



Mario Benedetti 5.0: Questions for Artificial Intelligence

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Abstract

Las Generative Artificial Intelligence (GenAI) tools have become widespread and have significantly impacted education, positioning themselves as a new stage in the evolution of the Internet. Their extensive capabilities in data analysis and content creation have reshaped many digital practices, transforming access to information and the generation of knowledge. This research explores the potential of GenAI in studying the work of Uruguayan poet Mario Benedetti. An undisputed figure in 20th-century Hispanic American literature, Benedetti passed away less than 20 years ago and maintains a strong online presence, being one of the most widely read authors in the Spanish-speaking world. The study presents various tools and approaches that use GenAI to better understand the life and work of the author. Initially, a conversational chatbot was created using the Mizou tool. Later, another chatbot was developed using the ChatGPT application. A series of questions and interactive tasks were designed to evaluate the quality of the responses, drawing on extensive information available online, such as the dedicated portal to the author on the Miguel de Cervantes Virtual Library. Additionally, image creation inspired by his poetry was explored using the Canva tool, leading to a multimodal analysis of the results. The findings offer validated approaches for working with Benedetti's poetry in university classrooms and introduce two AI-powered assistants that can support both educators and students in gaining a deeper understanding of the Uruguayan poet's work.

Keywords

literature; poetry; didactics; artificial intelligence; technological change

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Desenho institucional e ensino de ética: avaliação de sua implementação em três universidades colombianas

Resumo

Este As ferramentas de Inteligência Artificial Generativa (GenAI) tornaram-se amplamente difundidas e tiveram um impacto significativo na educação, posicionando-se como uma nova etapa na evolução da Internet. Suas amplas capacidades de análise de dados e criação de conteúdo transformaram diversas práticas digitais, modificando o acesso à informação e a produção de conhecimento. Esta pesquisa explora o potencial da GenAI no estudo da obra do poeta uruguaio Mario Benedetti. Figura incontestável da literatura hispano-americana do século XX, Benedetti faleceu há menos de vinte anos e mantém forte presença on-line, sendo um dos autores mais lidos do mundo de língua espanhola. O estudo apresenta diferentes ferramentas e abordagens que utilizam GenAI para compreender melhor a vida e a obra do autor. Inicialmente, foi criado um *chatbot* conversacional por meio da ferramenta *Mizou*. Em seguida, outro *chatbot* foi desenvolvido utilizando o aplicativo *ChatGPT*. Uma série de perguntas e tarefas interativas foi elaborada para avaliar a qualidade das respostas, com base em informações amplamente disponíveis on-line, como o portal dedicado ao autor na Biblioteca Virtual Miguel de Cervantes. Além disso, foi explorada a criação de imagens inspiradas em sua poesia utilizando a ferramenta *Canva*, o que possibilitou uma análise multimodal dos resultados. Os achados oferecem abordagens validadas para o trabalho com a poesia de Benedetti em salas de aula universitárias e introduzem dois assistentes baseados em inteligência artificial que podem apoiar docentes e estudantes na compreensão mais profunda da obra do poeta uruguaio.

Palavras-chave

literatura; poesia; didática; inteligência artificial; mudança tecnológica

Institutional Design and Ethics Teaching: Evaluation of Its Implementation in Three Colombian Universities

Resumen

Las herramientas de Inteligencia Artificial Generativa (GenAI) se han difundido ampliamente y han tenido un impacto significativo en la educación, posicionándose como una nueva etapa en la evolución de Internet. Sus amplias capacidades en análisis de datos y creación de contenidos han transformado numerosas prácticas digitales, modificando el acceso a la información y la generación de conocimiento. Esta investigación explora el potencial de la GenAI en el estudio de la obra del poeta uruguayo Mario Benedetti. Figura indiscutible de la literatura hispanoamericana del siglo XX, Benedetti falleció hace menos de veinte años y mantiene una fuerte presencia en línea, siendo uno de los autores más leídos en el mundo hispanohablante. El estudio presenta diversas herramientas y enfoques que emplean GenAI para comprender mejor la vida y la obra del autor. En una primera instancia, se creó un *chatbot* conversacional utilizando la herramienta *Mizou*. Posteriormente, se desarrolló otro *chatbot* mediante la aplicación *ChatGPT*. Se diseñó una serie de preguntas y tareas interactivas para evaluar la calidad de las respuestas, a partir de la amplia información disponible en línea, como el portal dedicado al autor en la Biblioteca Virtual Miguel de Cervantes. Asimismo, se exploró la creación de imágenes inspiradas en su poesía mediante la herramienta *Canva*, lo que permitió realizar un análisis multimodal de los resultados. Los hallazgos ofrecen enfoques validados para trabajar la poesía de Benedetti en el aula universitaria e introducen dos asistentes basados en inteligencia artificial que pueden apoyar tanto a docentes como a estudiantes en la comprensión más profunda de la obra del poeta uruguayo.

Palabras clave

literatura; poesía; didáctica; inteligencia artificial; cambio tecnológico

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Introduction

Generative Artificial Intelligence and the Didactics of Hispanic American Literature

Aunque This didactic proposal aims to explore the potential of several Artificial Intelligence (AI) tools for the study of Hispanic American poetry. The educational potential of Hispanic American literature in diverse learning environments has been increasingly acknowledged in recent years (Llorens et al. 2022; Fernández-Cobo, 2021; Ruiz-Bañuls et al., 2023), particularly through the development of specific proposals for a more comprehensive exploration of the vast body of literature written in Spanish.

