OratorIA-UA: A Virtual Assistant for the Study, Research and Teaching of Rhetoric

OratorIA-UA: Un asistente virtual para el estudio, la investigación y la enseñanza de la retórica

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Abstract: The emergence of artificial intelligence (AI) in today's world is evident across all fields of knowledge and throughout every phase of educational and research processes. This new reality necessitates a reevaluation of the study, research, and teaching of disciplines with centuries of history, such as rhetoric. It calls for leveraging the capabilities of virtual assistants to manage the vast scientific output they generate and to analyze the constructive and interpretative processes of various types of discourse. In this context, we present in this paper the development of *OratorIA-UA*, an AI assistant specializing, at least in its early stages, in *Rhetorica recepta*. This term refers to the body of rhetorical knowledge, techniques, and tools

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developed over history that pertain to the theoretical and practical study of discourse, which we have inherited, and which form the basis of modern rhetoric. Following initial efforts devoted to training and consulting with experts in configuring AI assistants, we proceeded to the first specialization of our assistant, focusing on articulating and specifying the commands (*prompts*) necessary for its proper functioning and establishing a relatively broad understanding of the description and explanation of rhetorical operations and many other concepts that constitute the theoretical system of rhetoric. Convinced of the potential of *OratorIA-UA*, we highlight the usefulness of the assistant for three user profiles—student, teacher and researcher—and discuss on the advantages it offers, the disadvantages it may present and the precautions to be taken when using it.

Keywords: Generative Artificial Intelligence, AI Assistant, *Rhetorica recepta*, Research, Teaching.

Resumen: La aparición de la inteligencia artificial (IA) en el mundo actual es evidente en todos los campos del conocimiento y en todas las fases de los procesos educativos y de investigación. Esta nueva realidad exige una reevaluación del estudio, la investigación y la enseñanza de disciplinas con siglos de historia, como la retórica. Requiere aprovechar las capacidades de los asistentes virtuales para gestionar la vasta producción científica que generan y analizar los procesos constructivos e interpretativos de diversos tipos de discurso. En este contexto, presentamos en este artículo el desarrollo de OratorIA-UA, un asistente de IA especializado, al menos en sus primeras etapas, en la Rhetorica recepta. Este término se refiere al conjunto de conocimientos, técnicas y herramientas retóricas desarrolladas a lo largo de la historia que pertenecen al estudio teórico y práctico del discurso, que hemos heredado y que constituyen la base de la retórica moderna. Tras los esfuerzos iniciales dedicados a la formación y la consulta con expertos en la configuración de asistentes de IA, procedimos a la primera especialización de nuestro asistente, centrándonos en articular y especificar los comandos (indicaciones) necesarios para su correcto funcionamiento y estableciendo una comprensión relativamente amplia de la descripción y explicación de las operaciones retóricas y muchos otros conceptos que constituyen el sistema teórico de la retórica. Convencidos del potencial de OratorIA-UA, destacamos la utilidad del asistente para tres perfiles de usuario: estudiante,

profesor e investigador y debatir sobre las ventajas que ofrece, las desventajas que puede presentar y las precauciones que deben tomarse al utilizarlo

Palabras clave: Inteligencia Artificial Generativa, Asistente IA, Rhetorica recepta, Investigación, Enseñanza.

1. INTRODUCTION

Generative artificial intelligence (AI) has permeated our daily lives and the academic and teaching environment, transforming our ways of study and research. This irruption leads us to consider (a) how to use it effectively and collaboratively to enhance the consolidation and development of our disciplines and (b) how to make use of it in teaching and learning processes. Currently, AI assistants are seen as key tools in our work, capable of acting as specialized collaborators in various areas of knowledge and opening up new possibilities for exploration and growth. In a virtual environment designed to assist humans in multiple tasks, it is crucial to research and develop strategies for teachers, students, and researchers to perform effectively in both the real and virtual worlds. This line of research is in a position to enable the creation of specialized intelligent assistants designed by experts in each subject, which, in the case of our students, could be retained and used beyond the conclusion of their studies.

This specialization constitutes the first phase in the development of *OratorIA-UA*, an AI assistant designed to address the various fields of study within rhetoric and its transdisciplinary connections to other areas of knowledge. In the second phase, the assistant's configuration process involved (a) constructing and formulating the basic *prompts* for user interaction with *OratorIA-UA* and (b) incorporating a relatively broad knowledge base regarding the description and explanation of rhetorical operations. This knowledge will form the database from which the assistant will extract the information, following pre-designed algorithms, to interact effectively with users. The third phase focuses on training our assistant through interactions with recognized experts in rhetoric, aiming to (a) identify any potential "hallucinations", (b) refine the assistant's responses, (c) understand its data extraction capabilities, and (d) correct any defects or errors that may arise during its configuration. It is

