



TECHNISCHE
UNIVERSITÄT
DARMSTADT

TU DA CAMPUS QUEST:

**GAMIFIED 360° EXPLORATION AS AN INNOVATIVE FORMAT
FOR ONLINE SELF-ASSESSMENTS FOR STUDY ORIENTATION**

17.06.2026

M&L
CONFERENCE
LEUVEN 2026



Christian Hoppe

Head of the Unit "Digital Teaching and Learning"
at the Center for Educational Development and Technology

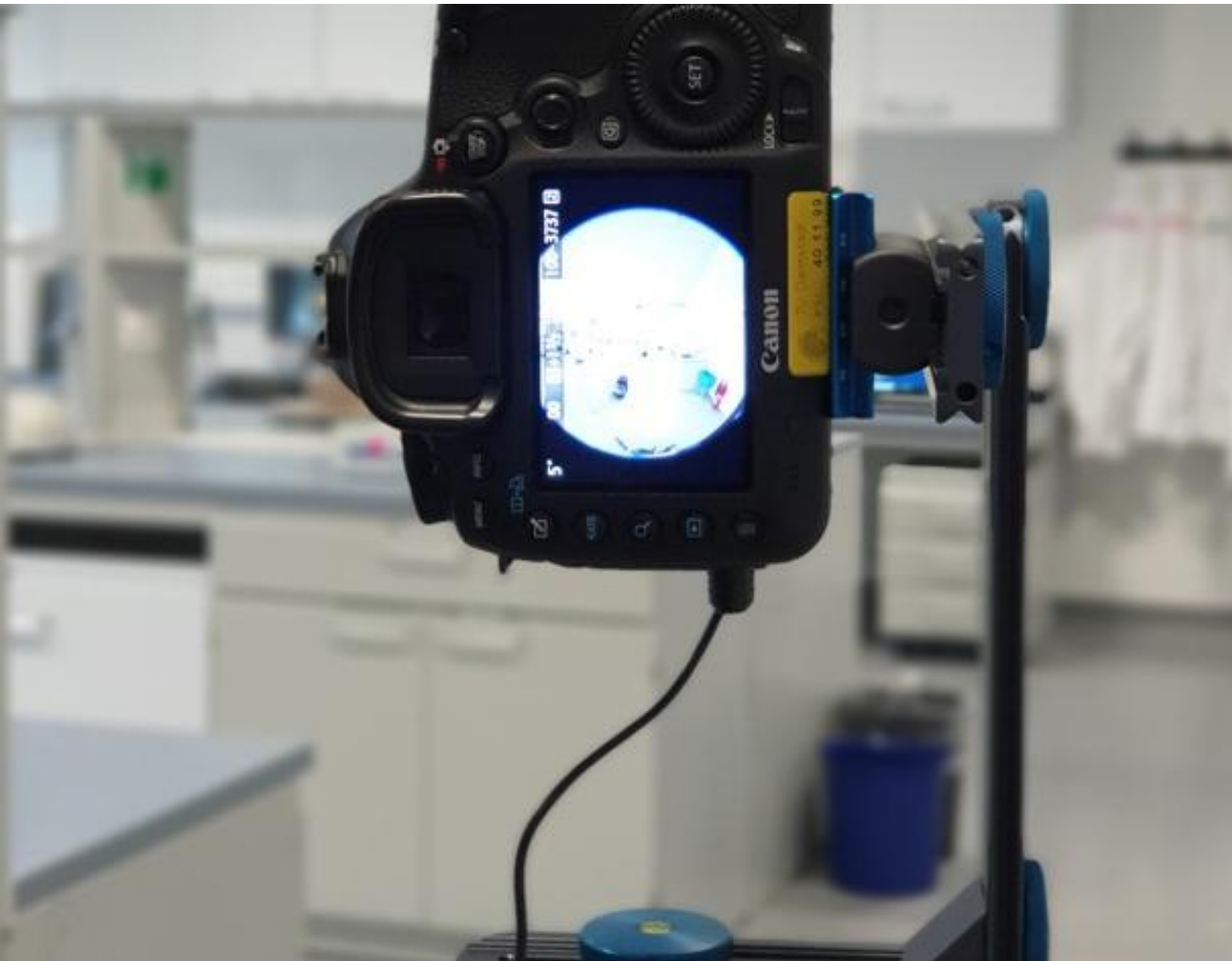


Markus Weber

Digital Teaching and Learning Unit Team
at the Centre for Educational Development and Technology

- 13 departments
- 25.000 students
- 350 professors
- focus on engineering and natural sciences



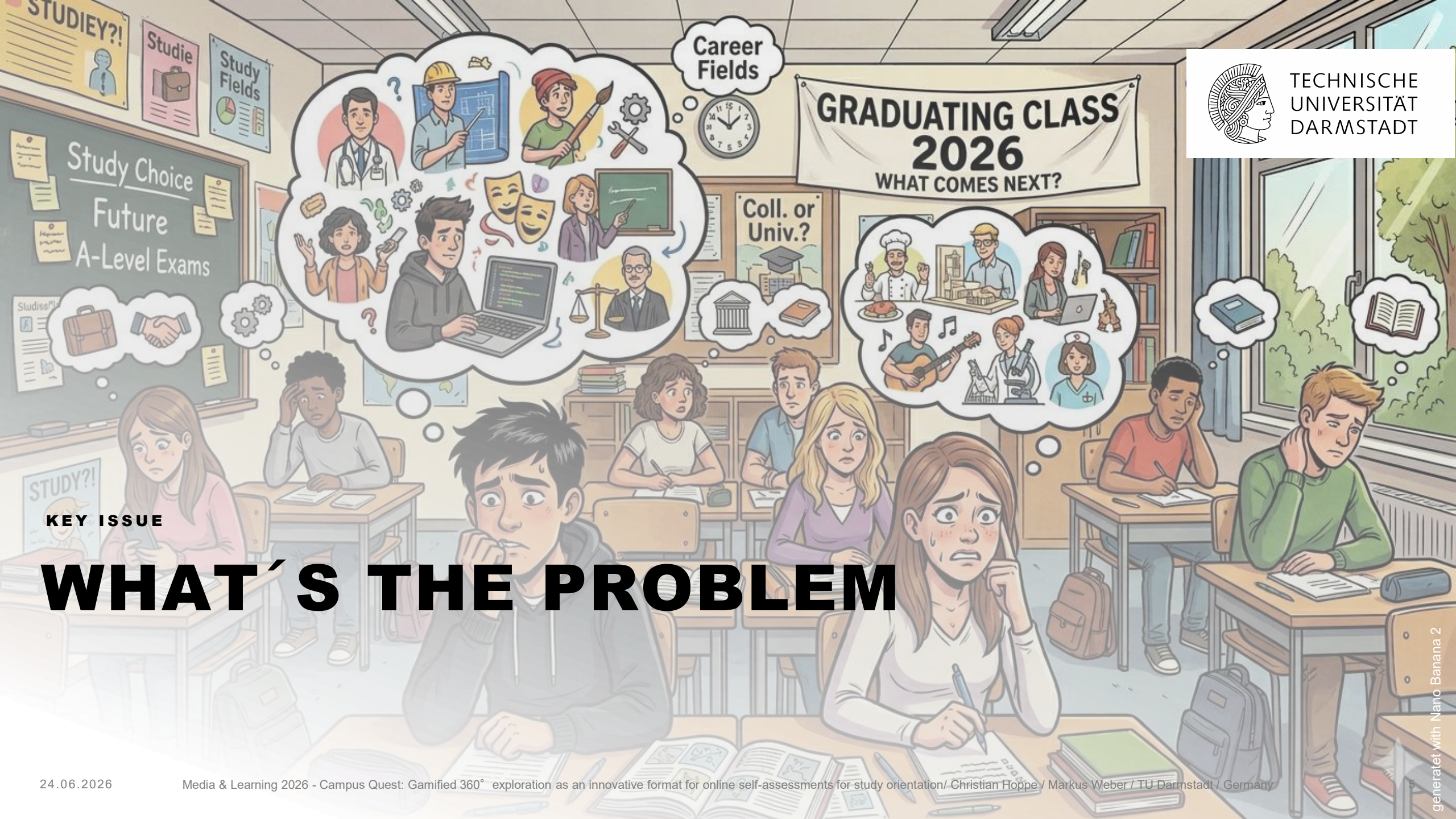


Agenda:

