



GDA

Green Digital Accessibility

2nd edition

BOOK OF ABSTRACTS



FOREWORD

This booklet presents the abstracts for the second edition of the GDA (Green Digital Accessibility) conference, a conference focused on bridging the gap in knowledge in accessibility and environmental sustainability, drawing together experts in the fields of media, accessibility, technology, environmental studies and education.

Our keynote on the first day of this conference is given by Daniel Casas from the European Disability Forum, who will discuss the perspectives of persons with disabilities in the context of climate change. Following the first keynote, we will have three panels, the first of which will explore sustainability and accessibility in practice. The second panel will delve into the ClearClim project, which aims to make information about the climate accessible to a diverse range of audiences. The third panel focuses on research generated from the GreenSCENT project, a three-year EU funded project that seeks to educate and instruct students, teachers and young people about the European Green Deal through the development of accessible platforms, apps, learning materials and the development of a green certification. Speakers in this panel will discuss topics such as the design of an air quality app, youth engagement, and the development of a European environmental curriculum focused on the ten areas of the European Green Deal. This year, we have introduced workshops with experts in the fields of digital accessibility and sustainability. The first of these workshops focuses on green digital policy, examining what lessons we can draw from digital accessibility policy.

Our second day of the conference will open with a keynote from Carlota Guerrero from Catalonia Film Commission, who will discuss the drive for sustainability in the audiovisual sectors in Catalonia, presenting Plan C: Culture for the Climate and Green Film. This is followed by our third panel on sustainable and accessible digital solutions. The second of our workshops follows which will focus on the integration of accessibility and universal design (with sustainability) in university curricula. Our third and final workshop concentrates on uncovering cultural heritage through methods that are both accessible and sustainable, bridging the gap between the past and the future.

We hope that this year's GDA conference will provide you with valuable insights and spark discussions that propel the conversations on environmental sustainability and accessibility to new heights.

The Organising Committee
Transmedia Catalonia Research Group, UAB.
30 November - 1 December 2023
#GreenDigitalAccessibility

THE PROGRAMME AT A GLANCE

DAY 1 – Thursday, 30 November 2023

8.30–9.00 CET	Registration (Test connection)
9.00–9.30	Welcome address by Sarah Anne McDonagh (UAB)
9.30–10.10	<p style="text-align: center;">FIRST KEYNOTE LECTURE</p> <p style="text-align: center;">Daniel Casas (European Disability Forum)*</p> <p style="text-align: center;"><i>Climate change: the perspective of persons with disabilities</i></p> <p style="text-align: center;">Chair: Anna Matamala (UAB)</p> <p style="text-align: center;">Discussion: 15 minutes</p>
10.10–10.40	Coffee Break
10.40–11.55	<p style="text-align: center;">Panel 1: Sustainability and Accessibility in Practice</p> <p style="text-align: center;">Marta Brescia-Zapata & Maria Eugenia Larreina (UAB) <i>Beyond the stage: Sustainability and Accessibility in Live Music Events</i> (15 mins.)</p> <p style="text-align: center;">Ebru Kanik (UAB) <i>Four years into primary legislation in Turkey: How sustainable is quality and good practice in accessibility?</i> (15 mins.)</p> <p style="text-align: center;">Zeynep Sengel (Bilkent) <i>How meaningful is “can anybody hear me” during a disaster?</i> (15 mins.)</p> <p style="text-align: center;">Yuan Zou (University of Surrey) <i>Bridging Sustainability and Accessibility: A Study on the Audiovisual Translation of “China’s Perspectives on Climate Change” MOOC</i> (15 mins.)</p> <p style="text-align: center;">Chair: Sarah Anne McDonagh (UAB)</p> <p style="text-align: center;">Discussion: 15 minutes</p>

11.55–13.10	<p style="text-align: center;">Panel 2: ClearClim Project</p> <p style="text-align: center;">Pilar Orero (UAB) <i>Subtitles as a metric for green audiovisual media content</i> (15 mins.)</p> <p style="text-align: center;">Krzysztof Krejtz (SWPS) <i>Visual Attention Role in Climate Problem Solving and Communication</i> (15 mins.)</p> <p style="text-align: center;">Spyros Paparrizos (Wageningen University)* <i>Mobile crowd participation in remote areas: the DROP app</i> (15 mins.)</p> <p style="text-align: center;">Robert Wilby (Loughborough University)* <i>Tailoring climate information and services for diverse users</i> (15 mins.)</p> <p style="text-align: center;">Chair: Biljana Basarin (Novisad)</p> <p style="text-align: center;">Discussion: 15 minutes</p>
13.10–14.30	Lunch Break
14.30–15.30	<p style="text-align: center;">Panel 3: GreenSCENT Panel</p> <p style="text-align: center;">Diana Urquiza (BSC) <i>Experience Design for an Air Quality E-learning Application</i> (15 mins.)</p> <p style="text-align: center;">Ditte Burmeister (DBT) & Marta Queralt, Marc Manteca, Georgina Wallis Rowley (YDA) <i>Giving a voice to European youth on environmental education</i> (15 mins.)</p> <p style="text-align: center;">Loukas Katikas (EA) <i>Inclusive pedagogies on Learning for Sustainability (Lfs) Education - The GreenSCENT approach</i> (15 mins.)</p> <p style="text-align: center;">Chair: Alessandro Caforio (Uninettuno)</p> <p style="text-align: center;">Discussion: 15 minutes</p>
15.30–16.30	<p style="text-align: center;">Workshop 1: <i>What Green Digital Policy can learn from Digital Accessibility Policy?</i></p> <p style="text-align: center;">Led by: Mike Gifford (CivicActions)</p>
16.30–16.45	Close of Day One
21.00	Conference Dinner: Antic Forn

DAY 2 – Friday, 1 December 2023

9.00–9.30	Welcome Coffee
9.30–10.30	SECOND KEYNOTE LECTURE Carlota Guerrero (Catalan Government) <i>Plan C* Culture for the Climate. An Environmental Plan for Cultural and Creative Companies</i> Chair: Pilar Orero (UAB) Discussion: 15 minutes
10.30–11.45	Panel 4: Sustainable and Accessible Digital Solutions Laurent Devernay Satyagraha (Greenspector)* <i>No web sustainability without accessibility (and vice versa!)</i> (15 mins.) Alessandro Pollini, Gian Andrea Giacobone, Alessandro Caforio & Arianna Terenzi (Uninettuno)* <i>The Sustainability Education Explore Design Concept Validation: A Case Analysis of the Know-Cure Method for Digital Sustainability</i> (15 mins.) James Rwampigi Aniyamuzaala & Lizbeth Goodman (UCD)* <i>Review of Rights-Based and Green Assistive Technology Outcome Models for Sustainable Assistive Products and Services (15 mins.)</i> Priyanca D’Souza (UK public sector) <i>Intersectionality and lived experience in inclusive design; taking a more holistic approach to accessibility and sustainability (15 mins.)</i> Chair: Estel·la Oncins (UAB) Discussion: 15 minutes
11.45–12.15	Coffee Break
12.15–13.15	Workshop 2: <i>Integrating accessibility and universal design (with sustainability) in university curricula</i> Led by: Irene Hermosa (UAB)
13.15–14.15	Lunch Break

14.15–15.15	<p style="text-align: center;">Workshop 3:</p> <p style="text-align: center;"><i>Discovering cultural heritage in accessible and sustainable ways: where the past meets the future</i></p> <p style="text-align: center;">Led by: Estel·la Oncins (UAB)</p>
15.15–15.30	<p style="text-align: center;">Concluding Remarks by Pilar Orero (UAB)</p>

Conference venue

The conference will take place at Barcelona's Residència d'Investigadors, close to La Rambla.

