

# **Being Human (and Humane) In the Age of Artificial Intelligence**

Barbara Graziosi  
Princeton University

**SDU International Summer School 2026**  
**Classics Today: Decentering and Digitalization**

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Barbara Graziosi



# Being Human (and Humane) In the Age of Artificial Intelligence

Human, humane, humanistic, the Humanities

🔊 **hu·man·is·tic** [ˌhju:məˈnɪstɪk]



1. relating to or supporting the principles of humanism:

*"humanistic values" · "a humanistic approach to religion"*

- relating to or characteristic of the Renaissance humanists.

# Future Philology? The Fate of a Soft Science in a Hard World

Sheldon Pollock

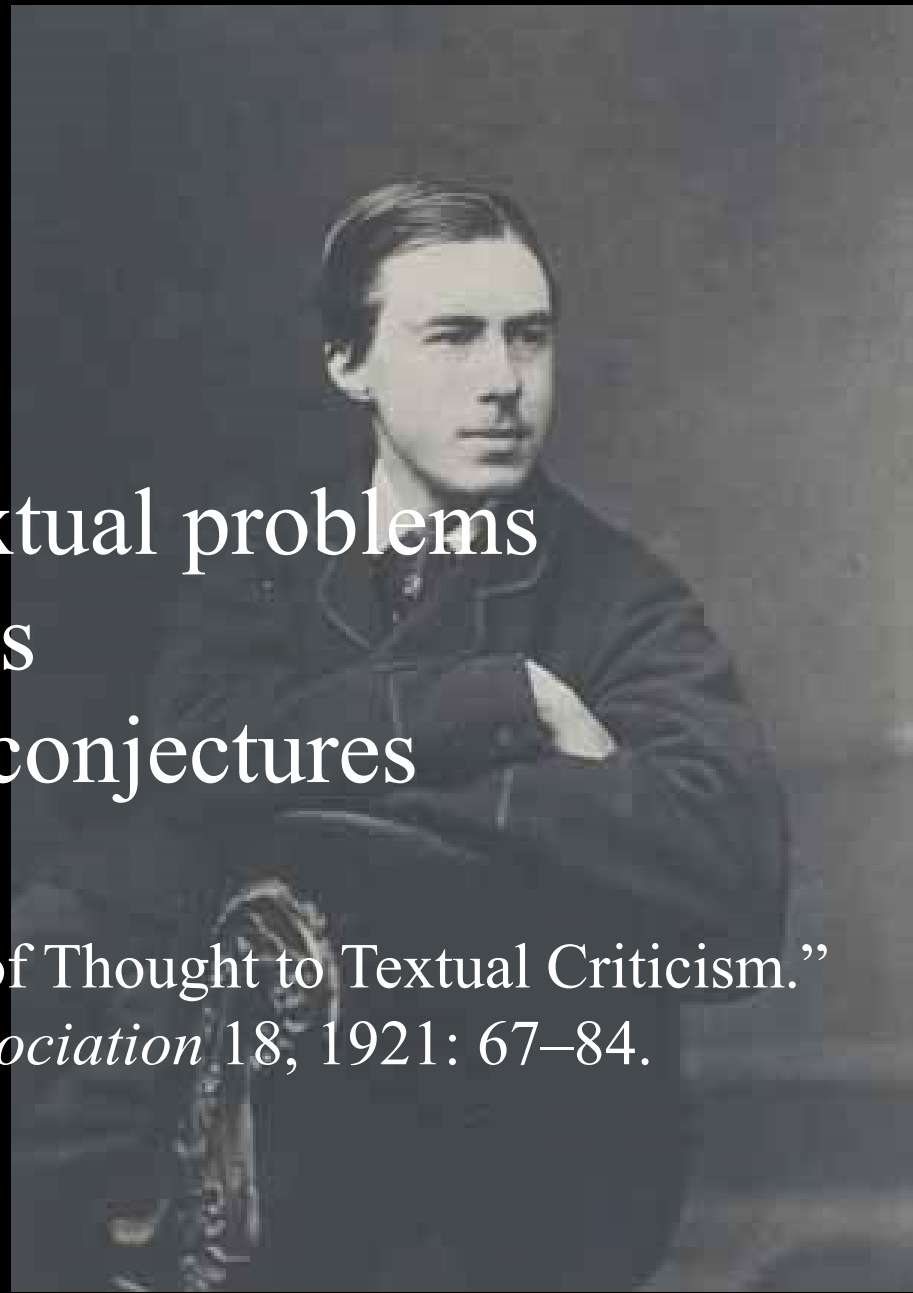
What I offer instead as a rough-and-ready working definition at the same time embodies a kind of program, even a challenge: **philology is, or should be, the discipline of making sense of texts.** It is not the theory of language—that’s linguistics—or the theory of meaning or truth—that’s philosophy—but the theory of textuality as well as the history of textualized meaning. If philosophy is thought critically reflecting upon itself, as Kant put it, then philology may be seen as the critical self-reflection of language. Or to put this in a Vichean idiom: if mathematics is the language of the book of nature, as Galileo taught, philology is the language of the book of humanity.<sup>12</sup> Despite the astonishing assumption in almost all writing about philology that it is the discipline of studying classical European antiquity, philology is and has always been a global knowledge practice, as global as textualized language itself, albeit no such global account of its history has ever been written. Thus, both in theory and in practice across time and space, philology merits the same centrality among the disciplines as philosophy or mathematics.

Or at least in principle it does. In fact, no discipline in today’s university is more misunderstood, disdained, and threatened. For many, *philologist* is hardly more than a term of abuse, “what you call the dull boys and girls of the profession.”<sup>13</sup> For others, philology has ceased to be. It is a “now defunct field,”<sup>14</sup> a **protohumanistic empirical science** that “no longer exists as such,” its decline “a conspicuous and puzzling fact.”<sup>15</sup> To some degree,

# Workflow:

1. Read closely for textual problems
2. Conjecture solutions
3. ‘Apply thought’ to conjectures

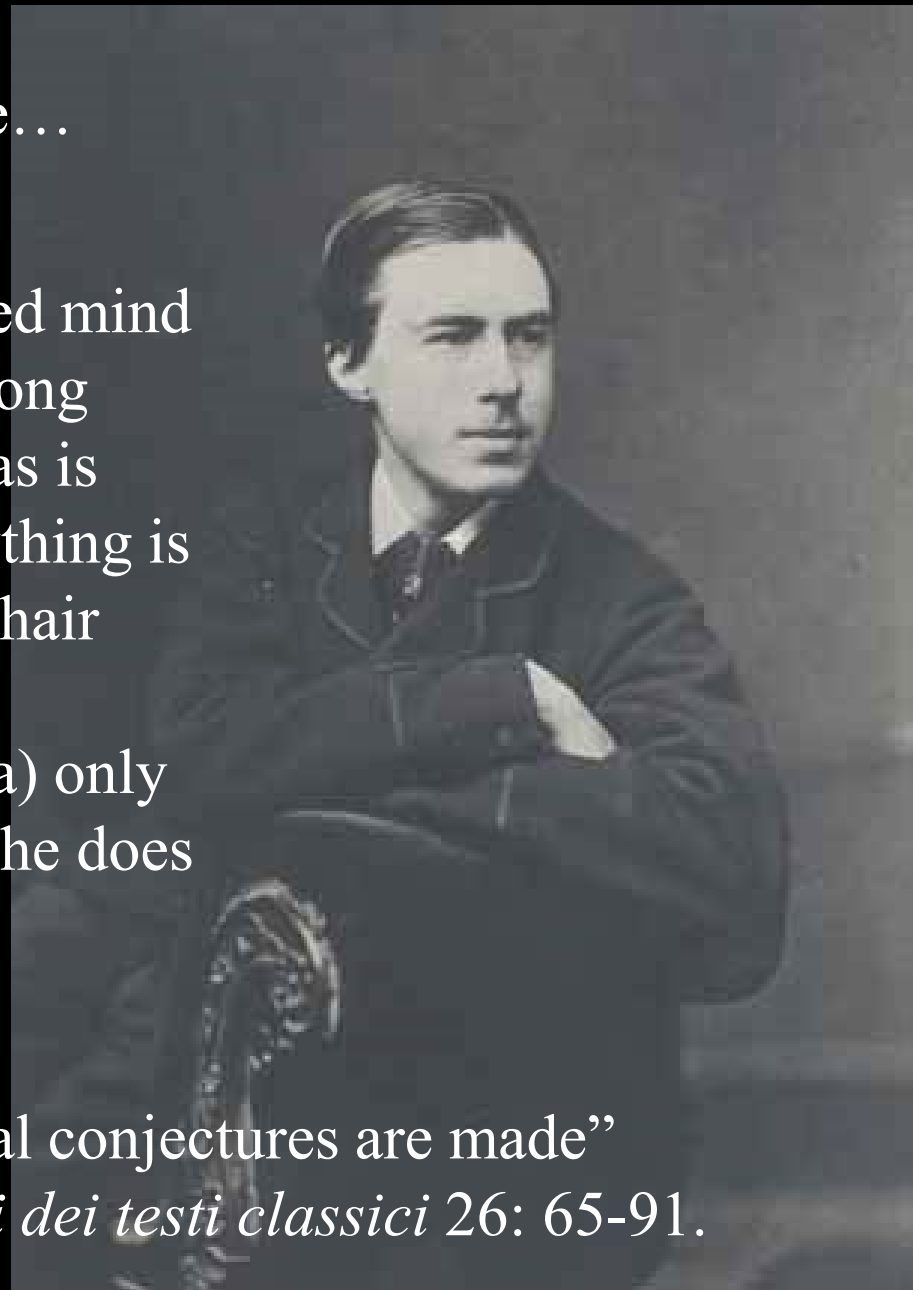
A. E. Housman, “The Application of Thought to Textual Criticism.”  
In *Proceedings of the Classical Association* 18, 1921: 67–84.