Although we are currently witnessing a genuine boom in experiments and research prompted by the rise of open-access applications since late 2022, AI tools have existed for many years. Among the various possibilities that AI offers, Generative AI (GenAI) stands out for its ability to create new content and ideas, such as images or texts. For instance, at the beginning of the century, Eugenio Tisselli was already experimenting with digital tools for composing and interpreting visual poems on a computer—such as Midipoet [<https://www.motorhueso.net/midipoet/>—within the field of electronic literature, or e-lit (Tisselli, 2012). More recently, Borja Navarro-Colorado (2016, 2020) proposed an AI-driven analysis of a corpus of *Siglo de Oro* (Golden Age) Spanish sonnets, illustrating the potential of AI for research in digital humanities by bridging computer science and literary studies. AI also offers valuable opportunities for analysing large volumes of text, even enabling the attribution of works to specific authors based on stylistic similarities (Cuéllar, 2023).

Bustamante and Camacho (2024) recently conducted a comprehensive systematic review on AI in schools, highlighting its significant potential to transform education and improve the quality of learning across diverse educational contexts. They also highlight AI's ability to optimise educational management and address new challenges, such as personalised teaching and individual assessment. However, their study also emphasises the need for a careful implementation guided by solid ethical principles. Vicente Luis Mora (2023) provides a well-founded analysis of the possibilities and risks of these tools, posing essential questions regarding their use in the literary field. Regarding the introduction of these tools in education, Daniel Cassany (2024) highlights both the challenges and opportunities, emphasising the importance of using transparent and consensual protocols to ensure a more effective educational application of GenAI. While the generation of new texts and complex narratives through AI offers a valuable educational opportunity (Pérez & Sharples,

2023; Yenduri et al., 2023), it also demands careful practice and critical analysis (Ribes-Lafoz et al., 2024).

There are already didactic proposals for integrating AI into educational contexts, including its use in Secondary Education to analyse novels (Salinas Moraga, 2024). Cruz, Mascarenhas, and Pinto (2024) identify specific applications of AI for the study of Hispanic American literature. A key reference for our research has been a lecture by Professor José Manuel de Amo from the University of Almería, titled “The Impact of Artificial Intelligence on Literary Education: The Hispanic American Readings Project” (2023), which is freely available on the YouTube channel of the *Centro de Estudios Literarios Iberoamericanos Mario Benedetti (Mario Benedetti Centre for Ibero-American Literary Studies)*.

Web 5.0 as a New Stage of the Internet

A previous study on the presence of Mario Benedetti on the Internet and social media (Rovira-Collado et al., 2021) examined the evolution of the Internet from its earliest stages to the *Ubiquitous Web* (4.0), passing through the *Social Web* (2.0) and the *Semantic Web* (3.0). The 4.0 stage, also known as the ubiquitous or mobile web, is primarily characterised by the use of devices to access the network, and by the constant interaction that takes place when we search for information and share vast amounts of data through various applications.

Although there are theoretical approaches on the evolution towards the next stage—Web 5.0 (De Benito-Osorio et al., 2013)—there are still multiple viewpoints regarding its definition and key innovations. The predominant term used to describe it is the “Sensory-Emotive Web”, as advancements in tools, particularly Artificial Intelligence, will allow for deeper analysis of users’s emotions, as well as more nuanced and accurate responses from devices (Algozaibi et al., 2017). However, alternative terms such as “Open Web”, “Linked Web”, or “Intelligent Web” are also in use (LCX, 2023).

Up to this point, the web has been emotionally neutral. However, with the advent of the *Sensorial Web*, users’ emotions will be more accurately identified by devices, products, and/or services, primarily through AI tools (Rivera Sánchez, 2017). The widespread use of virtual assistants capable of predicting our needs and emotions based on our behaviour is a precursor to this forthcoming “Intelligent” or “Sensory” Web. Web 5.0 will feature applications capable of interpreting information at far more complex levels than currently possible, both logically and emotionally (Olmo, 2022).

As we can see, this transformation goes beyond the surge in AI applications we have witnessed over the past three years. We believe this new 5.0 stage will be characterised by their widespread adoption and use by the general public. Previously, many of these applications were used exclusively by specialised computing teams, but since the emergence of *ChatGPT* in 2022, they have become accessible to everyone.

In this study, we do not attempt to compare or evaluate the various tools currently available to the public, such as *Claude*, *Gemini*, or *DeepSeek*. However, each of these could yield different results.

Why Mario Benedetti?

The Uruguayan poet (1920–2009) remains one of the most well-known Hispanic American poets today, years after his passing (Alemany et al., 1999; Rovira-Soler et al., 2021). His works continue to be published, and his poetry has a strong presence on the Internet (Rovira-Collado & Hernández Ortega, 2023), all of which make him an ideal figure for our proposal.

A key reason for focusing on his work is that Mario Benedetti was the first honorary patron of the *Biblioteca Virtual Miguel de Cervantes (BVMC)* (*Miguel de Cervantes Virtual Library*), and his curated author library was the first to be published in 1999 [https://www.cervantesvirtual.com/portales/mario_benedetti/] (Rovira-Soler & Rovira-Collado, 2020). Benedetti quickly recognised the importance of making parts of his works openly accessible, which immediately contributed to an increase in sales, as well as the recording of poetry recitations and concerts with Daniel Viglietti (Gil Rovira, 2021). At a time when the web was still primarily textual, Benedetti was already exploring audiovisual formats to disseminate his poetry (Rovira-Collado et al., 2021)

Moreover, we benefited from the collaboration of members of the *Centro de Estudios Literarios Iberoamericanos Mario Benedetti (CEMAB)* (*Mario Benedetti Centre for Ibero-American Literary Studies*) [<https://web.ua.es/es/centrobenedetti/>], an institution established at the University of Alicante in 1999, following Benedetti's receipt of an honorary doctorate from the same university in 1997 [<https://web.ua.es/es/protocolo/eventos/honoris/benedetti-mario-1997/doctor-honoris-causa-mario-benedetti.html>]. The *CEMAB* also houses the library that the poet kept in his Madrid home. Many of the most renowned scholars specialising in Benedetti's work, affiliated with this research centre, supported us in designing the questions and thematic areas used in the AI tools concerning the author, and in validating the responses.