- 1** Challenges
- 2** Benefits of 360° Environments
- 3** TUDa Campus Quests



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KEY ISSUE

WHAT'S THE PROBLEM

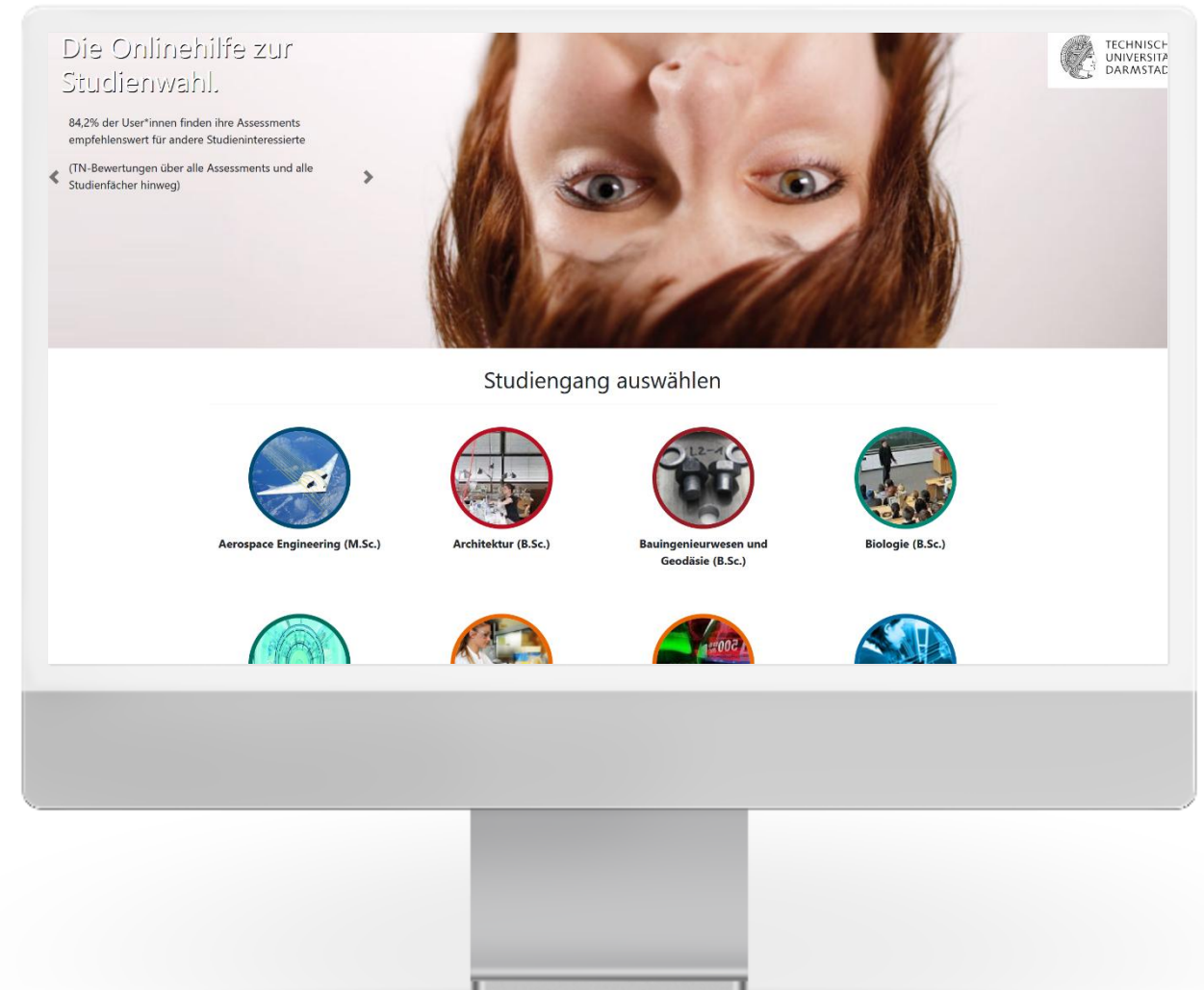


CHALLENGES

- Wide range of options
- Not really sure what you want to do
- Abstract Module Descriptions
- Lack of a realistic understanding of what university is like

WHAT ARE OSA USED FOR?

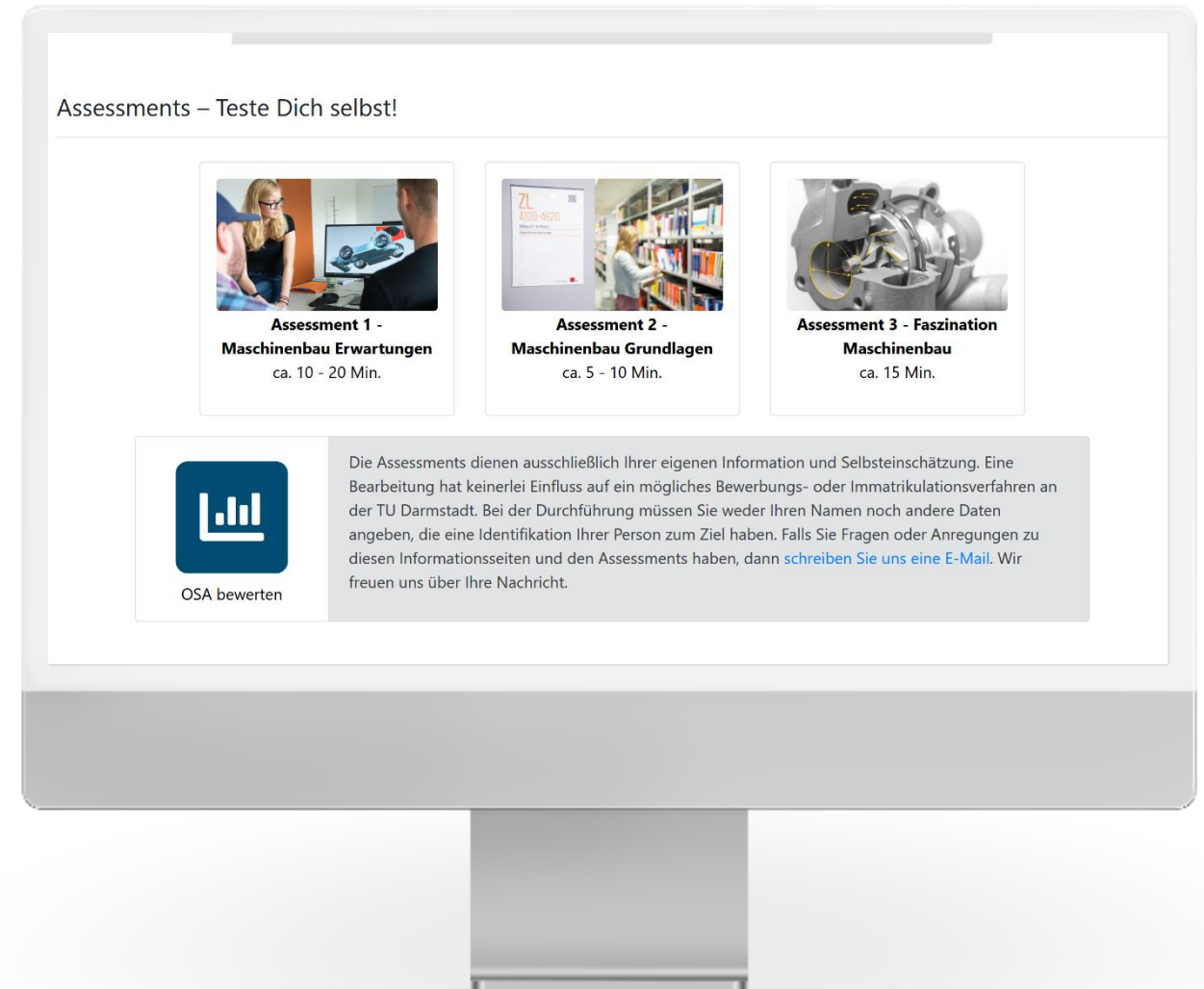
- Helping students find the right study program
- A mix of informational texts, videos, and assessment questions



WHAT IS OFTEN MISSING? THE EMOTIONAL SIDE

- What is it like to study at the TU?
- What is the program like?
- What do the facilities look like?