Address: c/ Hospital, 64, 08001 (Barcelona)

Conference dinner

It will be held on the 30th of November in [Antic Forn](#)

Address: c/ Pintor Fortuny, 28, 08001 (Barcelona)

Lunch

Sandwiches will be provided to conference participants.



**SPEAKERS &
ABSTRACTS**

FIRST KEYNOTE LECTURE

*Climate change: The perspective of persons with disabilities**

Daniel Casas

European Disability Forum

This presentation will explore the perspective of persons with disabilities in the context of the current environmental crisis.

***Please note that this presentation will take place online.**

Daniel Casas is Accessibility Policy Officer at the European Disability Forum (EDF), an umbrella organization of persons with disabilities that defends the interests of over 100 million persons with disabilities in the EU. At EDF he works on accessibility and freedom of movement of people with disabilities, covering areas and policies such as transport, the built environment, accessibility of goods and services, ICT and new technologies. Before that, he worked for three years as Policy Officer at the Delegation of the Government of Catalonia to the EU. Daniel holds a bachelor's degree in Philosophy, Politics and Economics (Spain) and a master's degree in European integration (Belgium).

PANEL 1

Beyond the stage: Sustainability and Accessibility in Live Music Events

Marta Brescia-Zapata & Maria Eugenia Larreina-Morales

Universitat Autònoma de Barcelona

Ensuring the right to participate in cultural life means that every person, regardless of their needs, should be able to access musical events, from digital materials to the venue and performances themselves. However, the pursuit of accessibility should not stop at inclusivity. In the context of music festivals, it is crucial to address sustainability alongside accessibility to create truly inclusive and environmentally conscious live events.

This presentation will provide an overview of the current state of accessibility and sustainability in music festivals worldwide. We will explore the existing landscape, highlighting both the progress made and the challenges that still remain. By analyzing best practices and case studies, we will identify key areas for improvement for organizers, stakeholders, and participants. Regarding accessibility, we will focus on the implementation of existing services such as captioning, sign language interpreting, and audio description. As for sustainability, we will discuss successful eco-friendly initiatives, including waste reduction strategies, the integration of renewable energy sources, and responsible resource management practices. By exploring these opportunities, we will provide a roadmap for creating live music events that promote the rights of people with disabilities while respecting the natural environment.

Marta Brescia-Zapata and **M.^a Eugenia Larreina-Morales** are predoctoral researchers at Universitat Autònoma de Barcelona are part of TransMedia Catalonia, a research group funded by the Catalan Government (2021SGR00077). They are experts in access services, particularly for immersive and interactive media. During the last few years, they have shared the results of their research in academic journals, international conferences and dissemination events.

*Four years into primary legislation in Turkey:
How sustainable is quality and good practice in accessibility?*

Ebru Kanik

Universitat Autònoma de Barcelona

The aim of this presentation is to draw a timeline of progress and regress in the Turkish media accessibility landscape. Starting from the initial legislation in 2019 and considering the journey of accessibility to the latest RTUK (Radio Television Supreme Council) Workshop held with all relevant actors in 2023, the presentation provides an overview of how issues have been both supported and hindered due to differing viewpoints as regards fundamental concepts such as accessibility for all, sustainability, quality, and digitalization.

Based on the Final Declaration of the initial workshop held by RTUK in 2019, the Directive on Improving the Access of D/deaf, Hard of Hearing and Visually Impaired to Media Services stipulated that broadcasters would improve access to media services through SDH, AD and SLI for the above-mentioned disabled and increase the time dedicated to such accessibility services. The broadcasters were also expected to introduce live subtitling through respeaking once the technical, training, and human resources capabilities are developed.

Four years after this initiative, stakeholders came together to discuss goals achieved and further initiatives in a workshop held by RTUK on May 3, 2023. From an academic, accessibility, quality, good practice perspective, the results and discussions of the workshop published clearly indicated that:

- 1) digitalization and use of technology, in the short run may work to the detriment of quality and even provision of services. These have to be augmented with a change in workflows and professional proficiencies.
- 2) the politics of accessibility require revision as actors are 'fulfilling' duties but without criteria to ensure accessibility- there is quality on paper.
- 3) national views and global documents may not coincide and as a result each country interprets details of accessibility legislation (even that which is harmonized) in line with enacted internal legislation.
- 4) the economic factors are always a priority and currently issues such as sustainability and green practices are underlined in a way as to promote economization.
- 5) the training sector must contribute to more than research as currently AVT education is only as widespread as it was 4 years ago. Training of trainers must become a priority.

6) cooperation of actors within the government and coordination of national activities cannot be achieved by legislative initiatives, a sustainable and progressive accessibility system is yet to be established.

Touching on issues such as politics, economy, stakeholder cooperation, national 'interpretation' of international legislation and practices, the presentation hopes to highlight that awareness about issues such as sustainability, accessibility and digitalization does not directly correlate with good practice implementation.

Ebru Kanik is a PhD researcher at Universidad Autonoma de Barcelona. Her research interests are in live subtitling through respeaking. She received her MA from Hacettepe University, Ankara. She is a lecturer in Bilkent University in the Masters in Conference Interpreting. Furthermore, she has worked as a freelance interpreter working for international organizations and bodies such as Council of Europe including the European Court of Human Rights and the Council of Europe Committee for the Prevention of Torture (CPT), Monitoring Committee and the Commissioner for Human Rights; the European Parliament and the European Commission; EU Delegation to Turkey; United Nations and its Agencies such as UNDP, UNFPA, FAO, WHO, UNHCR, UNICEF and ILO; intergovernmental organizations such as IOM; the World Bank, IFC, EBRD and OECD; several national and international NGOs including ICRC, IFRC; Eurochambres; the Office of the President of Turkey, Ministries, the Turkish Grand National Assembly; Union of Chambers and Commodity Exchanges of Turkey; EU Delegation to Turkey based in Ankara; several Embassies based in Ankara and private sector actors (national and international). She has extensive experience in meetings covering areas such as law (i.e. human rights law, refugee law, patent law, alternative dispute resolution, arbitration, criminal and civil law), political and economic issues, finance, accounting, medicine, pharmaceuticals and other areas such as engineering, environment, agriculture and IT. She has also published extensively on the translation of the American short story and on new approaches to translation and on the topic of accessibility and communication.