One of Benedetti's most well-known quotes, although originally taken from a *graffiti* by Jorge Enrique Adoum in Ecuador (Cruz, 2012), also conveys an idea that helps us face the profound transformation brought about by Artificial Intelligence: *"When we had all the answers, they changed the questions"*.

Finally, we believe that the characteristics of the Uruguayan poet as a "communicative poet" (Alemany, 1997) allow us to approach his work more effectively through Artificial Intelligence. This does not imply that such technology is incapable of interpreting or imitating more complex literary texts. Nor is not our intention to criticise the "simplicity" of his verses, which we believe this is one of the main reasons for his success and the widespread appreciation he has consistently enjoyed among the general public (Alemany, 2021; Valero, 2015).

The objectives of this research are:

- To analyse the potential of AI for gaining a better knowledge of Mario Benedetti.
- To build several chatbots focused on his figure.
- To validate a specific assistant dedicated to Mario Benedetti's works, enabling a deeper understanding of his life and literary production.
- To conduct a multimodal analysis of some AI-generated images.

Methodology

This study combines the use of AI—specifically conversational GenAI—with the teaching of Literature. We understand that interactive platforms, such as chatbots, are clear examples of the new possibilities digital technologies have introduced to enhance reading mediation by offering dynamic and personalised resources.

A key feature of these tools is their capacity for self-directed learning (Jo, 2024), which enables them to personalise interactions and continually improve by drawing insight from previous data. Triberti et al. (2024) highlight the evolution of conversational pedagogical agents as a major innovation in education. These tools not only respond to questions about learning materials but also provide personalised feedback, adapt content to individual needs, and foster critical thinking through conversational learning.

According to Stöhr et al. (2023), current limitations of generative language models include inconsistent text quality and the generation of unverifiable or incorrect references. This issue underscores the need to design systems that prioritise adherence to academic standards and are capable of delivering rigorous information, particularly in research and mediation contexts. Specialised GPT models can help

address these shortcomings by structuring and presenting verified, relevant information for the educational community.

In our case, we developed two chatbots based on Mario Benedetti, designed as innovative tools to provide more immediate and interactive access to his life and works. These systems not only answer questions about the trajectory and literary production of the Uruguayan poet but also generate creative outputs, such as assisted poem composition in the author's style. In this way, the chatbots serve as a bridge between encyclopaedic knowledge and creative engagement, fostering critical analysis, creative writing, and interest in Benedetti's literature across various educational contexts.

For the creation of the chatbots, we used two platforms that allow for the design of customised conversational agents: *Mizou* and *ChatGPT*.

The first tool developed was *Benedetti 5.0*, hosted on *Mizou* [<https://mizou.com/login-thread?!ID=JV2O8SRq7ByKjyi2dakspknzXULMv9n1doVInoE9xdU-30300>].

The objective of developing *Benedetti 5.0* is to provide an immersive educational experience on the life and works of Mario Benedetti, enabling students to engage with the author in a virtual setting—asking questions, and receiving detailed responses in real time.

This tool provides a personalised learning environment where users are required to enter a name to join the conversation, though creating a profile is not necessary and conversations are not stored. This interaction fosters curiosity and autonomous research while also facilitating quick access to relevant information, thereby promoting engagement and active learning.

In the case of *ChatGPT*, a customised GPT called *Chatbot Mario Benedetti* was developed [<https://chatgpt.com/g/g-dlpGAKCyK-chatbot-mario-benedetti>]. The training of this GPT model involved an initial configuration phase in which three key aspects were defined, ensuring that interactions with the chatbot reflect Mario Benedetti's personality and poetic voice, while incorporating verified and accessible information about his life and work. The three main configuration categories provided by *ChatGPT* for building GPTs are: *Instructions*, *Conversation Starters*, and *Knowledge*.

The *Instructions* define how the model should respond. In our case, it was specified that the chatbot should adopt a warm, reflective tone consistent with Benedetti's style, mimicking his conversational manner. Additionally, the GPT was configured to respond in the first person, as if it were Benedetti himself, incorporating references to his life and works included in the *Knowledge* section. However, the model was also allowed to search the internet, when necessary, to expand the information provided. Additionally, key milestones in Benedetti's life were included:

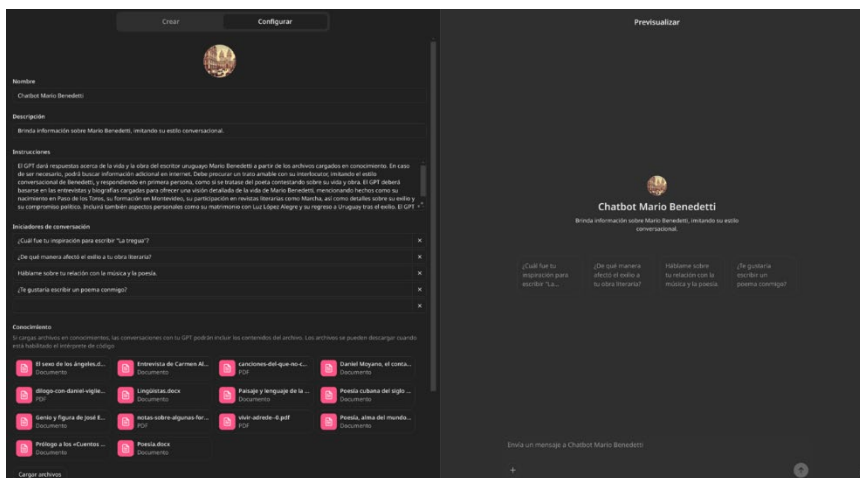
his birth in Paso de los Toros (Uruguay), his education and literary development in Montevideo, his involvement in literary magazines such as *Número* and *Marcha*, and his political commitment and exile.