What are possibilities, build upon the existing components of the OSA, to foster a greater sense of identification?





OUR SOLUTION

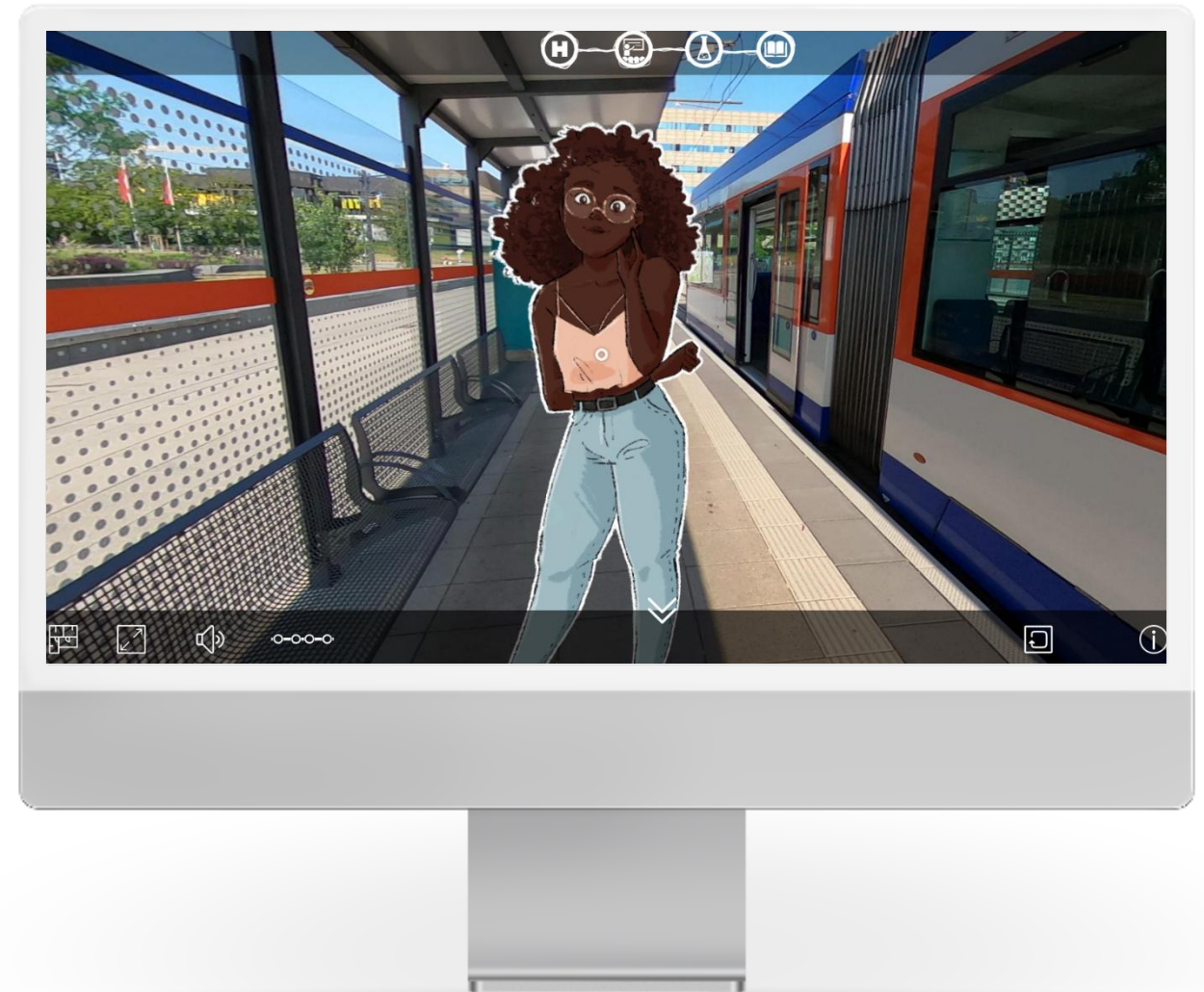
INTERACTIVE & GAMIFIED 360° TOURS

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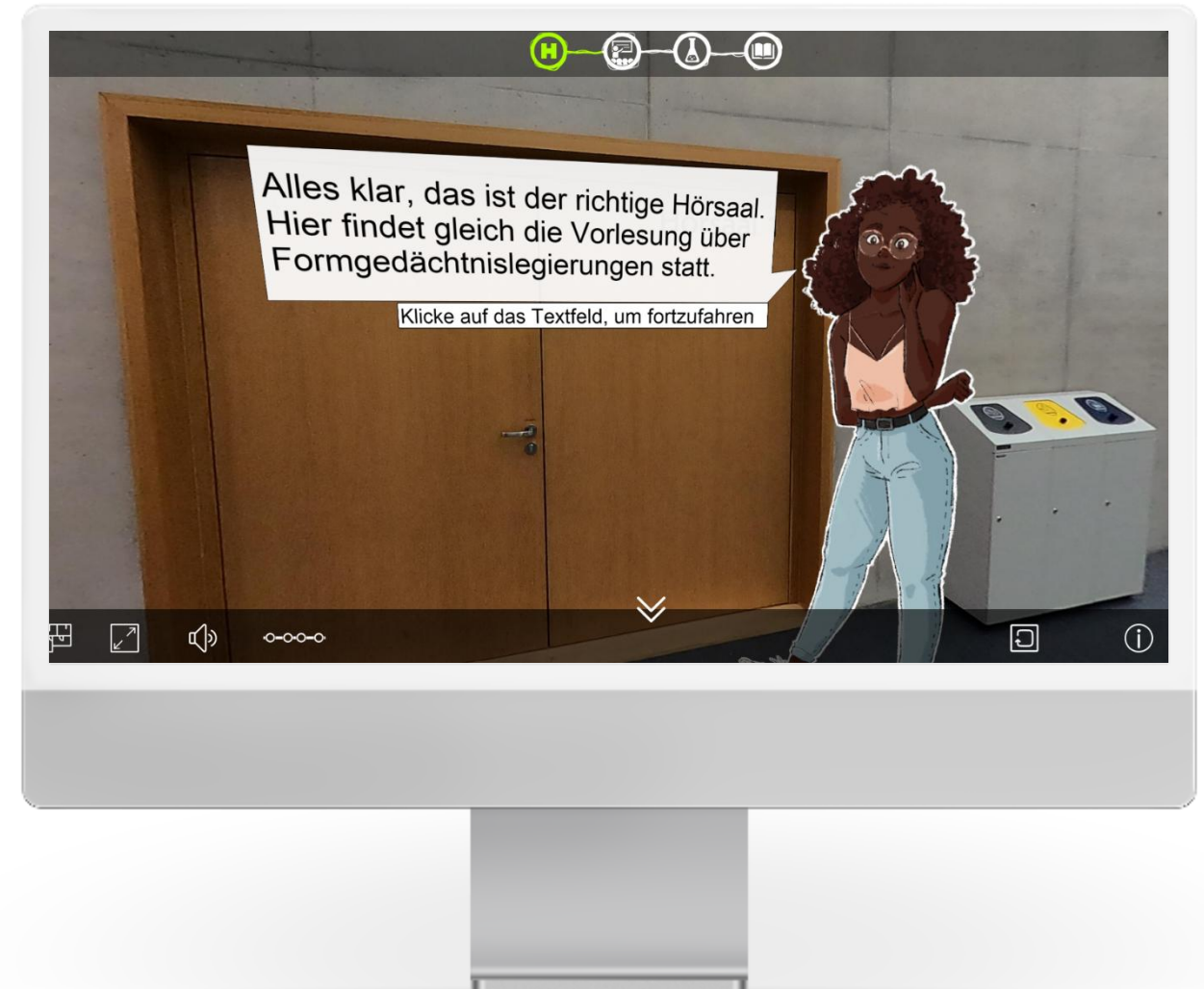
