

Sweat and Survive - the VR Edition

Kick-Off



Felix Kosmalla & Dr. André Zenner

Saarland University & DFKI

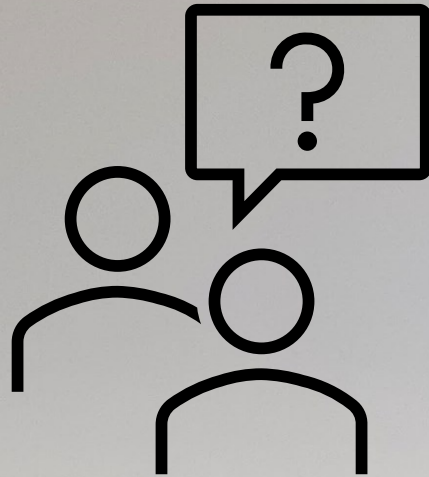
15. April 2025

UMTL

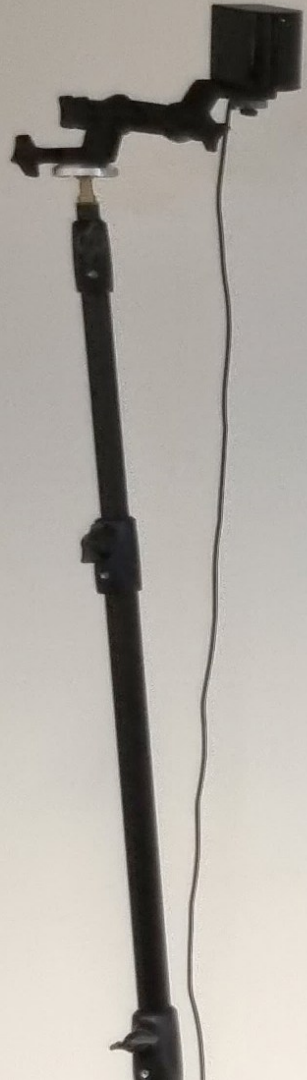
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Who are you?



Agenda:

Introduction Round

Goals & Content of the Seminar

Organisation

How to:

Find Scientific Literature

Write a Concept Document

Q&A

(Learning) Goals of the Seminar

Conceptualization, implementation and evaluation of a VR fitness application based on scientific literature.

(Learning) Goals of the Seminar

Conceptualization, implementation and evaluation of a VR fitness application based on scientific literature.



VR Fitness Application

Combining classical (body weight) exercises with virtual threats to motivate users.

low

mid

high

Danger Level

But does it work?

Phases

during this semester

Phases

during this semester

Basics

How To

- Search for Scientific Literature
- Ideate and Write a Concept

Find Groups...

... and decide for topic

Ideate and Document Concept

(Draft until 27.04.; Final Concept until 07.05)

Hands-On

How To

- Unity 3D & VR

Implementation of Prototype...

... based on concept

Mid-Term Presentation

of concept and progress
(on 03.06.)

Evaluation & Documentation

How To

- User Study
- Write a project report

Conduct User Study

... with the prototype
(from 01.07. until 11.07.)

Participate in User Studies...

... of your fellow students

Final Presentation and Report

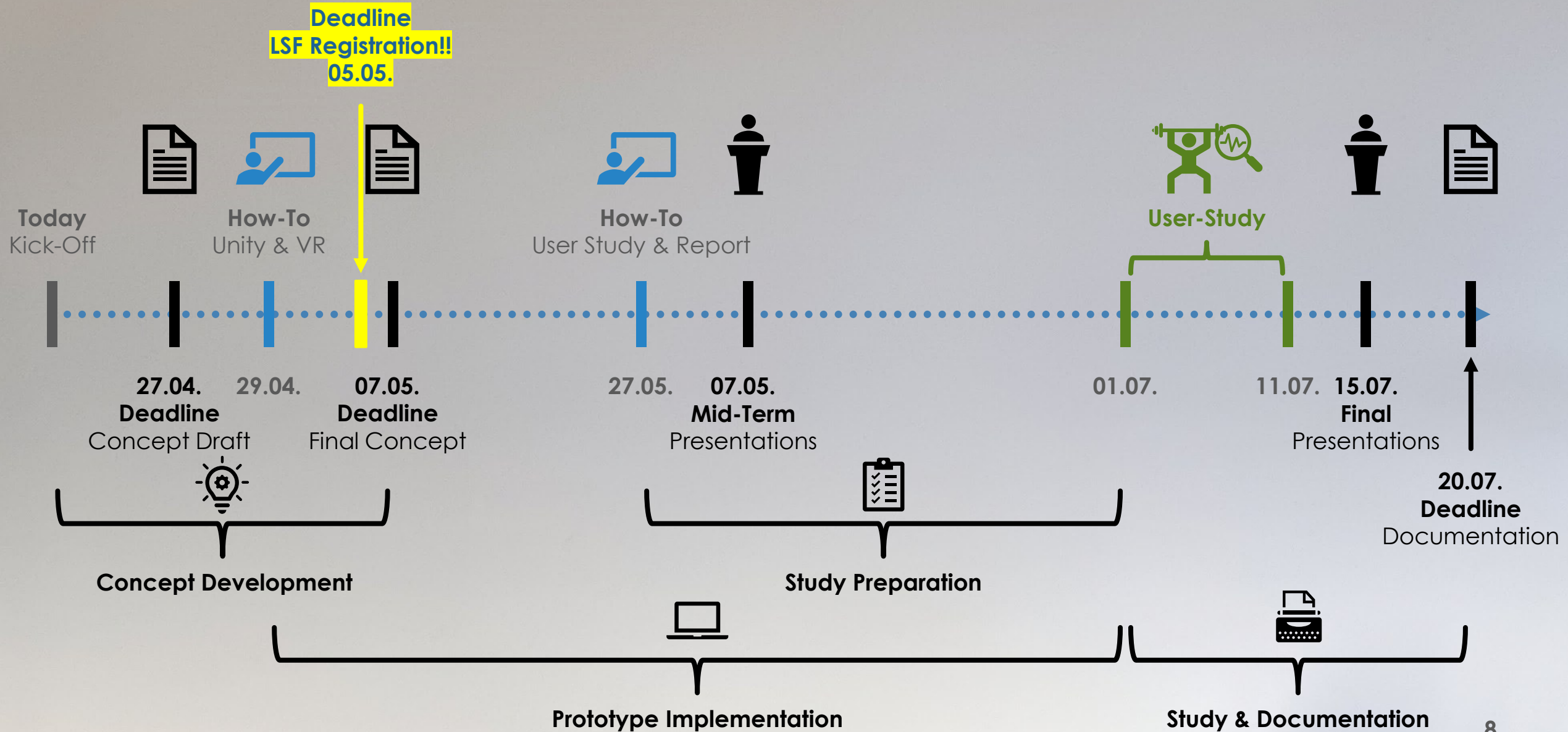
(on 15.07.)