The best conjectures are often made...

‘...on holiday when one feels no obligation to be busy, and the relaxed mind summons up and integrates things long forgotten. The period after Christmas is particularly productive, when everything is shut and one is slouched in an armchair half-asleep. The Muse of Textual Conjecture (let us call her Eustochia) only visits those who have worked, but she does not visit us when we are actually working...’

Nisbet, R. G. M. 1991. “How textual conjectures are made”  
*Materiali e discussioni per l’analisi dei testi classici* 26: 65-91.



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# LOGION

Machine Learning for Greek Philology

Welcome to our group!

The aim of this project is to develop an NLP tool that aids the restoration and elucidation of premodern Greek texts. The name of our tool is Logion, which means 'oracle' in ancient Greek: we chose it to emphasize that machine-generated results require human interpretation. Logion does not offer solutions to philological problems; it can, however, provide concrete suggestions and general inspiration. For our Proof of Concept, we focused on the Byzantine author Michael Psellos. We are now also working on Aristotle, Galen and other major Greek authors. In future, we intend to adapt our model to serve other languages. Our aspiration is to use Natural Language Processing to help preserve and elucidate the global archive of pre-modern texts.

## Start using LOGION



PROJECT MUSE®

2023

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## Machine Learning and the Future of Philology: A Case Study

Barbara Graziosi, Johannes Haubold, Charlie Cowen-Breen, Creston  
Brooks

TAPA, Volume 153, Number 1, Spring 2023, pp. 253-284 (Article)

Published by Johns Hopkins University Press

DOI: <https://doi.org/10.1353/apa.2023.a901022>



**TAPA**  
Spring 2023, Volume 153, Number 1

# Pisa-Princeton workshop

2024



2025

# Artificial Intelligence and Greek Philology: An Experiment



EDIZIONI  
DELLA  
NORMALE

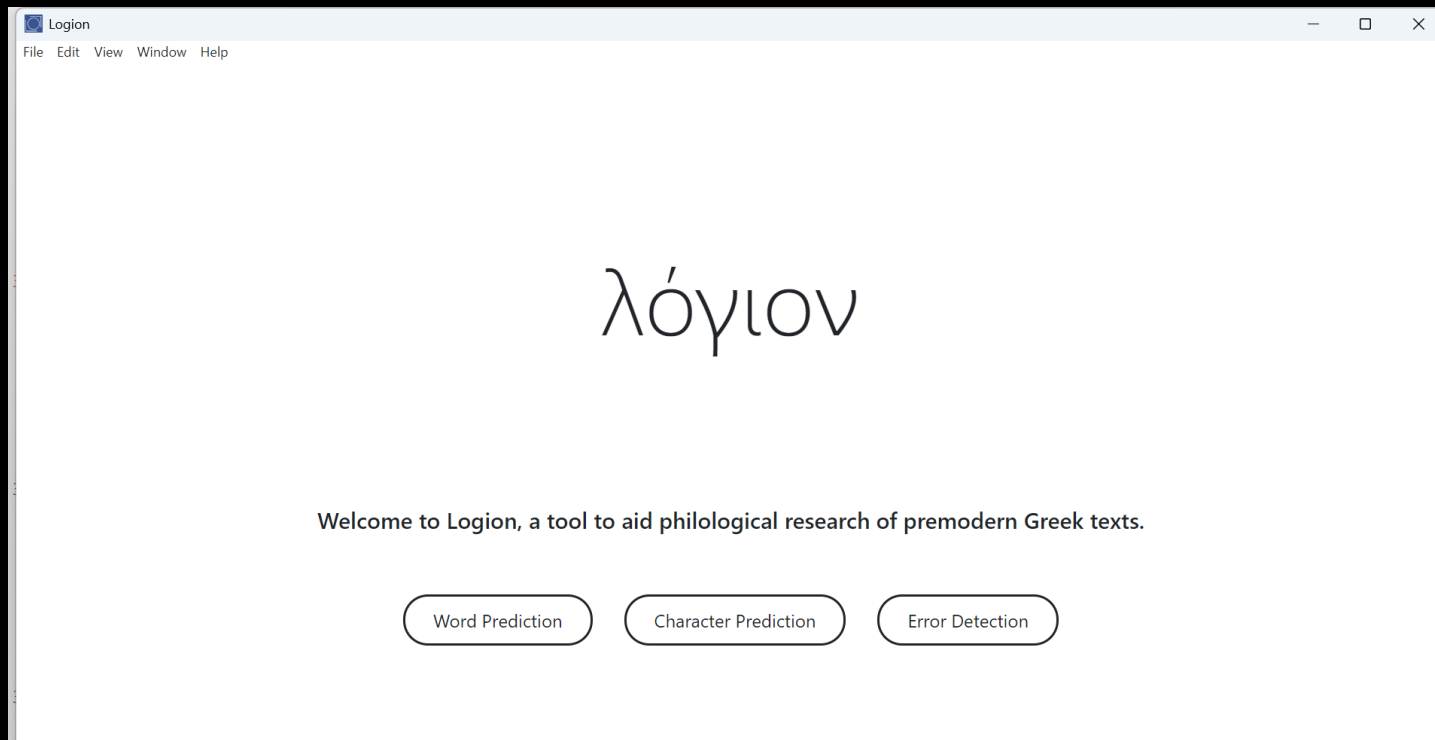
# Machine Learning and the Text of Aristotle

Mirjam Kotwick and Johannes Haubold

**Abstract** This article uses the Princeton-based AI Logion and its error detection algorithm to show that large language models can contribute to the textual criticism of Aristotle. We discuss seven case studies from the *Metaphysics*, *Poetics*, and *De motu animalium* to demonstrate that Logion can (i) correctly identify corruptions in the transmitted text of Aristotle and (ii) suggest plausible emendations. Even when Logion's suggestions are not viable, they can alert the human philologist to problems in the text and thus initiate a search for new solutions. We conclude that language models like Logion can contribute to the current revival in the study of Aristotle's texts, provided we use them responsibly and hold on to the fact that, while machines may make intriguing suggestions, *only* human philologists can ultimately adjudicate philological problems.

