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Introduction:

Anastasia:

Good evening! Very interesting what we have heard and thank you very much. I am Anastasia, a second grade student of the Experimental High School of our city. Why am I here today? Because we think it is very important to have education for everyone about AI, which is promised, as we have heard, by the Talos project. We, high school students, restless spirits and representatives of the new generation, are a target group that deserves to have our voices heard and to reflect with us on issues related to AI. With our teacher we experimented with three AI tools: the Europeana platform, the Ithaka tool and the well-known and topical Chat GPT.

Cleanthi:

How did we work? In our class of 22 students, a short presentation was given an introduction to each tool. And we took action! We freely toured each tool we spent one teaching hour on each one - either alone or in groups of 2. We tried to discover it, explore the possibilities it offers, look for information, etc. We then recorded our impressions, our questions, our questions and any other thoughts that came to us. Today we will address these questions to the researchers of the project, with the aim of holding an enlightening and constructive discussion.

Questions & Answers

SECTION 1: Europeana (1st slide)

Vicky:

The 1o tool is Europeana. It is the longest-running digitisation project in the field of literature and culture in the EU (created in 2008). It gives access to millions of books, maps, audio recordings, photographs, archival documents, paintings and films from national libraries and cultural institutions in all EU Member States.

Cleanthi:

Europeana successfully applies symbolic AI techniques, while continuing research on the integration of machine learning techniques to enable faster discovery and better use of information by humans and software.

Question 1 - Anastasia:

If I want to find cultural information, say something about 'red hats', why should I use a database like Europeana, and not just Google?

Maria:

Google and Europeana are two very different things. The first is the search engine developed by the company of the same name. It searches for content all over the World Wide Web. We are talking about hundreds of billions of web pages.

Europeana is the EU's largest cultural heritage digitisation programme. We are talking here "only" about 60 million digitised works of art, books, films, TV shows, from 5, 000 cultural institutions from all over Europe - and of course - Greece.

Anastasia:
I think it helps to think that if you are interested in, for example, a 'red hat', Google will search for it in shops, song titles, news titles, book titles - in the results you will see what is most popular and commercially interesting.

Europeana will search it in major European museums, libraries, archives – in the results you will see old hats, paintings and photos of hats, and so on.

Eleni:
It has to be said that what is comparable to Europeana is 'Google Books' and 'Google art & culture'. I would suggest you do a comparative test with them.

Question 2 - Yannis:

Very interesting all this, really! I do, however, have some reservations about how easy it will be for us to search this site. I have a feeling that other, better known search engines how shall I put it? Make it easier for us?

Maria:
Like all things, it takes some time to get used to. You can do a simple search based on the topic you're interested in, but you can also filter the results by the type of media you're looking for, whether you want text, image, video or audio, or by country, language and other parameters.

You can also save your favourite items to easily 'revisit' them in the future by clicking on the heart icon. You can thus create your own collections of items, as all social networking apps allow.

Objection - Marilena:

Let me interrupt you here and say that I tried to browse Europeana, and I found it chaotic, it didn't seem to me to offer good categorization, and in the end google seems simpler to me.

Anastasia:
If you're looking for nature-themed paintings, Europeana will show you just that. Google will show you paintings from museums, shops selling copies of such paintings, a magazine's ranking of the best paintings in the world, and a few nature clubs. Europeana is like a vast museum. You can indeed get lost, but you will see cool things and many curiosities you never imagined existed. Searching and exploring have their own value in learning, especially when done in a valid context like Europeana.

Question 3 - Marilena:

As I was browsing the website, I was wondering how the reliability and validity of the information on the website is ensured...

Artemis:

It is certainly more valid than anything you can randomly "fish" for on the internet, via Google or other search engines. However, a degree of critical thought is needed in what we see or read - and of course bear in mind that the items in Europeana often have mainly historical value.

Maria:

The material is doubly checked for validity. It is first checked by the curatorial experts in the museums, archives, etc. from which it comes. It is then checked by the 'digital aggregators' in each country that collects the material, and they make sure that the information is not altered as it is uploaded to Europeana.

Question 4 - Konstantinos:

That's all well and good. But I want to say something. My name is Konstantinos and I am 17 years old. As a teenager at this age, do you think I belong to the cognitive and age audience Europeana is targeting? What is the "ideal" audience in your opinion?