(until 20.07.)

today

Phases

during this semester



Each group should target a different exercise



Leg Mobilisation



Balancing



Squatting



Hanging/Pull-Ups



Inspiration:



Mueller et al. 2012. Hanging off a bar.
CHI '12 Extended Abstracts. ACM.
<https://doi.org/10.1145/2212776.2212384>

Inspiration:



London Tourists Try Richie's Plank Experience On Oculus Quest
Source: YouTube Video by Virtual Reality Oasis
<https://youtu.be/BQXa8qQK7ow?si=SwvO4uQXJwN-sMJZ>

Inspiration:



Kosmalla et al. 2022. InfinityWall – Vertical Locomotion in Virtual Reality using a Rock Climbing Treadmill.
CHI '22 Extended Abstracts. ACM.
<https://doi.org/10.1145/3491101.3519654>

Inspiration:



LMU LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN Media Informatics Group

Walk This Beam: Impact of Different Balance Assistance Strategies and Height Exposure on Performance and Physiological Arousal in VR

Dennis Dietz¹, Carl Oechsner¹, Changkun Ou¹, Francesco Chiossi¹, Fabio Sarto², Sven Mayer¹, Andreas Butz¹

¹LMU Munich
²University of Padova

Dietz et al. 2022. Walk This Beam: Impact of Different Balance Assistance Strategies and Height Exposure on Performance and Physiological Arousal in VR. VRST '22. ACM.

<https://doi.org/10.1145/3562939.3567818>

Basics

Topics

Groups

How To

Concept Document

Group and Topic Finding....

.... after this presentation

Look for Scientific Literature

1. **Define Your Research Question**
2. **Identify Keywords** (also list synonyms)
3. **Choose Databases**

- Select appropriate academic databases and online libraries for your search. Common are:
 1. ACM Digital Library
 2. IEEE Xplore
 3. Google Scholar

Basics

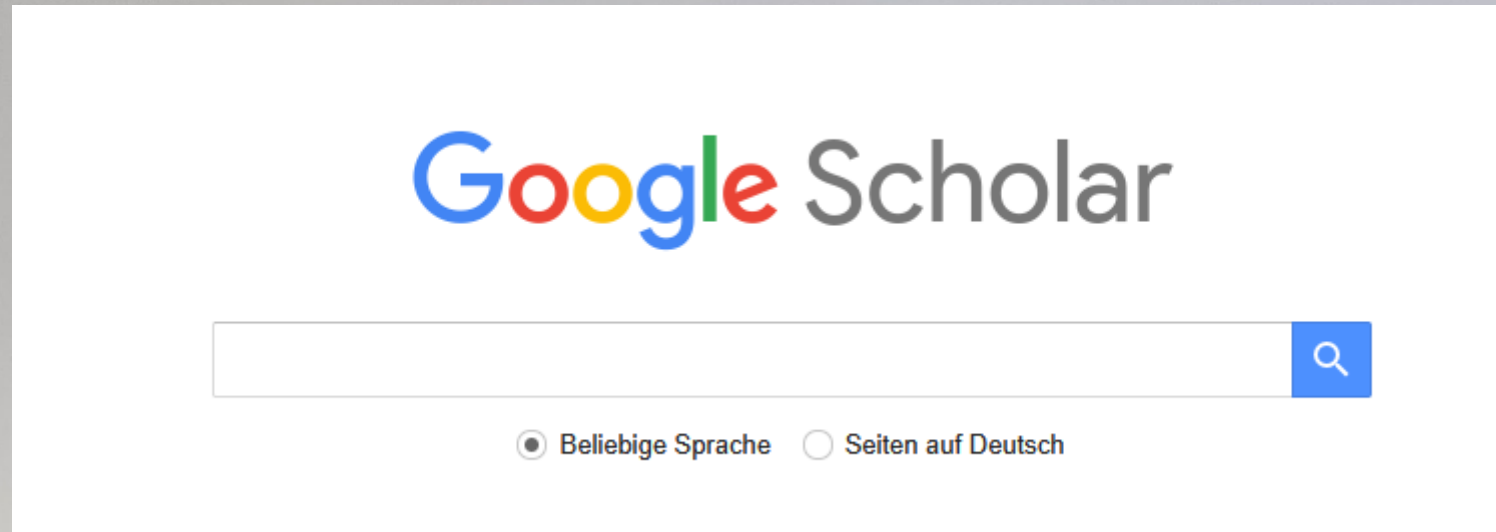
Topics

Groups

How To

Concept Document

Look for Scientific Literature



Look for Scientific Literature

Google Scholar virtual reality beam walking exercise

Ungefähr 28.600 Ergebnisse (0,18 Sek.)

Artikel

Beliebige Zeit
Seit 2025
Seit 2024
Seit 2021
Zeitraum wählen...

Nach Relevanz sortieren
Nach Datum sortieren

Beliebige Sprache
Seiten auf Deutsch

Alle Typen
Übersichtsarbeiten

Patente einschließen
 Zitate einschließen

Alert erstellen

Effects of **virtual reality** high heights exposure during **beam-walking** on physiological stress and cognitive loading [PDF] plos.org
SULB Volltext
SM Peterson, E Furuichi, DP Ferris - PLoS one, 2018 - journals.plos.org
... balance **beam walking** task in two **virtual reality** conditions and with unaltered view (15 minutes each) to determine if **virtual reality** ... We recorded number of steps off the **beam**, heart rate, ...
☆ Speichern ⌕ Zitieren Zitiert von: 137 Ähnliche Artikel Alle 12 Versionen ⌕

ⓘ Influence of **virtual reality** height exposure on cognitive load and visual processing during balance **beam walking**
C Herman - 2021 - search.proquest.com
... **VR** and challenging dynamic tasks. Thus, the purpose of this study was to observe how **virtual reality** ... processing, and cognitive effort during **beam walking**. Sixteen healthy young adults ...
☆ Speichern ⌕ Zitieren Ähnliche Artikel ⌕

The effect on lower spine muscle activation of **walking** on a narrow **beam** in **virtual reality** [PDF] ub.edu
SULB Volltext
A Antley, M Slater - IEEE transactions on Visualization and ..., 2010 - ieeexplore.ieee.org
... participants in an immersive **virtual** environment (IVE) **walked** on a **virtual** narrow raised platform that we call a **beam**. When they **walked** on the **virtual beam** they exhibited muscle ...
☆ Speichern ⌕ Zitieren Zitiert von: 27 Ähnliche Artikel Alle 16 Versionen

