CALL FOR THE PROVISION OF SCHOLARSHIPS FOR RESEARCH PERIODS ABROAD FOR THE PREPARATION OR FURTHER DEVELOPMENT OF THE MASTER'S DEGREE THESIS DEPARTMENT OF CLASSICAL AND ITALIANISTIC PHILOLOGY (FICLIT)

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Title: Semantic Annotation and markup on Xenophon's Symposium, at TALOS – AI4SSH, University of Crete, Rethymnon.

Abstract:

TALOS – AI4SSH (Artificial Intelligence for Humanities and Social Sciences) is a five-year project funded by the European Union which started in March 2023, and was born within the University of Crete, in Rethymnon, from the idea of professors Christophe Roche (ERA Chair Holder , from the University of Savoy-Mont Blanc) and Melina Tamiolaki (coordinator, from the University of Crete), and Dr. Maria Papadopoulou (Research Group Leader and Project Manager).

The project is focused on Digital Humanities and AI. The research works will focus on six research topics, three of which directly concern the project of the undersigned:

1. Semantic annotation of texts,

2. Classifying and naming objects,

6. Standards for SSH.

Having chosen the elaboration of a digital critical edition of the Xenophon's Symposium as the subject of my master thesis, participating in TALOS – AI4SSH would mean for me being able to do research with a group of professors, doctoral students and international students, in a new research center aims to become a pioneer at European level in the field of Digital Humanities and Artificial Intelligence.

In particular, having the opportunity to work on the three research topics listed above, I will be able to develop an ad hoc model of semantic annotation and markup for Xenophon's text, through the use of standards designed specifically for humanistic studies (in particularly for Greek philology), integrating my personal editorial choices with the opportunities offered by a hybrid artificial intelligence, being developed at TALOS.

Goals:

About the goals I'm looking for, it is necessary to distinguish two levels: the first, it's about the objectives of the TALOS – AI4SSH project (available at this address: https://talos-ai4ssh.uoc.gr) and

briefly summarized and translated below; the second concerns my personal perspective on the opportunity to take part in the TALOS project.

A brief summary of TALOS' objectives is necessary:

- Address important research questions in hybrid (neurosymbolic) AI driving innovation for Humanities and Social Studies;

- Attract and maintain a team of cutting-edge researchers;

- Introducing new courses at all levels (BA, MA, PhD);

- Create new open datasets and open-source tools for Digital Humanities;

- Disseminate new knowledge through conferences, workshops, articles, doctoral theses;

- Focus on disseminating new knowledge through global outreach initiatives;

- Enhance the international visibility of the University of Crete, grow connections, increase the success of the University of Crete in funding programs;

- promote institutional reforms through research and teaching in the multidisciplinary area of AI for SSH.

As for personal goals, there are several opportunities at stake for myself.

In summary, I will report below my research topics:

- Work with a team of international researchers on my master's thesis project, a project which I would like to invest my energies in, in view of a future career in the field of Digital Humanities, which represents, in my opinion, the new playground of humanistic studies, since it can reconcile millenary knowledge with new challenges and new sensitivity of the 21st century (problems of conservation and transmission, the digital transition, the new tools for digitizing and marking texts, and consequently the new tools for interrogating texts using software able to interpret markup instructions, the challenge of portability, interoperability, accessibility of sources and information).

- Questioning myself about what artificial intelligence is and how to manage it, circumscribing its limits, exploring its opportunities, with the intention of knowing so as not to be dominated by it.

- Develop a markup and semantic annotation model, with the help of international researchers and doctoral students, which through the use of international standards and ad hoc studied elements for Xenophon prose can be set as a virtuous example for future research classical philological field, and in particular in the digital critical editions of works in ancient Greek, starting from a careful methodological reflection based on the characteristics (and, consequently, on the needs) of the specific text in question.

Reasons for choosing the **topic** and the **hosting institution**:

The idea of developing a digital critical edition of Xenophon's Symposium arose following the translation with introductory and commentary notes of the same work I developed for my three-year degree thesis. Three years later, I felt the need to conclude the studies begun then, crowning

the work with a digital critical edition not to be printed, given the hypertext nature of the work I am going to conclude, as for the scientific community of Internet. The idea is to develop a theoretical markup model studied ad hoc on the characteristics of the text in question, and make it usable in a digital environment, so that the user is able to carry out a free and autonomous search, on the basis of the possibilities my markup will make them possible (marking a text is not a neutral action, hence my need for help from a team of experts in the field). One of the models that inspired me is the recent database of digital critical editions of classic texts from the University of Oxford (available at this address: https://www.oxfordscholarlyeditions.com/classics/), among whose edited authors I noticed Xenophon missing. The long-term idea is precisely to fill this gap in the database, proposing a digital critical edition of Xenophon, starting with the Symposium.

As for the location, I chose Rethymnon in Crete after one of my Erasmus professors in Thessaloniki suggested me to contact Prof. M. Tamiolaki from the University of Crete, who would have started a project together with important colleagues, precisely about the subject I chose for my master's degree thesis, i.e. Digital Humanities.

In addition to this, an integral part of the project focuses on the last frontier of contemporary technology, which is making so much talk about itself: Artificial Intelligence.

As early as the 1940s, machines began to be used to process and return data also in the field of humanistic studies. My goal, ultimately, is to explore the latest technological frontiers to continue doing philological research, to retrace the steps of a humanity as old as Europe with contemporary tools, through the traces that tradition has left behind of itself and that we scholars, with patience, zeal and love, are called to collect, step by step. Today we have the opportunity to use, create and program IT tools that can help us systematize research, forcing us to rethink the methods of research itself. Being a student, scholar or researcher today means not being able to ignore the new tools and new opportunities offered by technology.

To conclude, I would like to spend a research period in preparation for my master's thesis in Crete with the aim of gathering ideas, comparisons, techniques and tools to elaborate not only my thesis, but also to have the opportunity to place myself in a context of international research in which to eventually insert myself in the postgraduate future. Therefore, in agreement with Professor Francesca Tomasi, my supervisor, I ask to be able to study at TALOS – AI4SSH for a period of three months, starting from October 2023.

Host structure or research group:

Founded in 1978, the University of Crete (UoC), among the most important Greek universities, is a young public educational institution located in a region rich in ancient and modern Mediterranean cultures. Currently about 20,000 undergraduate and graduate students study at the UoC, in the faculties of Philosophy, Education, Social Sciences, Science and Technology and Medicine, Science and Technology and Medicine, with an academic staff oriented towards the outside and attentive to the quality of teaching, research and partnerships.

Methods:

Based on research needs, the TALOS – AI4SSH teamwork offers a wide range of training offers:

-courses of all levels (Bachelor, Master and PhD)

-seminars

- laboratories

Calibrated according to needs and distributed among the six research topics, some of which I have listed above.

Concretely, what I will need is to work alongside a team of industry experts who can help and guide me in designing a specific markup model for my research needs, and who can help me understand which tools are most suitable for making the project.

Duration:

In order to have time to collect information, advice, tools and working practices for my thesis, I ask to be able to spend a period of three months at TALOS – AI4SSH in Rethymnon, Crete.