How meaningful is “can anybody hear me” during a disaster?

Zeynep Sengal
Bilkent University

Natural disasters pose significant challenges for all individuals but those with disabilities, including the deaf and hard-of-hearing (HoH) community are especially at a communicative disadvantage in such crises. This issue was once again raised by stakeholders in the recent workshop on media accessibility and underlined as an issue of priority by the media regulatory body in Turkey.

This abstract presents ongoing research focusing on the accessibility of crisis response efforts for deaf and HoH individuals in Turkey, particularly during the February earthquake in the southeastern part of Turkey. By conducting interviews with key stakeholders, namely the chairperson of the Association of Turkish Sign Language Interpreters and the Turkish National Federation of the Deaf, the study aims to gain firsthand insights into the experiences and difficulties encountered by the deaf and HoH community in terms of accessibility during a natural disaster.

The objective is to identify communication barriers and challenges vis-a-vis information dissemination which hinder effective crisis response and preparedness for this population. At the heart of such issues lies the sustainability of information flow, accessible media practices and widespread use of digital technology.

The presentation touches on issues such as technologies used to identify people under rubble; training of search and rescue personnel; sign language interpreters and emergency medical staff. Also included are media projects such as emergency call centres and sustainable network formation with the relevant actors such as AFAD, Turkish Red Crescent, volunteer organisations and interpreters including individual humanitarian efforts and discordant aid initiatives. The presentation hopes to highlight the reality of the Deaf and HoH community while providing possible solutions based on the experiences of interviewed actors. These may have wider implications for the global community in enacting inclusive emergency legislation in view of Deaf and HoH community needs.

Zeynep Sengel (PhD candidate) is a researcher and lecturer at Bilkent University, Department of Translation and Interpreting. She is also a trainer of the Masters in Conference Interpreting Programme (EU Centre of Excellence) at the same university. Ms Sengel is continuing her doctoral research at Hacettepe University, Department of Translation and Interpreting, Ankara and continues her work on her thesis entitled Accessibility in Translation for Refugees and Migrants: a Plain Language Approach. As a researcher, she works on issues such as plain language, easy-to-read, and social inclusion, and has published on remote simultaneous interpreting and ergonomics. She continues to work at the intersection of T&I training and accessibility. An active conference interpreter, and technical translator, Ms Sengel resides in Ankara, Turkey.

*Bridging Sustainability and Accessibility: A Study on the Audiovisual Translation of
"China's Perspective on Climate Change" MOOC*

Yuan Zou
University of Surrey

In the current era of global digitalization, Massive Open Online Courses (MOOCs) have emerged as a key player in democratizing education and promoting lifelong learning. However, a significant gap remains in making these platforms truly accessible to all, particularly in the context of climate change education. This paper scrutinizes this gap, using the MOOC "China's Perspective on Climate Change" as a case study. It explores the unique challenges posed by audiovisual translation (AVT) in conveying climate change content to a diverse, global audience, reflecting on the socio-cultural dynamics that arise in this digital learning environment. The study calls on educators, course developers, and policymakers to adopt a translational mindset, leveraging universal design principles to align MOOCs more closely with social justice and equality goals, thereby enhancing their role in sustainable education. Through this in-depth analysis, it proposes strategies to improve MOOC accessibility, fostering an inclusive and sustainable digital learning landscape that truly embodies the spirit of "open to all".

Keywords: Massive Open Online Courses (MOOCs), Audiovisual Translation (AVT), Climate Change Education, Digital Accessibility
Biography

Dr. Yuan Zou is a Research Fellow at the University of Surrey, working on translation technologies. She completed her Ph.D. at Queen's University Belfast, focusing on audiovisual translation (AVT). Her academic journey has been dedicated to understanding and improving the intersection of translation and technology, making digital content more accessible to diverse audiences. Currently, her research at the University of Surrey explores innovative ways to use these technologies to enhance the inclusivity and accessibility of digital platforms for all.

PANEL 2

Subtitles as a metric for green audiovisual media content

Pilar Orero

Universitat Autònoma de Barcelona

Understanding, measuring, and effectively reporting the degree to which the topic of sustainability is featured in broadcast media is challenging. While some analyses and methodologies exist, these can be difficult to implement and time-consuming. Currently, there are no automatic tools to measure large language-based broadcast corpus data. Some companies have developed their own private methodology. Seeking to remedy this critical oversight, the goal of this presentation is to propose the use of subtitles as a tool and explain the singularity of subtitles as a text type. At present, subtitles are already used to mine information, which is the second part of this presentation. As a text type, subtitles features need to be taken into consideration.

The presentation will show how subtitles can be used as a metric to measure the frequency, topic coverage, and accessibility of sustainability-related content in television. By drawing on subtitling data, we can measure the degree to which sustainability is discussed and presented in the wider broadcast mediascape. These data are expected to be instrumental in drafting reports, guidelines, and recommendations on sustainability for broadcasting in the region with the possibility of influencing national and international policy. By using subtitles as measurable raw data to develop metrics to gauge the quantity of sustainability-related content in broadcast television, we can better understand how climate change is currently covered. Armed with this knowledge, we can develop strategies and benchmarks to promote sustainability as a concept and contribute towards Net Zero targets.

Pilar Orero is a professor at Universitat Autònoma de Barcelona (Spain), where she leads the TransMedia Catalonia Lab. Author of many books, academic papers and book chapters focused on Media Accessibility, Pilar has also led and participated in many EU funded research projects such as the ImAc project, which results are further developed in TRACTION, MEDIAVERSE, MILE, and has started to work on green accessibility in GREENSCENT. She works in standardisation and participates in the UN ITU IRG-AVA - Intersector Rapporteur Group Audiovisual Media Accessibility, ISO and ANEC. She also leads the EU network LEADME on Media Accessibility.

Visual Attention Role in Climate Problem Solving and Communication

Krzysztof Krejtz

SWPS University of Social Sciences and Humanities

This presentation delves into the pivotal role of attentional mechanisms concerning the effectiveness of addressing climate-related challenges in both communication and problem-solving. It emphasises the growing significance of well-informed decision-making in managing natural resources and underscores the essential use of natural-resource models and simulations to assist knowledge workers in making informed decisions, ultimately contributing to good governance.

The initial segment of the talk introduces findings from an eye-tracking study that explores the attention denial mechanism. This mechanism stands as a crucial factor contributing to the neglect of signals and communication related to climate change issues. The second segment of the presentation delves into unravelling the attentional mechanisms crucial for effective communication, a critical need in today's society. As people increasingly tackle complex tasks through remote connections, understanding these mechanisms becomes imperative.

Krzysztof Krejtz is a cognitive psychologist and Human-Computer Interaction (HCI) researcher based at SWPS University in Warsaw, Poland. He serves as the head of the Eye Tracking Research Center, overseeing pioneering research initiatives. Dr. Krejtz's research encompasses several key areas, including Human-Computer Interaction, multimedia learning, and digital media accessibility. He is also contributing to the development of eye-tracking methodology and statistical analysis in the field.

