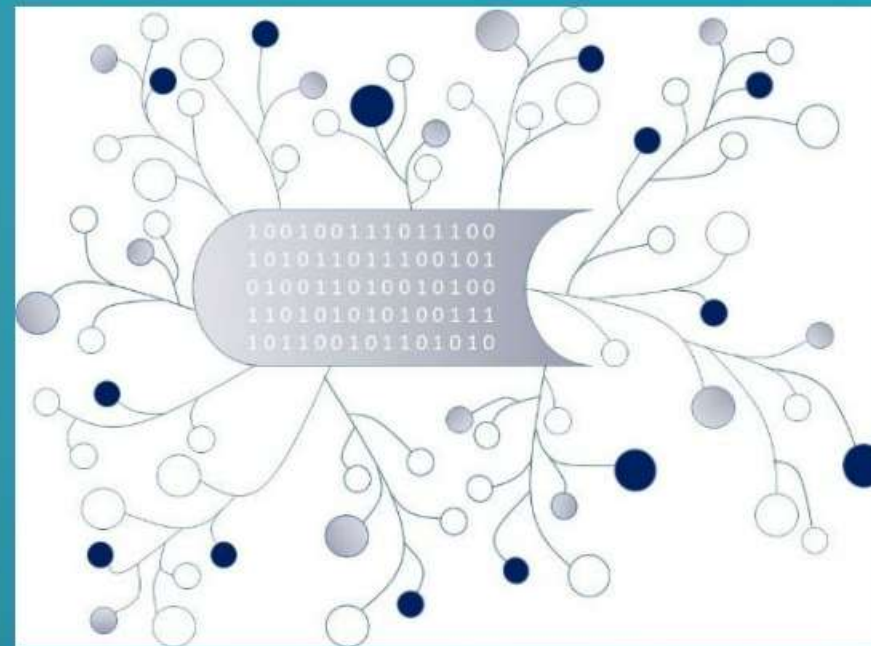


Digi-VET

Project number: 2018-1-DE02-KA202-005145

IO4

Teacher Module 4 – The need of digitisation in today's world of work and insights into future developments.



Digi-VET – FOSTERING DIGITISATION AND INDUSTRY 4.0 IN VOCATIONAL EDUCATION AND TRAINING

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AGENDA

1. The need of digitisation in today's world of work

1.1 Industry

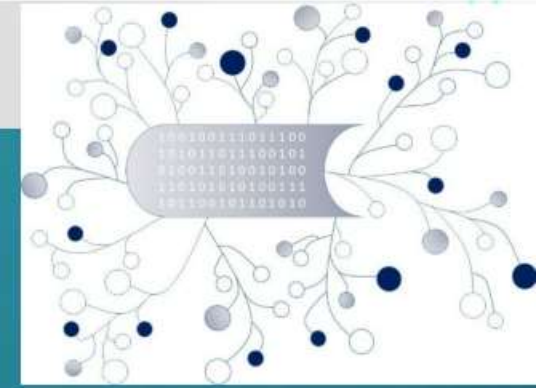
1.2 Education

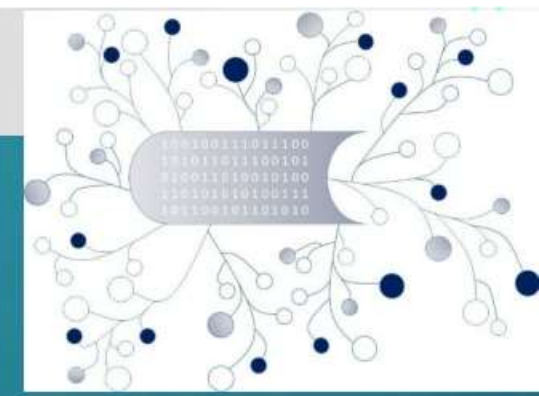
1.3 Tasks

2. Insights into future developments

2.1 Looking to the future

2.2 Tasks



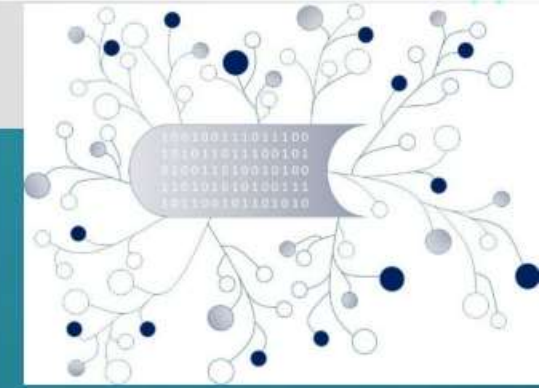


The need of digitisation in today's world of work.

The need of digitisation in today's world of work

1. Industry

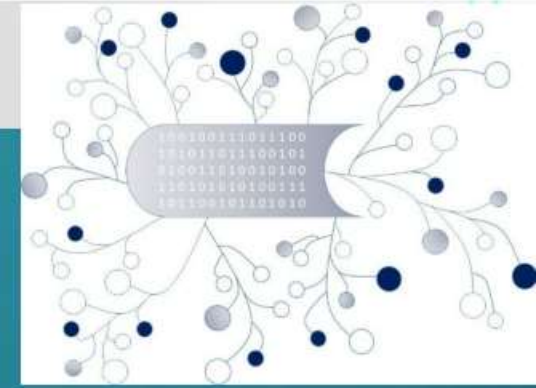
- Looking at history, we see how it repeats itself in terms of the 4th industrial revolution: modern 21st century's technological advancement has contributed with numerous innovations challenging both the education and the industry
- We must emphasize that digitisation affects industry by making it cost efficient. In the same time, there is a risk of technology taking over human manpower.
- Despite the undeniable advantages of digitization, the main dilemma industry and digitisation faces is the maintenance of human labour force



The need of digitisation in today's world of work

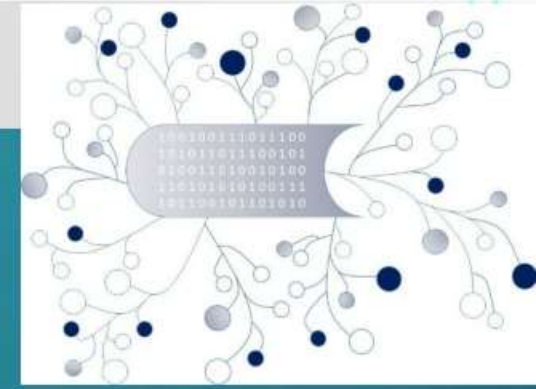
1. Industry

- I believe in the face of new technologies, humanity will be able to use them to benefit us – said Huawei CEO Ren Zhengfei during the tech session focused on the Fourth Industrial Revolution, from Davos.
- Smart products will be everywhere, from smart clothing, watches, and phones, to smart machine and equipments, buildings and smart cities.
- Current statistics show that the issue arises not because robots or machines change human labour, but because individuals do not possess set skills to work the complex machinery.



The need of digitisation in today's world of work

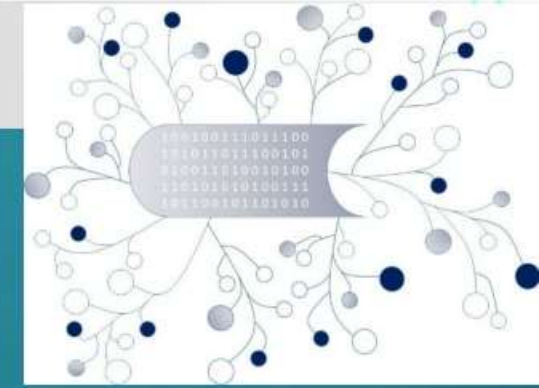
2. Education



According to European Commission, in the ICT (Information Technology) sector will be around 756.000 unfulfilled job vacancies. These numbers depict a significant impact of trainings to provide set of needed skills to work with newly introduced technologies. Thus, number of spare job vacancies would decline and the GVA could have exponential increment.

The need of digitisation in today's world of work

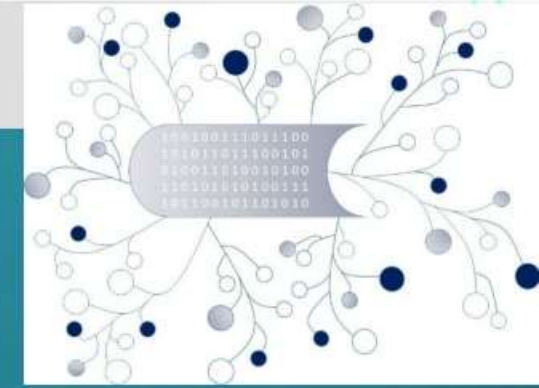
2. Education



The new technologies does not only affect the students, but it carries an impact on teachers as well. Not all teachers are trained and qualified to be able to use technologies successfully, it takes time to transform set of teaching methods. Frequently, technological error such as internet connectivity issue might arise leading to learning and teaching difficulty.

The need of digitisation in today's world of work

2. Education



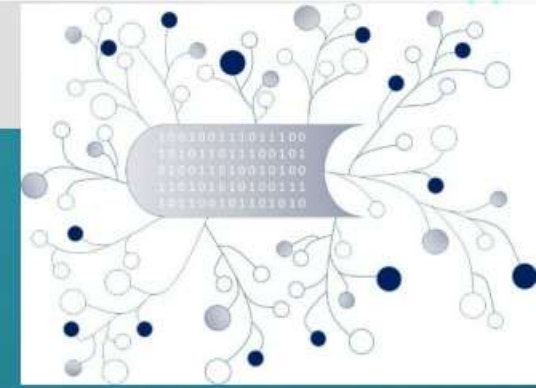
It is important to teach younger generation from the beginning to gain skills of competence in relation to technologies.

Adding digitised sources into the learning process increases productivity: it makes documents more accessible and reduces learning time, increasing efficiency.

University of Durham provided a research based of teaching methods stating that they should not be substituted with digital technologies. The best result is attained when students are using technologies during certain periods of time.

The need of digitisation in today's world of work

2. Education

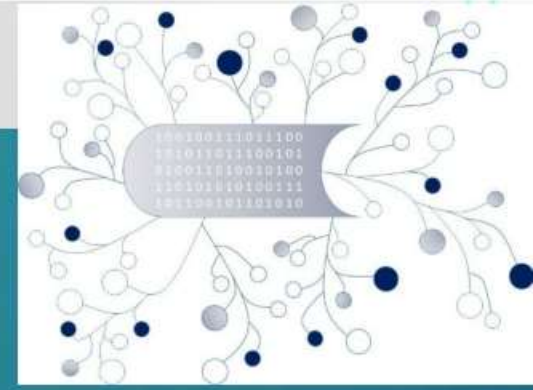


IMPORTANT!

Technologies should be used as a tool and not be regarded as an alternative for teaching provided by an acknowledged individual (professor) in a classroom!

It is essential to use these tools sensibly and avoid over consumption!



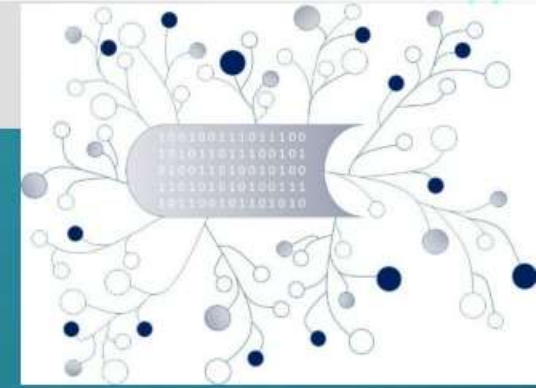


The need of digitisation in today's world of work

If the labour force is equipped with the skills needed to use the technology, it will grant us major transformation in our society.

CONCLUSION



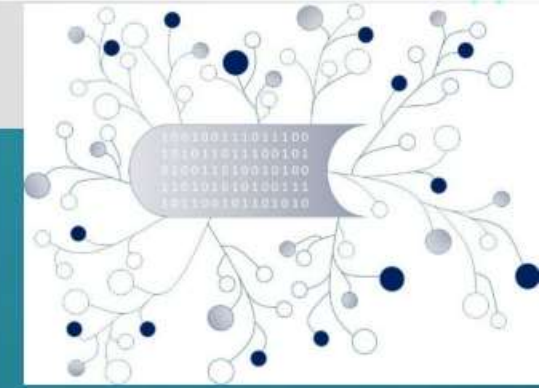


Task

Watch carefully this clip presenting some aspects of the digital transformation in Sweden ... What are your thoughts on this?

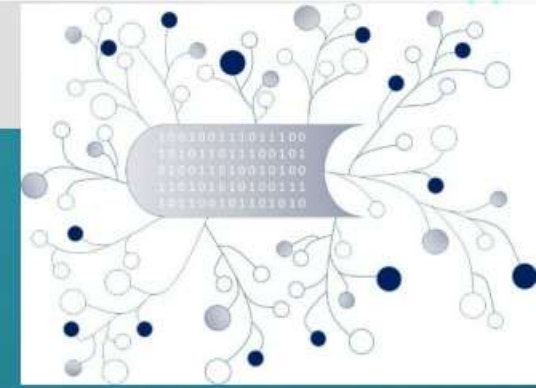
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TASK



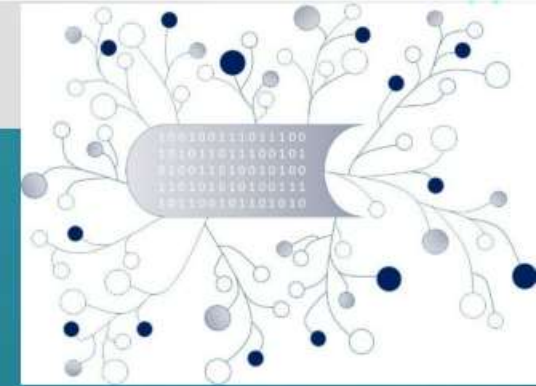
2. Insights into future developments

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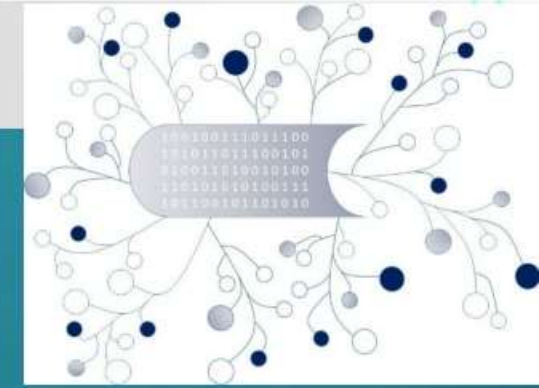
Same like with the other innovations, the world of online technologies is associated with certain contradictions and unforeseen circumstances. For instance parents, who want their child to spend less time at the computer, should change their mind, since education process modernization presupposes the opposite.

2. Insights into future developments



One of the contradictions seriously impeding the modernization of education is the discrepancy between the speed of digitalization of educational resources and the speed at which the digitalization of the educational process itself, which is still very low.

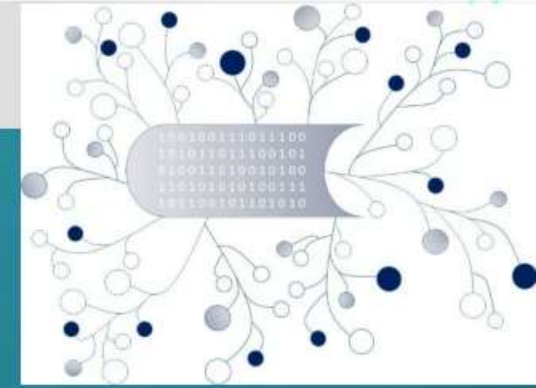
2. Insights into future developments



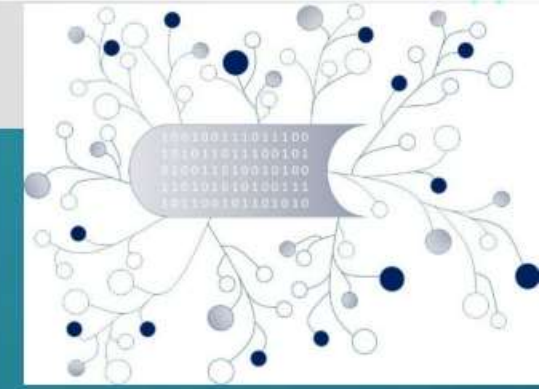
Discussing the phenomenon of digitalization it should be noted that various analysts and forecast experts (mostly British, including Tim Berners-Lee - one of the inventors of the World Wide Web (Stuart, 2014)) consider transition of education process into digital stage as the turning point in the history of education.

2. Insights into future developments

EU 2020 education development strategy „DigEduPol“: The main aim is to integrate digital technologies in education process, so that they were going hand in hand both with teaching of certain subjects and with school education process in general.



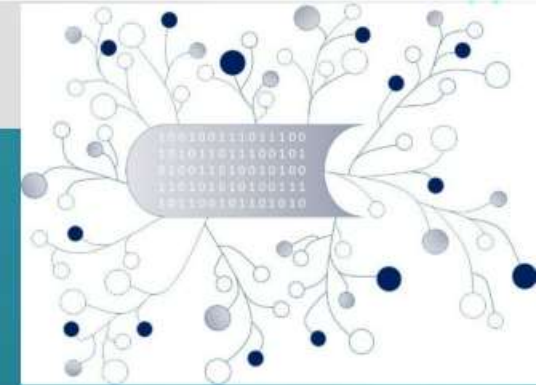
2. Insights into future developments



The future will be about pairing the artificial intelligence of computers with the cognitive, social and emotional capabilities of humans, so that we educate first-class humans, not second-class robots” — OECD, Trends Shaping Education report.

2. Insights into future developments

Classroom activities of the future will not represent a typical picture of a teacher in front of its students, sitting at desks arranged in perfect rows. Introduction of innovation digital technologies will change not only teaching form and tools, but its environment as such. Therefore the classroom of the future should not be a place of knowledge transfer, but a place of investing in the mind of students, focusing on creativity and innovation and not on repeating ready-made opinions or mechanical response to test questions.

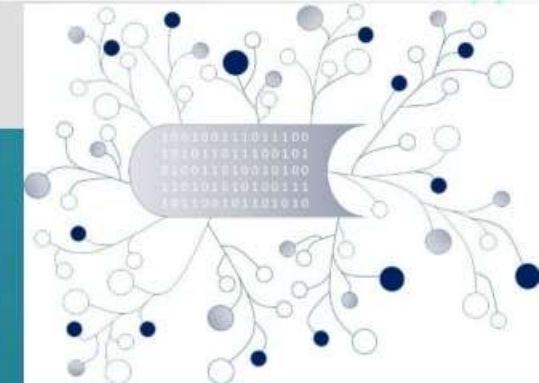


2. Insights into future developments

1. *Classrooms 2.0*

The classrooms of the future will be centred around self-paced and personalized learning.

2. Artificial intelligence in education typically focuses on identifying what a student does or doesn't know, and then subsequently developing a personalized curricula for each student .



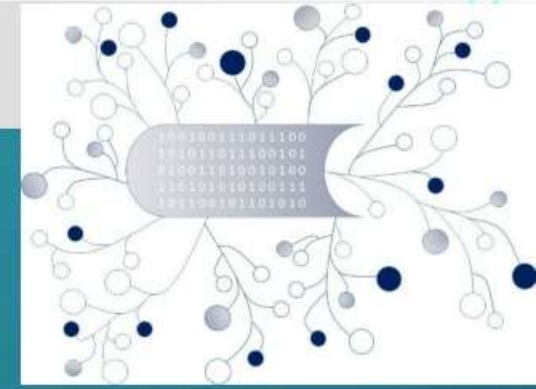
2. Insights into future developments

3. Chatbots

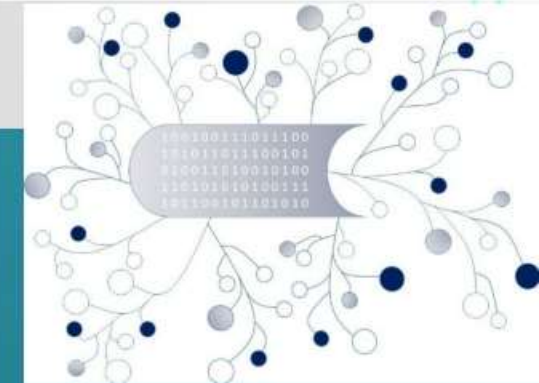
also quickly becoming a fundamental tool in next generation education.

4. Video Learning

Virtual reality (VR), video-recorded or online lectures, e-portfolios, and other forms of interactive study.