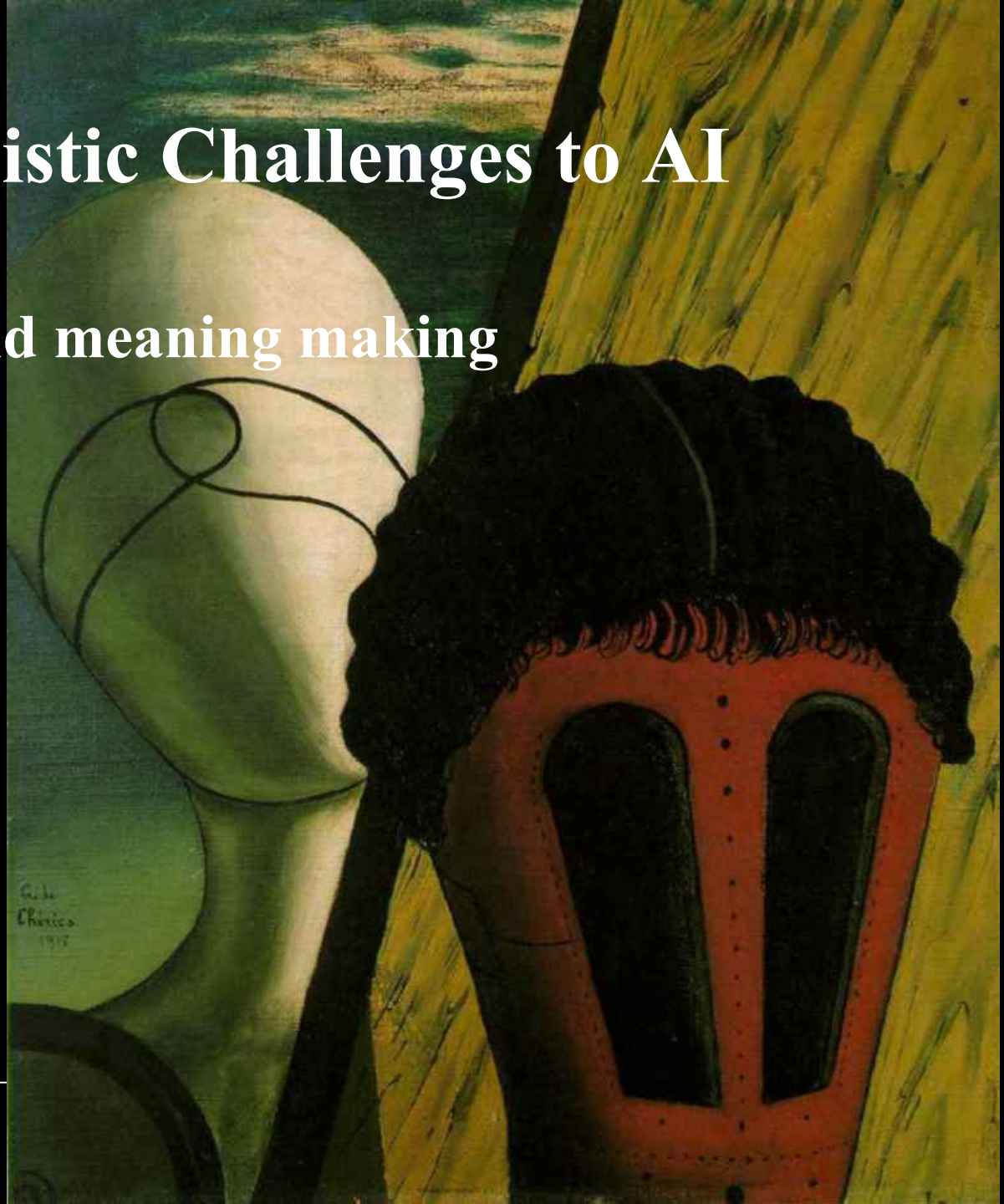
# Launch of the Logion App

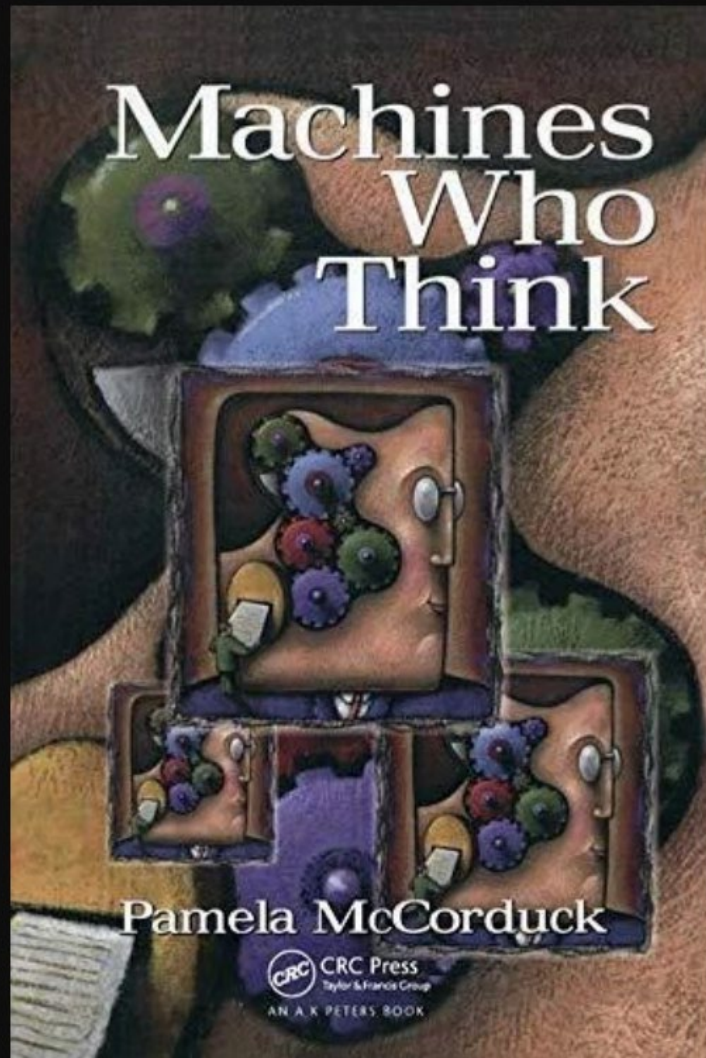
2026



# Seven Humanistic Challenges to AI

## 1. Description and meaning making





‘A two-month, ten-man study of artificial intelligence [...] on the basis of the conjecture that every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to simulate it.’ (Dartmouth, 1956)

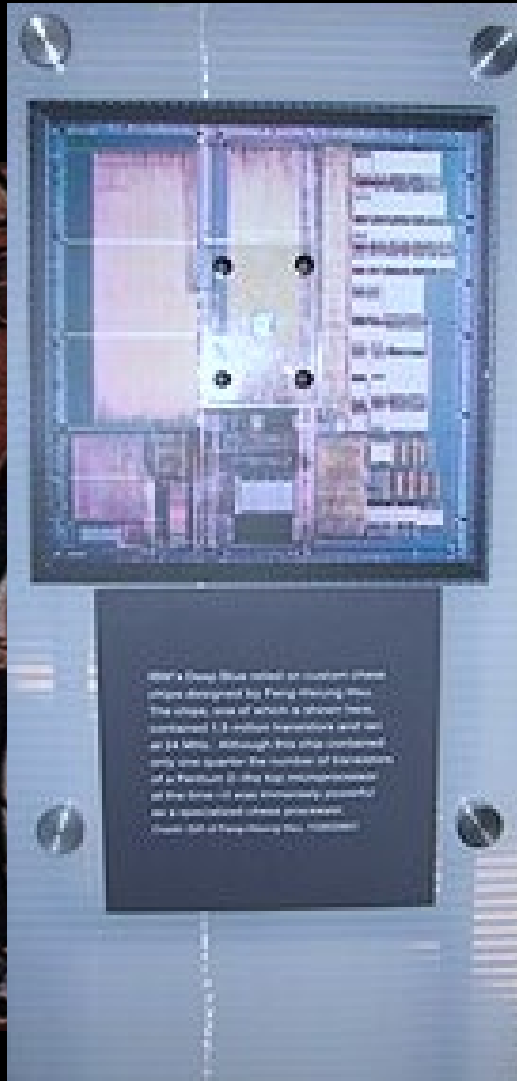
- Defined artificial intelligence as a field of enquiry, by postulating the hypothesis it sought to test.
- Humanist reactions and game of one upmanship and shifting goalposts.