essential to emphasize that the configuration and training processes are synchronous and mutually reinforcing. The initial forays into *OratorIA-UA* reveal its significant potential in supporting teachers—such as preparing materials, establishing timetables, developing syllabi, and creating activities—as well as providing for students by identifying their needs. Additionally, it assists the student by defining key concepts, locating essential bibliographies, identifying theoretical frameworks for analysis, and aiding in the creation of texts for persuasive purposes. Finally, it also benefits researchers by providing text corpora for analysis, acquiring specialized bibliographies, and establishing transdisciplinary connections. The preliminary conclusions regarding the design, configuration, and use of *OratorIA-UA* are grounded in the advantages offered by AI assistants across various disciplines, which inspired the development of this project. Its access to all openly published content on the Internet, along with the expertise that has been—and continues to be—developed for the assistant, translates into optimized time management for teachers, students, and rhetoric researchers. This optimization generates, particularly for researchers, lists of bibliographical references that must always be cross-checked, serving as an intermediary step between the original research concerns and its subsequent development. Moreover, concerning students, the necessity for coherent instructions or *prompts—crafted* from their general knowledge of the discipline and articulated correctly—does not compromise evaluation but rather signifies a shift in teaching perspective.

Considering these factors, the University of Alicante has established a learning community focused on the development of generative AI, aiming to encourage its application in the university setting. This initiative is grounded in the belief that combining natural intelligence with artificial intelligence is crucial for maximizing benefits and fostering the comprehensive development of the university community. This approach not only enhances the training of better professionals but also cultivates better individuals and citizens (Llorens, 2024). Building on this initiative, several programs, courses, seminars, and workshops have been organized to provide at least basic training—understanding the subject matter—while always keeping in mind the inclusion of those who will be the end users, as it is important to remember that humans operate machines, not the other way around.

OratorIA-UA is a disciplinary AI project developed, within the framework described above, by the Research Group "Estudios de Teoría Literaria, Literatura Comparada y Teoría de la Traducción Literaria (TeLiCom)" in accordance with its first line of research—"Classical, traditional and modern Poetics and Rhetoric"[3]. The project's main objective has been to provide a generative AI assistant that, due to its technology, can facilitate the development and management of theoretical content, as well as exercises and practical activities. When integrated into the academic environment, this assistant aims to promote learning, teaching innovation, and advancement in the study and application of the theoretical and practical knowledge rooted in the rhetorical tradition. An equally important secondary objective has been to cultivate in users an ethical and critical awareness of how to use this tool in their field of study, emphasizing the pre-eminent position of human intelligence over artificial intelligence. This technology not only serves as a means to an end but also shapes the nature of that end.

This paper is divided into three sections. Following this general introduction about the significance of AI and its advancements across various aspects of people's lives, particularly in education, we proceed to the first section. Here, we briefly and concisely describe and explain the process undertaken to develop *OratorIA-UA*, an AI assistant specialized in *Rhetorica recepta*, a concept introduced by Tomás Albaladejo and defined as "theoretical organization that has been historically elaborated and through time assimilated and incorporated at different times into contemporary knowledge about discourse" (1989, p. 19). This process was divided into three phases: (a) in the first phase, the team received essential training in generative AI programs and guidance from professors experienced in both rhetoric and AI assistant programming and development; (b) in the second phase, the reference assistant was specialized by selecting and incorporating texts from the specific knowledge domain; and (c) in the third and final phase, *OratorIA-UA* was built and trained. The second section presents some results derived from the use of our assistant for the three user profiles it was designed for, as well as within the context of university teaching. Lastly, in the third section, concluding

[3] This Research Group is officially recognized by the University of Alicante. For more information, see https://cvnet.cpd.ua.es/curriculum-breve/grp/ca/estudis-de-teoria-literaria-literatura-comparada-i-teoria-de-la-traduccio-literaria-(telicom)/504.

our discussion, we outline some advantages, disadvantages, and precautions to consider when utilizing an assistant like this one, developed with generative AI.

2. ABOUT THE PROCESS OF DESIGN, CONSTRUCTION, AND DEVELOPMENT OF *ORATORIA-UA*

2.1. AI courses: training and counseling

The team involved in the design and development of *OratorIA-UA* actively participated in various training activities, including courses, workshops, and seminars[4], as well as reading and studying specialized works (among others, Hassabis, 2017; Pineda de Alcázar, 2017; Angulo Bahón, 2022; Cabrera, 2022; Li, 2022; Savater, 2022; Alto, 2023; Muñoz Andrade, 2023; Nerantzi *et al.* (eds.), 2023; Salas Acuña and Amador Solano, 2023; Travieso Teniente, 2023; Universidad Carlos III de Madrid, 2023; Vera, 2023; Abella García and Fernández Mármol, 2024; Núñez Ladevéze *et al.*, 2024; Pedreño Muñoz *et al.*, 2024; Ribera and Díaz Montesdeoca (coords.), 2024). Priority was given not only to acquiring the technical skills necessary for creating an AI assistant—conceived as a neural network-based system capable of generating new information from data provided through a thoughtfully constructed set of instructions or *prompts*—but also to profound ethical reflection on its implementation. This multidimensional approach has ensured that the process meets technological standards while rigorously considering the ethical challenges associated with developing this type of technology.

