations of our prompt engineering approach, our study encountered the following challenges:

- [1] **Image Recognition Difficulties:** Some playbill images are inherently challenging due to their extended length, areas of blur, or unclear and difficult-to-read fonts. These issues can lead to inaccuracies in text extraction. This problem is particularly notable for playbills that have been captured from microfilm readers, including many of those in the British Library collection (as in both case studies 1 and 2, seen above).
- [2] **Damage to Playbills:** Even when the image files are complete, the playbills themselves may be damaged or torn. Such damage can result in missing information. Although the LLM may attempt to fill in gaps, these completions are not always accurate.
- [3] **Missing or Inconsistent Information:** Like any printed text, playbills are subject to both printer error and incorrect information. For example, the playbill for the English Opera House in Case Study 2 does not include the year. A researcher hand-tagging this playbill would be able to see *where* in a given collection the playbill is placed and determine the year from this chronological context; however, the LLM relies only on information within the playbill. Since it does not include the year, the YAMLs record does not include it

either.

- [4] **Handwritten Modifications:** Certain playbills have been manually altered with handwritten corrections. In these cases, the LLM may struggle to determine which parts of the text are original and which have been modified (and more complicatedly, which one is "correct" for the performance in question).
- [5] Ambiguities in Text Descriptions: When the textual descriptions on the playbill are not sufficiently clear, ChatGPT-40 occasionally fails to perform analysis on specific categories such as "contributor" and "featured attractions." This ambiguity can affect the overall extraction accuracy.
- [6] **The Problem of Genre:** In our first attempt to extract information from 100 playbills, "ourGenreAttribution" tag was incorrect more than half the time (44.17% correct) in designating the genre category of a given play; that is, it was unable to determine what an expert researcher might designate a play if the stated "genre claim" on the playbill does not match our current understanding of that play's genre.
- [7] **LLM Hallucinations and Omitted Information:** A problem inherent to all LLMs, hallucinations, or fabricated AI-generated information, occasionally cropped up in our extracted results and underscores the necessity of manually proofreading all YAMLs. We also noticed that ChatGPT-40 sometimes omitted information, particularly that which fell under the "Special Attractions" category. It might, for example, list a certain song or dance but omit descriptions of scenery. We also noticed a tendency to omit "contributors" other than playwrights from that tag category, perhaps reflecting persistent cultural bias in favor of authors at the expense of other collaborators.

These challenges highlight the complexities involved in processing playbill images and pave the way for further refinement. In the next section, we discuss potential avenues for improvement.

11. Discussion and Conclusions

While our results suggest that playbills are indeed more conducive to AI classification than other historical and literary texts with less rigid formatting conventions (say, novels, poems, or newspapers) they are still texts and as such contain "unstable ontologies" ([14]: 610). Many of the playbill's metadata categories are more or less self-evident given its structured nature, but breaking the object into its perceived component parts necessarily involves some loss of its inherent instability in favor of computing's demand for consistency. Additionally, we think it is important to emphasize that the act of categorizing itself is always an act of interpretation; thus, the resulting data produced by GPT-40 in our results might be regarded as one possible *reading* of the playbill image, which is itself a remediation of the original document. As LLMs continue to be deployed in the interpretation of historical documents and literature, future research should move upstream to investigate how transformer architectures can better account for the unstable, ambiguous qualities of humanistic data that makes it an object worth studying.

Nonetheless, our experiment revealed key benefits of tagging with Chat-GPT4 compared to our previous process of hand-tagging. Echoing related studies of LLM analysis of large historical datasets ([7], [10], [6]), our results suggest that AI tools have the potential to unlock literary archives at unprecedented scales and to aid in the preservation of historical texts in ways that

exceed the capacities of researchers. As previously mentioned, manual creation of YAMLs took approximately twenty-five to forty minutes per playbill; this does not include time spent proofreading completed YAMLs. Thus, while we still need to thoroughly proofread all AI-generated YAMLS, the time and labor-saving benefits of an automated approach are enormous for a project like ours with over 500,000 individual records. This approach allows us to scale analysis beyond what was previously possible. In general, GPT-40 managed to correctly preserve the nested structure of the playbill; it also performed relatively well tagging cast lists. In agreement with Andres Karjus' ([8]: 4) study of how LLMs might aid humanities research, we find that tagging playbills with GPT-40 has the potential to reduce "repetitive labor" for projects like ours that deal with very large datasets where the data is conducive to categorization.