# Deep Blue beats Garry Kasparov 1997

*The Economist:*

‘We now know that  
chess-playing skill does  
not, in fact, equal  
intelligence’



SHANNON VALLOR

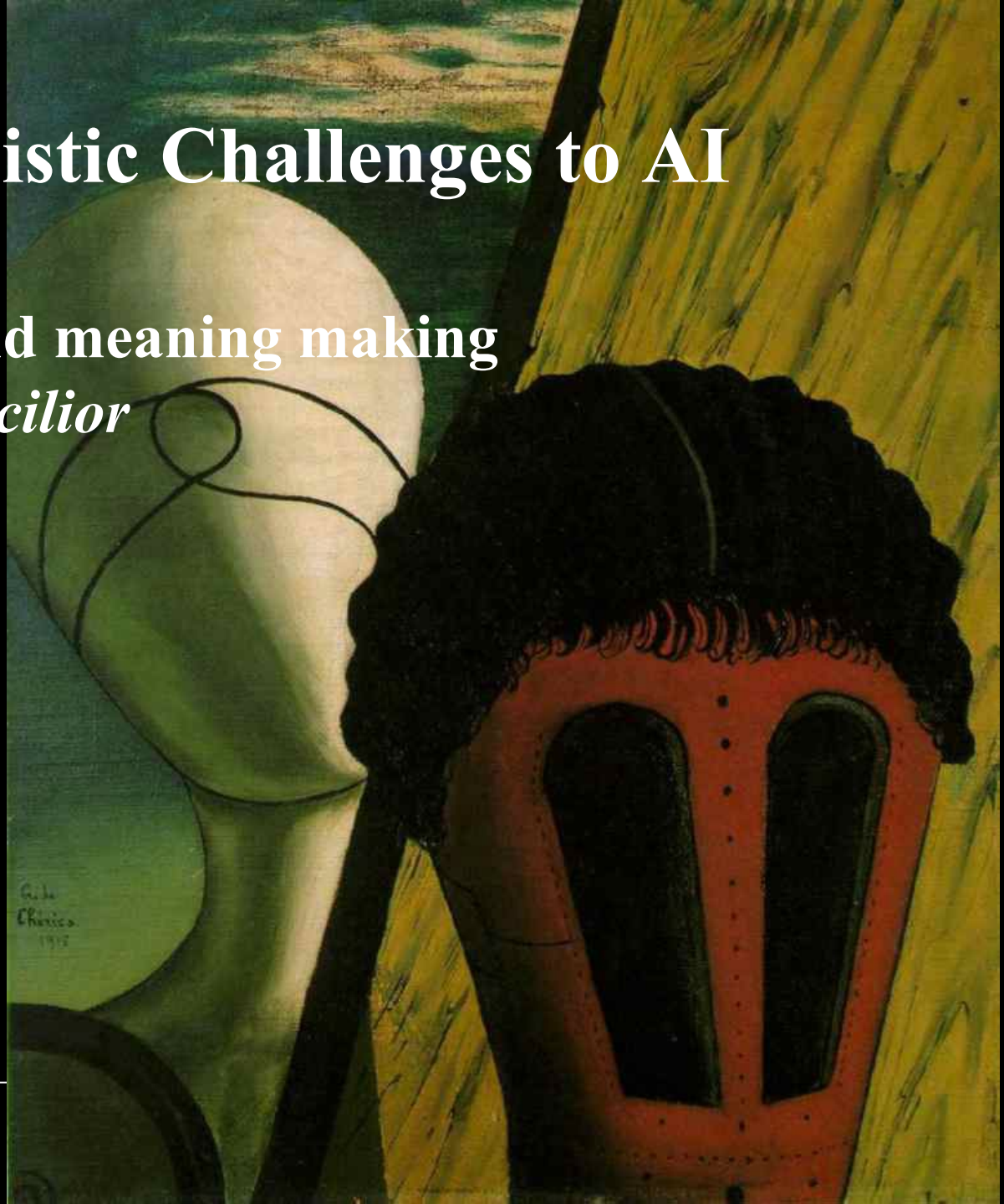
# THE AI MIRROR

HOW TO RECLAIM OUR HUMANITY  
IN AN AGE OF MACHINE THINKING

Ortega understood that technology is therefore not something “other.” The artificial is not opposed to the human. To be an artificial thing is precisely to be *of* the human—to be an artifact, human-made and human-*chosen*. Technology, along with all material culture, expresses and extends into the world the richness and variety of human character, our many ways of being. It reflects our values, our hopes, and our ideals. This is why the claim that “technology is neutral” is so strongly rejected by contemporary scholars of technology. Historians, social scientists, and philosophers of technology share a rare consensus across academic disciplines: that technologies always embed the human values that shape our design choices and assumptions. AI technologies are also such reflections,

# Seven Humanistic Challenges to AI

1. Description and meaning making
2. The *lectio difficilior*



# The *lectio difficilior*

Detect Errors

Cancel

Εὐγε!

## Original Text

*Click a word to view suggested emendations.*

κατεβην χθες εις πειραια μετα γλαυκωνος του αριστωνος προσευξομενος τε τη θεω  
και αμα την εορτην βουλομενος θεασασθαι τινα τροπον ποιησουσιν ατε νυν πρωτον  
αγοντες. καλη μεν συν μοι και η των επιχωριων πομπη εδοξεν ειναι, ου μεντοι ηττον  
εφαινετο πρεπειν ην οι θρακες επεμπον.

## Suggested Text

κατεβην χθες εις πειραια μετα γλαυκωνος του αριστωνος προσευξομενος τε τω θεω  
και αμα την εορτην βουλομενος θεασασθαι τινα τροπον ποιησουσιν ατε νυν πρωτον  
αγοντες. καλη μεν συν μοι και η των επιχωριων πομπη εδοξεν ειναι, ου μεντοι ηττον  
εφαινετο πρεπειν ην οι θρακες επεμπον.

## Suggestions for: τη

Prediction ⓘ

Chance-confidence ⓘ

τω

0.3168

# The *lectio difficilior*

Detect Errors

Cancel

Εὖγε!

## Original Text

*Click a word to view suggested emendations.*

κατεβην χθες εις πειραια μετα γλαυκωνος του αριστωνος προσευξομενος τε τη θεω  
και αμα την εορτην βουλομενος θεασασθαι τινα τροπον ποιησουσιν ατε νυν πρωτον  
αγοντες. καλη μεν συν μοι και η των επιχωριων πομπη εδοξεν ειναι, ου μεντοι ηττον  
εφαινετο πρεπειν ην οι θρακες επεμπον.

## Suggested Text

κατεβην χθες εις πειραια μετα γλαυκωνος του αριστωνος προσευξομενος τε τω θεω  
και αμα την εορτην βουλομενος θεασασθαι τινα τροπον ποιησουσιν ατε νυν πρωτον  
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εφαινετο πρεπειν ην οι θρακες επεμπον.

## Suggestions for: τη

Prediction ⓘ

Chance-confidence ⓘ

τω



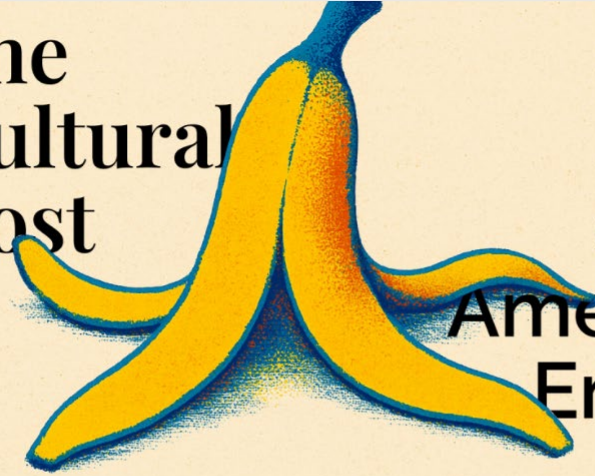
NEWS

## Covert Racism in AI: How Large Language Models Are Reinforcing Outdated Stereotypes

DATE

SEPTEMBER 03, 2024

# The Cultural Cost



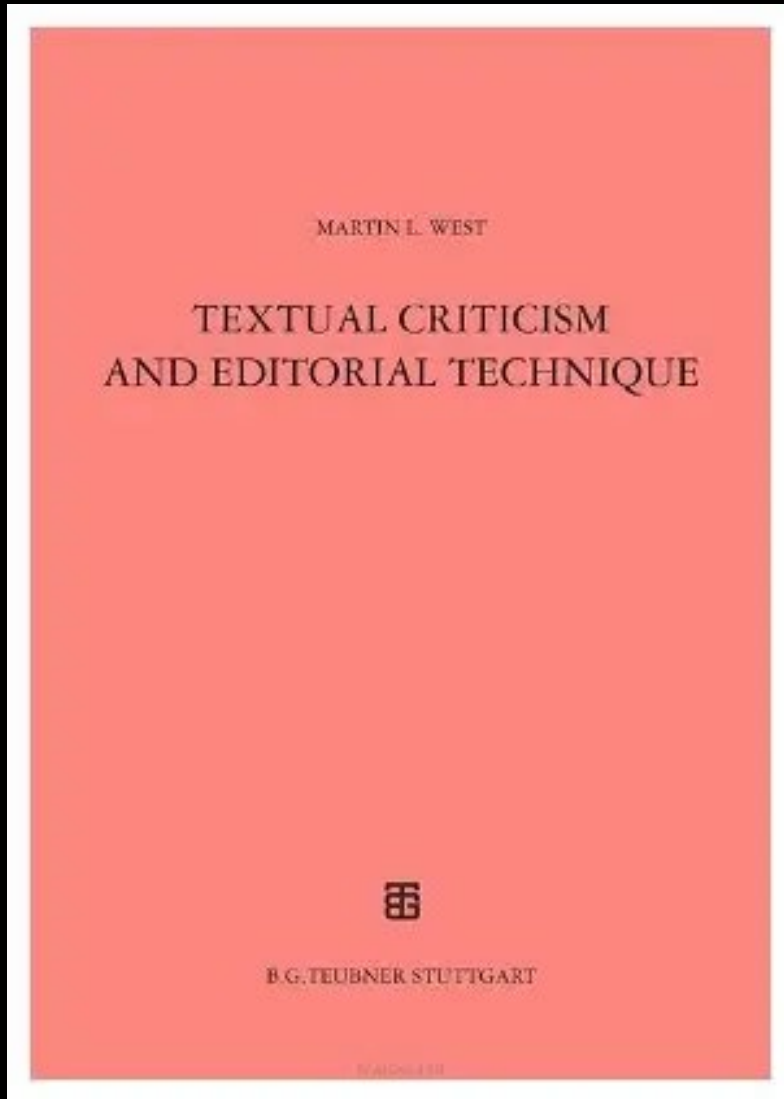
# of AI's American English

Risograph-style illustration of an up-turned banana peel on beige paper stock, with the headline 'The Cultural Cost of AI's American English'.