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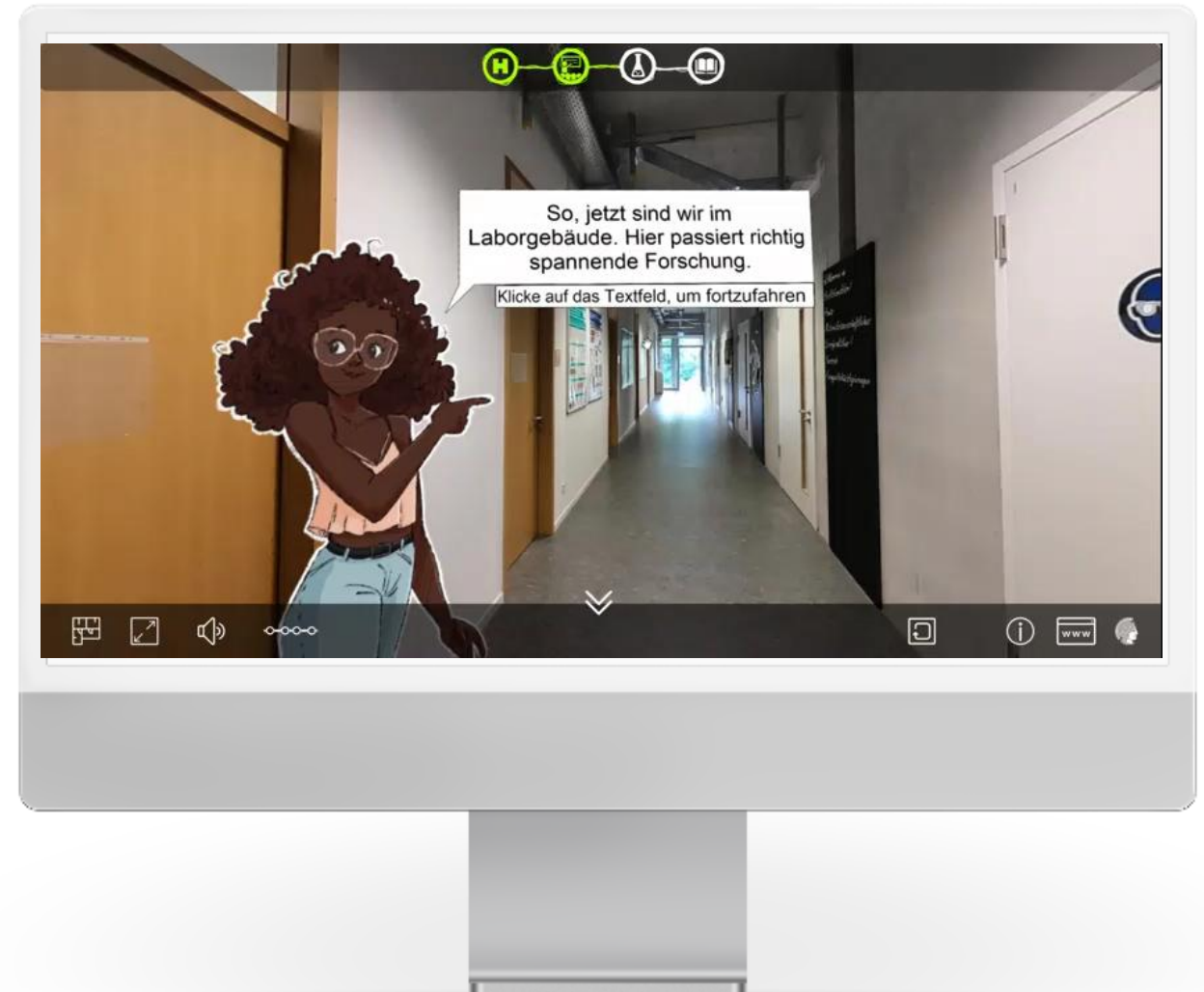
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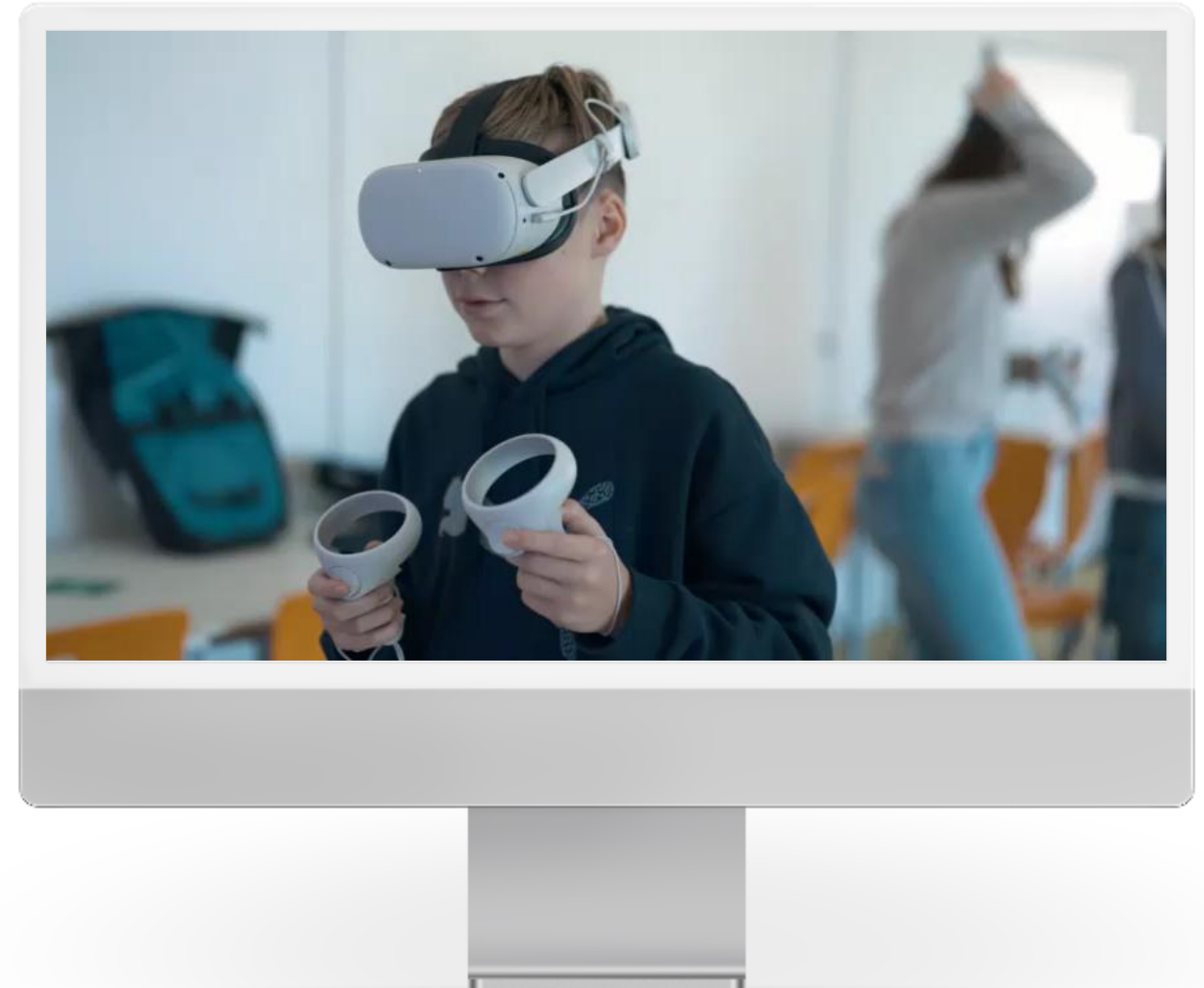
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- Easy to produce