Once the necessary knowledge was acquired, progress was made in creating *OratorIA-UA*, providing guidance in *ChatGPT 4.0*, the AI language model developed by *OpenAI* for generating theoretical content, exercises, and practical activities (Brown *et al.*, 2020). Subsequently, key aspects of the assistant were configured, including its name, logo, description, instructions or guidelines, conversation starters, expertise, functions, and tasks. The link to access the assistant is as follows: https://chatgpt.com/g/g-pXAkPOY51-orator-ia, and it is also possible to enter it using the following QR code:

[4] The most relevant course was the one organized by the Institute of Education Sciences of the University of Alicante, entitled *IA Generativa. Comunidad de aprendizaje UA* [https://moodle2024-25.ua.es/moodle/course/view.php?id=2166&section=1].

The assistant was baptized with the name *OratorIA-UA,* which combines, on the one hand, the Latin term *orator,* referring to the key figure in the art of eloquence and persuasive oral communication within the framework of the rhetorical tradition, trained in the principles and techniques of oratory, capable of communicating effectively and successfully[5]; and second, the Spanish acronym *IA* (from *Inteligencia Artificia*l), a field of computer science focused on developing systems and programs that can perform tasks that require skills and processes similar to those of human intelligence.

To represent it visually and endow it with its own iconicity for identification and differentiation, a logo was designed to connect our field of study—*Rhetorica recepta*—based on AI—with the university institution affiliated with the *OratorIA-UA* project—University of Alicante (UA):

The platform describes an AI assistant specializing in *Rhetorica recepta*[6]. It is endowed with a relatively large corpus of rhetorical studies from Classical Antiquity to the present day and is designed to assist in the consultation, research, teaching, analysis, and creation of rhetorical content, both theoretical and practical.

As for the instructions or guidelines, these were configured based on three fundamental principles to ensure their proper development: (a) the instructions consist of simple sentence

[5] Quintilian, in his *Institutio oratoria* (1999), defines the ideal orator not only as someone who combines ethical virtues with technical skills and deep knowledge of various disciplines, not limited to mere public eloquence, but also as a moral and persuasive guide in the forum and in society (XII.1.1.).

[6] We are very grateful to Tomás Albaladejo for generously authorising us to use this expression for the original design and conception of the AI assistant.

constructions, avoiding subordination and formulated as much as possible in the infinitive; (b) they are arranged hierarchically, from general operating rules to specifications and specific tasks to be executed for each of the general instructions or matrices; and (c) systematize the tasks that the assistant can perform based on the different user profiles that access *OratorIA-UA*. Consequently, the construction of the instructions was designed according to the division of knowledge, the user profiles considered, and the general objectives of the project. Regarding the general objectives of the project, general instructions or matrices were created to define the assistant's responses based on available knowledge sources, the configuration of those responses, and the gradation of their complexity concerning the specificity of the subject matter and the ethical commitment we uphold. Concerning the division of knowledge, specific instructions were generated for the areas of study initially covered by the assistant, which we will refer to in the next section. Lastly, about user profiles, tailored instructions were proposed for each task that might be required by the different user profiles considered: student, teacher, and researcher.

The conversation starters, intended to help and guide novice users, provide very simple *prompts*: "What is *Rhetorica recepta*?", "Bibliographical references on rhetoric", "Constructing or revising a text intended to persuade", or "How can you help me?".

Finally, as previously mentioned, the specific knowledge section that supports the assistant is developed in the following part focused on specialization, as its importance is crucial for constructing intelligent systems. Besides algorithms, implementing any AI assistant requires large volumes of data, which are essential to simulate various levels of how people perceive, interpret, and respond to their environment, aided by advanced technologies such as machine learning, neural networks, natural language processing, and artificial vision, each of which plays a distinct role in the processes of interpretation and response to the environment.

2.2. Specialization: division of the field of knowledge

Rhetoric, originating in Classical Antiquity, has a long and rich history characterized by theoretical, practical, and analytical approaches to the construction and communication of persuasive discourse. Although it has not consistently maintained the same level of explicit presence across all periods, it nonetheless represents a long and rich history of evolution and adaptation to the demands of various forms of communication—literary and non-literary, oral

and written, analog and digital (Florescu, 1982; Hernández Guerrero and García Tejera, 2004). This translates into a vast field of study that encompasses both the description and explanation of the poietic, or constructive, and hermeneutic, or interpretative, processes of different types of texts and their interdiscursive and transdisciplinary connections with other fields of knowledge and communicative practices, such as law, literature, logic, music, argumentation theory, etc., as well as other methodologies like cognitive, pragmatic, semiotic, rhetorical-constructivist, and rhetorical-cultural approaches. This extensive and complex body of rhetorical theory, practice, and analysis poses the first challenge we face in articulating the assistant's knowledge, which guides the specialization process toward two main objectives: (a) prioritizing the organization of knowledge from historical and disciplinary perspectives, and (b) initiating the specialization process with content from the origins of the discipline, followed by a gradual and progressive enrichment of material. Considering these objectives, Albaladejo's proposal of the concept of '*Rhetorica recepta*' proved particularly suitable for achieving our goals from the beginning, since it highlights its potential for organizing and systematizing the contents of the science of persuasive discourse and its unfailing interdisciplinary relationship with other sciences and methodologies, classical, traditional and modern (1989, pp. 19-20).