With a substantial body of work that has garnered nearly 2000 citations and H-index of 23 he has been an invited speaker at several institutions such as the Max-Planck Institute in Germany, Bergen University in Norway, Lincoln University Nebraska in the USA, and Ulm University in Germany.

Furthermore, Dr. Krejtz actively participates in the advancement of his field by serving as a member of the Steering Committee for the ACM Symposium on Eye Tracking Research and Application (ACM ETRA). Also, since 2022, he has held the position of Full Paper Co-Chair at the ETRA conference.

Currently, Dr. Krejtz chairs the LEAD-ME COST Action (CA 19142), a significant initiative focused on digital media accessibility.

*Mobile crowd participation in remote areas: the DROP app**

Spyros Paparrizos
Wageningen University

Information and active participation play pivotal roles in implementing interventions within local contexts, and the utilization of smartphone applications can greatly facilitate this process. In numerous remote regions across the globe, the usage of smartphones and internet accessibility has been steadily increasing. Smartphone applications offer versatile functionalities such as monitoring, payment processing, service provision, information dissemination, and knowledge sharing, fostering valuable dialogues.

Simultaneously, rainfed agriculture constitutes the backbone of the economy in many regions of the Global South. Historically, smallholder farmers used their local knowledge to forecast the weather. However, with the increase in climatic variability, they can no longer solely rely on their experience to accurately forecast the weather. The DROP app is a hydro-climate information service developed through a co-production approach to address the weather and climate information needs of farmers. The app gathers weather forecast from both local farmers and scientific sources, and presents this information to users to enable them to make informed decisions regarding agriculture. The app provides location and time-specific weather information, which is tailor-made to their agricultural decisions. It helps to improve crop production and simultaneously increase adaptive capacity of the farmers.

***Please note that this presentation will take place online.**

Dr Spyros Paparrizos is a hydro-climatologist working in the field of Water & Climate Information Services (WCIS) for society and co-developing research-based, tailor-made information services with and for end-users. The main focus of his research is to discover How can the potential of hydroclimatic information and knowledge sharing platforms be harnessed and combined with local knowledge from societal actors in order to deliver actionable knowledge to support adaptive decision-making. Thus, he is working towards combining data-driven and user-driven approaches for tailored water and climate information services by:

- further understanding of the integration of local knowledge in the provision of hydroclimatic information;
- understanding the role of co-production and co-creation within the design and delivery of the WCIS as well as the role of capacity building within those processes;
- develop data-based information services;
- understanding the mechanisms that provide actionable knowledge to support adaptive decision-making.

*Tailoring climate information and services for diverse users**

Robert Wilby

Loughborough University

Summer 2023 highlighted the significant vulnerability of Europe to heatwaves, wildfires, droughts and floods linked to climate change. Improving access plus smarter application of climate information and services (CIS) are essential steps towards building greater societal resilience and adaptation to these climate-related hazards. However, because the range of target audiences and potential applications of CIS are very diverse, 'one size' does not fit all.

This talk uses the analogy of customer-tailor relations to explain how a user-led approach can deliver more effective CIS. (This emphasis on CIS user-provider interactions contrasts with the conventional focus on climate data and products). Three overlapping types of CIS transaction are described: 'off-the-peg', 'outsourced' and 'bespoke'. Sets of prompts are suggested to help each 'customer' type engage more meaningfully with CIS providers. These questions can also be used to shape training, product development, and service delivery in CIS. ClearClimate will create fresh opportunities for asking and listening, and thereby development of more user-orientated approaches to CIS delivery to diverse audiences in Europe.

***Please note that this presentation will take place online.**

Rob Wilby is a Professor of Hydroclimatic Modelling in the Department of Geography and Environment at Loughborough University, UK. His research focuses on forecasting and managing climate risks to freshwater systems and urban environments. He co-developed the Statistical DownScaling Model – a public domain climate scenario tool for assessing local water resources, flood and storm surge risks, poor air quality, and urban heat. He works with Multilateral Development Banks and national agencies seeking to improve the resilience of built environments, water and energy infrastructure to climate change. His book *Climate Change in Practice* demonstrates the possibilities for applying CIS to the many climate-related challenges ahead.

PANEL 3

Experience Design for an Air Quality E-learning Application

Diana Urquiza

Barcelona Supercomputing Center

The GreenAir application has been developed by the team in Barcelona Supercomputing Center from the concept design to the implementation stage that it's being currently developed with a Human Centered Design approach (HCD), which serves as the foundation for framing the problem space and guiding the design process. The intention is to not only teach students how to explore Air Quality concepts effectively but also to cultivate the necessary skills and awareness for a more environmentally conscious world.

The active participation of students in the design process results in a more significant and useful learning product that really connects with the intended audience. While the application was originally envisioned to only include augmented reality features, the interactions with students provided insights into the real needs and challenges of the different contexts revolving around air quality, thus changing and shaping a new vision for the app.

This new vision involves a digital product that encompasses the students, teachers, parents and researchers' inputs, ideas and feedback, integrated into all parts of the design process. To enhance student involvement, we integrated gamification elements, making the learning process more interactive and enjoyable. Augmented reality technology is incorporated into some lessons to enable students to interact with air quality maps directly, fostering a more engaging learning experience. In terms of the app's visual design, the emphasis was directed towards crafting a user interface that is not only approachable and friendly but also highly functional and accessible. We'll share the first impressions of some students and the next steps for the pilot activities scheduled for 2024.

Diana Urquiza is the Lead Product Designer of the Earth Sciences Department in the Barcelona Supercomputing Center. Her work focuses on the design of products and services within the three research lines of the Earth System Services Group: climate, air quality, and the winding intersection between climate and health. She firmly believes in the importance of a Human-Centred Design approach that empowers and democratizes design and usability, seeking to create experiences that help us live in a safer and equitable world.

Giving a voice to European youth on environmental education

Ditte Burmeister

Danish Board of Technology

&

Marta Queralt, Marc Manteca, Georgina Wallis Rowley

Youth Design Assemblies

In today's world, where environmental education is of utmost importance, engaging European youth in future environmental education is crucial. The objective of the Youth Assemblies is to provide a platform for young Europeans to voice their opinions on this critical matter. These assemblies have been meeting online every two months since October 2022 and have recently convened in person. However, sustaining youth engagement in online meetings over a 1.5-year period poses a distinct challenge.

This session explores methods to maintain continuous engagement, focusing on the key aspects of creating interactive and stimulating online youth assemblies while ensuring accessibility and inclusivity for all participants.

The Danish Board of Technology (DBT) will share insights on crafting accessible and inclusive online environments, outlining challenges faced in the process. Additionally, drawing from practical experiences, three members of the Youth Assemblies (YA's) will participate, offering valuable perspectives and practical solutions derived from their engagement.

