



## AUGMENTED AND VIRTUAL REALITY

Do we need to master a programming language to design the digital world around us? Where can we find coding in everyday life?

#DABEI-Geschichten – an initiative by Deutsche Telekom AG  
Moderation documents for a workshop (approx. 25 minutes)



LIFE IS FOR SHARING.

# PUBLICATION DETAILS

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## PUBLISHED BY

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## FURTHER INFORMATION

<https://dabei-geschichten.telekom.com/en/topics/data-protection-and-security/workshop-25min/>

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## REQUIRED MATERIALS

Tablets, blackboard, flipchart, cards, pen and paper for the participants

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# NOTES FOR MULTIPLIERS

In the course of this workshop, we will examine the phenomena virtual reality (VR) and augmented reality (AR) in more detail. First, the necessary terms and abbreviations will be introduced. Then the benefits and potentials of the technologies will be demonstrated based on everyday examples. In a final step, virtual and augmented reality will be critically examined.

In the past, virtual and augmented reality were often seen as gimmicks. However, the technologies are increasingly arousing the interest of science and industry. With a market volume of 209 billion US dollars, this technology is no longer just a trend.

The core statements of the workshop are therefore:

1. Virtual and augmented reality are already part of our world. The fields of application (e.g. in industry or medicine) are constantly growing.
2. And only a few of them are “gimmicks”.
3. Virtual and augmented reality enrich everyday life and create opportunities that many people would otherwise not have (e.g. participation in events, travel).
4. The concern that the real world might disappear as a result of virtual worlds is understandable. However, if you study the topic closely, it becomes clear that the benefits outweigh the disadvantages.

## PHASE 1: VIRTUAL REALITY (VR)

4 MIN.

### Procedure

“Today, the borders between real and virtual worlds are becoming increasingly blurred. This is due to new technologies such as virtual and augmented reality.

Virtual reality (VR) is a world created by a computer. People enter this world with the help of so-called VR glasses. In virtual reality, users can see and often move in any direction.”



### Task

“What kind of impression does it make on you when you watch it without a pair of VR glasses? Can you imagine the experience with glasses?”

### Possible solution

“It is almost like a video.”, “I can imagine that it feels pretty exciting.”

Your Notes

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## PHASE 2: AUGMENTED REALITY (AR)

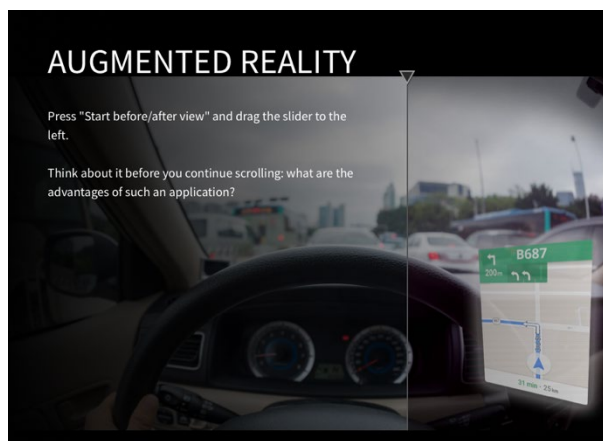
3 MIN.

### Procedure

“In contrast to virtual reality, in augmented reality users also see reality.

Digital elements such as additional information are faded into the field of vision through glasses called “smart glasses”.

In the graphic you can see an example of augmented reality.”



### Task

“Look at the photo: What are the advantages of an application like this? Can you imagine using it in everyday life?”

### Possible solution

“When driving, warnings can be displayed instantly.”, “You don't have to look down when you are driving.”

Your Notes

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## PHASE 3: A SECOND LIFE

(SUB-PHASES A-D)

### Procedure

“Many people have are afraid of losing themselves in virtual and augmented reality. But what advantages can these technologies have in everyday life? On the following pages you will see four examples.”



### Task

“Take a look at the examples: What advantages do you see for the people? How do the technologies enrich everyday life?”

### Possible solution

“I can imagine that doctors can plan better like this”, “I’ve already seen a concert in 360°.”

Your Notes

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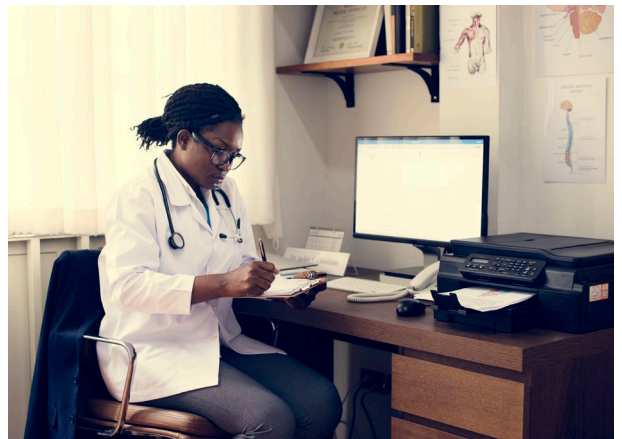
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## PHASE 3: A) THE FIELD OF MEDICINE

2 MIN.

### Procedure

Short description:  
In the medical field, virtual and augmented reality are used to plan operations and therapies in advance. Complicated operations can thus be tested and discussed with colleagues ahead of time.



### Task

“How could the technologies change a doctor's day-to-day work? Which advantages would you have as a patient?”