This accumulation of rhetorical knowledge inherited from Classical Antiquity allows not only the recovery of the classical, traditional, and modern postulates of rhetoric, but also their adaptation to the characteristics and challenges of new communicative realities. Furthermore, it facilitates their application to the analysis of texts constructed and interpreted through new communication media, such as digital media. From this recovery arises, among others, an inevitable advantage for the configuration of an AI assistant: the possibility of establishing dialogical relations between classical studies and the most avant-garde ones through common *loci*. This connection aids in organizing these studies within the fields of study already contemplated by classical rhetoricians, such as those corresponding to rhetorical operations or *partes artis* (Lausberg, 1960, §§ 255-1091), to the parts of rhetorical discourse or *partes orationis* (Lausberg, 1960, §§ 261 ff.), to the genres of rhetorical discourse—*genera aristotelica*—(Lausberg, 1960, §§ 59-65), to the styles, etc.

Now, within the broad field of *Rhetorica recepta*, we have specialized the initial stages of the process of equipping the assistant with specific knowledge, currently focused on what is referred to as the "rhetorical system", which comprises the operations of *intellectio*, *inventio*, *dispositio*, *elocutio*, *memoria,* and *actio/pronuntiatio* (Albaladejo, 1989). The choice of rhetorical operations as a foundational point for imparting knowledge to our assistant is backed by two fundamental reasons: (a) the first pertains to the nature and inherent function of generative AI assistants, characterized by the creation of natural language texts following the operational procedures described and thoroughly explained by rhetorical theory since its inception (Boden, 2017; Raparthi *et al.*, 2021; Alto, 2023); and (b) the second is situated within the very framework of the discipline, where rhetorical operations—the backbone or central axis of the system—establish connections with other crucial aspects of constructing and communicating rhetorical discourse, such as those related to the components or genres of rhetorical discourse, or those aligned with regulatory principles of discursive construction and communication, including *kairos*, *decorum—or aptum—*or *taedium* (Albaladejo, 1989).

However, the conception of *OratorIA-UA* as an assistant specializing in *Rhetorica recepta*, with all its breadth and depth, positions this knowledge as merely an initial foundation for the progressive enrichment of its specialization through the incorporation of an increasing number of historical, theoretical, and practical works within the discipline from Classical Antiquity to the present day. Thus, in line with the conception of *Rhetorica recepta*, we will continue to undertake ongoing efforts to enrich the assistant, with the ultimate goal of equipping it with comprehensive knowledge for the study of rhetoric and its transdisciplinary connections to other fields of knowledge.

The sources and information resources that initially provided knowledge to *OratorIA-UA* include the following, creating a list of bibliographical references that will inevitably and necessarily evolve as the assistant is developed and implemented: Plato (*Diálogos, II. Gorgias, Menéxeno, Eutidemo, Menón, Crátilo* (Traducciones, introducciones y notas por J. Calonge Ruiz, E. Acosta Méndez, F. J. Olivieri y J. L. Calvo. Madrid: Gredos, 1983), Aristotle (*Retórica*. Introducción, traducción y notas por Quintín Racionero. Madrid: Gredos, 1999), Marcus Tullius Cicero (*Obras completas de Marco Tulio Cicerón*. Traducidas del latín por D. Marcelino Menéndez Pelayo. Madrid: Luis Navarro Editor, 1880), *Rhetoric to Herennius* (Introducción,

traducción y notas de Salvador Núñez. Madrid: Gredos: 1997), Marcus Fabius Quintilianus (*Instituciones oratorias*. Traducción directa del latín por Ignacio Rodríguez y Pedro Sandier. Madrid: Librería de la Viuda de Hernando y C.ª, 1887), Demetrius *(Sobre el estilo*. Introducción, traducción y notas de José García López. Madrid: Gredos, 1979), Longinus *(De lo sublim*e. Introducción, traducción y notas de José García López. Madrid: Gredos, 1979), Hermogenes (*Sobre las formas de estilo*. Introducción, traducción y notas de Consuelo Ruiz Montero. Madrid: Gredos, 1993), and Tomás Albaladejo (*Retórica*. Madrid: Síntesis, 1989). To facilitate the assistant's reading of the works, the metadata and critical apparatus of the editions were removed from all the works, as they are copyright-free[7].

2.3. Construction and training

Once the knowledge base for the assistant configuration process is established, it is essential to design the instructions that *OratorIA-UA* will follow in its interaction with the user. As is well-known, these instructions are called "*prompts*" and form the foundation of the assistant's operation, considering several aspects: (a) the general and specific objectives that *OratorIA-UA* fulfills; (b) the roles that the user can assume—which we will discuss in the third section; and (c) the specific tasks assigned to the assistant and their solutions. Simultaneously, the design of these *prompts is* guided by three fundamental considerations: (a) firstly, they have been developed and refined to ensure maximum clarity, resulting in instructions that effectively address interactions between the user and the machine, framed as questions or tasks that the former formulates or assigns to *OratorIA-UA*; (b) this focus on clarity in designing the *prompts* is also complemented by their alignment with both the general and specific objectives that the assistant fulfills and the specific tasks it may be required to perform, viewed from two perspectives; and (c) thirdly, given the significance attributed to the user and the types of interventions they perform with *OratorIA-UA*, the design of the assistant's instructions is an ongoing process.

