

MS Wissenschaft 2024 – Freedom

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2	Unboxing Freedom Stories of freedom from all over the world	HTWG Hochschule Konstanz – University of Applied Sciences, technology, economics and design, Faculty of Architecture and Design and the Communications Department
3	The Tricky Question of Free Will How free are we to decide?	Leibniz Institute for Neurobiology Magdeburg
Politics & Freedom		
4	Two Sides of the Same Coin Podcasts about freedom and responsibility	Max Planck Society, Munich
5	On the Path to Freedom Striving for freedom in Eastern Europe 1989–1991	Herder Institute for Historical Research on East Central Europe, Marburg, an institute of the Leibniz Association
6	Striving for Freedom The February 1918 peace treaty with Ukraine	Germanisches Nationalmuseum, Nuremberg
7	Freedom in Transition How notions of freedom have changed over time	University of Münster, Käte Hamburger Kolleg “Legal Unity and Pluralism” (EViR)
8	Freedom in the Language of Politics How freedom is understood by politicians and society	“Controversial Discourse” project University of Trier, German linguistics department University of Zurich, German department
Equality & Freedom		
9	Unfreedom and Insecurity in Colonial History How maps influence our view of the world	Collaborative Research Centre “Dynamics of Security”
10	Genetic Pinball The interaction between genes and society	Max Planck Institute for Human Development, Berlin
11	Just Ask! Digital interviews as a way of communicating history	German Exile Archive 1933–1945 at the German National Library, Frankfurt am Main

No.	Exhibit	Institution
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13	Gutenberg and Democracy Printing as a trailblazer of free speech	German Museum of Books and Writing at the German National Library, Leipzig
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24	Who's Deciding Here? Which decisions can artificial intelligence already make – and which are still out of its reach?	Fraunhofer Society, Munich

No.	Exhibit	Institution
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29	The Freedom Not to Live at Others' Expense Why are we letting the climate disaster happen?	Psychologists / Psychotherapists for Future e. V.
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Section 1

Philosophy & Freedom

The question of what freedom means is one that preoccupied people in the past, too. In many cultures it was assumed that humans had naturally endowed rights. This idea was often connected with a belief in a divine order, but it was not until the seventeenth century that people in Europe began to think about freedom independently of religion. Art and culture can show us how freedom was perceived in different epochs.

The philosopher Thomas Hobbes (1588–1679) imagined what might happen in a world without rules where everyone could do as they pleased, putting their own needs before those of others. His mental experiment shows that freedom is only possible in a society where we also respect the freedom of others. So freedom also means assuming responsibility for our actions.

An important question in philosophy has always been whether we have the freedom to make decisions independently of external influences – in other words, whether there is such a thing as free will. Today, neuroscientists are also studying this question.

What do you think? How free do you feel in your decision-making?

Section 2

Politics & Freedom

Our understanding of freedom has changed over time. Today we believe that all humans are equal and free, but that was not always the case. In Antiquity and the Middle Ages only certain groups enjoyed all freedoms. Slaves and serfs were denied their rights, and this usually applied to women as well.

Throughout history people have always fought for their freedom, and they continued to do so until their civil liberties were guaranteed. One example of this is the French Revolution, in which people took to the streets to fight for “liberty, equality, fraternity”. This movement inspired other freedom struggles all over Europe.

After the Second World War, freedom rights were enshrined in the General Declaration of Human Rights. This does not mean, however, that these rights are respected everywhere in the world. Human rights organisations see a dangerous trend, whereby freedom is restricted in many authoritarian states, and democracies are coming under pressure. The Russian war of aggression in Ukraine is just one example of many.

What do you understand by freedom? What would you campaign for?

Section 3

Equality & Freedom

Article 1 of the General Declaration of Human Rights states that all humans are born free and equal in dignity and rights. That sounds noble, but it is often not reflected in reality. Our background or place of birth is largely responsible for how we live and what rights we have.

During the colonial era, European countries in particular exploited large parts of the world. The impact of this can still be felt today, especially in Africa. In places where poverty and conflicts are widespread, young people often have no choice but to leave their home country.

Leaving home behind for an uncertain future can have a major impact on people's lives, as many discovered during the Nazi era. Many Germans, especially those who were Jewish, had to flee persecution and murder, but virtually no country was prepared to offer them asylum.