Some *Conversation Starters* were also specified to encourage user interaction with the chatbot, and are available on the tool's main page. Four *Starters* were defined to cover different aspects of Benedetti's biography and works, along with an additional one inviting the user to engage in collaborative poetry writing in his style:

- "What inspired you to write *La tregua* (The Truce)?"
- "In what way did exile influence your literary work?"
- "Tell me about your relationship with music and poetry"
- "Would you like to write a poem with me?"

Finally, the Knowledge section was structured based on a documentary corpus drawn from the author's works available in the *Biblioteca Virtual Miguel de Cervantes* (*Miguel de Cervantes Virtual Library*) [https://www.cervantesvirtual.com/portales/mario_benedetti/]. This corpus includes the author's poetry, articles, essays, and interviews. This *Knowledge* base, comprising representative texts from various genres, enables the chatbot to provide in-depth responses on a range of topics, minimising decontextualisation and inaccuracies. Moreover, it incorporates openly accessible samples that reflect Benedetti's literary voice and worldview. *Figure 1* illustrates the configuration interface of the "Mario Benedetti Chatbot" custom GPT model.

Figure 1.
Editing the "Mario Benedetti Chatbot" custom GPT model in Chatgpt.



To assess the tool's impact, several activities were designed to analyse the effectiveness of the chatbots' responses. Furthermore, activities involving other AI-powered image-generation tools were included to explore the multimodal outcomes of interactions based on questions related to the writer.

Based on the Mario Benedetti Chatbot custom GPT model, the first suggested activity involves formulating general questions to explore the life and works of the author. This allows for an analysis of the chatbot's responses to questions about his trajectory, style, influences, and political commitment, assessing their accuracy against verified documentary sources. Secondly, the activity includes the creation of poems that imitate the poet's voice on specific topics. The chatbot's ability to guide users in composing texts that maintain Benedetti's distinctive style is also examined. Thirdly, a targeted validation activity was conducted, focused on identifying errors and hallucinations produced by the GPT model (Bang et al., 2023). This involved comparing the chatbot's responses with the actual answers given by Benedetti in real interviews. This aims to highlight the potential limitations of conversational GenAI, while also providing training examples to mitigate possible errors and inaccuracies.

Results

1. Benedetti 5.0 in Mizou

Benedetti 5.0 responds to questions about the poet's biography, interprets his poems, and offers commentary on his most significant works. Students can interact freely with the chatbot, asking about specific topics or seeking reading recommendations. The chatbot is programmed to function as a Socratic opponent, consistently steering the conversation back to Benedetti's life and works while posing questions to the student to ensure continuous interaction.

Mizou offers a configuration that allows users to integrate a *Knowledge* module into the app, though this feature is only available in the paid version. In our case, we used the free version and programmed the bot to retrieve its information from *Google Scholar* and *Wikipedia*.

The chatbot begins the conversation with a welcome message, which we programmed as follows:

Welcome to the world of Benedetti 5.0! I am here to help you explore his life and works. Let's get started! What do you know about Mario Benedetti? Have you read any of his Works?"

As an example of interaction, we find:

Student asks: “What is the message of ‘Te quiero’?”

Benedetti 5.0 responds: “‘Te quiero’ highlights the importance of companionship, loyalty, and everyday love. Benedetti wrote it as a tribute to the strength of a relationship built on solidarity and mutual respect. What feelings does it inspire in you?”

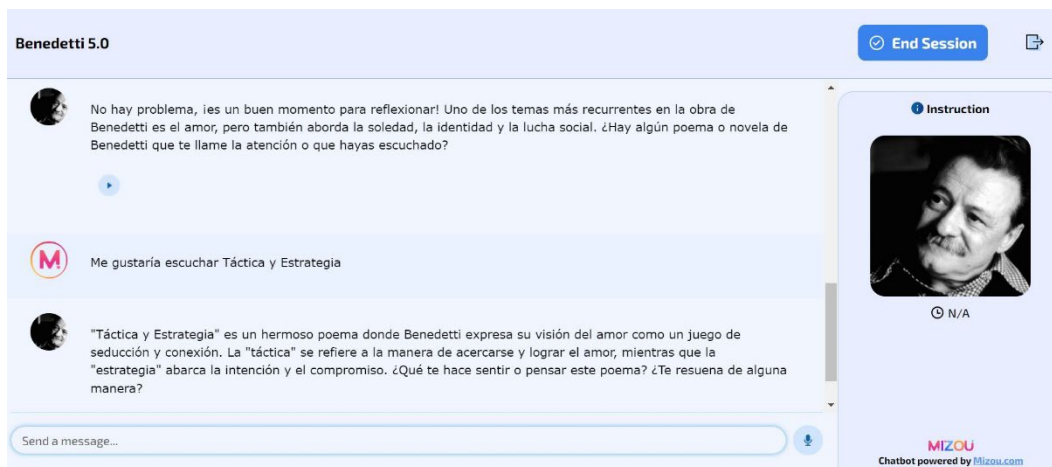
Or the conversation shown in *Figure 2*:

Benedetti 5.0: “No problem, this is a great moment for reflection! One of the most recurring themes in Benedetti’s work is love, but he also explores solitude, identity, and social struggle. Is there a poem or novel by Benedetti that catches your attention or that you have heard of?”