We invite you to join this enlightening session, where we collectively explore strategies to amplify the voices of European youth in the realm of environmental education. Together, we will uncover sustainable approaches, exchange ideas, and pave the way for a more inclusive and empowered future generation.

Ditte Maria Burmeister is Senior Project Manager at the Danish Board of Technology, a Danish foundation with a strong focus on citizen engagement initiatives in decision-making processes. She holds a Master's degree in Public Administration and a Post-Graduate Diploma of Higher Education from University of Southern Denmark. She has a strong focus on adult education and ToT. She has previously worked as senior advisor for the Danish Ministry of Foreign Affairs in the field of capacity building public administrations.

Marta Queralt is a student involved in the Youth Design Assemblies.

Marc Manteca is a 19-year-old student studying a bachelors degree in Physics.

Georgina Wallis Rowley is a UAB student involved in the Youth Design Assemblies.

*Inclusive pedagogies on Learning for Sustainability (LfS) Education -
The GreenSCENT approach*

Loukas Katikas
Ellinogermaniki Agogi

To elevate the quality of education programs for Learning for Sustainability (LfS), it is imperative to undertake a thorough synthesis of the key research domains, with particular emphasis on i) behavioral research, ii) sustainability competencies, and iii) educational pedagogies. The overarching objective is to elucidate the interdisciplinary nature of LfS seeking to inspire sustainable actions by altering behaviors, and to accomplish this, it is essential to cultivate sustainability competencies among learners. For developing such competencies, the utilization of specific teaching methodologies becomes vital, with a particular emphasis on transformative actions within the framework of systems thinking, forward-looking perspectives, and collaborative decision-making and problem-solving. Shifting from 'package-based' approaches, with teachers delivering information to students, the output or competence-oriented education is focused on learners acquiring the concepts and abilities for social action and pro-environmental behavior. Such change involves an understanding and action competences around the interdependence of all four pillars of sustainability: environmental, political, economic, and social/cultural. With this aim, the GreenSCENT project utilizes a comprehensive strategy in the pursuit of LfS education. By utilizing the GreenSCENT Competence Framework and a variety of demonstrators, the primary goal is to enhance and assess the development of sustainability competences through transformative and emancipatory pedagogies. These demonstrative methods will not only promote environmental awareness, but also foster inclusivity by ensuring that learners from diverse backgrounds can actively participate and contribute to the journey towards a more sustainable future. Consequently, the project embodies the essence of forward-thinking education and experimentation by using inclusive and accessible project-based and co-creation approaches in order to foster a more conscious society and transformation towards sustainability.

Loukas Katikas graduated from the Environmental Department of the University of Aegean. In 2012 he got his MSc in GIS and Natural Disasters Management from the Geography Department of the University of Aegean. From 2015, he continued his studies at the National and Technical University of Athens and he holds a Ph.D. in Geostatistics. As a researcher, he participated in several EU projects related to Geospatial Technologies, Environmental Protection, Disaster Risk Management and Environmental and Sustainability Education. From 2016 he is a proud member of the 100 Mentors community for mentoring in schools worldwide. He has been working in the R&D department of EA since April 2021.

WORKSHOP 1

What Green Digital Policy can Learn from Digital Accessibility Policy?

Mike Gifford
CivicActions

Green Digital Policy can draw valuable lessons from Digital Accessibility Policy. The approach and principles deployed by the World Wide Web Consortium (W3C) over the past 25 years have a lot of lessons. One key takeaway is the importance of building policies that can adapt and evolve alongside the technology. The W3C's WAI produced 1.0, then transitioned to 2.0, we've since seen the deployment of 2.1 & soon 2.2. WCAG 3.0 is proving more difficult, there are efforts to rethink the approach. A similar incremental approach should be applied to digital sustainability. Policymakers can ensure that their work remains relevant by following the latest W3C recommendations.

Another crucial lesson is the emphasis on progress rather than striving for perfection. Recognizing that achieving full compliance may be a long-term goal, it is important to have a proof of progress. This means tracking and measuring the advancements made towards digital sustainability goals. We cannot expect an immediate and flawless implementation. By promoting continuous improvement, policy initiatives can drive real change. Organizations need to believe that it is worth adopting more sustainable practices.

A comprehensive approach is necessary in order to evaluate compliance. This includes both machine-level evaluation and manual testing. We can leverage automated tools for many sustainability metrics, but human evaluations are also needed. Humans can understand the purpose of the content and how to simplify the user journey. The integration of these two evaluation methods ensures a more holistic and accurate assessment.

Regular testing and validation are essential components of successful policy implementation. Accessibility guidelines require ongoing testing to ensure compliance and so should digital sustainability. By regularly validating best practices, policymakers can ensure that their guidelines remain effective.

Furthermore, fostering an open and collaborative environment is crucial for perpetuating best practices. Sharing code and documentation with open licenses allows for greater participation. This facilitates the dissemination of successful strategies and solutions.

To ensure effective implementation, guidelines should be written for specific roles. People need to know what they are responsible for and how this affects the definition of quality work. By providing clear and concise instructions for implementation, policies adopted. Integration into an organizational workflow is important for adoption.

Finally, it is important to prioritize inclusivity from the beginning. By ensuring diverse representation and perspectives in the development of green digital policies. Policymakers need to create equitable guidelines that address the needs of all stakeholders. Additionally, criteria need to be designed to withstand legal scrutiny. Enforceability is key to the legitimacy of these digital policies.

By incorporating these reflections on WCAG, governments can develop more robust policies. The time for action on digital sustainability is now. We cannot waste time implementing digital sustainable practices that won't get implemented.

Mike Gifford is a Senior Strategist at CivicActions and a thought leader on digital accessibility in the public sector. He is also a [W3C Invited Expert](#) and recognized authoring tool accessibility expert.

Previously, he was the Founder and President of OpenConcept Consulting Inc., a web development agency specializing in building open source solutions for the open web. OpenConcept was an impact driven company and Certified B Corporation. Like CivicActions, OpenConcept worked extensively with the Drupal CMS. Mike was also part of the Government of Canada's Open Source Advisory Board.

Mike has spearheaded accessibility improvements in Drupal since 2008, and has served as a Drupal Core Accessibility Maintainer in 2012.

As a long-term environmentalist, Mike has found ways to integrate his passions for the web and the planet. His most significant contributions have been in the development of the [Sustainable Web Manifesto](#) and adding an open source perspective to Tim Frick's book [Designing for Sustainability](#).

SECOND KEYNOTE LECTURE

Plan C Culture for the Climate.*

An Environmental Sustainability Plan for Cultural and Creative Companies

Carlota Guerrero

Catalan Government

The Catalan Institute for Cultural Companies (ICEC) has its own sustainability plan, which aims to become a reference both in Catalonia and Spain. The Plan also aims to encourage and promote that other organizations and companies in the creative and cultural sectors stand up for the planet themselves and draw up their own roadmap to improve their activity at an environmental level, and therefore have a more positive impact on society.

