Deutsches Museum
NÜRNBERG

Pressemitteilung

Future at your Fingertips

The world of tomorrow is already waiting today at the Deutsches Museum Nürnberg

How will we live in ten, twenty or fifty years? How will technology continue to develop - and what challenges will this present us with as a society? What do we wish for? What fears do we have? The branch of the Deutsches Museum in the heart of Nuremberg's Old Town invites you to an exciting and insightful look into the future. The basic concept of a juxtaposition of "science" and "fiction" runs as a common thread through all areas of the exhibition. Here, concrete projects from current research are presented that may already influence our lives tomorrow. Subsequently, the opportunities of various technologies will be discussed - but also possible risks and consequences for our very personal everyday life and society. What ethical questions will technology pose for us?

The exhibition extends over 2900 square meters across five selected thematic areas. These begin in the very personal living environment of the individual with "Work and Everyday Life" and "Body and Mind," then expand the perspective to the "System City" and the "System Earth," and finally end with mankind's dream of traveling through "Space and Time".

Work and Everyday Life deals with the developments that affect our daily lives. The world is going digital: robots, artificial intelligence (AI), Big Data, social media and the Internet of Things are making our lives easier. But maybe they are also taking our jobs away, collecting our data and monitoring us? Will we end up with a machine world domination like in Hollywood dystopias?

Many of the robots in the Deutsches Museum in Nuremberg can also be used to discuss the question of the areas in which we want machine support: From industrial robots to therapy robots such as the "Paro", which is used in nursing, to sex robots with surprisingly real "skin". At "Telemax plus", visitors can try their hand at remotely defusing a bomb using a robot arm. Elsewhere, the broad topic of neural networks will be addressed and made tangible. What can AI do and how does it learn? Will it even be possible one day to read out and store our memories as a data record? And if so, what will that do to us?

Body and Mind is the second exhibition area on the visitors' personal environment. Here, the focus is on technologies that fulfill humanity's dreams: no more diseases, no more aging, perhaps eternal life. At the same time, many concrete research approaches also generate fear of optimized humans, genetically manipulated babies and cyborgs. Whereas medicine has so far focused on curing ailments, in the future the focus could be on creating a "superhuman". The exhibition features numerous developments that could become reality as early as tomorrow: Neuronal-controlled prostheses or sensors that can determine body data and forward it directly to the doctor. At a hands-on station, visitors encounter a digital "data clone" of a human being thanks to the latest processing techniques and can even examine it. So the public can find out for themselves how far we really are from the "medical tricorder" from the sci-fi series "Star Trek" that is also on display. The possibilities of genetic engineering and the option of cultivating viable organs in the future will also be highlighted. A bio-printer can produce body parts from hydro-gel as part of the tours. It is not only here that the question arises: What makes us human? What kind of life do we want to allow in the future? Are we allowed to interfere with the human genome in order to eradicate diseases such as trisomy 21 before birth?


Visualization: Atelier Brückner

System City is the area that outlines the future infrastructure of megacities: On the second floor, the Future Museum turns its attention to developments in society as a whole. In 2050, around 80 percent of the world's population could live in cities with more than ten million inhabitants. So what will the livable city of the future look like? It can become intelligent: flying cars, smart houses, architectural wonders in the clouds and under water. Yet the solution to our traffic and environmental problems remains complex. Can moving traffic underground or into the air provide a lasting remedy? Prototypes such as the "Hyperloop" or the "pop.up Next" (visualization) outline current developments as to what the mobility of the future could look like. Will there be any individual transport at all in a few years' time? Architecture will also have to adapt to the new conditions. Various research projects are looking for new ways to build sustainably and conserve resources. Nature is also a source of ideas: the "Elytra Pavilion," for example, is based on the wing structure of the Colorado potato beetle. An interactive station showing scenarios of our environment after a period of 1000 days of power failure makes our dependence on resources tangible.


Photo: Deutsches Museum

System Earth contrasts the areas considered so far with the macrocosm of our entire planet in the future. Food for all, inexhaustible energy, climate control – technology is supposed to make it possible. But every development needs resources. What can, what must and what may we do to keep the earth habitable? To illustrate how fragile the blue planet will continue to be in the future, it is enough to take a look at the giant globe (photo): set in scene by a total of eight high-performance beamers, global interrelationships become visible. The effects of climate change can also be vividly illustrated in this way. The garbage mountain, also brought to life by projections, confronts visitors with uncomfortable truths. The energy consumption of data streaming is made tangible by requiring the audience to generate the electricity needed for this themselves at a hands-on station. Our possible diet of the future is made tangible by means of a dining table with futuristic dishes from science fiction and science.

Finally, on the third floor, **Space and Time** looks farthest out into a universe full of promise: Humans are using asteroids as a source of raw materials, colonizing the Moon and Mars, and penetrating distant galaxies. But the human body is not made for life in space – and not all technical questions have been answered yet. Of course, nothing goes here without an exhibit that has already left this earth once. The Soviet Foton 1 space capsule completed an unmanned, twelve-day flight through space back in 1985. The knowledge gained at that time still inspires the imagination today. Ring-shaped space stations also appeared early in science fiction. Today, Nasa is actively researching their feasibility, as a model of the "Nautilus-X" space station shows. How could the colonization of the Moon and Mars work? First impressions of the materials that could be used for construction are given. How does it feel to steer a Mars rover on an exploration trip? The hands-on station reveals it. That all our ambitions in space are not without consequences for the Earth is shown by the staging of space debris around the globe, which can also be seen from the third floor.

The three floors are connected by the "drop tube," a unique installation in this form. It enables experiments in free fall, which are recorded with a high-speed camera. The offerings of the five thematic areas are also brought together in the open forum. Here, in the heart of the Deutsches Museum Nuremberg with grandstand staircase and large information cube, the journey begins and ends. Here, experiences and ideas, impressions and visions can be exchanged. Our team of "Future Communicators" will actively shape the dialog with visitors and discuss ethically difficult questions and dilemmas – hopefully controversially – together with them. The forum makes the Deutsches Museum Nuremberg a unique place in the world by taking up the feedback from visitors and reflecting it back into the research projects. This is where a long-term discourse and genuine dialog between science and society begins!

A library, a "Future Workshop" and the two hands-on labs "Voyager" and "Discovery" round out the offerings. There is also the opportunity to take a very personal virtual reality journey to the city of Nuremberg in the year 2050. The building housing the Deutsches Museum Nürnberg is located directly on the Pegnitz River and in the immediate vicinity of Nuremberg's main market square in the Augustinerhof. It is the latest creation in Nuremberg by star architect Volker Staab,

who has already designed the Neues Museum and the Sebalder Höfe here. Together with the premises of the open innovation laboratory "Josephs", a spin-off of the Fraunhofer ISS, in the immediate vicinity, the opening of the Deutsches Museum Nuremberg will create a trend-setting future quarter here and another visitor magnet in the heart of the old town.

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