

OSHUB AUSTRIA



OPEN SCIENCE HUB
CREATE
YOUR WORLD
AUSTRIA



ARS ELECTRONICA

Ars Electronica Linz GMBH

OSHub-AT is part of Ars Electronica Linz GmbH, an Austrian cultural, educational and scientific institute, founded in Linz in 1979, which represents a comprehensive approach in the confrontation with techno-cultural phenomena. It works as a hub for contemporary developments in the field of technology, science and arts, and the discourse about its meaning for society. It is based around the Ars Electronica Center, which houses the Museum of the Future, in the city of Linz. In addition, it runs the annual Ars Electronica Festival, manages a multidisciplinary media arts R&D facility known as the Futurelab and confers the Prix Ars Electronica awards, amongst many other activities. This multi-armed ecosystem keeps alive a network of scientists, artists, peers and other experts working in the technology field, which inspire and drive these developments. Importantly, Ars Electronica has an in-house education and content development department with wide experience in non-formal / informal education and state-of-the-art cultural mediation, which is influenced by the create your world initiative, which provides a framework to discuss the Ars Electronica topics from the perspective of young people.

OSHub Team

Veronika Liebl

*Managing Director,
Ars Electronica Festival-
Prix-Exhibitions*

Andrew Newman

*Producer – European
Platform for Digital
Humanism, Ars Electronica
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Marion Friedl

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create your world,
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Katharina Hof

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Manfred Seifriedsberger

*Project Manager – create your world, Ars
Electronica Festival-Prix-Exhibitions*

Hans Christian Merten

*Director – create your world, Ars
Electronica Festival-Prix-Exhibitions*

Value Proposition

OSHub-AT brings into schools the perspective of society on contemporary science & technology developments through the lens of art, by brokering and curating a collaborative process between artists, scientists and technologists from the Ars Electronica network and teachers.

Target public

Students (3-18 years-old) and teachers from all school types, with a focus on students from rural areas or from low socio-economic urban backgrounds.

Workshop leaders who embody a professional position from STEAM field, with a priority on those at an early stage of their careers and with non-formal education background.

Management Board

01 Non-formal education-related entity

- **Ars Electronica**

Hans Christian Merten, *Director create your world – Ars Electronica*

Type of relationship/interaction: To provide expertise and oversight in content-development for young people, to oversee integration of the OSHub into the broader create your world program for young people at the Ars Electronica festival, and lead acquisition in industry partners to ensure sustainability and legacy of the OSHub.

Contact frequency: About once a month. Weekly, before the Ars Electronica Festival.

01 Academia

- **University of Applied Arts Vienna**

Michaela Schober, *Center for Didactics of Art and Interdisciplinary Education*

Type of relationship/interaction: Consulting regarding the development and improvement of the didactic aspects of the create your world Tour formats.

Contact frequency: 3 meetings in March 2021, contact about once a month until the end of the project, participation in the OSHub Summit.

01 Government

- **Innovation Main Square – City of Linz**

Kathrin Obernhumer, Director Innovation Main Square

Type of relationship/interaction: To ensure objectives and activities of the OSHub are responsive and relevant to local challenges in the City of Linz, especially in terms of digital transformation and innovation. To advise and provide feedback on the sustainability of the OSHub.

Contact frequency: Once a year to review the activities of the hub and how they could be further integrated within the City of Linz.

01 Civil Society

- **Artist**

Kat Austen, Independent artist focused on environmental issues and participatory practice

Type of relationship/interaction: With a previous professional background in science communication and scientific research background in chemistry, Kat Austen is now a leading European artist and researcher who provides pedagogic and stakeholder engagement expertise to the OSHub in developing best-practice STEAM activities informed by participatory methods of citizen science and artistic research.

Contact frequency: Once every two month to consult on strategies for stakeholder engagement

01 School

- **BORG Gymnasium Bad Leonfelden**

Elke Hackl, Teacher

Type of relationship/interaction: As a professional secondary teacher who has previous experience in delivering non-formal education programs that are STEAM based, and is currently working towards a PhD on STEAM engagement, Elke Hackl provides pedagogic and practical expertise in implementing the activities of the OSHub in local partners schools within Austria.

Contact frequency: Intense exchange to organise, set up and design the workshop series at BORG Bad Leonfelden in spring 2022. Several meetings during the setup of the first workshops in spring 2021. Regular contact about every second month during the whole project period.

Approach

The scope of OSHub-AT programs, with the umbrella designation of “create your world Tour”, is to stimulate into the formal school education system contemporary and relevant topics, developments, issues, discussions and views in the intersection of science & technology with arts and society that would not have flown into the classroom by itself.

This is achieved through quick and agile 2-4h workshop modules run by experts, specialists, artists or interesting thinkers about the future – so called inspirators – where the topic and content is quite unrestricted and the only “must” is to be relevant for students now or in their future.

Thinking together about what’s actually going on behind the moon, chatting about our own expectations of artificial intelligence with a programmer in English class, becoming part of a fantastic universe with a visual artist and slipping into the role of a cyberpunk activist, or getting creative with new software and hardware – these are some workshop examples that can be brought into the classroom.

The role of OSHub-AT in this process is to mediate between the world of the workshop inspirators and the world of schools, by aligning the workshop inspirator’s offer with the needs and perspectives of the school’s daily-life, thus ensuring that each workshop is fit for each school’s context.

For that, OSHub-AT, through the Ars Electronica network – which provides access to state-of-the-art knowledge and experience of hundreds of experts – starts by approaching artists/experts to curate their workshop ideas. After this, OSHub-AT initiates and coordinates a co-creation process between individual teachers and the respective workshop inspirator, to tailor a customised version of the workshop concept according to the school needs, the specific setting, the context of the subject and how the workshop will be contextualised within the teacher’s narrative.

Model

It is important to mention that OSHub-AT itself does not develop, facilitate or offer the workshops. Although this could have been a path to establish a sustainable and stable system of educational offer, as it happens, for example, at the Ars Electronica Center, this framework was not the chosen one for the create your world Tour. The underlying reason is the focus on high agility and contemporaneity by exploring the rich potential of the Ars Electronica network.

This implies that, throughout this process, OSHub-AT plays both the role of a knowledge broker, between the workshop inspirators and schools, and of a curator, which includes the following steps:

- **Establishing contact with schools**

After the workshops are set, schools, school heads and teachers are contacted individually via email or phone, as an attempt to reach those who normally do not have access or follow Ars Electronica via the standard communication channels. Complementary, some contacts can also be established via existing educational communities, e.g. for primary schools or middle schools. Then, for the teachers or school heads that show interest about a given workshop topic, the information about the corresponding workshop is sent directly to them.

- **Matching schools and workshop inspirators**

After the teacher or the school head communicates their interest for a specific workshop, OSHub-AT asks the respective workshop inspirator whether she/he is interested in facilitating the workshop at that school, and after this sets up the contact between the teacher and the host (usually via mail). This direct contact between the teacher and the workshop inspirator allows to define logistical aspects (e.g. schedule) but, very importantly, also to discuss the content and format of the workshop.

- **Adapting the workshop to the school context**

This adaptation step can be seen as a co-creation process within a certain range between the workshop inspirators and the teachers. Importantly, the workshop proposal presented by the inspirator is not a final and closed product, but more like a scaffold which can be adapted to the specific school situation, as such: the content can be framed and provided with focal points that align with the material that is being covered in the classroom; or the time and number of participants can be adjusted.

In order to be a relevant and sustainable inspiration, it is key that the workshop goes beyond the single shot event, by integrating, contextualising and discussing the underlying topics, in the classroom, both before and after the workshop. This adaptation step is also the moment to prepare the process before and after the workshop and to define on how to integrate it with the teacher's curricular subject and objectives.

- **Implementing the workshop**

Now it's time to bring the workshop to life and to experience it with the students.

- **Post workshop-follow-up**

After the workshop, there is an additional contact with the teacher to provide any additional support that might be needed regarding the follow-up and to gather feedback about the overall process and workshop.

Physical Space

OSHub-AT prioritised mobility in the establishment of its OSHub with the aim of expanding the existing infrastructure of the Ars Electronica Center with a portable lab that could be set up within schools to accommodate the create your world TOUR workshops. Due to COVID-19 lockdown restrictions and the inability to visit schools, the focus of the OSHub was instead on exploring digital infrastructure, specifically Miro, Teams and Zoom to create virtual spaces for the workshops to take place.