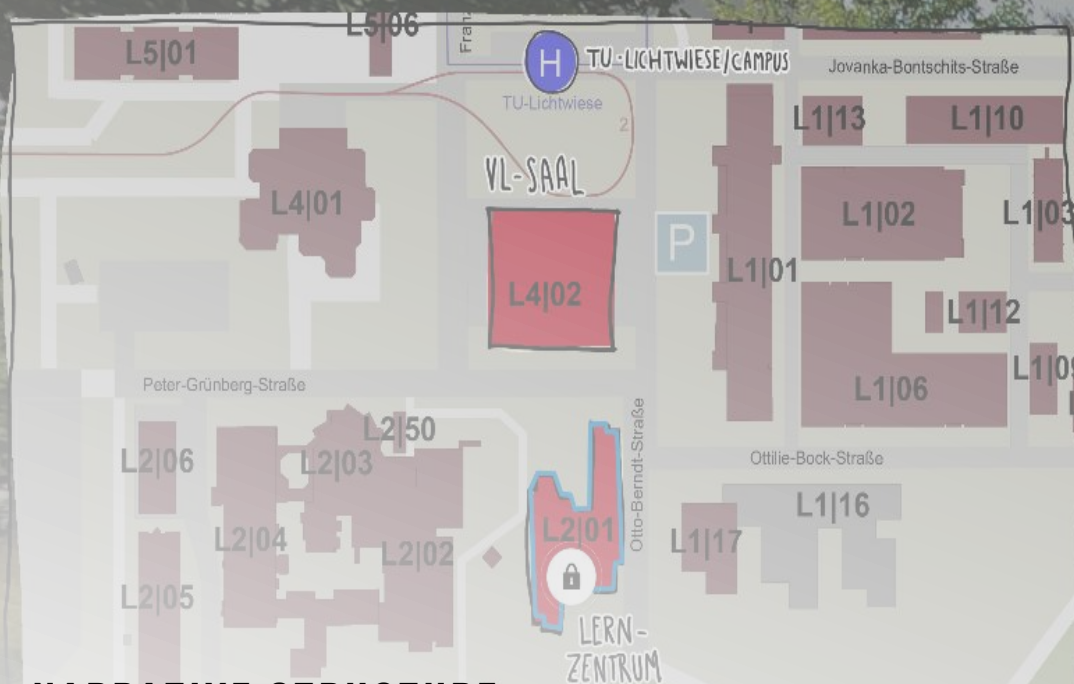
TRANSFER TO TUDA CQ

- Built on 360° technology
- Spaces become interactive teaching and learning scenarios
- Connects what you learn with real places at TU Darmstadt.
- Quest character instead of an exam atmosphere
- Gamified
(Storytelling, Riddle Logic, Embedded Tasks, Reward System)



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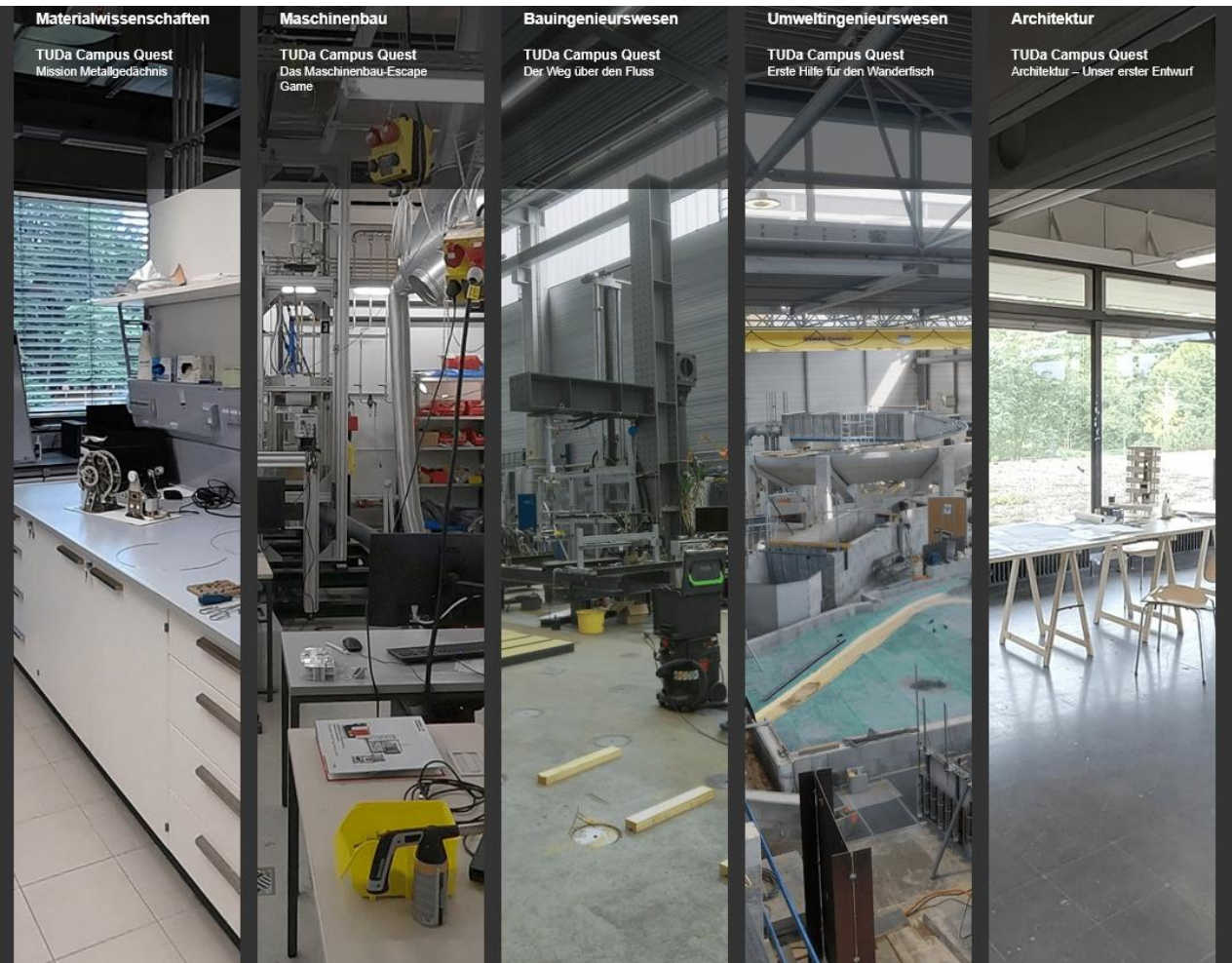
Hier sind wir am Haupt-
Materialwissenschaft. L
Lernzentrum, wo wir unse
Keine Sorge, ich habe es sch