2. Insights into future developments EDUCATION and DIGITISATION



PRIMARY and SECUNDARY

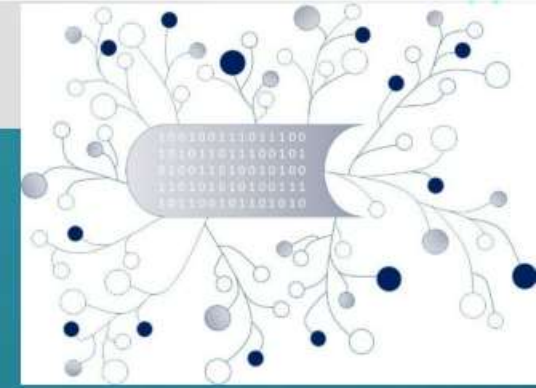
PRESCHOOL

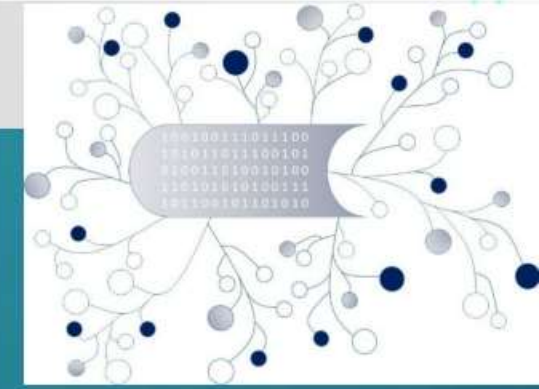
HIGHER EDUCATION

VET

2. Insights into future developments

Digitization has begun, and the application of IT technology is unstoppable. And of course this affect the acceleration of other processes in society; we are already seeing great changes in education.





2. Insights into future developments

TASK

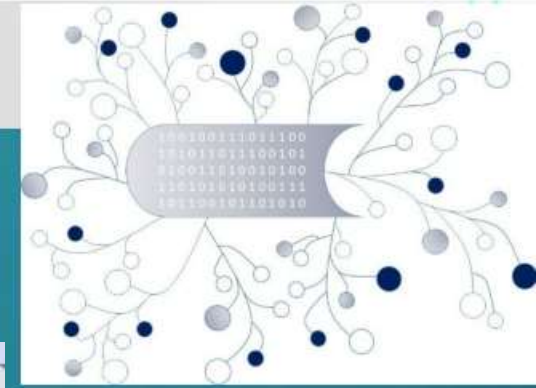
TASK

Please answer the next H5P.org tasks!

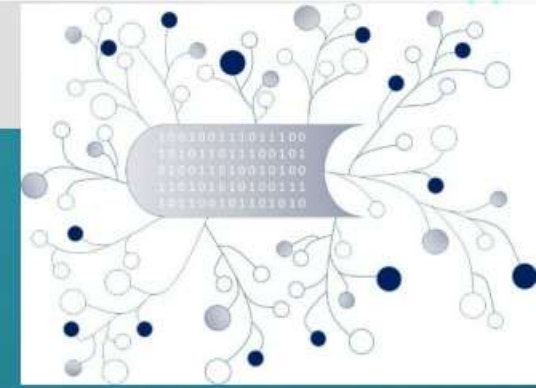
TASK

TASK

The screenshot shows a Chrome browser window with the URL `h5p.org/node/980426`. The page title is "Teacher Training Module 4_RO_I". Below the title, there are "View" and "Edit" links. The submission information reads "Submitted by DigiVET on Sat, 05/09/2020 - 10:46". A blue notification box contains the text: "Thank you for trying out H5P. To get started with H5P read our [getting started guide](#)". Below this is a poll question: "Should digitization be part of the future education of preschoolers?". There are two radio button options: "Yes" and "NO". The browser's address bar shows several open tabs, including "What is the Fourth Industrial Revolution?", "Digital Future 2030", and "Digi-VET complete overview". The system tray at the bottom shows various application icons.



TASK



TASK

A screenshot of a web browser displaying a H5P (Harvest Project) page titled "Teacher Training Module 4_RO_II". The browser's address bar shows the URL "h5p.org/node/960430?feed_me=h5p". The page content includes a "View" and "Edit" link, a submission timestamp "Submitted by DigIVET on Sat, 05/09/2020 - 10:54", and a blue information banner that reads "Thank you for trying out H5P. To get started with H5P read our [getting started guide](#)". Below this is a question: "Referring to the future of education, do you consider that:". There are four radio button options: "technologies such as virtual reality (VR), video recordings or online lectures, electronic portfolios and other forms of interactive study will replace the professor in the future.", "The education of the future aims to prepare students ready to take the place of robots", "in the future, the education will be student-centered and personalized for each student", and "the classroom of the future will not be a place of knowledge transfer, but a place of investments in the student's mind.". A blue "Check" button is located below the options. At the bottom of the page, there are "Reuse" and "Embed" buttons. The browser's taskbar at the bottom shows various application icons.

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Daniel CRISAN

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