In this context, the assistant configuration process relies on two essential operations: training and tuning. The training process is divided into two parts: (a) firstly, through interaction with the assistant in a question-answer format by any user, who, with their

[7] Except for the work of Tomás Albaladejo, who very generously gave us permission to adapt it to AI use.

subsequent nuances or requests for reformulation, will help optimize future conversations with the assistant; and (b) secondly, through the dialogic interaction that the assistant's creators engage in, which allows for a more deliberate conversation aimed at specifying questions to identify any errors that *OratorIA-UA* may encounter or issues it might present. This final aspect of training leads to the tuning process, which involves configuring and reconfiguring the assistant based on the results derived from our interactions with it.

For this tuning process, we primarily focus on how often we need to rephrase the questions to obtain the desired answers. This frequency clearly indicates the degree of generality or specificity of the answers that the assistant can provide to the user, highlighting any deficiencies or issues in the instructions given to the assistant as well as in its knowledge. Additionally, this tuning process addresses the level of "hallucination" in the assistant, which refers to any incorrect, misleading, or nonsensical responses it generates. The creation of false answers is one of the major challenges of generative AI, and a significant portion of *OratorIA-UA*'s tuning efforts is dedicated to its ongoing correction. We aim to minimize the assistant's tendency to hallucinate through configuration *prompts*; however, ultimately, it remains the user's responsibility to verify the results produced by the assistant using their own knowledge and other information sources.

In short, construction, training, and tuning processes involve a continuous feedback loop between the creators and the AI, striving for constant optimization of the assistant[8]. Identifying the assistant's needs and the errors in its configuration can only be achieved through the practical use of the assistant and careful, comparative analysis of its responses. Therefore, the empirical practice of interacting with the system will enable us to evaluate the assistant's deficiencies and propose solutions aimed at reconfiguring the initial instructions, ensuring that *OratorIA-UA* can effectively fulfill its intended role as an AI assistant specialized in *Rhetorica recepta*.

Once the assistant was developed, its first presentation occurred at the *IV Encuentro Iberoamericano de Retórica* y *I Congreso Internacional de la Sociedad Española de Retórica,* which was held from September 4 to 6, 2024, at the University of Alicante. This event was

[8] We are especially grateful to Antonio Carrasco for his invaluable support and participation as technical advisor in all these processes.

jointly organized by the Ibero-American Organization of Rhetoric (OIR) and the Spanish Society of Rhetoric (SE-Ret), generating significant interest and a high level of acceptance among the specialists who attended the conference.

3. THE POTENTIAL OF *ORATORIA-UA*: STUDY, TEACHING AND RESEARCH

As we have already mentioned, *OratorIA-UA* has been designed specifically with three user profiles in mind: the student, the teacher, and the researcher. To optimize the interaction users can have with the assistant, it is important that the *prompts* users employ to start the conversation are headed with the specification of the role to be explored. The assistant can adapt to each of these profiles, offering support according to the activated role: for teachers, it allows, among other things, the preparation of topics and schedules, the design of activities, and the generation of evaluation or development rubrics. For example, to the student, it provides both general and specific explanations and guidance on the subjects being studied, fundamental bibliography, and assistance in constructing and analyzing different types of texts; finally, in the context of research activity, it serves as an intermediary phase between the initial approaches of a work project and its progressive development, offering potential connections with other fields of study and disciplines and aiding in the analysis of academic articles.

The following presents a practical case within the higher education framework. After several months of configuration and training, the use of the assistant was integrated into the Teaching Innovation Project RED-IA-UA (6171) for the development of the course Theory of Literature I (code 31811). This course is a compulsory subject, of the first course of all philological degrees offered by the Faculty of Philosophy and Letters at the University of Alicante, including the Degree in Spanish: Language and Literatures, Degree in Arabic and Islamic Studies, Degree in French Studies, Degree in English Studies, and Degree in Catalan Philology. The aim was to evaluate the assistant's perception among students and its level of usefulness. The assistant's role in the development of, specifically, the practical aspect of this course was also crucial for training and refinement, as it enabled us to assess the degree of generality or specificity of the assistant’s responses to students' questions, the limitations of its answers, and the potential inclusion of unsolicited information. To illustrate this configuration process and the essential role of *prompts*, a specific example is provided below.

To explore key concepts in the discipline of rhetoric, the students were offered an inverted classroom experience. Each student was assigned a topic related to rhetoric, which they had to study in depth with the assistant's guidance and then present their findings to the rest of the class. The topics available to the students included, among others, rhetorical operations, the components of rhetorical discourse, the genres of rhetorical discourse, notable public speakers who have utilized rhetoric throughout history for good or, conversely, for evil through deception and manipulation, and the history of rhetoric itself. We will focus on the practical application example of the assistant in the classroom concerning this last topic and how the students engaged with it. The student assigned to investigate the history of rhetoric interacted with *OratorIA-UA* using the following *prompt*: "What is history?" Because of the assistant's specialization in the field, the student overlooked that the history he was meant to research was specifically that of rhetoric. The response generated by the assistant to this rather general question was as follows:

> History, broadly speaking, is the study of past events that form the basis of current societies, cultures, and ways of thinking. From the perspective of rhetoric, history is also considered a persuasive discourse that selects, organizes, and represents events for a particular communicative purpose. This implies that the historian, in constructing a narrative, uses various rhetorical operations to give coherence and meaning to the facts that narrate, generating an impact on the audience through the interpretation and judgment of historical events.
>
> Rhetorical history combines elements of inventio (selection and discovery of relevant content), disposition (organization of content), elocutio (expressive style) and, in some cases, memory and action to persuade or communicate historical interpretation. In this sense, great figures such as Herodotus and Thucydides established narrative methods that emphasize both the veracity and moral utility of history in understanding human actions and the underlying causes of conflicts.
>
> To expand on the rhetorical function of history and its relations to other discourses, you can consult classical authors such as Aristotle in his *Rhetoric*, Cicero in *Complete Works*, and John Lawrence's modern analysis in *Formation of Rhetorical Terminology* (*OpenAI*, 2024b).

On one hand, this example demonstrates the importance of *prompts* in the effective use of AI assistants. The greater specificity and relevance of the question regarding role, context, and topic lead to a better answer, which allows for further exploration. Observe the difference in the *OratorIA-UA* response when the *prompt* is "What is the history of rhetoric?":

> The history of rhetoric is the study of how the art of persuading and communicating effectively has evolved over time. From its origins in Ancient Greece to its current application in digital media, rhetoric has been a fundamental discipline in philosophy, politics, education, and culture in general. Its history analyzes how the techniques and theories of persuasion have changed, adapting to the needs of each era and society.

> This story can be divided into several stages:
> **Origins in Greece**: Rhetoric began with the sophists, who taught persuasion techniques in public speeches. Aristotle formalized rhetoric as an art, defining its modes of persuasion: ethos (credibility), pathos (emotions), and logos (reason).
> **Roman rhetoric**: The Romans, such as Cicero and Quintilianus, expanded rhetoric, focusing on politics and civic life. Quintilianus, for example, defined the ideal orator as "a good person, skilled in speaking" and detailed the rhetorical process in five steps: *inventio, dispositio, elocutio, memoria and actio*.
> **Middle Ages and Renaissance**: In the Middle Ages, rhetoric was adapted to Christian teaching, and in the Renaissance, humanists recovered it as part of civic and literary education, highlighting the value of eloquence in the formation of the citizen.
> **Modern and contemporary rhetoric**: In the 17th and 18th centuries, rhetoric lost popularity with the rise of science. However, in the 20th century, it was revitalized with the New Rhetoric, which applied it to the study of communication in debates on values and mass media. Today, rhetoric is also studied in digital, visual, and audiovisual contexts.
> In essence, the history of rhetoric shows how the art of persuasion has been adapted, criticized, and redefined to serve different purposes while remaining relevant as a tool to influence society and culture (*OpenAI*, 2024b).

The *prompt*'s specification could be enhanced if we limit certain other questions, which will not be discussed in this paper, such as the role the assistant should assume—teacher, student, or researcher—the context in which the description or explanation will be provided—in a specialized rhetoric class or an informative space—or which paradigm of rhetorical theory is being addressed—classical rhetoric or new rhetoric, for example. In summary, the level of detail and precision in the *prompt* will be directly proportional to the quality of the attendee's responses.

On the other hand, the potential scope of the question posed by the student to *OratorIA-UA* highlights the specialization we have made of the assistant in terms of both the knowledge it has been provided and the instructions it has been configured with. As demonstrated by *OratorIA-UA*'s response to the general question "What is history?", our assistant is designed to establish connections between rhetoric and other disciplines. In this regard, it proves to be an assistant capable of delivering answers specifically tied to the rhetorical discipline, in contrast to the general responses one might expect from *ChatGPT*. To highlight the level of specialization of *OratorIA-UA* and the opportunities it provides in the realm of rhetoric, let us now examine another example that directly pertains to the differences between *OratorIA-UA* and *ChatGPT* regarding the analysis and evaluation of speakers and rhetorical speeches. For this purpose, we employed one of the topics proposed in the classroom, summarized in the

following *prompt*: “Give me three examples of speakers who have made an ethically questionable use of rhetoric”. In response to this *prompt*, *ChatGPT* provided the following answer:

> Here are three examples of famous speakers who used rhetoric in questionable ethical ways to manipulate public opinion or their audiences:
> **Adolf Hitler**: During his speeches in Nazi Germany, Hitler employed highly effective rhetorical techniques to incite intense emotions, such as fear and hatred, toward certain groups of people. His ability to use oratory persuasively helped to legitimize and promote deeply destructive ideologies, manipulating the beliefs and emotions of German society.
> **Joseph McCarthy**: In the 1950s, U.S. Senator McCarthy led a campaign against alleged Communists in the U.S. government. Known as the "witch hunt," he used rhetorical scare tactics and smear tactics to accuse many people without solid evidence, promoting a culture of fear and distrust. His rhetoric contributed to the unjust persecution of hundreds of citizens and destroyed many careers.
> **Niccolò Machiavelli (in his work "The Prince")**: Although not a speech per se, Machiavelli's work details techniques of manipulation and persuasion for a ruler to maintain power at all costs. His view of rhetoric focuses on the pragmatic and often manipulative use of language and appearances to control subjects and adversaries. Although the work is theoretical, leaders have used it to justify ethically questionable actions.
> These examples illustrate how rhetoric, in the hands of persuasive speakers, can be used for manipulative purposes, influencing audiences in ways that do not always respect ethics or truth (*OpenAI*, 2024a).

