



VIA  
PANORAMICA

Revista de Estudios Anglo-Americanos  
A Journal of Anglo-American Studies

# TOWARDS THE MAELSTROM THE DIGITAL HUMANITIES IN ACTION

1ST CETAPS MEETING ON  
DIGITAL HUMANITIES  
DOSSIER

THEMATIC SECTION

EXTRA



# Shared Visions: Marco Polo's travels from Medieval collective imagination to contemporary computer-assisted imagery

FEDERICO BOSCHETTI

CNR-ILC and Venice Centre for Digital and Public Humanities

---

**ABSTRACT:** In this workshop, participants explore the intersection between Medieval and contemporary representations of Marco Polo's travels. The discussion focuses on the creation of an interactive exhibition where visitors engage with miniatures from MS. Bodl. 264. By selecting specific details from these miniatures, visitors describe them for targeted audiences—such as children, the elderly, or visually impaired people. These descriptions, combined with AI, generate new images inspired by the originals and the participants' unique perspectives. This process blends historical collective imagination with modern, computer-assisted creativity, inviting new interpretations of Marco Polo's legacy.

**KEYWORDS:** Digital Humanities, Public Humanities, Generative Artificial Intelligence, Multimodality

**RESUMO:** Neste workshop, os participantes exploram a interseção entre as representações medievais e contemporâneas das viagens de Marco Polo. A discussão tem como foco a criação de uma exposição interativa onde os visitantes interagem com miniaturas do MS. Bodl. 264. Ao selecionar detalhes específicos destas miniaturas, os visitantes descrevem-nas para públicos-alvo – como crianças, idosos ou pessoas com deficiência visual. Estas descrições, combinadas com a IA, geram novas imagens inspiradas nos originais e nas perspectivas únicas dos participantes. Este processo combina a imaginação coletiva histórica com a criatividade moderna assistida por computador, convidando a novas interpretações do legado de Marco Polo.

**PALAVRAS-CHAVE:** Humanidades Digitais, Humanidades Públicas, Inteligência Artificial Generativa, Multimodalidade

## INTRODUCTION

2024 marks the 700th anniversary of Marco Polo's death, an event that has inspired conferences, publications, and exhibitions in Venice. The workshop “Shared Visions” builds on a prototype for an exhibition centered on three miniatures from the *Travels of Marco Polo* contained in MS Bodl. 264. This prototype was developed at the Venice Centre for Digital and Public Humanities (VeDPH), Department of Humanities, Ca’ Foscari University of Venice.

## GOALS OF THE WORKSHOP

The main goal of the exhibition, as well as the workshop, is to invite visitors (and workshop participants) to engage in a slow observation of the images and focus their attention on significant details. By expanding the concept of the guest book, visitors are encouraged to leave messages for others, share the results of their personal interpretations and subjective perspectives, and generate new images that amplify their impressions.

In addition, the workshop aims to provide the participants with practical knowledge and tools in three main areas. First, it offers an overview of detection instruments, such as wearable eye trackers and tablets with specific tracking software. Second, it introduces prompt strategies for crafting effective inputs to generate meaningful AI-produced images, emphasizing clarity, relevance, and creative potential. Finally, it covers statistical techniques for analyzing participant-generated messages.

## BRIEF STATE OF THE ART

Research on visitor engagement in museums highlights the brevity of time spent observing individual artworks, often measured in mere seconds (Smith & Smith 2001). In recent years, visitors have increasingly spent time taking selfies with artworks, highlighting the growing desire to interact and engage personally with the works (Tinio 2013). The integration of AI

technologies in cultural heritage settings is enhancing visitor engagement. In particular, Generative AI enables users to interact creatively with artworks, producing new visual representations based on the original images and textual prompts (Elgammal *et al.* 2017). Monitoring visitor behavior through wearable eye trackers (Garbutt *et al.* 2020) promotes a neurohumanistic approach to studying the aesthetic experience, encouraging the integration of neuroscience and the humanities to explore how individuals engage with art on a cognitive and sensory level. Finally, statistical analyses (Jurafsky 2023), such as the Principal Component Analysis applied to textual messages, help identify relevant patterns in visitor's observations.

## MATERIALS AND PROCEDURES

Workshop participants are provided with digital reproductions of miniatures illustrating three cities: Venice (218r), Campion (230r), and Mien (251r). After collectively selecting one of the three miniatures, they are tasked with cropping a significant detail and writing two brief notes: the first to convey their impressions to an educated adult, and the second to describe the image to a child.

Using ChatGPT-4, participants then generate a new image by supplying the cropped detail along with one of their subjective descriptions. Secondly, they are asked to write a short evaluation of the generated image, reflecting on its relevance and alignment with their original interpretation.

Finally, Principal Component Analysis (PCA) is applied to the texts written by the participants with the aim of identifying patterns and correlations in their descriptions. This analysis focuses on examining language use, uncovering differences and similarities in how participants perceive and articulate visual details for distinct audiences (e.g., adults versus children).

## CONCLUSIONS AND SIGNIFICANCE

The workshop simulates the behavior of visitors to the actual exhibition and provides participants with the opportunity to experience and follow all the steps involved, including the

evaluation and analysis of the data produced. Materials of the workshop are gradually available on [https://github.com/CoPhi/shared\\_visions\\_workshop](https://github.com/CoPhi/shared_visions_workshop).

## ACKNOWLEDGMENTS

I am grateful to Elisa Corrà, who co-designed the prototype for the exhibition “Shared Visions”.

---

## WORKS CITED

- Elgammal, Ahmed, Bingchen Liu, Mohamed Elhoseiny, and Marian Mazzone. “CAN: Creative Adversarial Networks, Generating ‘Art’ by Learning About Styles and Deviating from Style Norms.” *arXiv preprint arXiv:1706.07068*, 2017. <https://arxiv.org/abs/1706.07068>
- Garbutt, Michael , Scott East, Branka Spehar, Vicente Estrada-Gonzalez, Brooke Carson-Ewart & Josephine Touma (2020): “The Embodied Gaze: Exploring Applications for Mobile Eye Tracking in the Art Museum”, *Visitor Studies*, <https://doi.org/10.1080/10645578.2020.1750271>
- Jurafsky, Daniel, and James H. Martin. *Speech and Language Processing*. 3rd ed. Upper Saddle River, NJ: Prentice Hall, 2023
- Smith, J. K., and Smith, L. F. “Spending Time on Art.” *Empirical Studies of the Arts* 19, no. 2 (2001): 229–236. <https://journals.sagepub.com/doi/abs/10.2190/5MQM-59JH-X21R-JN5J>
- Tinio, Pablo P. L. "Time Spent Viewing Art and Reading Labels." *Psychology of Aesthetics, Creativity, and the Arts* 7, no. 2 (2013): 119–123. <https://researchwith.montclair.edu/en/publications/time-spent-viewing-art-and-reading-labels>

## FEDERICO BOSCHETTI

Federico Boschetti has a PhD in Classical Philology (University of Trento-University of Lille III, 2005) and Brain and Cognitive Sciences: Language, Interaction and Computation (University of Trento, 2010). Since 2011, he has been a researcher at the CNR-Institute of Computational Linguistics "A. Zampolli", where he coordinates

the CoPhiLab and teaches courses on Digital Humanities at various levels (university and high school students and teachers). Since 2019, he has been assigned to the CNR-ILC research unit at the VeDPH of the Ca' Foscari University of Venice. He has been co-responsible with Franz Fischer (VeDPH) of the “Digital and Public Humanities Textual Scholarship” CLARIN Knowledge Centre (DiPText-KC) since 13 October 2021, and he collaborates for CLARIN-IT to H2IOSC, the Italian consortium of research infrastructure devoted to the Humanities. His main research interests are in collaborative and cooperative philology.

## HOW TO CITE

Boschetti, Federico (2024). “Workshop 3: Shared Visions: Marco Polo’s Travels From Medieval Collective Imagination to Contemporary Computer-Assisted Imagery”. *VIA PANORAMICA: Revista de Estudos Anglo-Americanos*, vol. 13, n.º 2, 2024, pp. 105-109. Web: <http://ojs.letras.up.pt/>. DOI: 10.21747/2182-9934/via13\_2w3