This potential for efficiency, however, should be weighed alongside the interpretive challenges inherent in modeling humanistic data, particularly as LLMs are further deployed across humanities workflows. Despite the robustness of our few-shot categorization approach, several challenges related to the complexities of historical data persist. Playbill images, especially those captured from microfilm, often suffer from low contrast, blur, and physical damage, which hinder accurate OCR extraction. Handwritten modifications further complicate the process by obscuring original printed text or suggesting conflicting information, and ambiguous or variably formatted descriptions can lead to misclassifications, particularly in fields like contributor roles and featured attractions. These limitations highlight the necessity for ongoing refinement in both image processing techniques and prompt design to enhance the overall accuracy and consistency of data extraction from aged documents.

Elsewhere, we found that fields of categorization where GPT-40 did not perform as well, such as genre classification, managed to shed new light on the ontological complexity of the playbills themselves. The LLM regularly assigned the wrong genre label for the "Our Genre Classification" tag because it, unlike a researcher, assumed it could trust the playbill when it called a given play a particular genre; however, we know that theatres might strategically market a given play under a certain genre designation both in order to evade legal restrictions on the performance of "legitimate" genres such as tragedy and comedy and to capitalize on the popularity of new forms such as melodrama. Thus, a playbill created in 1823 might call a given title a melodrama even though we might now classify it as a tragedy and would thus prefer to tag it as *both* a melodrama and as a tragedy. GPT-40, in contrast, takes the playbill at its word and tags the play solely as a melodrama. Given the interpretative nature of this particular category, we decided to remove "Our Genre Classification" from the prompt and to add it post process.

The difficulty that genre categorization presents to LLMs underscores the importance of proofreading as a crucial part of projects that involve few-shot categorization of historical and literary texts. LLMs are prone to hallucinations, summarizations, and incorrect information, a problem which cropped up in playbills that had high degrees of complexity. Such anomalies can only be caught by researchers reviewing the data output. To that end we agree with Karjus' ([8]: 3) recommendation "to think of machines such as LLMs as tools or (narrow) AI assistants that scale expert analysis to larger datasets—but not as 'oracles' or 'arbiters." It is also important to acknowledge the limitations of relying on closed-source, "black-box" LLMs such as ChatGPT. First, the opacity surrounding the training data and model architecture means that we have limited insight into the origins, scope, and potential gaps or biases present in the model's learned knowledge. This can lead to the amplification or suppression of certain cultural, historical, or linguistic features—outcomes that may not be visible at the surface level of output but nonetheless shape the extracted data [3]. Second, because the training corpus is proprietary and subject to periodic updates outside our control, the outputs generated by the model may not always be reproducible in future runs, even when using the same prompts and input images. Finally, the lack of transparency in model development makes it difficult to fully anticipate or

mitigate algorithmic biases, further underlining the need for critical human review and a cautious interpretive stance when deploying LLMs in humanities research. In light of these factors, we recommend that future work in this domain adopt both technical and critical best practices: supplementing automated workflows with manual validation, maintaining transparency about tool limitations, and remaining vigilant to the subtle influences that black-boxed AI systems may exert on historical data curation and textual interpretation. Even though GPT's enhanced capacity for categorization significantly reduced our team's workload, our project's next stage will involve thorough proofreading, something which cannot be automated.