### Possible solution

“I could understand surgery better that way.”, “I can imagine that doctors can plan better that way.”

Your notes

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## PHASE 4: B) ART

2 MIN.

### Procedure

Short description:  
Art uses augmented and virtual reality to tell stories. In this way, new worlds and stories are created and can be experienced directly by users. The users are up close and what they see appears to be real.



### Task

“Can art make the leap into virtual worlds? How could art like this look?”

### Possible solution

“Virtual worlds can appeal to the imagination differently than pictures.”, “In the virtual world you can actually experience stories.”

Your notes

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## PHASE 5: C) PSYCHOTHERAPY

2 MIN.

### Procedure

Short description:  
In psychotherapy, augmented and virtual reality can open up new opportunities for treating phobias - for example, heights can be simulated in a virtual world and thus, help cure fear of heights.



### Task

“Which possibilities do augmented and virtual reality offer in psychotherapy?”

### Possible solution

“Patients no longer need to be exposed to danger, e.g. heights.”, “In a virtual world, the inhibition threshold for therapy is lower.”

Your notes

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## PHASE 6: D) ARCHITECTURE

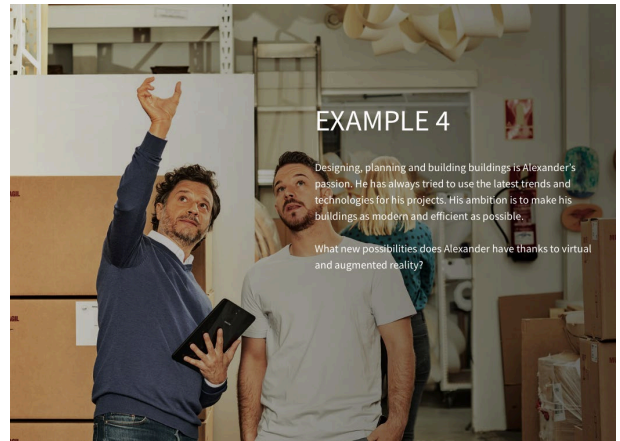
2 MIN.

### Procedure

Short description:

In architecture, the AR and VR can be used to present customers with a precise idea of a building at a very early stage.

They also make it easier for architects to estimate the dimensions of planned spaces and make changes.



### Task

“What new possibilities are available to architects with virtual and augmented reality?”

### Possible solution

“Architects can imagine projects better and judge whether their ideas can actually be implemented.”

Your notes

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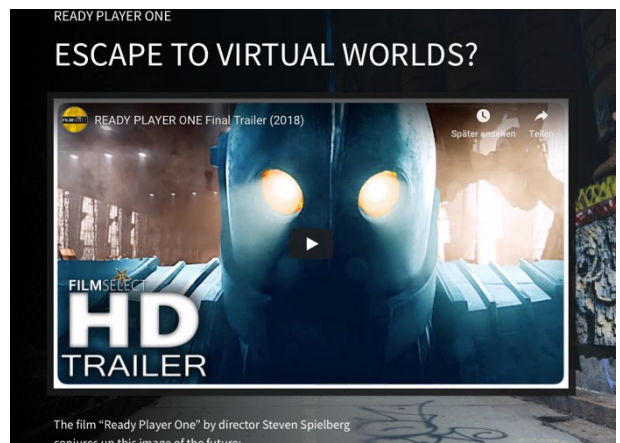
## PHASE 7: ESCAPE TO VIRTUAL WORLDS?

5 MIN.

### Procedure

“The film 'Ready Player One' by director Steven Spielberg conjures up the following image of the future:

In the future, mankind lives only in the virtual world. They earn their money and meet other people there. In the real world, many people are very poor and the cities have been destroyed. That is why more and more people withdraw into the OASIS, the digital world.”



### Task

Can VR and AR become dangerous for people? Is it realistic for people to flee into the virtual world?

### Possible solution

“I think it starts to get dangerous when people can't cope with reality anymore.”

Your notes

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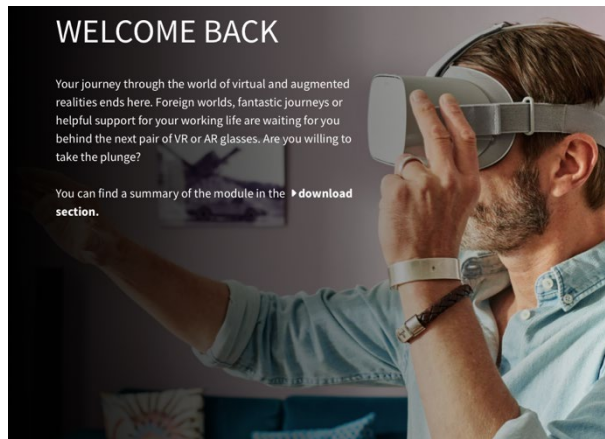
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### Procedure

“In this workshop you got to know a variety of virtual and augmented reality applications.

It has become clear that the technologies are no longer gimmicks or toys, but increasingly enrich daily and professional life.”



### Task

“What have you learned? What was new for you? What will you tell your friends about what you have learned? Which questions still need to be answered?”

### Possible solution

“I am going to try out some of the offers at home.”,  
“It was exciting to see how real virtual worlds can appear.”

Your notes

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