## Lost in Standardisation: The Cultural Cost of AI's American English Bias

AI is biased against speakers of African American English, study finds

Large language models attributed negative attributes, less prestigious jobs and more convictions to speakers



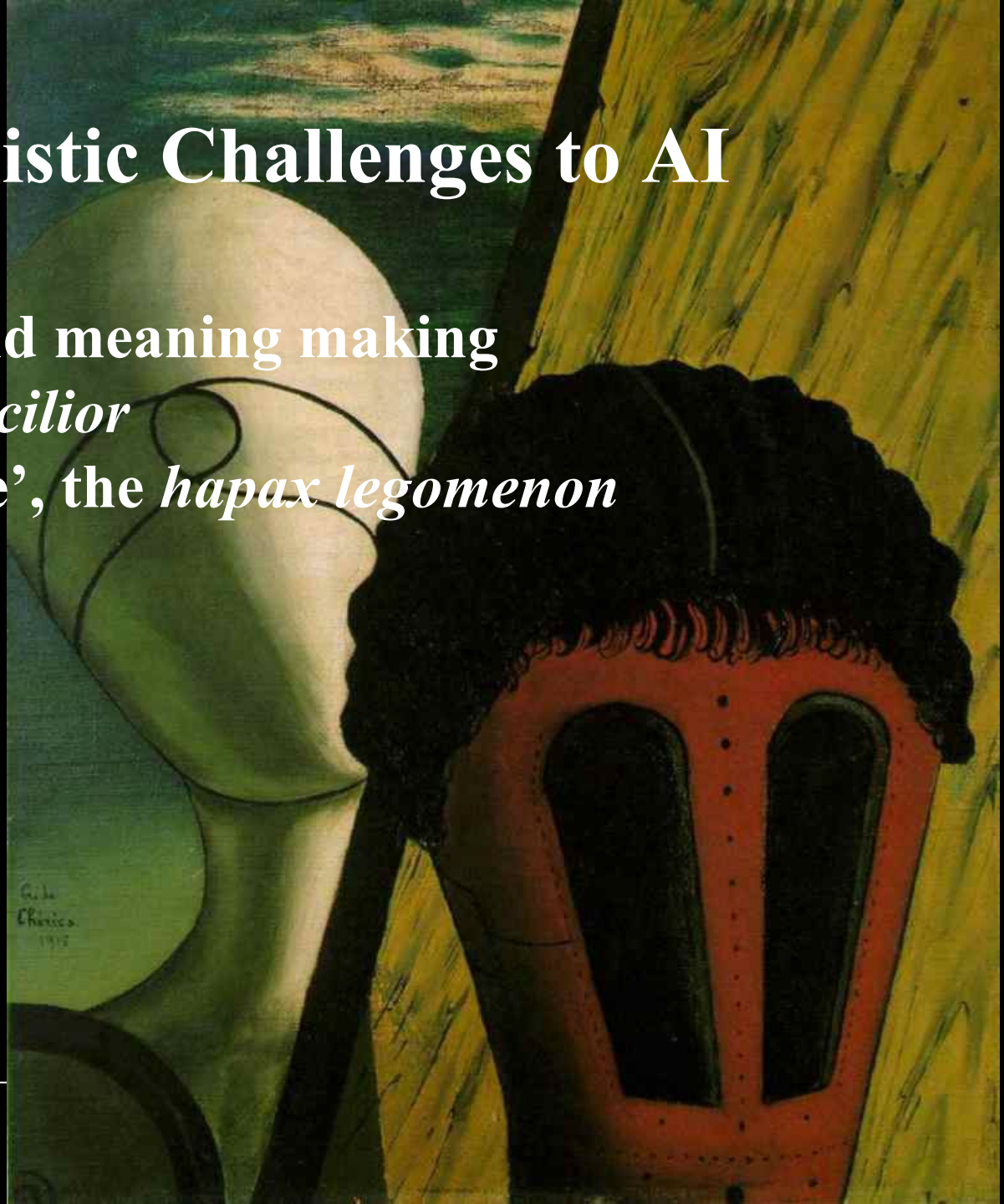
Martin West

‘There is an important difference between a more *difficult* reading and a more *unlikely* reading.’

(1973: 51)

# Seven Humanistic Challenges to AI

1. Description and meaning making
2. The *lectio difficilior*
3. 'Said only once', the *hapax legomenon*



Logion

File Edit View Window Help

Ἀτρεΐδῃ κύδιστε ἄναξ ἀνδρῶν Ἀγάμεμνον  
δῶρα μὲν αἶ κ' ἐθέλησθα παρασχέμεν, ὡς ἐπιεικές,  
ἢ τ' ἐχέμεν παρὰ σοί· νῦν δὲ μνησώμεθα χάρμης  
αἶψα μάλ' · οὐ γὰρ χρή κλοτοπεύειν ἐνθάδ' ἐόντας  
οὐδὲ διατρίβειν· ἔτι γὰρ μέγα ἔργον ἄρεκτον.

Detect Errors Cancel

Εὐγε!

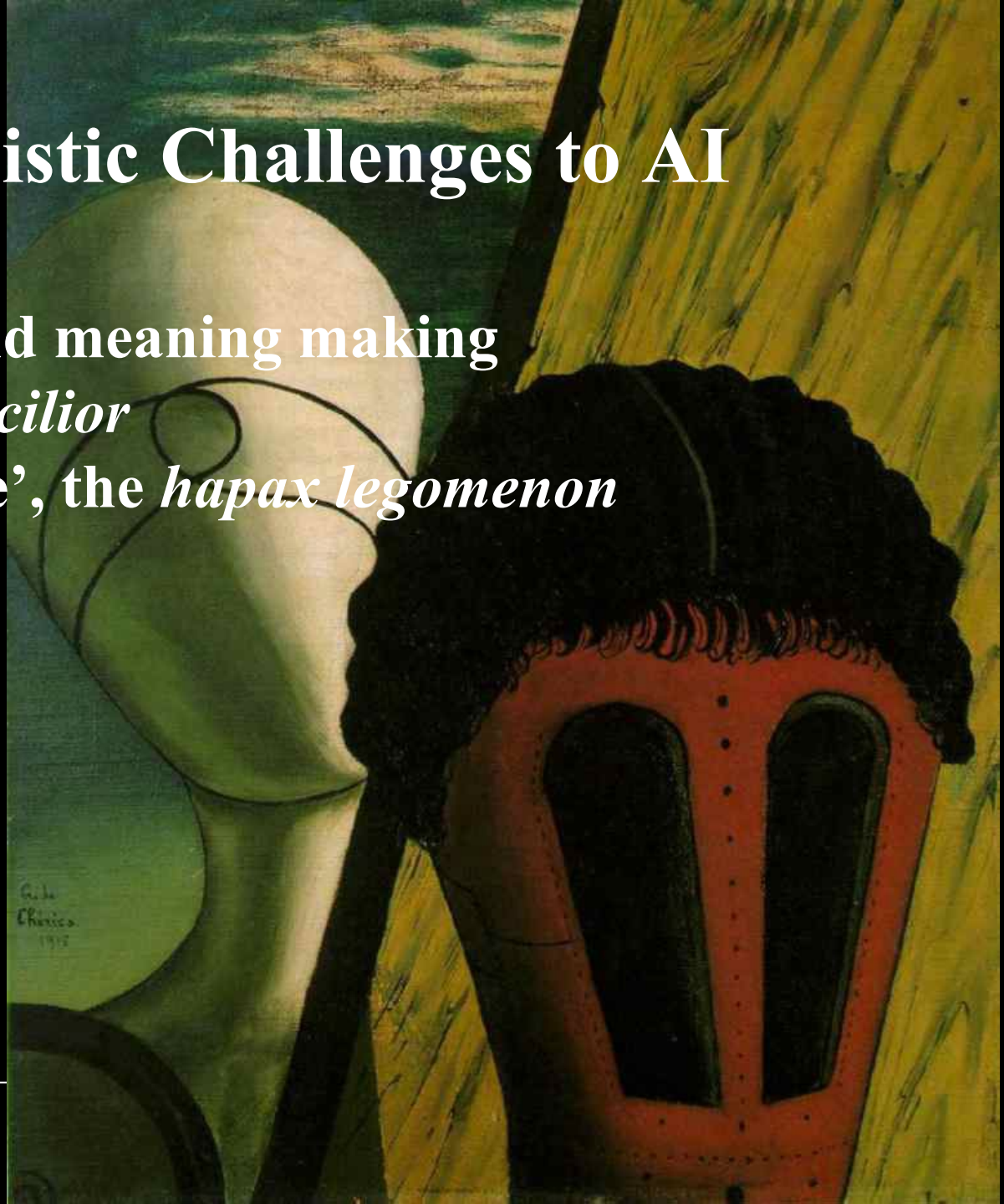
**Original Text**  
*Click a word to view suggested emendations.*