In a context of environmental, social and economic emergency, we need alternative visions, new approaches, paradigm changes. This is where the ICEC's Environmental Sustainability Plan fits in, as a C* Plan. Plan that calls for more action, measures results and enlists the support of an industry bursting with creativity and transformative potential.

Precisely because 'There is no Planet B', and because we have no clear-cut Plan B either, culture proposes its own positive Plan C*: a C for Climate, Culture, Change and Citizenship. This is about 'We are Plan_C* Culture for the Climate', an opportunity to take stock of everything that has been accomplished so far, to understand the global and local regulatory framework, and provide tools and resources to make a more sustainable cultural industry possible.

The Plan C* defines three strategic areas structured in 16 lines of action and 37 specific actions to be developed in the 2022-2024 period.

Carlota Guerrero is the Head of the [Catalonia Film Commission](#) (CFC), a service of the Catalan Institute of Cultural Enterprises dedicated to promoting and facilitating film productions across the region. Since its establishment in 2007, the CFC has been a valuable resource for supporting filming projects in Catalonia, providing comprehensive assistance in areas such as location access, permit management, and guidance on COVID protocols and sustainability standards. With a background in English Philology and Journalism, Carlota Guerrero previously worked in audiovisual production and management before assuming the leadership role at CFC.

PANEL 4

*No web sustainability without accessibility (and vice versa!)**

Laurent Devernay Satyagraha
Greenspector

Through many audits, it appeared to me that most unsustainable websites are not accessible either. I saw the appearance of repositories of sustainable websites with a lot of hope. However, it then occurred to me that some of these websites are not as accessible as they should be. And sometimes not even as sustainable as they are supposed to be. Through some examples, let's investigate how sustainability and accessibility intersect and why one should not be considered without the other.

1. Is this website REALLY sustainable? The issue with current free tools used to measure and estimate environmental impacts: metrics and methodology + how focusing on carbon can lead to bad decisions.
2. What makes some websites not as sustainable as you may think? Most of the time, the exact same things that cause accessibility issues (autoplay animations and videos, 3rd-party services, etc). Some examples: carousel, interactive map, social feeds, etc.
3. Where to go from there? Repositories of best practices, continuous integration, everyone from the team for the whole duration of the project (code is not enough). Efficiency (makes your website faster) + sobriety (makes your website lighter... and easier to keep accessible).
4. Going further: can accessibility standards help sustainability (and vice versa)? Checking WCAG for sustainability best practices, discovering WSG ([Web Sustainability Guidelines](#), WIP from the W3C), [Handbook of Sustainable Design for Digital Services](#). Some quick examples from some of them, and going further with quality assessment for the web.

Conclusion: no sustainability without accessibility! But you should also keep in mind other factors like privacy, inclusion, ethics, security and so on

***Please note that this presentation will take place online.**

Laurent Devernay Satyagraha contributes to the GreenIT collective and INR (Institut du Numérique Responsable). He contributed to the creation of a reference framework for the responsible design of digital services, the [GR491](#). It is in this context that he was able to review the [DINUM's General Guidelines for the Ecodesign of Digital Services](#). He was lead author for the [Sustainability chapter of the 2022 Web Almanac](#). In parallel to all this, he is working on the subject with the W3C to establish [guidelines and standards for the web](#). He has been working since the end of 2021 for Greenspector to be able to devote himself full-time to the subject of web sustainability. You can find more details in his [online bio](#).

*The Sustainability Education Explore Design Concept Validation:
A Case Analysis of the Know-Cure Method for Digital Sustainability**

Alessandro Pollini, Gian Andrea Giacobone,

Alessandro Caforio & Arianna Terenzi

International Telematic University UNINETTUNO

Technology-enhanced education potentially overcomes the limitations of traditional teaching practices by providing new engaging and active learning environments that improve engagement and motivation towards learning, for example in the field of Augmented Reality [1, 2]. Notwithstanding the recognition of the advantages, the implementation of innovative digital education in real life scenarios, often featured by scarcity of resources, presents a series of critical obstacles because digital technologies are not designed according to requirements and specifications stemming from resource-limited scenarios [3, 4]. This research proposes a Sustainable Interaction Design [5] case study on the purposeful and efficient use of all the needed resources in sustainability education, being of human, cultural, dimensional, or technological nature. By focusing on the engagement of multiple actors like teachers, students, parents and researchers, this talk presents the EXPLOR sustainability education scenario, developed as part of the GreenScout - Smart Citizen Education for a Green Future project. EXPLOR proposes a multiplexed service structure to support the learning journey with a schema starting with sustainability education learning objectives definition, entailing the teachers analysis of learners' knowledge, attitudes, and behaviors towards sustainability issues, and ending with user-generated content, meaning the production of reports, podcasts, and videos, allowing the learners to develop creativity, communication, and collaboration skills. By starting with the learning domain exploration, students can gain an understanding of how sustainability issues cut across different disciplines, industries, and communities. They are then engaged in challenge-based learning, where learners tackle real-world problems built to facilitate critical thinking and problem-solving skills. Two core activities of the model are proposed on the basis of the challenge: the in-depth exploratory study, that allows the dive-in immersion into the subject, and the on-field exploration, that enables students to observe and learn from real-world evidence. The on-field activities bring the learners into the natural environment they are investigating and support their understanding of the proposed phenomena. Interactive documentaries, reporting and diaries represent examples of user-generated content that are firstly assessed, and then disseminated as learning materials. By incorporating multi-stakeholders' perspectives and supported by mixed media materials, EXPLOR has been implemented in field experiments at schools and universities, and validated through the Know-Cure [6] assessment method for digital

sustainability [7]. The aim of this talk is to explore the design for digital services from several ethical points of view, to highlight the most hidden and insidious parts for a designer, useful to guide design and development choices in view of resourceful growth of collective awareness, knowledge and competences.

***Please note that this presentation will take place online.**

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7. Tangible Ethical compass, retrieved at the URL: <https://tangible.is/en/ethical-compass>

Alessandro Pollini, PhD is a researcher in Industrial Design with a background in interaction design, human-computer interaction and cognitive ergonomics. During his career he has developed an interdisciplinary practice by structuring the design activity in multiple areas, from user research, ergonomics and cognitive sciences; to the theories and methods of digital product design and software engineering. His focus is on the design of interactive and relational products and services and on the functional, formal and use implementation of technology, dealing with the holistic, distributed, embodied and situational nature of people's experience.

Gian Andrea Giacobone is a PhD and product-interaction designer. He works as a postdoctoral researcher and lecturer in Design between the Uninettuno University and the University of Ferrara (Italy). During his scientific career has participated in several national and European research projects. He is also the author of several publications and a lecturer at many conferences at the national and international levels. His areas of expertise are Human-Centred Design, Human-Computer Interaction, HMI, IoT and Transportation Design.

Alessandro Caforio is Director of Research and Innovation at International Telematic University UNINETTUNO, coordinating the design and management of research projects focused on learning technologies, social inclusion and social innovation, ICT-enabled accessibility in higher and professional education. He has been involved and managed European projects in the Lifelong Learning, Creative Europe, Erasmus+ and Horizon programs. He is furthermore Contract Professor for "Psychotechnologies and Learning processes" and "Digital Technologies and cognitive processes" courses (Faculty of Psychology and Faculty of Communication Science, BA degrees).