NARRATIVE STRUCTURE

OVERVIEW OF THE TUDA CAMPUS QUEST



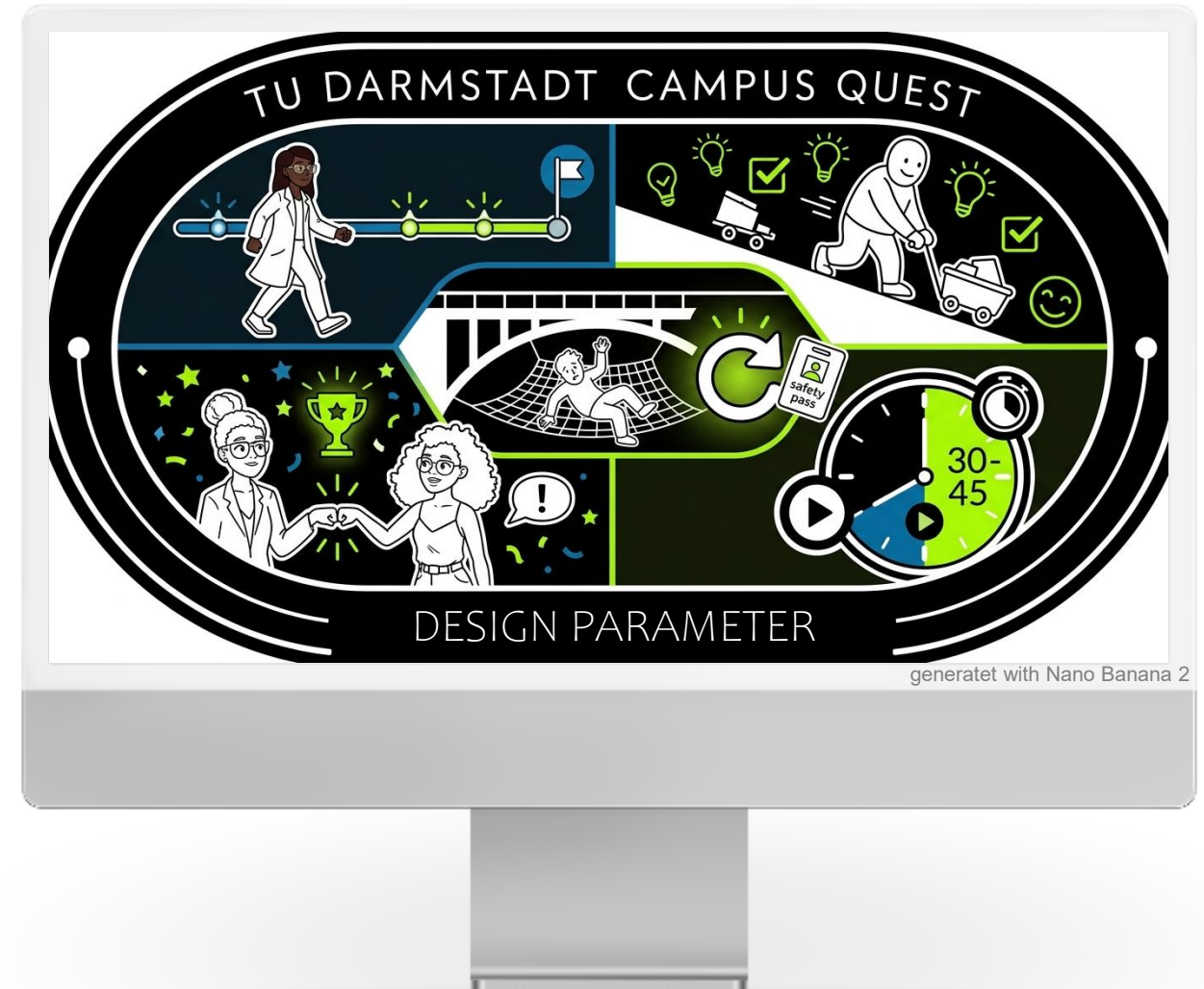


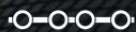
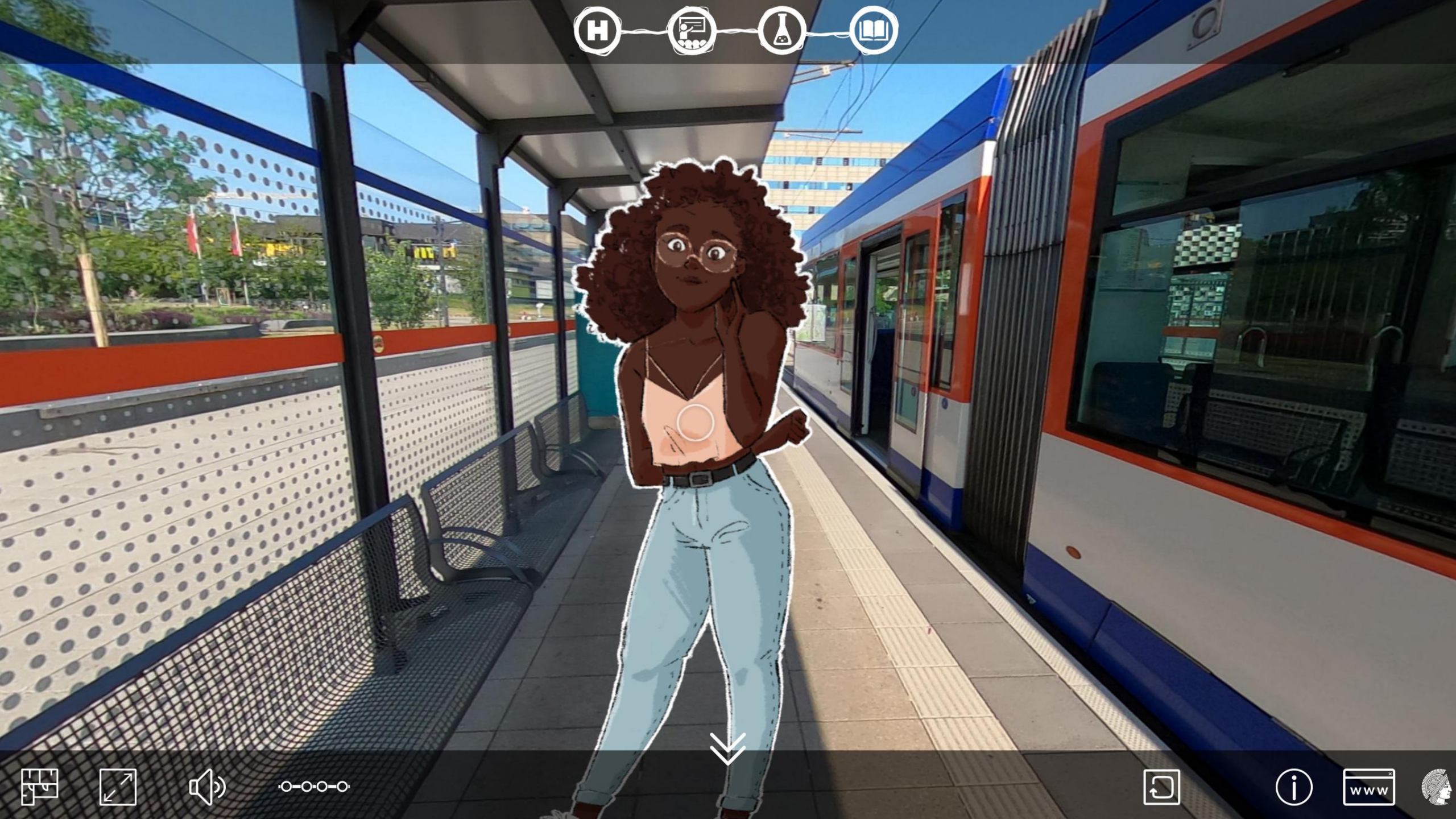
THE STORY THE TASK