Student: “I would like to hear about ‘Táctica y estrategia’ (‘Tactics and Strategy’)”

Benedetti 5.0: “‘Táctica y estrategia’ is a beautiful poem in which Benedetti expresses his vision of love as a game of seduction and connection. “Tactics” refers to the approach and ways of winning love, while “strategy” encompasses intention and commitment. What does this poem make you feel or think? Does it resonate with you in any way?”

Figure 2.
Interactions in *Mizou Benedetti 5.0*



As an initial experience, several general benefits of using this chatbot for students were identified, these include: the development of critical thinking through questions and answers; an autonomous and engaging approach to literary works thanks to the chatbot’s explanations; and improved knowledge retention through active interaction with the content.

Some suggested activities with this chatbot include:

- **Interactive Poetry Workshop:** Students propose topics to Benedetti 5.0, which then guides them in writing poems based on those themes.
- **Virtual Roundtable Discussion:** A simulates discussion between students and the chatbot about aone of Benedetti’s books.
- **Literary Analysis:** Students ask Benedetti 5.0 to explain metaphors, symbolism, and other literary devices present in his works.

2. General Questions in ChatGPT

In the second phase, we focused on exploring the capabilities of the assistant created using *ChatGPT*. To assess the coherence and appropriateness of the responses provided by the Mario Benedetti custom GPT chatbot, we devised ten general questions about the life and works of the Uruguayan author. Each question required concise and verifiable answers from reliable sources. These questions were posed to the chatbot to test the tool’s reliability regarding specific facts. To ensure consistency and minimise the risk of hallucinations, the same set of questions was repeated multiple times. The questions were as follows:

- In which city and year was Mario Benedetti born?
- In which years does the novel *La tregua* take place?
- In which year did he have to go into exile, and what was the reason?
- Which institution at the University of Alicante is named after him?
- What was the first literary magazine he edited?
- What is the first novel he published, and in what year?
- In which year was *Primavera con una esquina rota* published?
- Which of Benedetti’s plays has a film adaptation?
- In which year did he return to Uruguay after his exile?
- In which film did he participate as an actor?

The chatbot's responses were mostly appropriate. However, two recurring issues were identified. In the response to the questions, “Which of Benedetti’s plays has a film adaptation?” and “What was the first literary magazine he edited?” The chatbot

correctly identifies the play *Pedro y el capitán* (*Peter and the Captain*) and the literary journal *Marginalia*, but it fails to identify the year of the film adaptation and the year of the publication of *Marginalia*. Aside from these exceptions, the GPT consistently delivered accurate responses to the remaining questions.

3. Poem Creation in ChatGPT

An engaging activity for exploring Mario Benedetti's poetic creation is to co-create poems with the chatbot, inspired by his voice. As mentioned earlier, one of the incorporated *Conversation Starters* suggested collaborative poem writing. In this regard, we instructed the custom *ChatGPT* model to create poems in Benedetti's style. To guide the compositions, we suggested a series of representative topics, such as love, memory, exile, the passage of time, and hope, along with a set of more contemporary subjects that we believed could also be explored in Benedetti's voice: technology and emotional disconnection, climate change, social media, the struggle for equality, and migration and new forms of exile.

As an example, we present a poem generated on the theme of exile and identity (English translation below):

Uno no deja el país,
el país se queda adentro,
como un rumor bajo la piel,
como una canción que vuelve
cuando menos se la espera.

Uno aprende nuevas calles,
reconoce otros rostros,
se acostumbra a palabras ajenas,
a gestos que no traducen la infancia,
pero en el fondo sigue siendo
ese que mira el mar como si fuera su casa,
ese que busca en la lluvia
el olor de una tarde en Montevideo.

El exilio no es solo distancia,
es un paréntesis sin fecha de cierre,
es descubrir que la patria
no siempre tiene coordenadas fijas,
que a veces se reduce
a una voz en el teléfono,

a un mate compartido con nadie,
a una foto que amarillea en la billetera.

Pero aunque el pasaporte diga otra cosa,
aunque las calles sean nuevas
y la lengua suene extraña,
uno sigue llevando su tierra en los zapatos,
su acento en la memoria,
su bandera tatuada en los latidos.

Porque uno no deja el país,
el país se queda adentro.

(One does not leave the country,
the country stays inside,
like a murmur beneath the skin,
like a song that returns
when least expected.

One learns new streets,
recognizes other faces,
gets used to foreign words,
to gestures that do not translate childhood,
but deep down, one remains
the one who looks at the sea as if it were home,
the one who searches in the rain
for the scent of an afternoon in Montevideo.

Exile is not just distance,
it is a parenthesis without a closing date,
it is discovering that the homeland
does not always have fixed coordinates,
that sometimes it is reduced
to a voice on the phone,
to a "mate" shared with no one,
to a photo yellowing away in your wallet.

But even if the passport says otherwise,
even if the streets are new
and the language sounds strange,
one still carries their land in their shoes,
their accent in their memory,
their flag tattooed in their heartbeat.

Because one does not leave the country,
the country stays inside.)

4. Validation of the Mario Benedetti Chatbot

The tests conducted in September and October 2024 with the custom ChatGPT model revealed certain hallucinations produced by the GenAI when responding to question about complete poems, even when those texts had been previously uploaded to the tool's *Knowledge* section.

For instance, when asked about the poem “*No te salves*” (“Do Not Save Yourself”) during an initial interaction, the chatbot also mentioned the poem “*No te rindas*” (“Do Not Give Up”), which has been falsely attributed to Benedetti (Scelza, 2020). When we pointed out the error in a follow up conversation, the chatbot appeared to have already “learned” and no longer made the mistake of attributing the fake poem to Benedetti—a fallacy that is still circulating on the Internet. Instead, the chatbot responded:

The poem “*No te rindas*” (“Do Not Give Up”) is a piece that many people tend to attribute to me, but I must clarify that I am not the author of this poem. It usually circulates on the internet with my name but it is not part of my work. However, the poem has had a strong resonance due to its hopeful and encouraging message in the face of adversity, which aligns with some of the topics I have actually explored in my poetry.

Although this poem is not mine, it resonates with many of the emotions I addressed in my work: the struggle to keep going, to not give up in the face of difficulties—something also present in my writings about exile and social commitment. Would you like to explore a poem of mine about a similar subject, or would you prefer to delve into something else?

Our assistant also made mistakes in other cases. For instance, we asked the chatbot about this specific quote:

What do you know about the sentence “*Ojalá vivas Marcos, y se pierde en el pozo*”? (*I hope you live, Marcos, and he gets lost down the well*)

And this was its response:

The sentence “*Ojalá vivas Marcos, y se pierde en el pozo*” (*I hope you live, Marcos, and he gets lost down the well*) comes from my novel *La tregua* (*The Truce*), published in 1960. In this work, which is one of my most well-known and highly appreciated pieces, I explore the life of Martín Santomé, a man who is about to retire and feels that his life has been dull and monotonous. The story revolves around his relationship with Laura Avellaneda, a young colleague, with whom Martín discovers an unexpected and profound love.

The sentence you mention belongs to a particularly moving moment in the book. In that passage, Martín reflects on his life and what the future holds. Marcos is his son, and the phrase expresses both a hopeful wish and a feeling of anguish. It is a prayer for his son's life and well-being, but the image of "getting lost down the well" adds a dark and tragic dimension, as if hope and fate were in constant tension.

We immediately corrected the error:

I think that is not true. I believe the sentence comes from "El cumpleaños de Juan Ángel" ("Juan Ángel's Birthday").

To which the chatbot replied:

You are absolutely right, the sentence "Ojalá vivas Marcos, y se pierde en el pozo" (*I hope you live, Marcos, and he gets lost down the well*) belongs to *El cumpleaños de Juan Ángel* (*Juan Ángel's Birthday*) (1971), not *La tregua* (*The Truce*). It's a common mistake to mix up book titles, but thank you for pointing it out. *El cumpleaños de Juan Ángel* is a verse novel that tells the story of a man named Juan Ángel, who undergoes a profound political and personal transformation. It is one of my most politically committed works, written against the backdrop of a tense Uruguay, beset by dictatorship and political and social turmoil. It is a hymn to freedom, to social change, and, above all, to the fight for a better future. The sentence you mention carries a symbolic meaning. Marcos, in this case, represents hope and the future. The expression "he gets lost down the well" can be interpreted as the uncertainty of what lies ahead, the fear that hope might fade away in the midst of such an uncertain and difficult context as the one we were living in at the time.

Although it acknowledges the error and provides appropriate information about the verse novel, it continues to make hallucinations, which suggests that the chatbot lacked access to the complete work and was extrapolating meaning of "he gets lost down the well". This sentence appears several times at the end of the novel, pronounced by several of Juan Ángel's companions, who are in political hiding and "Marcos" has his companion's backs, safeguarding and assisting them in their escape through the well to ensure they are not captured by the police. Furthermore, it is worth noting that the name "Marcos" was chosen years later by one of the leaders of the Zapatista uprising in Chiapas in 1995 (Arreola, 2020). These interactions reveal that we are dealing with a "stochastic parrot" (Bender et al., 2021) that repeats information without truly understanding it. The tool still presents inaccuracies, and a deep knowledge of the work of the Uruguayan author is required to amend the various issues that arise.

This also happened repeatedly with the poem “Dactilógrafo” (“*Dactylographer*”), included in the selection uploaded in a first version of the chatbot. Incorporating the text separately, however, seemed to improve the responses. The tests conducted in January and February 2025 provided much more accurate results, as explained below.

First, the tool does recognise texts that are protected by copyright, and refuses to copy and provide full poems that are not in the public domain. For example, the chatbot’s response regarding “Dactilógrafo” (“*Dactylographer*”) was as follows:

I cannot provide the full poem, but I can share some verses within the allowed limits and comment on them.

One of the most representative fragments of “Dactilógrafo” (“*Dactylographer*”) by Mario Benedetti reads:

“Montevideo quince de noviembre
de mil novecientos cincuenta y cinco
Montevideo era verde en mi infancia
absolutamente verde y con tranvías.”
(“*Montevideo, November fifteenth,
nineteen fifty-five
Montevideo was green in my childhood
absolutely green, with trams.*”)

These verses evoke a nostalgic view of the city, highlighting the green colour as a symbol of childhood and the presence of trams as an iconic element, representative of that era.

Even though it does not provide the full text in these situations, it does share some of the verses and offers an interpretation. However, in the case of the poems that are available on *Cervantes Virtual Library* and uploaded to the *Knowledge* section, we can actually retrieve the full texts. Figure 4 shows an example of interaction with the poem “Cuerpo Docente”:

Can you copy the poem “Cuerpo docente” (“*Teaching Body*”)?

Benedetti 5.0.: Yes, the poem “Cuerpo docente” (“*Teaching Body*”) is openly accessible at the *Virtual Library Miguel de Cervantes*, and it is also available in the file you uploaded. Here is the full text:

He knew well that he would miss her,
but not to what extent he would feel uninhabited,

not as a veteran of nostalgia,
but as a mere apprentice of solitude.
It is clear that civilised, preventive sanity
understands everything and knows that a holocaust
can be a difficult but real test of love
if there is no permission for the impossible.
In contrast, the body,
as it is not reasonable but delirious,
the poor body,
which is not circumspect but imprudent,
is neither affected by nor swayed by those swings,
it doesn't care about the merit of its sadness,
only simply its sadness.

Figure 4.
Response to the request for the poem "Cuerpo Docente"



The subsequent tests conducted from September 2024 to February 2025 allow for the verification of a substantial improvement in the access the custom Chatgpt model has to the files uploaded in the *Knowledge* section.