Walk this beam: Impact of different balance assistance strategies and height exposure on performance and physiological arousal in **vr** [PDF] lmu.de
D Dietz, C Oechsner, C Ou, F Chiossi, F Sarto - ... on **Virtual Reality** ..., 2022 - dl.acm.org
... As the next step, we invited them to **walk** forth and back on the **beam** to get an initial impression and test the safety system. After that, we introduced them to the **VR** headset while we ...
☆ Speichern ⌕ Zitieren Zitiert von: 8 Ähnliche Artikel Alle 10 Versionen ⌕

Effects of **virtual reality**-based ankle **exercise** on the dynamic balance, muscle tone, and gait of stroke patients [PDF] jst.go.jp
C Yom, HY Cho, BH Lee - Journal of physical therapy science, 2015 - jstage.jst.go.jp
... via a 1,024 × 768 XGA type high quality **beam** projector. To maintain the movement speed of ... The **virtual reality**-based ankle **exercise** reduced **walking** time because of the increase in ...
☆ Speichern ⌕ Zitieren Zitiert von: 50 Ähnliche Artikel Alle 10 Versionen ⌕

Basics

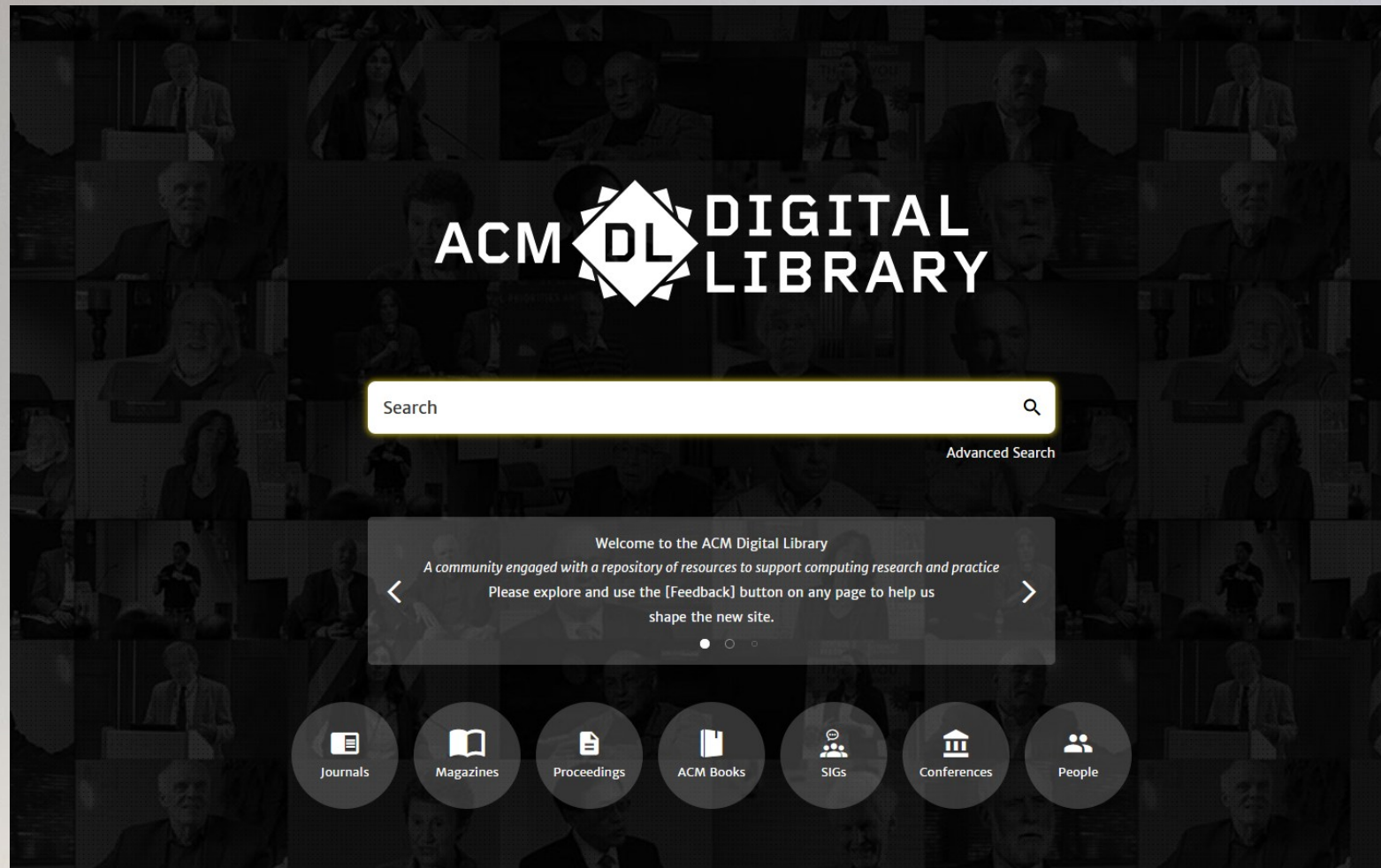
Topics

Groups

How To

Concept Document

Look for Scientific Literature



Basics

Topics

Groups

How To

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Look for Scientific Literature