The Geneva Refugee Convention, adopted in 1951, is intended to protect the rights of refugees. According to the United Nations, there are currently 110 million people fleeing war and persecution – more than ever before.

What do you think? Do you have ideas about how equal rights can be reinforced for everyone?

Section 4

Democracy & Freedom

German history has seen both dark periods of unfreedom and radiant moments of liberation. On 18 March 1848, people in Berlin “took to the barricades” for their freedom – even today, this is still an expression of protest. That same year, the first German parliament convened in St Paul’s Church in Frankfurt am Main.

Yet it was to take another hundred years before Germany’s Basic Law came into being and the country finally became a democracy. The Basic Law states: “All state authority is derived from the people.” That is why we elect a new parliament – the Bundestag – every four years. During the Nazi dictatorship Germany brought much suffering to Europe and the world. The Basic Law was drawn up to prevent this ever happening again.

This was also the time that the GDR, a state that restricted political freedom, was founded. Berlin was divided into East and West, and people in the East risked their lives if they tried to flee. In 1989 hundreds of people took to the streets to demand freedom of speech and the freedom to travel. This “peaceful revolution” led to the fall of the Berlin Wall and the reunification of Germany.

What do you think? What would you do to help strengthen democracy?

Section 5

Science & Freedom

“And yet it moves,” Galileo Galilei is said to have murmured after a court found him guilty of heresy. That was in 1633, after the Italian astronomer had discovered that the Earth moves around the Sun rather than vice versa. This idea challenged the convictions of the Church, which believed that the Earth had been created by God and therefore was at the centre of the universe. To avoid being executed, Galilei had to disavow his findings.

That was a long time ago, but independent research is still under threat in many countries of the world today. According to the Academic Freedom Index, almost half the world’s population lives in countries where research is restricted. What does that mean in practice? Researchers are not able to decide freely which research topics to pursue, and the government also regulates what is taught at universities.

In Germany Article 5 of the Basic Law states: “Arts and sciences, research and teaching shall be free.” This means that the state supports academic freedom and that universities should be places of independent thought.

What do you think? Can you imagine why academic freedom is so important?

Section 6

Digitalisation & Freedom

Will machines and computers soon do our thinking for us? There is currently much discussion about how a future with artificial intelligence (AI) might look. What only a few years ago sounded like science fiction is now the norm. From streaming music on our smartphones to using satellite navigation in our cars – we can no longer imagine everyday life without AI.

Currently it is still hard to predict how AI will change our lives in the future. The first self-driving cars already exist. If AI takes over such fundamental tasks from us, this raises many questions – and there is major potential for abuse. Cameras that use facial recognition can help to prevent or solve crimes, but they can also interfere in our freedom. In some countries they are used to keep the political opposition under surveillance.

The discussion about how we can use digital technologies without restricting our own freedoms has only just begun. Technology itself does not distinguish between good and evil, so it is up to us as humans to be careful how it is used.

What do you think? What opportunities and risks do you see in digitalisation?

Section 7

Climate Change & Freedom

The research on climate change is unequivocal: if the global average temperatures continue to increase, this will have dramatic consequences. Sea levels will rise, and some island states and coastal cities will become submerged.

Some regions of the world are more affected by climate change than others. The poorer countries of the Global South are particularly threatened by storms, droughts and floods. These destroy agricultural land and cause shortages of food and drinking water.

Everybody on our planet has the same right to a healthy and happy life, which is why industrialised countries in particular must adapt their way of life in order to preserve the basis for existence for billions of people. With this aim in mind, 196 states concluded the Paris Agreement on Climate Change in 2015.

Many ways have already been found to protect the climate – and research is continuing. Nevertheless, climate protection is often still not a priority for policymakers or private individuals.

What do you think? What ideas do you have to protect our planet?

1. The Art of Freedom

Experimental fields in words and images

What does art have to do with freedom? Can art contribute to a liberal society by questioning existing ways of seeing and thinking or by introducing new ones? When art encounters censorship, does it fight back or is it destroyed? What roles do images of freedom or unfreedom play in different societies? What does it mean when images are used for propaganda purposes, for example? By the same token, how do visual strategies of resistance function? A number of artistic genres, such as architecture, performance and film, play a role in addressing these questions, as do different concepts of freedom. Our examples illustrate the complex relationship between art and freedom and the importance of viewing images critically.