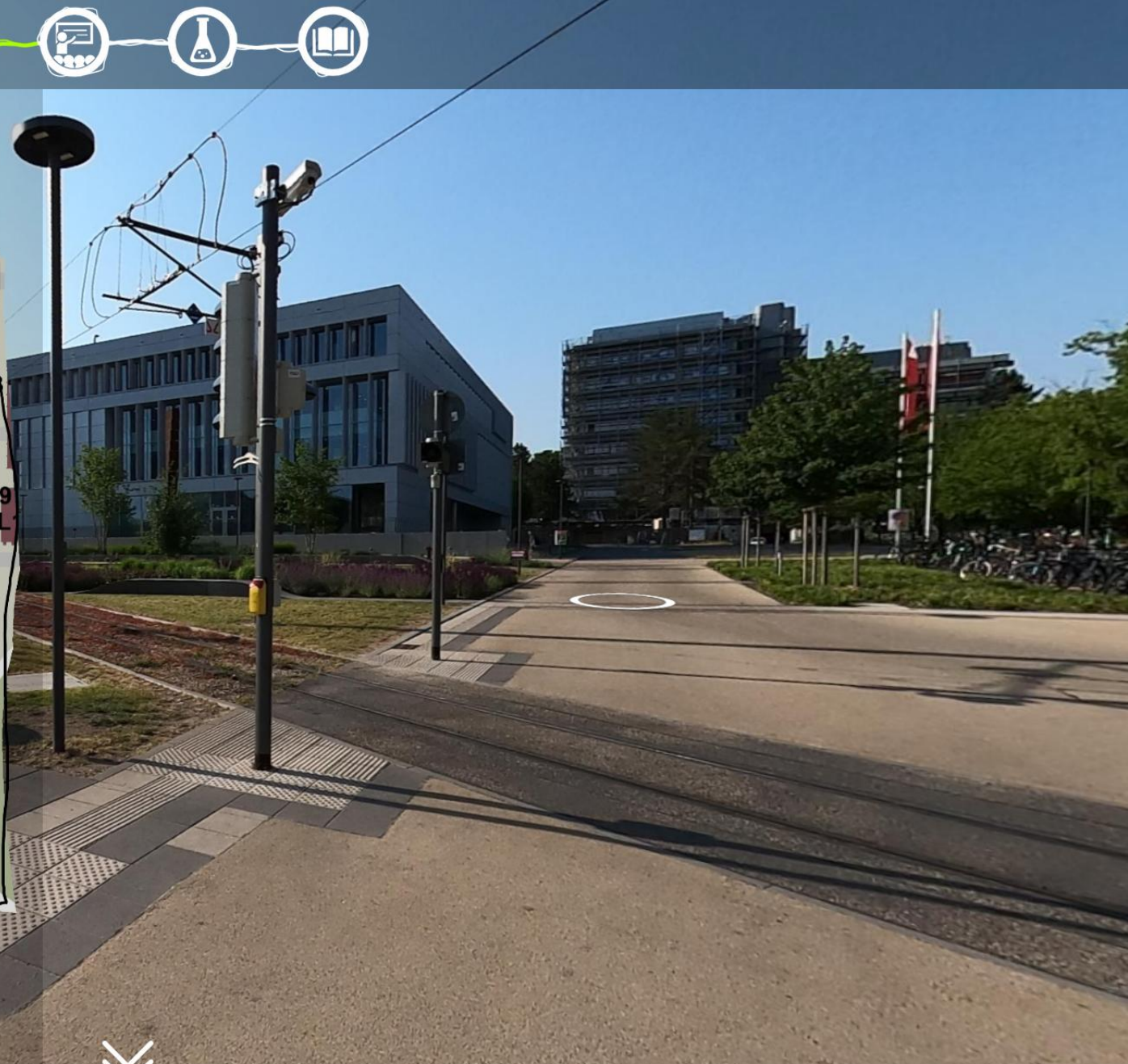
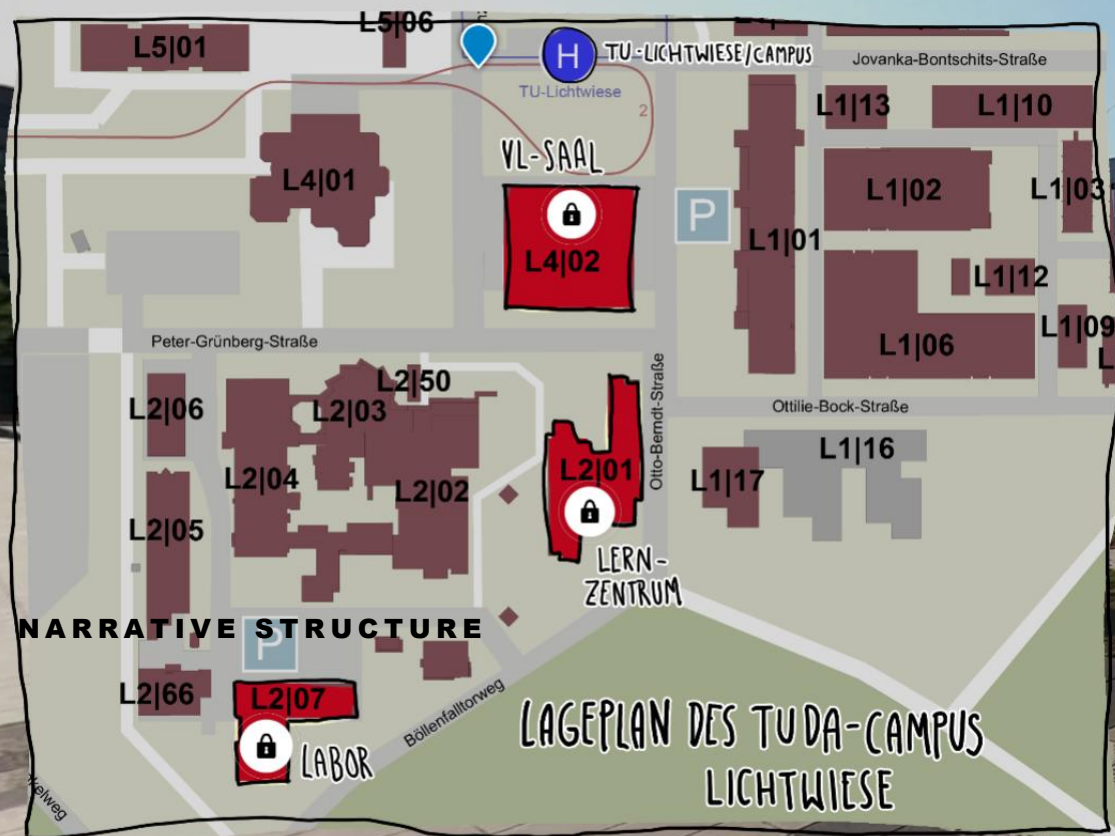
- Experience a day in your chosen department
- Explore lectures, labs, and study centers
- Solve subject-specific puzzles and challenges