ατρειδη κυδιστε αναξ ανδρων αγαμεμνον δωρα μεν αι κ' εθελησθα παρασχεμεν, ως  
επιεικες, η τ' εχεμεν παρα σοι· νυν δε μνησωμεθα χαρμης αιψα μαλ' · ου γαρ χρη  
κλοτοπευειν ενθαδ' εοντας ουδε διατριβειν· ετι γαρ μεγα εργον αρεκτον.

Not just what  
κλοτοπεύειν  
means, but *how*  
it means

# Seven Humanistic Challenges to AI

1. Description and meaning making
2. The *lectio difficilior*
3. 'Said only once', the *hapax legomenon*
4. Subjectivity



CLASSICS AFTER ANTIQUITY



Constanze Güthenke

# Feeling and Classical Philology

Knowing Antiquity in  
German Scholarship, 1770–1920

CLASSICS AFTER ANTIQUITY



Constanze Güthenke

## Feeling and Classical Philology

Knowing Antiquity in  
German Scholarship, 1770–1920

TOM GEUE

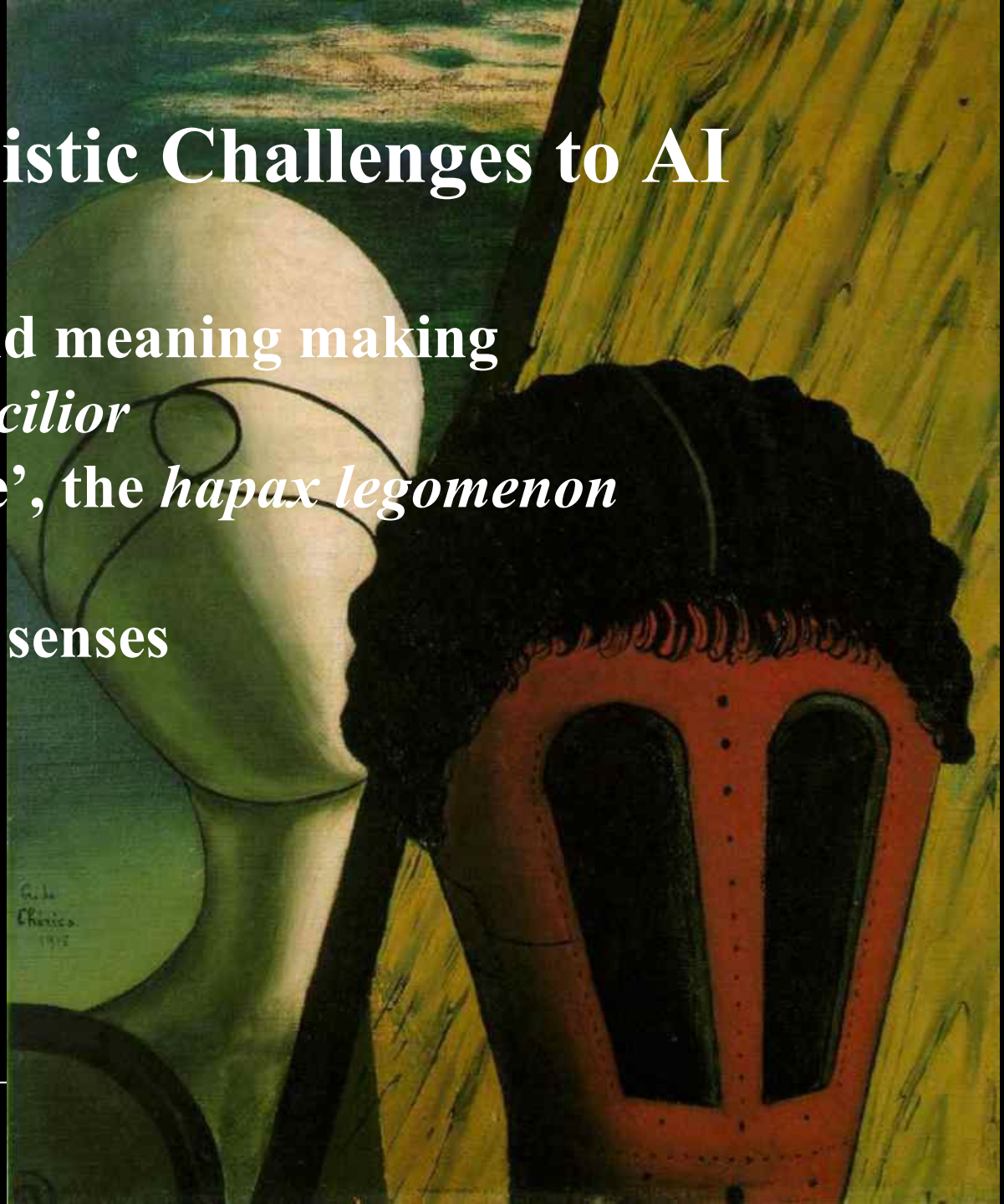


# MAJOR CORRECTIONS

AN INTELLECTUAL BIOGRAPHY  
OF SEBASTIANO TIMPANARO

# Seven Humanistic Challenges to AI

1. Description and meaning making
2. The *lectio difficilior*
3. 'Said only once', the *hapax legomenon*
4. Subjectivity
5. Coming to our senses



## Psellos, *Poem* 62 line 62

κόμης τίς ἐστι, τὸν χρόνον κατὰ Κρόνον,  
ὃς ἐν ναῷ πάλαι με τῶν Ἀποστόλων  
θέλοντα πομπὴν τὴν βασιλέως βλέπειν  
ἀνηλεῶς ἔτυπτε (φεῦ μοι) τῷ ξύλῳ,  
ὥμους, κεφαλὴν, ὦτα, πλευρὰς καὶ σκέλη  
παίων ἀφειδῶς, πᾶν μέλος μοι συντρίβων.  
φεύγειν δ' ἐμόχθουν καὶ φυγῆς οὐκ ἦν τόπος,  
ὥσπερ ποταμοῦ πλημμυρούντων τῶν ὄχλων,  
ἕως ἀπειπών, ἡμιθνής, βραχὺ πνέων,  
**οἴκοι** στενάζων, λειποθυμῶν ὀχόμην.