Bibliography

- [1] Carroll, Claudia. 2024. "Towards an AI narratology: the possibilities of LLM classification for the quantification of abstract narrative concepts in literary studies." In The Routledge Handbook of AI and Literature, edited by Will Slocombe and Genevieve Liveley. Routledge.
- [2] Cox, Jeffrey N. 1999. "Spots of Time': The Structure of the Dramatic Evening in the Theater of Romanticism." Texas Studies in Literature and Language 41 (4): 403-425.
- [3] Dobson, James E. 2023. "On reading and interpreting black box deep neural networks." International Journal of Digital Humanities f5: 431-449. https://doi.org/10.1007/s42803-023-00075-w.
- [4] Fields, John, Kevin Chovanec, and Praveen Madiraju. 2024. "A Survey of Text Classification With Transformers: How Wide? How Large? How Long? How Accurate? How Expensive? How Safe?" IEEE Access 12: 6518-6531. 10.1109/ACCESS.2024.3349952.
- [5] Gamer, Michael, Cassidy Holahan, and Deven Parker. 2024. "The Romantic Melodrama Project: Or, Playbills! Performance!! Metadata!!!" Studies in Romanticism 63 (3): 391-401.
- [6] González-Gallardo, Carlos-Emiliano, Hanh Thi Hong Tran, Ahmed Hamdi, and Antoine Doucet. 2024. "Leveraging Open Large Language Models for Historical Named Entity Recognition." Lecture Notes in Computer Science 15177: 379-395. https://doi.org/10.1007/978-3-031-72437-4 22.
- [7] Humphries, Mark, Lianne C. Leddy, Quinn Downton, Meredith Legace, John McConnell, Isabella Murray, and Elizabeth Spence. 2025. "Unlocking the archives: Using large language models to transcribe handwritten historical documents." Historical Methods: A Journal of Quantitative and Interdisciplinary History, 1-19. http://doi.org/10.1080/01615440.2025.2500309.
- [8] Karjus, Andres. 2025. "Machine-assisted quantitizing designs: augmenting humanities and social sciences with artificial intelligence." Humanities and Social Sciences Communications 12 (77): 1-18. https://doi.org/10.1057/s41599-025-04503-w.
- [9] Lampert, Christoph H., Hannes Nickisch, and Stefan Harmeling. 2014. "Attribute-Based Classification for Zero-Shot Visual Object Categorization." IEEE Transactions on Pattern Analysis and Machine Intelligence 36 (3): 453–65. https://doi.org/10.1109/TPAMI.2013.140.
- [10] Pedersen, Bjørn-Richard, Maisha Islam, Doris Tove Kristoffersen, Lars Ailo Bongo,

- Eilidh Garrett, Alice Reid, and Hilde Sommerseth. 2024. "Coding Historical Causes of Death Data with Large Language Models." *Lecture Notes in Computer Science* 14129: 30-47. https://doi.org/10.1007/978-3-031-73741-1_3.
- [11] Pérez Pozo, Álvaro, Javier de la Rosa, Salvador Ros, Elena González-Blanco, Laura Hernández, and Mirella de Sisto. 2022. "A bridge too far for artificial intelligence?: Automatic classification of stanzas in Spanish poetry." Journal of the Association for Information Science and Technology 73 (2): 258-267. https://doi.org/10.1002/asi.24532.
- [12] Russell, Gillian. 2020. The Ephemeral Eighteenth Century. Cambridge University Press.
- [13] Spina, Salvatore. 2023. "Artificial Intelligence in archival and historical scholarship workflow: HTS and ChatGPT." *Umanistica Digitale* 7 (16): 125-140. https://doi.org/10.6092/issn.2532-8816/17205.
- [14] Vareschi, Mark and Mattie Burkert. 2016. "Archives, Numbers, Meaning: The Eighteenth-Century Playbill at Scale." *Theatre Journal* 68 (4) (2016): 597-613.
- [15] Yang, Liu, Gang Wang, and Hongjun Wang. 2024. "Reimagining Literary Analysis: Utilizing Artificial Intelligence to Classify French Poetry." *information* 15 (2). https://doi.org/10.3390/info15020070.

Appendix

Full GPT-40 Prompt

Do not rewrite, simplify, or substitute any content. Use the exact wording as printed on the playbill. Directly print json content and don't summarise at all if you encounter any unknown information, just don't put it at all.\

!!!

Please carefully verify the accuracy of all generated content. Authenticity and historical accuracy must take top priority.

If the playbill appears incomplete, damaged, obscured, or altered (such as by physical wear, printing error, or annotation), you must make a scholarly reduction using inference and comparative knowledge from other 18th-19th century theatrical documents.

When such reduction is performed, you must clearly state that: "this is a reduction from other information".

!!!