Who we are:

The Kunsthistorisches Institut in Florenz (a Max Plank Institute) regards itself as a laboratory of fundamental art history research in dialogue with other disciplines. We investigate art and architecture from a transcultural perspective. Our aim is to combine historical research with a critical examination of topics such as ecology, migration, ethics, media, cultural heritage and the future of museums.

2. Unboxing Freedom

Stories of freedom from all over the world

Freedom takes many different forms. Personal freedom in particular is closely linked with individual perceptions. We have collected a number of different experiences of freedom in our “Suitcase of Freedom”.

The exhibit is inspired by the intercultural Summer School “Flying Classroom”, which brings together architecture students at HTWG Konstanz – University of Applied Sciences and students from partner universities all over the world. Take a look in the suitcase to discover all the different kinds of freedom our participants experienced during their travels and to see freedom through the eyes of a variety of people. You can also add your own ideas about freedom to the suitcase and hence become part of the diverse freedom narrative as it embarks on a journey around the world.

Who we are:

The HTWG Konstanz – University of Applied Sciences takes a practice-oriented approach. We offer a broad range of programmes in the fields of technology, economics and design and encourage interdisciplinary and international networking. This gives rise to collaborative projects like this exhibit, which was jointly realised by the architecture degree course, the university communications department and the externally funded “digitaALL”.

3. The Tricky Question of Free Will

How free are we to decide?

The assumption that we are free to make our own decisions is fundamental to our coexistence as a society, but brain research is now calling this assumption into question. Researchers set out to investigate where our perception of being free to decide comes from. Most people assume that they make decisions consciously. What is more, they think that they make those decisions before acting. External influences are not supposed to play a role in the process. But how can we determine the precise moment at which we make a conscious decision? And can we really tell when we are being influenced by external factors and when we are not?

Try doing these two experiments to find out how well you can determine whether you are making a conscious decision and whether your decision is influenced by external factors.

Who we are:

The Leibniz Institute for Neurobiology Magdeburg is seeking to understand better the processes taking place in the brain, particularly those that enable us to learn and remember. Learning can be implicit, meaning it happens “incidentally”, or it can be a conscious, intentional process. It was our interest in this relationship that led to the idea for this exhibit.

4. Two Sides of the Same Coin

Podcasts about freedom and responsibility

In the words of singer Marius Müller-Westernhagen, “Freedom is the only thing that counts.” It’s a statement that is just as relevant now as it was back then – life without freedom is simply unbearable for a lot of people. But what exactly is freedom? How do scientists define freedom, and how do they study all its various forms and aspects? What does freedom mean for us, for our state governed by the rule of law, and for our individual liberty?

In seven podcasts produced together with the podcast platform detector.fm, scientists from the Max Planck Society discuss their understanding of freedom and responsibility.

The podcasts focus on political freedom and human rights. You can listen to them at three different audio points located throughout the exhibition.

Who we are:

The Max Planck Society (MPG) is one of the world’s most successful and most respected research institutions. The more than eighty Max Planck Institutes and facilities conduct fundamental research in the natural, biological and social sciences as well as in the humanities. Most of the institutes are located in Germany, with at least one in each federal state, but there are also four institutes based abroad.

5. On the Path to Freedom

Striving for freedom in Eastern Europe 1989–1991

The word “freedom” ranks among the defining political bywords of the twentieth century, particularly in Eastern Europe: freedom through national self-determination after 1918, freedom from Nazi occupation after 1945, and, in particular, freedom from post-1945 Soviet domination.

Resistance to the Soviet Union began to form in the 1960s. Perhaps you have already heard of the Prague Spring, the Polish Solidarity movement or the Baltic Way? These various resistance movements eventually culminated in independence for the countries of Eastern Europe. In this interactive application you will learn about the most important locations and stages in these independence movements.

Who we are:

The Herder Institute for Historical Research on East Central Europe in Marburg, an institute of the Leibniz Association, collects and analyses material such as maps, photographs, archives and newspaper clippings relating to Eastern Europe. It maintains a large research library and cooperates with a number of partner institutions in the region. “Freedom” is the focus of many of its research projects.

6. Striving for Freedom

The February 1918 peace treaty with Ukraine

In the eighteenth century the territory of today's Ukraine belonged to two great powers: western Ukraine was part of the Hapsburg monarchy, while northeastern Ukraine belonged to czarist Russia. So Ukraine was struggling for independence back then, too. Following the October Revolution of 1917 Ukraine was pressing for autonomy even as the First World War was still raging.

By signing a separate peace treaty with the German Reich and its allies, first and foremost Austria-Hungary, Bulgaria and the Ottoman Empire, Ukraine managed to secure its independence on 9 February 1918 – at least for a short time.

It was not unusual for a political event of this kind to be used as a postcard motif. In the late nineteenth century, postcards were used to document and commemorate such events.

Who we are:

The Germanisches Nationalmuseum is the largest museum of cultural history in the German-speaking area and one of the Leibniz Association's eight research museums. It was founded in 1852 and connects people and cultures across national borders. Our significant holdings, comprising 1.4 million objects, allow us to study and communicate a large part of Central Europe's material cultural heritage.

7. Freedom in Transition

How notions of freedom have changed over time

Freedom is not a fixed notion but rather an idea that is constantly changing. In the Middle Ages and the Early Modern period, “freedoms” were privileges that were closely connected to social status. High-ranking individuals had more freedoms than other people, and the prevailing laws in each region determined who benefitted from freedoms and to what extent. The notion of freedom as something to which all (male) citizens were entitled did not emerge until the eighteenth century, while female citizens had to wait much longer than that.

In this quiz you can test your knowledge of historical concepts of freedom. You will learn how people viewed freedom in the German-speaking world from the Middle Ages to the recent past. You can also find out in which periods independence struggles played a particularly important role.

Who we are:

The Käte Hamburger Kolleg “Legal Unity and Pluralism” (EViR) offers researchers the opportunity to examine what approach various cultures around the world have taken to law from ancient times to the present day. Its research team comprises experts in the fields of law, history and ethnology. Their focus is the relationship between legal unity and pluralism.

8. Freedom in the Language of Politics

How freedom is understood by politicians and society

When we hear the word “freedom” each of us imagines something different. At this exhibit you can examine your own idea of freedom and learn how it is connected to everyone else’s. How is the notion of freedom used by politicians and society? Is our idea of freedom different from that of twenty years ago?

These are questions being addressed by linguists, among others. We focus on language – sometimes employing computer-assisted techniques – and develop theories concerning how terms like “freedom” are used in different contexts.

Who we are:

The research project “Controversial Discourse” is being conducted by the universities of Trier, Darmstadt, Marburg and Zurich. We focus on debates surrounding important social issues of the last thirty years, such as solidarity, climate change, bioethics, migration, Europe and foreign policy, and explore how the language used in political discussions presents concepts such as freedom.

9. Unfreedom and Insecurity in Colonial History

How maps influence our view of the world

Freedom, peace, security: these were the things the European powers promised in order to legitimise their domination of ever larger parts of the world. Yet the reality in the conquered territories was quite different: the colonies were scenes of war, repression, exploitation and forced displacement. Resistance was punished with renewed violence. Freedom and security for some meant unfreedom and insecurity for others.

These contradictions are not visible on the maps, which depict just one way of looking at the world – just one reality among many. In this exhibit you will learn why maps were used by the colonial countries as powerful instruments of repression and yet at the same time served to criticise this reality.

Who we are:

Researchers from the disciplines of history, political science, law, peace and conflict studies, art history and sociology at the Collaborative Research Centre “Dynamics of Security” are studying how notions of security and insecurity have changed historically and how these changes have had an impact on political decision-making.

10. Genetic Pinball

The interaction between genes and society

The belief is still very widespread that either our genes or our environment determine what kind of human beings we become. In fact, though, we can only understand human development if we look at the complex interaction between our genetic make-up and social structures. One example of this is academic achievement, which is influenced both by genetic factors and by our family and school environment. Our game shows how this interaction can influence not just our school career but also our health, for example.

As a society we are free to reshape social structures. What would you change? And what impact will these changes have as they interact with our genes?

Who we are:

Using innovative techniques from the field of human genome research, the “Biosocial” research group at the Max Planck Institute for Human Development is studying how genetic influences and social inequality interact with one another and how they can lead to disparities in education and health over the course of a person's life. The game was developed together with Purple Sloth Studio.

11. *Just Ask!*

Digital interviews as a way of communicating history

The number of people able to recount their experiences of the Nazi era first-hand is steadily decreasing, which is why we decided to spend five days interviewing and filming two of them – Inge Auerbacher and Kurt S. Maier. This exhibit invites you to hear some of their 900 answers, and you can even ask some questions of your own with the aid of artificial intelligence, either online or in the exhibition *Just Ask!*

You will hear how Inge Auerbacher and Kurt Salomon Maier were deprived of their rights and discriminated against and how they escaped from the Nazis. They also talk about how these experiences continue to affect them to this day. Their answers show just how important our fundamental democratic rights are.

Many of the persecuted sought to ship their property to the countries that offered them asylum. We have adopted this motif for our installation.

Who we are:

For the last seventy-five years, the German Exile Archive 1933–1945 at the German National Library in Frankfurt am Main has devoted itself to exile and emigration during the Nazi era. Our wide range of documents enables us to understand the phenomenon of exile in its entirety and thus to make a contribution to political education.

12. Art as Protest

How creatives fought for freedom in the GDR

In around 1960 members of the US Mail Art movement began sending artistically designed letters and postcards by post. In the GDR this form of art – known locally as “Fenster zur Welt” (Window on the World) – was also very popular with opponents of the regime. Sending Mail Art was a highly risky business, since the Ministry for State Security (Stasi) regularly monitored the post.

Artists’ magazines were also officially prohibited in the GDR, but widespread on the art scene. They were published in very small print runs and often contained critical texts and images.

Music also played a role in opposition to the GDR government. In just a few years the Jazzwerkstatt Peitz developed into a popular meeting point before it was banned by the Stasi.

Who we are:

The German Museum of Books and Writing in Leipzig is the world’s oldest book museum. With a collection of some 1.2 million objects, it traces the history of the written word from the invention of writing 5,000 years ago to the future of books and media. It also examines the social significance of knowledge, addressing topics such as democracy, free speech and censorship.

13. Gutenberg and Democracy

Printing as a trailblazer of free speech

Johannes Gutenberg, who lived from around 1400 to 1468, is considered the father of printing. It was this invention that first made it possible to disseminate texts on a large scale. Before that, every text had to be meticulously copied by hand. Printing led to the explosive spread of knowledge and hence greater freedom of speech –in the form of pamphlets, for example. Gutenberg's new technology thus prepared the ground for revolutions and democratic movements, which would have been unthinkable without the mass dissemination of the printed word.

The technical wherewithal for printing comprised lead, metal letters, the hand mould, a spoon and the printing press. Today's digital media allow information to be spread incomparably faster than in Gutenberg's day, but they are also more susceptible to fake news.

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14. Border Experiences

Living with the Berlin Wall

The Berlin Wall is a powerful symbol of unfreedom. Beginning in 1961, it severely limited freedom of movement for citizens of the GDR. The fall of the Wall in 1989 is now viewed as an act of liberation and symbolised the end of the Cold War.

Museums and media often present the history of the inner-German border as if every East German citizen had asked themselves at some point whether they should stay in the GDR or leave. In fact many of them never even thought in such terms. The GDR was their home, and the Wall was a part of everyday life for the inhabitants of East and West Berlin alike. Many simply came to terms with the border. But what did freedom mean when the Wall was your neighbour? How did people deal with this situation? Here five contemporary witnesses from East and West speak about their different experiences.

Who we are:

The Berlin Wall Foundation brings together six historical sites relating to Berlin's partition. We preserve surviving structural elements of the border installations, remember its victims, and present Berlin's history in the context of the Cold War. Our aim is to address the topics of borders, migration, rule of law and human rights in a nuanced and future-oriented way.

15. The Parliamentary Compromise

Betrayal or the essence of our democracy?

The members of the Bundestag – the German parliament – spend a lot of time talking, and sometimes they argue as well. One of the jobs of members of parliament is to represent the interests of the people who elected them. Because people have different opinions, they vote for different parties. Each party promises to work in the interests of its voters.

To pass laws in the Bundestag, a majority of its members must vote in favour of them. Often legislation can only be adopted after politicians have found a compromise – between different parties, for example. This means that sometimes parties are not able to hold to their campaign promises 100 per cent.

When this happens, some voters feel they have been betrayed by politicians. However, compromise is essential if the interests of as many people as possible are to be taken into account.

Who we are:

The Berlin Social Science Center (WZB) investigates fundamental social questions. The exhibit is based on a research project focusing on political parties and representation. It was designed by Miriam Seith and Mario Kreuzer at Berlin University of the Arts.