Partner Schools

NAME	LOCATION	SCHOOL YEARS	# STUDENTS	# TEACHERS	# SCHOOL HEADS	# OTHER (E.G. SCHOOL STAFF)
PTS/FMS 15	Vienna	Secondary	27 (1 class)	2	1	0
AHS Erlgasse Wien	Vienna	Secondary	28 (1 class)	3	1	1
AHS Bruck an der Mur	Styria	Secondary	11 (1 class)	1	0	1
BG/BRG Geringergasse Wien	Vienna	Secondary	30 (1 class)	1	1	1
BRG Kepler Graz	Styria	Secondary	22 (1 class)	1	0	1
Alpen Adria Gymnasium Völkermarkt	Carinthia	Secondary	28 (1 class)	1	1	0
Gymnasium Güssing	Burgenland	Secondary	24 (1 class)	1	1	1
Gymnasium Gmünd	Lower Austria	Secondary	26 (2 classes)	1	1	0
Europagymnasium Baumgartenberg	Upper Austria	Secondary	12 (1 class)	1	1	0
Gymnasium Sacre Coeur Wien	Vienna	Secondary	23 (1 class)	1	1	1
BORG Gymnasium Bad Leonfelden	Upper Austria	Secondary	35 (3 classes)	1	1	1

PTS Wolfsberg	Carinthia	Secondary	9 (1 class)	1	1	1
HAK Tulln	Lower Austria	Secondary	20 (1 class)	1	0	1
De La Tour Schule Sonnenhaus	Styria	Secondary	10 (1 class)	1	1	0
Gymnasium Telfs	Tyrol	Secondary	14 (1 class)	1	1	1
Bundesgymnasium Bludenz	Vorarlberg	Secondary	15 (1 class)	1	1	1
Gymnasium Braunau	Upper Austria	Secondary	33 (2 classes)	1	1	0
VS Adnet	Salzburg	Primary	12 (1 class)	1	1	0
Gymnasium Kirchdorf	Lower Austria	Secondary	8 (1 class)	1	1	1
Schola – Montessorischule Linz	Upper Austria	Secondary	10 (1 class)	1	1	0
VS Abtenau	Salzburg	Primary	24 (1 class)	1	1	0
BRG & BORG Feldkirch	Vorarlberg	Secondary	15 (1 class)	1	1	1
MS Kirchbach	Styria	Secondary	14 (1 class)	1	1	0
BG, BRG & BORG Eisenstadt Kurzweiese	Burgenland	Secondary	15 (1 class)	1	1	0
Wimmer Gymnasium	Burgenland	Secondary	13 (1 class)	1	1	0

Werkschulheim Felbertal	Salzburg	Secondary	13 (1 class)	1	1	0
VS Oberalm	Salzburg	Primary	23 (1 class)	1	1	0
Kindergarten Rasselbande	Upper Austria	Elementary	19 (whole school)	2	1	0
Waldorf Kindergaren Walding	Upper Austria	Elementary	11 (half of the school)	2	1	0
Pfarrcaritas-Kindergarten Hl. Geist	Upper Austria	Elementary	16 (1 class)	2	1	0

Implementation

The create your world Tour is a workshop programme offered in selected schools and institutions, that brings the contents and ideas of the Ars Electronica platform u19 – create your world into – everyday school life. The aim of the tour is to offer both students and teachers opportunities for alternative learning and teaching and to playfully lay the foundations for new ideas and projects in schools. The tour workshops are usually conducted by artists or creative professionals. Teachers can use the workshops as further training with current content and as an inspiration for new directions in teaching. The methodology of create your world Tour embodies the idea of peer education by inviting prize winners from Ars Electronica's U19 competition to participate in the workshops and work alongside their peers on similar programmes.

Overall, OSHub-AT impacted:

- Directly:
 - 560 students corresponding to 1 595 interactions (engagement rate: 3)
 - 36 teachers corresponding to 958 interactions (engagement rate: 26.5)
 - 6 995 community members corresponding to 7 447 interactions (engagement rate: 1)
- Indirectly:
 - 2 480 students
 - 170 teachers
 - 2 880 community members



Figures 1 – 7: Photos from create your world Tour sessions:

- Workshop Climate Change in Stop Motion: Tell your Story! Michaela Schober, Vanessa L. Gruber/BORG Bad Leonfelden. Photo: Katharina und Wolfgang Hoffelner.
- Workshop Hacking Humans for Space Exploration; Elke Hackl, Ute Wetscher/BG/BRG Geringergasse, Photo: Tobias Pfoser.
- Workshop Generation Y; Sonja Groiss, Anna Kaufmann/Gymnasium Gmünd. Screenshot: Ronald Binder.
- Workshop Hacking Humans for Space Exploration; Elke Hackl, Ute Wetscher/BG/BRG Erlgasse, Photo: Cornelia Hauer.
- Workshop Hacking Humans for Space Exploration; Elke Hackl, Ute Wetscher/BG/BRG Erlgasse, Photo: Cornelia Hauer.
- Workshop Hacking Humans for Space Exploration; Elke Hackl, Ute Wetscher/BORG Bad Leonfelden, Photo: Katharina und Wolfgang Hoffelner Workshop Insect stomp, Veronika Groissberger/VS Adnet, Photo: Nadja Auer.
- Workshop Produce your Beat! Daniel Kohlmaigner/Gymnasium Kirchdorf. Photo: Christian Sperrer.

Partnerships

08 Non-formal education-related entity

- **OMAI**

Type of relationship/interaction: Artists, scientists and educators developed the workshop "OMAI Space Workshop"

Contact frequency:

- OSHub team & OMAI: Intensive exchange during the workshop development phase. Regular contact during the acquisition process (approx. 5 x per 2 months). Approx. 5 feedback sessions and workshop-improvement sessions.
- School & OMAI: Approx. 10 contacts per workshop with the teacher. One or two contacts per workshop with the students.

- **Daniel Kohlmeigner**

Type of relationship/interaction: Artist and educator developed workshop "Produce your own beat!"

Contact frequency:

- OSHub team & Daniel Kohlmeigner: Intensive exchange during the workshop development phase. Regular contact through the acquisition process (approx. 5 x per 2 months). Approx. 5 feedback sessions and workshop-improvement sessions.
- School & Daniel Kohlmeigner: Approx. 10 contacts per workshop with the teacher. One or two contacts per workshop with the students.

- **Tinkerbells on Tour**

Type of relationship/interaction: Artists and educators developed workshop 'Hacking Humans for Space Exploration'

Contact frequency:

- OSHub team & Tinkerbells on Tour: Intensive exchange during the workshop development phase. Regular contact through the acquisition process (approx. 5 x per 2 months). Approx. 5 feedback sessions and workshop-improvement sessions.
- School & Tinkerbells on Tour: Approx. 10 contacts per workshop with the teacher. One or two contacts per workshop with the students.

- **Veronika Grossberger**

Type of relationship/interaction: Artist and educator developed workshop 'Insect Stomp'

Contact frequency:

- OSHub team & Veronika Grossberger: Intensive exchange during the workshop development phase. Regular contact through the acquisition process (approx. 5 x per 2 months). Approx. 5 feedback sessions and workshop-improvement sessions. Intense exchange to develop the contribution "Sound of Insects" to the OSHub activity handbook.
- School & Veronika Grossberger: Approx. 10 contacts per workshop with the teacher. One or two contacts per workshop with the students.

- **National Museum of Science and Technology Leonardo da Vinci**

Type of relationship/interaction: Hosted panel

Contact frequency: Sometimes to prepare the Education Day

- **TBA21**

Type of relationship/interaction: Hosted panel

Contact frequency: Sometimes to prepare the Education Day

- **Creative School**

Type of relationship/interaction: Hosted panel

Contact frequency: Sometimes to prepare the Education Day

- **Open Schooling Together**

Type of relationship/interaction: Hosted panel

Contact frequency: Sometimes to prepare the Education Day

02 Academia

- **L. Vanessa Gruber and Michaela Schober/University of Applied Arts Vienna**

Type of relationship/interaction: Researchers developed workshop ,Climate Change in Stop Motion: Tell your own Story!'

Contact frequency:

- OSHub team & Gruber/Schober: Intensive exchange during the workshop development phase. Regular contact through the acquisition process (approx. 5 x per 2 months). Approx. 5 feedback sessions and workshop-improvement sessions. Intense exchange for the Ars Electronica Education day at the Ars Electronica Festival. Intense exchange to develop the contribution "Story-Telling and Content Revision" (M.Schober) to the OS Hub activity handbook. Intense exchange to prepare for the participation of the OS Hub final event (M.Schober). Participation at OS Hub final event in Portugal (M. Schober).
- School & Gruber/Schober: Approx. 10 contacts per workshop with the teacher. One or two contacts per workshop with the students.

- **Beate Absalon**

Type of relationship/interaction: PhD researcher developed workshop ,That could help. Self-Care-Zines'

Contact frequency:

- OSHub team & B. Absalon: Intensive exchange during the workshop development phase. Regular contact through the acquisition process (approx. 5 x per 2 months). Approx. 5 feedback sessions and workshop-improvement sessions. Intense exchange for the Ars Electronica Education day at the Ars Electronica Festival. Intense exchange to develop the contribution "Free Flow Writing" to the OSHub activity handbook.
- School & B. Absalon: Approx. 10 contacts per workshop with the teacher. One or two contacts per workshop with the students.

02 Industry

- **László Siller**

Type of relationship/interaction: Industry professional developed workshop "AI 360°"

Contact frequency:

- OSHub team & L. Siller: Intensive exchange during the workshop development phase. Regular contact through the acquisition process (approx. 5 x per 2 months). Approx. 5 feedback sessions and workshop-improvement sessions.
- School & L. Siller: Approx. 10 contacts per workshop with the teacher. One or two contacts per workshop with the students.

- **MIC**

Type of relationship/interaction: Company that sponsors some of the activities within create your world TOUR

Contact frequency: Without a specific periodicity, whenever necessary

01 Wider Society

- **Sonja Groiss, Anna Kaufmann/ Generation Y**

Type of relationship/interaction: Recent school graduates and university students developed workshop 'Generation Y'

Contact frequency:

- OSHub team & Kaufmann/Groiss: Intensive exchange during the workshop development phase. Regular contact through the acquisition process (approx. 5 x per 2 months). Approx. 5 feedback sessions and workshop-improvement sessions. Intense exchange for the Ars Electronica Education day at the Ars Electronica Festival. Intense exchange for the contribution at the OS Hub inspiration session.
- School & Kaufmann/Groiss: Approx. 10 contacts per workshop with the teacher. One or two contacts per workshop with the students.