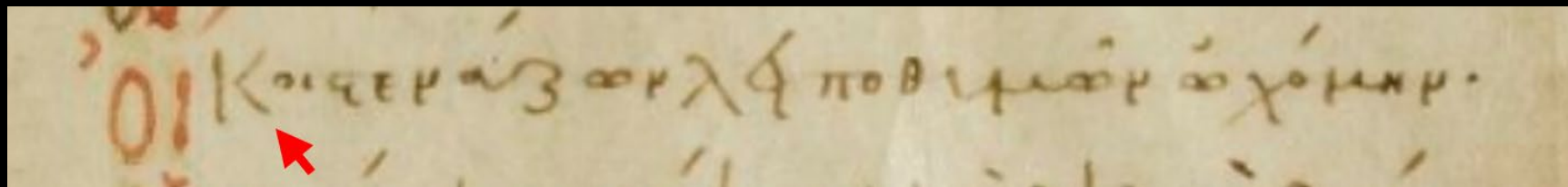
### **Logion suggests οἴμοι, 'alas'**

Cf: Constantinus Stilbes, *Carmen de incendio*,  
1.925f. About the great fire of Constantinople  
in 1197CE, so ca. 100 years after Psellos' death

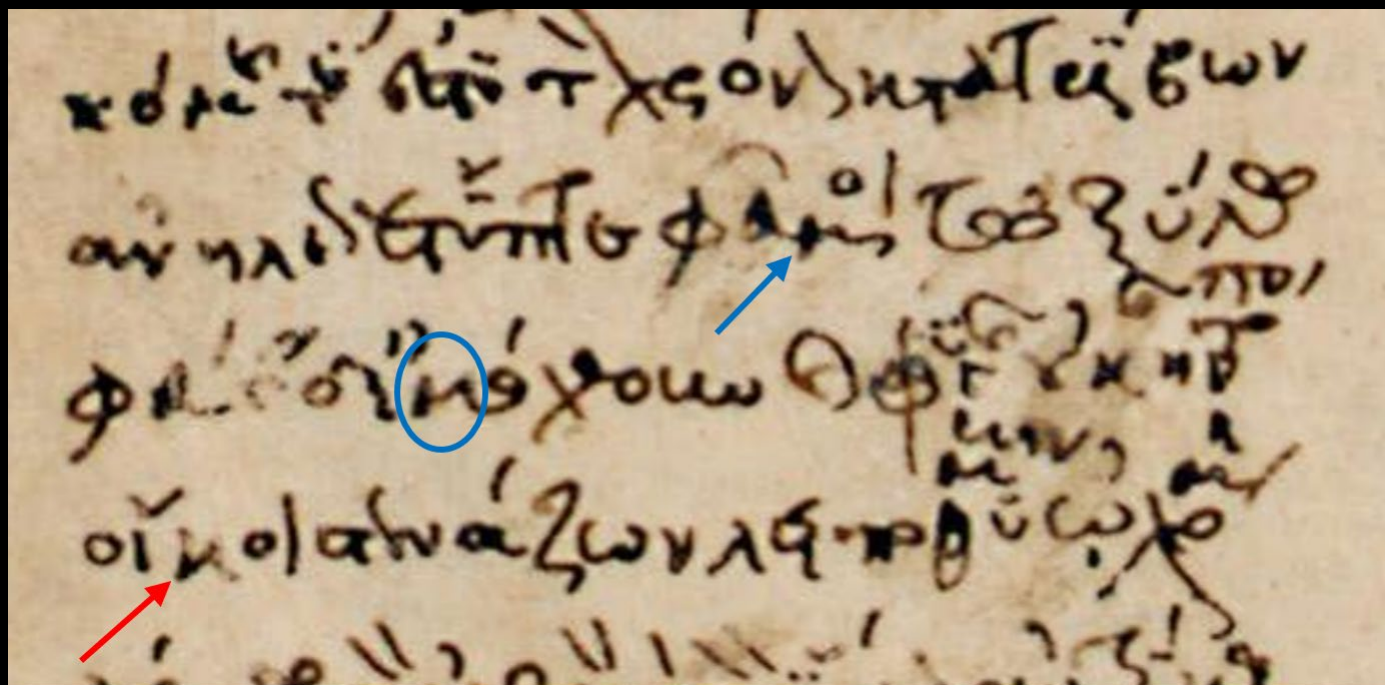
**οἴμοι στενάξω** τοῖς ἀλαλήτοις γόοις,  
ἕως ὁρῶ πῦρ, τὴν φθορὰν τῆς πατρίδος

He is some sort of count, a man as  
old as Kronos, who once, long ago  
now, in the Church of the Apostles,  
gave me a brutal hiding with a  
stick, poor me, while I was  
standing there, hoping to watch the  
king's procession. He worked my  
shoulders, head, ears, ribs, and  
legs, without mercy, crushing my  
every limb! I did my best to get  
away but there was no room to  
escape, because the crowds were  
pressing on like a river. Eventually,  
defeated, half-dead, and barely  
breathing, wailing **at home** and  
almost fainting I got away.

Par. suppl. gr. 690 f. 113r:

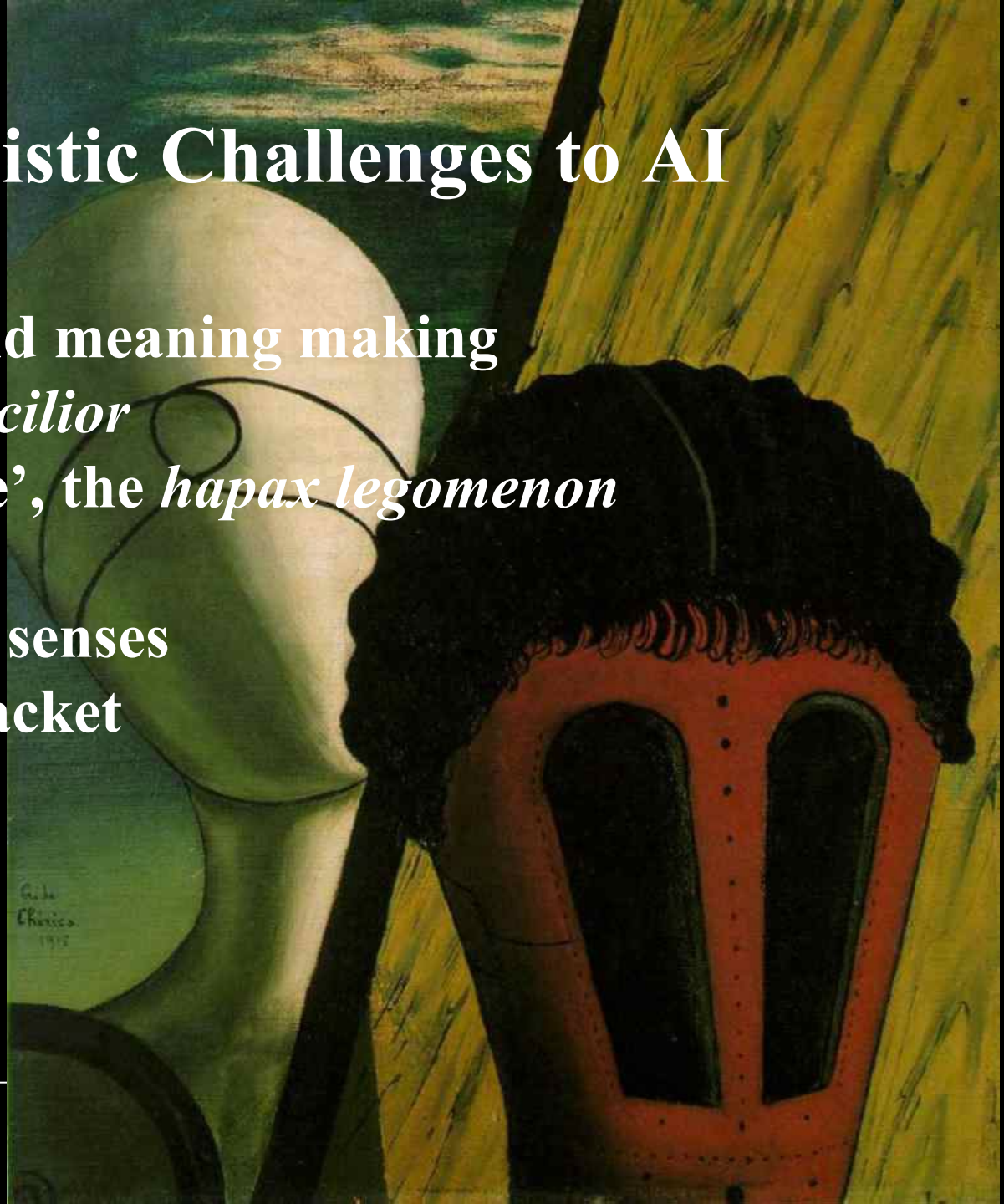


Cod. Laur. 32, 52 f. 124v:



# Seven Humanistic Challenges to AI

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3. 'Said only once', the *hapax legomenon*
4. Subjectivity
5. Coming to our senses
6. The square bracket