As we can see, *ChatGPT*'s rhetorical characterization of these speakers' speeches lacks specialization, offering justifications such as “inciting intense emotions”, defaming “without solid evidence”, or “pragmatic use”. In contrast, *OratorIA-UA* provides a response that incorporates proper rhetorical terms for explaining the rhetorical discourse produced by the same speakers, as both assistants agree on two of the three examples:

> Here are three examples of speakers who have used rhetoric in ethically questionable ways, employing persuasive techniques to manipulate the audience for polemical or misleading purposes:
> **1. Adolf Hitler**
> **Context**: During the years leading up to and during World War II, Hitler used speeches to mobilize the German masses around nationalist and racist ideas.
> **Use of rhetoric**: Hitler appealed intensely to **pathos**, arousing strong emotions of national pride and hatred of specific groups. His speeches were designed to manipulate resentment and social frustrations, presenting a common enemy and promising a return to greatness.
> **Ethical questioning**: Hitler's rhetoric fostered a regime based on intolerance and violence, manipulating the population to accept policies of hatred and genocide.
> **Joseph McCarthy**
> **Context**: In the 1950s, at the height of the Cold War, U.S. Senator Joseph McCarthy led a series of indictments and campaigns against alleged Communists in the U.S. government.

Use of rhetoric: McCarthy used the ***dispositio*** (organization) of his arguments to create an atmosphere of fear and suspicion, often employing claims without clear evidence and fear of communism as tools of manipulation.
Ethical questioning: McCarthy's tactics led to a witch hunt, violating the civil and professional rights of many people based on unfounded suspicions and damaging lives and careers in the process.
3. Charles Ponzi
Context: In the 1920s, Charles Ponzi devised a fraudulent financial scheme that involved paying old investors with new investors' money.
Use of rhetoric: Ponzi used **ethos** to project an image of success and confidence, assuring his investors he was a legitimate businessman. He convinced many people to invest through exaggerated promises and persuasive arguments about secure profits.
Ethical question: Ponzi's rhetoric was deceptive and exploited people's trust, leading them to lose large amounts of money in a scam that gave rise to the "Ponzi scheme."
These examples illustrate how rhetoric, when used without an ethical basis, can manipulate audiences and cause profound damage, distorting the truth and exploiting the emotions and trust of the public (*OpenAI*, 2024b).

We believe that this practical experience in higher education, particularly within the context of a subject where rhetoric plays a significant role, demonstrates the potential of *OratorIA-UA* for enhancing teaching and learning processes. Our control as the creators of the assistant over the knowledge that informs it ensures high-quality, specialized information in the field of rhetoric. This allows us to provide rhetoric students with the opportunity to deepen their understanding of the subject while simultaneously energizing practical sessions through student participation in the study of rhetorical concepts, speech creation, and text analysis across various genres. This marks just the first step in developing and configuring the assistant, which is crucial for training purposes. Implementing *OratorIA-UA* in the classroom stands as one of the primary and most ambitious objectives of our project.

4. CONCLUSIONS: ADVANTAGES, DISADVANTAGES, AND PRECAUTIONS

The journey thus far has enabled the team responsible for developing and training *OratorIA-UA* to identify several advantages, as well as some disadvantages and precautions that need to be considered. To gain a more thorough and concrete understanding of this important topic, the assistant was also consulted about these matters.

In an initial analysis, the team concluded that the advantages of *OratorIA-UA* include the following: (a) the assistant helps streamline routines; (b) constructing *prompts* is an achievement in itself; (c) the assistant serves as an intermediary between initial uncertainties

about a specific study topic and research progress; (d) it has a wide range of data obtained from various sources and resources—such as theoretical, critical, and analytical texts, as well as rhetorical treatises from all periods and audiovisual materials; (e) it can compile bibliographic lists adequately, helping to minimize instances of hallucination whenever asked; and (f) it facilitates the creation and development of activities in an effective, efficient, and efficient way. On the other hand, some disadvantages of using AI assistants like *OratorIA-UA* include: (a) the user might develop unwanted dependencies on the assistant; (b) if the user, particularly in the role of a student, has not been trained in the knowledge and use of an AI assistant, they may misuse it, expecting it to perform tasks rather than understanding it as a collaborative tool; and (c) the user, in any of their roles, may distance themselves from other users. As precautions, the following considerations should be taken into account: (a) the assistant can sometimes hallucinate, so it requires fine-tuning; (b) it is always necessary to verify the sources and references provided by *OratorIA-UA*, but its suggestions remain useful as bibliographic guidance; and (c) an ethical commitment is needed from the developers of any AI assistant, including *OpenAI* and other platforms such as *Copilot* and *Gemini*.