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Basics

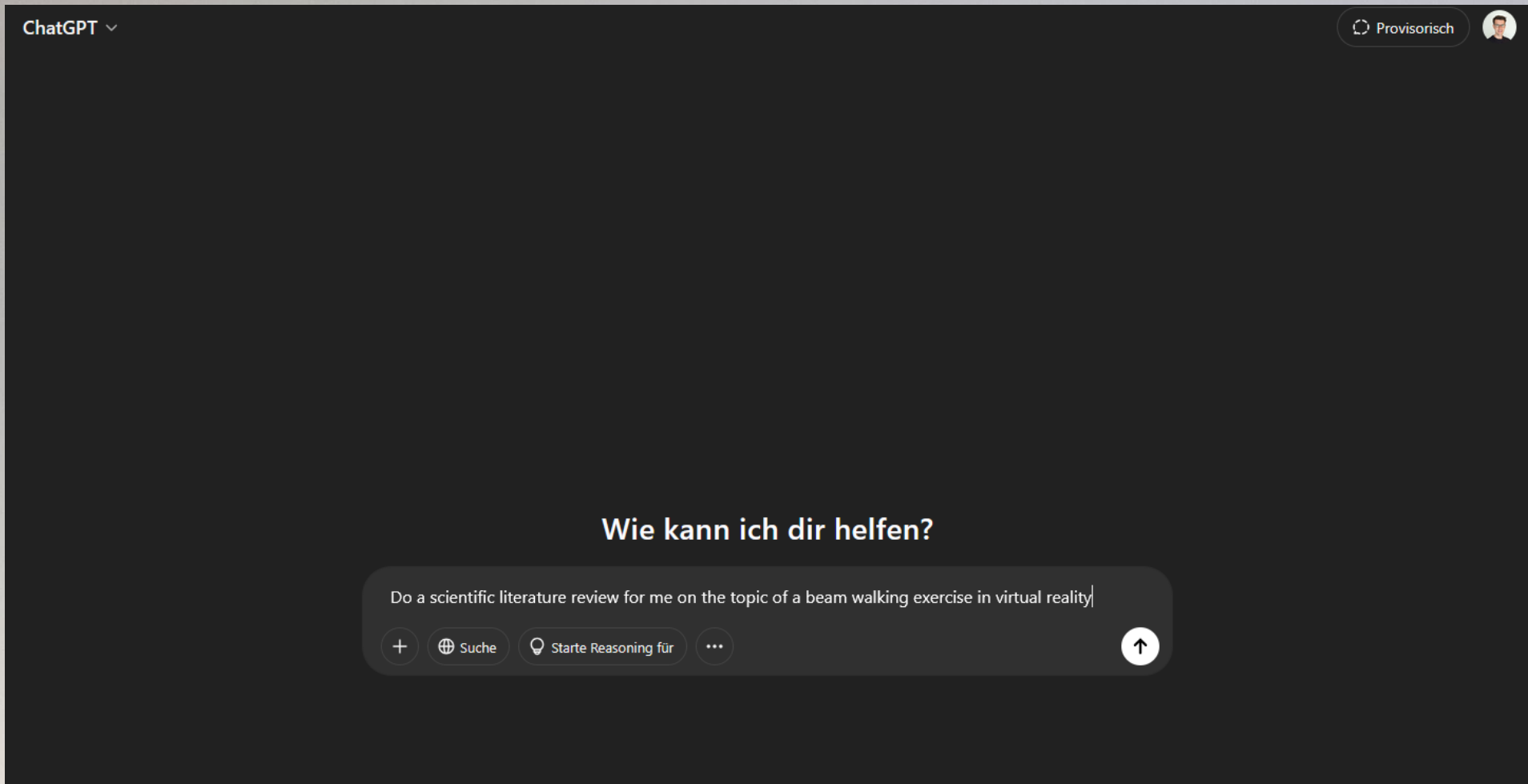
Topics

Groups

How To

Concept Document

Look for Scientific Literature



The screenshot shows the ChatGPT interface with a dark theme. At the top left, it says "ChatGPT" with a dropdown arrow. At the top right, there is a "Provisorisch" button and a user profile icon. The main area contains the text "Wie kann ich dir helfen?". Below this is a text input field with the query: "Do a scientific literature review for me on the topic of a beam walking exercise in virtual reality". At the bottom of the input field, there are several icons: a plus sign, a globe labeled "Suche", a lightbulb labeled "Starte Reasoning für", and a three-dot menu. On the far right of the input field is a circular button with an upward arrow.

Look for Scientific Literature

Does this paper actually exist?

Google Scholar search results for "Effects of virtual reality high heights exposure during beam-walking on physiological stress and cognitive loading". The article is by SM Peterson, E Furuichi, and DP Ferris, published in PLoS one, 2018. The abstract states: "Virtual reality has been increasingly used in research on balance rehabilitation because it provides robust and novel sensory experiences in controlled environments. We studied 19 healthy young subjects performing a balance beam walking task in two virtual reality conditions and with unaltered view (15 minutes each) to determine if virtual reality high heights exposure induced stress. We recorded number of steps off the beam, heart rate, electrodermal activity, response time to an auditory cue, and high-density".

show me some references

Certainly! Here are some key references related to beam-walking exercises in virtual reality (VR):

- ...ation of Walking on a Narrow Beam in Virtual Reality
- ...ation and Computer Graphics, February 2011
- ...ivity during beam-walking tasks in both physical and virtual
- ...on patterns in VR mirrored those in the physical environment,
- ...ure rehabilitation. PubMed +2 ResearchGate +3
- ...posure During Beam-Walking on Physiological Stress and
- Daniel P. Ferris
- ...pact of virtual height exposure on beam-walking
- ...ncreased physiological stress and cognitive load, which
- ...Balance and Gait in the Elderly: A Systematic Review
- ...er Achalandabaso-Ochoa
- ...hat VR therapy is more effective than minimal intervention
- ...amic balance, and gait in healthy elderly individuals.
- ...Effect of virtual Reality Exercises on Balance and Fall in Elderly People with Fall Risk: A Randomized Controlled Trial
- Authors: Noorolla Zahedian-Nasab, Azita Jaber, Fatemeh Shirazi, Somayyeh Kavousipor
- Published in: BMC Geriatrics, 2021
- Summary: This randomized controlled trial assessed the impact of VR-based balance training on elderly individuals at risk of falling, finding significant improvements in balance and a reduction in fall incidents.



Be very careful: LLMs can hallucinate papers that do not actually exist!

If you use LLMs → always double-check!!

Look for Scientific Literature

The screenshot shows the homepage of the Consensus AI Search Engine for Research. At the top, there is a navigation bar with the Consensus logo, links for Product, Resources, Pricing, About, and Contact, and buttons for Login and Try for free. The main heading is "AI Search Engine for Research" with the tagline "Find & understand the best science, faster." Below this is a large search input field with the placeholder text "Ask the research...". Underneath the search field are four example search queries in rounded rectangular buttons: "Does exercise improve cognition?", "Can cash transfers reduce poverty?", "Are statins effective in the elderly?", and "Can mindfulness help with sleep?". At the bottom of the search area, there is a link that says "Try an example search".



Better:

LLMs designed for academic research.

But still:

**If you use LLMs
→ always double-check!!**

Look for Scientific Literature

1. Define Your Research Question

2. Identify Keywords (also list synonyms)

3. Choose Databases

- Select appropriate academic databases and online libraries for your search. Common are:
 1. ACM Digital Library
 2. IEEE Xplore
 3. Google Scholar

4. Conduct the Search

5. Review Abstracts and Titles (identify the most important papers)

6. Read Full Texts

7. Evaluate Relevance, Credibility, and Quality

- peer-reviewed papers
- reputable conferences/journals (e.g. ACM CHI, ACM UIST, ACM VRST, ACM SUI, IEEE VR, IEEE ISMAR, ...)

8. Check References for Further Relevant Papers

Look for Scientific Literature

The screenshot shows the ACM Digital Library interface for a research article. The page is titled "Walk This Beam: Impact of Different Balance Assistance Strategies and Height Exposure on Performance and Physiological Arousal in VR". The article is from the "VRST '22: Proceedings of the 28th ACM Symposium on Virtual Reality Software and Technology" conference, published on 29 November 2022. The authors listed are Dennis Dietz, Carl Oechsner, Changkun Ou, Francesco Chiossi, Fabio Sarto, Sven Mayer, and Andreas Butz. The article has 545 citations. The page includes a navigation menu, a search bar, and a sidebar with options like Abstract, Supplementary Material, and References. A vertical "Feedback" button is visible on the right side.