Eleni:

I would say that it is addressed mainly to people with special interests in the objects, the products of culture. There are a lot of people who are interested in European cultural heritage, which is preserved and disseminated through such means. It can of course also be used in schools. But it is mainly aimed at researchers in the humanities and cultural studies. Research in these disciplines gains new possibilities with such digital tools. But precisely because it is aimed at a demanding audience, it makes its use in the school context even more appropriate: there may be a little difficulty in learning to navigate at first, but the result will certainly be worth it!

Question 5 - Anastasia:

In which courses do you imagine it could be used? Do you have something specific in mind?

Eleni:

History, Ancient Greek, Geography, Art, Art History, in a visit to a museum, in interdisciplinary projects.

Maria:
In all of them. From Geometry and Astronomy, to History and Religious Studies. If you want ideas on how to use the Europeana material, visit the European Schoolnet "Teaching with Europeana" website (Google it!)

Question 6 - Konstantinos:
As I follow you, I also wonder about issues related to how democratic the website is. Is there, say, a requirement of technological equipment and literacy for its use? That is, what equipment do I need to have... what knowledge do I need to have about all this?

Artemis:
Access to a simple terminal, even a public terminal, such as those offered in a school, university, or even an internet café, is enough. For background: (s)he needs to know how to use a computer and the internet, and from there (s)he needs a level of knowledge to cope with what (s)he will read, and even to understand what it is that (s)he wishes, in general, to search for.

Eleni:
Exactly. This raises an important issue of social justice and therefore democracy: the technological equipment required for such websites and applications is indeed becoming cheaper and cheaper and more accessible. In terms of technological literacy, however, in terms of what we need to know before we start using all these new tools, major breakthroughs are needed to modernise our education. Not only do we need to bring modern computers to all students in all schools, but we also need to teach children how to use digital tools critically, and with an investigative purpose.

SECTION 2: Ithaca (2nd slide)

Vicky:
Thank you very much! How about we move on now to the Ithaka tool? As far as we know, Ithaka helps to restore ancient inscriptions, with the help of deep learning and neural network techniques. And it is the product of a collaboration between experts in AI and Classical Studies.

Stergios:
The answers given are the result of a machine learning process. That is, the model has learned through examples given to it and has managed to generalise its learning to new, unknown examples. Based on this and the definition of what one considers critical thinking, you can provide the answer yourself.

Question 7 - Yannis:

I would like to ask a question about the Ithaka neural network, which enables the filling in of missing parts of ancient inscriptions. Are the answers given based on probabilities/possible combinations or is there some kind of critical thinking involved?

Stergios:

The answers given are the result of a machine learning process. That is, the model has learned through examples given to it and has managed to generalise its learning to new, unknown examples. Based on this and the definition of what one considers critical thinking, you can provide the answer yourself.

Question 8 - Marilena:

Does this network recognise the parts of speech?

Stergios:

The specific tool concerns inscriptions and focuses on textual restoration, geographical localization and chronological attribution. It is not trained to identify parts of speech. However, the work of identifying parts of speech has, for many years, been at a very good level.

Question 9 - Anastasia:

Does the fact that it can give the same answer as an intelligent being mean that the same processes take place?

Stergios:

That's a tough question. Ithaca is a deep neural network, i.e. it is based on a collection of algorithms that are inspired to some extent by the way the neurons of the human brain work. To answer this question, we would first need to know what processes we use to make this comparison. On the other hand, we don't necessarily need to have wings to fly.

Question 10 - Yannis:

Is there a possibility to integrate it into a school course?

Eleni:

Of course, in the teaching of ancient Greek from the original. It will be a good tool for learning grammatical and syntactic phenomena of ancient Greek, but also for understanding how the Greek language evolved and changed. It would also be of great help in understanding the linguistic structures of a particular kind of ancient texts, the inscriptions.

SECTION 3: Artificial intelligence (in general) (3rd slide)

Question 11 - Konstantinos:

As I follow the debate, I am concerned about the general question of whether AI is considered intelligence.