OratorIA-UA provided its take on the advantages and disadvantages for the user, along with precautions to consider when interacting with the assistant. A straightforward *prompt* was created to guide the system regarding the advantages: “What are the advantages of AI for a user in the roles of student, teacher, or researcher?”; and the question was repeated to inquire about the disadvantages. The assistant included, without being directly prompted, the “cautions”. The responses generated by *OratorIA-UA* are presented below, having been edited for form while faithfully preserving their content (*OpenAI*, 2024b):

4.1. Advantages

As it is designed to facilitate the study, analysis, and production of content and texts in the field of rhetoric and related areas, the following benefits can be observed.

4.1.1 .In the area of research

Data analysis optimization. It can process and analyze complex theoretical information from rhetorical and literary sources in a streamlined manner, helping users to break down and understand concepts that would otherwise require extensive analysis.

Content customization. By providing explanations and examples adjusted to each profile, you can adapt your answers to the user's academic level.

Facilitation of continuous learning. It can recommend additional readings and resources of interest, helping users delve deeper into specific areas.

Assistance in translating and adapting resources. Aid in interpreting and contextualizing classic rhetorical texts in Spanish or English, making it easier to access content from other languages and time periods.

Reduction of research bias. Due to its emphasis on the theory and practice of rhetoric, as well as its capacity to access objective sources, it offers a balanced perspective on complex issues, which is essential in studies that may encompass diverse interpretive viewpoints.

4.1.2. In the area of teaching and learning

Accessibility to specialized content. Allows quick access to advanced concepts in rhetoric, discourse theory, and argumentation, which facilitates the understanding of complex subjects. Personalization of learning. It can be adapted to each student's level of understanding by providing more detailed explanations for beginners or complex extensions for advanced learners, which is useful in a differentiated learning environment.

Facilitates educational resources. Assists in creating educational materials, activities, and specific examples, streamlining class preparation and allowing teachers to offer a more enriching learning experience.

Encouragement of critical thinking. By presenting various perspectives on rhetorical and discursive issues, it serves as a basis for fostering critical thinking in students, inviting them to evaluate and compare different interpretations.

Constant support. The availability of *OratorIA-UA* as a digital assistant enables learning to continue beyond the classroom, offering additional assistance for student questions and uncertainties.

4.2. Disadvantages

4.2.1. In the area of research

Reliance on pre-existing data. *OratorIA-UA* formulates its responses based on information that has been previously uploaded or is available in its reference resources. This means it may not address emerging topics or very recent research if they are not included in its sources.

Limited interpretation of complex or ambiguous topics. While it can address intricate rhetorical issues, at times it provides general interpretations, not fully grasping the subtleties that necessitate human judgment or the nuances of subjective interpretation, particularly in philosophical or literary texts.

Potential for bias in information selection. While helping to reduce certain biases, *OratorIA-UA* depends on integrated sources and data, which may reflect specific academic or interpretive inclinations. These may influence how it presents information or prioritizes certain authors or currents.

Lack of creativity and novelty: It is unable to innovate or develop new theories or perspectives, which may restrict its effectiveness in academic work that necessitates original proposals.

Potential user dependency. Users may become dependent on *OratorIA-UA* for generating ideas or writing concepts, potentially hindering their own analytical and creative growth on complex topics.

Limitations in contextual and cultural analysis. The assistant can provide relevant information about historical or cultural contexts but may lack the depth needed to interpret phenomena from a complex cultural perspective or to adapt to interpretive approaches that are less common in rhetoric.

4.2.2. In the area of teaching and learning

Lack of human interaction. In pedagogy, human interaction is essential for learning, and *OratorIA-UA*, as an AI, cannot completely substitute for the empathy, emotional understanding, and moral support that a teacher offers.

Potential dependency. The ease of access to information may lead students to become overly dependent on the assistant, affecting their ability to research autonomously or develop critical analytical skills without assistance.

Limitations in adapting to specific contexts. In rhetoric and communication, understanding cultural and social context is vital; the assistant may not grasp or convey these nuances as effectively as a teacher who comprehends the context of the group or region.

Constraints on creativity and novelty. Sharing information and analysis derived from their pre-existing data may restrict originality and creative exploration among students, if not complemented by activities that foster innovation.

Risk of bias in the information. Like all AI, *OratorIA-UA* depends on the data sources it has loaded, which can lead to a specific approach that does not always encompass the diversity of perspectives needed in the study of rhetoric.

4.3. Precautions

Personal data protection. During interactions, avoid sharing sensitive information, such as identification numbers, bank details, or confidential personal details.

Information verification. Although the assistant provides answers based on available data, it is advisable to contrast the information obtained with official or reliable sources, especially when critical decisions are involved.

Responsible use. *OratorIA-UA* must be used ethically and following applicable laws and regulations. It may not be used for illicit, defamatory, or infringing third-party rights activities.

Awareness of limitations. *OratorIA-UA* is an AI tool that may have limitations in understanding complex contexts or cultural nuances. It may not always provide accurate or complete answers.

Continuous updating. It is necessary to be informed about the assistant's privacy policies and terms of use, as they may be updated periodically (OpenAI, 2024b).

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