16. The Book of Freedom

Seventy-five years of the Basic Law – the foundation of our democracy

Our democracy is founded on the *Grundgesetz* (Basic Law). It enshrines fundamental rights intended to protect the freedom of the individual. It was drawn up seventy-five years ago only four years after the end of the Nazi era, a time in which many people's freedoms were arbitrarily suspended.

This is precisely why the Basic Law was designed to provide special protection for these fundamental rights – for everybody. It emphasises respect for those with differing beliefs and offers protection from state encroachment. As a look at other parts of the world shows, this is not something we can take for granted: civil rights are violated in many countries. Societies and the circumstances of those who live in them are constantly changing. For this reason the Basic Law must be constantly adjusted and discussed. This ensures that its provisions remain up-to-date and viable.

Who we are:

The German National Library is Germany's central archive. Since 1913 it has been a repository for all texts, images and audio recordings published about Germany or in the German language. Its holdings also include works relating to the history of media and exile. Its 50 million media items include all the editions of the Basic Law published since 1949.

17. Animal Witnesses

What two giraffes have to do with the Basic Law

The Federal Republic of Germany is celebrating its seventy-fifth birthday this year. On 1 September 1948 the Parliamentary Council convened for the first time in Bonn, at the Koenig Museum of Natural History. The purpose of the meeting was to draw up Germany's *Grundgesetz* (Basic Law), which enshrines freedom as a basic human right, and thus provide a foundation for our democracy. At that time there were two stuffed giraffes in the museum atrium. The museum's founder, Alexander Koenig, had brought them back from South Sudan, then a British colony, in 1913. Other stuffed animals were removed from the room, but the giraffes were too big, so they were concealed behind a long curtain instead. The seated giraffe – the “silent witness” to the creation of the *Grundgesetz* – served as a model for the bronze sculpture shown here.

Who we are:

The Leibniz Institute for the Analysis of Biodiversity Change (LIB), comprising Museum Koenig Bonn and the Museum of Nature Hamburg, is one of Germany's most important natural history research museums. Its collections of 15 million objects from the fields of zoology, geology-palaeontology and mineralogy represent unique “databanks of life”.

18. Two Sides of the Same Coin

Podcasts about freedom and responsibility

In the words of singer Marius Müller-Westernhagen, “Freedom is the only thing that counts.” It’s a statement that is just as relevant now as it was back then – life without freedom is simply unbearable for a lot of people. But what exactly is freedom? How do scientists define freedom, and how do they study all its various forms and aspects? What does freedom mean for us, for our state governed by the rule of law, and for our individual liberty?

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19. The Globe of Academic Freedom

Where free research is protected – and where it isn't

The Academic Freedom Index records how free the world's academics are in their research and teaching. One of the things it assesses is whether a given state and society respect universities as independent institutions. This freedom is important not only for academics but for all the rest of us as well, because independent and quality-assured research makes a valuable contribution to public debates. It enables a free society to progress further.

In our exhibit you can find out how academic freedom has evolved globally since 1900 and the amount of freedom academics in each country enjoy. As you will see, only in democracies is academic freedom truly safeguarded .

Who we are:

The Academic Freedom Index project is a collaboration between Friedrich Alexander University Erlangen-Nuremberg and the V-Dem-Institute at the University of Gothenburg. To compile the annual index we ask 2,300 researchers worldwide to answer standardised questions about academic freedom. The Volkswagen Foundation has been funding the project since 2021.

20. The Free University Berlin

Freedom to study

The Free University (FU) Berlin was founded in West Berlin in 1948, three years after the Second World War ended. At that time Berlin was divided into four sectors, with the three Allies in the West and the Soviets in the East forming two irreconcilable blocs. The political repression and persecution in East Berlin could be clearly felt at Berlin University, so students banded together to found the FU.

At the three audio points in the exhibit "Freedom to Study", former students, staff and lecturers at the FU talk about what freedom means for them.

Who we are:

The FU is a top university with an international profile. Today it has 35,500 students attending 173 different degree courses. It has been awarded the title of Excellence University three times since 2007 and is one of Germany's best and internationally most respected universities. Truth, justice and freedom are the three central values it has espoused since its founding.

