

Accepted Article

Exploring the interplay of museum's and city's reputation: Insights from the Uffizi Galleries and Florence

Paola Beccherle*, Stefania Oliva**, Luciana Lazzeretti***

Received: 08 March 2025 Accepted: 13 October 2025

ISSN: 1695-7253 e-ISSN: 2340-2717

ABSTRACT:

This research investigates how museum and city reputations are perceived in online media narratives and explores the role of museums' online communication in shaping this relationship. To examine these dynamics, the case of the Uffizi Galleries and Florence was investigated. The study employs a mixed-methods approach, combining the analysis of interviews with museum staff regarding digital communication strategies with topic modelling techniques on newspaper articles. Findings reveal that the Uffizi and Florence possess strong brands, resulting in distinct reputations on both national and international levels. However, a more dynamic interplay between the two reputations emerges within local media narratives, reflecting deliberate efforts by the Uffizi's management to engage with the city. The results suggest that closer alignment between city branding and cultural institutions' strategy could enhance the city's national and global reputation.

KEYWORDS: Museum's reputation; city's reputation; topic modelling; Uffizi Galleries; Florence. **JEL CLASSIFICATION:** M20; O33; Z11.

Explorando la interacción entre la reputación del museo y la de la ciudad: perspectivas desde las Galerías Uffizi y Florencia

RESUMEN:

Esta investigación analiza cómo se perciben las reputaciones de los museos y de las ciudades en las narrativas de los medios digitales, y explora el papel de la comunicación en línea de los museos en la configuración de esta relación. Para examinar estas dinámicas, se ha investigado el caso de las Galerías Uffizi y la ciudad de Florencia. El análisis emplea un enfoque mixto, que combina el análisis de entrevistas con el personal del museo sobre las estrategias de comunicación digital con técnicas de modelado de temas aplicadas a artículos periodísticos. Los resultados revelan que los Uffizi y Florencia poseen marcas fuertes, lo que se traduce en reputaciones distintivas tanto a nivel nacional como internacional. Sin embargo, en las narrativas de los medios locales emerge una interacción más dinámica entre ambas reputaciones, reflejo de los esfuerzos deliberados por parte de la dirección de los Uffizi para vincularse con la ciudad. Los resultados sugieren que una mayor alineación entre la marca ciudad y la estrategia de las instituciones culturales podría fortalecer la reputación de la ciudad a nivel nacional y global.

PALABRAS CLAVE: Reputación del museo; reputación de la ciudad; modelado de temas; Uffizi; Florencia. **CLASIFICACIÓN JEL:** M20; O33; Z11.

Corresponding author: stefania.oliva@unifi.it

^{*} Department of Economics and Management, University of Florence, Italy. paola.beccherle@unifi.it

^{**} Department of Economics and Management, University of Florence, Italy. stefania.oliva@unifi.it

^{***} Department of Economics and Management, University of Florence, Italy. luciana.lazzeretti@unifi.it

1. Introduction

Reputation is increasingly recognised as a key factor in urban and regional development (Glückler, 2007; García and Puente et al., 2016), with two main strands of literature addressing it: one focuses on individual urban actors—such as firms, institutions, and cultural organisations—(Jakab and Happ, 2017; Ma, 2022) while the other concerns the city as a whole (Delgado-García et al., 2018; Aula and Harmaakorpi, 2008).

Museums, as central agents of cultural production and identity-making (Ulldemolins, 2014), operate at the intersection of these two levels. Though nonprofit, museums engage in competitive practices, aiming to secure funding and visibility while demonstrating their socio-economic value (DiMaggio, 1986; Frey and Meier, 2006; Bennett, 2017; Camarero et al., 2023). As such, they adopt brand management strategies to shape favourable perceptions and build reputational capital (Baumgarth, 2009; Van Riel, 2019).

At the urban scale, city reputation shapes stakeholders' perceptions and decisions, influencing tourism flows, investment attraction, and resident retention (Aula and Harmaakorpi, 2008; Govers and Go, 2009; Braun et al., 2018). Place branding, in this sense, is a strategy for leveraging a city's symbolic and cultural assets—such as museums—to enhance its visibility and competitiveness (Anholt, 2005; Giovanardi et al., 2013).

In this context, museums act as 'symbolic anchors' (Plaza, 2006) that reinforce place identity, cultural vitality, and liveability (Kunzmann, 2004; Smith and von Krogh Strand, 2011; Bellandi et al., 2024). This reputational function links museums to broader dynamics of urban and regional development. Indeed, they support not only tourism demand (Albaladejo et al., 2016; Nie, 2022) but also local wellbeing and urban attractiveness (Campaniello and Richiardi, 2018; Popescu and Corbo, 2012). As part of a city's cultural infrastructure, museums contribute to creative ecosystems that foster innovation and economic regeneration (Florida, 2007; Lazzeretti, 2009). The 'Guggenheim effect' in Bilbao exemplifies how cultural institutions can catalyse urban transformation and reposition a city within global networks (Plaza, 2006; 2008).

The advent of the digital revolution – specifically the spread of online platforms – has opened new avenues for opinion formation and dissemination, increasing the complexity of the reputation concept (Cooke et al., 2022). In particular, online communication plays a fundamental role in shaping shared perceptions (Kotler and Gertner, 2011). On the one hand, museums are increasingly utilising online communication channels to convey their mission and identity, thereby fulfilling the information needs of various stakeholders and facilitating interaction and dialogue with an ever-wider audience (Alawamleh and Abuqura, 2022). Some researches highlight how the museums' online reputation influences expectations and visitor decision-making (Fernández-Hernández et al., 2021). On the other hand, cities that aim to promote themselves as attractive tourist destinations can effectively use online communication to enhance their reputation (Šerić and Vernuccio, 2020; Gössling et al., 2018). This study aims to investigate how museum and city reputations are perceived in online media narratives and explores the role of museums' online communication in shaping this relationship. Specifically, it focuses on the case of the Uffizi Galleries—one of the most renowned art museums—and the city of Florence, internationally recognised for its rich artistic heritage. To this end, the analysis employs topic modelling techniques to identify the most prominent topics that emerge from newspaper articles in which the museum and the city are mentioned together. Following this, it compares the results with the analysis of interviews with museum staff regarding digital communication strategies. Text-mining techniques enable the automatic detection of emerging themes in large corpora, with semantic associations between words serving as proxies for reputation (Sevin, 2014; DiMaggio et al., 2013). In the field of urban studies, topic modelling has proven effective for examining complex dynamics—such as governance, public communication (Margherita et al., 2023; Cui et al., 2025), place identity and reputation (Micera and Crispino, 2017; Költringer and Dickinger, 2015; de Oliveira Capela and Ramirez-Marquez, 2019)—as well as for research in cultural policy and museums (Riva and Agostino, 2022; Su and Teng, 2018).

The article is structured as follows. Section 2 presents the case of the Uffizi Galleries and Florence. Section 3 describes the method. Section 4 illustrates the analysis results. Section 5 discusses the significance of the results and draws the conclusions, exploring their implications for museum and city management.

2. RESEARCH CONTEXT: UFFIZI GALLERIES AND FLORENCE

The arts have intrinsically shaped Florence's reputation since its early flourishing (Chernetsky, 2022). Today, it is an internationally recognised art city with an endowment of artistic and cultural heritage (Lazzeretti, 2004; Lazzeretti and Oliva, 2021). The interrelation is also sustained online through institutional narratives and user-generated content, which together reinforce and reinterpret Florence's tangible cultural heritage (Pasquinelli et al., 2021; Acuti et al., 2018). The city's museum cluster involves several activities and institutions (Cinti, 2007). Among these, the Uffizi Galleries—hereinafter referred to simply as 'Uffizi'—have always played a crucial role. The Uffizi's collection groups together the historical art collections of the Medici, Asburgo-Lorena and Savoia families, which ruled and shaped the history of Florence from the 15th to the 20th century. The collection is spread across the four museum sites that comprise the museum complex: the Uffizi Gallery, Palazzo Pitti, the Vasari Corridor, and the Boboli Gardens.

Due to their history and the collection they preserve and promote, the Uffizi have always been closely intertwined with the city of Florence's identity and reputation. On the one hand, the Uffizi have actively evolved into a dynamic cultural hub, engaging local communities and schools through educational and participatory initiatives (Lazzeretti et al., 2024). On the other hand, the Uffizi serve as a major draw for tourism in Florence (Oliva et al., 2020), with annual visitor numbers¹ closely mirroring trends in tourist arrivals². Indeed, the Uffizi have consistently maintained their position among the three most visited state museums in Italy³.