# Psellos

## Remnants of *Epistle 517*

Vat. Barb. gr. 240  
f. 218r

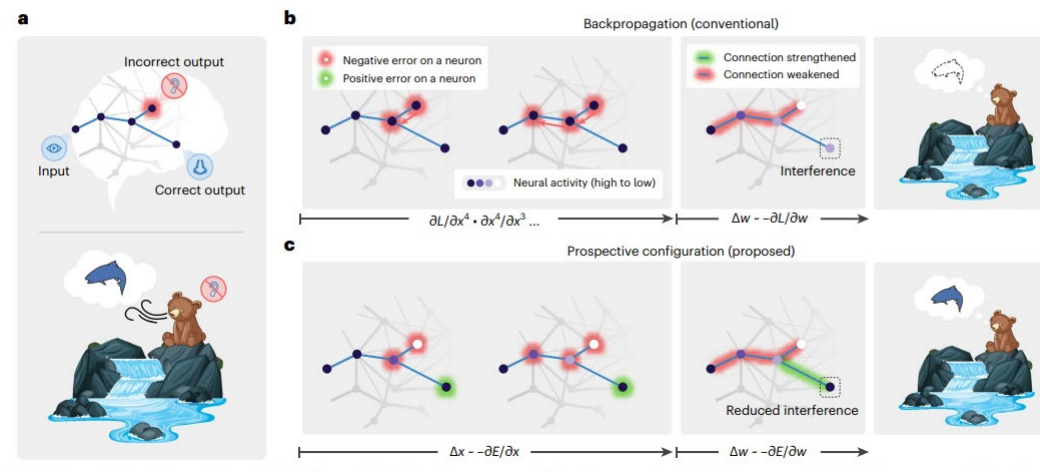


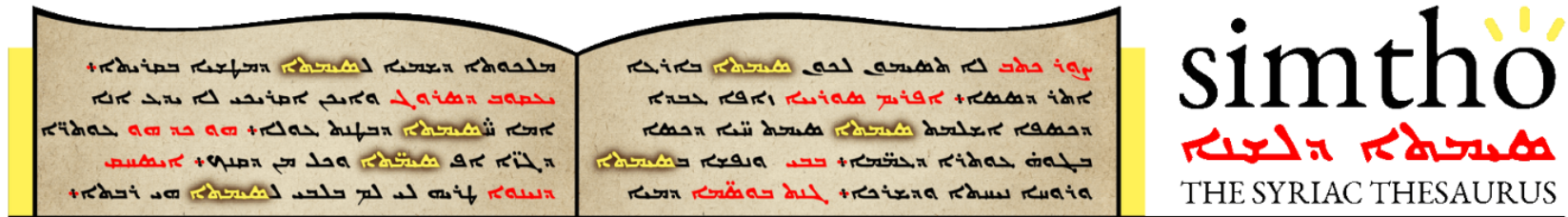
# Seven Humanistic Challenges to AI

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4. Subjectivity
5. Coming to our senses
6. The square bracket
7. Catastrophic forgetting and the global archive



# Inferring neural activity before plasticity as a foundation for learning beyond backpropagation





*Simtho: The Syriac Thesaurus* is a medium-size database of Syriac literary texts. The Beta version was launched at AAR/SBL in San Diego in 2019 and consists of 7.3 million tokens (ca. 6.5 million words). Users can search the corpus using different methods: simple word and phrase search, regular expressions, and a Corpus Query Language. Search operations can be filtered by a rich set of metadata fields such as author, composition date periods, genre, poetic meter (when applicable), and much more. In addition to concordance results, users can find collocations and frequencies of occurrence. Search results can be saved or exported in text and XML formats. Simtho is freely available online. Volunteers who are interested in helping can read the Call for Volunteers and Call for Texts sections below.

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From: Cowen-Breen, C., Brooks, C., Haubold, J., Graziosi, B. 2023. “Logion: Machine-Learning Based Detection and Correction of Textual Errors in Greek Philology.” *Proceedings of the Ancient Language Processing Workshop 1*: 170-8.

One approach: what is the word with the least probability, conditioned on its context?

i.e. find word  $X_i$  with lowest  $P(X_i | X_1, \dots, X_{i-1}, X_{i+1}, \dots, X_n)$

Better approach: what is the one-word change which will lead us to the sentence with highest probability?

Consider the “chance-confidence ratio”:

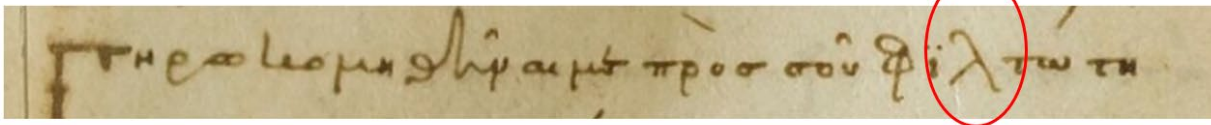
$$\rho_i := \frac{P(x_i | x_1, \dots, x_{i-1}, x_{i+1}, \dots, x_n)}{\max_{x'} P(x' | x_1, \dots, x_{i-1}, x_{i+1}, \dots, x_n)}$$

1a Michael Psellos *In obitum Scleraenae* 17.172.

Paris, Bibliothèque nationale de France, Supplément grec, 690 f. 71r.

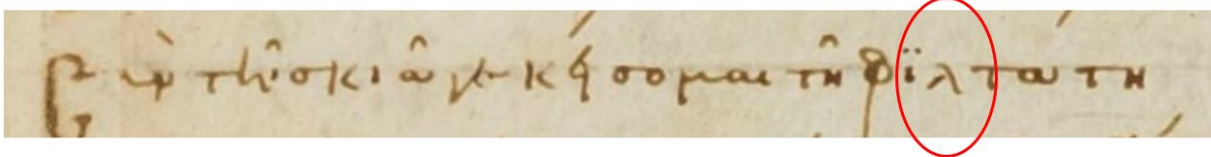
Images are courtesy of the Bibliothèque nationale de France.

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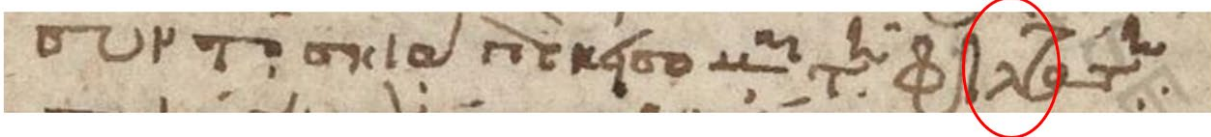
1b Michael Psellos *In obitum Scleraenae* 17.234.

Paris, Bibliothèque nationale de France, Supplément grec, 690 f. 71v.



2 Michael Psellos *In obitum Scleraenae* 17.234.

Città del Vaticano, Biblioteca Apostolica Vaticana, Vat. gr. 1276, f. 56v.



*Metaphysics B4, 1000a15*

| <i>Metaphysics B 4, 1000a9-18</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Transl. Ross, modified                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| οἱ μὲν οὖν περὶ Ἡσίοδον καὶ πάντες ὅσοι<br>θεολόγοι [10] μόνον ἐφρόντισαν τοῦ<br>πιθανοῦ τοῦ πρὸς αὐτούς, ἡμῶν δ' ὠλι-<br>[11]γώρησαν (θεοὺς γὰρ ποιοῦντες τὰς<br>ἀρχὰς καὶ ἐκ θεῶν γε-[12]γονέναι, τὰ μὴ<br>γευσάμενα τοῦ νέκταρος καὶ τῆς ἀμβρο-[13]<br>σίας θνητὰ γενέσθαι φασίν, δῆλον ὡς ταῦτα<br>τὰ ὀνόματα [14] γνώριμα λέγοντες αὐτοῖς·<br>καίτοι περὶ αὐτῆς τῆς προσφο-[15]ρᾶς τῶν<br><b>αἰτίων</b> τούτων ὑπὲρ ἡμᾶς εἰρήκασιν· εἰ μὲν<br>γὰρ [16] χάριν ἡδονῆς αὐτῶν θιγγάνουσιν,<br>οὐθὲν αἴτια τοῦ εἶναι τὸ [17] νέκταρ καὶ ἡ<br>ἀμβροσία, εἰ δὲ τοῦ εἶναι, πῶς ἂν εἶεν αἱ-[18]<br>διοι δεόμενοι τροφῆς)· | The school of Hesiod and all the mythologists<br>thought only of what was plausible to<br>themselves and had no regard for us. For<br>asserting the first principles to be gods and<br>born of gods, they say that the beings which<br>did not taste nectar and ambrosia became<br>mortal; and clearly, they are using words<br>which are familiar to themselves, yet what<br>they say about the consumption itself of these<br><b>causes</b> goes beyond our comprehension.<br>For if the gods taste them [i.e., nectar and<br>ambrosia] for their pleasure, they are in no<br>wise causes of their existence; and if they<br>taste them to maintain their existence, how<br>can gods who need food be eternal? |
| αἰτίων] σιτίων <b>Logion</b> : del. τῶν αἰτίων Kotwick and Haubold                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |