

Electronic Supplementary Source 1. Examples of input material prototyping exercise

Why are people interested in nano?

What is the nano scale?


What is nanotechnology?

What are the implications of working with nano particles?

Because nano particles are so tiny and have special properties, they may reach places in the human body or the environment that are inaccessible to regular particles.

Nano particles are also very sensitive to their direct surroundings, easily changing size or shape. This makes the particles behave differently in different surroundings.

Both these things may either be very useful or harmful.

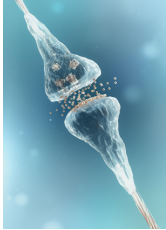


What is the advantage of nano in brain computer interfaces?

What are possible applications of brain computer interfaces?

What is a brain computer interface?

How do brain computer interfaces work?



Electrical signals are the “language” of the brain, it is how brain cells communicate. Brain computer interfaces also use these electrical signals to exchange messages with the brain. Small sensors – placed on or inside the brain – capture the electrical brain signals and communicate these to an external device, or the other way around.

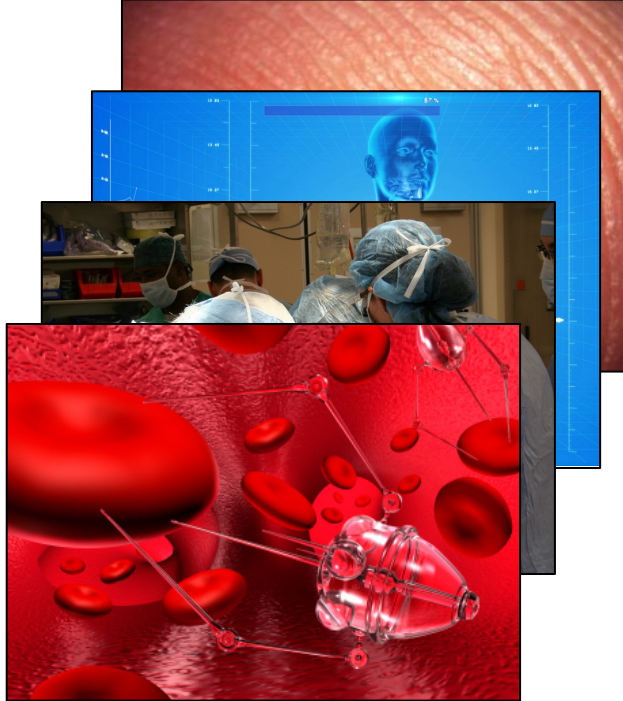


Fig. 1. Basic nanotechnology information cards (4 in total)

Fig. 2. Examples of information cards focused on specific topic of the dialogue (4 in total, in this example BCI)

Fig. 3. Examples of cards with pictures (11 in total, in this example focused on nanomedicine)

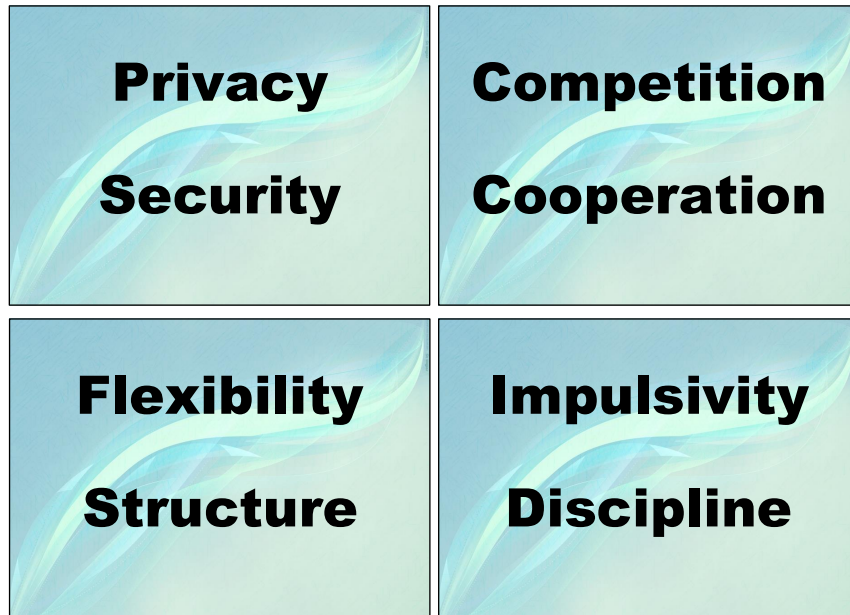


Fig. 5. Examples of cards with value pairs (9 in total)

The top form is titled "FUTURE OBJECT" and contains the text "In the year 2032, I believe that the object described below may be a reality." Below this are two fields: "Name of the idea" and "How it works". The bottom form is titled "OBJECT INSTRUCTION FORM" and features a large grid for sketching. To the right of the grid is a list of guiding questions under the heading "Commissioning and Usage": "What size does the object have?", "What materiality/texture does the object have?", "Who will use the object?", "For what reason will someone use this object?", "Where will the object be located when it is used?", and "How does one communicate with the object?"

Fig. 6. Form with guiding questions on how to use the envisaged object