Starting in 2016, the museum complex's management focused on reinforcing the museum brand using online communication channels and implementing a digital strategy (Schmidt, 2018).

As emerged from other contributions, the Uffizi's online communication strategy leverages targeted communication channels to engage different demographic, geographic, and knowledge-based audiences. In particular, it utilises three online communication channels: website, social media, and online press. Considering the latter, media relations became a key component of Uffizi's communication strategy, leading in 2018 to the appointment of a dedicated internal press officer (Lazzeretti et al., 2024).

From 2019 to the present, the Uffizi have been increasingly featured in print and online media. In 2019, more than 2,000 articles were published in national and international publications (Uffizi Galleries, 2020). According to the museum's reports (Uffizi Galleries, 2021, 2022, 2023a, 2023b), it has followed a good, although discontinuous, trend in articles published in national and international newspapers (6,996 newspaper articles on Uffizi in 2021, 4,752 articles in 2022 and 6,326 articles in 2023).

Considering the museum's focus on promoting online press media, analysing the content of articles published about the Uffizi and Florence provides a valuable perspective on the interplay between the museum's and the city's reputations.

The Uffizi has been the subject of studies examining how tourist pressure in Florence affects its online reputation—showing that the broader urban tourist context shapes visitor experiences (Ciappei et al., 2023)—as well as research on digital strategies and organisational change (Lazzeretti and Sartori, 2016; Giusti, 2024; Lazzeretti et al., 2024).

Investigaciones Regionales – Journal of Regional Research

¹ MiC, Visitors and Revenue of State Museums, Monuments and Archaeological Areas. https://statistica.cultura.gov.it/?page_id=616

² Metropolitan City of Florence, Tourist movements and consistency of accommodation facilities. https://www.cittametropolitana.fi.it/turismo-2/movimenti-turistici-e-consistenza-delle-strutture-ricettive/

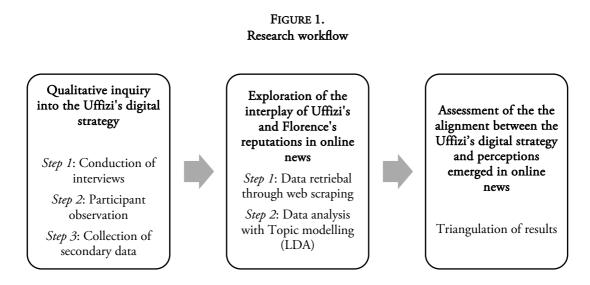
³ MiC, Visitors and Revenue of State Museums, Monuments and Archaeological Areas. https://statistica.cultura.gov.it/?page_id=616

This study extends the existing literature by adopting a dual perspective, analysing both the Uffizi and the city of Florence. It moves beyond assessments of the museum's digital strategy to investigate how such strategies may shape the reputational relationship between the institution and the city.

By focusing on a museum historically embedded in the urban fabric, this research offers a distinct perspective on cultural place branding, differing from studies centred on newly created museums used as tools for urban repositioning.

3. Methods

The analysis involved three main research steps aimed at comprehensively understanding the connection between the Uffizi's and Florence's reputations, and the alignment with the Uffizi's online communication strategy. First, primary and secondary sources were collected to gain qualitative insights into the museum's digital strategy. Then, the public discourse in online newspaper articles about the Uffizi and Florence was explored to delineate the interplay between the Uffizi's and Florence's reputations. Finally, the alignment between the Uffizi's online communication goals and the topic that emerged in the public discourse was verified, triangulating the data. The research workflow is summarised in Figure 1.



3.1. Qualitative analysis from interviews

To reconstruct the Uffizi's digital strategy, interviews were conducted, a period of participant observation was carried out at the museum, and secondary data sources were collected to enable triangulation of information. The research followed these main steps. First, 14 semi-structured face-to-face interviews were conducted with key personnel within Uffizi's management, who shaped the museum's digital strategy, as seen in Table 1.

The interviews consisted of questions tailored to each interviewee's area of expertise, designed to gather the most relevant and insightful information. Nonetheless, all the interviews followed a shared structure, consisting of two main sections: the first was devoted to clarifying the interviewee's role within the institution and understanding their perspective on online communication; the second focused on how their specific function is involved in shaping the museum's digital communication strategy. For each institutional role identified within the museum, a corresponding perspective on the impact of its online communication strategy was thus collected. The interviews provided valuable insights into the museum's primary communication objectives and the role of online platforms.

TABLE 1.
List of interviewees with role and number of interviews

INTERVIEWEE ID	Role	N° of Interviews
1	Director	2
2	Contact person for the curatorial division, archaeology and art history structures	7
3	Director's spokesperson and press officer	1
4	Digital strategies area representative	1
5	Cultural mediation and accessibility area coordinator, department of education	1
6	Head of the education department of the Uffizi Galleries and coordinator of the school and youth area	1
7	Representative of the legal department, department of enhancement, and economic strategies	1
TOTAL		14

Source: Authors' elaboration.

Second, to provide an in-depth understanding of the museum's operations and visitor interactions, researchers engaged in participant observation by attending conferences, exhibitions, and events at the Uffizi. This method helps capture nuances that might not be evident through other data collection methods (Vinten, 1994).

Third, we collected data from secondary sources, including institutional reports, social media, website analysis, and press releases. These sources offered additional perspectives on the museum's digital strategy and public perception.

3.2. Topic Modelling Analysis

To delineate the interplay between the Uffizi's and Florence's reputations, the analysis focuses on exploring the public discourse in online newspaper articles about the Uffizi and Florence using topic modelling analysis.

The newspaper media were chosen over other online media channels because they shape collective and individual perceptions and serve as a proxy for public opinions (DiMaggio et al., 2013), influencing reputation (Deephouse, 2000). Then, online newspapers play a crucial role in amplifying and shaping eWOM, which has been proven fundamental for building reputation in the literature (Pulina and Santoni, 2018).

To analyse the articles, the present research employs topic modelling, a text-mining technique, to analyse the content of articles. Topic modelling, particularly Latent Dirichlet Allocation (LDA), is utilised to discover thematic structures within the text data. LDA identifies topics based on word co-occurrences, providing a probabilistic framework to explore latent themes in large text corpora (Blei et al., 2003; Mohr and Bogdanov, 2013). It is particularly well-suited for studying the phenomenon from a multi-dimensional and holistic perspective, considering reputation and its measurement from both qualitative and quantitative viewpoints. Moreover, text mining techniques have been successfully applied to the regional sciences in the context of culture-related sectors, such as tourism and fashion industries (Barberio et al., 2020; Sedita and Maghssudipour, 2024).

3.2.1. Data sources

The dataset used in this study consists of online articles published in the websites of an international, a national, and a local newspaper: *The New York Times*⁴ (91 articles), *Il Sole 24 Ore*⁵ (307 articles), and *FirenzeToday*⁶ (1080 articles).

The New York Times was selected because it has been frequently used in academic literature to explore perceptions of image and reputation (Shi et al., 2024). It also attracts 131 million monthly visitors (The New York Times, 2023) and is known for its readership's interest in culture and the arts (The New York Times, 2024). Moreover, the museum collects the newspaper's articles as a benchmark for its international reputation.

Similarly, *Il Sole 24 Ore* was chosen as it ranks as the third-largest newspaper by digital circulation in Italy (Il Sole 24 Ore, 2024). It was also recognised in the *Digital News Report 2024* by the Reuters Institute of Journalism as the most reliable newspaper in Italy, a title it has held for seven consecutive years. The online edition features two dedicated cultural sections, *Cultura* and *Arteconomy*, covering art, poetry, literature, philosophy, theatre, film, painting, the antique trade, architecture, and design.

Lastly, *FirenzeToday* was included due to its prominence as one of the most popular local online newspapers in Florence and its surrounding province, with an average monthly readership of 1.2 million. It is particularly focused on local news, making it a highly relevant source of information for residents (Citynews, 2024).

The data span from January 1, 2016, to December 31, 2022, corresponding to the tenure of the museum's director until 2022 (the last available data).

3.2.2. Data retrieval

Web scraping techniques were implemented with Python to retrieve the articles (Braun et al., 2018). This technique is widely used in various social science disciplines, including economics, organisation, policy, communication, planning, political science, and sociology (Cavallo, 2018). A preliminary manual analysis of each newspaper's website structure enabled the development of a web scraper using *Selenium* library. The articles were downloaded searching for the words 'Uffizi' (and related terms referring to museums within the complex, namely 'Palazzo Pitti,' 'Corridoio Vasariano,' and 'Giardino di Boboli) and 'Florence' in the body of the text.

3.2.3. Data analysis

The steps of the analysis included the following steps:

- a) Corpus pre-processing: converting text to lowercase, removing stopwords, stemming, and tokenising the text. The Python NLTK library was used for tokenisation, lemmatisation, and stemming, while Pandas library was used for data cleaning, including the removal of missing, duplicate, invalid, or inconsistent values.
 - Tf-idf analysis was conducted to weigh the importance of words (Salton and McGill, 1983) using *Scitkit-learn* library. The keywords 'Uffizi' and 'Florence', which are more likely to appear among the most significant words, were removed during the text pre-processing. *NumPy* library was used to support the processing and representation of complex multidimensional data.
- b) *Corpus analysis:* the topic modelling LDA algorithm was applied to the corpus to extract the latent topics in the online articles using *Gensim* library.

⁴ https://www.nytimes.com/international/

⁵ https://www.ilsole24ore.com/

⁶ https://www.firenzetoday.it/

c) Coherence scores calculation: to evaluate the quality of the topics, the three most used semantic coherence scores were calculated using Gensim library for comparison (Mimno et al., 2011): UMass, Pointwise Mutual Information (UCI), and Normalised Pointwise Mutual Information (NMPI) (Röder et al. 2015). When multiple models showed high coherence scores, the number of topics was chosen within a range between the minimum and a reasonably manageable number to balance interpretability and the richness of the results. The most coherent and interpretable topic set was then selected for detailed analysis, avoiding overly fragmented topic distributions.

3.2.4. RESULTS TRIANGULATION

Finally, findings from interviews, topic modelling analysis, and other secondary sources were triangulated (Thurmond, 2001). This step served multiple purposes: firstly, to contextualise the identified topics within the Uffizi's strategic objectives and its relationship with the city of Florence; secondly, to enhance the robustness of the results by reducing the limitations associated with relying on the data source selected; and thirdly, to support a more accurate interpretation of the topics that emerged from the textual analysis.

4. Results

4.1. RESULTS: QUALITATIVE ANALYSIS

To investigate the role of online communication in shaping the interplay between museum and city reputation, interviews were conducted with members of the Uffizi's management. The findings reveal that the Uffizi strategically employ online channels to reinforce their brand, enhance their global visibility, strengthen local relationships, and foster community engagement through dedicated events.

A central aim of their communication strategy is to consolidate and project a strong institutional brand. Significant efforts have been invested in defining the overarching brand "Le Gallerie degli Uffizi" (4). In this, the museum director plays a key role in brand governance, authorising its use for events and initiatives (7).

Alongside institutional branding, international visibility remains a key communication objective. The museum maintains a particularly strong relationship with audiences in China, the USA, France, and Germany. As one interviewee noted, "USA and China, economically, are the biggest players" (1). This global orientation aligns with the museum's vision: "The heritage belongs to everyone, it is not just for Florentines and Italians" (5), and an awareness that "The public of our museums is a global one" (6). Recognising the diversity in cultural backgrounds and levels of knowledge, communication strategies aim to provide accessible interpretive tools for all: "Don't be surprised if someone doesn't know who the Medici were [...] it doesn't mean they're ignorant, they're just not specialists" (6).

Moreover, what emerged from the interviews is that the Uffizi may exert a positive influence on Florence's reputation and soft power. As one interviewee noted, "Florence has always identified with its main museum, which serves as a gateway to the city for the entire world" (3).

Regarding the museum's relationship with the city, the interviews reveal that the Uffizi's online communication serves to reinforce its role as a cultural actor within the local community. Indeed, the museum maintains a collaborative relationship with the city of Florence: "This museum is state-owned, so it has a relationship of exchange and dialogue with the city and the region, not one of subordination" (3). As another interviewee stated, "Uffizi and Florence have a relationship of interdependence, of mutual collaboration" (7).

However, being the most visited state museum in Florence, the Uffizi are also central to the city's overtourism challenge. In response, the museum has taken a three-pronged approach. First, it supports collaborative initiatives with the municipality to promote lesser-known museums, such as the Firenze Card project (2, 7), which, as highlighted by Oliva et al. (2020), aims to redistribute tourist flows across the

city's rich cultural offer. Indeed, as one respondent stressed, "Florence is the only place in the world where the Bargello and the Museo di San Marco are considered 'minor museums', despite their extraordinary collections" (6).

Second, through initiatives such as "Uffizi Diffusi", the museum actively promotes sustainable tourism by encouraging visitors to explore peripheral areas in Tuscany (Giusti, 2024), with online communication playing a crucial amplification role.

Third, the museum has positioned itself as an active participant in the public debate online on urban management (3). As articulated by the spokesperson for the director: "The museum [...] offers a point of reflection on important topics such as overtourism, the conservation of cultural and architectural heritage, and the future direction of cities with specific characteristics."

Finally, to engage diverse local communities, the Uffizi have implemented online educational and accessibility initiatives for both disabled and non-specialist audiences, as well as exhibitions and events in collaboration with local organisations (4, 5, 6). Notably, anti-overtourism strategies also benefit local residents: "Initiatives like Uffizi Diffusi can be useful for locals, for those living in Tuscany, to discover the richness of their territory" (6).

4.2. Results: Topic modelling

The analysis of the online press regarding Uffizi and Florence revealed several key topics: four for the Local newspaper "Firenze Today", three for "Il Sole 24 Ore", and five for "The New York Times". The number of topics was determined by considering three semantic coherence measures—UMass, UCI, and NMPI—and comparing them across each corpus. As shown in the coherence results in Annexe 4, the highest semantic coherence for FirenzeToday is achieved with four topics, according to all three metrics. For the national newspaper Il Sole 24 Ore, the optimal number of topics is three. In the case of The New York Times, while two coherence measures also suggest three topics, the NMPI measure indicates that five topics yield the highest semantic coherence. We therefore tested both configurations and concluded that the five-topic model provided more interpretable results.

Table 2 presents a summary of the topic modelling analysis.

The results highlight how the reputational relationship between the Uffizi and Florence is articulated differently across local, national, and international scales.

Locally, *FirenzeToday* portrays the museum as both a custodian of heritage (Topic 1) and a cultural event organiser (Topic 2), but also as a civic actor engaged with urban infrastructure issues (Topic 3) and political relationships with the municipal administration (Topic 4). These topics reveal how, at the local level, the museum's and the city's reputations are interrelated, thanks to the museum's management effort to address local challenges such as urban mobility and civic participation.

In contrast, the national newspaper *Il Sole 24 Ore* frames the Uffizi within broader narratives of Italian cultural heritage (Topic 5), major infrastructural works such as the renovation of the Vasari Corridor (Topic 6), and the museum's performance in terms of visitor numbers and revenue (Topic 7). Here, the interplay with Florence's reputation does not emerge. The city's image may benefit indirectly from the Uffizi's visibility, but without explicitly reinforcing the link between the museum and the city. In this context, the Uffizi is recognised as a nationally relevant brand, and its digital and media strategy amplifies Italy's cultural narrative more than Florence's.

Internationally, *The New York Times* focuses on highly visible, event-driven stories that portray the museum as a globally recognised institution. These include the return of a Nazi-looted painting following a major communication campaign (Topic 8), associations with other global icons such as Leonardo da Vinci and the Louvre (Topic 9), major exhibitions abroad (Topic 10), and the museum's role in the attribution of artworks (Topic 11). Additionally, the Uffizi's engagement with digital innovation and social media—ranging from TikTok to the sale of NFTs—is captured in Topic 12. Also in this case, the link with Florence does not emerge explicitly. The Uffizi projects an autonomous global image, potentially reinforcing its role as a soft power agent but without strongly leveraging the city brand.

TABLE 2.
Online newspaper topic modelling results about Uffizi and Florence

	omnie newspaper topie moderning results about omzi and i notenee										
	Topic number	Topic label	Most significant words	Interpretation							
	1	'Uffizi Galleries' collection and spaces'	art; oper; galleri; palazzo; direttor; schmidt; mostra; opera; sala.	General terms related to artworks and museum spaces. Importance of the director's role.							
Local Newspaper 'Firenze Today'	2	'Events and temporary exhibition'	mostra; cinema; eventi; settimana; festiv; film; programma; musica.	Words related to temporary events organised.							
	3	'External Accessibility'	piazza; vial; lungarno; santa; tratto; piazzal; pont; divieti; transito; sosta.	Words related to ongoing roadwork around the museum complex.							
	4	'Director's relationship with the local administration'	direttor; eik; schmidt; sindaco; dario; nardella; comun; palazzo; vecchio.	Terms related to the dialogue between the museum director and the mayor of Florence.							
	5	'The Uffizi's collection as part of Italy's cultural heritage'	patrimonio; art; cultural; beni; cultura: italiano; valor; italia; direttor; italiana.	General words related to the Uffizi's collection along with Italian cultural heritage. Words related to the director emerge.							
National Newspaper 'Il Sole 24 Ore'	6	'Ongoing work on the Vasari Corridor'	corridoio; vasariano; lavori; percorso palazzo; pitti; galleri; direttor; eik; schmidt; progetto.	Terms related to the ongoing renovation work at the Vasari Corridor, which connects the Uffizi Gallery with Palazzo Pitti. The role of the director emerged.							
	7	'The Uffizi within the context of visitor performance at Italian state museums'	visitatori; euro; attivita; statali; mostr; italiani; numero; italia; ingressi; introiti.	Words related to the performance of Italian state museums in terms of visitors and revenue, in which data on the Uffizi Galleries is cited.							
International Newspaper 'The New York	8	'The return to the Uffizi of a painting stolen by the Nazis thanks to a communication campaign by the museum'	paint; german; return; schmidt; govern; germani; stolen; war; soldier; investing.	Words related to the episode of the recovery of the painting 'Vase of Flowers' by Jan van Huysum, which was stolen from Palazzo Pitti by Wehrmacht soldiers during World War II.							
Times'	9	'Uffizi and Leonardo da Vinci'	leonardo; louvre; mona; lisa; vinci; draw; codex.	Terms related to Leonardo, one of the most important artists whose works are housed in the Uffizi.							

TABLE 2. CONT.

Online newspaper topic modelling results about Uffizi and Florence

10	'Uffizi exhibitions abroad'	raphael; show; director; schmidt; exhibit; master; Botticelli; Michelangelo; loan; masterpiece.	Words related to temporary exhibitions organised by the Uffizi abroad, such as 'Botticelli and Renaissance Florence: Masterworks from the Uffizi' at the Minneapolis Institute of Art or 'Self-Portraits: Masterpieces from the Uffizi' in Shanghai.
11	'The role of the Uffizi in legitimising the attribution of a work of art to an author'	donatello; giambologna; artist; sculptur; bronz; sculptor; rudigi; attribut.	Words related to the episode of the dubious attribution of 'Venus at the Bath' by Giambologna.
12	'The Uffizi's use of digital technologies'	tiktok; mask; nft; video; digit; onlin; post; sale; account; platform.	Terms related to the Uffizi's use of social media, online platforms, and the sale of NFTs.

Source: authors' elaboration.

A cross-scalar reading confirms that the territorial reference to Florence is most explicit in local discourse and progressively fades at broader levels. At the local scale, reputations are co-constructed through institutional embeddedness and collaboration; at the national and international scales, the Uffizi operates independently, enhancing its own symbolic capital and brand equity. These findings suggest that the museum's contribution to Florence's reputation is scale-dependent, with close alignment at the local level and relative detachment beyond.

4.3. RESULTS: TRIANGULATION

When cross-referencing the findings from topic modelling and interviews conducted with the Uffizi's management, a convergence emerges: eight of the twelve topics identified in the press were also addressed in the interviews, revealing a meaningful consistency between the Uffizi's public communication strategies and perceptions about the Uffizi and Florence in online news.

Locally, all interviewees engaged with Topic 1, discussing the museum's collection and spatial configuration from their respective professional standpoints. Topic 2, concerning events and temporary exhibitions, also found resonance: Interviewee 4 cited cinema and music programmes, Interviewee 6 referred to educational initiatives, and Interviewee 7 discussed curatorial contributions.

The relational dimension between the Uffizi and the city administration (Topic 4) was also acknowledged. Interviewee 2 recalled a 2010 agreement that redirected part of the museum's revenue to support municipal initiatives aimed at mitigating overtourism, while Interviewee 1 emphasised the need for more integrated collaboration between the State and local institutions to ensure cohesive cultural governance. These insights reinforce the view of the museum as a locally embedded actor actively contributing to the civic life of Florence.

With regard to the national scale, Topics 5 and 7 were confirmed. Interviewees recognised the Uffizi as a symbol of national heritage and noted the museum's visibility through public dissemination of visitor and financial data. Interviewee 3 described how the institution strategically shares these metrics to reach audiences interested in both culture and institutional performance, while Interviewee 6 reflected on the museum's importance within the Italian cultural landscape, sometimes overshadowing other important institutions in the city.

Results from the international newspaper were also substantiated. Topic 8, the return of the *Vase of Flowers*, was seen by Interviewee 3 as a compelling example of how diplomacy, historical memory, and media strategy intersected to broaden the museum's communicative reach. Topic 10—international exhibitions—was supported by Interviewee 6, who mentioned events in Hong Kong, Riga, Nîmes, and Minneapolis. Topic 12, related to digital innovation, was explored by Interviewees 3 and 7, who reflected on the Uffizi's engagement with social media and emerging technologies such as NFTs. While acknowledging the visibility gained through such initiatives—especially during the COVID-19 pandemic—both expressed concerns over legal ambiguities and ethical risks in the commodification of cultural imagery.

Four topics, however, did not emerge in the interviews: Topic 3 (External Accessibility), Topic 6 (Ongoing work on the Vasari Corridor), Topic 9 (Uffizi and Leonardo da Vinci), and Topic 11 (The role of the Uffizi in legitimising the attribution of a work of art to an author). Such omissions likely reflect the internal perspective of the interviewees, shaped by institutional priorities and less attuned to transient disruptions or journalistic framings. Topics such as infrastructure and urban planning may hold limited salience for staff, while symbolic associations—for instance, with figures like Leonardo—or issues of scholarly attribution, though institutionally significant, may fall outside the remit of communication-focused interviews. The absence of these topics underscores a fundamental limitation of relying solely on internal voices: while their insights are valuable, they tend to mirror the institution's communicative priorities rather than the broader range of activities as perceived from an external standpoint.

It can therefore be argued that the museum's online communication objectives are closely aligned with the perceptions emerging from the analysis of the interplay between the museum's reputation and the city's reputation. In this regard, it is reasonable to speculate that online communication plays a role in

shaping such a relationship. Notably, the return of the Vase of Flowers and the sale of NFTs emerged prominently among the topics covered in the newspapers examined, and these initiatives appear to be consistent with the Uffizi's intended digital communication campaigns. However, given that the primary focus of the Uffizi lies in reinforcing the museum's own brand rather than that of the city, this communication has ultimately worked in favour of the institution itself.

5. Discussion and conclusions

This research examined the interplay between museum and city reputation through the case study of the Uffizi Galleries and the city of Florence, focusing particularly on the role of the museum's online communication strategy in shaping this relationship. Building on a triangulation of topic modelling applied to online press content and qualitative data from interviews and institutional documents, the study offers novel insights into how cultural institutions contribute to—or remain detached from—city branding across local, national, and international scales.

The topic modelling results, supported by insights from interviews with Uffizi management, reveal a nuanced interplay between the reputations of the Uffizi and the city of Florence across local, national, and international levels.

In line with what emerged in the literature, since the Covid-19 pandemic, the Uffizi has intensified its use of online communication channels (Lazzeretti et al., 2024). This strategy served two primary purposes. First, it aimed to strengthen the museum's brand, creating a distinctive identity that stands apart from the city's umbrella brand—a direction confirmed by interviewees, who described the relationship with the Municipality of Florence as collaborative but not interdependent. Second, it supported initiatives related to overtourism, including awareness campaigns, content promoting decentralisation, and efforts to spark public debate, in line with previous studies (Giusti, 2024). This is particularly crucial for the city and for the museum itself, as Ciappeti et al. (2023) demonstrated, Uffizi visitors' experiences are often affected by their overall satisfaction with the city.

Despite these efforts, the topic modelling analysis indicates that the museum's engagement with city-wide issues emerges only in local media discourse.

Indeed, locally, the Uffizi is portrayed as a cultural actor engaged with the urban context. Joint initiatives with the municipality — such as those aimed at promoting lesser-known institutions or supporting sustainable tourism — were emphasised by interviewees. These reflect a deliberate commitment and the development of specific museum management policies that have prioritised relationships with the local territory, aiming at engaging residents and city stakeholders. These findings are consistent with the notion that museums serve as symbolic anchors that reinforce place identity and liveability (Plaza and Haarich, 2015; Kunzmann, 2004), underscoring the museum's deep embeddedness in Florence's civic life. These dynamics resonate with the literature that views museums as agents of cultural production embedded in urban governance and creative ecosystems (Ulldemolins, 2014; Lazzeretti, 2009).

Nationally, the Uffizi emerges as a flagship of Italian cultural heritage, largely detached from its Florentine context. This positioning reflects intentional brand autonomy, supported by institutional strategies aimed at asserting the museum's socio-economic role within national cultural narratives (Baumgarth, 2009; Van Riel, 2019). Interviewees confirmed that this strategic framing allows the Uffizi to participate competitively in national discourses on culture and public value, in line with the documented trend in the museum sector (Frey and Meier, 2006; Camarero et al., 2023).

Internationally, the Uffizi employs high-visibility digital communication to enhance its global brand. It engages in soft power diplomacy, high-profile exhibitions abroad, and digital innovation (e.g. NFTs, TikTok campaigns). These activities, widely covered by the international press, align with trends in global museum branding (Grincheva, 2020; Zollo et al., 2022) but rarely make explicit connections to Florence's image.

Across all three scales, there is coherence between the museum's communication strategy and its public portrayal. Interview data and topic modelling both reflect a deliberate effort to build reputational

capital primarily for the institution. In this sense, the Uffizi acts as a "branding museum" (Greffe et al., 2017): a cultural organisation that capitalises on its unique identity to generate visibility, funding, and legitimacy across multiple domains.

Yet, as the literature on place branding suggests, cultural landmarks also hold potential for strengthening urban visibility and soft power (Anholt, 2005; Giovanardi et al., 2013). In the Uffizi's case, however, Florence often plays the role of a backdrop rather than a strategic partner in narrative construction, thus revealing a missed opportunity to leverage its interrelation with city branding.

The case of the Uffizi and Florence aims to offer a distinct contribution to the literature on regional and urban studies by shifting the focus from emblematic rebranding strategies centred on newly established museums in post-industrial cities—such as the Guggenheim in Bilbao (Plaza, 2006; 2008) or the Louvre Abu Dhabi (Grincheva, 2020)—towards a context where both the city and the cultural institution are historically embedded and reputationally mature. Rather than focusing on museums as instruments of urban rebranding, this study explores the interplay between two long-standing reputational actors, offering insights into how their distinct yet interconnected reputations evolve within a heritage-rich environment.

Findings show that both the Uffizi and Florence possess strong and distinct reputations. At national and international levels, the museum's brand operates with considerable autonomy, reflecting broader tendencies in the cultural field where major institutions increasingly adopt brand management practices to enhance visibility, secure funding, and assert socio-economic value (Baumgarth, 2009; Van Riel, 2019; DiMaggio, 1986). In this sense, the Uffizi exemplify the "branding museum" model (Greffe et al., 2017), prioritising their institutional identity within global cultural networks.

However, this emphasis on institutional visibility does not automatically translate into city visibility. Online media discourse at the national and international levels rarely makes explicit links between the museum and the city of Florence. This represents a missed opportunity to capitalise on the reputational synergies between urban and institutional brands (Plaza and Haarich, 2015; Beccherle et al., 2024). Conversely, at the local level, a more substantial alignment is observed. Local press narratives and interviews indicate that the Uffizi play an active civic role—engaging in collaborative projects with the municipality (e.g. FirenzeCard), promoting decentralised tourism (e.g. Uffizi Diffusi), and participating in public discourse around overtourism and cultural governance. Interviewees highlighted joint efforts with the municipality, including initiatives aimed at promoting lesser-known institutions and encouraging sustainable tourism. The Uffizi thus function, at the local level, as symbolic anchors that reinforce place identity and liveability, further underscoring the museum's deep embeddedness in Florence's civic life. This points, at the national and international level, to an as-yet untapped potential that could emerge from a more substantial alignment between museum branding and city branding.

These findings suggest policy recommendations to more effectively align museum and city reputations.

In terms of urban policy, local governments should actively recognise museums not only as cultural custodians or tourism drivers but as key actors in urban branding strategies. They can serve as symbolic anchors that reinforce place identity, foster civic pride, and enhance liveability (Kunzmann, 2004; Bellandi et al., 2024). For this reason, local administrations should develop strategies to engage museums in structured dialogues and co-design frameworks. Moreover, integrating museum-led digital strategies into city branding plans could help address reputational fragmentation. Policymakers should encourage coordinated storytelling across institutional platforms, jointly articulating narratives that reflect shared values, local distinctiveness, and inclusive visions of the city (Anholt, 2005; Giovanardi et al., 2013). Finally, strategic collaborations between museums and city authorities can also support sustainable tourism and civic wellbeing. The Uffizi's initiatives such as "Uffizi Diffusi" illustrate how museums can help decentralise tourist flows and promote lesser-known territories, contributing to territorial enhancement and cultural participation (Giusti, 2024; Oliva et al., 2020). These efforts should be integrated into broader urban policy agendas aimed at addressing overtourism and enhancing residents' quality of life (Campaniello and Richiardi, 2018; Dastgerdi and De Luca, 2019).

This study has some limitations. Despite data triangulation, the interviews were conducted with internal stakeholders, potentially biasing the narrative in favour of institutional coherence and strategic

intentionality. Moreover, the press analysis was limited to three online newspapers (The New York Times, Il Sole 24 Ore, and Firenze Today), which—despite being selected for their relevance and reach—do not fully capture the diversity of the press discourse on the Uffizi and Florence.

Future research should incorporate a wider range of media sources and digital platforms to capture the full ecology of online reputation. In particular, a focus on social platforms could include user-generated content, where reputation is increasingly co-created through peer interaction, emotional engagement, and visual storytelling (Zollo et al., 2022; Grincheva, 2018). Moreover, comparative studies across different types of cities and museums would also help generalise the findings and refine typologies of city–museum relationships.

ACKNOWLEDGMENTS

We acknowledge co-funding from Next Generation EU, in the context of the National Recovery and Resilience Plan, M4C2 Investment 1.3 – Project CHANGES, PE5, CUP B53C22004010006. The views and opinions expressed are only those of the authors and do not necessarily reflect those of the European Union or the European Commission. Neither the European Union nor the European Commission can be held responsible for them.

REFERENCES

- Acuti, D., Mazzoli, V., Donvito, R., & Chan, P. (2018). An Instagram content analysis for city branding in London and Florence. *Journal of Global Fashion Marketing*, 9(3), 185-204.
- Alawamleh, M., & Abuqura, K. (2024). Would the employment of advanced technology and online presence help museums in the Middle East achieve their organisational goals? *Museum Management and Curatorship*, 39(1), 87-105.
- Albaladejo, I. P., González-Martínez, M. I., & Martínez-García M. P. (2016). Nonconstant reputation effect in a dynamic tourism demand model for Spain. *Tourism Management*, *53*, 132-139.
- Anholt, S. (2005). Some important distinctions in place branding. Place branding, 1(2), 116-121.
- Aprilia, F., & Kusumawati, A. (2021). Influence of electronic word of mouth on visitor's interest to tourism destinations. *The Journal of Asian Finance, Economics and Business*, 8(2), 993-1003.
- Aula, P., & Harmaakorpi, V. (2008). An innovative milieu-a view on regional reputation building: case study of the Lahti urban region. *Regional Studies*, 42(4), 523-538.
- Barberio, V., Kuric, I., Mollona, E., & Pareschi, L. (2020). The use of social media in EU policy communication and implications for the emergence of a European public sphere. *Investigaciones Regionales Journal of Regional Research*, (46), 111-129.
- Baumgarth, C. (2009). Brand orientation of museums: Model and empirical results. *International Journal of Arts Management*, 30-45.
- Beccherle, P., Oliva, S., & Lazzeretti, L. (2024). Brescia as a cultural city: The role of museums and digital technologies. *Scienze Regionali*, 24(2), 265-290.
- Bellandi, M., Della Lucia, M., & Santini, E. (2024). Humanistic place leadership, cultural enhancement, and change in industrial districts. *Investigaciones Regionales Journal of Regional Research*, (60), 75-87.
- Bennett, R. (2017). Relevance of fundraising charities' content-marketing objectives: Perceptions of donors, fundraisers, and their consultants. *Journal of Nonprofit & Public Sector Marketing*, 29(1), 39-63
- Blei, D. M., Ng, A. Y., & Jordan, M. I. (2003). Latent dirichlet allocation. *Journal of machine Learning research*, 3(Jan), 993-1022.

- Braun, E., Eshuis. J., Klijn. E. H., & Zenker. S. (2018). Improving place reputation: Do an open place brand process and an identity-image match pay off? *Cities*, 80, 22-28.
- Camarero, C., Garrido, M. J., & Vicente, E. (2023). Social and financial signalling to increase fundraising revenue in museums. *Journal of Nonprofit & Public Sector Marketing*, 35(2), 144-164.
- Campaniello, N., & Richiardi, M. (2018). The role of museums in bilateral tourist flows: evidence from Italy. *Oxford Economic Papers*, 70(3), 658-679.
- Carrasco-Santos, M. J., Ciruela-Lorenzo, A. M., Pavón, J. G. M., & Rodríguez, C. C. (2021). An online reputation analysis of the tourism industry in Marbella: a preliminary study on open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(2), 111.
- Cavallo, A. (2018). Scraped data and sticky prices. Review of Economics and Statistics, 100(1), 105-119.
- Chernetsky, I. (2022). *The Mythological Origins of Renaissance Florence: The City as New Athens, Rome, and Jerusalem*. Cambridge University Press.
- Ciappei, C., Liberatore, G., Nesi, P., Pantaleo, G., Monti, A., & Surchi, M. (2023). Does Tourist Pressure Influence the Online Reputation of a Tourist Attraction? Empirical Evidence From the Uffizi Gallery. In Online Reputation Management in Destination and Hospitality: What We Know, What We Need to Know (pp. 197-211). Emerald Publishing Limited.
- Cinti, T. (2007). Musei e territorio: le dinamiche relazionali nel cluster museale di Firenze (Vol. 7). Carocci.
- Citynews (2024). "FirenzeToday Informazioni sull'Edizione" [FirenzeToday Information on the Edition]. Accessed September 3', 2024. https://www.citynews.it/brands/firenzetoday/#firenzetoday
- Cooke, P., Nunes, S., Oliva, S., & Lazzeretti, L. (2022). Open innovation, soft branding and green influencers: Critiquing 'fast fashion' and 'overtourism'. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(1), 52.
- Cui, N., Malleson, N., Houlden, V., Yan, Y., & Comber, A. (2025). Using Twitter to understand spatial-temporal changes in urban green space topics based on structural topic modelling. *Cities*, 157, 105601.
- Dastgerdi, S., A., & De Luca, G. (2019). Strengthening the city's reputation in the age of cities: an insight in the city branding theory. *City, Territory and Architecture*, 6(1), 2.
- de Oliveira Capela, F., & Ramirez-Marquez, J. E. (2019). Detecting urban identity perception via newspaper topic modeling. *Cities*, 93, 72-83.
- Deephouse, D. L. (2000). Media reputation as a strategic resource: An integration of mass communication and resource-based theories. *Journal of management*, 26(6), 1091-1112.
- Delgado-García, J. B., de Quevedo-Puente, E., & Blanco-Mazagatos, V. (2018). The impact of city reputation on city performance. *Regional Studies*, 52(8), 1098-1110.
- DiMaggio, P. (1986). Nonprofit enterprise in the arts: Studies in mission and constraint (Vol. 3). Oxford University Press on Demand.
- DiMaggio, P., Nag, M., & Blei, D. (2013). Exploiting affinities between topic modeling and the sociological perspective on culture: Application to newspaper coverage of US government arts funding. *Poetics*, 41(6), 570-606.
- Fernández-Hernández, R., Vacas-Guerrero, T., & García-Muiña, F. E. (2021). Online reputation and user engagement as strategic resources of museums. *Museum Management and Curatorship*, 36(6), 553-568.
- Florida, R. (2007). Who's Your City? How the Creative Economy is Making Where to Live the Most Important Decision of Your Life. Basic Books.
- Frey, B. S., & Meier, S. (2006). The economics of museums. *Handbook of the Economics of Art and Culture*, 1, 1017-1047.

- García, J. B. D., & Puente, E. D. Q. (2016). The complex link of city reputation and city performance. Results for fsQCA analysis. *Journal of Business Research*, 69(8), 2830-2839.
- Giovanardi, M., Lucarelli, A., & Pasquinelli, C. (2013). Towards brand ecology: an analytical semiotic framework for interpreting the emergence of place brands. *Marketing Theory*, *13*(3), 365-383.
- Giusti, S. (2024). Museums after the pandemic, from resilience to innovation: the case of the Uffizi. *International Journal of Cultural Policy*, 30(1), 67-80.
- Glückler, J. (2007). Geography of reputation: The city as the locus of business opportunity. *Regional Studies*, 41(7), 949-961.
- Gössling, S., Hall, C. M., & Andersson, A. C. (2018). The manager's dilemma: a conceptualisation of online review manipulation strategies. *Current issues in Tourism*, 21(5), 484-503.
- Govers, R., & Go, F. (2009). Strategic Place Branding Elements. In R. Govers & F. Go (Eds.), *Place Branding: Glocal, Virtual and Physical Identities, Constructed, Imagined and Experienced* (pp. 49-72). Palgrave Macmillan.
- Greffe, X., Krebs, A., & Pflieger, S. (2017). The future of the museum in the twenty-first century: recent clues from France. *Museum Management and Curatorship*, 32(4), 319-334.
- Grincheva, N. (2020). Museums as Actors of City Diplomacy: From "Hard" Assets to "Soft" Power. In S. Amiri and E. Sevin (Eds.), *City Diplomacy* (pp.111-136). Palgrave Macmillan Series in Global Public Diplomacy.
- Grincheva, N. (2018). Researching online museums: Digital methods to study virtual visitors. *Research Methods for the digital Humanities*, 103-128.
- Iglesias-Sánchez, P. P., Correia, M. B., & Jambrino-Maldonado, C. (2019). Challenges in linking destinations' online reputation with competitiveness. *Tourism & Management Studies*, 15(1), 35-43.
- Il Sole 24 Ore (2024). *Media Kit.* https://24oresystem.ilsole24ore.com/wp-content/uploads/2024/06/MediaKit-Il-Sole-24-Ore-ENG.pdf
- Jakab, P., & Happ, E. (2017). Impact assessment between the city and the company reputation. *Economics & Sociology*, 10(1), 279.
- Költringer, C., & Dickinger, A. (2015). Analysing destination branding and image from online sources: A web content mining approach. *Journal of Business Research*, 68(9), 1836-1843.
- Kotler, P., & Gertner, D. (2011). A place marketing and place branding perspective revisited. In N. Morgan, A. Pritchard, A. Pride (Eds.), *Destination brands: managing place reputation* (pp. 33-53). Butterworth-Heinemann: Elsevier, 3.
- Kunzmann, K. R. (2004). Culture, creativity and spatial planning. *The town planning review*, 75(4), 383-404.
- Kydros, D., & Vrana, V. (2021). A Twitter network analysis of European museums. *Museum Management and Curatorship*, 36(6), 569-589.
- Lazzeretti, L. (2009). The creative capacity of culture and the New Creative Milieu. In G. Becattini, M. Bellandi, & L. De Propris (Eds.), *A Handbook of Industrial Districts* (pp. 281-294). Edward Elgar.
- Lazzeretti, L. (2004). Art cities, cultural districts and museums. Firenze University Press.
- Lazzeretti, L., & Oliva, S. (2021). Rethinking city transformation: Florence from art city to creative fashion city. In *Dislocation: Awkward Spatial Transitions* (pp. 156-173). Routledge.
- Lazzeretti, L., & Sartori, A. (2016). Digitisation of cultural heritage and business model innovation: the case of the Uffizi gallery in Florence. *Il capitale culturale. Studies on the Value of Cultural Heritage*, (14), 945-970.

- Lazzeretti, L., Beccherle, P., & Oliva, S. (2024). Exploring the role of museums in the digital era: the successful case of the Uffizi Galleries. In *Clusters in Times of Uncertainty*, (pp. 143-159). Edward Elgar Publishing.
- Ma, A. H. S. (2022). Assessing the effects of university reputation and City image on international student destination choice: evidence from a flagship University in Taipei. *Education and Urban Society*, *54*(8), 992-1009.
- Margherita, E. G., Escobar, S. D., Esposito, G., & Crutzen, N. (2023). Exploring the potential impact of smart urban technologies on urban sustainability using structural topic modelling: Evidence from Belgium. *Cities*, 141, 104475.
- Micera, R., & Crispino, R. (2017). Destination web reputation as "smart tool" for image building: the case analysis of Naples city-destination. *International Journal of Tourism Cities*, 3(4), 406-423.
- Mimno, D., Wallach, H., Talley, E., Leenders, M., & McCallum, A. (2011). Optimising semantic coherence in topic models. In *Proceedings of the 2011 conference on empirical methods in natural language processing* (pp. 262-272).
- Mohr, J.W., & Bogdanov, P. (2013). Introduction-Topic models: What they are and why they matter. *Poetics*, 41(6), 545-569.
- Nie, K.X. (2022). Collective Reputation of Tourism Attraction: A Case Study of Lijiang City in China. *Tourism Planning & Development*, 1-11.
- Oliva, S., Capone, F., Lazzeretti, L., & Petrucci, A. (2020). Managing visitors' flows in museums. The case of Firenze Card. *Il capitale culturale. Studies on the Value of Cultural Heritage*, (22), 369-393.
- Pasquinelli, C., Trunfio, M., Bellini, N., & Rossi, S. (2021). Sustainability in overtouristified cities? A social media insight into Italian branding responses to Covid-19 crisis. *Sustainability*, *13*(4), 1848.
- Plaza, B., & Haarich, S. N. (2015). The Guggenheim Museum Bilbao: Between regional embeddedness and global networking. *European Planning Studies*, 23(8), 1456-1475.
- Plaza, B. (2006). The return on investment of the Guggenheim Museum Bilbao. *International journal of urban and regional research*, 30(2), 452-467.
- Plaza, B. (2008). On some challenges and conditions for the Guggenheim Museum Bilbao to be an effective economic re-activator. *International Journal of Urban and Regional Research*, 32(2), 506-517.
- Popescu, R. I., & Corbo, R. A. (2012). Creative City And Urban Development–Competitiveness Through Culture, Sibiu In The Context Of Unesco Creative Cities Network. *Humanities and Social Sciences Review, 1*(2), 491-504.
- Pulina, M., & Santoni, V. (2018). Hotel online pricing policy: A review and a regional case study. Investigaciones Regionales - Journal of Regional Research, (42), 93-111.
- Riva, P., & Agostino, D. (2022). Latent dimensions of museum experience: assessing cross-cultural perspectives of visitors from tripadvisor reviews. *Museum Management and Curatorship*, 37(6), 616-640.
- Röder, M., Both, A., & Hinneburg, A. (2015, February). Exploring the space of topic coherence measures. In *Proceedings of the eighth ACM international conference on Web search and data mining*, (pp. 399-408).
- Salton, G., & McGill, J. (1983). Introduction to Modern Information Retrieval. McGraw-Hill.
- Schmidt, E. (2018). Eike Schmidt, Director, Uffizi Galleries, Florence. Museum Management and Curatorship 33(6), 611-13. https://doi.org/10.1080/09647775.2019.1537626
- Sedita, S. R., & Maghssudipour, A. (2024). From fashion to sustainability: the key role of industrial districts. *Investigaciones Regionales Journal of Regional Research*, (60), 117-132.

- Šerić, M., & Vernuccio, M. (2020). The impact of IMC consistency and interactivity on city reputation and consumer brand engagement: The moderating effects of gender. *Current Issues in Tourism*, 23(17), 2127-2145.
- Sevin, H. E. (2014). Understanding cities through city brands: City branding as a social and semantic network. *Cities*, 38, 47-56.
- Shi, L., Jiang, Y., & Ma, J. (2024). China's metaphorically "othered" image in The New York Times (1949-2020). *Journalism*, 25(10), 2079-2098.
- Simeon, M.I., Buonincontri P., Cinquegrani, F. & Martone, A. (2017). Exploring tourists' cultural experiences in Naples through online reviews. *Journal of Hospitality and Tourism Technology*, 8(2), 220-238.
- Smith, A., & von Krogh Strand, I. (2011). Oslo's new Opera House: Cultural flagship, regeneration tool or destination icon? *European Urban and Regional Studies*, 18(1), 93-110.
- Su, Y., & Teng, W. (2018). Contemplating museums' service failure: Extracting the service quality dimensions of museums from negative on-line reviews. *Tourism Management*, 69, 214-222.
- The New York Times (2023). 2023 Annual Report. https://nytco-assets.nytimes.com/2024/03/2023-Annual-Report_WR_-Final.pdf
- The New York Times (2024). *The New York Times Advertising: Directly reach and engage any audience with the new york times.* https://advertising.nytimes.com/audience-and-insights/
- Thurmond, V. A. (2001). The point of triangulation. Journal of nursing scholarship, 33(3), 253-258.
- Uffizi Galleries (2020). *I Numeri del 2019* [The Numbers of 2019]. https://www.datocms-assets.com/103094/1689164950-1580731352529981-numeri-2019-definitivo-sd-v2.pdf
- Uffizi Galleries (2021). *I Numeri del 2020* [The Numbers of 2020]. https://kmetro0.it/wp-content/uploads/2021/04/Slide-Numeri-Uffizi-2020.pdf
- Uffizi Galleries (2022). I Numeri del 2021 [The Numbers of 2021]. https://uffizi-production-b8df82a1.s3.eu-central-1.amazonaws.com/production/attachments/1644494292122867/Gallerie-degli-Uffizi-Report-anno-2021-finale-HD.pdf
- Uffizi Galleries (2023a). *I Numeri del 2023* [The Numbers of 2023]. https://www.uffizi.it/news/gallerie-degli-uffizi-un-2023-da-record-per-presenze-e-incassi
- Uffizi Galleries (2023b). *I Numeri del 2022* [The Numbers of 2022]. https://uffizi-production-b8df82a1.s3.eu-central-1.amazonaws.com/production/attachments/1674475029187823/Le-Gallerie-degli-Uffizi-I-numeri-del-2022-DEF.pdf
- Ulldemolins, R. J. (2014). Culture and authenticity in urban regeneration processes: Place branding in central Barcelona. *Urban studies*, 51(14), 3026-3045.
- Van Riel, C. B. (2019). Why Do People Love Museums So Much? Empirical Evidence about the Stellar Reputations of Art Museums and What Companies Can Learn From It. In W. Newburry, D.L., Deephouse and N.A. Gardberg (Eds.), *Global aspects of reputation and strategic management* (pp. 185-209). Emerald Publishing Limited.
- Vinten, G. (1994). Participant observation: a model for organisational investigation? *Journal of managerial psychology*, 9(2), 30-38.
- Zollo, L., Rialti, R., Marrucci, A., & Ciappei, C. (2022). How do museums foster loyalty in tech-savvy visitors? The role of social media and digital experience. *Current Issues in Tourism*, 25(18), 2991-3008.

ORCID

Paola Beccherle https://orcid.org/0009-0004-6529-2574

Stefania Oliva https://orcid.org/0000-0003-2933-4795

Luciana Lazzeretti https://orcid.org/0000-0002-9759-2289

ANNEXES

ANNEX 1.

Topic modelling results of the local newspaper 'FirenzeToday'

'Uffizi Gallerie	pic 1 s' collection and aces'	Topic		Topi External Ac		Topic 4 'Relationship with the administration'	
Word	Eta	Word	Eta	Word	Eta	Word	Eta
art	.011	mostra	.013	piazza	.0479	direttor	.0074
oper	.009	cinema	.024	vial	.0243	schmidt	.0073
galleri	.0089	eventi	.0102	lungarno	.0147	boboli	.007
palazzo	.008	settimana	.0099	santa	.0133	palazzo	.0065
direttor	.006	festiv	.0079	tratto	.0119	euro	.0064
mostra	.0053	film	.0074	piazzal	.0099	progetto	.0058
opera	.005	torna	.0067	pont	.0095	giardino	.0057
sala	.0047	programma	.0065	divieti	.0091	sindaco	.0056
schmidt	.0045	giardino	.0065	transito	.0082	nardella	.0048
storia	.0045	musica	.0065	centro	.0073	visitatori	.0047
pitti	.0044	teatro	.0061	sosta	.0072	galleri	.0046
medici	.004	piazza	.0059	porta	.0071	comun	.0042
eik	.0038	festa	.0058	lavori	.0063	eik	.0037
fiorentino	.0037	palazzo	.0055	carabinieri	.0062	vecchio	.0036
leonardo	.0037	toscana	.0054	polizia	.0057	pitti	.0035
restauro	.0036	edizion	.0048	divieto	.0052	centro	.0034
dipinto	.0036	villa	.0046	borgo	.0049	dario	.0033

ANNEX 1. CONT.