01 Academia

- **Austrian Science Fund**

Type of relationship/interaction: Hosted panel

Contact frequency: Sometimes to prepare the Education Day

Activities

161 Contacts to establish OSHub Austria

SHORT DESCRIPTION

To establish the OS Hub Austria, we went through an intensive acquisition process. On the one hand we had to find our school partners and on the other hand we had to find the scientists, artists or experts who offer the workshops which are the centrepiece of the *create your world TOUR* (website [here](#)).

To encourage partner schools to participate we decided not to use mass channels such as newsletters, social media or similar, because the aim was to reach schools, teachers and students who did not yet have established access to cultural or scientific activities such as the create your world Tour. Mass channels like social media or newsletters would only reach people who are already 'in the bubble' and more or less informed. We found out that we could only reach the schools we were looking for through targeted, personal and individual contact in the acquisition process by phone or email.

During the process of curating the workshop hosts, we reached out to the Ars Electronica network to bring on board those scientists, artists or specialists with the appropriate interest, skills and topics.

Below we share some useful resources:

- *Info-sheet: Key info for new workshops within the framework of the "create your world tour"*
- *Report of Acquisition process 2021/2022*
- *Report of Acquisition process 2022*

DURATION

To establish a partnership with a school: between one week and two months

To establish a partnership with a scientist/specialist/artist: between one month and five months.

TIMELINE

Between January 2021 to September 2022

PEOPLE ENGAGED

Directly engaged:

- 78 teachers corresponding to 195 interactions (interaction rate: 2.5)
- 63 school heads corresponding to 157.5 interactions (interaction rate: 2.5)
- 20 researchers/experts/artists corresponding to 300 interactions (interaction rate: 15)
- 4 professionals from school administration corresponding to 6 interactions (interaction rate: 1.5)
- 3 teacher's working groups corresponding to 4 interactions (interaction rate 1.5)

03 Teacher Training Sessions

SHORT DESCRIPTION

During these training sessions – Education Inspiration Session, teachers and educators could take part in the online workshops ‘Generation Y’, ‘Stop Motion: Tell your Story!’ and ‘That could help: Self-Care-Zines’. The format gave participants the opportunity to get a real-life experience of working with the *create your world TOUR* hosts, as well as to discuss questions about content, delivery and integration into their ongoing curriculum.

The zines that were created during the workshops can be found [here](#).

The training sessions were communicated in the website or Ars Electronica with dedicated web pages¹.

DURATION

2-3 hours each, where:

- 1.25 – 2.25 h: Workshop inspiration;
- 0.75 h: Discussion and Q&A TIMELINE

08/09/2021, 15:00 – 18:00

- *Education Inspiration Session I – a create your world TOUR: Generation Y*

09/09/2021, 15:00 – 18:00

- *Education Inspiration Session II – a create your world TOUR : Climate Change in Stop Motion: Tell your Story!*

10/09/2021, 15:00 – 17:00

- *Education Inspiration Session III – a create your world TOUR*

PEOPLE ENGAGED

- Directly engaged:
 - 9 teachers corresponding to 9 interactions (interaction rate: 1)
- Indirectly engaged:
 - 180 students

1 <https://ars.electronica.art/newdigitaldeal/en/education-inspiration-session-1/>
<https://ars.electronica.art/newdigitaldeal/en/education-inspiration-session-2/>
<https://ars.electronica.art/newdigitaldeal/en/education-inspiration-session-3/>



Figures 8 – 9: Workshop That could help: Self-Care-Zines, Beate Absalon/Teacher training: Education Inspiration Sessions. Photo&Artwork: Anoosha Gopinath

01 Showcase

SHORT DESCRIPTION

At the Ars Electronica Festival 2022, OSHub Austria showcased the create your world TOUR, the 8 workshops of the create your world TOUR and the Open Science Hub Network.

Visitors could expect an open workshop zone with topics that are currently occupying artists and forward thinkers from the entire Ars Electronica network. Interactive methods, new technologies and materials and artistic positions invited the participants to experiment, research and create together.

The posters developed to communicate about the Open Science Hub Network and the create your world TOUR can be found [here](#) (example in Figure 16).

The showcase of OSHub at Ars Electronica Festival 2022 was communicated in the website or Ars Electronica with a dedicated web page².

DURATION

5 days

TIMELINE

07 – 11 September 2022

PEOPLE ENGAGED

Indirectly engaged:

- 6455 citizens



Figures 10 – 15: Impressions from the Ars Electronica create your world festival.

Open Science Hub Network



Grenzen und Barrieren in ganz Europa überbrücken

Das Open Science Hub Network (OSHub Network), ein Konsortium aus neun Partnern in ganz Europa, bindet Schulen und lokale Interessengruppen in STEAM (Science, Technology, Engineering, Arts and Mathematics) Forschung und Innovation ein, als ein Werkzeug zur Bewältigung lokaler relevanter Herausforderungen und als Beitrag zur nachhaltigen Entwicklung der Gemeinschaft.

Das OSHub Network baut ein europäisches Netzwerk von Kollaborationszentren – OSHubs – in Gemeinden auf, die sich aufgrund verschiedener Barrieren – geografische Lage, sozioökonomischer Status oder ethnischer Minderheitenhintergrund – traditionell nicht an Forschung und Innovation beteiligen, mit dem Ziel, Barrieren zu überwinden und europaweit Brücken zu bauen. <https://oshub.network/>



Bridging borders and barriers across Europe

The Open Science Hub Network (OSHub Network), a consortium of nine partners across Europe, engages schools and local stakeholders in STEAM (Science, Technology, Engineering, Arts and Mathematics) research and innovation as a tool to address locally relevant challenges and contribute to sustainable community development.

The OSHub Network is establishing a European network of collaboration hubs – OSHubs – in communities that traditionally do not engage with research and innovation due to various barriers – geographical location, socio-economic status, or ethnic minority group background, aiming to overcome barriers and building bridges across Europe. <https://oshub.network/>

Figure 16: Poster about the Open Science Hub Network presented at Ars Electronica Festival 2022.

25 Teacher Support Sessions

SHORT DESCRIPTION

After the workshops facilitated by the hosts, teachers were consulted afterwards for a feedback session, via telephone or video call. The interviews were very open and informal, but based on a prepared interview guide.

The Teacher Feedback Form can be found [here](#).

The learnings from these discussions were passed on to the workshop hosts as, so that they could continuously improve and develop their offer. The insights gained also influenced the further procedure in the organisation and curation of the *create your world TOUR*.

DURATION

Approximately 20-45 minutes

TIMELINE

March 2021 to September 2022

PEOPLE ENGAGED

Directly engaged:

- 25 teachers corresponding to 25 interactions (interaction rate: 1)

08 Workshop Leader Support Sessions

SHORT DESCRIPTION

Reflection sessions with workshop leaders took place everytime someone from the OSHub/create your world TOUR team attended the workshops.

This took place in the form of an open discussion, during which the workshop hosts and the OSHub/create your world TOUR team reflected about what the positive aspects and what could be improved.

Importantly, the feedback gotten from these reflection sessions was also important to improve the communication process during the acquisition phase, in order to avoid misleading expectations from teachers and students. In addition, from time to time, the workshop framework was adapted, improved or supplemented. The division of roles with the teachers was also discussed and, whenever necessary, general facilitation and group management tips were given [here](#).

DURATION

0.5 h – 1 h

TIMELINE

March 2021 to September 2022

PEOPLE ENGAGED

Directly engaged:

- 10 researchers corresponding to 15 interactions (interaction rate: 1.5)

09 Co-creation processes with workshop leaders

SHORT DESCRIPTION

The first meeting was focused on determining the main idea of the workshop, which was always defined as a common denominator between the work of the workshop hosts and the mission of Ars Electronica, as well as clarifying the framework. After this, the workshop host followed into a development phase.

The concept was then discussed and further developed in a subsequent meeting. In some cases, when the workshop hosts already had some experience in facilitation, the need for additional development was reduced. In other cases, it took several meetings to shape the concept into a workshop that was likely to withstand the dynamics and demands of the class situation.

As part of the co-creation process, a trial run of the workshop was organised with individual hosts, where the participants were members of the OSHub / create your world team.

DURATION

Several meetings per (potential) workshop leader: minimum 3, maximum 6

The duration of each meeting depended on the individual needs – between 30 minutes and 2 hours

TIMELINE

Individual timelines

PEOPLE ENGAGED

Directly engaged:

- 11 researchers corresponding to 55 interactions (interaction rate: 5)

31 Workshop for students

Generation Y, 3 workshops

SHORT DESCRIPTION

Workshop by Sonja Groiss, Anna Kaufmann (AT)

Have you ever taken a critical look at digitalization and do you know how to stay safe online?

In this creative and interactive workshop, the topic of digitalization is presented in an informative and understandable way using the game 'Generation Y'. This was created by the workshop leaders and will be continuously developed. It was recognised in the Prix Ars Electronica U19 category in 2018. In the workshop, it provides the basis for working together to gain an overview of technological and social developments and to discuss opportunities and risks. By means of group work, a basis is built up with the aim of motivating students to continue to deal with the topic after the workshop. After all, we as a society ultimately decide whether future technologies will become established.

The game can be played virtually on this *Miro board* (screenshot of the virtual game board in Figure 19).