Arianna Terenzi is an Interaction Designer who developed skills in UX/UI design and industrial design during her university career. Her focus is on the digital design process with particular attention to social and environmental sustainability factors between users, digital products, and the environmental context. She researches with care, simplicity and ingenuity to bring innovation and awareness to the contexts with which she is confronted. She identifies design as an integral part of change.

*Review of Rights-Based and Green Assistive Technology Outcome Models
for Sustainable Assistive Products and Services**

James Rwampigi Aniyamuzaala & Lizbeth Goodman
University College Dublin

Assistive technology (AT) is a human right and compensates functional loss, facilitates participation and wellbeing of persons with disabilities according to World Health Organisation (WHO, 2018; 2022). However, research shows a challenge of high rates of abandonment of AT products (Petrie, Carmien and Lewis 2018). The abandonment of hearing aids was at the rate of approximately 78% and this contributed to challenges of environmental sustainability and sustainable accessibility. This research study examines how the AT outcome models recognised AT human rights and considers the ecological impact of AT products and services on the environment. The literature review revealed that the conservation of environment, human right or freedom of choice and Inclusive design were not considered by the Assistive technology outcome models. The AT outcome models such as ICF, MPT, HAAT and Impact II are used to assess the AT needs and the impact of assistive products on compensation of functional loss, facilitation of participation and wellbeing of the person with functional loss or disability. The ICF, MPT and HAAT models do not consider AT as a human right and the AT recycling, reuse and waste management. The Impact II model considered AT as one of the accessibility provisions for participation and Universal Design as the design for AT (Smith. R.O, 2016). However, the Nordic centre for rehabilitation technology (2007) noted that Universal Design was not appropriate design for AT. The UN (2006) revealed that Universal Design should not exclude AT for specific groups of persons, such as persons with deafblindness. Ahlborg et al (2019) noted that technology contributes to environmental degradation and climate change. Ahlborg et al (2019) developed the social techno-ecological systems (STEMS) model and recommended the consideration of conservation of environment in the design, development and use of technology. However, the STEMS Model did not recognise AT as a human right and the appropriate ecological design for AT. Person+ Bio-socio-techno-environmental (PEBSTE) model was developed based on the gaps in the above models and was validated through the quantitative research method. A survey was carried out among persons with hearing loss including users of Hearing and Ear Assistive technology. The majority of participants selected PEBSTE as a model that recognised AT human right, Inclusive Design and conservation of environment through AT product recycling, reuse and waste management practices.

***Please note that this presentation will take place online.**

James Rwampigi Aniyamuzaala is a researcher and his research focuses on inclusion of persons with disabilities, diversity, gender, equity, Inclusion, accessibility, assistive technology and Inclusive design. He is co-founder and associate partner of 360° Access and has 12 years of experience working at national, African regional, and global levels. James is user of Hearing and Ear assistive technologies such as hearing aids, induction loops and captions and others for over 15 years.

Lizbeth Goodman is a full Professor, UCD School of Mechanical and Material Engineering, College of Engineering & Architecture. Prof Lizbeth Goodman is Chair of Creative Technology Innovation and Full Professor of Inclusive Design for Education at University College Dublin, where she directs the Inclusive Design Research Centre of Ireland at UCD, in partnership with SMARTlab clg and the Academy4theFuture. She is Chair of EDI for SMME and is an Athena Swan programme representative for Engineering & Architecture. Lizbeth founded the SMARTlab in its first iteration in 1992 and has developed the award-winning practice-based PhD Programme through the institute, along with the associated MAGIC Multimedia and Games Innovation Centre and Gamelab, which Lizbeth designed with industry collaborators as a prime knowledge transfer space in the London docklands prior to moving the lab to Dublin in 2010-11. Lizbeth and her teams specialise in developing ground-up technology solutions with and for people of all levels of cognitive and physical ability. In all her work, she applies an inclusive design method to practice-based innovation to transform lives through providing unlimited access to education and tools for creative expression. Prior to joining UCD, Lizbeth was Director of Research for Futurelab Education, working with David Puttnam and the team to establish innovative platforms for the future of education in a context of global change. In 2018 she launched the Academy4theFuture at Davos, and in 2019 she and the team returned to Davos to present the SMARTlab WEF Women awards, delivered to the UNDP summit in October 2020. In 2019 she was named Woman of the Decade by WEF Women. In 2008 she was named Best Woman in Academia and the Public Sphere; and Best Woman in Technology by the Blackberry Rim international awards panel. She was nominated to Chair the Royal Irish Academy's Social Sciences Committee in 2012. She is the author/editor of 14 books and many peer-reviewed papers, has supervised 55 PhDs to successful completion, and is a prolific broadcast presenter on TV, Radio and Online. She is PI and co-PI of several major funded research projects, and an evaluator and judge of numerous research council and EC evaluation panels. She is known as an expert in Digital Inclusion, including learning models for communities at risk. She is an award-winning advocate of community-based ethical learning and teaching models using interactive tools and games to inspire and engage learners of all ages. She specialises in working with people who do not have physical voices (whether due to disability, injury, illiteracy, or other social/political factors), enabling the use of new creative technologies for expression vocally, in writing, and with movement and music.

*Intersectionality and lived experience in inclusive design;
taking a more holistic approach to accessibility and sustainability*

Priyanca D'Souza
UK Public Sector

Solutions are often designed with the intention of sustainability without taking accessibility into account or designed to address accessibility in a way which is not sustainable. If we do not consider accessibility and sustainability together we create outcomes which do not fulfil either intention. Accessibility and sustainability do not need to be a dichotomy. Making a service accessible is not a one-off action. Accessibility needs to be weaved in from the very beginning and considered continuously to be truly effective. We need to consider how we can 'maintain' the accessibility of services for the long term; especially as policies, contexts and needs change.

It is also not uncommon for people to experience multiple barriers which compound each other. If we zoom in too much on solving a problem for one group of people, we can involuntarily make experiences less inclusive. This also makes solutions less resilient i.e. with an ageing population it is likely people will experience a combination of compounding barriers so designing for just one type of access need is not effective long term.

Our users are not one-dimensional people who experience one characteristic at a time. Different access needs and barriers can coexist in the same person. Needs and barriers co-occur, exacerbate, and interact with each other. We also often underestimate neurodiversity and sensory needs. Design which does not take these needs into account can force people to adopt behaviours and solutions which are often inconvenient, uncomfortable and more expensive.

Two people who seem quite similar on paper can be wildly different. People often experience multiple hurdles at the same time. It is entirely possible for a real person to be black, dyslexic, trans, on a low income and not have access to a car – all at the same time.

