



VR, AR and Extended Reality NETWORK MEETING

Friday, 10/5-2019 From 9 to 14

SDU, Campusvej 55, Odense

Participation is free.

SDU Tek innovation and SDU Centre for Teaching and Learning host the event
The XR Club / SDU-VR network steering committee is looking forward to welcoming you all.

For enrolment use [this link](#)

Location

O 100 Auditorium, O 94, and O 99 ([Map](#))

Parking at SDU is free. We recommend that you use [P1 – P4 VEST](#) and allocate 10 minutes for walking to O 100

Program

Short presentations

Auditorium O100

9.00 – 9.15	Welcome – Cita Nørgård, SDU/SDUUP and Frederik Gottlieb, SDU/MCI
9.15 – 9.30	Ali Ahmad Malik, SDU/MCI <i>Virtual reality in human-centered systems</i>
9.30 – 9.45	Fei Yu, SDU/MCI <i>The use of VR for cross-location and cross-discipline educational activities</i>
9.45 – 10.00	Mikkel Toppel Andersen, UCL/Construction <i>Enhancing construction students experience-based learning process through the use of VR</i>
10.00 – 10.15	Thomas K. Hansen, Vejle Kommune/Videnscenter for Integration <i>Development of VR rehabilitation tool for adults with cognitive disabilities due to brain damage of some kind</i>
10.15 – 10.30	Søren Larsen, Roskilde, University <i>Virtual Learning Technologies in Science Education at Roskilde University</i>
10.30 – 10.45	Break
10.45 – 11.00	Patricia Bianca Lyk and Gunver Majgaard, SDU/MMMI <i>Co-designing an immersive and interactive alcohol resistance training tool using 360 degree video</i>
11.00 – 11.15	Johan Rasmussen and Thomas Lambertsen Binzer, Region Syddanmark/Mental Health Services <i>Potential for VR in the Mental Health Services</i>
11.15 – 11.30	Dario Simunovic, SDU/MCI <i>Assist entrepreneurs or students help engage with their users, experiencing collaborative guided design sprints for ideation within VR</i>
11.30 – 11.45	Cita Nørgård, SDUUP Centre for Teaching and Learning <i>Challenges and opportunities with AR teaching in higher education</i>
11.45 – 12.00	Rocio Chongtay, SDU/IDK <i>XR for Disaster Management Training Systems</i>

12.00 – 12.30	Sandwich on “Campustorvet”.
12.30 – 13.45	XR shopping: Coffee will be available at O100 from 13.00
	Hands on in rooms O100, O94 and O99 – this is your opportunity to try the XR’s you’ve heard during the presentations and even more of them.
	13.15 – 13.45 You can also join thee “ Themes for further networking ” one in each room.
	Posters will be in room O94. At the poster authors will ad when they are present at the poster
13.45 – 14.00	O100 Plenum - wrap up the day and invite to further network through the XR club Frederik Gottlieb, SDU/MCI

Room-distribution until 13.45:

O 100

Hands on 12.30 – 13.45	
Eskild Andresen VitaSim	<i>VR educational tool for medical students</i>
Eskild Andresen SDU/ITI	<i>VR prototyping lab for students</i>
Dario Simunovic SDU/MCI	<i>Assist entrepreneurs or students help engage with their users, experiencing collaborative guided design sprints for ideation within VR</i>
Asge Matthiesen and Else Møllebæk SDU/MMMI	<i>Udvikling og design af VR-værktøj til patienter med spiseforstyrrelser</i>
13.15 -13.45 Theme-discussion for further networking	
Dario Simunovic SDU/MCI	<i>Assist entrepreneurs or students help engage with their users, experiencing collaborative guided design sprints for ideation within VR</i>

O 94

Hands on 12.30 – 13.45	
Mikkel Toppel Andersen UCL/Construction	<i>Enhancing construction students experience-based learning process through the use of VR</i>
Vlad Huszti SDU/ITPD	<i>AR portable installation</i>
Fei Yu SDU/MCI	<i>The use of VR for cross-location and cross-discipline educational activities</i>
Posters	
Cita Nørgård SDU/SDUUP	<i>Learning anatomy with augmented reality</i>
Asge Matthiesen og Else Møllebæk	<i>Udvikling og design af VR-værktøj til patienter med spiseforstyrrelser</i>

SDU/MMMI	
Cita Nørgård SDU/SDUUP	<i>Challenges and opportunities with AR teaching in higher education</i>
13.15 – 13.45 Theme-discussion for further networking	
Cita Nørgård SDU/SDUUP	<i>VR networking in higher education. VR Club – SDU and Virtual Science Centre Danmark</i>

O 99:

12.30 – 13.45 Hands on	
Gunver Majgaard and Patricia Bianca Lyk SDU/MMMI	<i>Co-designing an immersive and interactive alcohol resistance training tool using 360 degree video</i>
Jamie Møller Christensen, Stephan Petersen, Tobias Oliver Jensen SDU/IT-Service	<i>Development of e-Learning Applications Using Hololens Mixed Reality</i>
Thomas K. Hansen Vejle Kommune/ Videnscenter for Integration	<i>Development of VR rehabilitation tool for adults with cognitive disabilities due to brain damage of some kind</i>
13.15 – 13.45 Theme-discussion for further networking	
Johan Rasmussen and Thomas Lambertsen Binzer Region Syddanmark/ Mental Health Services	<i>Potential for VR in the Mental Health Services</i>

Abstracts:



1.Virtual reality in human-centered systems

Ali Ahmad Malik, Mads Clausen Institute, University of Southern Denmark

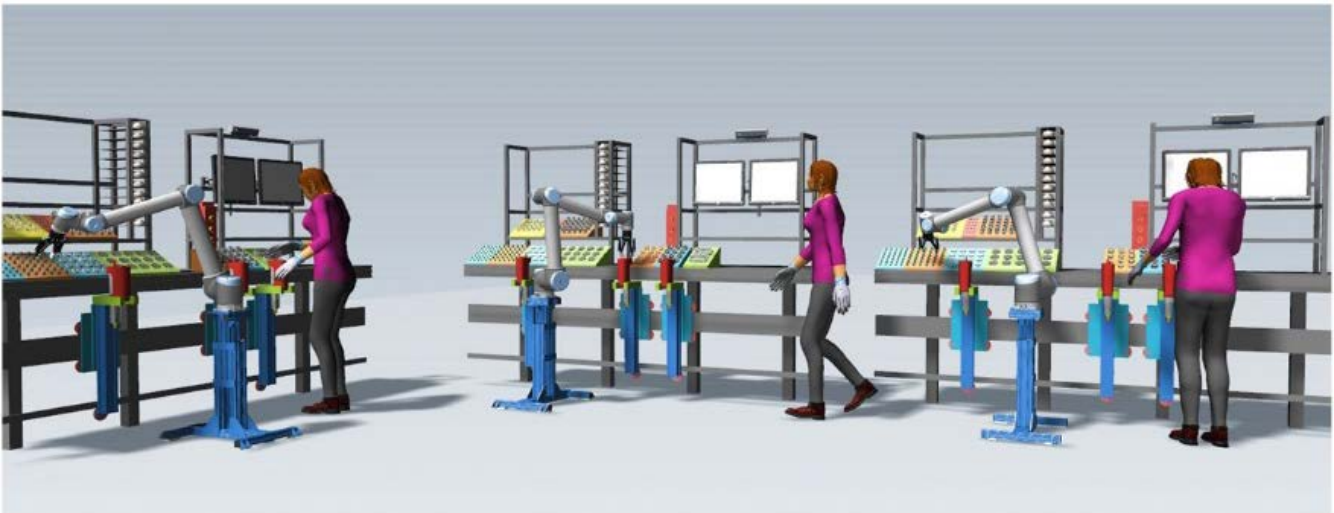
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PhD Project: Flexible Lean Automation

Project purpose / goals: The goals are to develop virtual immersive environments (e.g. a factory with collaborative robots, humans and other flexible manufacturing equipment) as a shadow of the real production system and offering a virtual space where tests can be made in a collaborative way

Project description: The use of simulation, as a risk-free space, for design of complex systems is not new however the visualization technologies are getting better and better. The use of VR will open new areas of research and it is like the technological development of engineering design from paper based to 3D static models to simulations and now interactive and immersive models. This work explores VR for the design of human-centered automation systems in the future factories context. The goals are to develop virtual immersive environments (e.g. a factory with collaborative robots, humans and other flexible manufacturing equipment) as a shadow of the real production system and offering a virtual space where tests can be made in a collaborative way. Different software tools are being explored for their capabilities and competitiveness for building close to reality immersive environment.

☒ Short presentation 10 minutes





2. The use of VR for cross-location and cross-discipline educational activities

Fei Yu, MCI, SDU

Contact Mail: fei@mci.sdu.dk



Project purpose / goals: The purpose of this project, as a pilot study of an E-learning project (granted in 2018), is to identify how can we adopt VR technology in student projects and supervision, and how could it enhance cross-discipline (Innovation and Business Engineering and Sport Science and Health) and cross-location (Sønderborg campus and Odense campus) collaboration.

Project description: This pilot study runs in the spring semester 2019 with three groups students from the 2nd semester Innovation and Business Engineering. The project is about design new product in collaboration with a Danish company Kompan, who defines the task as design a sensor-based monitoring system for outdoor playgrounds. The use of VR is as a tool for collaborative design and prototyping, and for cross-location communication. The students need to co-create the playground and the surrounding terrain in VR and present it to the other stakeholders, sport science experts and company representatives, who give feedback and supervision in the VR environment.

Through the pilot study, we identify the suitable VR software for co-design and communication, investigate the impact and value created by the VR technology for students projects and supervision, and test out the possibilities of VR in practise for communication and cross-discipline and cross-location collaboration.

- ☒ Short presentation 10 minutes
- ☒ Hands-on demonstration. Participants should be allowed to try your VR / AR facility.
- ☒ Presentation of a virtual facility / connection to another campus



3. Enhancing construction students experience-based learning process through the use of VR

Mikkel Toppel Andersen, UCL University College – Construction department

Contact Mail: mito@ucl.dk

Project purpose / goals: An example of using professional/sector-developed software as learning technologies

Project description: The use of VR in construction education

Construction students at UCL is do not always come with a craftsmanship background and by that meaning hasn't worked professional with buildings. This calls for a more divergent and immersive way of teaching with the focus on enhancing the students experience-based learning with VR. The educational program of *bachelor of architectural technology and construction management* has implemented VR as a key learning technology to scaffold the student's professionalism and their competencies of spatial awareness and the use/capabilities of new technologies. The programmes use of and experience with VR has let to industry partnership with one of the projects at the new university hospital in Odense. The project started with the use of innovative processes group in an innovation camp, where both members from the project (Architects, project managers etc.), the teachers and the students at 4.th semester participated in where a real problem from the project, should be addressed and worked with. The problem definition was *How can visual technologies and the use of BIM models and methods support the collection of data to qualify the choice of architectural measures in connection with the early user involvement process on SDCO (Steno Diabetes Center Odense)?*

The project managers picked some of the ideas that the students came up with out and over a six-week time was further developed by six students and a teacher to be used professional on the real life project.

- ☒ Short presentation 10 minutes
- ☒ Hands-on demonstration. Participants should be allowed to try your VR / AR facility.



4. CSV Cognition

Thomas K. Hansen, Videncenter for Integration, Vejle Kommune

Contact Mail: thkha@vejle.dk

Project purpose / goals: Development of VR rehabilitation tool for adults with cognitive disabilities due to brain damage of some kind.

Project description: The Center for Special Education of Adults (CSV – Vejle Municipality) and the Resource Center for Integration (VIFIN - also Vejle municipality) have teamed up to develop a VR rehabilitation tool for adults with light to medium degree brain damage, due to blood clots, haemorrhage or other brain trauma. Often encountered consequences include attention deficit, lack of overview, etc. In the therapy sessions the cognitive pyramid is used to try and provide skills with which to counter-balance the consequences, but relating these to real world circumstances is often problematic. The VR environment depicts a supermarket in which the participant carries out a shopping task, based on a shopping list. During the exercise, the participant can and will be subjected to a series of distractions which can be triggered automatically, or via the therapist interface. The task is then to try and overcome the distractions, for which assistance can also be provided in-game.

The first proto-type is currently being usability tested at CSV, before embarking on more wide-spread test run.

- Short presentation 10 minutes
- Hands-on demonstration. Participants should be allowed to try your VR / AR facility.



5. Udvikling og design af VR-værktøj til patienter med spiseforstyrrelser

Asge Matthiesen og Else Teresa Møllebæk, Mærsk Mc-kinney Møller instituttet

Contact Mail: asmat11@student.sdu.dk & elmoe13@student.sdu.dk

Projektets formål: At designe og udvikle et VR-værktøj i samspil med patienter og behandlere på Odense Universitets Hospitals psykiatriske afdeling P50Ø, og undersøge hvordan patienterne oplever brugen af VR i færdighedstræning.

Projektbeskrivelse: Baggrunden for projektet er, at afdeling P50Ø, har udtrykt ønske og behov for udvikling af en VR-applikation til behandling med patienter med spiseforstyrrelser. En del af patienternes behandlingsforløb er, at de skal træne madindkøb, som kan være en stor udfordring for patienterne. De forskellige behandlingsforløb af spiseforstyrrelser har mange niveauer. Dette projekt fokuserer på de udfordringer patienterne møder, når de skal handle ind, særligt den sociale angst der ofte opstår i indkøbssituationen. Projektet har en tilknyttet e, der arbejder med spiseforstyrrelser på afdeling P50Ø. Ergoterapeuten vil desuden fungere som kontaktperson under forløbet.

VR-projektet skaber en simuleret repræsentation af et indkøbscenter, der skal give patienterne en oplevelse af at handle ind. Simulationen bliver udviklet i programmet Unity til HTC Vive. VR-simulationen er sammensat af en 360 graders optagelse af indkøbscenteret med et Garmin (VIRB 360), mens interaktionsmulighederne tilføjes igennem Unity. Årsagen til at simulationen hviler på en 360 graders videooptagelse er for at skabe en så realistisk som muligt repræsentation herunder også interaktionsmulighederne såsom at samle varer op og kommunikere med butikspersonalet. Samlet set for at tilbyde forskellige behandlingsmuligheder.

Projektet har opstart d. 1. februar og afleveres d. 1. juni. Udviklingsmetoden hviler på industriaccepteret agil og iterativ designproces. Det er forventet at applikationen gennemgår i alt 3 iterationer. Patienterne fra P50Ø deltager aktivt i tilblivelsen af applikationen både som med-designere, informanter og brugertestere. Brugerinddragelse i udviklingsprocessen er centralt for tilblivelsen af applikationen. Det der vil blive præsenteret, er en high-fidelity prototype af projektet, en VR-applikation der er den 3. iteration i forløbet. Denne vil inkludere interaktion og eksempel på behandling til patienterne. Hovedvejleder på projektet er: Gunver Majgaard. Bi vejledere: Patricia Lyk og Lasse Juel Larsen

- Hands-on demonstration. Participants should be allowed to try your VR / AR facility.
- Poster presentation



6. Co-designing an immersive and interactive alcohol resistance training tool using 360 degree video

Patricia Bianca Lykk and Gunver Majgaard, SDU, MMMI

Contact Mail: pabl@mmpi.sdu.dk and gum@mmpi.sdu.dk

Project purpose / goals: The goal is to create an educational tool under the theme VR and alcohol

Project description: The project gives an example of co-designing an interactive 360-degree simulation for alcohol prevention, where the user attends a party and creates her own experience through a number of choices. Overall, the application consists of 125 different movie sequences. As an example the user can chose whether to drink alcohol or not, what type of alcohol and how often. The user is also faced with non-alcohol related choices such as the opportunity to help a young man, who has gotten too much to drink, starting a fight or flirting with other guests. The 360-degree simulation is experienced through VR glasses to provide an immersive and intense experience.

The alcohol intake among adolescents in Denmark is among the highest in Europe. Lately it has been found that peer pressure is the main reason why adolescents starts drinking. The goal of the experience is to give Danish adolescents (aged 15 to 17) a first-hand virtual experience with alcohol and some tools for recognizing and handling peer pressure, which they can use later in real life.

The stakeholders in the co-design process consisted of approximately 10 students (aged 18-28) studying film making and game design at Askov Højskole, their teachers, alcohol experts from social services and researchers with expertise within health promotion, virtual reality (VR), interaction design and game development. Additionally, 35 students from Askov Efterskole (aged 15-17) participated as actors and extras.

This article describes the iterative design process of the application, containing exploration of key concepts, concepts design, prototype design and usability testing.

- Short presentation 10 minutes
- Hands-on demonstration. Participants should be allowed to try your VR / AR facility.



7. Potential for VR in the Mental Health Services

Johan Rasmussen and Thomas Lambertsen Binzer, Mental Health Services, Region of Southern Denmark

Contact Mail: johan.rasmussen@rsyd.dk

Project purpose / goals: To develop, test and evaluate VR and bio feedback for exposure therapy, training and relaxation.

Project description: In the Mental Health Services in the Region of Southern Denmark VR content for exposure therapy is being developed, tested and evaluated as a tool for optimizing treatment for Social Anxiety in outpatient care, and VR-content is being tested and evaluated in inpatient care in order to reduce coercion.

- Short presentation 10 minutes
- Initiation of a theme for discussion and further networking



8. VR collaborative prototyping and ideation

Dario Simunovic, University of Southern Denmark

Contact Mail: dario@mci.sdu.dk

Project purpose / goals: Assist entrepreneurs or students help engage with their users, experiencing collaborative guided design sprints for ideation within VR.

Project description: VR shows great potential in regards of research and prototyping purposes. Many Industries have already utilised this technology to help aid their creative processes. As a diploma thesis project, exploring collaborative prototyping possibilities within VR, a virtual reality app SprintmasterVR was made.

For collaborative prototyping both users and designers must be involved, therefore the VR software must be simple enough to be used right out of the box. This will allow external customers and users aid in the prototyping process and help iterate the ideas generated by the entrepreneurial team.

A new VR APP, SprintmasterVR, is designed and developed based on findings from the empirical study.

Comparing to the other APPs, it offers guided design sprint sessions, and it is simplified for non-experienced VR users. The guided sprints are organised so that three sprint rounds are experienced in one session. Between each of those rounds there is a small break, where users are disconnected from each other and have private time.

During that private time, they can not hear nor see each other, but they can still see their creations and can choose to reflect or continue drawing if they wish. When another round starts, all drawings made in the private time slot are revealed for other team members to see.

The results from the final prototype testing workshop indicate that the timed design sprint approach in SprintmasterVR enhances the creative power in users. Especially during the breaks where users had a private time slot, which impacted users being more expressive and creative.

- Short presentation 10 minutes
- Hands-on demonstration. Participants should be allowed to try your VR / AR facility.
- Initiation of a theme for discussion and further networking



9. Virtual Learning Technologies in Science Education at Roskilde University

Søren Larsen, Roskilde, University

Contact-mail: slars@ruc.dk

Project purpose / goals: Roskilde University (RUC) is implementing, developing and researching VR- and 3D-simulations at the Bachelor in Natural Sciences programme within a timeframe expanding from 2018 to 2021

Project description:

The project is organised in tracks focusing on implementation, research and collaboration:

Track 1: Virtual Learning Technologies in Science Education

Track 2: A Two-Fold Approach to Investigate the Impacts of VR in Science Education

Track 3: Collaboration and knowledge sharing

This presentation will give a short status of the project.

Short presentation 10 minutes



10. xR for Disaster Management Training Systems

Rocio Chongtay, Institute for Design and Communication, SDU Kolding

Contact Mail: rocio@sdu.dk

Project purpose / goals: xR training systems for preparedness and response in disaster and emergency situations

Project description: VR training systems have been successfully used for quite some time, these systems provide with realistic, cheaper and safer simulation of what otherwise would be dangerous scenarios such as medical procedures, flight simulators, astronaut training, etc. (Mazuryk & Gervautz, 1996). This project reviews the state of the art of xR training systems for disaster and emergency management in general and for preparedness and first responders in particular. A framework for these types of training system is proposed and a use case scenario presented to illustrates the suggested architecture and flow.

Short presentation 10 minutes



11. VR educational tool for medical students

Eskild Andresen, VitaSim

Contact mail: ea@VitaSim.dk

Project purpose / goals: The goal is to develop a virtual learning environment for medical students to train practical procedures. The focus is clinical ultrasound procedures and will be a part of their preparation, teaching and repetition.

Project description: This project is a close collaboration between SDU, OUH and VitaSim. We are developing a software solution for the teachers to use in the upcoming courses in clinical ultrasound.

Ultrasound is a critical skill that all doctors must learn. The problem is that the current education includes practice on patients in order to get better at the actual procedures and handling the equipment.

In our project we develop a supplement for practical ultrasound procedures where the students can practice basic ultrasound skills in VR. This allows the students to practice anywhere at any time, without compromising patient safety or expensive equipment.

With this the students will become confident with basic knowledge about handling buttons, image adjustment and practice hand-eye coordination.

This will make the limited time on the physical ultrasound machine focused on procedural training and not basic use.

Our software solution consists of 4 modules to guide the students through how to use VR and the basics of using ultrasound.

Module 0: Introducing the students to VR and how to use it.

Module 1: Introducing the students to the buttons on an ultrasound machine.

Module 2: Giving the students a visual understanding of how the machine is working and how to produce a given image.

Module 3: Practical scanning where the students learn how to use the ultrasound machine in a clinical context.

We aim to have our software implemented in the education at SDU for the spring course 2020.

Hands-on demonstration. Participants should be allowed to try your VR / AR facility.



12. VR prototyping lab for students

Eskild Andresen, SDU ITI

Contact Mail: Esand14@student.sdu.dk

Project purpose / goals: Give students access to the technology and help them get started with VR.

Project description: We are constantly on the look for new and cutting-edge equipment for the students to investigate and play with. Availability is a keyword for us, and we are constantly seeking funds to keep ahead of the development in this area and make new equipment available for the students.

At SDU we have a student driven laboratory in which the purpose is to make new technology available for students that they can use in their projects. We have 3D printers, a laser cutter and other prototyping equipment. When the popularity and availability of VR began it was a natural area for us to expand to. We got funding from "Teknikumingeniørernes Jubilæumsfond af 1980" and "Studerende i centrum" to invest in VR equipment and developed a course for students to learn more about VR and how they can use it as a prototyping tool. The course was held together with EON reality with 10 participants. This course was focused on how to develop a new idea with VR as the platform.

With the funding we were able to invest in a workstation to develop VR content with an accompanying HTC VIVE. This setup has over 1000 hours of playtime in VR and multiple projects have been developed with this system. We have also invested in a portable VR set. That has been used to out of the house VR showcase and enabled us to put up a second development station in group rooms or similar. The interest for using VR has grown and we are aiming to expanding further with equipment and courses.

Hands-on demonstration. Participants should be allowed to try your VR / AR facility.



13. Challenges and opportunities with AR teaching in higher education

Cita Nørgård, SDUUP Centre for Teaching and Learning

Contact Mail: cnorgaard@sdu.dk

Project purpose / goals: Addressing challenges and learning opportunities when students learn through AR in higher education.

Project description: A project challenged learning anatomy with AR in medical education at SDU. The AR turned out to be welcomed by students and students found it beneficial for learning and motivating to learn with the technology. However, challenges were identified and opportunities as well. Teachers were challenged during face2face teaching with AR because they couldn't enter the same room as students and interact directly with students. Students were challenged by the solution of details in the anatomical visuals and the limitations of feedback. The learning design both within the app and the setup for teaching with VR was evaluated. This poster draws on the findings from the project. More information can be found on:

<https://tidsskrift.dk/lom/article/view/109569> and <https://blog.labster.com/teaching-in-virtual-learning-environments>

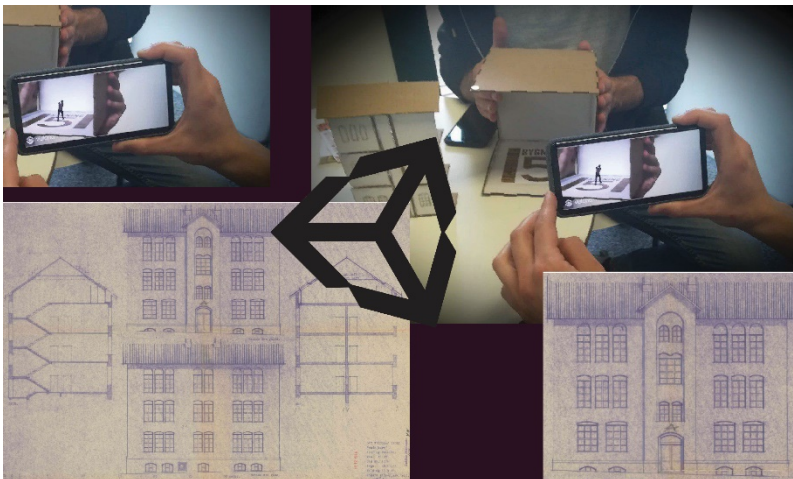
☒ Short presentation 10 minutes

14. AR portable installation

Vlad Huszti, Student at SDU Kolding (ITPD)

Contact mail: vlhus18@student.sdu.dk

Group members: Nicolai Høier; Vlad Huszti; Nikos Stavropoulos



Project purpose / goals: The project goal is to find the best way to introduce/advertise Bygning5 and intrigue potential visitors by using Augmented Reality technology.

Project description: The project is focused on "How to use Augmented Reality with the scope of promoting and supporting small and medium size business?"

We have a corporation with the culture house at Bygning5 in Kolding. We are working on AR portable installation for promoting Bygning5 for students in Kolding in order to show them what kind of activities

Bygning5 can offer. We plan to make a miniature of Bygning5 where there will be different rooms. Each room will contain different themes and user will experience small stories through AR technology. The stories will be related to the real rooms at Bygning5. For example, the film studio will be related to film production and the E-sport room will have a video game theme.

The miniature building (Bygning5) will be made by cardboard and will include a box for storage. The box purpose will be dedicated to transport the miniature building easily, to different locations. Our aim is to focus on people/students with the same interest in AR technology and game concepts. In this way, future AR workshops are needed in order to gather people's feedback and explore the possibilities of Augmented Reality.

Hands-on demonstration. Participants should be allowed to try your VR / AR facility.



15. Development of e-Learning Applications Using Hololens Mixed Reality

Jamie Møller Christensen, Stephan Petersen, Tobias Oliver Jensen, SDU IT-Service, Studenterudviklere

Contact Mail: jamiec@sdu.dk, steclas@sdu.dk, tobjen@sdu.dk

Mixed Reality (MR) has become a more easily accessible technology to the general population. There are different types of MR: immersive Virtual Reality (VR), commonly achieved through VR headsets, and Augmented Reality (AR), commonly accessed through headsets and mobile phones. A new type of MR-technology is the Hololens (Microsoft 2016), which gives the user the ability to enhance their world with a superimposed virtual layer. The Hololens can be interacted with through voice commands and hand gestures.

Hololens can be used for educational purposes, where it can be used to improve learning and retention of knowledge. This will be shown through the inclusion of the Hololens applications SDU PACS and SDU TwitterHolo, which are currently in early development. The main purpose of this application is to use the AR-capabilities of the Hololens to give students a new and better way to learn their curriculum, both individually and in groups. The purpose of PACS is to help the students easily recognize bone fractures in CT-scans by comparing scans and models. The purpose of TwitterHolo is to make it possible for journalist students to see and interact with tweets from Danish politicians in a virtual world. The apps are meant for students at the university, as the Hololens is not yet available to the public.

To improve the user experience, as well as the learning and retention of knowledge, the application will utilize game elements such as feedback systems, tutorials, MR-interaction with holograms, and multiplayer-collaboration centered around pre-defined learning objectives.

With the inclusion of modern technology, teaching materials can include new perspectives that were formerly impossible to utilize in classes. This inclusion can help give a better understanding and enhanced transfer of new knowledge to the students.

Project purpose / goals: Introduce the technology to interested parties and present, what we are currently capable of doing with this technology, and how it can influence education.

Project description: The project is the creation of MR applications for education. By utilizing new technology, we are trying to make applications that can be useful for showing material in a new way that can make it easier to work with and more understandable.

Hands-on demonstration. Participants should be allowed to try your VR / AR facility.



16. Learning Anatomy with Augmented Reality

Cita Nørgård, SDUUP Centre for Teaching and Learning

Contact Mail: cnorgaard@sdu.dk

Project purpose / goals: This research project intended to evaluate whether AR strengthened the students' self-efficacy and motivation, improved learning, and provided a good learning experience.

Project description: This study focusses on how AR can help students to translate two-dimensional into three-dimensional understanding and evaluates formats of the app (the use of quizzes) together with the didactic design of the teaching sessions with AR. The objectives were to examine A. the effectiveness of using AR on student's short, long term, and transfer learning outcome compared with traditional teaching, B. the effect of quizzes, and C. app design in relation to didactic design.

The aim with this poster is to share lessons learned from this intervention

Poster presentation



17. Networking for VR in Higher Education

Cita Nørgård, SDUUP Centre for Teaching and Learning

Contact Mail: cnorgaard@sdu.dk

Project purpose / goals: invitation to discuss the prospects for VR in higher education. Already there are network at SDU, but also at the national level a network is under establishment.

Project description:

VSCD (Virtual Science Centre Denmark) is taking its first steps and HE institutions are showing a larger and larger engagement with XR. XR is used in the infrastructural activities (planning and promoting new buildings and teaching facilities, direct collaborations between campuses, ...), and as a learning resource widely in educations. A third leg in the mapping is XR as a subject area in educations for improving XR competencies among students.

Can we identify even other legs in the mapping? and which are the possibilities for working together in these matters?

Initiation of a theme for discussion and further networking