Stergios:

The term intelligence is associated with the ability to do many things, e.g. abstract and logical thinking, consciousness, creativity, among others. Now, some of these seem to be demonstrated by modern artificial intelligence systems. I would argue that, at least to some extent, it assimilates aspects of what we call intelligence.

Maria:

It depends, indeed, on how we define the concept of "intelligence" and on whether we consider other beings than human beings to be "intelligent". However, of all the constructs of human intelligence, it is computers to which we attribute so many human characteristics: we talk about 'memory', ‘computer vision', 'machine learning', 'neural networks', 'artificial intelligence', ‘intelligent software agents'. What we require is that they perform the tasks we assign them in an intelligent, transparent and ethical way and that they are able to give us full explanations of how they arrived at the final result.

SECTION 4: AI & the Humanities

Question 12 - Konstantinos:

And on the humanities... How far can the use of the concept of "cognition" be applied to the humanities?

Anastasia:

It can be used in many ways in the humanities, especially for large data sets. For literature, for example, it helps us to study large bodies of texts. It has been used to look at suspense, or suspense, in 20, 000 English-language novels from across the 20th century: whether there was always suspense in the novels, or in which periods it was more or more intense. This kind of study helps us to understand the culture of an era more comprehensively than if we studied just a few works, as we have done so far.

Question 13 - Yannis:

OK with the humanities... But what about humanities education? To what extent can AI be used in humanities education?

Artemis:

AI helps one to access a large amount of information and data, which, in their original, physical state, are not "concentrated" in a specific "place" anyway. That is, in order to see ten different texts, it would be necessary to travel and visit many libraries to read them and see if they are useful. Using the parameters of the system, one can, in the end, with one click of a button (or more, okay, I'm exaggerating!) access "inaccessible" material.

So, again, by having these tools, it helps to disseminate data, and therefore helps to democratize knowledge.

Eleni:

Many AI features can enhance equity and social justice at school. Firstly, as long as the system is able to anticipate, for example, a possible failure or drop-out from the education system, it provides the opportunity to (sub)support specific students in need in specific subjects, not in a general and vague way. Then, it can diagnose specific weaknesses and suggest individualized exercises to fill the gaps. In addition, AI can become a consultant by solving some questions in the form of a bot. Particularly for practising a language, whether native, second or foreign, it can be of great help, especially at the first level of learning, in vocabulary, grammar and syntax.

SECTION 5: Chat GPT (4th slide)

Question 14: Yiannis

This is all very useful! But a lot of talk lately and the GPT Chat. Can you tell us a little bit about it?

Stergios:

ChatGPT is an AI chatbot. It is based on a large language model, GPT-3.5, which has the ability to produce fluent text. Models like GPT-3.5 have been trained on a huge amount of data and ChatGPT, which as we said is based on such a model, has been further fine-tuned to produce detailed answers to queries posed to it. Note the term 'detailed'. It does not presuppose the notion of correctness.

Question 15: Marilena

It seems to me that ChatGPT is like a friendly interactive encyclopedia. How about this?

Stergios:

Although ChatGPT's capabilities may often have been overstated, to say that it is just a friendly interactive encyclopedia rather understates it. It is more than an interactive encyclopedia, since in addition to providing information, it has the ability, and at least to some extent, can provide a synthesis of information and give answers based on such synthesis.

Question 16: Anastasia

As chatgpt as a bot does not express its own opinion, it presents various opinions on controversial issues. But it is impossible to report all of them. Does it promote some more popular ones above and how this could affect the concept of knowledge in the modern world?

Stergios:

I can't make predictions, but I would say this: if ChatGPT does have the potential to play a catalytic role in the diffusion of knowledge, and the quality of knowledge that is diffused, then the question is who controls that diffusion, what interests they have, and therefore what they want to achieve. We need to focus on issues beyond ChatGPT. However, it will not be the first time we will be confronted with such a problem (who controls the knowledge, what kind of knowledge, etc.).

CLOSURE - MOVE TO THE NEXT CONTRIBUTION:

Konstantinos:

And who can guarantee that the content produced by the machines is free of bias, that all the data has been checked, that there is inclusiveness, etc.?"

Eleni:

You raise an important issue, which is the ethics of AI. Mr. Michael Kritikos will talk to us about this issue...