Annotations:

- Awards:** A purple box highlights the "Awards" icon and the article title.
- Title:** A blue box highlights the article title.
- Authors:** A purple box highlights the authors' names.
- Conference:** A purple box highlights the conference information.
- Citations (see also: Google Scholar):** A purple box highlights the citation count (545).
- PDF:** A red box highlights the PDF download button.
- Abstract:** A blue box highlights the abstract text.

Look for Scientific Literature

VRST '22, November 29–December 1, 2022, Tsukuba, Japan

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Dierz et al.

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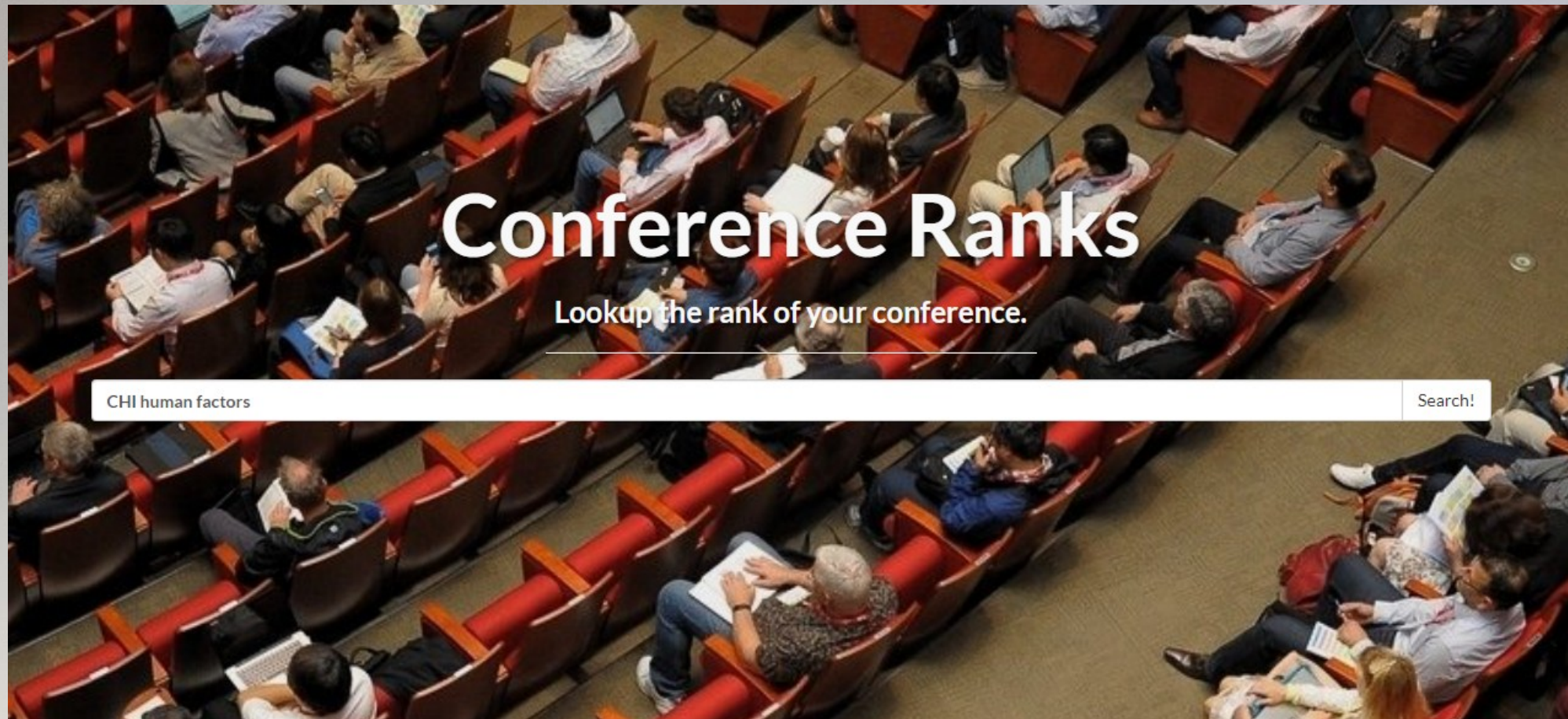
Groups

How To

Concept Document

Look for Scientific Literature

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Conference Data

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Name	Abbrev.	Rank	Source
Conference on Human Factors in Computing Systems	CHI	A1	Qualis
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Previous **1** Next

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How to write a concept

It's basically a project proposal!

Your goal: Convince the reader (us), that this is a good idea and worth 7CP!

No bullet points!

Good Quality of Writing

Sketches

Ubiquitous Media Technology Lab

Seminar: Sweat and Survive - the VR Edition

[UMTL](#) / [Teaching](#) / [Summer 2025](#) / Seminar: Sweat and Survive - the VR Edition

SUMMER 2025

[Proseminar: Virtual Reality -
Grundlagen und Stand der
Forschung](#)

[Seminar: Sweat and Survive -
the VR Edition](#)

[Seminar: GameCraft:
Spielmechaniken und Spiele-
Prototyping](#)

Seminar: Sweat and Survive - the VR Edition



Goal of the Seminar

In this practical seminar, small groups of students (3) will develop a Virtual Reality (VR) fitness application with a twist. Users will be immersed in a virtual environment that guides them through a fitness exercise while motivating them

- Preparing your prototype for a user study
- Conducting the user study & analyze the results
- Participating in the studies of the other groups
- Prepare and give a presentation about your final
- Write up a final report detailing your project and



Reports

Two written reports have to be submitted in this seminar - the concept report and the final report. Below you can find the formal requirements for these two reports and examples of how they could be structured.

While the formal requirements (template, overall length, number of cited papers) must be adhered to, you are free to deviate from the proposed structure if that makes more sense to present your project. If you deviate, however, ensure that the topics proposed in the example structures are adequately discussed in your document.

Concept Report

The written concept report should be 2-3 pages long (excluding references) and submitted as a PDF in ACM SIG format (2-column). The following LaTeX template should be used:

<https://www.overleaf.com/latex/templates/association-for-computing-machinery-acm-sig-proceedings-template/bmvfhcdnxfty>

A concept report could be organized like this:

1. Motivation of the General Topic

- Why is the topic of the seminar important?
- What problem is being addressed?

