# NEWSLETTER

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CHATBOT APPLICATION IN COURSE SUPPORT

Chatbots in the higher education process have emerged as a versatile tool, altering the way students interact both with the learning content and the learning process. These AI-powered assistants make numerous processes easier and more user-friendly, from admissions to course enrollment, providing information regarding course content, assessment, deadlines and many other purposes. During the ASSISTANT project, our international team of researchers worked on identifying new ways chatbots can contribute to enhancing student engagement and reducing the workload for teaching staff. By leveraging natural language processing and machine learning algorithms, chatbots in higher education foster a more accessible and efficient learning environment, empowering students to make informed decisions and succeed in their academic careers.

On April 10, Assoc. Prof. Daina Gudonienė and Prof. Dr. Evaldas Vaičiukynas (KTU) introduced the ASSISTANT project and its current achievements to the scientific community of KTU Faculty of Informatics. Our researchers introduced the audience to the aim and current results of the project. Participants were exceptionally interested to see the practical application and benefits of chatbots in the context of higher education.

Further discussions revolved around the potential of such tools as well possibility of creating chatbots for one's course without prior experience in their development. Assoc. Prof. Daina Gudonienė further noticed that as chatbots are getting more and more advanced, there is a positive trend of students using them not only to find basic information regarding the course organisation but also to learn more about terms and processes that are mentioned in the course/module.
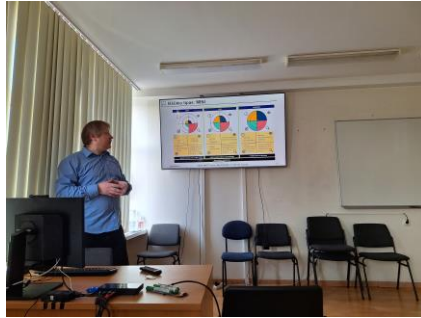
Prof. Dr Evaldas Vaičiukynas introduced the Big data module developed during the project as well as the piloting results. Professor notes that the information technologies with growing amounts of digital storage and more devices or sensors than ever before have resulted in massive quantities of diverse data and applying this data for many useful purposes becomes challenging. Therefore, the term Big Data refers to massive and often unstructured data, for which traditional data management and analysis tools are insufficient. The aim of the course was to give an an overview of the Big Data concept and main techniques for working with it effectively. There was a practical focus is on extracting value and formulating data-driven insights using analytics and visualization. And so, by the end of the course, students acquired a sufficient knowledge of big data analytics as a tool for addressing research questions and approaching challenging problems with data-driven solutions.

Piloting itself revealed positive results as students not only improved their Big Data analysis skills but also had an opportunity to apply them solving real-life problems. In this case, students were given an opportunity to analyse historical air pollution data of different cities and attempt to make insights and even forecast future pollution levels. Furthermore, the course included an integrated chatbot developed specifically for this course, so students could choose whether to learn more via reading material or using conversations with an intuitive chatbot.

PROJECT COORDINATOR

PROJECT PARTNERS

https://www.assistant-erasmus.eu/

Kaunas University of Technology
Faculty of Informatics
Studentu Str. 50, Kaunas, Lithuania