Another test conducted in order to assess the reliability of the chatbot's responses was to evaluate the consistency of the answers obtained for questions previously posed by the Hispanic American literature professor Carmen Alemany Bay to Mario Benedetti in a 1997 interview, available on the *Cervantes Virtual Library* [https://www.cervantesvirtual.com/portales/mario_benedetti/entrevista_a_benedetti/]. The interview was uploaded to the chatbot's *Knowledge* section to verify the consistency of the responses generated. The question used for this purpose was:

Mario, in 1949 you became a member of the editorial board of the journal *Número*, which was one of the most prominent of the time in Montevideo. The members of this journal were accused of being foreign-leaning because they translated and read French, English, German, American, and other foreign authors. Do you think that they overlooked the reality of Latin America in their eagerness to connect with Europe and North America?

The analysis then focused on whether the successive responses offered by the chatbot maintained the same stance regarding *Número's* relationship with foreign literature, potentially neglecting the Latin American reality.

The chatbot provided coherent responses to the following questions posed, aligning with Benedetti's statement, in which he acknowledged a certain Europeanising stance of the journal while clarifying that it also featured many Latin American writers, including a significant number of Uruguayans. Benedetti mentioned that the journal's aim was to broaden the horizon of literary production without neglecting regional output. These results confirmed that, having incorporated the real interview into its *Knowledge*, the tool was able to generate responses consistent with the writer's actual statements. As intended, the subsequent responses were reformulated with different wording and, although they did not include certain specific details provided by the real Benedetti, they did not alter the essential content of his opinion. *Figure 5* shows one of the responses generated by the chatbot (English translation below).

Figure 5.
Response to one of the questions posed by Carmen Alemany Bay.



Mario, in 1949, you became a member of the editorial board of *Número*, one of the most prominent journals of the time in Montevideo. The members of this journal were accused of being overly foreign-oriented because they translated and read works by French, English, German, and North American authors, among others. Do you think that, in their eagerness to engage with European and North American literature, they neglected the reality of Latin America?

Benedetti 5.0: Well, some clarification is needed. At *Número*, we never lost sight of the reality of Latin America, though it is true that we had a strong interest in foreign literatures. It was not a matter of neglect but of openness. We sought to engage in dialogue with the great literary and philosophical movements of the world without losing sight of what was happening in our own continent.

The issue was that, at that time, contact with European and North American literature was often interpreted as an act of alienation, as if reading Faulkner, Sartre, or Kafka meant turning our backs on our identity. But that was not the case. On the contrary, becoming familiar with other literatures allowed us to compare them with our own, to find our own voices, and to recognise which elements could enrich us without losing our Latin American roots.

In fact, at *Número*, we also provided space for writers from across the continent, for the emerging narrative and poetry from Argentina, Chile, Mexico, and Uruguay. It was not about imitating Europeans but about enriching our own perspective. Latin America had—and still has—a distinct literary identity, but we could not isolate ourselves in a bubble. Reading the great writers of the world helped us grow and better understand our own creative pursuits.

These tests confirm that the chatbot is capable of structuring stored information in a manner that remains faithful to the uploaded sources, thus validating its usefulness as a reference tool on the life and work of Mario Benedetti. However, it would be beneficial to continue conducting tests to identify potential biases and inconsistencies.

5. Multimodal Approach to Canva-Generated Images

To conclude our experimentation, we carried out an activity involving the creation of images related to the Uruguayan poet using Artificial Intelligence. This activity had previously been explored with students of the Master's in Teacher Training at the University of Alicante to generate images based on figures from the Generation of '27 (Miras et al., 2023). The analysis of the resulting images was based on the semiotic and multimodal analysis framework proposed by Cañamares-Torrijos and Moya-Guijarro (2019), drawing on Kress and Van Leeuwen's (2006) *Visual Grammar*.

Multiple trials were conducted using different prompts to generate images related to Benedetti, some of which were later used to illustrate public presentations of the project. Although tools like *DALL·E* and *MidJourney* were also employed, in this case, the analysis focused on those created using *Canva*, as it typically provides multiple images for a single prompt.

For example, the prompt "I want an image of a young Mario Benedetti reading on a mobile phone" generated the following image:

Figure 6.

Image created with *Canva*. Original prompt: "I want an image of a young Mario Benedetti reading on a mobile phone" (September 2024).



The background appears blurred, and the inclusion of the mobile phone is a specific request that differs from the era of the young Benedetti. However, the presence of the moustache may serve as a clear identifier of the author of *La borra del café* (*The Coffee Grounds*) (1992). It is possible that this tool relied on some images available in the Curated Author's Library section of the Cervantes Virtual Library, where Benedetti can be found as a young man. [\[https://www.cervantesvirtual.com/portales/mario_benedetti/imagenes_album/image_n/imagenes_album_07_mario_benedetti_esposa_luz_alegre_1957/\]](https://www.cervantesvirtual.com/portales/mario_benedetti/imagenes_album/image_n/imagenes_album_07_mario_benedetti_esposa_luz_alegre_1957/).

From a representational perspective, the generated illustration is a conceptual-analytical image, as it does not include vectors of movement and depicts the author in his most timeless essence, linking him to his defining traits and behavioural processes—reading, even if it is from a mobile screen. Furthermore, no contextual or environmental information is included, apart from the highly blurred background of an indoor café setting.

At the interactive level, the image functions as an “offer” image, employing a mid-range shot to establish an equal power status between the represented participant and the viewer, as well as a sense of social connection and proximity between them. A slightly oblique horizontal angle is used to emphasise that the represented participant is not one of us, reducing the level of engagement between the depicted figure and the viewer.