2. Related Work

- What have other people already done/discovered in this area?
- Review of relevant literature and previous work in VR sports applications and virtual threat scenarios.
- Citation of at least 5 scientific papers related to the topic.
- Online libraries for literature search (examples):
 - ACM Digital Library (<https://dl.acm.org/>)
 - IEEE Xplore (<https://ieeexplore.ieee.org/Xplore/home.jsp>)
 - Google Scholar (<https://scholar.google.com/>)

3. Concept

The written concept report should be 2-3 pages long in format (2-column). The following LaTeX template should be used: <https://www.overleaf.com/latex/templates/association-template/bmvfhcdnxfty>

in ACM SIG
-template/

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 - Google Scholar (<https://scholar.google.com/>)

3. Concept

- Description of the chosen sports exercise (e.g., planking, squatting, hanging on a hangbar, ...).
- Explanation of the adrenaline-inducing threat scenario tailored to the exercise (e.g., being chased by virtual creatures, navigating through hazardous environments).
- How the threat scenario enhances the exercise experience and induces adrenaline.
- How will people use the system?

4. Implementation Approach

- What would an implementation of your idea include?
- Technical details of the implementation, including software and hardware used.
- Steps taken to integrate the sports exercise with the threat scenario.

5. Challenges

- What aspects need to be considered to ensure the system works and provides a good user experience?
- Potential technical and user experience challenges.
- Solutions and adaptations planned to overcome these challenges.

6. Evaluation Idea

- Citation of at least 5 scientific papers related to the topic.
- Online libraries for literature search (example)
- ACM Digital Library (<https://dl.acm.org/>)
- IEEE Xplore (<https://ieeexplore.ieee.org/>)
- Google Scholar (<https://scholar.google.com/>)

3. Concept

- Description of the chosen sports exercise (e.g., planking, squatting, hanging on a hangbar, ...).
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- How will people use the system?

4. Implementation Approach

- What would an implementation of your idea include?
- Technical details of the implementation, including software and hardware used.
- Steps taken to integrate the sports exercise with the threat scenario.

5. Challenges

- What aspects need to be considered to ensure the system works and provides a good user experience?
- Potential technical and user experience challenges.
- Solutions and adaptations planned to overcome these challenges.

6. Evaluation Idea

- How could you demonstrate that the system actually solves the problem?
- Methodology of the user study conducted with the prototype.
- Description of the planned procedures.
- What data do you plan to collect and how.
- What are your hypotheses (i.e., what do you expect to see in the data)?

7. Conclusion

- Brief summary of the idea.
- Reflection on the planned overall experience and the impact of the VR application.
- Suggestions for future work and improvements.

8. References

- List of all cited scientific papers and other relevant sources.

Grading

Final Concept Document (10%):

- Clarity of Writing
- Completeness
- Adherence to Word Count
- Originality of Idea
- Reflection of Related Work

7. Conclusion

- Brief summary of the idea.
- Reflection on the planned overall experience and the impact of the VR application.
- Suggestions for future work and improvements.

8. References

- List of all cited scientific papers and other relevant sources.

Hands-On

How To

Implementation

Mid Term Presentation

Introduction to the Unity 3D-Engine - 29.04.2025

The slide features a light blue background with a white border. At the top, there are four logos: UMTL (blue text), dfki (German Research Center for Artificial Intelligence, with 'dfki' in blue and 'ai' in grey), SIC (Saarland Informatics Campus, with 'SIC' in blue and 'Saarland Informatics Campus' in grey), and the logo of the University of Saarland (a blue owl icon with 'UNIVERSITÄT DES SAARLANDES' in blue text). The main title 'Seminar' is in a bold, black, sans-serif font. Below it, the subtitle 'Sweat and Survive - the VR Edition' is in a larger, bold, black, sans-serif font. Underneath the subtitle, the text 'Introduction to the Unity 3D-Engine' is in a smaller, black, sans-serif font. Below that, the date 'April 14, 2025' is in a smaller, black, sans-serif font. At the bottom, the names 'Felix Kosmalla & Dr. André Zenner' are in a bold, black, sans-serif font, with 'Saarland University & DFKI' in a smaller, black, sans-serif font below them.

UMTL

dfki Deutsches Forschungszentrum für Künstliche Intelligenz German Research Center for Artificial Intelligence

SIC Saarland Informatics Campus

UNIVERSITÄT DES SAARLANDES

Seminar

Sweat and Survive - the VR Edition

Introduction to the Unity 3D-Engine

April 14, 2025

Felix Kosmalla & Dr. André Zenner
Saarland University & DFKI

Hands-On

How To

Implementation

Mid Term Presentation

Available Hardware



Vive Pro Wireless + Trackers



Banana-Lab

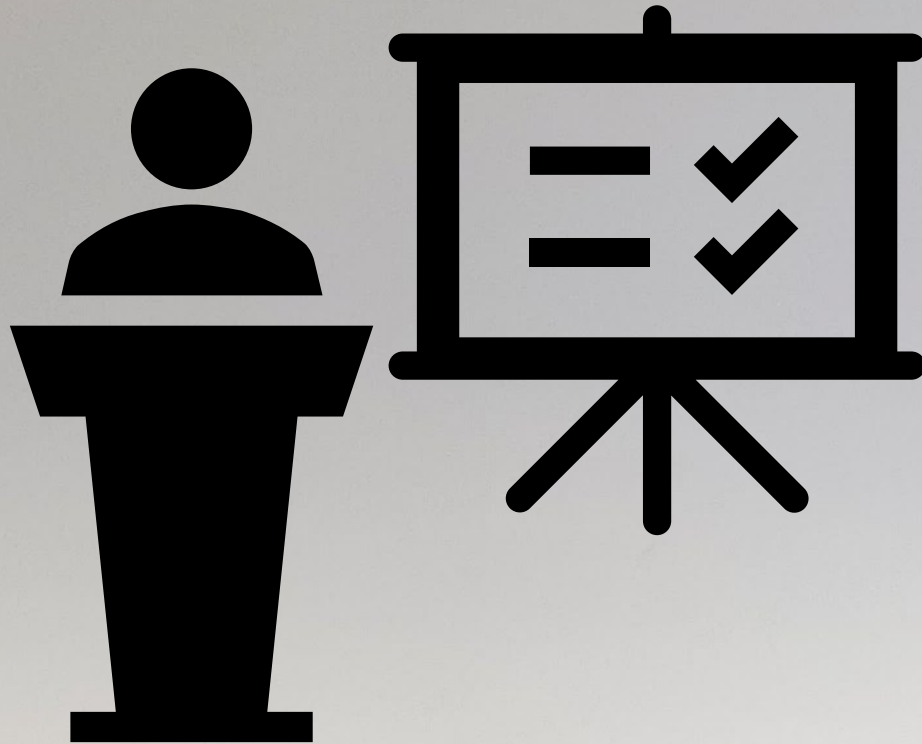
At the DFKI

You can book slots to work there – details TBA

Grading

Final Prototype (40%):

- Usability
- Stability
- Design
- *Documentation*
 - Clarity and Readability
 - Technical Accuracy
 - Visual Presentation



Mid-Term Presentation

Talk about:

- concept
- current development state

Content of the talk:

- similar to concept document
- show current state
- images/videos of concept & prototype

- everyone should present!
- balanced speaking time!