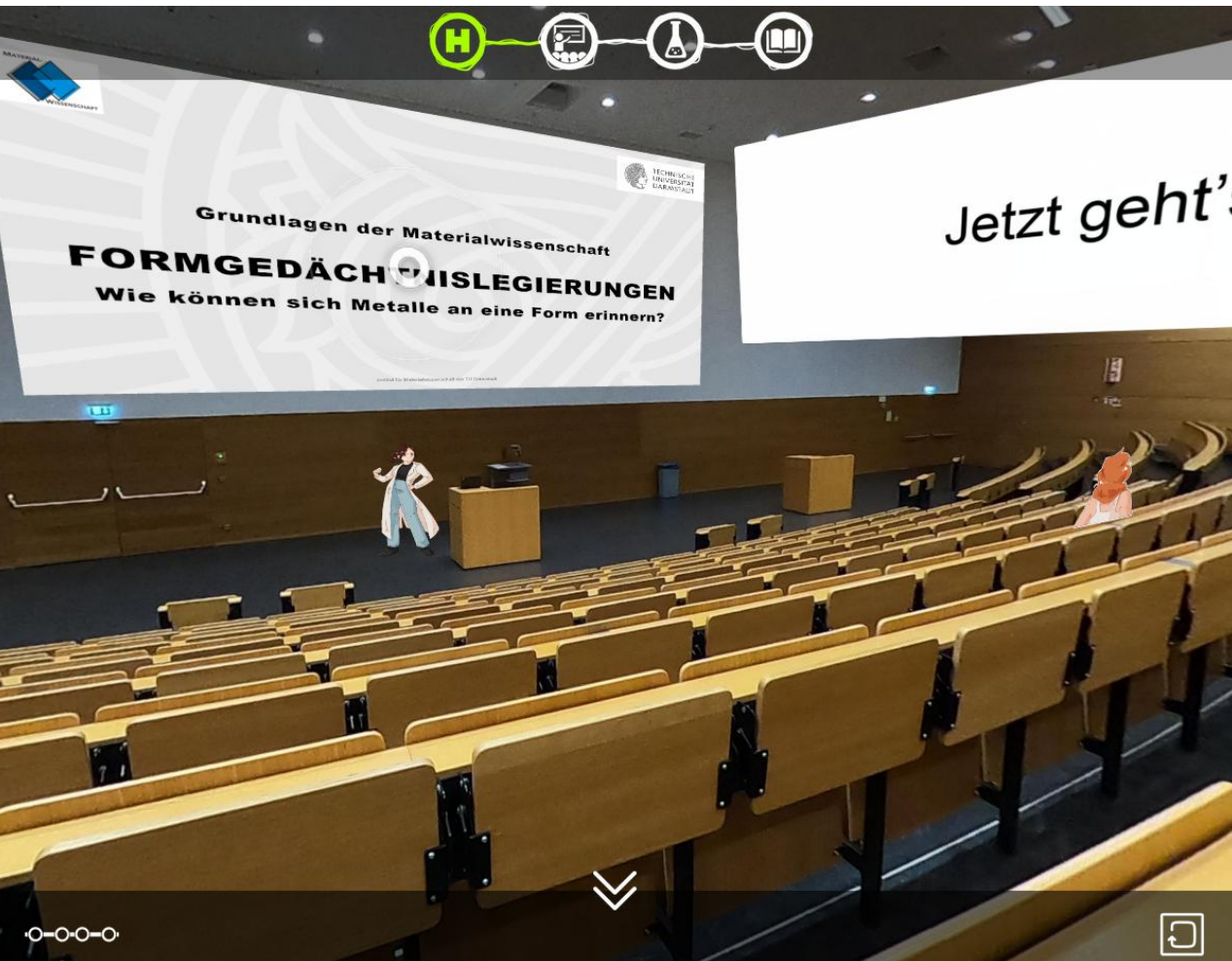
DESIGN PARAMETERS

- linear narrative structure
- Moderate to easy difficulty level
- "No-fail" design / Failure is not an option
- Focus on motivating interactions
- Playtime: 30 – 45 minutes max.









LOCATION: LECTURE HALL

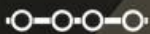
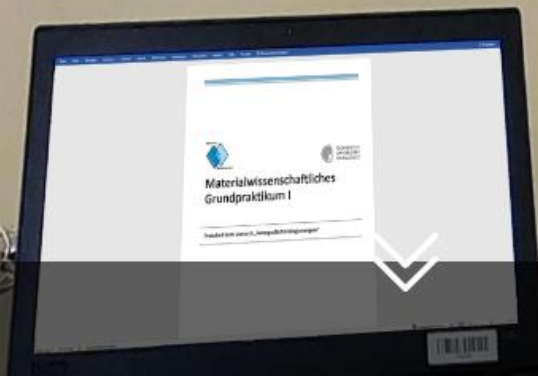
- Experiment-based "Lecture"
- High interactivity (e.g., interactive videos, quizzes, H5P)



AT THE LAB

- Carrying out the experiment
- Engagement via quiz cards and H5P modules
- Avatar assistance available when required

Mein Entwurf für das Protokoll ist auf dem Laptop.
Ich bin mir an ein paar Stellen nicht ganz sicher.
Zuerst mal bräuchte ich deine Hilfe bei den Bildern.
Danach hätte ich noch ein paar inhaltliche Fragen.



Materialwissenschaften

TUDa Campus Quest
Mission Metallgedächtnis

Maschinenbau

TUDa Campus Quest
Das Maschinenbau-Escape Game

Bauingenieurswesen

TUDa Campus Quest
Der Weg über den Fluss

Umweltingenieurswesen

TUDa Campus Quest
Erste Hilfe für den Wanderfisch

Architektur

TUDa Campus Quest
Architektur – Unser erster Entwurf



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Entdecke die Architektur
an der TU Darmstadt!
Begleite zwei Architektur-
Erstis bei ihrem ersten
Entwurf eines parasitären
Gebäudes am Campus
Lichtwiese. Lass dir
zeigen, was Architektur
hier besonders macht, und
hilf ihnen, ihren Entwurf
rechtzeitig fertigzustellen.
Bist du bereit? Stell dich
der Herausforderung!

Quest Starten

Wähle jetzt eine Quest aus!



INSIGHTS

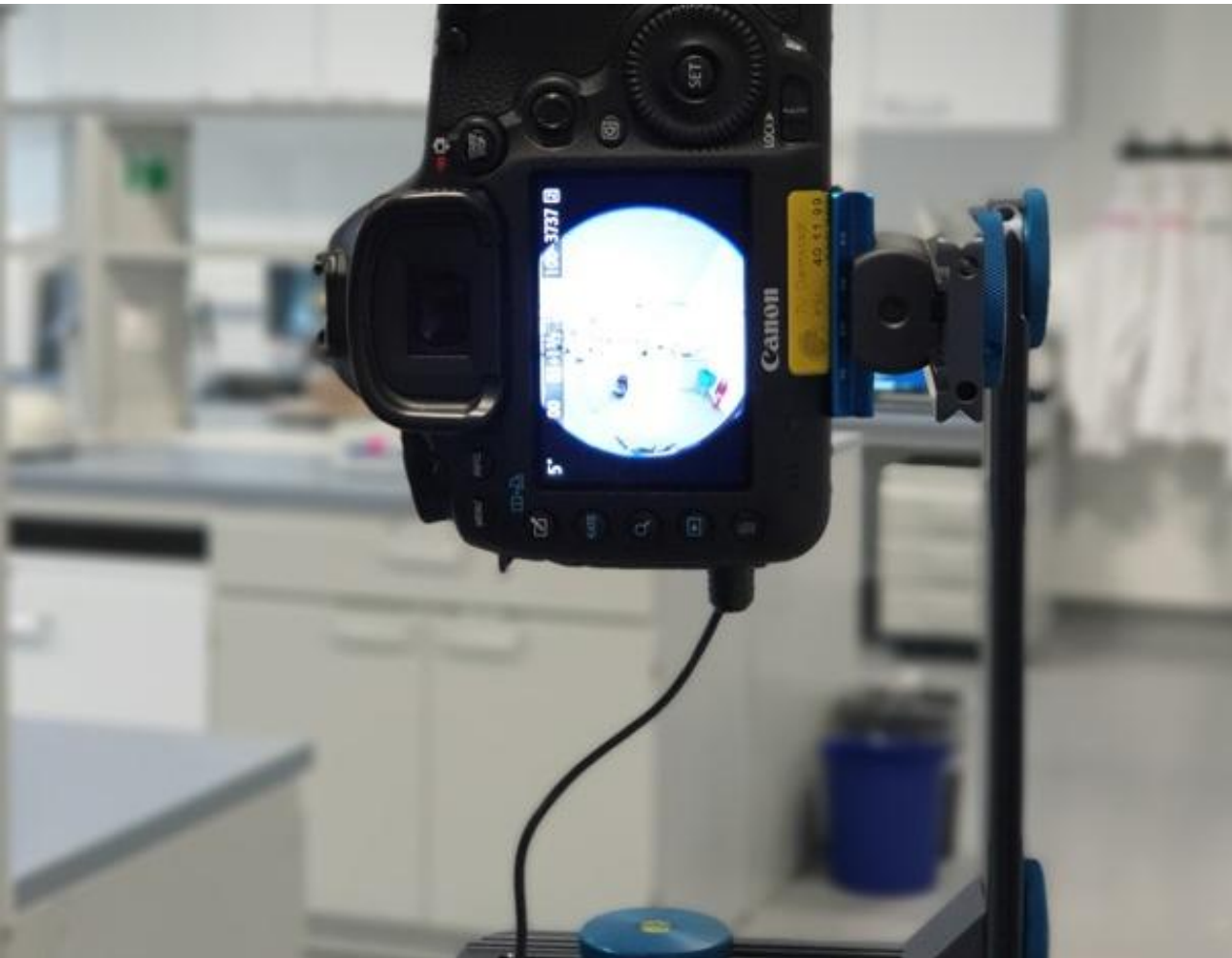
EXAMPLES

https://asset.e-learning.tu-darmstadt.de/d/tuda_cg/mission_metallgedaehtnis/



https://asset.e-learning.tu-darmstadt.de/d/tuda_cg/maschinenbau_escape_game/





LINKS

1. [iMooX](#) – Free online introductory course
[Kameravergleich](#)
Username: 360 / Password: gopro_insta
2. [Startseite TUDa Campus Quest](#)
3. [TUDa Campus Quest - Mechanical Engineering](#)
4. [TUDa Campus Quest - Materials Science](#)
5. [Paper zur Infografik für 360° Touren](#)
6. [Immersive Laborreise](#) (special Project)
7. [Projectwebsite](#) (fuels) der TU Darmstadt
8. [Future Learning Design](#)

THANK YOU

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