You are now a literary historian and expert in 18th-19th century British theatrical playbills. Your task is to analyze the following scanned image and extract structured metadata into a JSON file. If any required category is not explicitly present in the image and cannot be verified through visual inspection or established historical reference, leave it out entirely (do not guess or invent)..\

```
The json example: \
 "ephemeralRecord": { \
  "pid" "<CityName>_<YYYY-MM-DD>", \
  "label": "<Theatre Name>, <Weekday>, <Month> <Day>, <Year>", \
  "announcements": [ \
   "<announcement 1>", \
   "<announcement 2>" \
```

(Any formal or noteworthy statements made by the theatre. These may include:

- Engagement notices
- Scheduling notices
- Royal endorsements

These may appear:

- Above the theatre name
- Immediately before or after play titles
- Between performance listings

Do not include not announcement-related lines

Always extract each such line as a separate announcement string.

```
Even brief phrases with scheduling implications must be captured.)\
```

```
], \
```

```
"documentPrinter": { \
```

"location": "<full printer location if visible, The place where the document was printed. It is usually the name of a city>", \

"name": "<printer's full name if visible, e.g., "S.G. Fairbrother". It can also be a person's name or the name of an office location.>" \

```
}, \
"shows": [ \
 { \
  "date": "YYYY-MM-DD", \
  "performancestarttime": "<value>", \
  "venue": "<Full Theatre Name>", \
  "location": "<City Only>", \
  "performances": [ \
   "orderOfPerformance": "<value>", \
    "title": "<Exact Performance Title>", \
    "playbillGenreClaim": "<Verbatim genre label as printed on playbill>", \
    "ourGenreAttribution": [ \
     "<genre 1>", "<genre2>" \
    ], \
    "featuredattractions": "<Quoted directly from playbill>", \
    "Contributors":
      "ContributorName": "<value>", \
      "ContributorType":"<value>" \
    "performers": [ \
      { \
```

"performerName": "<The exact name of the performer as printed on the playbill (preserve spelling, punctuation, and casing).>", \setminus

"role": "<The name of the character or the described performance function. This includes: Character roles (e.g., as shown in dramatis personae); Functional roles or attributions

Metadata Section[If the value of "pid" includes "London", replace it with the **specific London theatre area name** derived from the venue or printer address.

- For example, if the venue is "Theatre Royal, Covent Garden", the pid should be:

```
`"CoventGarden_<YYYY-MM-DD>"`
```

Similarly, in the "documentPrinter" object:

- If the printer location is in London and includes a specific area name (e.g., "Theatre Royal, Drury Lane"):
- `"location"` should be `"London, Theatre Royal, Drury Lane"`
- `"name"` should remove any address detail, only keeping the printer's personal or company name (e.g., "S.G. Fairbrother")

DO NOT leave "London" as a generic city name in either 'pid' or 'printer.location' if more specific theatre-area information is available.

label: A string combining the theater name, weekday, month, date, and year. Format: "Theatre Name,\ Weekday, Month Day, Year", e.g., "Theatre Royal, Covent Garden, Monday, June 10, 1833".\

```
shows (Array) [
```

Each "show" represents a distinct date of performances. For each one, extract:

date: In YYYY-MM-DD format.

performancestarttime: Leave as an empty string ("") if no time is specified.

venue: Full name of the theater.

location: Just the city where the theater is located (e.g., "London").

performances: An array of performances happening in that show. Each performance includes the following fields:[

Each performance Object

```
orderOfPerformance: Its order in the list (e.g., "1", "2").\
title: The title of the performance.\
playbillGenreClaim: How the genre is described in the playbill (use exact wording).\
ourGenreAttribution: A list of normalized genre labels like ["opera"], ["melodrama"],
["comedy"], etc.\
featuredattractions: Any specifically advertised highlights of the performance (e.g., scenery,
dance, songs). Do not summarize — copy directly.\
Contributors: [ All non-actor personnel, such as: Composer, Playwright, Scene designer, Music
director, Costume maker, Conductor, Machinist, Director, etc.\
Each should be an object with:\
"ContributorName": the person's name\
"ContributorType": their role\
performers: [ A list of all performers in that performance. Each performer is an object with:\
"performerName": the actor or singer's name\
"role": the role they played (include descriptions in parentheses if present)\
]\
]\
1\
Additional Notes[
Never invent or assume information — if something is missing or unclear, leave it out.\
Do not translate or reword values such as role names or feature descriptions.\
Preserve original casing and punctuation from the playbill.\
Maintain the order of performers and contributors as they appear on the playbill.\
"featuredattractions" should be quoted directly, not interpreted or paraphrased.\
]\
1
```

Case Study 1 Clearly labelled images

Metadata & Record Identification





Third Night of Mr. FAWCETT's Engagement.

THEATRE, BIRMINGHAM.

This present FRIDAY, the 1st of July, 1803, Will be presented a PLAY, in three Acts, called

The BIRTH DAY.

The Part of Jack Junk by Mr. FAWCETT, Harry Bertram, - - - Mr. BRUNTON, Mr. Bertram, - - - - Mr. HARLEY,

Lawyer Circuit, - - - Mr. LEONARD,
William, - - - - Mr. M'CULLOCH,
And Captain Bertram, - Mr. CHERRY.

Mrs. Moral, - - - - Mrs. POWELL,
Ann, - - - - - Mrs. NICOLL,
And Emma, - - - - Mils MARRIOTT.

End of the Play, a SONG by Mr. TWAITS.

TO WHICH WILL BE ADDED (for the last Time this Seafon)

A New Melo Drame,

Confishing of MUSIC, DIALOGUE, DANCING, and PANTOMIME.

CALLED

A TALE of MYSTERY

Taken from the French by T. Holcroft, Efq. Author of the Road to Ruin, &c. with entire new Dreffee with universal Applaufe.—The Music by Dr. Bufby.—The new Scenery painted by Mr. Cox as

To conclude with a MUSICAL FARCE, called The

Agreeable Surprise

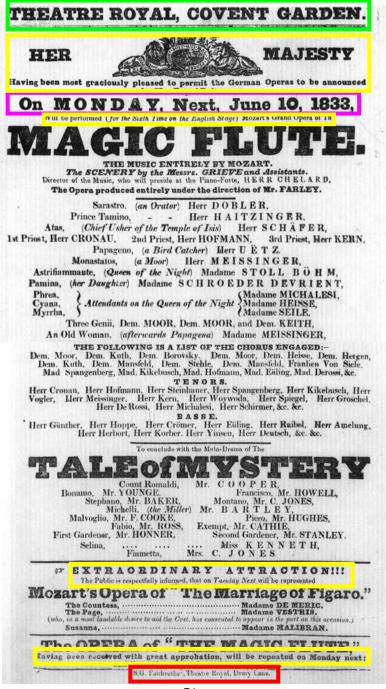
On Manday, the Comedy of Speed the Pleagh. The Part of Bob Hancy by Mr. Fawcer

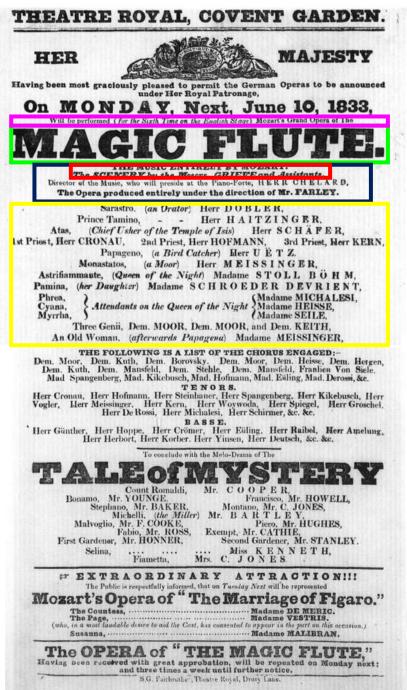
The gal to , printed for Ke etr and Lluyd, at the Office of the Faccuters of I. A. Peatfon.

Third Night of Mr. FAWCETT's Engagement. THEATRE, BIRMINGHAM. This present FRIDAY, the 1st of July, 1803, Will be prefented a PLAY, in three Acts, called The Part of Jack Junk by Mr. FAWCETT, Harry Bertram, Mr. BRUNTON, Mr. HARLEY, Mr. Bertram, Mr. LEONARD. Lawyer Circuit, Mr. M'CULLOCH, Wi liam, And Captain Bertram, Mr. CHERRY. Mrs. POWELL, Mrs. Moral, Ann, Mrs. NICOLL. Mifs MARRIOTT. And Emma, End of the Play, a SONG by Mr. TWAITS. ame, Confishing of MUSIC, DIALOGUE, DANCING, and PANTOMIME, CALLED Taken from the French by T. Holcroft, E.G. Author of the Road to Ruin, &c. with entire new Dreffee, Scenery, and Decoration, as performed at the Theatre Royal, Covent Garden, to crouded Houtes, with universal Applause.—The Music by Dr. Busby.—The new Scenery painted by Mr. Cox and Affiltants. Mr. HARLEY, Mr. AUSTIN, Mr. POWELL, Mr. TWALLS, Mr. FENTON, - Mr. MORTIMER, Mr. VERNON, - Mr.M. CULLOCH, Sc. - Mr. BRUNTON Romano, -Piero, Francisco, Gardeners, Stephano, Michelli, And Romaldi, -Montano Franctta, And Selina, Mrs D'ARCY, Mils MILLS. Malvoglio, Mr LEONARD, To conclude with a MUSICAL FARCE called The Mr. TWAITS, Cudden, - - -Sir Felix Friendly, Mr. M'CULLOCH. Mr. D'ARCY,
Mr. D'ARCY,
Mr. VERNON,
Mr. LEONARD,
Mr. AUSTIN,
Mr. MORTIMER, Compton, -Fugere, -Cricane, -Thomas, -- Mrs. GARDNER. - Mrs. POWELL, - Mrs. D'ARCY, - Mrs. MILLS. Laura, - - Mrs. Cheshire, Fringe, - - And Cowflip, On Manday, the Comedy of Speed the Pleagh. The Part of Bob Hancy by Mr. Fawcer Bland of the Paccetter of J. A. Peatfon.

Case Study 2 Clearly labelled images

Metadata & Record Identification





THEATRE ROYAL, COVENT GARDEN HER MAJESTY Having been most graciously pleased to permit the German Operas to be announced under Her Royal Patronage, On MONDAY, Next, June 10, 1833, Will be performed (for the Sixth Time on the English Stage) Mozart's Grand Opera of The THE MUSIC ENTIRELY BY MOZART. The SCENERY by the Mesers. GRIEVE and Assistants. or of the Music, who will preside at the Piano-Porte, HERR CHELARD, The Opera produced entirely under the direction of Mr. FARLEY. Sarastro. (an Orator) Herr DOBLER, ince Tamino, - Herr HAITZINGER, (Chief Usher of the Temple of Isis) Herr SCHÄF Prince Tamino, Herr SCHÄFER, ANN, 3rd Priest, Herr KERN, 1st Priest, Herr CRONAU, 2nd Priest, Herr HOFMANN, Papageno, (a Bird Catcher) Herr U E T Z. astatos, (a Moor) Herr M E I S S I N G E R, Monastatos, (a Moor) Herr MEISSINGER, Astrifiammaute, (Queen of the Night) Madame STOLL BÖHM, Pamina, (her Daughter) Madame SCHROEDER DEVRIENT, Attendants on the Queen of the Night { Madame MICHALESI, Madame HEISSE, Madame SEILE, Phrea, yana Myrrha, Three Genii, Dem. MOOR, Dem. MOOR, and Dem. KEITH, An Old Woman, (afterwards Papagena) Madame MEISSINGER, THE FOLLOWING IS A LIST OF THE CHORUS ENGAGED: Dem. Moor, Dem. Kuth, Dem. Borovsky. Dem. Moor, Dem. Heise, Dem. Heise, Dem. Heise, Dem. Kuth, Dem. Mansfeld, Dem. Stehle, Dem. Mansfeld, Franlien Von Siele, Mad Spangenberg, Mad. Kikebusch, Mad. Hofmann, Mad. Eäling, Mad. Derossi, &c. TENORS. Herr Cronau, Herr Hofmann, Herr Steinhauer, Herr Spangenberg, Herr Kikebusch, Herr Vogler, Herr Meissinger, Herr Kern, Herr Woywoda, Herr Spiegel, Herr Groschel, Herr De Rossi, Herr Michalesi, Herr Schirmer, &c. &c.

BASSE.

Herr Günther, Herr Hoppe, Herr Crömer, Herr Eüling, Herr Raibel, Herr Amelung,
Herr Herbort, Herr Korber, Herr Yinsen, Herr Deutsch, &c. &c.

To conclude with the Melo-Drama of The

OI

Selina,

Bonamo, Mr. YOUNGE,
Stephano, Mr. BAKER,
Michelli, (the Miller)
Malvoglio, Mr. F. COOKE,
Fabio, Mr. ROSS,
First Gardener, Mr. HONNER,
Selina.

Francisco, Mr. HOWELL,
Montano, Mr. C. JONES,
Mr. B A R T L E Y,
Piero, Mr. HUGHES,
Exempt, Mr. CATHIE,
Second Gardener, Mr. STANIA Mr. F. COOKE, abio, Mr. ROSS, Mr. HUGHES, Exempt, Mr. CATHIE, Second Gardener, Mr. STANLEY.

Fiametta, Mrs. C. JONES.

The Public is respectfully informed, that on Tuesday Next will be represented Mozart's Opera of "The Marriage of Figaro."

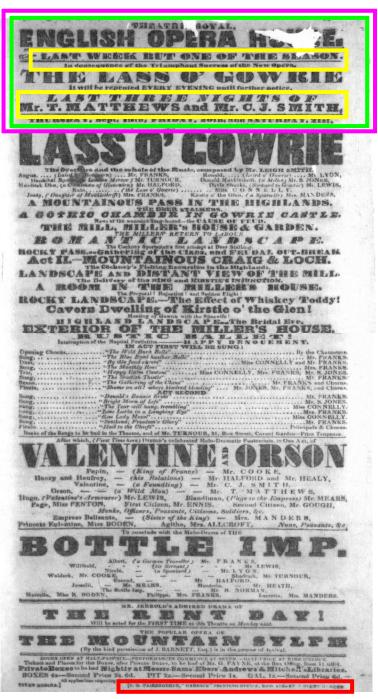
The Countess. Madame DE MERIC.
The Page, Madame VESTRIS.
In a most laudable desire to aid the Cast, has consented to appear in the part on this oc
Susanns, Madame MALIBRAN.

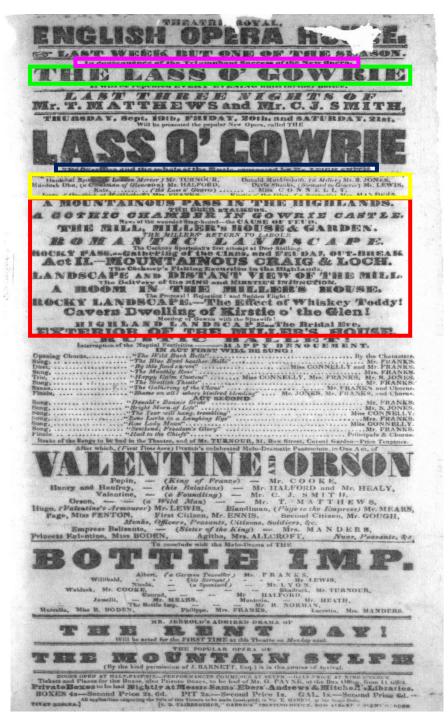
The OPERA of "THE MAGIC FLUTE,"
Having Deen received with great approbation, will be repeated on Monday next;
and three times a week until further notice.

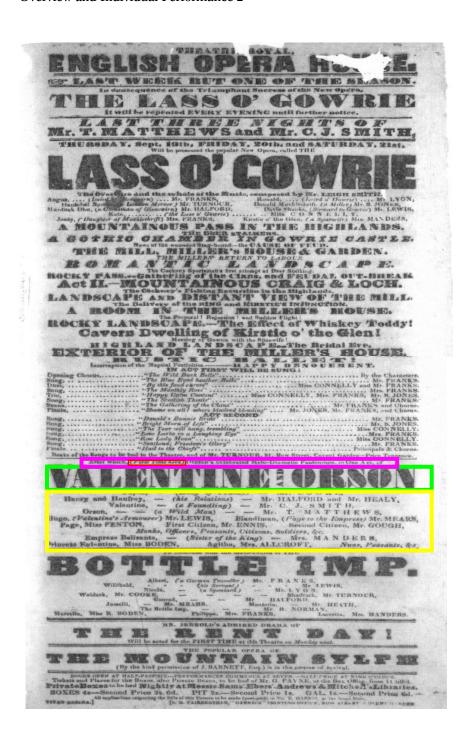
S.G. Fairbrothe , Theatre Royal, Drury Lane

Case Study 3 Clearly labelled images

Metadata & Record Identification









Ticketing and Audience Strategy

