

Activity: Reality Taboo

Instructions and Task

To understand how an AI system 'sees' and processes the world, the hands-on activity Reality Taboo is well suited. In pairs, students describe given images using only words from the areas of geometric shapes, line types, colours and direction and position information. This restriction ensures that it is not possible to use complex, abstract terms for the description, which computer systems do not have either. Through the description, the students actively experience the obstacles that arise when processing and interpreting sensory data, such as images and videos, with computer systems: For computers, such data consists of individual, coloured pixels. Abstract concepts, such as objects or people, are not displayed as a whole, but consist of changing pixel patterns and have no meaning for the system. In this activity, students recognise that reality must be represented in an appropriate, machine-processable way and that this is not always possible in a clear and meaningful way. With this knowledge, modern approaches to image recognition with the help of machine learning and the functioning of generative networks can be discussed. The representation of knowledge about the world and reality by AI systems can also be discussed following the activity.

The students work together in pairs. Each pair is given a set of picture cards. Similar to the well-known game 'Taboo', one student describes a picture, which is kept hidden from the second student, as accurately as possible. Only terms from the areas of geometric shapes, line types, colours as well as direction and position information may be used for the description. The task of the partner is now to redraw the pictures as well as possible based on the description and finally to recognise what is being described.

Print and cut the appropriate number of picture cards. The students will also need (coloured) pens and paper.

Task for printing:



Take the upper card from the stack and describe the photo!

How it works

Your teammate has to draw the picture according to your description & must not see the picture card.

Attention! You may only use words from the following areas when describing: **Geometric shapes, types of lines, colours, direction & position information**