Grading

Mid-Term Presentation (10%):

- Clarity and Organization
- Content Quality
- Visual Aids
- Engagement and Delivery
- Q&A Handling



- images/videos of concept & prototype

→ everyone should present!

→ balanced speaking time!

Introduction to User Studies & Scientific Reports - 27.05.2025



The image shows a seminar cover with a light blue background. At the top, there are four logos: UMTL, dfki (Deutsches Forschungszentrum für Künstliche Intelligenz / German Research Center for Artificial Intelligence), SIC (Saarland Informatics Campus), and UNIVERSITÄT DES SAARLANDES. The main text is centered and reads: Seminar, Sweat and Survive - the VR Edition, Introduction to User Studies & Scientific Reports, April 14, 2025. At the bottom, it lists the organizers: Felix Kosmalla & Dr. André Zenner, Saarland University & DFKI.

UMTL

dfki Deutsches Forschungszentrum
für Künstliche Intelligenz
German Research Center for
Artificial Intelligence

SIC Saarland Informatics
Campus

UNIVERSITÄT
DES
SAARLANDES

Seminar
Sweat and Survive - the VR Edition
Introduction to User Studies & Scientific Reports
April 14, 2025

Felix Kosmalla & Dr. André Zenner
Saarland University & DFKI

(Learning) Goals of the Seminar

Conceptualization, implementation and evaluation of a VR fitness application based on scientific literature.



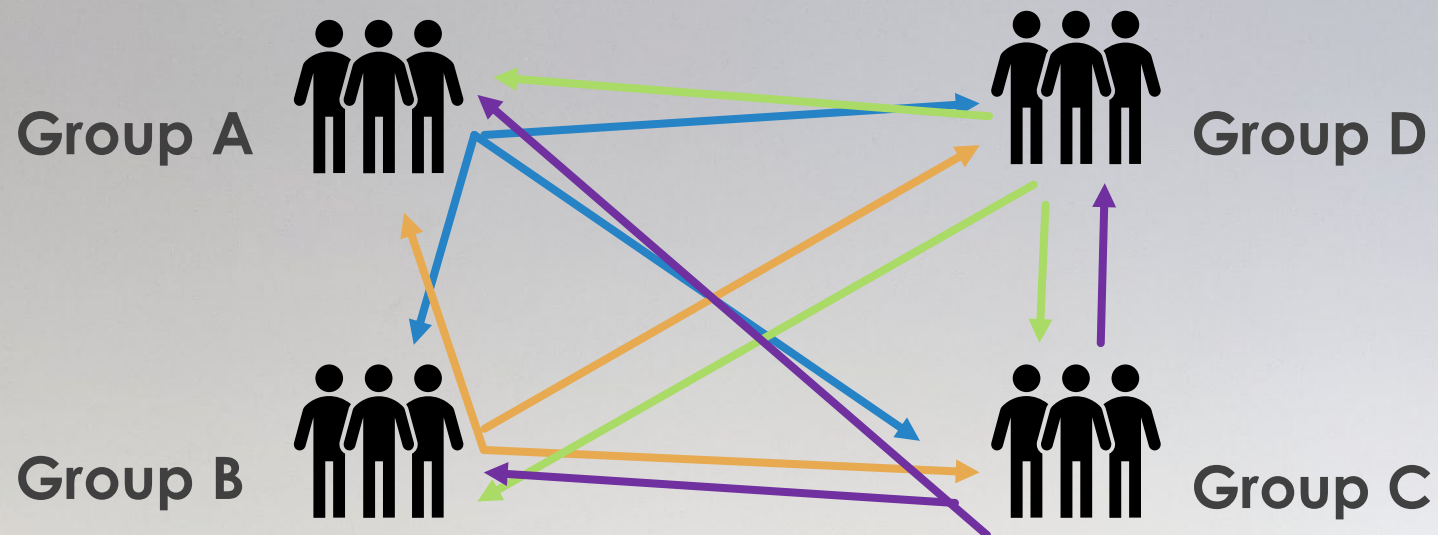
VR Fitness Application

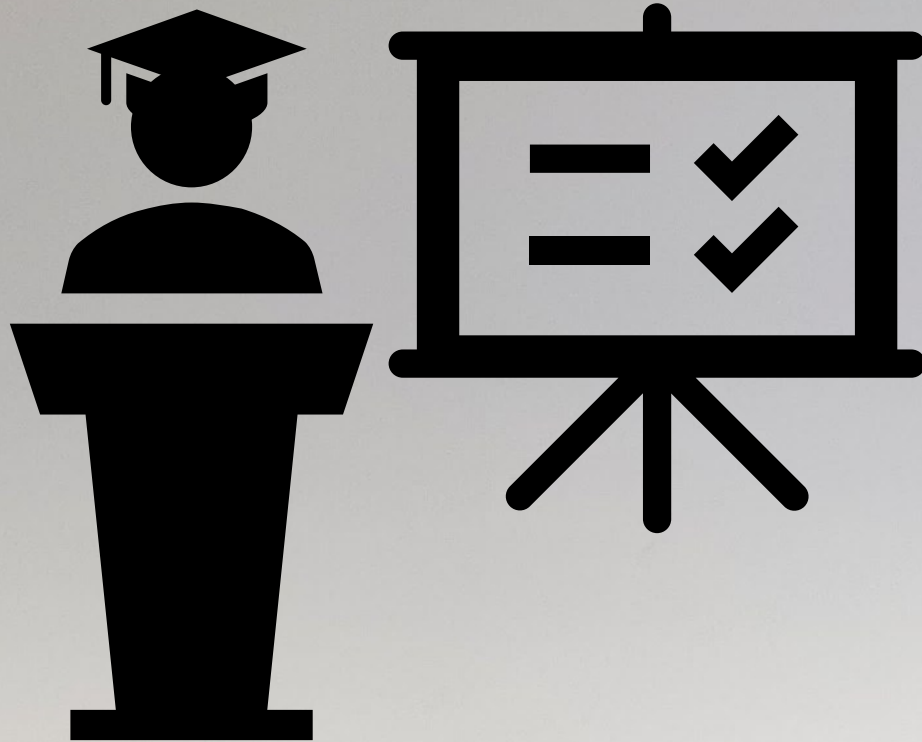
Combining classical (body weight) exercises with virtual threats to motivate users.

But does it work?

Evaluation of your Prototype

Your goal: Prototype needs to be working well enough to execute a user study.





Final Presentation

Talk about:

- original concept & changes to it
- final prototype
- user study & results
- future work

Content of the talk:

- similar to final report
- images/videos of final prototype
- live demo in the Banana Lab

→ everyone should present!