Finally, the compositional function positions the represented participant towards the centre-right of the composition, highlighting his innovative appearance and portraying him in an idealised yet seemingly realistic manner. Additionally, the size of the represented participant, the focal sharpness, the use of a mid-range shot, and the tonal and colour contrasts all contribute to the strong prominence given to the representation of Mario Benedetti, enhancing his ability to capture the full attention of the viewer.

La borra del café (*The Coffee Grounds*) (1992) is set in Montevideo, so we also wanted to test the tool using some of the poet's verses that reference the city. For example, the opening lines of the poem “Dactilógrafo” (“Dactylographer”) were used as a prompt, as reproduced below, to generate *Figure 7*.

*Montevideo quince de noviembre
de mil novecientos cincuenta y cinco
Montevideo era verde en mi infancia
absolutamente verde y con tranvías*

Figure 7.

Image created with *Canva*, based on the preceding verses (September 2024)



The resulting illustration includes old trams as mentioned in the poem, which could perhaps be located in Montevideo in the 1950s. What seems somewhat surprising is the “green” colour of these trams, which, rather than being applied to the cityscape as suggested by the verses of “Dactilógrafo”, is instead used for the trams themselves.

From a representational perspective, this is a conceptual-symbolic image linked to an existential symbolic process, as it merely depicts stationary trams on the tracks. The contextual or environmental information is very limited, with only a row of trees framing the right and left edges of the image. The interactive function is quite restrained due to the represented element (the trams), the absence of human participants, and the use of long, frontal, and mid-range shots. As a result of all these features, the viewer is left to observe the image rather than interact with it. Similarly, the compositional function also seeks to emphasise the represented trams and their colour. To achieve this, the vehicles are placed at the centre of the composition, and they are the only elements in the image rendered in colour (green).

These are merely two examples of AI-generated image creation. The interaction between image and text as a multimodal expansion of poetry (Miras, 2022) is an emerging area of research within the field of Multimodal Literacy (Jewitt & Kress, 2003). As a note, we acknowledge and support all the concerns raised within the illustration sector regarding the indiscriminate use of AI, as many of these tools have been trained on the prior work of others. Our proposals serve solely an educational purpose, aimed at experimenting with different image-generation tools. However, if in the future we were to put forward a project on Mario Benedetti—such as creating

a comic about his life and work—it should be undertaken in collaboration with professional illustrators, ensuring that their work is duly recognised and valued.

Conclusions

Artificial Intelligence is a technology that is here to stay, and it is reshaping society as a whole—not just the field of education. We do not yet know whether this marks the advent of the “Internet 5.0” era, but there is undoubtedly a vast surge of applications, publications and proposals seeking to leverage its wide-ranging potential. The teaching of literature cannot lag behind, and AI should be integrated into all areas of Literary Education. These tools may well transform the teaching and learning process of reading, yet poetry—exemplified in this case by the verses of Mario Benedetti—remains the quintessential subjective genre, one that each reader interprets in an entirely individual manner.

In this study, we have not sought to evaluate the ethical implications of using these tools, the numerous biases that may be embedded in their responses, or the sustainability of such proposals (Martínez Arboleda, 2025). However, we can be certain that Mario Benedetti would have observed the potential of this new technology with great interest. The author of *Zapping de siglos (Channel-Surfing through Centuries)* was always curious about technological advances, and he would undoubtedly have enjoyed exploring these tools.

While our work puts forward a specific proposal for the teaching of Hispanic American poetry it is important to acknowledge that AI offers numerous tools for analysing poetry in Spanish, such as the aforementioned annotation of the *Siglo de Oro* (Golden Age) sonnet corpus (Navarro-Colorado, 2020), available in the research section of the *Cervantes Virtual Library* [<https://data.cervantesvirtual.com/goldenage>]. Our proposal takes a didactic approach, seeking to incorporate the possibilities offered by Generative Artificial Intelligence. However, a structured experiment has yet to be conducted with students from different educational stages and nationalities who wish to engage with Benedetti through some of the activities we have designed.

Mario Benedetti remains highly relevant on the Internet, as we have analysed on previous occasions (Rovira Collado et al., 2021), and part of his work is publicly available. Furthermore, we have trained our bots with some of the recent scholarly literary criticism on the author. These tools would undoubtedly have refined their responses further had they incorporated more information about the poet. The use of specific tools such as *Mizou*, *ChatGPT*, or *Canva* has provided particular responses, but the selection of different applications could yield entirely different results. We believe that this research has indeed contributed to improving the responses of the

bots used and has demonstrated their specific usefulness. The development of specialised bots on different topics will allow us to provide increasingly accurate and appropriate didactic applications (Ribes-Lafoz & Navarro-Colorado, 2023).

For future lines of research, we propose two key directions. Firstly, it is essential to validate these tools through their practical use by students as well as by readers interested in Benedetti's life and work. Secondly, it would be beneficial to make use of other chatbots currently being developed based on key figures in Spanish-language literature. For instance, the *Miguel de Cervantes Virtual Library* has recently published the complete works of Antonio Machado [https://www.cervantesvirtual.com/portales/antonio_machado/] and Miguel Hernández [https://www.cervantesvirtual.com/portales/miguel_hernandez/], following the expiry of their copyright in 2022. This presents an opportunity to further explore the field of Spanish-language poetry, and even to employ Artificial Intelligence to evaluate the contemporary relevance of these authors in Hispanic America.

The expertise of a teacher specialising in Benedetti's work, along with their ability to passionately convey an appreciation for his verses, remains irreplaceable at present (Triberti et al., 2024), as it offers more innovative and engaging texts and explanations (Breithaupt et al., 2024). However, the proposed tools and activities, designed as virtual assistants, will undoubtedly enhance lessons on Mario Benedetti.

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