Below we provide some useful resources:

- *Video with game instructions*
- *Sheet with game instructions*
- *Cheat sheet*
- *Free card1, free card 2*

The workshop was disseminated in several ways:

- *Dedicated webpage in Ars Electronica site*
- *Program of Ars Electronica Festival 2021 (page 269)*
- *Infosheet*
- *Poster*
- *Video*

DURATION

2 to 4 units / school lessons

TIMELINE

SCHOOL / LOCATION	COUNTY SHORT	WORKSHOP DATE	CONTACT AT SCHOOL	WS UNITS	AGE	PARTICIPANTS
Gymnasium Gmünd	NÖ	29.06.2021	Roland Binder	4	15-16	13
Bundesgymnasium Bludenz	Vbg	20.01.2022	Jürgen Schacherl	3	17-18	15
MS Kirchbach	Stmk	13.06.2022	Bettina Dertnig	2	14	14

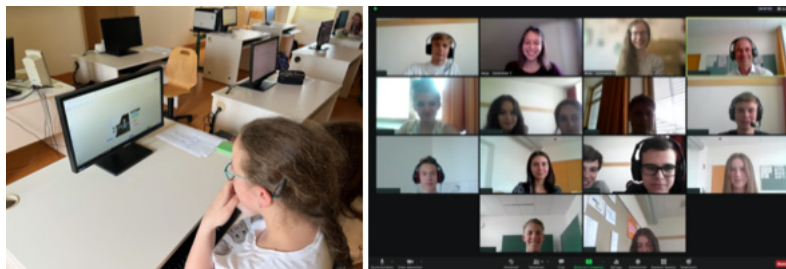


Figure 17 – 18: Workshop Generation Y; Sonja Groiss, Anna Kaufmann/MS Kirchbach. Photo: Bettina Dertnig Workshop Generation Y; Sonja Groiss, Anna Kaufmann/Gymnasium Gmünd. Screenshot: Ronald Binder.

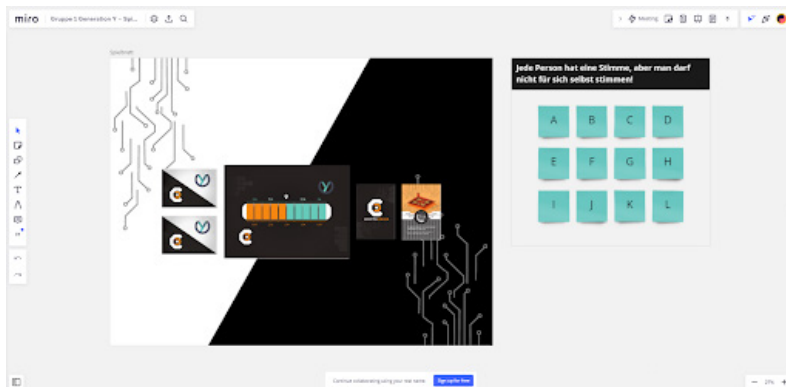


Figure 19: Digital and interactive version of the analogue game “Generation Y” by Anna Kaufmann and Sonja Groiss in miro.com.

OMAi Space Workshop, 4 Workshops

SHORT DESCRIPTION

Workshop by OMAi / STEMarts Lab

Explore the mysteries of the universe! A unique interdisciplinary sci-art experience.

The OMAi Space Workshop is a unique learning experience that combines astrophysics and media art. Participants experience an exciting journey through space and time and explore the mysteries of the universe together with the workshop facilitator. Starting with an interactive starry sky, they first explore the significance of astrological observations for ancient advanced civilizations. The discussion leads to current ecological and ethical issues in the exploration of space. In the second part, participants will encounter supernovae, black holes, and gravitational waves. The excursion into the unknown finally leads to the extraterrestrial origins of the building blocks of life.

A focus lies on easy-to-understand-language to convey complex information and to make it accessible to as many educational contexts as possible. The live drawing aspect and the VJ-like presentation style gives an extraordinary arty experience with the possibility to respond very flexibly to the interests, challenges and wishes of the participants.

Below we provide some useful resources:

- Tools, videos and other resources about the Space Messengers project, which underlies the OMAi Space Workshop: <http://www.stemarts.com/projects/spacemessengers/speakers>
- Website of the project leaders: <https://www.omai.at/>

The workshop was disseminated in several ways:

- *Dedicated webpage in Ars Electronica site*
- *Infosheet*

DURATION

2 units/school lessons

TIMELINE

SCHOOL / LOCATION	COUNTY SHORT	WORKSHOP DATE	CONTACT AT SCHOOL	WS UNITS	AGE	PARTICIPANTS
PTS/FMS 15	W	11.03.2021	Michael Mader	2	15-16	27
Kepler BRG Graz	Stmk	12.04.2021	Martina Stadler	2	15-16	11

Kepler BRG Graz	Stmk	03.05.2021	Martina Stadler	2	15-16	11
Gymnasium Güssing	Bgld	05.05.2021	Ulla Trost	2	14-16	24

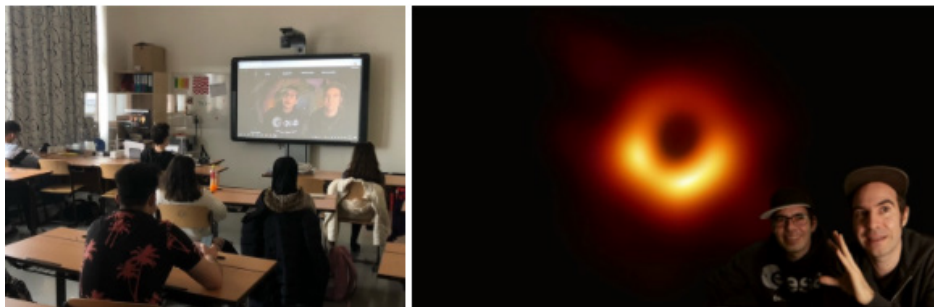


Figure 20 – 21: OMAi Space Workshop; OMAi, STEMarts Lab/Polytechnikum Wien. Screenshot: Michael Mader.

Hacking Humans for Space Exploration, 5 Workshops

SHORT DESCRIPTION

Workshop by Tinkerbells on Tour aka. Elke Hackl und Ute Wetscher (AT)

Let's imagine that we have to plan a future Mars expedition where anything is possible. What do we know about Mars and where does this knowledge come from? How would our human body have to change in order to travel to Mars and what consequences would that have for social life? The extreme conditions of space will provide us creative inspiration. Just think of the different gravitation and atmosphere or the fact that sound cannot move in space. How can we overcome these obstacles via physical hacks or cyborg components?

In Hacking Humans, Mars and the idea of travelling there are a source of inspiration to think outside the box, ask questions and find solutions. First, we explore our knowledge about Mars and the human body. Then we work out how challenges can be solved and finally create visions of such an idea. With a discursive, tangible and experiential approach, Elke and Ute will guide us through this narrative. The creative-productive design of their own new wearable tech ideas is an inspiration to continue thinking after the workshop.

In *this folder*, one can find some outputs of these workshops developed by the students.

The teachers that participated in the workshop were given a set of documents with guidelines and instructions to build the communicator and the Human Cyborg.

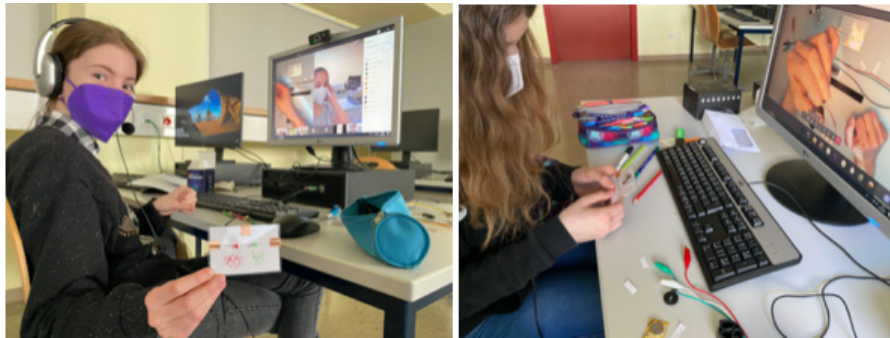


Figure 22 – 25:

- Picture 1: Workshop Hacking Humans for Space Exploration; Elke Hackl, Ute Wetscher/BG/BRG Erlgasse, Photo: Cornelia Hauer.
- Picture 2: Workshop Hacking Humans for Space Exploration; Elke Hackl, Ute Wetscher/BORG Bad Leonfelden, Photo: Katharina und Wolfgang Hoffelner.
- Picture 3+4: Workshop Hacking Humans for Space Exploration; Elke Hackl, Ute Wetscher/AHS Bruck an der Mur, Photo: Katrin Nora Kober.

AI 360°, 1 Workshop

SHORT DESCRIPTION

Workshop by László Siller (HU)

We need to talk about it! Artificial intelligence is part of our life already and it will be even a lot bigger in no time. To participate, use it responsibly or not be overruled by this powerful technology we must know what it is! “AI 360°” is an interactive introduction workshop to help get familiar with the technology called Artificial Intelligence and Machine Learning. The workshop aims to crack the mythical aura floating around the term “Artificial Intelligence” in our heads. Using a bunch of interactive tools and going through many discussions the basic functionality of AI and Machine Learning is teased out. Together we will see what is going on inside an Artificial Intelligence machine or software and how it can be used in several contexts such as predictive business decisions.