21. Academic Unfreedom

When researchers are persecuted for their work

Academic freedom needs to be constantly defended. This applies especially to authoritarian systems all over the world, but also to democracies in the heart of Europe. More than half of the world's population lives in countries where academic freedom is in decline. In many countries it is at a low level, and in only a few has it improved.

For many researchers, following their conviction that teaching and research should be free from fear, dictates and threats comes at great personal risk. For some, the only way out is to leave the country. In our film you can hear some of these researchers talking about their experiences and about what academic freedom means for them personally.

Who we are:

The film is an initiative of the Ministry of Education and Research (BMBF). The concept and content design was developed by the agency neues handeln AG.

22. Two Sides of the Same Coin

Podcasts about freedom and responsibility

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The podcasts focus on political freedom and human rights. You can listen to them at three different audio points located throughout the exhibition.

Who we are:

The Max Planck Society (MPG) is one of the world’s most successful and most respected research institutions. The more than eighty Max Planck Institutes and facilities conduct fundamental research in the natural, biological and social sciences as well as in the humanities. Most of the institutes are located in Germany, with at least one in each federal state, but there are also four institutes based abroad.

23. Brighter Than We Imagine

Why the darknet is not all negative

The darknet does not have a good reputation. We often hear about it in connection with criminal activity, but who actually uses it and how? Recent research has revealed that there is a positive side to the darknet as well. In Germany many people use it to surf the internet anonymously and to avoid annoying advertising. Media organisations have their own websites on the darknet that their sources can use without being identified. People who are persecuted in their home countries can use it to exchange news or to organise.

This exhibit allows you to explore the positive aspects of this hidden part of the internet. The comic figure “Naive User” will serve as your guide.

Who we are:

ATHENE is Europe’s largest research centre for applied cyber security. Here more than 600 researchers work on finding ways to make the internet more secure and to protect society from cyber threats. The Fraunhofer Institutes SIT and IGD, Darmstadt Technical University, Goethe University Frankfurt and the University of Applied Sciences Darmstadt all participate in ATHENE’s research.

24. Who's Deciding Here?

Which decisions can artificial intelligence already make – and which are still out of its reach?

Technologies like artificial intelligence (AI) are increasingly being used in areas where safety and security are paramount. They serve as assistants in autonomous vehicles, in robot production safety monitoring systems, in tools used to identify fake news and as decision-making aids for doctors. But if AI makes the wrong decision, this can have far-reaching consequences. What kinds of decisions will AI systems be able to make in the future and which ones will we want them to make? Can we trust its algorithms when our safety and security are at stake? The exhibit playfully illustrates how AI can help us and where its current limitations lie. Play against AI and put your own freedom to make decisions to the test!

Who we are:

With seventy-six institutes all over the world, Fraunhofer is currently the world leader in application-oriented research. The Fraunhofer Big Data and Artificial Intelligence alliance brings together multidisciplinary expertise from more than thirty different institutions. In the project "Certified AI" we are collaborating with our partners to find out how AI's reliability can be put to the test.

25. Automated Vehicles

How a technology can influence our understanding of freedom

Driving has changed radically in our age of technological advancements. Today, automated vehicles that require virtually no human control already exist. This technology promises a number of advantages. State-of-the-art sensors combined with artificial intelligence have the potential to reduce traffic jams and accidents and do less harm to the environment. However, it also raises a number of questions: if we relinquish control and let AI do the driving, do we have more or less freedom? Here you can find out for yourself what impact automated driving has on your freedom.

Who we are:

The exhibit was realised by the research group “Human-Computer Interaction” at Ingolstadt Technical University (THI) as part of the initiative “Mensch in Bewegung” (Humans on the move). Its goal is knowledge-sharing between science, politics, industry and society. Together with the Catholic University Eichstätt-Ingolstadt, the THI initiative is funded as part of the “Innovative Hochschule” programme.

26. Moral Machines

Can artificial intelligence take moral decisions?

In the future autonomous vehicles will be a normal part of the traffic on our roads. This means that when an accident happens, an algorithm will be making life and death decisions with no human intervention. For example, if a vehicle's brakes fail, artificial intelligence will decide who is to be saved – the people inside or outside the vehicle?

Using an online experiment we have collected decisions made by more than 80 million people all over the world since 2015. The results reveal differences in moral judgements between cultures and countries.

The experiment invites you to think about the ethical principles built into AI systems and shows how difficult it is to agree on a set of rules for “machine ethics” that can be applied all over the world.

How would you programme AI?

Who we are:

The research area Human and Machine at the Max Planck Institute for Educational Research investigates the major challenges posed by digital media and artificial intelligence. How do they affect how we think, learn, work, play and lead our lives?

27. Free Speech vs. Hate Speech

How can basic rights be weighed against one another?

Social media make it easy for everyone to find information and exchange ideas. But the way that hate comments are spread through various platforms is also a major issue. To change this, in February 2024 the European Union (EU) introduced new rules for online platforms. Any content that contravenes laws must be deleted. From a legal point of view the key question is the extent to which free speech should be subject to restrictions. You can use this exhibit to find out for yourself whether the new EU rules are appropriate or whether they violate European basic rights.

Who we are:

The exhibit by Prof. Nicolas Klein, Prof. Matthias Ries, Alejandro Rodriguez, Yingxin Wang (HAWK University for Applied Sciences and Arts Hildesheim/Holzminden/Göttingen) and Swantje Wagner (Deutsche Börse AG) illustrates the impact legal rulings can have.

28. 100 Voices – One Planet

Living with climate change

Climate change affects all of us. Mostly we talk about it in terms of facts and figures, but how do humans experience climate change? To find out we made 100 short videos all over the world which you can watch here. A grandfather in Great Britain is worried about his grandchildren's future. A student living on a Pacific island hopes that her home won't be flooded. A farmer in Gambia doesn't know how much he will be able to harvest if the rain doesn't come. "100 Voices – One Planet" (100VOP) shows how people like you and I experience climate change. Here you can view a selection of stories from a wide range of people on every continent.

Who we are:

"100 Voices - One Planet" is a global initiative for climate justice. It all began as a project at the Technical University Munich. Today our team comprises around ten international volunteers from various disciplines who are collecting voices on climate change from over a hundred countries. Since 2023 the project has been funded by TUM Think Tank and accompanied by a documentary film crew.

29. The Freedom Not to Live at Others' Expense

Why are we letting the climate disaster happen?

The ever-worsening climate disaster constitutes clear evidence of how our lifestyle impacts the planet. Droughts, forest fires, torrential rain and floods are becoming ever more frequent. The fact is that the lifestyle of industrial countries is primarily responsible for climate change. So why aren't we using our freedom to combat climate change rather than knowingly restricting the freedom of future generations and of people in other regions of the world?

Researchers from various branches of psychology are investigating this question. We'd like to hear your ideas too. How can we better reconcile what we know with how we act as a society?

Who we are:

Psychologists / Psychotherapists for Future e.V. (PSY4F) is a nonprofit association of psychologists, therapists and psychology students. Our goal is to use a psychological and therapeutic approach to change how society and individuals deal with the climate crisis and thus contribute to a liveable future for everyone.

30. In the Name of Freedom

How do you imagine freedom?

The project “In the Name of Freedom” invites people to meet in various public spaces to discuss the value and meaning of freedom. What are people’s perceptions of freedom? How do they experience it? What kinds of freedom are particularly worthy of protection and which should be critically examined?

On *MS Wissenschaft* we will collect and document your personal ideas about freedom. All visitors are invited to record their ideas about it in a freedom archive. The contributions to this archive will form the basis for new research projects. Your contribution might even help to change history.

Who we are:

“In the Name of Freedom” is initiated and organised by an interdisciplinary team of historians and theatre specialists. In Science Year 2024 – Freedom, the project at the University of Hamburg is being funded by the Ministry of Education and Research.

31. Citizen Quest

Working together for a freer world

In this multi-player game you move through a city where you can learn about all the different kinds of freedom. You meet characters whose freedom is under threat, and your task is to help them by encouraging them, getting them to engage in discussion, providing them with new ideas or simply empathising with them.

Your adventure begins on the mathematics ship, which has docked in the city's university quarter. Here pioneers of academic freedom are campaigning for research data that are "FAIR": findable, accessible, interoperable and reusable.

After that you can explore other areas of the city. So off you go to look for topics and aspects of freedom that you have already encountered in the exhibition.

Who we are:

MaRDI stands for Mathematical Research Data Initiative and is a joint project of universities and research institutes. MaRDI creates standards and tools to make mathematical research data FAIR. MaRDI is part of the National Research Data Infrastructure (NFDI), the umbrella organisation for managing research data in all branches of science in Germany.