→ balanced speaking time!

Grading



Final Presentation (20%):

- Clarity and Organization
- Content Quality
- Visual Aids
- Engagement and Delivery
- Q&A Handling
- Live-Demo

- images/videos of final prototype
- live demo in the Banana Lab

- everyone should present!
- balanced speaking time!

- o Reflection on the planned overall experience and the impact of the VR application.
- o Suggestions for future work and improvements.



Final Report

The written final report should be 3-5 pages long (excluding references) and submitted as a PDF in ACM SIG format (2-column). The following LaTeX template should be used:

<https://www.overleaf.com/latex/templates/association-for-computing-machinery-acm-sig-proceedings-template/bmvfhcdnxfty>

A final report could be organized like this:

1. Introduction

- o Brief overview of the project and its objectives.
- o Summary of the initial concept and motivation.

2. Related Work

- o Review of relevant literature and previous work in VR sports applications and virtual threat scenarios.
- o Citation of at least 5 scientific papers related to the topic.

3. Concept and Implementation

- o Detailed description of the proposed VR application.
- o Explanation of how the application allows users to perform sports exercises while experiencing high adrenaline in virtual threat scenarios.
- o Technical details of the implementation, including software and hardware used.

4. User Study

- o Methodology of the user study conducted with the prototype.
- o Description of the participants and the procedures followed.
- o Data collection methods and tools used.

5. Results and Discussion

- o Presentation of the findings from the user study.
- o Analysis of the data collected, including user feedback and performance metrics.
- o Comparison with other groups' user studies and their virtual scenarios and sports exercises.

6. Challenges and Solutions

1. Introduction

- Brief overview of the project and its objectives.
- Summary of the initial concept and motivation.

2. Related Work

- Review of relevant literature and previous work in VR sports applications and virtual threat scenarios.
- Citation of at least 5 scientific papers related to the topic.

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5. Results and Discussion

- Presentation of the findings from the user study.
- Analysis of the data collected, including user feedback and performance metrics.
- Comparison with other groups' user studies and their virtual scenarios and sports exercises.

6. Challenges and Solutions

- Discussion of the challenges faced during the implementation and user study.
- Solutions and adaptations made to overcome these challenges.

7. Conclusion

- Summary of the key findings and insights gained from the project.
- Reflection on the overall experience and the impact of the VR application.
- Suggestions for future work and improvements.

8. References

1. Introduction

- o Brief overview of the project and objectives.
- o Summary of the initial project and motivation.

2. Related Work

Grading

Final Report (20%):

- Clarity of Writing
- Completeness
- Visual Aids

- o Analysis of the data collected, including user feedback and performance metrics.
- o Comparison with other groups' user studies and their virtual scenarios and sports exercises.

6. Challenges and Solutions

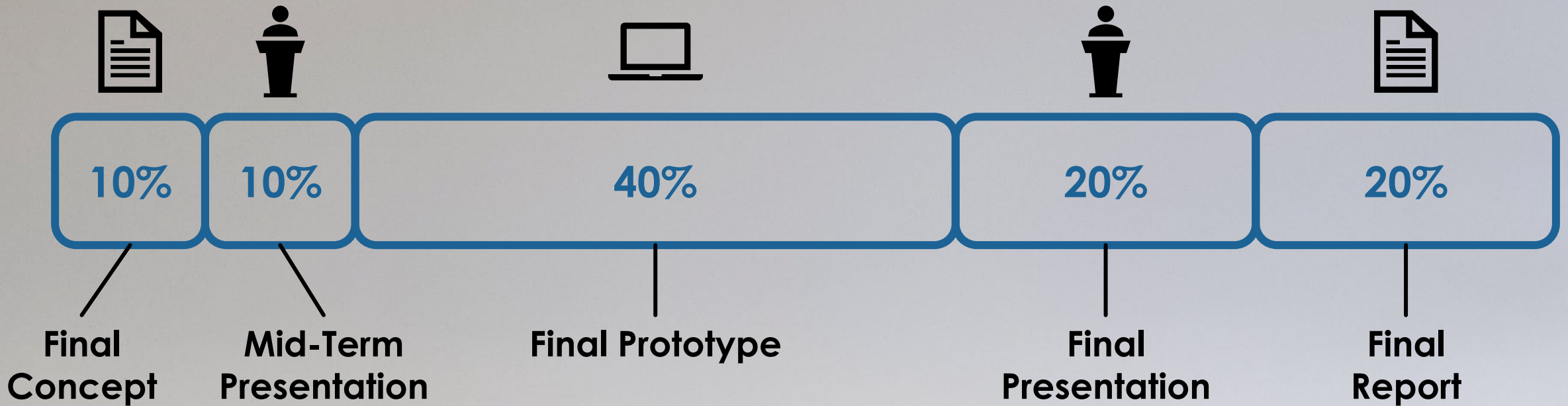
- o Discussion of the challenges faced during the implementation and user study.
- o Solutions and adaptations made to overcome these challenges.

7. Conclusion

- o Summary of the key findings and insights gained from the project.
- o Reflection on the overall experience and the impact of the VR application.
- o Suggestions for future work and improvements.

8. References

Grading



Organizational Stuff

Groups & Exercise Assignments

Today!

Room

VisRoom

- here -

Meeting Room Turing 1

DFKI (new part, top floor, +2)

Mandatory Attendance

Exceptions

exam, illness (only with medical certificate)

No Exceptions

other lectures, tutorials, etc.

LSF Registration

Until May 07 the latest!

No exceptions!

Organizational Stuff

We want a fair seminar for everyone!

If it's not on Git, it did not happen!



Worries and fears?

Everyone commits their own work!

Pair programming? **Add it to the commit message!**

Trying something out? **Push to a new branch!**

Wrote some text? **Better be pushed!**

Talk to us early!

- general problems
- work-balancing problems in the team
- questions
- ...

Organizational Stuff

We want a fair seminar for everyone!

The rules on the website count!

(if you have questions, ask us)

Progress Control



To ensure a fair and even distribution of the work within the project groups, we require the following measures:

- All code has to be committed at the provided GitLab
 - Everybody commits their own work
 - When pair programming, note this in the commit message, e.g. "Implemented Feature X - André + Felix"
 - When experimenting and trying out things (that eventually might not be part of the final prototype), still commit such work in Git on a separate branch
- Sources of all written documents have to be committed at the provided GitLab (e.g. LaTeX or Markdown)
 - Everybody commits their own work
 - When pair-writing, note this in the commit message, e.g. "Updated Introduction - André + Felix"

Now

Group & Topic Finding



Leg Mobilisation



Balancing



Squatting



Hanging/Pull-Ups

Next Steps

Ideate & Document Concept

Draft due by 27.04.

Final Concept due by 07.05.