Topic modelling results of the local newspaper 'FirenzeToday'

'Uffizi Gallerie	oic 1 s' collection and cces'	Topic		Topi 'External Ad		'Relationship	oic 4 with the local stration'
Word	Eta	Word	Eta	Word	Eta	Word	Eta
cultura	.0033	parco	.0046	senso	.0044	ministro	.0031
italia	.0032	appuntamento	.0044	corsia	.0043	cultura	.0031
collezion	.003	perder	.0043	stazion	.0043	pubblico	.003
capolavori	.003	possibil	.0043	vigor	.0041	toscana	.003
botticelli	.0029	appuntamenti	.0038	duomo	.004	president	.0027
collaborazion	.0026	sagra	.0037	storico	.0039	lavori	.0027
sale	.0025	dedicata	.0034	provvedimenti	.0039	culturali	.0025
president	.0024	programmazion	.0033	croce	.0036	attivita	.0025
giovanni	.0024	occasion	.0032	mezzi	.0036	beni	.0025
occasion	.0024	evento	.0032	giovanni	.0034	corridoio	.0025
dant	.0024	visitar	.0031	signoria	.0034	storico	.0024
dipinti	.0023	cucina	.0031	veicoli	.0034	turisti	.0024
video	.0023	natal	.003	municipal	.0033	turismo	.0023

ANNEX 2. Topic modelling results of the national newspaper 'Il Sole 24 Ore'

Topic 1 "The Uffizi's collection as part of Italy's cultural heritage'		To 'Ongoing work on	pic 2 the Vasari Corridor'	Topic 3 'The Uffizi within the context of visitor performance at Italian state museums'		
Word	Eta	Word	Eta	Word	Eta	
patrimonio	.0113	oper	.018	visitatori	.0271	
art	.0105	mostra	.0178	palazzo	.0084	
cultural	.0097	palazzo	.0128	galleri	.0082	
beni	.0078	schmidt	.0097	nazional	.008	
cultura	.0078	galleri	.0093	euro	.0068	
moda	.0074	pitti	.0089	archeologico	.0061	
culturali	.0058	leonardo	.008	pubblico	.0059	
immagini	.0049	direttor	.0064	art	.0058	
gucci	.0048	progetto	.006	attivita	.0058	
italiano	.0047	dipinti	.0054	statali	.0058	
euro	.0045	fiorentino	.0053	mostr	.0057	
storia	.0045	vasariano	.005	torino	.0057	
valor	.0044	raffaello	.0049	digital	.0056	
italia	.0043	corridoio	.0047	italiani	.0054	
president	.0043	percorso	.0047	numero	.0052	
direttor	.0041	lavori	.0045	italia	.0051	
visita	.0036	carlo	.0042	museal	.005	
centro	.0035	roma	.0042	roma	.0049	
italiana	.0035	euro	.0041	siti	.0049	
giovani	.0034	piano	.0041	ingressi	.0048	

ANNEX 2. CONT.

Topic modelling results of the national newspaper 'Il Sole 24 Ore'

Topic 1 "The Uffizi's collection as part of Italy's cultural heritage"			oic 2 the Vasari Corridor'	Topic 3 "The Uffizi within the context of visitor performance at Italian state museums'		
Word	Eta	Word	Eta	Word	Eta	
codic	.0032	biennal	.004	introiti	.0048	
restauro	.0031	scultura	.004	dati	.0047	
tour	.0031	beni	.0038	nuov	.0047	
storico	.003	culturali	.0038	venezia	.0047	
diritto	.0028	dipinto	.0038	cultura	.0045	
pasqua	.0028	scientifico	.0037	pompei	.0044	
base	.0027	tratta	.0037	colosseo	.0043	
guida	.0027	vecchio	.0037	istituti	.0043	
impres	.0027	eik	.0036	struttur	.0042	
botticelli	.0026	michelangelo	.0036	total	.0042	

ANNEX 3. Topic modelling results of the international newspaper 'The New York Times'

"The return to painting stoles thanks to a co	pic 1 the Uffizi of a n by the Nazis ommunication the museum'		oic 2 Leonardo da nci'		oic 3 itions abroad'	'The role of	e attribution of	'The Uffizi's	Topic 5 The Uffizi's use of digital technologies'	
Word	Eta	Word	Eta	Word	Eta	Word	Eta	Word	Eta	
italian	.0359	leonardo	.0872	paint	.0421	work	.0312	art	.0447	
paint	.0359	louvr	.0302	work	.0318	donatello	.0306	artist	.0255	
german	.0353	lisa	.0253	artist	.0286	artist	.025	tiktok	.0193	
return	.027	mona	.0244	raphael	.0218	sculptur	.0237	collect	.0188	
work	.024	exhibit	.021	art	.0203	art	.0219	work	.0183	
art	.0222	vinci	.0171	show	.0188	bronz	.0219	million	.0159	
itali	.0222	time	.0146	itali	.0156	citi	.0206	peopl	.0159	
schmidt	.021	show	.0137	restor	.0156	verrocchio	.0206	mask	.0154	
offici	.0198	visitor	.0122	portrait	.0147	renaiss	.0194	fortun	.014	
statu	.018	italian	.0117	schmidt	.0133	exhibit	.0187	nft	.014	
govern	.0174	life	.0117	director	.0121	medici	.0187	video	.013	
van	.0156	franc	.0112	exhibit	.0121	david	.0144	york	.013	
famili	.0138	itali	.0102	world	.0112	mccarthi	.0144	paint	.0125	
germani	.0132	pari	.0102	renaiss	.0109	marbl	.0125	digit	.0111	
state	.0132	draw	.0098	collect	.0103	statu	.0125	institut	.0111	
world	.0132	experi	.0098	cultur	.01	ostiglio	.0119	women	.0111	
stolen	.0126	famou	.0098	rome	.0097	sculptor	.0119	featur	.0106	
author	.012	move	.0098	master	.0094	includ	.0113	design	.0096	

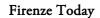
ANNEX 3. CONT.

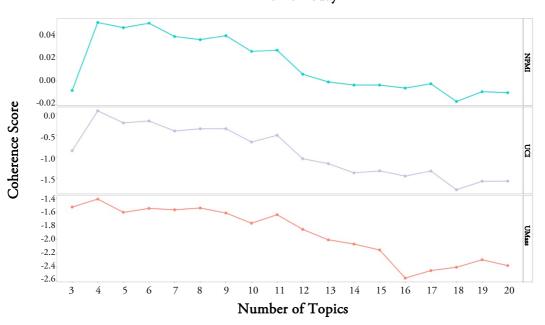
Topic modelling results of the international newspaper 'The New York Times'

'The return to painting stole	oic 1 the Uffizi of a n by the Nazis ommunication the museum'	'Uffizi and I	sic 2 Leonardo da aci'	Top 'Uffizi exhibi		'The role of	oic 4 the Uffizi in e attribution of to an author'	'The Uffizi's	Γopic 5 zi's use of digital nnologies'	
Word	Eta	Word	Eta	Word	Eta	Word	Eta	Word	Eta	
includ	.0114	travel	.0098	room	.0091	origin	.0113	fashion	.0096	
war	.0114	citi	.0088	botticelli	.0085	time	.0113	sell	.0096	
soldier	.0102	codex	.0088	michelangelo	.0085	vecchio	.0113	black	.0092	
pitti	0096	think	.0088	open	.0083	famili	.0106	includ	.0087	
public	.0096	french	.0083	past	.0083	rudigi	.0106	long	.0082	
vase	.0096	space	.0083	loan	.008	attribut	.0094	time	.0082	
flower	.009	pasta	.0078	masterpiec	.008	painter	.0094	onlin	.0077	
palac	.009	galluzzi	.0073	celebr	.0074	centuri	.0088	post	.0077	
privat	.0084	natur	.0073	death	.0071	consid	.0088	sale	.0077	
director	.0078	rembrandt	.0073	visitor	.0071	figur	.0088	account	.0072	
investig	.0078	univers	.0073	place	.0068	giambologna	.0088	platform	.0072	
minneapoli	.0078	water	.0073	time	.0068	jewish	.0088	receiv	.0072	

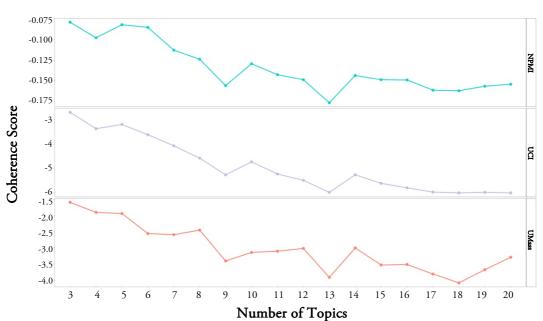
ANNEX 4.

Average topic coherence scores per corpus. The three panels show the mean coherence values for NPMI, UCI, and UMass metrics





Il Sole 24 Ore



ANNEX 4. CONT.

Average topic coherence scores per corpus. The three panels show the mean coherence values for NPMI, UCI, and UMass metrics

The New York Times