In this presentation, we will discuss a more nuanced and human approach to accessibility which goes beyond compliance and is more effective and more true to how things really are. We will reflect on how we are defining and interpreting the terms 'accessible' and 'sustainable' arguing the case that retrofitting when intersectionality is not considered at the outset is slower, more expensive and

resource intensive. We will explore situations in which experiences were not initially designed with accessibility in mind, and we'll demonstrate how the solutions or adaptations created as a response are often less sustainable and efficient in the long run, using specific examples.

Priyanca D'Souza is a Senior Design Researcher in the UK public sector, specialising in Accessibility and Inclusion.

She is fascinated by the impacts different conditions and contexts can have on cognition, behaviour, people's interactions and experiences of the world. She has a background in Cognitive Neuroscience and Psychology, which she combines with lived and varied practical experience. She is currently engaged by the Government Digital Service (GDS) on digital identity which is a huge programme to transform how people access government services in the UK. She has previously contributed research on services at the Cabinet Office, the Environment Agency, Defra and Companies House.

She's been experimenting with and using assistive technology for over ten years. This has involved a lot of creative problem solving, openness and resilience. She can look at experiences through the lens of how access needs and assistive tech are going to interact with different touchpoints. She is especially interested in how we can apply design and evidence to enable autonomy for people in a more resilient and viable way.

She aims to use her lived experience of access needs to embed inclusive practices within teams and drive forward inclusive and ethical design for users. Enabling people to empathise with the barriers our users can face and finding opportunities to alleviate and change things to make experiences better and more effective long term for people and planet.

WORKSHOP 2

Integrating accessibility and universal design (with sustainability) in university curricula

Irene Hermosa-Ramirez

Universitat Autònoma de Barcelona

Universal design and accessibility—just like sustainability and gender equality—are becoming key societal areas of interest, as demonstrated by an increasingly aware legislation and, on a supranational level, the UN's Sustainable Development Goals. As gender equality and sustainability are entering higher education curricula as transversal competences, so should universal design and accessibility, which are also arguably impactful topics across all areas of knowledge, from architecture to the scenic arts to computer science to communication. As of now, little research has been devoted to the universal design contents in higher education curricula, with some exceptions such as Watchorn et al. (2013). More attention has been paid to the inclusion of gender equality (Verge, Ferrer-Fons & González, 2018; Verge, 2021 in Catalonia) and sustainability (Lozano, 2010; Dmochowski et al., 2016) competences in higher education curricula. The workshop departs from the following questions: what is the current situation in Europe? How can it be improved? And, ultimately, how can universal design and sustainability contents be combined?

This workshop is intended for accessibility experts, users and academic staff from different fields of knowledge and, generally, attendees to the GDA conference. The workshop will have a duration of approximately 45 minutes and it will be divided into two parts.

The first part of the workshop will start by presenting a general state of the art and the first results from the Erasmus+ project ATHENA (Bringing Accessibility and Design for All into Higher Education Curricula), which assesses to what extent university curricula and syllabi in Spain, Austria, Cyprus and the Czech Republic include universal design and accessibility, both as transversal competences and as specific topics related to the field of study. Examples from seven areas of knowledge (Arts and Humanities; Business, Administration and Law; Education; Engineering, Manufacturing and Construction; Health and Welfare; Information and Communication Technologies; and Social Sciences, Journalism and Information) will be discussed with the attendees. In groups, they will be asked to cross-check them with their own personal experiences.

The second part of the workshop will be strictly practical. Attendees from different academic backgrounds will be asked to co-create transversal competences, mirroring others already in effect. Lastly, a specific section will be devoted to debating how these universal design competences may be linked to or combined with sustainability transversal competences.

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Irene Hermosa-Ramírez, PhD in Translation and Intercultural Studies (UAB), is a postdoctoral researcher working for the Erasmus+ ATHENA project (Bringing Accessibility and Design for All into Higher Education Curricula) and a member of the TransMedia Catalonia research group. She is also working as a research support technician for the UNIVAC project devoted to sensory accessibility at Spanish universities at Universitat Pompeu Fabra. Among her latest publications are the articles “The hierarchisation of operatic signs through the lens of audio description” and “Physiological instruments meet mixed methods in Media Accessibility”. Irene is the secretary of the Catalan Association for the Promotion of Accessibility.

WORKSHOP 3

Discovering cultural heritage in accessible and sustainable ways: where the past meets the future

Estel·la Oncins

Universitat Autònoma de Barcelona

As communities across Europe grow increasingly complex, the way we manage diversity, social inclusion, and education in sustainability, becomes a matter of major importance. Cultural heritage has a big role to play in building the future of Europe (European Year of Cultural Heritage, 2018) [1]. In fact, the Agenda 2030, and specifically (SGD 11) stresses the need to “Promote inclusive sustainable cities through quality education for all, safeguarding cultural heritage, innovation and creativity, promoting environmental sustainability and building resilience to the effects of climate change, disasters and conflicts.” To this aim, encouraging all citizens to discover and engage with cultural heritage space in an accessible and sustainable way could reinforce a sense of belonging to a common European space.

This is also inline with the Agenda 2030 (SDG 4) “quality education” which advocates to ensure accessible schools by incorporating universal design principles and digital procurement standards in education infrastructure. Education is an area through which key elements of both the individual identity and social awareness of younger citizens can be shaped. In this sense, the Council of Europe recommends to incorporate heritage education more effectively in educational curricular activities through the use of digital technologies (COE, 2017). Discovering the sociocultural dimension of the local built heritage with technologies could help young generations to consolidate new knowledge on the importance of accessibility, while engaging them in the promotion and protection of built heritage in a sustainable way (Oncins 2022).

This workshop is part of the Erasmus+ project YoungArcHers (2022-2023) [2], which proposes a mindset shift in education advocating the use of cultural heritage, as a valuable tool to create inclusive and accessible digital storytelling content for promoting intercultural dialog and social inclusion in a sustainable way. The workshop is aimed at professionals, researchers, instructors, students and others, to support them in addressing accessibility and sustainability in their contexts. By using digital storytelling techniques, participants will be guided to the creation of an accessible and sustainable route, and the narration of the story around specific selected building(s) in the form of an interactive digital map, and an accessible audio

guide. Participants will also be invited to create scenarios of possible activities for the promotion of built heritage, and its preservation as part of an awareness raising campaign in the accessibility and sustainability field.

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[1]<https://culture.ec.europa.eu/cultural-heritage/eu-policy-for-cultural-heritage/european-year-of-cultural-heritage-2018>

[2] <https://youngarchers.eu/>

Estel·la Oncins holds a Phd in Accessibility and Ambient Intelligence from the Autonomous University of Barcelona.

She has a large experience in providing accessibility for live events as a freelance translator, subtitler, surtitler, respeaker for different Spanish televisions and conferences, and as an audio describer for Liceu Opera House. Her research areas are audiovisual translation, media and digital accessibility and creative industry.

She is currently involved in the Education and Outreach Working Group (EOWG) from W3C. She is a partner in KA2 LTA and IMPACT. She is also a partner in H2020 projects HELIOS and TRACTION.