Finally, if you still have the energy, we can feed an AI Algorithm with data using Excel and see what happens.

Below we provide some useful resources:

- *Text generator*
- *Image-to-Image demo*
- *Text to Image*
- *Colorizer*
- *Emoji scavenger hunt*

The workshop was disseminated in several ways:

- *Dedicated webpage in Ars Electronica site*
- *Infosheet*

DURATION

2-4 units/school lessons

TIMELINE

SCHOOL / LOCATION	COUNTY SHORT	WORKSHOP DATE	CONTACT AT SCHOOL	WS UNITS	AGE	PARTICIPANTS
Euopagymnasium vom guten Hirten	ÖÖ	19.05.2021	DI Gerald Landl	4	15-16	12

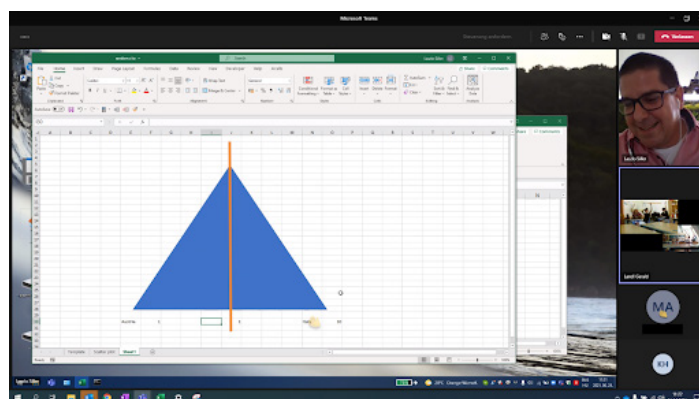


Figure 26: Workshop AI 360°,László Siller/Euopagymnasium vom guten Hirten. Screenshot: Katharina Hof.

Climate Change in Stop Motion: Tell your Story!, 3 Workshops

SHORT DESCRIPTION

Workshop by Michaela Schober and L. Vanessa Gruber (AT)

Why does social media encourage people to tell their own stories? What is storytelling and how does it work? How can you make your voice heard? And: How is this related to climate protection?

The workshop encourages people to look at their own interests from the perspective of climate protection and to develop stories from this. Guided by a team of experts, students work on the basics of storytelling against the backdrop of media literacy and turn their stories about climate protection into humorous, dramatically exciting, factually informative or artistic-visual short films. From cartoons and clay animation, to TikTok-style dance and music videos, to great cinema: anything goes!

Be it the adventurous odyssey of Indiana Playstation and the search for rare earths or the soft drink can Cinderella, who tells of her big dream to be upcycled one day: The crazier, the funnier, the more surprising – the more convincing the better!

In *this folder*, one can find some outputs of these workshops developed by the students.

Below we provide some useful resources:

- Workshop Story-Telling and Content Revision – Learners use story-telling methods to structure, revise and engage with learnt content.
 - *The guidelines for this activity can be found in the OSHub website.*
 - *Interactive Online Materials*

The workshop was disseminated in several ways:

- *Dedicated webpage in Ars Electronica site*
- *Infosheet*
- *Program of Ars Electronica Festival 2021 (page 269)*

DURATION

2-4 units/school lessons

TIMELINE

SCHOOL / LOCATION	COUNTY SHORT	WORKSHOP DATE	CONTACT AT SCHOOL	WS UNITS	AGE	PARTICIPANTS
Privates Gymnasium Sacré Coeur Wien	W	28.06.2021	Maga Alice Bogner	4	13-14	23
Gymnasium Gmünd	NÖ	29.06.2021	Roland Binder	4	15-16	13
BRG und BORG Feldkirch	Vbg	08.06.2022	Sabine Frick- Siegele	4	14	15



Figure 27-28: Workshop Climate Change in Stop Motion: Tell your Story! Michaela Schober, Vanessa L. Gruber/BORG Bad Leonfelden. Photo: Katharina und Wolfgang Hoffelner.

Workshop Climate Change in Stop Motion: Tell your Story! Michaela Schober, Vanessa L. Gruber/BORG Bad Leonfelden. Photo: Katharina und Wolfgang Hoffelner.

That could help: Self-Care-Zines, 3 Workshops

SHORT DESCRIPTION

Workshop by Beate Absalon (DE)

There are remedies for many crises: Video tutorials show how to write applications or how to prepare a dish. Magazines provide tips on how to flirt or gaming tricks. Some problems, however, are trickier and more complex. When you feel unwell, tense or tired, there isn't always a straightforward answer to the problem. Simple advice doesn't help: "Think about something positive!", "Don't be like that!", "Just try harder!" ...

What is needed is someone who understands – even a booklet can help. In this workshop we will produce so-called Self-Care Zines. Through mindful questions and inspiration, these small, anarchically handmade magazines encourage reflection, to take importance in oneself, and to become curious and inventive with unusual circumstances. For example, they provide comfort for heartbreak by sharing songs about heartbreak and grief rituals. They also encourage students to try smartphone fasting with comics or to say "no" more often by providing sample sentences for different contexts that may arise.

The students are addressed as experts to design their own zine with simple means and creative ideas. In an intimate setting, we find out what questions are on our minds, what life wisdom we would like to have received ourselves, or what we are already being consulted on by other people, since we already have a good knack for some sensitive topics.

Below we provide some useful resources:

- Workshop Free Flow Writing – A creative way of getting started and finding unique approaches
 - *The guidelines for this activity can be found in the OSHub website*
 - *Zine example*

The workshop was disseminated in several ways:

- *Dedicated webpage in Ars Electronica site*
- *Infosheet*

DURATION

2-3 units/school lessons

TIMELINE

SCHOOL / LOCATION	COUNTY SHORT	WORKSHOP DATE	CONTACT AT SCHOOL	WS UNITS	AGE	PARTICIPANTS
PTS Wolfsberg	KTN	10.11.2021	Nina-Katharina Leonhard	2	15	9
De La Tour Schule Sonnenhaus	Stmk	21.12.2021	Brigitte Neureiter-Pühringer	4	14	10
'Schola' – Montessori Schule Linz	OÖ	05.05.2022	Ulrike Maier	3	Diverse	10



Figure 29 – 30: Workshop That could help: Self-Care-Zines; Beate Absalon/BORG Bad Leonfelden, Photo: Katharina and Wolfgang Hoffelne.



Figure 31 – 34: Workshop That could help: Self-Care-Zines; Beate Absalon/BORG Bad Leonfelden, Photo: Katharina and Wolfgang Hoffelner.

Insect stomp, 4 Workshops

SHORT DESCRIPTION

Workshop by Veronika Grossberger

In this workshop, the participants become sound researchers and explore the sounds of insects. After an introduction to the topic of environmental and natural sounds, the participants record sounds in nature on the one hand and imitate the sounds of insects with everyday objects they find on their desk, in the kitchen and in the bathroom on the other. They record the sounds independently and learn how to use the recording device (smart phone). Depending on the class size and possibilities, the students can further process the sounds in a music program and creatively change them. The workshop culminates in a small sound installation, which is put together by the music mediator from the sounds of the students.

In *this folder*, one can find some outputs of these workshops developed by the students.

Below we provide some useful resources:

- Workshop Sound of Insects – Through the process of creating a film with sound, learners understand the value of insects within our ecosystem by sharpening their senses for their auditory and visual appearance.
 - *The guidelines for this activity can be found in the OSHub website*

The workshop was disseminated in several ways:

- *Dedicated webpage in Ars Electronica site*
- *Infosheet*

DURATION

3-4 units/school lessons

TIMELINE

SCHOOL / LOCATION	COUNTY SHORT	WORKSHOP DATE	CONTACT AT SCHOOL	WS UNITS	AGE	PARTICIPANTS
VS Adnet	Sbg	25.03.2022	Nadja Auer	3	10	12
VS Abtenau	Sbg	18.05.2022	Maria Stampfer	4	10	25
Werkschulheim Felbertal	Sbg	22.06.2022	Anna Scherz	4	11	13
VS Oberalm	Sbg	29.09.2022	Katrin Blaikner	4	10	23



Figure 35 – 38: Workshop Insect stomp, Veronika Groissberger/VS Adnet, Photo: Nadja Auer.

Produce your own beat!, 6 Workshops

SHORT DESCRIPTION

Workshop by Daniel Kohlmeigner (AT)

The 'beat' as a rhythmic unit is often the central element of modern music. Electronic music production on the computer is fun and teaches playfully to make creative decisions. 'Ableton Live' is the optimal interface to intuitively find an entertaining and low-threshold access to music. Whether for beginners or professionals, in this workshop we can agree on any level of prior knowledge and set realistic goals for the workshop. Depending on time and desire, interactive links will be provided in advance so that those interested can familiarise themselves with the material – for example, to learn the first rhythmic basics.

Below we provide some useful resources:

- *Video "The Creative Element"* – In "The Creative Element", three music teachers explain how music technology helps their students engage with the creative process and make the music that matters to them.
- *Ableton | Learning music*
- *Ableton Live für Anfänger – Einfach erklärt*
- *Ableton | Learn live*

The workshop was disseminated in several ways:

- *Dedicated webpage in Ars Electronica site*
- *Infosheet*
- *Website of one the schools that hosted the workshop*

DURATION

2 x 90 minutes

TIMELINE

SCHOOL / LOCATION	COUNTY SHORT	WORKSHOP DATE	CONTACT AT SCHOOL	WS UNITS	AGE	PARTICIPANTS
Gymnasium Telfs	T	21.12.2021	Verena Hofer	4	15	14
Gym Braunau/ Produziere deinen Beat	OÖ	08.02.2022	Daniela Spitzer	4	16	15

Gym Braunau/ Produziere deinen Beat	OÖ	15.02.2022	Daniela Spitzer	4	16	18
Gym Kirchdorf	NÖ	05.05.2022	Christian Sperrer	4	17	8
BG BRG BORG Eisenstadt Kurzweiese	Bgld	14.06.2022	Walter Schranz	4	16	15
Wimmer Gymnasium	Bgld	21.06.2022	Barbara Graf	4	17	13

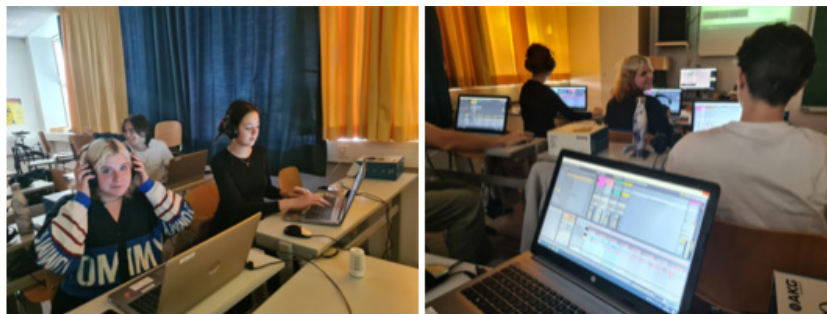


Figure 39 – 40: Workshop Produce your own beat!, Daniel Kohlmaigner/Gym Kirchdorf, Photo: Christian Sperrer.

“There is not Planet B”, 2 Workshops

SHORT DESCRIPTION

Together with the school partner BORG Bad Leonfelden an intense series of workshops around the core topic “There is not Planet B” was organised. The leading questions were: How can we care for our planet? What are the issues? How am I and my community involved in the development of our planet? What can we change on a local level? Who are the relevant stakeholders? How can young people’s thoughts and ideas about those aspects get a voice?

The bundle contained 5 different formats which were each evaluated. Three of the formats come from the pool of the create your world TOUR, one from the regular mediation programme of the Ars Electronica Center and one workshop was specially developed from the pool of the EU-funded programme “Creative School”.

Below we provide some useful resources:

- *Open Educational Resource: #EmpoweringYouthVoices: Create your future city*
- *Create Your Future City-Zine Layout*
- *Workshop elaboration: #EmpoweringYouthVoices: Create your future city*
- *Presentation for #EmpoweringYouthVoices: Create your future city*

DURATION

14 hours

TIMELINE

WORKSHOP	WORKSHOP DATE	WS UNITS	AGE	PARTICIPANTS
Planet B	23.3.2022	1	15-17	35
(Kunst-)Stoff für Storytelling	11.05.2022	2	15-17	11
(Kunst-)Stoff für Storytelling	18.05.2022	2	15-17	13
Hacking Humans	11.05.2022	2	15-17	16.0
Hacking Humans	25.05.2022	2	15-17	19.0
Selfcare Zine	30.03.2022	3,5	15-17	10
Selfcare Zine	06.04.2022	3,5	15-17	11
Planet B Tour & DeepSpace @Ars Electronica Center	22.6.2022	1,75	15-17	35
#EmpoweringYouthVoices: Create your future city	22.06.2022	1,25	15-17	35



Figure 41 – 42: Workshop #Empowering Youth Voices: Create your future city. Photos by Andrew Neman.



Figure 43 – 44: Zines that were produced by students during the workshop #Empowering Youth Voices: Create your future city. Photo: Andrew Newman.

PEOPLE ENGAGED

- Directly engaged:
 - 515 students corresponding to 865 interactions (interaction rate: 1.5)
 - 39 teachers corresponding to 669 interactions (interaction rate: 17)
 - 6 school heads corresponding to 10 interactions (interaction rate: 1.5)
 - 10 researchers corresponding to 343 interactions (interaction rate: 34)
 - 1 professional from industry corresponding to 8 interactions (interaction rate: 8)
 - 4 professionals from non-formal/informal education-related entity corresponding to 32 interactions (interaction rate: 8)
 - 2 citizens corresponding to 48 interactions (interaction rate: 24)
- Indirectly engaged:
 - 25 school heads
 - 515 parents/guardians
 - 6 researchers

01 Community of Practice Event – Ars Electronica Education Day

SHORT DESCRIPTION

The need to understand how to use digital technologies is emphasised consistently across the globe and educational systems have responded to this by investing in STEM (science, technology, engineering and mathematics). The Education Day at the Ars Electronica festival explores how we can open learning beyond traditional educational institutions and integrate the arts through STEAM. In a series of sessions hosted by Open Science Hub and other partners from the European Platform for Digital Humanism we offer a glimpse of how we can learn and teach differently through integrating art, technology and society. Diverse discussions will demonstrate how a New Digital Deal for education can empower citizens to transform their digital future, enabling them to critically question technologies and understand their deeper implications on the fabric of society.

These events are targeted at non-formal educators and teachers (national and international audience).

The Ars Electronica Education Day³ included several Education Conference Panels and Workshops, of which we highlight the following:

- *Education Conference: A New Digital Deal for Online Open Schooling*
 - Panel discussion with the create your world TOUR workshop leaders Anna Kaufmann (AT), Sonja Groiss (AT), Michaela Schober (AT), L. Vanessa Gruber (AT), and Beate Absalon (DE).
 - **“Next generation ideas for online workshops from the create your world TOUR”:** A next generation of online workshops developed by the digital natives themselves has shown us how to translate a hands-on DIY culture of teaching to the digital classroom: In this panel we will hear from the creators of three of the most recent create your world TOURs on the challenges and their experiences in adapting their expertise to online workshops.”

- *Learning in STEM: Taking a Step Further*
 - Panel discussion with Maria Xanthoudaki (IT) from the National Museum of Science and Technology Leonardo da Vinci, Amos Blanton (DK) from Aarhus University and Heather King (UK) from King’s College London.
 - **“Insights from a Reflective Practice Process”:** How can we shape an approach that values learners’ science capital as much, if not more than, subject-knowledge? Which pedagogies or tools are capable of ‘putting back together’ aspects that, even though fundamental, have lost their importance in STEM, such as emotion, imagination, the senses, creativity and self-expression?

The speakers will try to answer the above questions by sharing their own experience and expertise in the attempt to enrich STEM learning in school and out-of-school contexts.

3 Web pages in Ars Electronica website dedicated to the Education Day:
<https://ars.electronica.art/newdigitaldeal/en/education-conference/>
<https://ars.electronica.art/newdigitaldeal/en/day1/>

- *Education Conference: "Am Puls" – Science Talk*
 - Panel Discussion with Elisabeth Rosemann (AT) from CoderDojo Linz, Fares Kayali (AT) from the University of Vienna and Gernot Hörmann (AT) from Radio Oberösterreich.
 - **"Tomorrow's digital education – between textbook and search engine"**: How can teaching and technology be designed so that all young people can participate? What skills are needed to make use of tomorrow's digital world? Are reading, writing and arithmetic still enough? What will parents have to do? Logical thinking, creative design and a large portion of media competence are necessary in order to be able to acquire digital proficiency in a self-determined and confident manner.

Moderated by Gernot Hörmann, the participants will discuss the consequences of technology and learning moving ever closer together.

DURATION

1 day

TIMELINE

8 September 2021

PEOPLE ENGAGED

Directly engaged:

- 301 professionals from formal and non-formal education-related entities



Figure 45-48: Photos from Ars Electronica Education Day sessions.

Resources

- **Sound of Insects**

Through the process of creating a film with sound, learners understand the value of insects within our ecosystem by sharpening their senses for their auditory and visual appearance.

— The guidelines for this activity can be found in the *OSHub website*.

- **Story-Telling and Content Revision**

Learners use story-telling methods to structure, revise and engage with learnt content.

— The guidelines for this activity can be found in the *OSHub website*.

- **Free Flow Writing**

A creative way of getting started and finding unique approaches.

— The guidelines for this activity can be found in the *OSHub website*.

The initiatives that we present below, although having a different approach from the one described earlier, share common educational and societal objectives and were also performed in the context of OSHub.

Ars Electronica Elementary Education Offensive

During the Ars Electronica Festival 2022 a series of activities targeting different stakeholders of elementary education took place. The role of elementary education seems to be ignored, underestimated or just forgotten in the current forward looking discussions about how to continuously adapt educational institutions and curricula to make the kids within this system fit for the world in 20 years and their responsibilities within it.

These activities were targeted at children between 3 and 6, pedagogues, researchers, administrative representatives, parents, heads of facilities.



Figure 49 – 52: Photos from the Ars Electronica Elementary Education Offensive activities

Credits: <https://www.flickr.com/photos/arselectronica/52342971676/in/album-72177720301856812/>

<https://www.flickr.com/photos/arselectronica/52343402980/in/album-72177720301856812/>

<https://www.flickr.com/photos/arselectronica/52343566955/in/album-72177720301928495/>

We guide you tour for small kids; Kindergarten Rasselbande, Photo: Regina Sonnberger.

Partnerships

02 Formal education-related entity

- **BAFEP RIED Educational Institute for Elementary Education**

Type of relationship/interaction: Panel Speaker

Contact frequency: Intense contact in the months before the Ars Electronica Festival and during the festival.

- **English Play School**

Type of relationship/interaction: Panel Speaker

Contact frequency: Intense contact in the months before the Ars Electronica Festival and during the festival.

01 Industry

- **Dynatrace**

Type of relationship/interaction: Panel Speaker, Sponsor

Contact frequency: Around monthly in 2022; the most intense contact in the months before the Ars Electronica Festival and during the festival.

01 Government

- **Educational Centre Municipality Linz**

Type of relationship/interaction: Panel Speaker

Contact frequency: Intense contact in the months before the Ars Electronica Festival and during the festival.

Activities

01 Elementary Education – Panel Discussion @Ars Electronica Festival 2022

SHORT DESCRIPTION

Panel Discussion with Sandra Kiendler (AT) from Ars Electronica Center, Sok-Kheng Taing (AT) from Dynatrace Austria, Reinhard Wimroither (AT) from BAFEP RIED, Ana B. González Gualda (ES) from the municipality of Linz, Sandra Ivanschütz (AT) from English Play School.

“Is the approach for overcoming the challenges and opening up new territory in elementary education in looking at the problem from different perspectives? The exchange of experiential knowledge offers great potential for necessary change. Representatives from kindergartens, teaching and research discuss ways to rethink elementary education. Can we plant the seeds for a new elementary education?”

The information about this event is available in [Ars Electronica website](#).

The moderation briefing of the panel discussion can be found [here](#).

DURATION

50 min

TIMELINE

Thu Sep 8, 2022, 11:30 am – 12:20 pm

PEOPLE ENGAGED

- Directly engaged:
 - 32 teachers corresponding to 32 interactions (interaction rate: 1)
 - 2 school heads corresponding to 2 interactions (interaction rate: 1)
 - 1 professional from industry corresponding to 1 interactions (interaction rate: 1)
- Indirectly engaged:
 - 600 students



Figure 53 – 56:

Credits: <https://www.flickr.com/photos/arselectronica/52342017307/in/album-72177720301856812/>
<https://www.flickr.com/photos/arselectronica/52342017472/in/album-72177720301856812/>
<https://www.flickr.com/photos/arselectronica/52343275524/in/album-72177720301856812/>
<https://www.flickr.com/photos/arselectronica/52342971691/in/album-72177720301856812/>

03 Kindergartentour – ‘We guide you’ – Tour for small kids @Ars Electronica Festival 2022

SHORT DESCRIPTION

We take the Earth for a ride and decide for ourselves where the journey will take us!

On this interactive tour for kindergarten groups through Kepler’s Garden, we will be inspired by sounding bubbles, mushrooms that can even light up houses, by young engineering art like the “DruZeiplo” – and so much more. On this tour, we are always on the lookout for inspiration on how we want to shape our world, our planet. Because this should be a good place – now and also when we grow up! We take the whole world with

us and lead it along the many paths through Kepler's Garden. We search for ideas in even the most labyrinthine corners of the exhibitions until we have enough together to create our own Earth disk together with the KinderKunstUni and to design a fabric pixel for the communal picnic blanket in the sewing kitchen. Like our planet is a co-creational object, the blanket is designed together, on which we can then sit down and have a well-deserved snack and break.

The concept of the event can be found *here* and the info sheet *here*.

DURATION

1.5 hours

TIMELINE

- 8.9.2022, 9:30-11:00
- 8.9.2022, 14:00-15:30
- 9.9.2022, 09:30-11:00

PEOPLE ENGAGED

- Directly engaged:
 - 34 students corresponding to 34 interactions (interaction rate: 1)
 - 10 educators corresponding to 10 interactions (interaction rate: 1)
- Indirectly engaged:
 - 300 students
 - 34 parents/guardians



Figure 57 – 60:

Credits: <https://www.flickr.com/photos/arselectronica/52343567265/in/album-72177720301928495/>
<https://www.flickr.com/photos/arselectronica/52343383388/in/album-72177720301928495/>
<https://www.flickr.com/photos/arselectronica/52343383508/in/album-72177720301928495/>
<https://www.flickr.com/photos/arselectronica/52343383498/in/album-72177720301928495/>

03 Family Journey @Ars Electronica Festival 2022

SHORT DESCRIPTION

Based on the kindergarten tour, a family tour was developed and carried out that addresses and involves parents and accompanying adults as well as children. The information about this event is available in *Ars Electronica website* and the info sheet can be found *here*.

DURATION

1 hours

TIMELINE

- Wed, 7.9.2022, 15:00
- Fri, 9.9.2022, 15:00
- Sat, 10.9.2022, 10:30
- Sat, 10.9.2022, 15:00
- Sun, 11.9.2022, 10:30
- Sun, 11.9.2022, 15:00

PEOPLE ENGAGED

Directly engaged:

- 83 students corresponding to 83 interactions (interaction rate: 1)
- 43 parents/guardians corresponding to 10 interactions (interaction rate: 1)



Figure 61-64:

Credits: <https://www.flickr.com/photos/arselectronica/52349548246/in/album-72177720301928495/>

<https://www.flickr.com/photos/arselectronica/52349863614/in/album-72177720301928495/>

We guide you tour for small kids; Kindergarten Rasselbande, Photo: Gerlinde Pupp.

I am (not) a Robot Youth Exchange Project

Young people from four different countries were invited to Linz for a cultural and artistic exchange during the Ars Electronica Festival 2022. Within the framework of a workshop, the focus was on joint development and the sharing of opinions and ideas.

Based on their talents, 15 participants (16-21 years) were selected from media art competitions and educational institutions from Hungary, Germany, the Czech Republic and Austria. The encounter of a variety of competences and expertise resulted in an equally multi-layered project, which was developed during the 5 festival days and presented to the festival visitors on the last day.

The workshop, which was for the young people free of charge, was conducted around the events and exhibitions at the festival, therefore the participants could explore the festival programme together and deepen their focus on "I am (not) a robot" within the workshop time. This topic was developed collaboratively, creatively and artistically in an open process. The tangible result was to be a joint creation by the end of the workshop.

While the initial task was to process their collected knowledge into individual zines, the group developed the desire to produce a whole magazine together and publish it at the festival.

- **Participants:**

Talented young people aged 16-21. The talents can be anchored in a wide variety of creative and artistic disciplines.

- **Audience:**

International as well as regional audience of the Ars Electronica Festival



Figure 65 – 67: Photos of the different steps of the project "I am (not) a robot".

Partnerships

02 Non-formal education-related entity

- **Medienkunstfestival Dresden mb21 (DE) Hannes Güntherodt**

Type of relationship/interaction: Shaping the format "Youth Exchange for Media Art" between media art competitions and selection of participants from their pool of submitters

Contact frequency: Evaluation and development meetings in autumn and spring, regular email and fortnite telephone contact during the production phase (August-September). 2 Meetings in the Production Phase and daly meetings and contact 6.-12. Sept 2022, Feedback Round in November

- **c3/Fernezelyi Márton, Luca Menesi (HU)**

Type of relationship/interaction: Shape your world! 19 Freestyle Computing Competition Shaping the format "Youth Exchange for Media Art" between media art competitions and selection of participants from their pool of submitters

Contact frequency: Evaluation and development meetings in autumn and spring, regular email and fortnite telephone contact during the production phase (August-September). 2 Meetings in the Production Phase and daly meetings and contact 6.-12. Sept 2022, Feedback Round in November

01 Formal education-related entity

- **Secondary School of Art and Design Brno – <https://www.ssudbrno.cz/> (CZ)**

Mgr. Martina Petrojová, Ph.D. (Organization), Tomáš Urbánek (Teacher), František Dvořák (Teacher)

Type of relationship/interaction: Support, assistance

Contact frequency: One preparation meeting and 6.-11.September daily contact

01 Art Collective

- **Anna Tudos (HU)**

Type of relationship/interaction: Workshop Lead and Development

Contact frequency:

- July-August 5 development and preparation video call meetings
- August-September constant email contact for production
- 6.-12.09.2022 daily contact
- 30.9.2022 Feedback session

Activities

01 Workshop Session: AI

SHORT DESCRIPTION

When we ask ourselves 'How is a different life possible?', we can only start by thinking about our current environment. How is artificial intelligence influencing our lives, and how can we imagine a future together with this technology? During the workshops programmed by Anna Tudos, participants get introduced to the basics of AI, to each other, and use their ideas to engage in creating an Action Plan for our future with this technology.

The workshop was planned with a minimum of 15 but a maximum of 20 people aged 16-21 and the workshop language was English. September 2022 was set for the preparation of the workshop and it was held in Linz (Austria) from 6 to 12 September 2022.

Interestingly, the student network kept in contact after the workshop and festival period via discord and facebook.

The information about this event is available in the website of *Ars Electronica website* and of *Anna Tudos*.

DURATION

5 days (7 days – including arriving day with welcome dinner and departure day)

TIMELINE

6 – 11.9.2022

The workshop schedule can be found [here](#).

PEOPLE ENGAGED

- Directly engaged:
 - 17 students corresponding to 119 interactions (interaction rate: 7)
 - 3 teachers corresponding to 18 interactions (interaction rate: 6)
 - 1 researcher corresponding to 21 interaction (interaction rate: 21)
 - 3 professionals from informal educated entities corresponding to 3 interactions (interaction rate: 1)
- Indirectly engaged:
 - 1400 students
 - 170 teachers





Figure 68 – 70: AI-Workshop Sessions, UTH Youth Exchange Project 2022. Photos: Dávid Fegyver.

01 Human Robot Times (Maga)zine publication

SHORT DESCRIPTION

The 5-day workshop was reflecting on what it means to be human for the Ars Electronica Festival 2022, which had the main theme: 'Welcome to Planet B. A different life is possible – but how?'.

The resulting zine: "Human/Robot Times" was made 100% by participants and it was published online: https://issuu.com/subidubibrokkoli/docs/human_robot_times

DURATION

6 days

TIMELINE

6 – 12.9.2022

PEOPLE ENGAGED

- Directly engaged:
 - 67 students
 - 50 professionals from civil society
- Indirectly engaged:
 - 1000 professionals from civil society



Figures 71 – 72: Human Robot Times Magazine. By 'I am (not) a Robot Youth Exchange Project' participants. Photos: Marion Friedl.

01 Youth Exchange Booth @Ars Electronica Festival 2022

SHORT DESCRIPTION

The project was presented at the create your world Festival at Ars Electronica 2022 and the resulting Zine "Human/Robot Times" was launched at the Youth Exchange Booth.

The zine launch poster can be found [here](#).

As a funny engagement strategy, the workshop participants had the idea to put a cover over the festival ticket (which all festival visitors were wearing around their neck), working as a disguise mechanism in front of a face recognition system. This was handed out at the Youth Exchange Booth.

On the last festival day, the workshop participants spread out and engaged in conversations with the festival visitors. They talked about what they learned around the topic of AI and questioned the visitors about the role of AI in their lives and, apart from technology, what they value in life. At the booth, they also handed out the "Human Robot Times" zine and the Ticket Cover as conversation starters.

DURATION

1 day

TIMELINE

12.9.2022

01 Open Lab: Digital graffiti on Planet B

SHORT DESCRIPTION

In a collaborative multiplayer session OSHub create your world TOUR host OMAi invited participants to contribute their own ideas on how a Planet B could look like. Young people were asked to share their thoughts and project their imagination on a big canvas for how we could create a better world together!

The open lab utilised Tagtool, an app that transforms a multitouch tablet into a live visual instrument. By connecting a digital projector, artists can paint and animate collaboratively on walls or over entire buildings. Tagtool is used by creatives around the world, has received multiple awards, and was featured by Apple in videos shown at the WWDC keynote in 2014 and 2016.

DURATION

5 days

TIMELINE

7 – 11.9.2022

PEOPLE ENGAGED

Directly engaged:

- 92 students



Figure 77: Digital Graffiti on Planet B. Credit: OMAi.

Dissemination and Communication Activities

ACTIVITY TYPE	# ACTIVITIES	INFORMATION ABOUT ACTIVITIES
Organisation of a Conference	4	<ul style="list-style-type: none"> • Ars Electronica Festival, with several activities, namely: • 3 panel from the Education Day • 1 Elementary Education Panel Discussion <p>Detailed information above and in the document in the footnote³</p>
Flyer / Poster / Brochure	25	<p>From Ars Electronica Festival:</p> <ul style="list-style-type: none"> • 10 posters • 1 Festival Program brochure <p>From Generation workshops:</p> <ul style="list-style-type: none"> • 1 infosheet • 1 poster <p>From OMAi Space workshop:</p> <ul style="list-style-type: none"> • 1 infosheet <p>From Hacking Humans workshop</p> <ul style="list-style-type: none"> • 1 infosheet <p>From AI 360o</p> <ul style="list-style-type: none"> • 1 infosheet <p>From Climate Change in Stop Motion workshop</p> <ul style="list-style-type: none"> • 1 infosheet <p>From Self-Care-Zines workshop:</p> <ul style="list-style-type: none"> • 1 infosheet <p>From Insect Stomp workshop</p> <ul style="list-style-type: none"> • 1 infosheet <p>From Produce your own beat workshop</p> <ul style="list-style-type: none"> • 1 infosheet <p>From Kindergardentour</p> <ul style="list-style-type: none"> • 1 infosheet

Flyer / Poster / Brochure	25	<p>From Family Journey</p> <ul style="list-style-type: none"> • 1 infosheet <p>From Youth Exchange Project</p> <ul style="list-style-type: none"> • 1 Robot Times zine • 1 Poster • 1 Ticket Cover <p>Detailed information above</p>
Training	-	<p>Teacher training sessions</p> <p>Detailed information above and in the document in the footnote⁴</p>
Social Media	-	Not available
Website	23	<ul style="list-style-type: none"> • Webpage about OSHub in AE website⁵ <p>From teacher training sessions</p> <ul style="list-style-type: none"> • 3 web pages at AE website <p>From Showcase at Ars Electronica Festival 2022</p> <ul style="list-style-type: none"> • 1 webpage at AE website <p>From Generation Y workshop</p> <ul style="list-style-type: none"> • 1 webpage at AE website <p>From OMAi Space workshop</p> <ul style="list-style-type: none"> • 1 webpage at AE website <p>From Hacking Humans workshop</p> <ul style="list-style-type: none"> • 1 webpage at AE website • 1 webpage at a partner school website <p>From AI 360o</p> <ul style="list-style-type: none"> • 1 webpage at AE website <p>From Climate Change in Stop Motion workshop</p> <ul style="list-style-type: none"> • 1 webpage at AE website

4 Conference & Events

5 <https://ars.electronica.art/keplersgardens/en/oshub-network/>

Website	23	<p>From Self-Care-Zines workshop:</p> <ul style="list-style-type: none"> • 1 webpage at AE website <p>From Insect Stomp workshop</p> <ul style="list-style-type: none"> • 1 webpage at AE website <p>From Produce your own beat workshop</p> <ul style="list-style-type: none"> • 1 webpage at AE website • 1 webpage at a partner school website <p>From Ars Electronica Education Day 4 website</p> <ul style="list-style-type: none"> • 4 web pages at AE website <p>From Elementary Education Panel Discussion</p> <ul style="list-style-type: none"> • 1 webpage at AE website <p>From Family Journey</p> <ul style="list-style-type: none"> • 1 webpage at AE website <p>From Youth Exchange Project</p> <ul style="list-style-type: none"> • 1 webpage at AE website • 1 webpage from Anna Tudos <p>Detailed information above</p>
Participation to a Conference	2	<ul style="list-style-type: none"> • ECSITE 2021 • ECSITE 2022 <p>Detailed information in the document in the footnote⁶</p>
Participation to an Event other than a Conference or a Workshop	2	<ul style="list-style-type: none"> • OSHub Inspiration Sessions #8 and #10 • Maker Monday at STEAMHOUSE <p>Detailed information in the document in the footnote⁶</p>
Video/Film	4	<ul style="list-style-type: none"> • Generation Y workshop (EN+DE) • "What is Open Schooling?" (made by the consortium)⁷ • "Why would you encourage a peer to take part?", featuring a local partner⁸ • "What do I need to know to get started?", conversation between an "experienced partner" and a newcomer⁸

⁶ Conference & Events

⁷ <https://opensciencehub.net/index.html>

⁸ https://opensciencehub.net/local_OSHub_AT.html

Other	3	<ul style="list-style-type: none"> • Kindergartentour • Family Journey • Youth Exchange Booth
		Detailed information above

Legacy

The core idea of OSHub-AT is to remedy the slowness of the formal educational system in adapting to new developments by bringing the topics, the issues, the discussions, and the views that come up and currently circulate in the Ars Electronica ecosystem and network into the schools – in form of the distinctive Ars-Electronica-way of exemplifying them in an artistic mode. Ars Electronica gained a deeper insight and experience on how to make accessible for the formal education system one part of the Ars Electronica Ecosystem through the create your world TOUR.

The implementation of OSHub-AT strengthened an established network of experts in art, technology and society with pedagogic potential at Ars Electronica. The further development of the model of the create your world TOUR within the OSHub provides a robust framework and set of processes capable of capitalising on this expert network to translate their knowledge into educational formats that can be delivered within schools in the local community and also beyond. The demonstration within the OSHub-AT of how these educational formats support the development of the necessary future skills for creative and critical change has attracted the attention of industry partners such as *MiC* and *dynatrace* who have committed their support in ensuring the create your world TOUR program continues beyond the scope of the OSHub project.

In response to the challenges faced in delivering its program during the pandemic, OSHub-AT adapted a 'lean startup' model that emphasised flexibility and responsiveness to the needs and requirements of the school community. This responsive model for the create your world TOUR also ensures its sustainability as it can adapt its scope according to changes in budget size and changes in the needs and requirements of schools, teachers, young people and the broader community.

The OSHub-AT legacy also continues beyond Ars Electronica, through the teachers, students and experts that participated in it. By experiencing the flashlight-like inspirational inputs from the workshops, teachers and students were exposed to topics and issues they might not have had in sight otherwise. They get a starting point and are empowered to further expose themselves to relevant topics in the field of technology, science and the discourse about its meaning for society. Through the workshops they get access to the information and current state-of-the-art discourse that circulates in the Ars Electronica network in real time. Teachers experienced methods and tools they might not have in their own "tools-box" yet. For example: interactive greenscreen live presentation mode in the online workshop by OMAi (OMAi Space Workshop). For the experts who delivered the workshops they received direct resonance on their approach and their work. They expand the area and the group of people in which they are known. They are paid fairly for their work, (which is not evident in cultural work) so it is a relevant support for them and the development of their careers.